Vanderbilt University
Master of Public Health Program

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Abbreviations	
Academic Year	AY
Adverse Childhood Experiences	ACEs
Affordable Care Act	ACA
Agency for Healthcare Research and Quality	AHRQ
Applied Practical Experience- Practicum	APE
Association for Schools and Programs in Public Health	ASPPH
Biomedical Research Education and Training	BRET
Center For AIDS Research	CFAR
Caribbean, Central and South American network for HIV epidemiology	CCASAnet
Centers for Disease Control and Prevention	CDC
Center for Teaching	CFT
Council on Education for Public Health- Concentration Competency	CEPH CC
Committee on appointments and promotions	COAP
Community health worker	CHW
Community living center	CLC
County State and Territorial Epidemiologists	CSTE
Consortium of Universities in Global Health	CUGH
Coronavirus 19 Pandemic	COVID 19
Culturally Linguistically Appropriate Services	CLAS
Deferred Action for Childhood Arrivals	DACA
Directed acyclic graphs	DAG
Director of Graduate Studies	DGS
Diversity, Equity, and Inclusion	DEI
Doctor of Medicine	M.D.
Doctor of Philosophy	Ph.D.
Educator Development Program	EDP
Epidemiology courses prefix	EPID
Family Educational Rights and Privacy Act	FERPA
Family Health and Wellness	FHW
Fiscal Year	FY
Franklin Justice and Equity Coalition	FJEC
Graduate Record Examination	GRE
Heath Resources and Services Administration	HRSA
Historically black colleges and universities	HBCUs
Individualized Development Plan	IDP
Integrated Learning Experience- Culminating Experience	ILE
Integrated Review Group	IRG
Interprofessional Education	IPE
Intimate partner violence	IPV
Institute for Medicine and Public Health	IMPH
Lesbian, Gay, Bisexual, Transgender and Queer	LGBTQ
Master of Arts	M.A.
Master of Education	M.Ed.
Master of Public Health	M.P.H.
Medical College Admission Test	MCAT
Memorandum of Understanding	MOU
Metropolitan Nashville Public Health Department	MNPHD
National Cancer Institute	NCI

National Institute of Child Health and Human Development	NICHD
National Institutes of Health	NIH
North American AIDS Cohort Collaboration on Research & Design	NA-ACCORD
Office of Health Equity	OHE
Office of Health Sciences Education	OHSE
Office of Strategic initiatives	OSI
Open Table Nashville	OTN
People experiencing homelessness	PEH
Plan- Do- Study- Act	PDSA
Pregnancy Risk Assessment Monitoring System	PRAMS
Public Health courses prefix	PUBH
Relative Citation Ratio	RCR
Research Electronic Data Capture	REDCap
School of Medicine	SOM
Schools of Public Health Application Service	SOPHAS
Science, technology, engineering, and math	STEM
Severe acute respiratory syndrome coronavirus 2	SARS-CoV-2
Social determinants of health	SDOH
Society for Epidemiologic Research	SER
Southern Association of Colleges and Schools	SACS
Tennessee Breast and Cervical Screening Project	TBCSP
Tennessee Department of Health	TDH
Test of English as a Foreign Language	TOEFL
United States	US
United States Agency for International Development	USAID
University Counseling Center	UCC
Vanderbilt Ingram Cancer Center	VICC
Vanderbilt Institute for Global Health	VIGH
Vanderbilt University	VU
Vanderbilt University Medical Center	VUMC
Veterans Affairs- Tennessee Valley Healthcare System	VA-TVHS
Your Enrollment Services	YES

Introduction

1) Describe the institutional environment, which includes the following:

a. year institution was established and its type (e.g., private, public, land-grant, etc.)

Vanderbilt University (VU) was founded in 1873 with a $1 million gift from "Commodore" Cornelius Vanderbilt to establish an institution that would "contribute to strengthening the ties that should exist between all sections of our common country." VU is an independent, privately supported university that is globally renowned for its transformative education and research. The affiliated nonprofit Vanderbilt University Medical Center (VUMC) is located on the same campus, and VU and VUMC engage in frequent interdisciplinary collaboration to drive innovation and positive change across the greater Nashville community and more broadly.

b. number of schools and colleges at the institution and the number of degrees offered by the institution at each level (bachelor's, master's, doctoral and professional preparation degrees)

VU's 10 schools reside on a single campus in Nashville, Tennessee, providing a collaborative culture that empowers tomorrow's leaders. Only 6 of the top 25 US academic medical centers enjoy the benefits of having all the university's schools on the same campus. Co-location of the medicine, nursing, law, education, business, arts and science, music, divinity, and engineering schools facilitates interdisciplinary collaboration. Top-ranked in both academics and financial aid, VU offers nationally and internationally recognized undergraduate and graduate degrees across a range of disciplines.

- **College of Arts and Science:** Bachelor of Arts, Master of Arts, Master of Science, Master of Fine Arts, Doctor of Philosophy (https://as.vanderbilt.edu/)
- **Blair School of Music:** Bachelor of Music, Bachelor of Musical Arts (https://blair.vanderbilt.edu/)
- **Divinity School:** Master of Theological Studies, Master of Divinity, Master of Theology, Master of Arts, Doctor of Ministry, Doctor of Philosophy (https://divinity.vanderbilt.edu/)
- **School of Engineering:** Bachelor of Engineering, Bachelor of Science, Master of Engineering, Master of Science, Doctor of Philosophy (https://engineering.vanderbilt.edu/)
- **Graduate School:** Master of Arts, Master of Science, Master of Liberal Arts and Science, Master of Fine Arts, **Doctor of Philosophy (Ph.D.)** (https://gradschool.vanderbilt.edu/)
- **Law School:** Master of Laws, Doctor of Jurisprudence, Doctor of Philosophy (https://law.vanderbilt.edu/)
- **School of Medicine: Master of Public Health (M.P.H.)**, Master of Science in Medical Physics, Master of Education of the Deaf, Master of Science (Applied Clinical Informatics, Speech-Language Pathology), Master of Science in Clinical Investigation, Master of Genetic Counseling, Doctor of Medicine, Doctor of Philosophy, Doctor of Audiology, Doctor of Medical Physics (https://medschool.vanderbilt.edu/)
- **School of Nursing:** Master of Science in Nursing, Doctor of Philosophy, Doctor of Nursing Practice (https://nursing.vanderbilt.edu/)
- **Owen Graduate School of Management:** Master of Business Administration, Master of Science in Finance, Master of Accountancy, Master of Management in Health Care, Master of Marketing, Doctor of Philosophy (https://business.vanderbilt.edu/)
- **Peabody College of Education and Human Development:** Bachelor of Science, Master of Education, Master of Public Policy, Master of Science, Doctor of Education, Doctor of Philosophy (https://peabody.vanderbilt.edu/)

c. number of university faculty, staff, and students

VU has 1,858 faculty members classified as either full time (1,517) or part time (341). There are an additional 3,044 full-time and 128 part-time faculty who are medical personnel of VUMC with appointments in the Vanderbilt School of Medicine (SOM) or School of Nursing, reflecting the teaching and research partnership between both VU and VUMC.

VU has 4,528 support staff classified as either full time (4,201) or part time (327). The student composition includes 7,151 undergraduates and 6,559 graduate and professional students, for a total of 13,710 students. These data are for the 2022–2023 academic year (AY).

d. brief statement of distinguishing university facts and characteristics

Vanderbilt is committed to the strength of its interdisciplinary research enterprise and to inclusive excellence, believing that profound breakthroughs happen when scholars of different perspectives, races, gender identities, ethnicities, and socioeconomic backgrounds work together. We seek diversity as a natural extension of our institutional culture, which values excellence and team science. The university's prominent alumni base includes Nobel Prize winners, members of Congress, governors, ambassadors, judges, admirals, university presidents, physicians, attorneys, and professional media and sports figures.

e. names of all accrediting bodies (other than CEPH) to which the institution responds. The list must include the institutional accreditor for the university as well as all specialized accreditors to which any school, college or other organizational unit at the university responds

VU is accredited by several bodies:

- Commission on Colleges of the Southern Association of Colleges and Schools
- 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
- National League for Nursing Accrediting Commission
- Division of Accreditation
- Commission on Accreditation
- Liaison Committee on Medical Education
- National Association of Schools of Music
- American Psychological Association
- American Speech-Language-Hearing Association
- Council on Academic Accreditation in Audiology and Speech-Language Pathology
- American Chemical Society
- 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
- National Council for Accreditation of Teacher Education
- Association to Advance Collegiate Schools of Business International

f. brief history and evolution of the public health program (PHP) and related organizational elements, if applicable (e.g., date founded, educational focus, other degrees offered, rationale for offering public health education in unit, etc.)

The Master of Public Health (M.P.H.) degree is one of nine professional degrees conferred by the SOM. The program is housed in the Institute for Medicine and Public Health (IMPH) and the VU SOM, with reporting and financial oversight provided through the VUMC Department of Health Policy.

The 2-year M.P.H. program enrolled its first students in 1996, and, in May 2023, it had 379 graduates. There are currently three M.P.H. concentrations: epidemiology, global health, and health policy. Students declare a concentration as part of the application process.

From 1996 to 2011, the program primarily prepared physicians for careers in academia and applied public health. Graduates helped transform population health and education and expanded the program's teaching and mentoring faculty. Many alumni became leaders in academic public health within VUMC and at other academic institutions.

In 2010, the program responded to the increased interest in and demand for training in global health. Distinct track concentrations were created in epidemiology and global health, and the admission requirements were revised to include a broader applicant pool without a doctoral degree. The global health concentration admitted its first students in 2012. The creation of the global health concentration increased the diversity of both students and teaching faculty in the program and broadened the program's focus to include students for whom the M.P.H. represented a terminal degree.

In 2013, Vanderbilt created the Department of Health Policy as a multi-disciplinary base for health policy research. The M.P.H. program benefited from the recruitment of health economists and other faculty with national health policy expertise. In 2015, the VU M.P.H. program was re-accredited by CEPH, and shortly thereafter the M.P.H. program created a concentration in health policy.

From 2014 to 2019, the program launched three dual-degree programs: the M.D./M.P.H., the M.P.H./M.Ed. in International Education Policy and Management, and the M.P.H./M.A. in Latin American Studies. In addition, in this period, the program encouraged the use of novel teaching techniques to appeal to the broader student groups (who were younger and had completed a bachelor's degree), strengthened its alumni network, established a scholarship endowment, and created targeted scholarships to increase diversity and support public health workforce development.

In 2020, the program created a part-time option to adapt to the needs of working public health professionals interested in obtaining advanced training in public health. In the same year, a capstone option for the integrated learning experience (ILE) was introduced. The capstone option, which was designed to provide a skillset to students with career goals aligned with applied public health, offers the knowledge and skills necessary for today's public health workforce. Today, the Vanderbilt M.P.H. program's annual enrollment is approximately 30–36 students (equally distributed among the three concentrations). The program remains intentionally small to ensure a low student-to-faculty ratio and to provide high-quality career and professional guidance for each student.

The M.P.H. program's most recent strategic plan, finalized in 2019, charted the objectives to be implemented from 2020 to 2025. Four objectives were identified:

- Recruit culturally diverse students who will make substantial contributions to public health.
- Engage students with interdisciplinary faculty who demonstrate commitment to educating and mentoring future public health leaders.
- Engage in collaborative research, training, and service activities with governmental agencies and community partners in the United States and abroad.
- Disseminate public health knowledge and promote implementation of effective public health policies and practices.

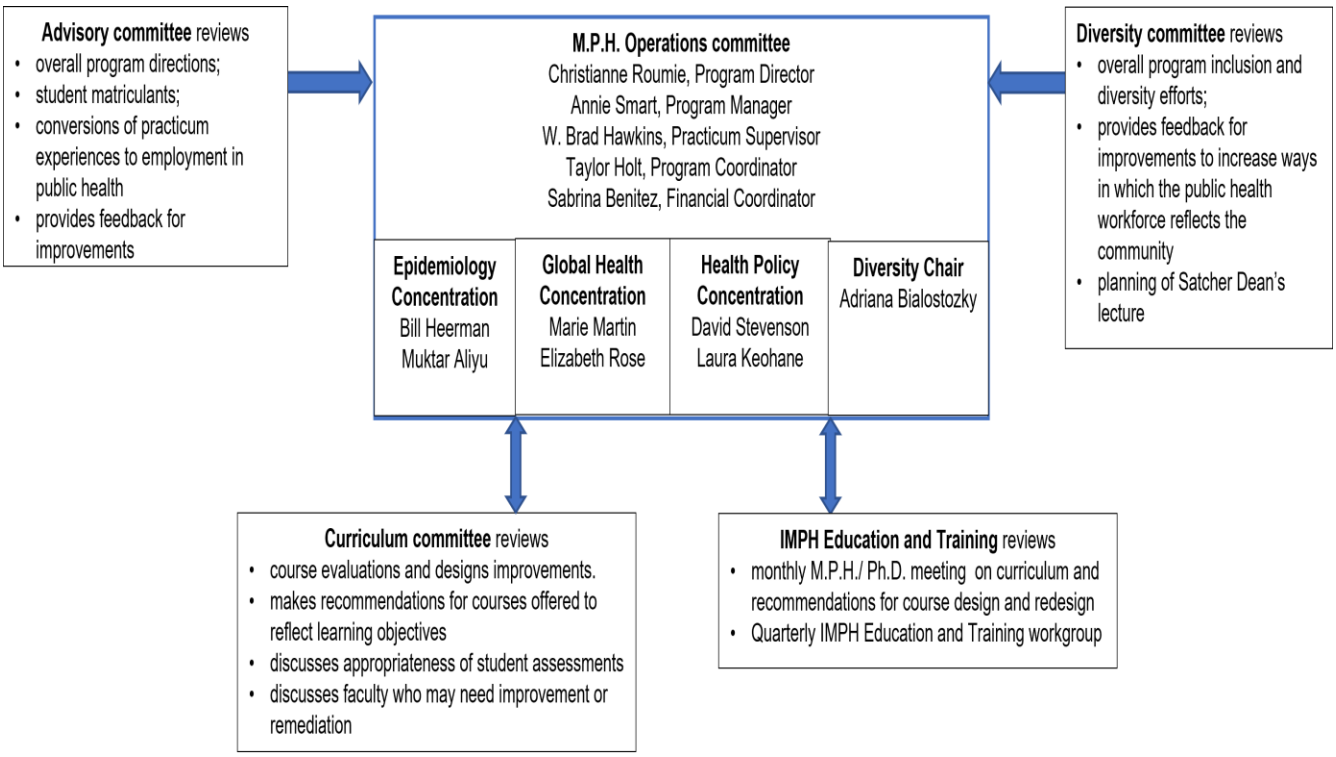
These objectives are to be achieved through five key strategies:

- Develop new M.P.H. program format options including the part time option and synchronous/ asynchronous classes.
- Create additional learning options in public health leadership and management.
- Add learning options in public health informatics.
- Incentivize engagement in sustainable community initiatives.
- Assure a strong sense of community for students in the M.P.H. program.

2) Organizational charts that clearly depict the following related to the program:

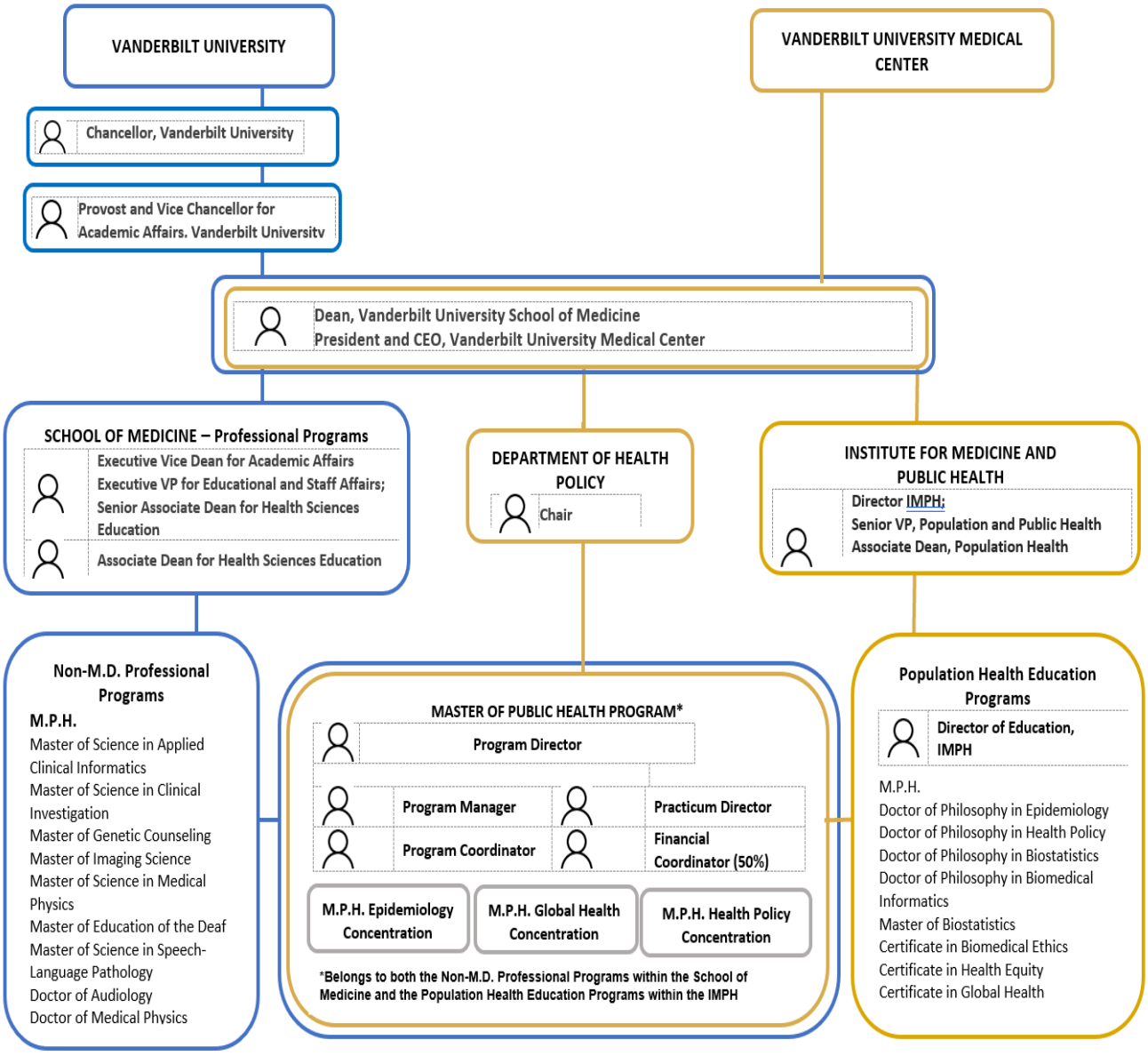
a. the program's internal organization, including the reporting lines to the dean/director

The M.P.H. program's key personnel are appointed to the operations committee. The diversity committee, curriculum committee, and advisory committee each report to the operations committee. Key members of the operations committee are part of the IMPH education and training workgroup and the M.P.H./Ph.D. meetings on curriculum cohesion.



b. the relationship between program and other academic units within the institution. Ensure that the chart depicts all other academic offerings housed in the same organizational unit as the program. Organizational charts may include committee structure organization and reporting lines

In 2016, VU and VUMC legally and financially separated. Teaching and research collaboration and connections between VU and VUMC remain a strategic priority for both institutions. VUMC continues to have seamless integration with VU in all academic missions, programs, and activities, including faculty appointments, teaching, and research. The M.P.H. program has multiple collaborative relationships. It is part of the non-M.D. professional programs within the SOM. It also is an active member of the VUMC IMPH population health education programs. Within the structure of IMPH, there are multiple collaborative relationships and committees for education programs. The following diagram illustrates the ongoing collaborative relationships important to the M.P.H. program.



c. the lines of authority from the program's leader to the institution's chief executive officer (president, chancellor, etc.), including intermediate levels (e.g., reporting to the president through the provost)

The lines of authority proceed from the M.P.H. Program Director (Roumie) through to the Executive Vice Dean for Academic Affairs, Executive VP for Educational and Medical Staff Affairs, and Senior Associate Dean for Health Sciences Education (Brady) for issues involving students, faculty, and staff, as well as for agreements for applied practical experiences.

The lines of authority proceed from the M.P.H. Program Director (Roumie) through to the Director of IMPH and Associate Dean for Population Health Sciences (Rothman) for issues around curriculum coverage, research projects, mentorship, and oversight of student integrated learning experiences.

The lines of authority proceed from the M.P.H. Program Director (Roumie) through to the Chair of the Department of Health Policy (interim: Stevenson) for financial oversight and resources.

The Executive Vice Dean for Academic Affairs (Brady), the Associate Dean for Population Health Sciences (Rothman) and the Chair in Health Policy (Stevenson) all report to Dean Jeffrey Balser, who serves as both the Dean of the VU SOM and the President and Chief Executive Officer of VUMC. Dean Balser reports to the VU Provost and Chancellor.

d. for multi-partner programs (as defined in Criterion A2), organizational charts must depict all participating institutions

This is not applicable.

3) An instructional matrix presenting all of the program's degree programs and concentrations including bachelor's, master's and doctoral degrees, as appropriate. Present data in the format of Template Intro-1.

Instructional Matrix - Degrees and Concentrations					
				Campus based	Distance based
Master's Degrees		**Academic**	**Professional**		
Epidemiology			M.P.H.	M.P.H.	
Global Health			M.P.H.	M.P.H.	
Health Policy			M.P.H.	M.P.H.	
Joint Degrees (Dual, Combined, Concurrent, Accelerated Degrees)					
2nd Degree Area	**Public Health Concentration**	**Academic**	**Professional**		
Medicine	• Epidemiology • Global Health • Health Policy		M.D./M.P.H.		
International Education Policy and Management	• Epidemiology • Global Health • Health Policy		M.P.H./M.Ed.		
Latin American Studies	• Epidemiology • Global Health • Health Policy		M.P.H./M.A.		

4) Enrollment data for all of the program's degree programs, including bachelor's, master's and doctoral degrees, in the format of Template Intro-2.

Degree		Current Enrollment for AY 2022–2023	Current Enrollment for AY 2023–2024
Master's			
	M.P.H. – Epidemiology	23	23
	M.P.H. – Global Health	11	16
	M.P.H. – Health Policy	22	20
	M.D./M.P.H.	1	1
	M.P.H./M.Ed.	1	0
	M.P.H./M.A.	0	0
	TOTAL	**58**	**61**

A1. Organization and Administrative Processes

The program demonstrates effective administrative processes that are sufficient to affirm its ability to fulfill its mission and goals and to conform to the conditions for accreditation.

The program establishes appropriate decision-making structures for all significant functions and designates appropriate committees or individuals for decision making and implementation.

The program ensures that faculty (including full-time and part-time faculty) regularly interact with their colleagues and are engaged in ways that benefit the instructional program (e.g., participating in instructional workshops, engaging in program specific curriculum development and oversight).

1) List the program's standing and significant ad hoc committees. For each, indicate the formula for membership (e.g., two appointed faculty members from each concentration) and list the current members.

As noted in the introduction, VU and VUMC legally separated in 2016.

At VU, Dr. Donald Brady serves as Executive Vice Dean for Academic Affairs of the SOM. He also serves as Executive Vice President for Educational and Medical Staff Affairs and manages all the educational programs and faculty affairs within VUMC. Dr. Brady oversees the VU SOM enterprise across the educational continuum, including undergraduate medical education, as well as the M.P.H. and other professional degree programs. He supervises faculty and directly reports to Dean Jeffrey Balser.

At VUMC, Dr. Russell Rothman is Associate Dean for Population Health Sciences, Senior Vice President for Population and Public Health, and Director of the Institute for Medicine and Public Health (IMPH). IMPH was established in 2006 as an entity at the intersection of medicine and public health. IMPH's mission is to improve personal and public health through discovery, training, and services designed to protect against threats to health, promote healthier living, improve the quality of health services, and prepare leaders to advance health and health care. IMPH provides support, direction, and leadership throughout VUMC. Over 250 faculty are members of IMPH, and funding for those faculty exceeds $150 million annually. IMPH provides support for the education and research training programs in population health (M.P.H., Ph.D., and postdoctoral traineeships). Dr. Christianne Roumie (M.P.H. Program Director) serves as Associate Director of Education and Training and coordinates all education and training activities under IMPH. IMPH's education and training committee meets quarterly. Dr. Roumie meets monthly with the Ph.D. Directors of Graduate Studies (DGS) in the population health programs to discuss curriculum and training needs and possible synergies. All M.P.H. students have access to the IMPH research mentors and enrichment activities. The Department of Health Policy in VUMC is responsible for the financial oversight and support for the M.P.H. program. Dr. David Stevenson serves as the Interim Chair in Health Policy.

The M.P.H. program has several committees to ensure seamless integration across the program's many partners, including the Office of Health Sciences Education in the VU SOM, VUMC's Department of Health Policy, and IMPH.

The **M.P.H. operations committee** is comprised of the Program Director, the Concentration Track Directors, the Diversity Chair, and program staff.

Each student meets with their Concentration Track Director(s), who serve as academic advisors, at least one time per semester to maximize the quality of their education and likelihood of success. The M.P.H. Concentration Track Directors are carefully assessed and represent examples of excellent alignment of expertise in the public health concentration areas of epidemiology, global health, and health policy.

Operations Committee
Program Director
Christianne Roumie, M.D., M.P.H., Professor of Medicine, Pediatrics, and Health Policy (M.P.H. alumna, Class of 2005). Dr. Roumie is a leader in population outcomes research. Her research focuses on the development and implementation of strategies to improve cardiovascular disease prevention. From 2015 to 2019, she chaired the Food and Drug Administration's Nonprescription Drugs Advisory Committee, and she is actively sought as a mentor to junior researchers and students. As of 2023, she has served as the primary mentor to 12 M.P.H. students, chaired 2 doctoral committees, and mentored 14 prior postdoctoral researchers (9 in academics; 2 in applied public health). As M.P.H. Program Director, Dr. Roumie is responsible for program operations and funds, mentor and instructor performance, student progress, and program evaluation.
Epidemiology Concentration Co-Directors
William Heerman, M.D., M.P.H., Associate Professor of Internal Medicine and Pediatrics (M.P.H. alumnus, Class of 2014). Dr. Heerman is Chief of the Division of General Pediatrics at VUMC. His work focuses on improving maternal-child health outcomes related to obesity in Nashville communities through the development and implementation of behavioral interventions to support healthy childhood growth. He focuses on low-income/minority populations and has multiple grants to evaluate healthy behaviors. In the M.P.H. program, he serves as Co-Director of the Epidemiology Track and teaches PUBH 5524, The Science of Health Behavior.
Muktar Aliyu, M.D., Dr.P.H., M.P.H., Professor of Health Policy and Medicine, Director of the Vanderbilt Institute for Global Health. Dr. Aliyu has vast experience working in global health, including maternal-fetal outcomes and behavioral health risk factors, male participation in perinatal services, and implementation science approaches to strengthening HIV/AIDS services in resource-constrained settings. He has held a joint faculty appointment at Meharry Medical College since 2009, and he has co-directed the Meharry occupational medicine residency program for 12 years. In the M.P.H. program, he serves as Co-Director of the Epidemiology Track and has taught PUBH 5541, Essential Skills in Global Health for 9 years and up through AY2022-23.
Global Health Concentration Co-Directors
Marie H. Martin, Ph.D., M.Ed., Assistant Professor of Health Policy, Associate Director for Education and Training in the Vanderbilt Institute for Global Health. Dr. Martin serves on the Consortium of Universities for Global Health (CUGH) Subcommittee on Master's and Undergraduate Degrees in Global Health (SMUDGH) and the National Association of County/City Health Officials (NACCHO) Global-Domestic Health Advisory Group. In the M.P.H. program, she serves as Co-Director of the Global Health Track. She also teaches the following M.P.H. courses: PUBH 5526, Global Health Project Development (1 credit hour), and PUBH 5550, Global Health Politics and Policy (1 credit hour).
Elizabeth S. Rose, Ed.D., M.P.H., Assistant Professor Pediatrics (M.P.H. alumna, Class of 2015). Dr. Rose's academic interests include education and training (capacity building), monitoring and evaluation, and research colonialism. She has collaborated on the creation of an M.P.H. program at the University of Guyana and co-developed faculty programs in teaching methods, mentorship, and leadership for health professionals at multiple universities in Africa. She serves on the Association of Schools and Programs of Public Health (ASPPH) Education Advisory Committee. In the M.P.H. program, she serves as Co-Director of the Global Health Track and teaches PUBH 5531, Capstone ePortfolio Development (1 credit hour).
Health Policy Concentration Co-Directors
David Stevenson, Ph.D., M.S.P.H., Professor of Health Policy, Vice Chair for Education in the Department of Health Policy. Dr. Stevenson's research focuses on long-term and end-of-life care, Medicare's hospice benefit, and the impact of nursing homes. He has worked in various policy settings (US Public Health Service, Urban Institute, Visiting Nurse Service of New York, and Medstat). Dr. Stevenson currently serves as a member of the National Academies of Medicine, Committee on Quality of Care in Nursing Homes. In the M.P.H. program, he is Co-Director of the Health Policy Track and teaches PUBH 5527, Protocol Development I (1 credit hour), for students in the health policy and global health tracks. He is currently serving as the interim Chair in the Department of Health Policy.
Laura Keohane, Ph.D., Associate Professor of Health Policy. Dr. Keohane's research focuses on policies that promote better health outcomes and provide affordable services for beneficiaries with Medicare and Medicaid, especially those who face health care barriers due to frailty, disability, or

limited socioeconomic resources. Dr. Keohane's research has examined managed care alignment initiatives for dual-eligible beneficiaries, post-acute benefits in Medicare Advantage plans, Medicare spending for dual-eligible beneficiaries, and factors affecting Medicaid participation among Medicare beneficiaries. In the M.P.H. program, she serves as Co-Director of the Health Policy Track and teaches PUBH 5520, Introduction to Health Policy (2 credit hours).
Diversity Chair
Adriana Bialostozky, M.D., Associate Professor of Pediatrics, Director of Faculty Diversity and Inclusion in the Office of Faculty Development, and Vice Chair of Diversity, Equity, and Inclusion in the Department of Pediatrics. Dr. Bialostozky is a physician and researcher who has led several initiatives to improve the care of underserved populations. These initiatives include models of care (group visits), as well as access to care (Spanish language clinic and unaccompanied minors). She has established long-term relationships with community organizations in Nashville to improve access to care through literacy, health information, and advocacy. In the M.P.H. program, she serves as chair of the diversity committee and teaches PUBH 5575, Health Equity for Public Health (1 credit hour).

The **M.P.H. advisory committee** provides support and advice in the areas of program governance, evaluation, and planning. The advisory committee is chaired by the program director and meets once per year, or more often as needed, to provide oversight regarding evaluation and planning efforts for the program, including a review of stated goals and objectives, and long-range planning. An additional purpose of the advisory committee is to strengthen ties to key stakeholders, including public health professionals practicing in the community, public health researchers, alumni, and faculty. Committee members are selected based on their personal attributes, public health success, experience in student training, and in-depth understanding of public health.

In meetings, Committee members discuss the following:

- Programmatic updates to the strategic plan, including short- and long-term directions
- Student updates and plans for workforce recruitment and job placements
- Admissions and recruitment
- Diversity, equity, and inclusion efforts
- Program evaluation, including exit survey results, course evaluations, practicum and culminating experience evaluations, and strategic planning.

The M.P.H. advisory committee is governed by bylaws. Each member serves a 3-year term, which can be renewed.

Advisory Committee in AY 2022–23	
Chair: M.P.H. Program Director	• Christianne Roumie, M.D., M.P.H. (M.P.H. alumna and faculty member)
Concentration Track Directors: Minimum one per concentration—epidemiology, global health, and health policy	• William Heerman, M.D., M.P.H., epidemiology track (M.P.H. alumnus and faculty member) • Marie Martin, Ph.D., M.Ed., global health track (M.P.H. faculty member) • David Stevenson, Ph.D., health policy track (M.P.H. faculty member)
Faculty: Up to 5 positions	• Muktar Aliyu, M.D., Dr.P.H., M.P.H., *Professor of Health Policy & Medicine* • William Schaffner, M.D., *Professor of Preventive Medicine and Medicine* • Doug Heimburger, M.D., M.S., *Professor of Medicine*
Public health professionals and alumni: Up to 7 positions	• Allen Craig, M.D., (Retired) *Acting Chief, Polio Eradication Branch, Global Immunization Division, US Centers for Disease Control and Prevention* • John Dunn, D.V.M., Ph.D., *State Epidemiologist, Tennessee Department of Health*

	• Tim Jones, M.D., *Chief Medical Officer, Tennessee Department of Health* • Jennifer Erves, Ph.D., M.P.H., M.Ed., *Assistant Professor, Meharry Medical College* (M.P.H. alumna) • Elizabeth S. Rose, Ed.D., M.Ed., M.P.H., *Assistant Professor of Pediatrics, Training and Development Coordinator, Vanderbilt Institute for Global Health* (M.P.H. alumna and faculty member) • Lucy Spalluto, M.D., M.P.H., *Professor of Radiology and Radiological Sciences* (M.P.H. alumna) • Rachel Jameson, M.P.H., *Social Determinants of Health Program Manager, TennCare* (M.P.H. alumna)
Chair, Department of Health Policy	• Vacant as of July 2023 (pending new Health Policy Chair) Previously-Melinda Buntin, Ph.D., *Chair and Professor, Department of Health Policy* (M.P.H. faculty member)
Office of Health Sciences Education: 2 positions	• Donald Brady, M.D., *Executive Vice President for Educational Affairs, Executive Vice Dean for Academic Affairs, Professor of Medicine and Medical Education and Administration* • Consuelo Wilkins, M.D., M.S.C.I., *Senior Vice President and Senior Associate Dean for Health Equity and Inclusive Excellence, Associate Director of the Vanderbilt Institute for Clinical and Translational Science*

The **M.P.H. diversity committee** provides oversight for program inclusion and diversity efforts. The M.P.H. program considers diversity to represent a broad range of individual characteristics, including diversity in race, sex, religion, color, national or ethnic origin, age, disability, military service, sexual orientation, gender identity, and gender expression. The committee monitors and makes recommendations regarding the inclusion and diversity of students, faculty, and staff so that the public health workforce will reflect the populations we serve. The committee also recommends strategies to provide diverse perspectives in the program's curriculum and insight into issues that under-represented, minoritized and disadvantaged groups face. The committee nominates and selects the annual Satcher Lecture speaker for the VU SOM Flexner Deans' Lecture Series. Each member serves a 3-year term, which can be renewed.

Diversity Committee In AY 2022–23	
Chair: M.P.H. Diversity Chair	• Adriana Bialostozky, M.D., *Associate Professor of Pediatrics*, *Director of Faculty Diversity and Inclusion in the Office of Faculty Development, Vice Chair of Diversity, Equity, and Inclusion in the Department of Pediatrics*
Faculty: Up to 3 positions	• Muktar Aliyu, M.D., Dr.P.H., M.P.H., *Professor of Health Policy & Medicine* • Velma McBride Murry, Ph.D., *Professor of Human and Organizational Development* • Gilbert Gonzalez, Ph.D., M.H.A., *Assistant Professor of Medicine, Health, and Society*
Public health professionals and alumni: Up to 7 positions	• Carleigh Frazier, M.P.H., *Community Health Manager, VUMC Office of Health Equity* (M.P.H. alumna) • Vicky Waithe, M.P.H., *Project Manager, VUMC Population Health Bundles Implementation* (M.P.H. alumna) • Emmanuel Sackey, M.B.B.S, M.P.H., *Ob/Gyn Resident, Mount Sinai Hospital Medical Center, Chicago, IL* (M.P.H. alumnus) • Mina Nordness, M.D., M.P.H., *General Surgery Resident, VUMC Section of Surgical Sciences* (M.P.H. alumna)

	• Jasmine Walker M.D., M.P.H., *General Surgery Resident, VUMC Section of Surgical Sciences* (M.P.H. alumna)
VU diversity leaders: Up to 2 positions	• Andre Churchwell, M.D., *Vice Chancellor for Outreach, Inclusion, and Belonging and Chief Diversity Officer for Vanderbilt University* • Kimberly Vinson, M.D., *Associate Dean for Diversity Affairs, VU SOM Office for Diversity Affairs*
Current students†	• Rashad Taylor, Class of 2023, Health Policy • Tevin Matthew, Class of 2024, Global Health • Joshua Woods, Class of 2024, Health Policy • Stacy Riddick, Class of 2024, Health Policy • Joshua Atura, Class of 2025, Global Health • Benmun Damul, Class of 2025, Global Health • Jade Bowers, Class of 2025, Epidemiology • Gwendolyn Wilks, Class of 2025, Health Policy
† International students and those from groups underrepresented in public health eligible	

The **M.P.H. curriculum committee** provides oversight of the M.P.H. program curriculum and instruction consistent with the mission, goals, objectives, and values of the program. The committee makes recommendations for courses offered concerning achieving the learning objectives, appropriateness of competency assessment, and quality of faculty/student performance in courses. The committee ensures that students are evaluated on the 22 foundational M.P.H. professional competencies. The curriculum committee is charged with oversight of faculty and curriculum development, including the program's course evaluation efforts. The committee meets two times yearly, first to review the fall course evaluations and practicum, second to review the spring and summer course evaluations an the career development sessions. The chair of the curriculum committee rotates among the three concentrations.

The M.P.H. Program Director and the chair of the curriculum committee are charged with conveying any additional feedback from the curriculum committee meeting to teaching faculty and with constructing remediation plans when warranted.

The M.P.H. Program Director will synthesize all curricular recommendations and suggested changes and bring them to the IMPH education and training program committee meeting to discuss opportunities for improvement and integration with Ph.D. curricula and student needs across the population health programs.

The M.P.H. curriculum committee composition includes one Concentration Track Director who serves as the chair, up to 7 positions for alumni and public health professionals, 4 student positions for each track concentration, other Concentration Track Directors, and the M.P.H. Program Director. Each member serves a 3-year term, which can be renewed.

Curriculum Committee Members in AY 2022–23	**Affiliation(s)**
Aima Ahonkahi, M.D., M.P.H.	*Assistant Professor of Medicine, Division of Infectious Disease; faculty* (transitioned to Harvard Health System in July 2023)
Noor Ali, M.P.H.	Alumnus (global health, class of 2022)
Rachel Apple, M.D., M.P.H.	*Assistant Professor of Medicine*; alumnus (epidemiology, class of 2018)
Laura Ernst, M.P.H.	Alumnus (health policy, class of 2023)
Carrie Fry, Ph.D.	*Assistant Professor, Department of Health Policy*
Hannah Griffith, M.P.H.	Epidemiologist, *Tennessee Department of Health*; alumnus (health policy, class of 2020)
William Heerman, M.D., M.P.H.	*Associate Professor, Pediatrics*; faculty and alumnus (epidemiology, class of 2014)
Wali Johnson, M.D., M.P.H.	*General Surgery Resident*; alumnus (epidemiology, class of 2021)

Laura Keohane, Ph.D.	Associate Professor, Department of Health Policy; faculty
Becca Lee, M.P.H.	Alumnus (global health, class of 2022)
Jennifer Lewis, M.D., M.P.H.	*Assistant Professor, Division of Hematology/Oncology*, alumnus (health policy, class of 2019)
Jacob Lorber, M.P.H.	Alumnus (health policy, class of 2023)
Sofia Ludwig, M.P.H, M.Ed.	Alumnus (global health, class of 2023)
Ali Manouchehri, M.D., M.P.H.	*Clinical Research Fellow, Pharmacology*; alumnus (epidemiology, class of 2021)
Kristyne Mansilla, M.D., M.P.H.	Alumnus (global health, class of 2022)
Marie Martin, Ph.D., M.Ed. (Chair*)	*Associate Director, Education and Training, Vanderbilt Institute for Global Health; Assistant Professor, Department of Health Policy*
Andrew Medvecz, M.D.	*Acute Care Clinical Surgery Fellow, Division of General Surgery*; alumnus (epidemiology, class of 2019)
Kelly Moore, M.D., M.P.H.	*Adjunct Associate Professor, Department of Health Policy*
Marshae Nickelberry, M.P.H.	Alumnus (epidemiology, class of 2022)
Rany Octaria, M.D., Ph.D., M.P.H.	Alumnus (global health, class of 2017); Ph.D. alumnus (class of 2023)
India Pungarcher, M.P.H.	*Resource Coordinator, Open Table Nashville*; alumnus (health policy, class of 2021)
Alyssa Rentuza, M.P.H.	Epidemiologist, *Tennessee Department of Health*; alumnus (epidemiology, class of 2021)
Jennifer Robles, M.D., M.P.H.	*Assistant Professor, Urology*; alumnus (epidemiology, class of 2019)
Christianne Roumie, M.D., M.P.H.	*Professor of Medicine*, alumnus (epidemiology, class of 2005)
Emmanuel Sackey, M.B.Ch.B., M.P.H.	*Ob/Gyn resident, Mount Sinai Hospital Medical Center*; alumnus (global health, class of 2020)
Isaac Schlotterbeck, M.A., M.P.H.	*Health Policy Services Analyst, Health Services Research*; alumnus (global health, class of 2022)
Milner Staub, M.D., M.P.H.	*Assistant Professor of Medicine, Division of Infectious Diseases*; alumnus (epidemiology, class of 2021)
David Stevenson, Ph.D.	*Professor of Health Policy*; faculty
Teris Taylor, M.P.H.	Alumnus (health policy, class of 2021)
Sarah Welch, D.O., M.P.H.	*Instructor, Physical Medicine and Rehabilitation*; alumnus (epidemiology, class of 2022)
*Curriculum committee chair rotates between tracks every 3 years.	

The **M.P.H. admissions and promotions committee** is composed of the Concentration Track Directors, the M.P.H. Program Director, and the Program Manager. The Program Manager serves as the admissions coordinator for the admissions committee. Each written Schools of Public Health Application Service (SOPHAS) application is evaluated by two track reviewers and assigned a priority score from 1 (highest) to 5 (lowest) based on the following criteria:

1) academic aptitude
2) professional or academic experience
3) commitment to a career in public health
4) strength of letters of reference

The Concentration Track Directors review the applications and propose applicant rankings and decisions. During full admissions committee meetings, members review and discuss the proposed rankings and decisions. As a group, the committee makes final determinations regarding admissions decisions. If the committee identifies a disparity between a promising applicant and the quality of the application, it may elect to advise the candidate to revise their application and resubmit in the next admissions cycle.

Admissions and Promotions Committee in AY 2022–23	
Admissions Coordinator	• Anne G. Smart, B.A., *M.P.H. Program Manager*
Concentration Track Directors	• William Heerman, M.D., M.P.H. (epidemiology) • Muktar Aliyu, M.D., Dr.PH, M.P.H. (epidemiology) • Marie Martin, Ph.D., M.Ed. (global health) • Elizabeth Rose, Ed.D., M.P.H. (global health) • David Stevenson, Ph.D. (health policy) • Laura Keohane Ph.D. (health policy; will join in AY 2023–24)
M.P.H. Program Director	• Christianne Roumie, M.D., M.P.H.
Diversity Chair	• Adriana Bialostozky, M.D.

M.P.H./Ph.D. meetings with IMPH leadership: In this monthly meeting, the M.P.H. Program Director, and the Directors of Graduate Studies (DGS) for doctoral degrees in epidemiology, biostatistics, health policy, and biomedical informatics meet with the Director of IMPH and Associate Dean for Population Health Sciences. The agenda is typically curricular based, including discussion of the need for new courses and curriculum coverage, including the rigor of each class considering the target student level (master's or doctoral). Issues regarding gaps in curriculum brought up by the M.P.H. curriculum committee are discussed in this meeting and can be escalated to the IMPH education and training committee. The meeting further covers opportunities for student career development, including attendance at local and national meetings and forums or opportunities to present public health-relevant research. The current composition of this meeting is as follows:

M.P.H. and Ph.D. Education Meeting Roster	
IMPH	• Russell Rothman, M.D., M.P.P., *Associate Dean for Population Health Sciences and IMPH Director*
M.P.H. program	• Anne G. Smart, B.A., *M.P.H. Program Manager* • Christianne Roumie, M.D., M.P.H., *M.P.H. Program Director* and *IMPH Associate Director of Education*
Biomedical informatics doctoral program	• Kim Unertl, Ph.D., *DGS*
Health policy doctoral program	• Stacie Dusetzina, Ph.D., *DGS*
Epidemiology doctoral program	• Melissa Krasnove M.Ed. *Program Manager, Epidemiology and Health Policy Programs* • Peter Rebeiro, M.P.H., Ph.D., *DGS*
Biostatistics master's and doctoral programs	• Benjamin French, Ph.D., *DGS*

The **IMPH education and training committee** meets quarterly to review best practices and the changing needs for the IMPH population health programs. Issues regarding curriculum, best practices for teaching, and active learning styles are covered by this committee. Curriculum, resources for teaching, and content are discussed to ensure that the doctoral programs are building on skills attained in certificate- and master's-level programs. Issues regarding gaps, curricular needs, or significant overlap between programs are brought to this committee from each individual population health training program, including the M.P.H. curriculum committee.

IMPH Education and Training Meeting Roster in AY 2022–23	
IMPH	• Russell Rothman, M.D., M.P.P., *Associate Dean for Population Health Sciences and IMPH Director* • Marine Ghulyan, M.A., *Program Manager*
M.P.H. program	• Anne G. Smart, B.A., *M.P.H., Program Manager* • Christianne Roumie, M.D., M.P.H., *M.P.H. Program Director* and *IMPH Associate Director of Education* **(Committee Chair)**
Biomedical Informatics	• Jessica Anker, Ph.D., M.P.H., *Director of Education, Department of Biomedical Informatics*

	• Kim Unertl, Ph.D., *DGS*
Epidemiology	• Melissa Krasnove, M.Ed., *Program Manager, Epidemiology and Health Policy Programs* • Peter Rebeiro, M.P.H., Ph.D., *DGS* • Xiao-Ou Shu, M.D., Ph.D., *Training Program Director in Molecular and Genetic Epidemiology of Cancer*
Health Policy	• Stacie Dusetzina, Ph.D., *DGS* • David Stevenson, Ph.D., *Vice Chair for Education, Department of Health Policy*
Biostatistics	• Benjamin French, Ph.D., *DGS* • Qingxia Chen, Ph.D., *Vice Chair for Education, Department of Biostatistics*
Medicine, Health, and Society	• JuLeigh Petty, Ph.D., *DGS* • Jonathan M. Metzl, M.D., Ph.D., *Chair, Department of Medicine, Health, and Society*
Certificates	• Marie Martin, Ph.D., M.Ed., and Elizabeth Rose, Ed.D., M.P.H. (global health) • Brian Marshall, Ed.D. (health equity) • Keith Meador, M.D., Th.M., M.P.H., and Joe Fanning, Ph.D. (ethics)

2) Briefly describe which committee(s) or other responsible parties make decisions on each of the following areas and how the decisions are made:

   a. degree requirements

The degree requirements are noted in the VU SOM Course Catalog. (https://www.vanderbilt.edu/catalogs/kuali/som-22-23.php#/content/626310c7017a7c127fbee6c7)

The admissions and promotions committee can determine whether degree requirements are fulfilled. Candidates for the full-time M.P.H. degree option must complete 42 academic credit hours of coursework over five academic terms. Candidates for the part-time M.P.H. degree option must complete 42 academic credit hours of coursework over seven to eleven terms. The 42 credit hours include core and track-specific courses, as well as courses associated with the public health practicum (applied practical experience [APE]) and the culminating experience (integrated learning experience [ILE]).

In addition to didactic courses, all students are required to satisfactorily complete the following:
- the public health practicum (APE);
- an interprofessional education activity; and
- the culminating experience (ILE).

The M.P.H. program can be completed on a full-time or part-time basis. Students choose the full-time or part-time option prior to matriculation. The full-time M.P.H. option is completed in two academic years (five academic terms), starting in the fall term and ending in the spring of the following academic year. The part-time M.P.H. option is completed over three or four academic years, starting in the fall term and ending in the spring. The maximum time allowed to complete the degree for both the full-time and part-time options is four years, unless there are unusual circumstances that merit an extension of this limit.

All professional programs within the SOM adhere to
- standards of behavior for interactions with VU SOM students;
- the VU SOM compact between teachers and learners in medicine;
- faculty/educator roles;
- expectations for conduct regarding examinations and work submitted for academic credit;
- admission to SOM programs; and

- academic policies for all SOM programs (includes grading, progress and promotion, and other academic policies) in the VU SOM Course Catalog.

b. curriculum design

The M.P.H. curriculum committee is responsible for curricular changes, additions, and faculty feedback, as noted above. Suggestions received are discussed in the IMPH education and training committee.

c. student assessment policies and processes

The student assessment policies and procedures are noted in the VU SOM Course Catalog. All assessment policies are reviewed by the curriculum and operations committees. Student performance is assessed for every course and program requirement. Program faculty bring any significant performance concerns in a required course to the attention of the student early enough to allow sufficient time to develop a remediation plan. A student for whom major concern persists despite coaching may be given a failing grade (F) for the course and/or may not be promoted despite satisfactory performance in other courses. Course requirements and grading information are detailed in each course syllabus. The M.P.H. program uses the VU SOM grading scale, presented on the page of the VU SOM Course Catalog titled VU SOM Student Assessment and Grading (https://www.vanderbilt.edu/catalogs/kuali/som-22-23.php#/content/626310c6017a7c0d88bee63f).

The **grade grievance procedure** allows students to seek redress of a problem with a grade as soon as possible after receiving the grade and no later than 4 weeks after the grade is released. Students with a concern should confer directly with the course instructor. Every effort should be made to resolve the problem fairly and promptly at this level. If the student cannot resolve the problem through discussion with the course instructor, the student should request an appeal by writing (email is acceptable) to the M.P.H. Program Director within 2 weeks of speaking with the course instructor. The course instructor should be included in the request for appeal. In cases where the course instructor is also the M.P.H. Program Director, the appeal should be made to the Assistant Dean of Health Sciences Education or his/her designee. If resolution is not achieved by the M.P.H. Program Director/Assistant Dean of Health Sciences Education, the case is referred to the Senior Associate Dean of Health Sciences Education or his/her designee, who makes the final decision. At each level of review, the course's assessment practices are reviewed, and the individual student's situation is considered.

d. admissions policies and/or decisions

As noted above, the admissions and promotions committee is responsible for admissions decisions. These policies regarding admission and promotion are also listed in the VU SOM Course Catalog.

The VU M.P.H. program uses the SOPHAS application process. The SOPHAS application requirements for the M.P.H. program at VU are as follows:

- Current curriculum vitae or resume
- Three academic/professional letters of recommendation (at least one from an academic source)
- Statement of purpose and objectives
- Official transcripts for all prior academic degrees and post-secondary coursework
- Official standardized test score reports:
    - TOEFL scores are required for international applicants; this requirement is waived for applicants who have received an academic degree from an institution where English is the language of instruction.
    - Applicants are not required or expected to submit GRE or MCAT scores with their applications in SOPHAS. Applications without scores will not be penalized in the review process. Applicants may choose to self-report their GRE or MCAT scores in SOPHAS.
- Interviews are not required as part of the application process

e. faculty recruitment and promotion

The M.P.H. program does not directly hire faculty; rather each department determines who should be hired. Faculty recruitment into the M.P.H. program for teaching is determined on a case-by-case basis through discussions among the M.P.H. Program Director, the Program Manager, and individual Concentration Track Directors. The typical process is to identify two or three potential candidates who would be appropriate course instructors. Inquiries are made to determine whether each candidate has the appropriate background, skills, and availability to teach the content for the class. Each candidate's curriculum vitae is then reviewed to ascertain their expertise in the content area. Finally, coordination and shadowing with the current course instructor is strongly encouraged to review the syllabus and course content prior to the new instructor teaching the class.

Promotion to the rank of Associate Professor or Professor within the SOM is determined by individual departments and the guidelines set forth by the SOM promotions and tenure committee.

f. research and service activities

Research and service activities for individual faculty are determined by the faculty member and their home department or division. Almost 25% of SOM faculty identify research as their primary focus. Thanks to a uniquely collaborative culture touching all 10 schools of the university, Vanderbilt's research in biomedicine and health care is informed by every aspect of our institution, with robust contributions from M.P.H. faculty.

3) A copy of the bylaws or other policy documents that determine the rights and obligations of administrators, faculty, and students in governance of the program.

The rights and obligations of administrators, faculty, and students in the governance of the program are guided by VU and SOM bylaws. Students are governed by the SOM's policies and procedures, which indicate the rights and obligations of students. Program-specific policies and procedures are included on the M.P.H. program website. Please see ERF A1.3 for supporting documentation.

4) Briefly describe how faculty contribute to decision-making activities in the broader institutional setting, including a sample of faculty memberships and/or leadership positions on committees external to the unit of accreditation.

Faculty within the M.P.H. program are integral to decision-making activities in the broader institutional setting, with many holding leadership positions in the SOM and VUMC. Faculty robustly participate in VUMC departments, divisions, programs, committees, and working groups as leaders in multiple areas.

Below are a few examples of faculty and alumni leadership:

Selected Leadership of Faculty in the SOM and VUMC	
Faculty Senate representing the SOM	• Buddy Creech, M.D., M.P.H. (M.P.H. alumnus and prior mentor) • Sara Horst, M.D., M.P.H. (M.P.H. alumna) • Ryan Belcher, M.D., M.P.H. (M.P.H. alumnus) • Eric Grogan, M.D., M.P.H. (M.P.H. alumnus and non PIF)
IMPH	• Russell Rothman, M.D., M.P.P., *IMPH Director* • Christianne Roumie, M.D., M.P.H., *IMPH Director for Education and Training*
Center for Clinical Quality and Implementation Research	• Carolyn Audet, Ph.D., M.Sci., *Associate Director, Center for Clinical Quality and Implementation Research*
Center for Biomedical Ethics and Society	• Ellen Clayton, M.D., J.D. (instructor) • Bruce Jennings, M.A. (advisor) Distinguished Career Award from the American Public Health Association

Vanderbilt Institute for Global Health	• Muktar Aliyu, M.D., Dr.P.H., *Director, Vanderbilt Institute for Global Health* • Marie Martin, Ph.D., M.Ed., *Associate Director for Education and Training, Vanderbilt Institute for Global Health*
Department of Medicine	• Ryan Buckley, M.D., *Director, Medical Innovators Development Program* • Trent Rosenbloom, M.D., M.P.H., *Associate Director, Medical Innovators Development Program* (M.P.H. alumnus and past mentor) • Cecelia N. Theobald M.D., M.P.H., *Vice Chair for Clinical Affairs, Department of Medicine* (M.P.H. alumna) • Tina Hartert, M.D., M.P.H., *Director of the Center for Asthma and Environmental Sciences Research, Vice President for Translational Research, Lulu H. Owen Chair in Medicine* (M.P.H. alumna and non PIF mentor)
Department of Health Policy	• David Stevenson, Ph.D., *Interim Chair of Health Policy, Vice Chair for Education* • Velma Murry, Ph.D., *Chancellor's Appointed Mental Health and Well-Being Strategic Planning Committee, Peabody Faculty Council*
Department of Pediatrics	• William Heerman, M.D., M.P.H., *Division Chief, General Pediatrics* • Adriana Bialostozky, M.D., *Director of Faculty Diversity and Inclusion, Office of Faculty Development; Vice Chair of Diversity, Equity, and Inclusion, Pediatrics* • William Cooper, M.D., M.P.H., *Cornelius Vanderbilt Professor of Pediatrics and Health Policy, Associate Dean for Faculty Affairs, Center for Patient and Professional Advocacy Director* (M.P.H. alumnus and non PIF mentor)
Department of Biostatistics	• William Dupont, Ph.D., *Vice-Chair for Academic Affairs* • Fei Ye, Ph.D., *Collaborative Studies Coordinating Research Center Co-Director* • Tatsuki Koyama, Ph.D., *Treasurer, American Statistical Association, Middle Tennessee Chapter*
Department of Biomedical Informatics	• Martin Were, M.D., M.S., *Vice-Chair for Diversity, Equity, and Inclusion* (non PIF)

5) Describe how full-time and part-time faculty regularly interact with their colleagues (self-study document) and provide documentation of recent interactions, which may include minutes, attendee lists, etc.

Faculty have a multitude of opportunities to interact with each other, including an annual faculty meeting for updates on the M.P.H. program and M.P.H. program academic and community-building events, as well as through SOM, IMPH, and VUMC activities, committees, research conferences, and continuing education events. Documentation of recent faculty interactions is available in ERF A1.5.

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths

- Students and constituents (applied public health leaders, alumni, and employers) have input at many levels into the shaping of the M.P.H. program through robust participation in multiple committees.
- Strong faculty representation is found in M.P.H. program committees, in IMPH, and more broadly across the university and medical center.
- M.P.H. program faculty are viewed as leaders in the university and at VUMC and are selected for multiple and varied leadership positions representing education, research, training, diversity, and administration.

Weaknesses

- A number of applied public health leaders who have advised the program are planning their retirement. This influences the shape and direction of the M.P.H. program because this participation is often voluntary; these applied public health leaders donate their time, insight, and expertise to ensure the M.P.H. program is meeting its goals of training students in foundational public health principles and competencies and preparing students for the evolving needs of the workforce.

Opportunities for Improvement

- We will identify new public health practitioners to invite to serve as advisors on program committees and shape the program.
- We will discuss with alumni ways to improve participation in advisory and curriculum committees and invite a broader group of partners from all IMPH population health training programs.

A2. Multi-Partner Programs (applicable ONLY if functioning as a “collaborative unit” as defined in CEPH procedures)

Not applicable

A3. Student Engagement

Students have formal methods to participate in policy making and decision making within the program, and the program engages students as members on decision-making bodies whenever appropriate.

1) Describe student participation in policy making and decision making at the program level, including identification of all student members of program committees over the last three years, and student organizations involved in program governance.

Students have formal and informal opportunities to participate in program-level policymaking and decision-making. During their M.P.H. training, students are selected to serve on the program's curriculum and diversity committees. Committee members are expected to attend and actively participate in committee meetings. Concentration Track Directors identify students to serve on committees, and those interested in serving as committee members may contact their Track Director and request to be considered. The Public Health Student Association (PHSA) was chartered as a student organization at Vanderbilt in 2023. PHSA is dedicated to raising awareness of public health on Vanderbilt's campus. PHSA is run entirely by M.P.H. students but is open to students of all academic backgrounds and majors on campus. PHSA partners with the M.P.H. program to plan National Public Health Week campus events, including inviting guest speakers and organizing service and social events. PHSA also works with the program to promote public health initiatives and careers to undergraduate communities on campus and to other graduate and professional students. PHSA is a co-sponsor of many events that take place within the M.P.H. program. This relationship is integral to the student organization because so many students in the M.P.H. program share the common goal of making a difference in the field of public health.

In Academic Year (AY) 2023–24, we established a position on the executive board of PHSA that will serve as an M.P.H. program liaison. Because the mission of this organization and the program are aligned, one M.P.H student will always serve as an executive in this organization.

The following table shows formal student participation in M.P.H. program committees for the last three years:

Committee	Student Members AY 21–22	Student Members AY 22–23	Student Members AY 23–24
Curriculum committee	Sofia Ludwig (GH 2023) Wali Johnson (HP 2021) India Pungarcher (HP 2021) Alyssa Rentuza (Epi 2021) Isaac Schlotterbeck (GH 2021) Milner Staub (Epi 2021) Teris Paige (HP 2021) Avi Vaidya (HP 2022) Sarah Welch (Epi 2022) Sarah Rachal (GH 2021) Ali Manouchehri (Epi 2021) Becca Lee (GH 2022) Noor Ali (GH 2022) Cooper March (HP 2022) Marshae Nickelberry (Epi 2022) Anna Wisotzkey (HP 2022)	Sofia Ludwig (GH 2023) Anjola-Oluwa Ajayi (GH 2024) Nicole Andersen (Epi 2024) Nicholas Baker (HP 2024) Genevieve Delano (Epi 2024) Brittany Gutierrez Kitto (HP 2024)	Tevin Mathew (GH 2024) Anjola-Oluwa Ajayi (GH 2024) Brittany Gutierrez Kitto (HP 2024) Nick Baker (HP 2024) Nicole Anderson (Epi 2024) Genevieve Delano (Epi 2024)
Diversity committee	Miaya Seawright (Epi 2022) Kristyne Mansilla (GH 2022) Tita Gonzalez Pena (Epi 2022) Ni Ketut Wilmayani (GH 2021) Rashad Taylor (HP 2023) Vicky Waithe (HP 2021)	Layan Ibrahim (GH 2023) Rocio Posada-Castaneda (GH 2023) Rashad Taylor (HP 2023) Elsa Rodriguez (Epi 2023) Tevin Mathew (GH 2024)	Rashad Taylor (HP 2023) Stacey Riddick (HP 2024) Tevin Mathew (GH 2024) Josh Woods (HP 2024) Joshua Atura (GH 2025) Jade Bowers (Epi 2025)

	Mina Nordess (Epi 2021) Jasmine Walker (Epi 2021	Stacey Riddick (HP 2024) Joshua Woods (HP 2024)	Benmun Damul (GH 2025) Gwendolyn Wilks (HP 2025)
Public Health Student Association executive team	Program created and approved by VU organizations in 2023	Genevieve Delano, (president, Epi 2024) Layan Ibrahim (secretary, GH 2023) Brittany Gutierrez Kitto (vice president and M.P.H. class representative, HP 2024) Meredith Denney (treasurer, Epi 2023)	Genevieve Delano (president, Epi 2024) Haniya Shariff (secretary, HP 2025) Brittany Gutierrez Kitto (vice president and M.P.H. class representative, HP 2024) Tahseen Hussain (treasurer, GH 2025)
Epi = epidemiology, GH = global health, HP = health policy			

Each class has a student class representative who serves as a liaison between the students and the M.P.H. program leadership. The class representative is also responsible for coordinating events and activities and sharing information with their classmates. Information about the position and election procedures can be found in the M.P.H. Student Handbook (https://medschool.vanderbilt.edu/M.P.H./current-students/student-handbook/).

With respect to policymaking and decision-making in the SOM, non-M.D. degree programs with enrollments of 10 or more may have one student representative on the Honor Council. Rising second-year M.P.H. students nominate and vote to select an Honor Council representative to serve for 1 year. More information, including the Honor Council bylaws, can be found in the School of Medicine Honor System page (https://www.vanderbilt.edu/catalogs/kuali/som-22-23.php#/content/626310c6017a7c53f9bee635).

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths

- Student representation is robust in the M.P.H. program and in the SOM.
- Students have multiple opportunities to direct the programming, social, educational, and service events within the Vanderbilt M.P.H program through committee participation and the PHSA student organization.

Weaknesses

- The current process for M.P.H. students requires the Concentration Track Director to nominate the student for participation in the curriculum committee. If a student wants to participate, they must reach out to their Concentration Track Director and note their desire to be part of the committee.

Opportunities for Improvement

- We will allow students to note their desire to participate in the curriculum committee directly to M.P.H. program staff. If a student self-nominates, they will be considered for inclusion.

A4. Autonomy for Schools of Public Health

Not applicable.

A5. Degree Offerings in Schools of Public Health

Not applicable.

B1. Guiding Statements

The program defines a *vision* that describes how the community/world will be different if the program achieves its aims.

The program defines a *mission statement* that identifies what the program will accomplish operationally in its instructional, community engagement and scholarly activities. The mission may also define the program's setting or community and priority population(s).

The program defines *goals* that describe strategies to accomplish the defined mission.

The program defines a statement of *values* that informs stakeholders about its core principles, beliefs, and priorities.

1) The program's vision, mission, goals, and values.

The Vanderbilt M.P.H. program's vision, mission, goals, objectives, and values are reviewed on an annual basis by the advisory committee, which is made up of program faculty members, alumni, and public health professionals. The vision, mission, goals, objectives, and values below were last revised in July 2023.

Vision
All people achieving optimal health and well-being.

Mission
Train future research scientists and public health professionals to be innovative leaders dedicated to using their skills and knowledge to achieve optimal health and well-being in all people.

Goals
To fulfill its mission, the Vanderbilt M.P.H. program has the following goals:

- Educate innovative and effective public health researchers, educators, and practitioners.
- Advance student and faculty leadership in the public health sciences through research, discovery, and practice.
- Participate in the development and implementation of public health programs and policies.

Values
The Vanderbilt M.P.H. program endorses the definition of public health as what we do together to ensure equitable conditions in which everyone can be healthy. The program strongly supports VU's commitment to intellectual freedom and the SOM's core values of integrity, inclusion, excellence, equity, humility, mutual respect, and commitment to truth. Further M.P.H. program values include commitments to

- Perform activities in a scholarly manner and engage in lifelong learning
- Support a diverse and inclusive faculty, staff, and student body
- Foster and protect our shared obligation for cooperation, collegiality, and mutual respect
- Promote collaborations with the potential to improve the health of our community

2) If applicable, a program-specific strategic plan or other comparable document.

Please see ERF B1.2 for the M.P.H. program strategic plan and documentation.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The Vanderbilt M.P.H. program's vision, mission, goals, objectives, and values are reviewed annually by the advisory committee, which is comprised of program faculty members, alumni, and public health professionals. These individuals have diverse perspectives and provide valuable insight into reviewing the relevance of the M.P.H. program's guiding statements. Based on advisory committee input, statements are confirmed for the next year or revised as needed.
- These guiding statements underwent significant revisions during the 2019 strategic planning meeting and again as part of the 2023 advisory committee meeting in preparation for this self-study document. The strategic planning process provided a forum for both VU and VUMC institutional leaders, faculty, students, staff, and alumni, as well as members of the broader public health community to discuss the evolving public health landscape and directions for the Vanderbilt M.P.H. program. Over 80 individuals attended retreats, participated in meetings, and submitted surveys to contribute to the development of the AY 2020–25 strategic plan. This broad group encompassed many facets of applied and academic public health and provided robust and valuable insight for planning the next 5 years.

Weaknesses:

- The Vanderbilt M.P.H. program did not have a vision statement prior to the 2023 Advisory committee meeting. We worked collaboratively with our advisors to add a vision that encapsulates how the Nashville and Tennessee communities will be improved if the Vanderbilt M.P.H. program achieves its aims.

Opportunities for improvement:

- The Vanderbilt M.P.H. program will invite the IMPH population health education programs to be part of the next strategic plan in 2024.
- We will consistently review and share the Vanderbilt M.P.H. program's vision, mission, goals, objectives, and values at each faculty meeting and new student orientation so that all persons involved in the program are aware of these guiding statements.

B2. Evaluation and Quality Improvement

The program defines and consistently implements an evaluation plan that fulfills the following functions:

- **includes all measures listed in Appendix 1 in these Accreditation Criteria**
- **provides information that allows the program to determine its effectiveness in advancing its mission and goals (as defined in Criterion B1)**
    - **Measures must capture all aspects of the unit's mission and goals. In most cases, this will require supplementing the measures captured in Appendix 1 with additional measures that address the unit's unique context.**
- **defines a process to engage in regular, substantive review of evaluation findings, as well as strategic discussions about their implications.**
- **allows the program to make data-driven quality improvements e.g., in curriculum, student services, advising, faculty functions, research and extramural service, and operations, as appropriate**

1) Present an evaluation plan in the format of Template B2-1 that lists the following for each required element in Appendix 1:
    a. the specific data source(s) for each listed element (e.g., alumni survey, student database)
    b. a brief summary of the method of compiling or extracting information from the data source
    c. the entity or entities (generally a committee or group) responsible for reviewing and discussing each element and recommending needed improvements, when applicable
    d. the timeline for review (e.g., monthly, at each semester's end, annually in September)

Program Goal #1: Educate innovative and effective public health leaders who are researchers, educators, and practitioners
Program Goal #2: Advance student and faculty leadership in the public health sciences through research, discovery, and practice
Program Goal #3: Participate in development and implementation of public health programs and policies

Measures	**Tem plate**	**Data source & method of analysis**	**Who has review & decision-making responsibility?**	**Goal 1?**	**Goal 2?**	**Goal 3?**
Student enrollment	*Intro-2*	SOPHAS data on the number of applications, acceptances, and enrollments are compiled annually (in May and June) by the Program Manager	Data are reviewed by the admissions committee at the end of each recruitment cycle and presented to the advisory committee and faculty meeting	**X**		
Unit-defined measure 1: Students feel skilled in the 22 public health competencies	*B2-1*	Semiannual student self-assessment data are reviewed by each academic advisor before advising meetings Exit survey, part 2 "Competencies" (pp. 5–10) is compiled yearly by the Program Coordinator	Program leadership reviews these data semiannually to allow for "course correction" with students Exit survey course competency data are reviewed at the operations committee meeting annually in June/July and presented to the advisory committee	**X**		

Unit-defined measure 2: Enhance partnerships with the Tennessee Department of Health (TDH), Metro Nashville Health Department, Tennessee Public Health Association, and applied public health partners	*B2-1*	Practicum Director performs annual review of the number of student practica with these organizations and the number of alumni employed at these organizations; data are reviewed each August prior to practicum advising meetings with first years	Practicum Director and leadership review data on placements in operations committee meeting			**X**
Unit-defined measure 3: Promote leadership opportunities that enhance lifelong learning; at least 75% of students graduate with leadership experience (having led or participated in an academic or applied public health opportunity)	*B2-1*	Exit survey, part 2 (p. 3) is compiled yearly by the Program Coordinator: "Outside of program requirements but related to public health, please check any of the following activities in which you have contributed significant time and/or played a major role." Yes to any: *community workshop*, *review committee*, *curriculum or program evaluation or design*, *policy paper*, *poster*, *manuscript*, *oral presentation*	Data are reviewed annually by the operations committee with presentation to the advisory committee		**X**	
Unit-defined measure 4: Student perceptions of mentoring relationships	*B2-1*	New measure introduced on the 2023 Exit survey, part 2 (p.5) Experience with Academic Advisor, Mentor, and Mentor Team" is compiled by the Program Coordinator 7 items on the value of mentors with scores from 1= disagree to 4= agree	Program leadership reviews. Data presented to advisory committee in 2023 on mentor effectiveness We will refine the items next year to be specific to the mentor and mentor team. We will track yearly to determine if mentors need additional training and if student mentor pairings are mutually beneficial. Annual presentation to advisory committee.	**X**		
Unit-defined measure 5: Graduates make substantial contributions in public health sciences research, discovery, and practice	*B2-1*	Program Manager uses the Flight Tracker tool annually to track numbers of publications for current students and alumni and high-impact publications (mean Altmetric and RCR scores of students and alumni)	Data are presented to the operations committee annually		**X**	

At least three specific examples of improvements undertaken in the last 3 years based on the evaluation plan. At least one of the changes must relate to an area other than the curriculum	*B2-2*					
Graduation rates	*B3-1*	Staff and faculty carefully monitor students' progress through the M.P.H. program and notify academic advisors if early intervention is needed to help students identified as having issues that may hinder graduation	Operations committee monthly meetings review and address action plans for students of concern	**X**		
Post-graduation outcomes (e.g., employment, enrollment in further education)	*B4-1*	Employment outcomes are tracked using multiple methods and compiled by Practicum Director monthly: 1. Student exit survey item (p. 11): "Which of the following options best describe your position immediately after the M.P.H. program?" 2. One-on-one communication with faculty/Practicum Director 3. Drop-in office hours as part of career advising in spring	Outcomes are discussed in monthly operations committee meeting (beginning in April through fall or when all students have a post-graduation outcome)	**X**		
Actionable data (quantitative and/or qualitative) from recent alumni on their self-assessed preparation for post-graduation destinations	*B5*	Alumni survey data are compiled by the Program Coordinator annually 6 months post-graduation. Focus groups are conducted by career development co-leads on preparedness in career and self-assessment of skills most useful to employment.	Data are reviewed by the operations committee, presented to the advisory committee, and used as part of the strategic plan (each 5 years)	**X**		
Budget table	*C1-1*					
Student perceptions of faculty availability	*C2*	Exit survey, last two items in "Overall M.P.H. Experience" (p. 5) are compiled by the Program Coordinator	Faculty review data in summer meeting	**X**		
Student perceptions of class size & relationship to learning	*C2*	Exit survey, last two items in "Overall M.P.H.	Faculty review data in summer meeting	**X**		

		Experience" (p. 5) are compiled by the Program Coordinator				
List of all faculty, which concentrations they support, & their FTE allocation to the unit as a whole	*C2-1, E1-1, E1-2*					
Ratios for student academic advising (all degree levels)	*C2-2*	The first-year track roster is reviewed annually by the Concentration Track Directors prior to fall classes, and students are equally distributed among each Concentration Track Director.	Operations committee reviews to ensure that students are distributed equally	**X**		
Ratios for supervision of M.P.H. ILE	*C2-2*	Mentoring reports reviewed; the designated primary mentor typically agrees to serve as the primary mentor to no more than three students	Reviewed each summer at the operations committee meeting	**X**		
Count, FTE (if applicable), and type/categories of staff resources	*C3-1*					
Faculty participation in activities/resources designed to improve instructional effectiveness (list of exemplars)	*E3*	The Program Coordinator collects annual data from all faculty regarding continuing activities for instructional effectiveness. Remediation: If an instructor has systematically low scores on course evaluations, the Program Director makes a referral to the Center for Teaching and other educator resources for instructional improvement	Faculty and curriculum committee meeting review and presentation of data at the operations committee meeting in the fall	**X**		
Faculty currency & instructional technique measure 1 Internal review of syllabi within 4 weeks prior to start of class	*E3*	Practicum Director conduct review of all syllabi for currency of readings, topics, methods, and integration of equity principles throughout curricula	Any issues in syllabi brought to Program Director for secondary review and additional course corrections with instructor	**X**		
Faculty currency & instructional technique measure 2 Student satisfaction with course (% of courses with a mean score of 7.0 or higher [scale: 1-9, 9=best])	*E3*	Course evaluations are collected and synthesized by the Program Coordinator at course end and prior to grade release for each class	Curriculum committee reviews at each meeting	**X**		
Faculty currency & instructional technique measure 3	*E3*	Courses include evaluations of guest lecturers. Evaluations are	Curriculum committee reviews at each meeting	**X**		

At least 20% of courses involve community-based practitioners		collected and synthesized by the Program Coordinator at course end and prior to grade release for each class				
Faculty research/scholarly activities with connections to instruction (list of exemplars)	*E4*	The Practicum Director conducts an annual review of syllabi to ensure real-world examples from the instructors' research or field-based work are used	Syllabus review occurs one-on-one with the Practicum Director and the course instructor		**X**	
Faculty scholarship measure 1: % of Primary Instructional Faculty who participate in research activities	*E4-1*	Annual collection of faculty CVs by the Program Coordinator % of faculty who publish	Data are reviewed by the operations committee annually		**X**	
Faculty scholarship measure 2: Number of articles published in peer-reviewed journals for Primary Instructional Faculty and Impact within their field	*E4-1*	Annual use of the Flight Tracker tool by the Program Manager for collection of the number of publications each year. Altmetric and RCR scores (2018–2023)	Data are reviewed by the operations committee annually		**X**	
Faculty scholarship measure 3: Presentations at professional meetings	*E4-1*	Annual collection of faculty CVs by the Program Coordinator % of faculty who have oral or poster sessions at a national forum	Data are reviewed by the operations committee annually		**X**	
Faculty extramural service activities with connections to instruction (list of exemplars)	*E5*	Practicum Director conducts annual review of syllabi to ensure real-world examples are used from the instructors' service activities	Syllabus review occurs one-on-one with the Practicum Director and course instructor			**X**
Faculty service measure 1: Proportion of Primary Instructional Faculty participation in extramural service defined as: peer review, editorships, external committees, and grant review activities	*E5*	Annual collection of faculty CVs by the Program Coordinator. Proportion of Primary Instructional Faculty who have service activities and the number of activities	Data are reviewed by the operations committee annually			**X**
Faculty service measure 2: Number of community-based service projects. Faculty are engaged in collaboration with a community-based partner	*E5*	Annual collection of faculty CVs by the Program Coordinator Proportion of Primary Instructional Faculty who have service activities with community partners	Data are reviewed by the operations committee annually			**X**
Faculty service measure 3: Total service funding including contracts with State, CDC, FDA, VA, CMS,	*E5*	Annual collection of faculty CVs by the Program Coordinator.	Data are reviewed by the operations committee annually			**X**

and other public health organizations		Grants and contracts sum each year with public health organizations.				
Actionable data (quantitative and/or qualitative) from employers on graduates' preparation for post-graduation destinations	*F1*	Semiannual discussions between employers and the Practicum Director Annual review of mixed-methods employer data	Annually at June operations committee meeting, exit survey data review of placements; advisory committee reviews annually			**X**
Feedback from external stakeholders on changing practice & research needs that might impact unit priorities and/or curricula	*F1*	Review of the meeting minutes from the annual advisory meeting and the strategic planning documents; monthly discussion with the operations committee to review and evaluate feedback received by mentors and public health professionals who participate in student mentorship meetings	Annual review of changing needs at the advisory committee meeting and as part of the strategic planning process; ongoing review by the operations committee of feedback from mentors and stakeholders who are public health professionals			**X**
Feedback from stakeholders on guiding statements and ongoing self-evaluation data	*F1*	Guiding statements are reviewed at each faculty meeting, student orientation, and advisory meeting	Guiding statements are reviewed and edited at each annual advisory meeting and as part of the strategic plan			**X**
Professional AND community service activities that students participate in (list of exemplars)	*F2*	Career development series with review and evaluation of each session collected by the Program Coordinator; program evaluations including the number of students who attended are compiled by the co-leads of the career and professional development series PHSA meetings and events (community service events)	Data are reviewed by the operations committee annually	**X**		
Current educational and professional development needs of self-defined communities of public health workers (individuals not currently enrolled in unit's degree programs)	*F3*	Academic health department contract that includes a scope of collaborative activities, including continuing education programs; ongoing needs outlined through advisory meetings and meetings with public health constituents	Data on needs and ongoing collaborations are reviewed at the advisory committee meeting and as part of the strategic plan	**X**		
Continuing education events presented for the external community, with number of non-student, non-faculty	*F3-1*	Review of attendance roster and program documents including the number of curricular	Data on the number of continuing education events provided to constituents and the			**X**

attendees per event (maintain ongoing list)		programs created and distributed to partner organizations and participation by external stakeholders.	community are reviewed by the operations committee annually			
Quantitative and qualitative information that demonstrates unit's ongoing efforts to increase representation and support success of self-defined priority underserved populations—among students AND faculty (and staff if applicable)	*G1*	Mixed-methods data collected: • Faculty are surveyed on the program culture. • Program Coordinator randomly samples 10% of students and asks for feedback on representation in the M.P.H. program	Diversity committee reviews faculty data and qualitative data annually and proposes recommendations to the operations committee for implementation	**X**		
Student AND faculty (staff, if applicable) perceptions of unit's climate regarding diversity & cultural competence	*G1*	Mixed-methods data collected and compiled by the Program Manager: • Faculty and second-year students are surveyed on the program culture. Survey included text boxes for suggestions. • Program Coordinator randomly samples 10% of students and asks for feedback on representation in the M.P.H. program	Diversity committee reviews faculty data and qualitative data annually and proposes recommendations to the operations committee for implementation	**X**		
Student satisfaction with academic advising	*H1*	Annually collected by the Program Coordinator, exit survey (p. 11) "Rate the following elements: Satisfaction with academic advising"	Data are reviewed by the operations committee annually	**X**		
Student satisfaction with career advising	*H2*	Annually collected by the Program Coordinator, exit survey (p. 11) "Rate the following elements: Satisfaction with career development seminars, workshops, and other events"	Data are reviewed by the operations committee annually	**X**		
Events or services provided to assist with career readiness, job search, enrollment in additional education, etc. for students and alumni (list of exemplars)	*H2*	Annually collected by the Program Coordinator, exit survey (p. 11) "Rate the following elements: Satisfaction with career development seminars, workshops, and other events"	Data are reviewed by the operations committee annually	**X**		
Number of student complaints filed (and info on disposition or progress)	*H3*	Any student complaint or grievance is initiated by the student and filed through the Office of	Data are reviewed by the operations committee annually	**X**		

		Health Sciences Education				
Recruitment & admissions measure: Student body is culturally diverse, and there is robust representation of underrepresented minority groups in public health and those with self-defined HRSA indicators	*H4*	SOPHAS data are compiled annually prior to admissions meetings by the Program Manager HRSA indicators are tracked to demonstrate representation of diverse student socioeconomic status	Data are reviewed by the admissions committee, the advisory committee, and faculty at least annually	**X**		

2) Provide evidence of implementation of the plan described in Template B2-1. Evidence may include reports or data summaries prepared for review, notes from meetings at which results were discussed, etc.

See ERF B2.2. Evidence for evaluation plan and data tracking.

3) Provide at least three specific examples of improvements undertaken in the last three years based on the evaluation plan in the format of Template B2-2. At least one of the changes must relate to an area other than the curriculum.

Measure that informed the change	**Data that indicated improvement was needed**	**Improvement undertaken**
Unit-defined measure #1 Students feel skilled in the 22 public health competencies.	During exit interviews with students, they expressed concern that they were unprepared for public health work and/or additional education. Students noted they were uncertain of their personal growth during the program.	**Competency Self-Assessment initiated** Prior to academic advising each semester, students complete a self-assessment noting their level of skill in each public health competency. Each assessment is reviewed with their academic advisor to evaluate growth and areas for particular focus over the upcoming semester. Students can then objectively determine areas for their future growth. The practical training and ILE are also mapped to the competencies to ensure that students are mastering both foundational and concentration-specific competencies.
Unit-defined Measure #2 Enhance partnerships with: • TDH • Metro Nashville Health Department • Tennessee Public Health Association • Other applied (federal) public health partners	As we entered the pandemic, we recognized that public health relationships could be strengthened and leveraged. We also recognized that leaders in health departments have a need for students and highly skilled workers. Practicum tracking documents and placements demonstrated a suboptimal number of placements at the TDH and the Metro Nashville Health Department.	**Integration into Academic Public Health** Beginning in 2018, we began a collaborative relationship that allowed the VU M.P.H. program to sponsor workshops desired by local applied public health partners. These workshops included a Health Equity Lunch and Learn series for the Division of Family Health and Wellness that was attended by 100+ applied public health professionals across multiple divisions.

		Since 2018, VU M.P.H. students have been invited on annual “PHield Trips” to the local and state public health departments. We also hold at least one TDH-related session per semester in the M.P.H. career development series and invite three or more speakers from the TDH to guest lecture each semester. Since 2018, we have consistently increased the number of students placed with a state or local public health department or federal service for their APE training (ranging from a low of 22% during the 2021 placement year to a high of 55% in 2023). These placements have improved our relationship with the TDH and led to the creation of an academic public health contract, finalized in 2022.
Recruitment and Admission Measure G.1. and H.4. Student body is culturally diverse and representative of all socioeconomic statuses.	In 2016, 20% of VU M.P.H. students were from groups underrepresented in public health, and 18% noted a HRSA indicator. Over the past 20 years, there has been a sustained and successful effort at Vanderbilt to recruit, support, train, and retain a diverse pool of students and scientists.	Vanderbilt has a codified diversity plan and additional scholarship opportunities for underrepresented and socially diverse students, including the fully funded Satcher endowment. An additional endowment (Luu-Chen) began in December 2020. 40% of the 2022 matriculating class noted an economically disadvantaged background and the presence of an HRSA indicator. 48% of the 2023 matriculating class noted economic disadvantage.
Feedback from external stakeholders on changing needs that might impact unit priorities and/or curricula Section F.1. Adapt to changing needs of partner public health organizations.	Following the 2020 M.P.H. strategic plan, we identified needs by partners in applied public health for skills in informatics and health equity as areas of future growth	Learning options in the strategic focus areas of **Health Equity** and **Public Health Informatics** were added to the curriculum.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- Extensive process and outcome evaluation methods are in place for the M.P.H. program. This allows the program leadership to see students as a group and in the larger context of current and past students.
- We benchmark with data from the national Association for Schools and Programs in Public Health (ASPPH), when available.

- Data sources for evaluation are rich and varied, starting from the M.P.H. program application materials, which collect data on Health Resources & Services Administration (HRSA) indictors, economic need, and matriculant characteristics.
- M.P.H. student mentoring committee reports include didactic and culminating experience (ILE) progress, submitted abstracts, presentations, and honors/awards received.
- M.P.H. students self-assess their competencies (foundational and concentration), experiences, mentorship, coursework, and career development sessions as part of their academic advising sessions. The self-assessment process allows for early "course correction" as needed and improved student self-awareness and understanding of the skills they want to develop.
- The annual M.P.H. comprehensive exit survey for graduating students collects additional data that are used for comprehensive programmatic review by the operational leadership team each summer to plan programmatic improvements.

Weaknesses:

- Detailed feedback on students including consolidated feedback from individual course instructors and mentors is not systematically collected.
- A detailed report of population impact activities is not systematically collected from students at the end of the program to further understand their APE's or ILE's impact on the Nashville community and beyond.

Opportunities for improvement:

- Our future evaluation plan should allow us to critically appraise our performance and impact to inform our planning of ongoing improvements. We will ask the M.P.H. students to self-assess their impact on "population health" as part of their APE. This information will be provided to the advisory committee.
- Information can systematically be collected from mentors to better determine mentor strengths and allow for a better mentor–mentee matching and alignment.
- Quality improvement procedures (including process mapping/Plan-Do-Study-Act [PDSA] cycles to improve the program) will continue to be part of each 5-year strategic plan.

B3. Graduation Rates

The program collects and analyzes graduation rate data for each degree offered (e.g., BS, MPH, MS, PhD, DrPH).

The program achieves graduation rates of 70% or greater for bachelor's and master's degrees and 60% or greater for doctoral degrees.

1) Graduation rate data for each degree in unit of accreditation. See Template B3-1.

Students in M.P.H. Degree, by Cohort, for Those Entering from 2019 to 2022					
****Maximum Time to Graduate: 4 years***					
Year entered	Cohort of Students	2019–20	2020–21	2021–22	2022–23
2019–20	# of students continuing at the beginning of this school year (or # entering for newest cohort)	27			
	# of students who withdrew, dropped out, etc.	0			
	# of students who graduated	n/a			
	Cumulative graduation rate	n/a			
2020–21	# of students continuing at the beginning of this school year (or # entering for newest cohort)	27	31		
	# of students who withdrew, dropped out, etc.	0	1		
	# of students who graduated	24	n/a		
	Cumulative graduation rate	89%	n/a		
2021–22	# of students continuing at the beginning of this school year (or # entering for newest cohort)	3	30	28	
	# of students who withdrew, dropped out, etc.	0	0	0	
	# of students who graduated	2	28	n/a	
	Cumulative graduation rate	96%	90%	n/a	
2022–23	# Students continuing at the beginning of this school year (or # entering for newest cohort)	1	2	28	27
	# of students who withdrew, dropped out, etc.	0	0	0	0
	# of students who graduated	1	2	25	n/a
	Cumulative graduation rate	100%	97%	89%	n/a

2) Data on doctoral student progression in the format of Template B3-2.

Not Applicable.

3) Explain the data presented above, including identification of factors contributing to any rates that do not meet this criterion's expectations and plans to address these factors.

The maximum time to graduation is 4 years. The VU M.P.H. program has excellent graduation rates, and almost all students who intend to complete the program graduate within the maximum time of 4

years. Over the past 5 years, 3 out of the 170 students who matriculated (1.7%) withdrew from the M.P.H. program.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The Program Manager, Program Coordinator, and Practicum Director connect frequently with students (both formally and informally) to carefully monitor student progress through the M.P.H. program. They are aware of students who may have had difficulty with certain classes and help to problem solve challenges. The staff alert academic advisors to potential "students of concern." Collectively with the full operations committee, we can intervene early to help students who are identified as having issues and create remediation plans, as needed, to allow each student maximal success and to facilitate their graduation within their proposed timeframe.

Weaknesses:

- Because we are a small program, if one or two students choose to leave the program for personal or professional reasons, this can dramatically impact graduation rates.

Opportunities for improvement:

- We will continue to closely monitor students' progression through M.P.H. program milestones and intervene to help as needed.

B4. Post-Graduation Outcomes

The program collects and analyzes data on graduates' employment or enrollment in further education post-graduation, for each degree offered (e.g., BS, MPH, MS, PhD, DrPH).

The program achieves rates of 80% or greater employment or enrollment in further education within the defined time period for each degree.

1) Data on post-graduation outcomes (employment or enrollment in further education) for each degree. See Template B4-1.

M.P.H. Post-Graduation Outcomes	2020 (%)	2021 (%)	2022 (%)
Employed	27 (87%)	22 (81%)	18 (72%)
Continuing education/training (not employed)	3 (10%)	4 (15%)	7 (23%)
Not seeking employment or additional education by choice	1 (3%)	1 (4%)	0
Actively seeking employment or enrollment in further education	0	0	0
Unknown	0	0	0
Total graduates (known + unknown)	**31 (100%)**	**27 (100%)**	**25 (100%)**

2) Explain the data presented above, including identification of factors contributing to any rates that do not meet this criterion's expectations and plans to address these factors.

The Vanderbilt M.P.H. program has a strong record of guiding students and graduates in their post-graduate outcomes within 1 year of graduation. The program leadership systematically collects data on student outcomes beginning in the spring semester of their final year through multiple mechanisms:

- In the semester prior to graduation (typically spring of the second year), there are multiple face-to-face meetings in which students are asked about post-graduation plans and offered assistance with career counseling and placements. The following in-person meetings systematically inquire about post-graduation employment:
    - Meeting with the student's academic advisors (March of final year)
    - Meeting with the Practicum Director (APE wrap up and debrief August of final year)
    - Office hours in the Career Advising Program (April of final year)
- In an exit survey in the month prior to graduation (April), we inquire about each student's job or educational status and offer them individual counseling and advising.
- Monthly email correspondence and advising sessions are offered to students without a post-graduation outcome beginning in the spring of their graduation year (May), and this is continued monthly until the student's post-graduation outcome is known (typically by early fall). Each month, data on student placement are reviewed in the operations committee meeting.

In general, approximately 10%–23% of students continue their education or training directly after graduation. Often, students finish a degree (M.D./M.P.H., M.A./M.P.H., M.Ed./M.P.H.) or complete residency or fellowship training (postgraduate medical education). Because of the robust doctoral training at Vanderbilt, we have several students who progress to doctoral degree studies (M.D. and Ph.D. education). All VU M.P.H. graduates are employed or continuing education within a year of graduation.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- We systematically use multiple techniques to gather employment and post-graduation data for every graduate, and no graduate outcome is left unknown.

- The program has a very high employment rate for graduates, and no graduates are actively seeking employment for over a year after graduation.

Weaknesses:

- The COVID-19 pandemic created many employment shifts among alumni, and we have lost contact with some alumni, who may have switched jobs, making tracking more difficult.

Opportunities for improvement:

- We previously had a systematic alumni check-in 6 months after graduation (in November of each student's graduation year). That process came to a halt in AY 2021–22 because of staffing issues during the COVID-19 pandemic. We will reinitiate the alumni check-in in AY 2023–24.
- One aim of the systematic alumni check-in will be to evaluate whether alumni remain in their previous positions and whether they need additional post-graduation career guidance, letters of recommendation, or other employment assistance.
- Continuing to build the Vanderbilt M.P.H. alumni network is a strong priority and one that we can leverage to provide additional support for alumni after they have left the program. The alumni support network will also benefit current and future students.

B5. Alumni Perceptions of Curricular Effectiveness

For each degree offered, the program collects information on alumni perceptions of their preparation for the workforce (or for further education, if applicable). Data collection must elicit information on what skills are most useful and applicable in post-graduation destinations, areas in which graduates feel well prepared, and areas in which they would have benefitted from more training or preparation.

The program defines qualitative and/or quantitative methods designed to provide useful information on the issues outlined above. "Useful information" refers to information that provides the unit with a reasonable basis for making curricular and related improvements. Qualitative methods may include focus groups, key informant interviews, etc.

The program documents and regularly examines its methodology, making revisions as necessary, to ensure useful data.

1) Summarize the findings of alumni self-assessment of their preparation for post-graduation destinations.

In spring 2023, we surveyed all alumni who graduated from 2017 to 2022 by email. Each questionnaire requested the respondent to self-assess their level of preparedness at graduation. We asked each person to self-assess their M.P.H. Foundational Competencies (FC) at the time of graduation and rate the applicability of the M.P.H. FC in their current work.

Following this quantitative self-assessment, we also conducted three 30-minute focus groups with a total of eight M.P.H. alumni to understand the skills used in their employment, areas in which graduates feel well prepared, and areas in which improvement is needed, including the need for more training or preparation**.**

QUANTITATIVE ASSESSMENT

For the self-assessment, alumni respondents used a four-point Likert-type scale to rate their ***M.P.H. preparation*** (1 = *emerging*, 2 = *adequate*, 3 = *skilled*, 4 = *advanced*). To rate the utility and applicability of competencies in their ***current work***, the alumni respondents used another four-point Likert-type scale to rate the usefulness of the competencies (1 = *not useful* to 4 = *very useful*). We also asked each respondent to provide information on their demographic characteristics and employment status.

There were 155 eligible M.P.H. alumni, and 86 (55%) responded. Respondents were from all three concentrations (42% from the epidemiology track, 37% from the global health track, and 21% from the health policy track). In total, 80% noted being employed full time, 6% were in postgraduate training (fellowship, residency, or additional training), 10% were in higher education programs, and 3 persons (4%) were seeking employment (all had graduated prior to 2022).

Among those who were employed (*N* = 69), the distribution of employer type was as follows:

- Academic medical center: 54%
- Federal, state, or local government: 18%
- Nongovernmental organization/foundation: 10%
- Insurance company/other health provider: 11%
- Industry/consultant: 7%

Below, we delineate the mean of the highest-rated competencies attained at M.P.H. graduation and the percentage of respondents who self-reported being skilled (= 3 on the Likert-type scale) or having advanced skills (= 4 on the Likert-type scale):

- FC4 "Interpret results of data analysis for public health research, policy, or practice" (mean = 3.3, 87.0%)

- FC20 “Describe the importance of cultural competence in communicating public health content” (mean = 3.22, 81%)
- FC6 “Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels” (mean = 3.21, 78%)
- FC19 “Communicate audience-appropriate public health content, both in writing and in oral presentation” (mean = 3.22, 85%)

The respondents’ three lowest-rated competencies attained at M.P.H. graduation were as follows:

- FC10 “Explain basic principles and tools of budget and resource management” (mean = 2.56, 56%)
- FC17 “Apply negotiation and mediation skills to address organizational or community challenges” (mean = 2.70, 59%)
- FC3 “Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software” (mean = 2.77, 60%).

Table 1: Mean level of preparedness and proportion of M.P.H. alumni who self-reported “skilled” or “advanced” level of preparedness at graduation to demonstrate each M.P.H. Foundational Competency (four-point scale; 1 = *emerging*, 2 = *adequate*; 3 = *skilled*; 4 = *advanced*)

M.P.H. Foundational Competencies	Mean	% Skilled or Advanced*
Interpret results of data analysis for public health research, policy, or practice.	3.30	87%
Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation.	3.22	85%
Describe the importance of cultural competence in communicating public health content.	3.22	81%
Select quantitative and qualitative data collection methods appropriate for a given public health context.	3.21	86%
Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels.	3.21	78%
Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs.	3.17	79%
Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.	3.12	83%
Assess population needs, assets, and capacities that affect communities’ health.	3.10	79%
Select communication strategies for different audiences and sectors.	3.08	80%
Integrate perspectives from other sectors and/or professions to promote and advance population health.	3.08	78%
Compare the organization, structure, and function of health care, public health, and regulatory systems across national and international settings.	3.07	77%
Apply leadership and/or management principles to address a relevant issue.	3.06	79%
Apply epidemiological methods to settings and situations in public health practice.	3.05	83%
Select methods to evaluate public health programs.	3.00	77%
Advocate for political, social, or economic policies and programs that will improve health in diverse populations.	3.00	73%
Evaluate policies for their impact on public health and health equity.	2.99	73%
Design a population-based policy, program, project, or intervention.	2.87	73%
Discuss the policy-making process, including the roles of ethics and evidence.	2.86	69%
Apply a systems-thinking tool to visually represent a public health issue in a format other than standard narrative.	2.85	67%
Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate.	2.77	60%
Apply negotiation and mediation skills to address organizational or community challenges.	2.70	59%
Explain basic principles and tools of budget and resource management.	2.56	56%

*Darkest green represents more than 85% of respondents reporting high levels of skills;
Lighter green represents 80-85% of respondents reporting high levels of skills;
Dark yellow represents 75-79% of respondents reporting high levels of skills;
Light orange represents 70-75% of respondents reporting high levels of skills;
Dark orange represents 60-69% of respondents reporting high levels of skills;
Red represents <60% of respondents reporting high levels of skills

In the second portion of the questionnaire, we asked about the **application** of M.P.H. competencies in the graduates' current work. The respondents' highest-rated competencies in terms of use in their current work involved **communication skills.**

The following is a list of the mean score of the most often used competencies and the percentage of respondents who self-reported that each of these competencies was **very useful** (= 4 on the Likert-type scale) in their work.

- FC19 "Communicate audience-appropriate public health content, both in writing and in oral presentation" (mean = 3.65, 68.6%)
- FC4 "Interpret results of data analysis for public health research, policy, or practice" (mean = 3.64, 75.6%)
- FC18 "Select communication strategies for different audiences and sectors" (mean = 3.54, 61.6%)

Respondents felt the following competencies were least useful in terms of **application** to their current work:

- FC12 "Discuss the policy-making process, including the roles of ethics and evidence" (mean = 2.98, 37.2%)
- FC10 "Explain basic principles and tools of budget and resource management" (mean = 3.01, 30.2%)
- FC11 "Select methods to evaluate public health programs" (mean = 3.12, 37.2%).

Table 2: Mean level of **usefulness** and percentage of M.P.H. alumni who self-reported each M.P.H. Foundational Competency was "very useful" in their current work (four-point scale; 1 = *not useful* to 4 = *very useful*)

M.P.H. Foundational Competencies	Mean	% Very Useful
Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation.	3.65	68.60%
Interpret results of data analysis for public health research, policy, or practice.	3.64	75.58%
Select communication strategies for different audiences and sectors.	3.54	61.63%
Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels.	3.51	59.30%
Apply leadership and/or management principles to address a relevant issue.	3.51	58.14%
Select quantitative and qualitative data collection methods appropriate for a given public health context.	3.47	65.12%
Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate.	3.47	61.63%
Integrate perspectives from other sectors and/or professions to promote and advance population health.	3.45	53.49%
Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs.	3.38	51.16%
Describe the importance of cultural competence in communicating public health content.	3.35	48.84%
Assess population needs, assets, and capacities that affect communities' health.	3.33	51.16%
Apply epidemiological methods to settings and situations in public health practice.	3.26	52.33%
Apply a systems-thinking tool to visually represent a public health issue in a format other than standard narrative.	3.26	47.67%

Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.	3.25	47.67%
Design a population-based policy, program, project, or intervention.	3.19	43.02%
Apply negotiation and mediation skills to address organizational or community challenges.	3.19	41.86%
Compare the organization, structure, and function of health care, public health, and regulatory systems across national and international settings.	3.15	43.02%
Advocate for political, social, or economic policies and programs that will improve health in diverse populations.	3.14	43.02%
Evaluate policies for their impact on public health and health equity.	3.13	41.86%
Select methods to evaluate public health programs.	3.12	37.21%
Explain basic principles and tools of budget and resource management.	3.01	30.23%
Discuss the policy-making process, including the roles of ethics and evidence.	2.98	37.21%

QUALITATIVE ASSESSMENT

The focus groups were semi-structured and divided into three sections:

- useful skills; graduates were prompted to “describe the skills they learned during the program that are useful in their current work.”
- perceived preparation; graduates were prompted to “elaborate on how they felt the program prepared them for their current work.”
- additional training they would have wanted; graduates were prompted to “discuss skills that would have been helpful to learn during the program.”

Two moderators took notes during the focus groups and later conducted a thematic review to identify salient themes.

Thirty alumni were invited, and 8 (27%) agreed to participate in the focus groups. Their current positions were as follows:

- A research education coordinator at a university
- Program managers (at local health department, universities, and nonprofit organizations) (*N* = 4)
- A medical resident
- A CDC fellow
- An assistant professor

Theme 1: Program skills used in current employment. When asked about the M.P.H. program skills used in their current employment, the alumni participants shared a vast array of skills but largely focused on skills in data analysis, research design, and program evaluation. Many alumni commented on using basic quantitative data analysis and management in their daily work. They stressed the importance of their skills with software, conducting analyses, and critically reviewing others’ data findings.

- Multiple alumni commented on the utility of knowing how to use REDCap to design databases and collect data as well as skills in survey design, both of qualitative and quantitative data.
- Multiple alumni noted that they were more successful than others in terms of research output because they were able to conduct their own analyses (both quantitative and qualitative). The alumni noted the usefulness of the M.P.H. course on qualitative methods. An alumnus mentioned that they were more successful than their peers who lacked writing skills and experience.
- They also noted that research study design and protocol development were useful. They described the value of knowing how to conceptualize an evaluation, craft an aim, and create a protocol to carry out a research project or program evaluation. Multiple alumni mentioned using skills in program evaluation, program design and intervention design.
- The alumni brought up the program’s focus on developing writing skills. One alumnus commented that the thesis became their template for how to approach a new project and apply to a Ph.D. program.
- Other noted skills included epidemiology knowledge (used for COVID-19 tracing) and communicating and collaborating with diverse groups.

Theme 2: Perceived preparation for their current work

The alumni's responses tracked with the areas in which they described having skills. They described specific ways the program prepared them for their current work.

- The alumni provided examples of how they developed practical skills through their coursework, including surveying communities and people from diverse backgrounds and with varying needs. Embedded throughout their M.P.H. program courses was instruction on how to prioritize community needs, engage with diverse community members, and provide recommendations based on the social determinants of health.
- One alumnus noted that he is currently in the midst of workplan and budget revision for a large, long term federal grant. Public Health Practice and Essential Skill in Global Health both provided a good structure for designing an implementation plan for programming, from the team/program level to department wide.
- The career development workshops, and practicum were also noted as important for the development of public health career skills. The career workshops helped alumni gain confidence in networking, conducting informational interviews, and delivering an "elevator pitch." Many noted that they developed skills and the ability to advocate for oneself in a professional environment.
- Two alumni explained how guidance from their mentors and the experience of conducting a (thesis) research project from start to finish helped to prepare them to succeed in academic public health. They noted that this preparation resulted in a high rate of co-authorship and publications and the ability to write papers that appeal to the target audience and reviewers.
- An alumnus described the importance of small class size and how faculty and staff were intentional about connecting students with information, individuals, and organizations that would be helpful in their learning and career trajectories.

Theme 3: Areas for additional skills and improvement

The alumni had recommendations for additional skills the program should teach. They said that little of their current work involved traditional randomized controlled trials, which is taught as the "gold standard."

- The alumni noted the need for more training on research design under less-than-ideal conditions and in low-resourced settings, as well as on using quasi-experimental designs and conducting participatory and community-engaged research.
- The alumni desired a better understanding of grant writing and management. They felt the M.P.H. grant writing elective course should be more strongly encouraged and that the course should include more training on writing non-NIH grants.
- The alumni suggested that courses on race and diversity should be required and that courses should be tailored to those planning to enter community-based professions. (Note that the Health Equity for Public Health course was changed from an elective to a required course for graduation in 2022).
- The alumni suggested additional training in qualitative analysis. The course on qualitative research design was described as helpful, but many alumni desired additional skills in analyzing qualitative data.
- One alumnus noted that his health policy preparation was lacking (global health concentration student). "It was essentially a broad overview and is rarely applicable to work at the local level. He also noted that there needs to be some kind of community health component with performance and program evaluation (process and outcome focused), is essential at every level of my organization."
- A few alumni felt that a more conceptual teaching of statistics would be helpful, as they are not necessarily conducting their own analyses but do need to understand how to interpret certain tests (e.g., statistics theory vs. conducting statistical analysis).

2) Provide full documentation of the methodology and findings from quantitative and/or qualitative data collection.

Please see ERF B5.2 for documentation.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- Alumni rated their skill level at graduation as very high, with 70% of the FC rated at "very useful" or "useful," indicating that students are well prepared to work in public health when they graduate.
- Top-rated skills used in alumni occupations reflect areas of emphasis in our program, including a high level of skill on "Interpret results of data analysis for public health research, policy, or practice." In biostatistics, epidemiology, and other courses, students are taught how to interpret analyses for multiple purposes and audiences. The qualitative assessment also indicated that this was highly useful in their current jobs.
- The ILE (culminating experience) provides students with opportunities to gather and use skills in communication. In both the quantitative and qualitative assessments, this skillset was rated as one of the most important gained through the Vanderbilt M.P.H. training.
- Understanding the importance of and demonstrating cultural humility is a key component of the M.P.H. program at Vanderbilt. The qualitative assessment noted this as a need for improvement. We have expanded the training offered in concepts of public health equity. We see the direct results and impact of this additional training and focus in our alumni's high rating of cultural competence in communicating public health content among more recent alumni.
- Alumni described strong skills in research design and data analysis, which make them competitive, effective, and productive in the work environment, and they suggested teaching additional skills in non-traditional designs, including quasi-experimental and community-based approaches to research.

Weaknesses:

- Remaining in contact with alumni, especially as the years pass, can be challenging. We were disappointed to attain a 55% response rate to the alumni survey. We saw the lowest level participation among alumni who graduated in 2017 and 2018. There was similar representation from the classes of 2019, 2020, and 2021. Participation in the qualitative focus group was < 30%.
- While students noted that they were least confident in FC10 ("Explain basic principles and tools of budget and resource management"), they also listed this FC as one of the lowest in terms of usefulness in their current work. Qualitative data revealed that alumni do not necessarily need budget skills but rather have a need for greater skills in grant writing and management.
- Evaluation of alternative study designs including quasi-experimental study designs, improvement methodology, community-based participatory research, and hybrid trials was seen as a need for future preparation of students. These concepts are taught in elective classes including:
    - Program Evaluation
    - Measurement, and Analysis for Improvement and
    - Implementation Science.

  Our applied public health partners and constituents recommended the creation and inclusion of these classes; however, we have not required any of these classes as a standing portion of the curriculum.
- Our previous grant writing course instructor transferred to another institution at the end of AY 2022-2023. We continue to evaluate appropriate instructors for this class for AY 2024–25 and will suggest improvements in the class structure to incorporate didactics on non-NIH grants and contracts.

Opportunities for improvement:

- To improve response rates for future data collection efforts, we will continue to cultivate alumni relationships through outreach efforts and strive to have multiple contacts for each alumnus, including personal and professional email addresses and a physical mailing address.
- We will reevaluate the courses mapped to competency FC10 ("Explain basic principles and tools of budget and resource management") and FC17 ("Apply negotiation and mediation skills to address

organizational or community challenges"). We will include additional instruction and practice in these related skills.

- We are actively searching for an appropriate grant writing instructor for AY 2024–25. Once identified, we will suggest course modifications to include additional opportunities for grant management and instruction regarding non-NIH grants.
- To help students increase their ability to "Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software," we will continue to offer two annual biostatistics clinics focused on programming skills in SAS and Stata, which are offered to current students (no cost) and alumni (reduced cost). We will advertise and offer additional free training to students in R and data visualization with ggplot. These classes will be offered by the Digital Lab (https://www.library.vanderbilt.edu/digital-lab/) at VU.
- We will work with course instructors to incorporate a greater variety of research design examples, including those that are more applicable in community settings, as well as quasi-experimental designs.
- We will explore the addition of Qualitative Research Methods II or other qualitative methods classes into the curriculum as electives, and we will consider adding other electives that cover content in qualitative research methods. Qualitative Research Methods II was developed and offered in AY 2018–19 but has not subsequently been offered.

C1. Fiscal Resources

The program has financial resources adequate to fulfill its stated mission and goals. Financial support is adequate to sustain all core functions, including offering coursework and other elements necessary to support the full array of degrees and ongoing operations.

1) Describe the program's budget processes, including all sources of funding. This description addresses the following, as applicable:

All tuition, minus a per-student tax applied by the SOM Office of Health Sciences Education (OHSE), is returned to the VU M.P.H. program for operations. The Vanderbilt Board of Trust sets the tuition rate annually. For fiscal year (FY) 2024, tuition for the program is set at $66,147, divided into $44,099 for Year 1 (three semesters) and $22,048 for Year 2 (two semesters). In addition, students who are not in other degree-granting programs pay a tuition of $1,839 per credit hour to take individual courses. Over the past 3 years, the formula for university-based taxes has been revised to allocate a greater portion of tuition to the SOM OHSE and all of its professional programs, including the M.P.H. program. In AY 2023–24, the combination of Chancellor, Provost, and OHSE Allocations are estimated to be 35.4% of tuition.

The SOM, the Department of Health Policy, and IMPH also provide office space, classroom space, and support to provide for overall M.P.H. program needs and to facilitate new directions identified in the strategic planning process. Support for faculty public health research and service activities comes primarily from the departments in which the M.P.H. faculty hold academic appointments and from the SOM. Financial oversight is provided by the Department of Health Policy.

a) Briefly describe how the program pays for faculty salaries. If this varies by individual or appointment type, indicate this and provide examples. If faculty salaries are paid by an entity other than the program (such as a department or college), explain.

From the tuition revenue, we cover operations committee effort and fringe, program staff and fringe, teaching payments, and operational expenses.

Operations committee salaries are effort based. All Concentration Track Directors are associate or full professors (or have promotion in progress). Their individual departments or divisions determine their salary (fringe), and the M.P.H. program pays effort and fringe.

From the tuition revenue, we pay course instructors with teaching funds to use at their discretion as regulated by their home department/division. Teaching payment does not vary by academic tenure level or appointment status. The current teaching formula for faculty payment is as follows: ($5000 *#credit hours) + (#credits * #students * $75). Thus, for a 4-credit hour class in which 30 students are enrolled, the instructor payment would be (4 * $5000) + (4 * 30 * $75) = $29,000. This is competitive and comparable to other programs in both the SOM and the Graduate School. This teaching payment can be used by the faculty member to cover a portion of their effort or as a supplement in an unrestricted education cost center.

b) Briefly describe how the program requests and/or obtains additional faculty or staff (additional = not replacements for individuals who left). If multiple models are possible, indicate this and provide examples.

As mentioned in the introduction to this self-study, the VU and VUMC separation was completed in April 2016. With the split between VU and VUMC, the financial management of the M.P.H. program became increasingly complex. At the same time, the program was increasing in size through the addition of the health policy concentration.

Program growth and the VU–VUMC financial separation required the creation of a 50% FTE position for a staff member dedicated to the M.P.H. program to seamlessly integrate between student financial aid services and students' sponsors or home departments within VUMC. The M.P.H. program worked closely

with both the VUMC Department of Health Policy and the VU OHSE to describe the functions of the position and post the position. This position has become an exemplar for other OHSE professional programs, the management of student finances across the university, and the sponsorship of select students from VUMC.

Additional faculty is determined by the operations committee in conjunction with both IMPH and the Department of Health Policy. We recently determined that each concentration should be co led with two Concentration Track Directors, to allow for ready access to leadership within each track for all students.

c) Describe how the program funds the following:
   a. operational costs (programs define "operational" in their own contexts; definition must be included in response)

Operational costs include recruitment activities and materials, accreditation fees, printing, office supplies, software for faculty and staff, and promotional items. Operational costs also include coverage of track-specific welcome events, special M.P.H. events (e.g., the Satcher lecture, the practicum colloquium, and reunion celebrations), and graduation activities. All operational costs are funded through internal program funds derived from tuition revenue and development funds.

   b. student support, including scholarships, support for student conference travel, support for student activities, etc.

Scholarships: The M.P.H. program funds 5–6 scholarships per year for student support from internal program funds and development funds. Each concentration has one dedicated Satcher Scholarship to recruit a person dedicated to reducing health disparities, as well as one Goldberger Scholarship. The David Satcher Public Health Scholarship Program endowment was established in 2010 and became fully funded in 2020. The Vanderbilt M.P.H. program worked collaboratively with Dr. Satcher to build and support our efforts to expand the enrollment of students from groups underrepresented in public health, students with financially diverse backgrounds, and those from low-resource settings. Dr. Satcher served as President of Meharry Medical College for more than 10 years. He left Nashville in 1993 to become Director of the Centers for Disease Control and Prevention (CDC) and subsequently served as the 16th Surgeon General of the United States. In 2010, to improve diversity among VU M.P.H. students and promote health equity, Dr. Satcher agreed to allow his name to be used for an annual lecture and for M.P.H. scholarships. The Satcher Scholarship is supported through a combination of internal M.P.H. program funds and endowment funds. Since January 2023, we have been able to realize a very small financial gain each month from the interest earned by these endowment funds.

The Goldberger Scholarship is funded through internal program funds and development activities. Dr. Joseph Goldberger was a physician who, in 1914, discovered that diet, rather than germs, caused the disease pellagra. He linked the poverty of Southern sharecroppers, tenant farmers, and mill workers to a corn-based diet that caused pellagra. One scholarship per track per year is provided to recruit both need- and merit-based candidates. If a candidate declines the scholarship offer, that scholarship may or may not be reissued to another candidate, depending on the appropriate applicants and time in the application cycle.

The Luu-Chen Scholarship will support students pursuing an M.P.H. degree; this endowment is not yet fully funded (full funding anticipated by 2026). Following her time in the Peace Corps, Ms. Alex Luu matriculated as an M.P.H. student at Vanderbilt, where she was attracted by the program size and extensive group of mentors. Ms. Luu's practicum at the World Health Organization deepened her understanding of communicating across cultural bounds with a unifying message. Ms. Luu is the first in her family to receive a master's degree. "The scholarship is a testament to how far my mother has taken my family; as a refugee, she didn't have the opportunity to complete her education but emphasized helping the community, which is the mantra I've built my career around."

Professional development funds: The Vanderbilt M.P.H. program allocates $6000 each year for the professional development of students. Individual students may apply for up to $700 per year in

professional development funding from the Vanderbilt M.P.H. program. Applicants must be degree-seeking students enrolled in the Vanderbilt M.P.H. program who are in good academic standing. Funding is awarded to selected applicants on a first-come, first-served basis. Concentration Directors are aware of the timing of regional and national professional conferences throughout the year and remind students of the funds that are available.

Applied Practical Experience funds: The Vanderbilt M.P.H. program is committed to providing training opportunities and support for students to gain practical experience applying the knowledge learned in the classroom in a public health setting. The program allocates $10,000 in practicum and APE funding to support students. Each student can apply for M.P.H. program funding, and individual approvals for practicum funding average $700. Additional opportunities are available to eligible students through institutional and departmental resources, grants, and external sources. A further opportunity exists through the Community Scholars Award program. This program provides support for two graduate or postgraduate trainees at VU or Meharry Medical College to perform a community-engaged research project collaboratively with a community-based organization.

Childcare costs: We use internal program funds to supplement the cost of childcare for students who choose to use a childcare center affiliated with VU. The cost of childcare for students is based on salary bands. The M.P.H. program pays these supplemental funds directly to VU for all students enrolled in the M.P.H. program who use VU-supported childcare centers. This cost has varied over the years and is dependent on the number of students who enroll their children in Vanderbilt childcare.

c. faculty development expenses, including travel support. If this varies by individual or appointment type, indicate this and provide examples

M.P.H. faculty are typically supported through their home department. The Department of Medicine is the largest department and allocates $1500 per faculty member per AY for faculty development. If there are additional opportunities for faculty development, resources are available on a case-by-case basis through the Department of Health Policy and IMPH. No M.P.H. operational or program funds are allocated to faculty development.

d) In general terms, describe how the program requests and/or obtains additional funds for operational costs, student support and faculty development expenses.

If there are requests for additional funds, resources are available on a case-by-case basis through the Department of Health Policy, IMPH, VUMC, and the OHSE in the SOM. The program coordinates with other departments and institutes at both VU and VUMC to provide for individual needs and circumstances (examples listed below). The program also collaborates with the OHSE to assist and cover expenses related to educational events. IMPH covers expenses related to some professional development. A gift fund established from the annual operational surplus can be used to support student expenses, as needed. Each year, the program participates in Giving Tuesday and other avenues to secure philanthropy and development funds from program graduates, faculty, and friends of the M.P.H. program. The Department of Health Policy is also committed to financially supporting the program if necessary.

Examples of additional funds:
Example 1: Flexner Dean's lecture Satcher speaker honorarium and lunch for conference is covered by the OHSE and the SOM Office of Diversity and Student Affairs.
Example 2: Partial support of reunion activities with the VU SOM Alumni Association.
Example 3: Sponsorship at the Tennessee Public Health Association (TPHA) and the Association of Schools and Programs of Public Health annual conference, including fees for some faculty, and all staff, is covered by IMPH. All student memberships for TPHA are also paid for through IMPH education and training funds.
Example 4: The VUMC Edge for Scholars/Vanderbilt Institute for Clinical and Translational Research provides half tuition support for up to five Veterans Affairs Quality Scholars (VAQS) student fellows each year. The remaining tuition support is covered by each VAQS student's home department or division.

e) Explain how tuition and fees paid by students are returned to the program. If the program receives a share rather than the full amount, explain, in general terms, how the share returned is determined. If the program's funding is allocated in a way that does not bear a relationship to tuition and fees generated, indicate this and explain.

As detailed above, the M.P.H. program receives the tuition minus a flat cost per student enrolled in the SOM (taxes and formula delineated below). The remaining tuition is returned to the program minus the OHSE Administrative Allocation, the Chancellor Allocation, and the Provost Allocation.

- The OHSE Administrative Allocation comprises a percentage of salary for OHSE staff working with degree programs, as well as a percentage of the enrollment services cost (for financial aid and enrollment services). These costs are distributed pro rata across all OHSE professional degree programs based on enrollment in fall of the prior year.
- The Chancellor Allocation, also known as the Academic Services Fee, is based on a percentage of prior-year revenue that is adjusted by an annual percentage. This percentage is set by VU Finance during the annual budgeting process.
- The Provost Allocation, also known as the Academic Units Allocation, supports VU academic units and strategic investments benefiting all schools. These services include the Provost's Office and related initiatives, VU Enrollment Affairs, the libraries, the Office of the Dean of Students, the IRB, and other Vice Provost areas. The OHSE rate is set by central finance, and the allocation is distributed across all degree programs (M.D. and all professional degrees) based on enrollment from the prior year's census report. For example, FY 2023 budget numbers are based on fall 2021 enrollment, and FY 2024 numbers will be driven by fall 2022 enrollment figures. For new programs coming on board and for the first allocation, estimation is based on budgeted student enrollment. Census figures include degree-seeking students only.

f) Explain how indirect costs associated with grants and contracts are returned to the program and/or individual faculty members. If the program and its faculty do not receive funding through this mechanism, explain.

For the M.P.H. program and all departments and divisions, the indirect costs for grants and contracts are collected at an institutional level under the Dean's Office. There is no direct formula at VU SOM for determining support to institutes, departments, programs, or individual faculty. Rather, the budgets for IMPH, the Department of Health Policy, the M.P.H. program, and all population health programs within IMPH are determined each year based on historical expense rates and strategic needs. This includes the provision of academic program support funds, operational funds for educational activities, and as needed faculty support. This approach allows the broad application of funds based on the missions of the institution as opposed to directly correlating to grant productivity, which may vary from year to year. Institutes and departments do retain some residual funds from completed contracts or grants that can be used to support M.P.H.-related activities or to support the academic activities of faculty principal investigators.

If the program is a multi-partner unit sponsored by two or more universities (as defined in Criterion A2), the responses must make clear the financial contributions of each sponsoring university to the overall program budget. The description must explain how tuition and other income is shared, including indirect cost returns for research generated by the public health program faculty appointed at any institution.

Not Applicable.

2) A clearly formulated program budget statement in the format of Template C1-1, showing sources of all available funds and expenditures by major categories, for the last five years.

M.P.H. Sources of Funds and Expenditures by Major Category, 2018 to 2023					
	Year 1 AY 2018–19	Year 2 AY 2019–20	Year 3 AY 2020–21	Year 4 AY 2021–22	Year 5 AY 2022–23
Source of funds					
Tuition & fees	2,381,157	2,112,676	2,118,508	2,341,890	2,239,133
Grants/contracts					
Endowment					2,964
Gifts	12,690	5,100	4,250	10,100	9,626
Total	**2,393,847**	**2,117,776**	**2,122,758**	**2,351,990**	**2,251,722**
Expenditures					
Faculty salaries & benefits	312,843	294,835	270,420	269,077	286,945
Staff salaries & benefits	261,062	253,328	266,523	293,627	292,753
Operations	50,063	71,226	26,968	79,031	59,832
Travel	14,563	7,538	165	3,778	10,095
Student support (scholarships and childcare)	1,050,513	1,006,732	844,150	779,040	749,588
University tax	187,058	254,997	345,645	495,028	667,158
Instructor payments	324,500	286,934	326,299	331,053	343,850
Total	**2,200,602**	**2,175,590**	**2,080,169**	**2,250,634**	**2,410,221**

If the program is a multi-partner unit sponsored by two or more universities (as defined in Criterion A2), the budget statement must make clear the financial contributions of each sponsoring university to the overall program budget.

Not Applicable.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- 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.
- The M.P.H. program accrued resources to successfully expand through the addition of the global health track (fall 2012) and the health policy track (fall 2015).
- The M.P.H. program established and fully funded the Satcher endowment in 2020 and initiated the Luu-Chen endowment in 2021; the M.P.H. program is continuing to build philanthropy to expand scholarship opportunities.
- Student support for professional development opportunities and engagement in an APE is offered through a competitive process.
- Any operational surplus is invested into a gift fund to further contribute to student resources and support.
- There is a commitment to ensuring the continued financial stability of the program. We have strong support from our partners across VU and VUMC. There is a strong commitment to the M.P.H. program to offset any potential deficit for one academic year if student enrollment drops.

Weaknesses:

- Because we are a small program, changes in the tax structure can impact the financials, including internal support for student scholarships and the operating budget.
- Significant changes to organizational and accounting structures that resulted from the split between the VU and VUMC have required additional staff and resources to ensure that budgeting processes are clear and that all revenue is collected from the appropriate sources.

Opportunities for improvement:

- We will continue to monitor fiscal resources for the M.P.H. program, explore opportunities for early intervention, and discuss any need for help with partners as required.
- We will work with the SOM and IMPH leadership to ensure that there are funds and commitment to carry out recommendations identified in the last strategic plan to be implemented during AY 2020-25.
- Philanthropy is an important area for the growth of the M.P.H. program. We will continue to grow scholarship opportunities and develop additional opportunities to attract the brightest students, regardless of their ability to pay for a degree.

C2. Faculty Resources

The program has adequate faculty, including primary instructional faculty and non-primary instructional faculty, to fulfill its stated mission and goals. This support is adequate to sustain all core functions, including offering coursework and advising students. The stability of resources is a factor in evaluating resource adequacy.

Students' access to a range of intellectual perspectives and to breadth of thought in their chosen fields of study is an important component of quality, as is faculty access to colleagues with shared interests and expertise.

All identified faculty must have regular instructional responsibility in the area. Individuals who perform research in a given area but do not have some regular expectations for instruction cannot serve as one of the three to five listed members.

1) A table demonstrating the adequacy of the program's instructional faculty resources in the format of Template C2-1 (single- and multi-concentration formats available).

	FIRST DEGREE LEVEL			ADDITIONAL FACULTY
CONCENTRATION	**PIF 1**	**PIF 2**	**FACULTY 3**	
Epidemiology M.P.H.	Grijalva, Carlos (0.55 FTE)	Heerman, William (0.90 FTE)	Wiese, Andrew (0.80 FTE)	PIF: 10, Non-PIF: 28
Global health M.P.H.	Audet, Carolyn (0.70 FTE)	Martin, Marie (0.75 FTE)	Rose, Elizabeth (1.00 FTE)	PIF: 5, Non-PIF: 18
Health policy M.P.H.	Fry, Carrie (0.70 FTE)	Keohane, Laura (0.90 FTE)	Stevenson, David (0.90 FTE)	PIF: 5, Non-PIF: 17

TOTALS:	Named PIF	9
	Total PIF	29
	Non-PIF	63

2) Explain the method for calculating FTE for faculty in the templates and evidence of the calculation method's implementation. Programs must present calculation methods for primary instructional and non-primary instructional faculty.

Primary instructional faculty (PIF) regularly serve as course instructors for M.P.H. classes (with a PUBH course heading). The M.P.H. program recognizes that we have many non-instructional faculty who shape the development of our students through mentorship on thesis and capstone projects and through career advising. We use the following formula for calculating the M.P.H. faculty effort:

Role in the M.P.H. program	FTE calculation	PIF or non-PIF
Class Instructor	0.5	PIF
Concentration Track Co-Director and academic advisor	0.2	Both
Diversity Director	0.2	PIF
Primary thesis/capstone mentor	0.15 per student	Both
Advisor on student mentorship committee	0.05 per student	Both
Program Director	0.6	PIF

3) If applicable, provide a narrative explanation that supplements reviewers' understanding of data in the templates.

Since the last M.P.H. program self-study, there has been an increase in the number of primary instructional (teaching) faculty in the program. The M.P.H. program has added an additional concentration (health policy), which has expanded faculty resources. We now list 29 PIF and 63 non-PIF faculty in Template E1-2.

Concentration Track Directors/academic advisors: Each student meets with their Concentration Track Director(s), who serve as academic advisors, one or more times per semester to maximize the quality of their education and likelihood of success. The M.P.H. Concentration Track Co-Directors are carefully assessed and represent exemplars of excellent alignment of expertise. Laura Keohane, Ph.D., joined as Co-Director of the health policy concentration in July 2023. With this addition, there are two Co-Directors who serve as academic advisors for each track. Practically, this allows all students to have ready access to leadership for the consultation and advising necessary to develop their own careers.

Each Concentration Track Director

- Supports the M.P.H. program's values of lifelong learning; diversity among faculty, staff, and students; and a shared dedication to cooperation, collegiality, mutual respect, and collaborations to improve the health of our community.
- Has collaborative skills evidenced by success in guiding interdisciplinary teams and experience linking students to resources in local and national networks.
- Is well versed in institutional resources and in encouraging students to make use of key resources, including career development seminars, pilot funds, and expert mentors.
- Has a demonstrated track record of helping students successfully progress into the public health workforce.
- Supports, challenges, and guides students based on their professional interests, experiences, and skills.

Primary mentors for the culminating experience (ILE); additional mentors and advisors
In collaboration with their Concentration Track Director, each student names a primary mentor (for evaluation of mentorship committee documents and overall responsibility for that student) and identifies a mentorship team of 3–4 individuals who serve as career and research mentors and advisors. Each student assembles their mentorship team within 4 months of starting the program. Each student's first mentorship meeting is required to take place by the end of their first semester in the program.

Each student mentorship team is tailored specifically to the student's individual career goals, interests, and methodologic needs. Mentorship teams comprise experienced mentors who advise on applied public health integration through the APE (practicum), the ILE (culminating experience), and other activities aligned with the student's needs. Many students engage stakeholders (from the community, patients, or public health leaders) as part of their mentoring team and as resources to advise on their culminating experience. Incorporation of applied public health leaders into the mentorship teams is strongly encouraged. Each student completes a culminating experience through the performance of a project designed to facilitate increasing independence as a public health leader. Students work with their primary mentor on the conception, design, data collection, analysis, interpretation, and communication of the findings of the project. Because the program is small, we track the number of times a specific mentor agrees to serve as the primary mentor for a student's ILE. Often, we recommend that a mentor serve as the primary mentor for an ILE to no more than three students concurrently.

4) Data on the following for the most recent year in the format of Template C2-2. See Template C2-2 for additional definitions and parameters.

Template C2-2. Faculty regularly involved in advising, mentoring, and the integrative experience.

General Advising & Career Counseling AY 2021–21

Degree level	Average	Min	Max
Master's (*N* = 66 students and 6 Advisors*)	11	3	22
General Advising & Career Counseling AY 2022–23			
Degree level	**Average**	**Min**	**Max**
Master's (*N* = 58 students and 6 Advisors*)	9.8	1	22
General Advising & Career Counseling AY 2023–24			
Degree level	**Average**	**Min**	**Max**
Master's (*N* = 61 students and 6 Advisors)	10.3	4	12

Advising in M.P.H. ILE for PIF (*N* = 29 PIF)		
Average	**Min**	**Max**
1	0	3
Advising in M.P.H. ILE for non-PIF (*N* = 63 non-PIF)		
Average	**Min**	**Max**
1	1	1
* Five Concentration Track Directors and the Program Director served as Advisors		

The academic advisors for each track will divide the list of incoming students and continue to advise their students for their duration of time in the M.P.H. program. The primary mentor is often matched only one student, as detailed above. See ERF B2.2 Ratios for faculty and students.

5) Quantitative data on student perceptions of the following for the most recent year:

   a. Class size and its relation to the quality of learning (e.g., "The class size was conducive to my learning.")

In the 2023 exit survey, we asked M.P.H. students (*N* = 29) to assess the following on a Likert-type scale ranging from 1 to 4, with 4 denoting *agree completely*.

Item	*N* (%) *agree completely/ agree somewhat*	*N* (%) *disagree Somewhat/ disagree Completely*
The class size was conducive to my learning.*	29 (100)	0
The combination of students from all three M.P.H. tracks in classes contributed to my overall learning.	26 (89.7)	3 (10.3)
The overall learning environment is inclusive of all learners.	22 (75.9)	7 (24.1)
Instructors and faculty were available when I needed help.	25 (89.3)	3 (10.7)
**N* = 29 student respondents, except for the fourth item, where *N* = 28		

   b. Availability of faculty

See above.

6) Qualitative data on student perceptions of class size and availability of faculty.

In group exit interviews, students noted that they enjoyed the small class sizes and low student-to-faculty ratio. They appreciated guidance and feedback from instructors and teaching assistants. The following themes emerged from informal feedback during group exit interviews which occur in the Spring prior to the final academic advising sessions.

Theme 1: Summative feedback on the final ILE.
Students desired more summative feedback on their final thesis paper. They noted that formative feedback was received throughout their ILE process, but that they were uncertain regarding their final grades. The data on the desire for summative feedback on the ILE have been shared with the Thesis Course Directors, and changes are being made in the culminating experience handbook for all students. The handbook will now note a clear timeline and deliverable associated with each aspect of the ILE, as well as indicating when summative feedback will be submitted to the student.

Theme 2: COVID-19 and staffing.
In AY 2020–21 and AY 2021–22, students noted issues with faculty and staff responsiveness. When program staffing was stretched during the pandemic, staff and some faculty were strained because of multiple administrative duties, illness, and new public health responsibilities (such as the State COVID 19 taskforce, disease modeling committees or keeping students safe during the return to classroom). Many of these issues made it much more difficult for both staff and faculty to be available to students. These measures were improved by the AY 2022–23 exit survey.

Theme 3: Assigned readings and the learning environment.
Some students without a health professions degree or professional experience prior to joining the program noted that many of the readings were medical journal articles and that the selection of readings made comprehension more difficult for them compared with those who had health professions education. Instructors re-evaluate the assigned readings each year, and new readings have been introduced.

See ERF C2.6 Data for qualitative interview notes, epidemiology track. Comment boxes/free text in the exit survey.

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- PIF and non-PIF are committed to teaching, advising, serving as mentors, and generating new knowledge through research. This overwhelming faculty commitment provides a rich learning environment, supported by a very low student-to-faculty ratio.
- Diverse research interests among faculty serving as thesis mentors allow placements for students in a wide variety of content areas. Diverse faculty interests are included by design, to help shape the student's career path in both methods and the content areas where each student chooses to develop.

Weaknesses:

- We have had some turnover of M.P.H. instructional faculty over the last 5 years. We have been able to recruit additional instructional faculty because our teaching payment model is competitive with other programs while class size is generally smaller.
- We have two elective classes with instructor vacancies this AY 2023-2024 (Grant Writing and Public Health Informatics).

Opportunities for improvement:

- We are committed to supporting our faculty by offering competitive teaching payments and providing resources for faculty to innovate their classes, including the use of the Center for Teaching to help shape classes and improve the syllabi used in classes.
- Continue to work closely with individual Departments to select high quality instructors committed to teaching the elective classes in which there are vacancies.
- Goal of improving the rating of instructor responsiveness to students to 90%: This feedback was shared with faculty at the annual teaching faculty meeting in July 2023.

- Goal of improving the rating of learning environment inclusiveness of all learners to at least 80%: This feedback was shared at the annual meeting in July 2023.

C3. Staff and Other Personnel Resources

The program has staff and other personnel adequate to fulfill its stated mission and goals. The stability of resources is a factor in evaluating resource adequacy.

1) A table defining the number of the program's staff support for the year in which the site visit will take place by role or function in the format of Template C3-1. Designate any staff resources that are shared with other units outside the unit of accreditation. Individuals whose workload is primarily as a faculty member should not be listed.

Role/function	FTE
Annie Smart, B.A., *Program Manager:* Manages all aspects of administrative operations for the M.P.H. program, as well as recruitment and admissions, registration and enrollment, student affairs, communications, and strategic planning.	1.0
W. Bradley Hawkins, M.S., Ph.D., M.P.H., *Practicum Director:* Coordinates all aspects of the practicum activities and leads career development workshops and advising. Workforce development instruction in PUBH 5516, Public Health Practice. Counseling and coordinating with students regarding their careers.	1.0
Taylor Holt, M.Ed., *Program Coordinator:* Works closely with the Program Manager to execute events, make purchases, and provide academic operations and communications support and to oversee day-to-day administrative and office management tasks.	1.0
Sabrina Benitez, M.P.H.*, *Financial Coordinator:* Works closely with the Program Manager, VU SOM Financial Aid, and VUMC Finance/the Department of Health Policy to help students with the tuition assistance process (VUMC Human Resources/EdAssist), prepares documents for scholarships, and facilitates agreements between VUMC's individual departments and the M.P.H. program for tuition and fees for VUMC-supported students.	0.5
* Shared resource	

One of the staff listed above is a shared resource:

- Ms. Sabrina Benitez is shared between the M.P.H. program and the Master of Physics program. Her responsibilities for the Master of Physics program include Associate Program Manager responsibilities and financial responsibilities.

1) Provide a narrative description, which may be supported by data if applicable, of the contributions of other personnel.

The M.P.H. program works closely with the VU OHSE. Staff resources used by the M.P.H. team to help facilitate and advance the work of the M.P.H. program include the following:

- Tonya Jernigan, M.B.A., *OHSE Administrative Manager*: Responsible for budgets and finance at VU SOM.
- Logan Key, M.Ed., *Associate University Registrar* and *Director of Medical Student Records:* Student registration and degree verification.
- Heather Boutell, M.Ed., *Director of Student Financial Aid*: Student financial aid packages.
- Emily Waltenbaugh, M.A., *Senior Communications Strategist*: Strategic communications for marketing, advertising, communications, and M.P.H. newsletter (*M.P.H. Moments*) creation and distribution.
- Taylor Wood, M.B.A., and Andrea Zink, B.A., *Development and Alumni Relations*: Establishment of endowment funds and donor relations.

The M.P.H. program also works closely with VUMC's departments and institutes, the Edge for Scholars Program, and the Institute for Clinical and Translational Research:

- Sydika McKissic, Ph.D., *Chief Business Officer* and *Departmental Administrator* for the Department of Health Policy.
- Rebecca Helton, M.A., *Edge for Scholars Senior Program Manager*: Pre- and post-doctoral scientist development and planning and support of the Annual Translational Science Forum.
- Marine Ghulyan, M.A., *IMPH Senior Program Manager:* Curriculum and coordination of population health programs in IMPH; M.P.H./Ph.D. and education and training programs meeting coordination.

2) Provide narrative and/or data that support the assertion that the program's staff and other personnel support is sufficient or not sufficient.

Currently, the M.P.H. program is fully staffed. Compared with the data presented in the 2015 CEPH self-study, the M.P.H. program has grown. We have added the health policy track, which has expanded the number of students in program. We have slightly increased the size of the two previously existing tracks (from about 9 students to, on average, 10–11 students per track per year). With this expansion came additional faculty and staff growth. At the time of the last self-study, the program staff had grown from 1.6 FTE (1 Program Manager and 0.6 Practicum Director) to 3.5 FTE (Table C.3).

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The Program Manager and staff have extensive knowledge of the OHSE support structure and the strengths of each of our VUMC partners to support M.P.H. student needs (from financial queries to student services, mentorship, and student employment).
- Adequate support staff, facilities, equipment, and services are in place to support the educational activities of the program.
- With the assistance of partners (the Department of Health Policy, the SOM, and IMPH) the M.P.H. program has an expanded physical facilities and appropriate resources for teaching students.

Weaknesses:

- During the pandemic, the M.P.H. program lost its Program Coordinator (approximately 2 years ago); therefore, the remaining program staff were overextended. The two M.P.H. staff members were able to work diligently to complete all tasks related to student enrollment, admissions, the APE, the ILE, and coordination with faculty.
- Over the last 2 years, in the post-pandemic period, the M.P.H. staff members have spent additional effort rebuilding community among the students and faculty who were impacted by the use of remote learning for more than 1 year. These staff now spend considerable time and energy rebuilding the student and faculty in-person community and encouraging attendance at events. With the refocus on these activities, the staff members have felt stretched at times and discouraged because they recall how vibrant the program is when students are on campus and participating in events.

Opportunities for improvement:

- We will continue to monitor fiscal resources for the M.P.H. program, explore opportunities for early intervention, and discuss the need to help with partners as required.
- We will continue to build resources that encourage students to be an active part of the special programming that contributes to their career growth and development and provides additional learning opportunities.

C4. Physical Resources

The program has physical resources adequate to fulfill its stated mission and goals and to support instructional programs. Physical resources include faculty and staff office space, classroom space, student shared space and laboratories, as applicable.

2) Briefly describe, with data as applicable, the following. (Note: square footage is not required unless specifically relevant to the program's narrative.)

The program draws on many resources available throughout VU, VUMC, and the SOM. Program administration for the M.P.H. program, the Department of Health Policy, and IMPH are all housed in the 2525 West End Avenue office building. This location serves as a central hub for health services research, IMPH, epidemiology, global health, and health policy. All population health programs affiliated with IMPH are housed on different floors in this office building.

The M.P.H. program moved into its current 10th-floor space in the 2525 West End Ave. office building in January 2022 (Suite 1010 and classroom). This state-of-the-art classroom facility is a shared resource between the SOM and the Department of Health Policy. The refurbished space includes access to the shared VU–VUMC classroom (1590 sq ft), with seating for 63 students. The VU rented space (770 sq ft) on the 10th floor includes six cubicles for M.P.H. staff and students, a conference room, and workspace that is shared with VUMC.

The Vanderbilt SOM provides additional space, facilities, and equipment necessary to deliver our curriculum. Other activities occur in a variety of rooms at VUMC. For example, Light Hall (VUMC owned), was our primary classroom building available for M.P.H. class use during the pandemic. We used this space because of its larger classroom sizes (to accommodate physical distancing) and during the renovation of the current dedicated space in 2020–21.

- Faculty office space

The M.P.H. Program Director's (Roumie) office is located on the 10th floor of the 2525 West End Ave. office building. She has a second office at the VA Tennessee Valley Healthcare System. The VA office is a 5-minute walk from the 2525 West End Ave. office building. She typically holds office hours for students at the M.P.H. office on the 10th floor of the 2525 West End Ave. office building.

Epidemiology track faculty (Grijalva, Heerman, Aliyu, Wiese, and Giri) have office space at the 2525 West End Ave. office building on the 6th, 7th, and 12th floors. IMPH and the Department of Health Policy are co-located on the 12th floor.

Global health track faculty (Martin, Rose, and Audet) have office space at the Vanderbilt Institute for Global Health on the 7th floor of the 2525 West End Ave. office building.

Health policy track faculty (Stevenson, Keohane, Graves, Griffith, Fry, and Leech) have office space at 2525 West End Ave. office building on the 12th floor in the Department of Health Policy.

- Staff office space

The four M.P.H. program staff members have semiprivate cubicles in Suite 1010 of the 2525 West End Ave. office building, adjacent to the M.P.H. student classroom. Each cubicle is equipped with a laptop docking station, computer monitor, telephone, and access to a shared printer and scanner. The staff have access to the M.P.H. conference room for private meetings with students or applicants. Staff also have access to a shared kitchen and workspace on the 10th floor.

- Classrooms

The refurbished M.P.H. program space on the 10th floor of the 2525 West End Ave. office building includes access to the shared VU–VUMC M.P.H. classroom (1590 sq ft), with seating for 63 students. Students gather in this space between classes and at other times for small-group work and other activities. Most program teaching occurs in this space. Additional conference room space that is used for seminars and small break-out group work is found on the 7th, 10th, and 12th floors of the 2525 West End Ave. office building.

The M.P.H. classroom is outfitted with state-of-the-art educational technology, including the following:

- A podium computer and attached document camera (a laptop or tablet may also be attached for projection)
- Two in-room cameras (viewing the instructor and the audience)
- Ceiling-mounted speakers and microphones throughout the classroom for audio play (i.e., as part of presentations) and recording (of classroom Q&A/conversation)
- Four high-definition screens (72" each) with the capability to project simultaneously or independently, depending on the needs of the lesson
- A desktop printer to allow students to print in the classroom
- Electrical outlets for student laptops
- A charging station with 10 portable chargers for charging laptops and cellphones
- Full Wi-Fi access with sufficient bandwidth to accommodate use by students during class sessions
- Overhead digital projectors
- A coffee machine, water cooler, and printer for students to use before and after classes.

- Shared student space

<u>IMPH population health programs student lounge (Centennial Perk Lounge).</u>
In 2021, IMPH undertook renovations to create a newly refurbished student lounge. The student lounge is a shared resource for all population health graduate students (M.P.H. and Ph.D. students in epidemiology, health policy, biostatistics, and biomedical informatics) and IMPH. It is located on the 8th floor of the 2525 West End Ave. office building. The lounge contains study carrels with laptop docking stations, as well as couches and access to a full kitchen, vending machines, and a foosball table. All IMPH graduate students have access to this refurbished graduate student lounge and study space. This facilitated M.P.H. student interaction with students in the other graduate programs housed at the 2525 West End Ave. office building (epidemiology, health policy, biostatistics, and biomedical informatics). Many M.P.H. students also receive a cubicle or workspace through their research mentor's primary department.

- Laboratories, if applicable to public health degree program offerings

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

3) Provide narrative and/or data that support the assertion that the physical space is sufficient or not sufficient.

Given the size of our M.P.H. program (61 students in total in AY 2023–24), the current classrooms and program support spaces are sufficient for the day-to-day management and operations of the program. The space and classroom size were upgraded in 2021 because the prior classroom space had seating for only 35 students. This prior classroom size limited the total number of students who could participate in many of our high-demand classes and constrained our acceptance and enrollment numbers. The new classroom will allow for program growth, accommodating increased numbers of both degree-seeking students and non-degree-seeking students who wish to pursue one or two public health classes.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- With the assistance of partners (the Department of Health Policy, the SOM, and IMPH), the M.P.H. program has expanded classroom size and physical facilities for teaching students. We have access to state-of-the-art technology in a dedicated classroom space.
- The M.P.H. program benefits from a centralized building for faculty, staff, and students.
- All M.P.H. students have access to the new student lounge space that is shared with other population health programs. This shared space allows students to network and collaborate with students at various degree levels and in other programs.

Weaknesses:

- None currently.

Opportunities for improvement:

- We will continue to sponsor student events that maximize community and collaboration across multiple degrees and among all IMPH-affiliated population health programs.

C5. Information and Technology Resources

The program has information and technology resources adequate to fulfill its stated mission and goals and to support instructional programs. Information and technology resources include library resources, student access to hardware and software (including access to specific software or other technology required for instructional programs), faculty access to hardware and software (including access to specific software required for the instructional programs offered) and technical assistance for students and faculty.

1) Briefly describe, with data if applicable, the following:
    - library resources and support available for students and faculty

The Annette and Irwin Eskind Family Biomedical Library and Learning Center supports the education, research, and patient care missions of VU and VUMC. The library occupies the lower level and first floor of the building and serves as the primary information resource for the VU SOM, the VU School of Nursing, and VUMC. The library's comprehensive biomedical and health sciences collection comprises more than 40,000 print volumes, more than 70 online databases, 3000 online journals, and over 2,000,000 e-books. Additional print and electronic resources are available to the entire Vanderbilt community through the other campus libraries and special collections that form the Jean and Alexander Heard Libraries.

The Eskind Biomedical Library consists of four units: Public Services, Information & Instruction Services, Collection Management, and Document Delivery Services. Reference and instruction librarians act as partners to the rest of the Vanderbilt community, providing research assistance and support such as literature searches and consultations, as well as training on various information resources and citation management programs. Appointments for library services are scheduled through their main phone number or the "Ask Biomedical" online form. Research assistance for current students, staff, and faculty is available in person or electronically through Microsoft Teams or Zoom. Subject guides are available to assist users with quickly identifying selected databases, books, and journals for specific courses or clinical specialties. Document Delivery Services can assist with finding and acquiring items not available in the Vanderbilt Library collection.

The library is physically open 90 hours per week, Sunday through Saturday. The library facility has a seating capacity of 200, 10 study rooms, and a training/meeting room with flexible configurations that seats up to 36 persons. Technologically, the library has wireless network access throughout the facility, 10 desktop computers, 5 laptops available for checkout, 2 large free-standing monitors to use as secondary displays, and 2 multi-function printers.

The History of Medicine Collections are located on the third floor of the library. This resource maintains a unique collection of rare books, manuscripts, photographs, archival materials, and other items documenting the history of medicine and medical education at VU and in the state of Tennessee.

- student access to hardware and software (including access to specific software or other technology required for instructional programs)

A wide range of computer facilities and resources is available for students, faculty, administrators, and staff.

- All M.P.H. assignments and classroom activities are available through Brightspace (https://www.vanderbilt.edu/brightspace/), a learning management platform used by Vanderbilt. Additionally, all lectures are recorded and posted to Brightspace, so students may review content or access these materials if they miss a class session because of illness or travel. Rich training and support resources are offered on the Brightspace website. Brightspace can be accessed from any location worldwide via Internet connection with a VUNetID login/password.
- Wireless resources in study and administrative spaces are highly accessible and reliable throughout the institution. Each wireless access point supports up to 200 devices, but, on average, each has fewer than 50 connected devices. The university's wireless network, vuNet, is

on a 5-GHz band with 3 spatial stream and has a theoretical speed of 1300 Mbps. vuNet uses WPA2 AES encryption, and uptime exceeds 99%.

- VU has purchased an enterprise-wide Zoom license that is available to all faculty, students, and staff. It can be used to facilitate online collaboration with students in remote locations during educational activities (including for their APE). IT services across VU support the delivery of distributed education to VU students. The Zoom license may also be used for teaching conferences such as departmental grand rounds, Dean's lectures, and noon conferences to be delivered virtually and accessed remotely by students and faculty.
- Every student, faculty member, and staff member has a VUNetID, a unique identifier assigned by the institution to ensure privacy of information systems and the data contained in them, and a password. Individuals are provided with access only to the systems required for their roles, whether they are students, faculty, or staff members.
- All VU SOM students are required to possess a laptop computer meeting specified minimum computing requirements (https://medschool.vanderbilt.edu/explore-vusm/student-computing-policies/).
- All students, faculty, and staff have access to the Vanderbilt University Software Store (https://it.vanderbilt.edu/services/catalog/end-point_computing/software_distribution/Vanderbilt_University_Software_Store.php), where they can obtain software licenses at a reduced cost. Any specialized software or hardware required for M.P.H. students to complete research projects is typically paid for by the research team and mentor.

    - faculty access to hardware and software (including access to specific software or other technology required for instructional programs)

M.P.H. faculty teaching Biostatistics 1 and 2 are provided with the latest version of the required statistical software to conduct their class. Faculty have access to the VU and/or VUMC software stores, where they can obtain software licensing at a reduced cost, which is typically covered by their home department. All technology noted above is available to faculty.

    - technical assistance available for students and faculty

VUIT (https://it.vanderbilt.edu/support/help/university.php) provides comprehensive technology support services for all students, faculty, and staff, using a range of modalities. Support is available by telephone, email, text, online chat, and in person. Support for numerous systems with which students and faculty interact is centralized under VUIT, streamlining problem resolution. VUIT is available by telephone Monday–Thursday 7:00 am–11:00 pm, Friday 7:00 am–6:00 pm, and Sunday 2:00 pm–11:00 pm. For significant technology support, Vanderbilt University Information Technology (https://it.vanderbilt.edu//services/) personnel are available online, via telephone, or on site to provide assistance with hardware, software, or Internet connectivity issues.

2) Provide narrative and/or data that support the assertion that information and technology resources are sufficient or not sufficient.

All students, faculty, and staff have access to the fully operational hardware and technology in the new M.P.H. classroom. There is a printer available to students, as well as 10 portable chargers for computer and telephone charging. All students have access to recorded lectures through Brightspace in the event that they are absent from class because of illness or travel. Staff and faculty have access to the hardware and software necessary to teach their respective classes, and we work closely with each instructor to ensure that their needs are met from a technology perspective.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The M.P.H. classroom has been newly refurbished with technological upgrades and seating available to facilitate optimal student learning for a larger class size.
- Having a centralized building for faculty, staff, and students allows for formal and informal meetings and collaborations.

Weaknesses:

- Because of pandemic-related supply chain issues, the complete installation of the new audiovisual equipment was significantly delayed. We began using the M.P.H. classroom in January 2022, but certain pieces of equipment did not arrive until August 2022. This led to some issues with integration of all parts of the technology (e.g., in situations with in-person students and online guest speakers).

Opportunities for improvement:

- None currently all classroom needs are being met.

D1. M.P.H. Foundational Public Health Knowledge

The program ensures that all M.P.H. and Dr.PH. graduates are grounded in foundational public health knowledge.

The program validates M.P.H. and Dr.PH. students' foundational public health knowledge through appropriate methods.

1) Provide a matrix, in the format of Template D1-1, that indicates how all M.P.H. and Dr.PH. students are grounded in each of the defined foundational public health learning objectives (1-12). The matrix must identify all options for M.P.H. and Dr.PH. students used by the program.

Content Coverage for the M.P.H.	
Content	**Course number(s) & name(s) or other educational requirements**
1. Explain public health history, philosophy, and values	PUBH 5501: Epidemiology I PUBH 5502: Biostatistics I PUBH 5516: Public Health Practice • Students learn the historical foundation of public health including the field's philosophy and values of working with human populations.
2. Identify the core functions of public health and the 10 Essential Services*	PUBH 5516: Public Health Practice PUBH 5502: Biostatistics I • Students learn the core functions of public health and the 10 Essential Services.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	PUBH 5501: Epidemiology I PUBH 5502: Biostatistics I • Students examine public health issues from quantitative and qualitative perspectives. PUBH5522: Qualitative Health Research Methods • Students gain a foundation for qualitative research. PUBH 5521: Survey Research Seminar • Students develop survey design and methods skills.
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	PUBH 5501: Epidemiology I PUBH 5516: Public Health Practice • Students learn the causes and trends of morbidity and mortality in the United States and in Tennessee.
5. Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.	PUBH 5516: Public Health Practice PUBH 5501: Epidemiology I • Students learn about primary, secondary, and tertiary prevention in population health, including specific approaches such as screening.
6. Explain the critical importance of evidence in advancing public health knowledge	PUBH 5501: Epidemiology I • All courses in the Vanderbilt M.P.H. program emphasize the critical importance of evidence in advancing public health knowledge.
7. Explain effects of environmental factors on a population's health	PUBH 5516: Public Health Practice • Students examine how environmental factors affect population health.
8. Explain biological and genetic factors that affect a population's health	PUBH 5501: Epidemiology I • Students examine how biologic and genetic factors affect population health.
9. Explain behavioral and psychological factors that affect a population's health	PUBH 5524: Science of Health Behavior • Students examine how behavioral and psychological factors affect population health.

10. Explain the social, political, and economic determinants of health and how they contribute to population health and health inequities	PUBH 5520: Introduction to Health Policy PUBH 5501: Epidemiology I • Students address determinants of health and how they contribute to population health. PUBH 5516: Public Health Practice • Students examine health inequities through the lens of community-led research.
11. Explain how globalization affects global burdens of disease	PUBH 5516: Public Health Practice • Students examine the role of globalization in the spread of disease as well as the methods used to determine health outcomes on a population level.
12. Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health)	PUBH 5516: Public Health Practice • Students are introduced to the concept of One Health.

2) Provide supporting documentation that clearly identifies how the program ensures grounding in each area. Documentation may include detailed course schedules or outlines to selected modules from the learning management system that identify the relevant assigned readings, lecture topics, class activities, etc. For non-course-based methods, include web links or handbook excerpts that describe admissions prerequisites.

See ERF D1.2 for the supporting documentation (areas of coverage include syllabi and learning modules) for the listed courses (learning objectives) in Template D1-1.

3) If applicable, assessment of strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- We provide a transdisciplinary curriculum that fulfills the 12 learning objectives and 22 foundational competencies required for the design, adaptation, implementation, evaluation, dissemination, and sustainment of public health in diverse communities.
- We facilitate active learning through both classroom and experiential training opportunities. All M.P.H. students complete the M.P.H. program required curriculum, which provides an underpinning in the 12 foundational public health knowledge learning objectives.
- These learning objectives are reinforced across several courses throughout the program, providing students with a strong, multifaceted foundation taught by multiple professors from a variety of perspectives.

Weaknesses:

- There are no perceived weaknesses in addressing the foundational public health knowledge learning objectives.

Opportunities for improvement:

- Our program curriculum committee and leadership continuously monitor syllabi, course evaluations, and student survey responses to confirm that foundational knowledge is imparted.
- We continue to systematically reinforce these concepts as the curriculum evolves. Each semester, students provide a self-assessment of foundational knowledge attainment to their academic advisor for feedback, and, if needed, elective courses can reinforce foundational knowledge attainment.

D2. M.P.H. Foundational Competencies

The program documents at least one specific, required assessment activity (e.g., component of existing course, paper, presentation, test) for each competency, during which faculty or other qualified individuals (e.g., teaching assistants or other similar individuals without official faculty roles working under a faculty member's supervision) validate the student's ability to perform the competency.

Assessment opportunities may occur in foundational courses that are common to all students, in courses that are required for a concentration or in other educational requirements outside of designated coursework, but the program must assess *all* M.P.H. students, at least once, on each competency. Assessment may occur in simulations, group projects, presentations, written products, etc. This requirement also applies to students completing an M.P.H. in combination with another degree (e.g., joint, dual, concurrent degrees).

Since the unit must demonstrate that all students perform all competencies, units must define methods to assess individual students' competency attainment in group projects. Also, assessment should occur in a setting other than an internship, which is tailored to individual student needs and designed to allow students to practice skills previously learned in a classroom. Additionally, assessment must occur outside of the integrative learning experience (see Criterion D7), which is designed to integrate previously attained skills in new ways.

These competencies are informed by the traditional public health core knowledge areas, (biostatistics, epidemiology, social and behavioral sciences, health services administration and environmental health sciences), as well as cross-cutting and emerging public health areas.

1) List the coursework and other learning experiences required for the program's M.P.H. degrees, including the required curriculum for each concentration. Information may be provided in the format of Template D2-1 (single-and multi-concentration formats available) or in hyperlinks to student handbooks or webpages, but the documentation must present a clear depiction of the requirements for each M.P.H. degree.

Candidates for the M.P.H. degree **must complete 42 academic credit hours** of coursework over five academic terms. There are **four** components of the M.P.H. degree:

- Didactic courses **(foundational and concentration-specific tables below)**
- Practicum (APE)
- Culminating experience (ILE)
- Interprofessional education (IPE)

Satisfactory completion of the required courses, the public health practicum, and the culminating experience and IPE activity is required for all students.

Part A: Foundational Requirements for the M.P.H. Degree		
Course number	**Course name**	**Credits**
PUBH 5501	Epidemiology I	4
PUBH 5502	Biostatistics I	4
PUBH 5516	Public Health Practice (including IPE)	3
PUBH 5518	Public Health Ethics	1
PUBH 5521	Survey Research Seminar	1
PUBH 5522	Qualitative Research Methods	1
PUBH 5524	The Science of Health Behavior	1
PUBH 5575	Health Equity for Public Health	1
	TOTAL FOUNDATIONAL CREDITS	**16**

Part B: Concentration Requirements for the M.P.H. Degree in Epidemiology		
Course number	**Course name**	**Credits**
APE course		
PUBH 5536-01	Public Health Practicum	6
ILE courses (thesis option; 4–8 credits)		
PUBH 5599-01	Thesis Research I	2–4
PUBH 7999-01	Thesis Research II	2–4
ILE course (capstone option; 1 credit)		
PUBH 5532-01	Capstone ePortfolio Development Part 2	1
Concentration-specific courses for the epidemiology concentration (14 credits)		
PUBH 5508	Epidemiology II	4
PUBH 5509	Biostatistics II	4
PUBH 5520	Introduction to Health Policy	2
PUBH 5510 or PUBH 5540	Measurement and Analysis for Healthcare Improvement or Leadership and Mgmt. in Public Health	3
PUBH 5527-01	Protocol Development I	1
Concentration-specific courses for the epidemiology concentration (thesis option; 1 credit)		
PUBH 5530-01	Protocol Development II	1
Concentration-specific courses for the epidemiology concentration (capstone option)		
PUBH 5531-01	Capstone ePortfolio Development Part 1	0
Electives (as applicable, required for capstone option)		
Electives	Capstone courses (electives)	9
	TOTAL CONCENTRATION CREDITS	**25–29 (thesis option)** **30 (capstone option)**

Part B: Concentration Requirements for the M.P.H. Degree in Global Health		
Course number	**Course name**	**Credits**
APE courses (8 credits)		
PUBH 5536-02	Public Health Practicum	8
ILE courses (thesis option; 4–8 credits)		
PUBH 5599-02	Thesis Research I	2–4
PUBH 7999-02	Thesis Research II	2–4
ILE course (capstone option; 1 credit)		
PUBH 5532-02	Capstone ePortfolio Development Part 2	1
Concentration-specific courses for the global health concentration (11 credits)		
PUBH 5540	Leadership and Mgmt. in Public Health	3
PUBH 5541	Essential Skills in Global Health	3
PUBH 5542	Foundations of Global Health	3
PUBH 5550	Global Health Politics and Policy	1
PUBH 5526-02	Global Health Project Development	1
Concentration-specific courses for the global health concentration (thesis option)		
PUBH 5527-02	Protocol Development I	1
Concentration-specific courses for the global health concentration (capstone option)		
PUBH 5531-02	Capstone ePortfolio Development Part 1	0
Electives (as applicable, required for capstone option)		
Electives	Capstone courses or other electives	9
	TOTAL CONCENTRATION CREDITS	**25–29 (thesis option)** **30 (capstone option)**

Part B: Concentration Requirements for the M.P.H. Degree in Health Policy		
Course number	**Course name**	**Credits**
APE courses (6 credits)		
PUBH 5536-03	Public Health Practicum	6
ILE courses (thesis option; 4–8 credits)		
PUBH 5599-03	Thesis Research I	2–4
PUBH 7999-03	Thesis Research II	2–4
ILE course (capstone option; 1 credit)		
PUBH 5532-03	Capstone ePortfolio Development Part 2	1
Concentration-specific courses for the health policy concentration (14 credits)		
PUBH 5509	Biostatistics II	4
PUBH 5520	Introduction to Health Policy	2
PUBH 5525	Health Economics	2
PUBH 5538	Program and Policy Evaluation	3
PUBH 5510 or PUBH 5540	Measurement and Analysis for Healthcare Improvement or Leadership and Mgmt. in Public Health	3
Concentration-specific courses for the health policy concentration (thesis option; 1 credit)		
PUBH 5527-03	Protocol Development I	1
Concentration-specific courses for the health policy concentration (capstone option)		
PUBH 5531-03	Capstone ePortfolio Development Part 1	0
Electives (as applicable, required for capstone option)		
Electives	Capstone courses or other electives	9
	TOTAL CONCENTRATION CREDITS	**25–29 (thesis option)** **30 (capstone option)**

2) List the required curriculum for each combined degree option in the same format as above, clearly indicating (using italics or shading) any requirements that differ from M.P.H. students who are not completing a combined degree.

The dual degree programs are as follows:

- M.D./M.P.H.
- M.P.H./M.A. (Latin American Studies)
- M.P.H./M.Ed. (International Education Policy and Management)

Candidates for the M.P.H. dual degrees must complete 42 credits toward the M.P.H degree, of which 16 are the foundational credits listed below; the other 26 credits are coursework specific to the student's defined course of study as outlined in section B below. These 26 credit hours include concentration-specific courses and courses associated with the public health practicum and culminating experience. Up to 15 transfer credit hours from the other degree program may be counted toward the M.P.H. degree, with the approval of the Program Director.

To award transfer credit, the Program Director reviews course syllabi on a case-by-case basis to determine whether each course covers similar content. More importantly, the Program Director ascertains whether the course allows the student to achieve the CEPH competencies acquired in the required M.P.H. course and whether there is an assessment opportunity. In some cases, if the Program Director cannot determine the appropriateness of transfer credit from the syllabus, the student may be asked to complete sample exercises or be assessed to demonstrate that they are skilled in the content. If that assessment results in a grade of B or lower, transfer credit is not granted.

For example, for an M.P.H./M.Ed. dual degree student who had taken Research Methods and Data Analysis I (LPO 7860; 3 credits), transfer credit was granted, and the student was deemed to have satisfied the requirement of Qualitative Health Research Methods (PUBH 5522; 1 credit). The transferred

credit hour course covered similar content and satisfied the competencies in the M.P.H. course (see ERF D.2 for the M.Ed. course syllabus—Cravens).

Most dual degree students take all the required M.P.H. courses, which are often used to satisfy the other degree program's requirements. For each combined degree course of study, students must fulfill 42 M.P.H. credit hours, including satisfactory completion of APE, IPE, and ILE activities. Students must apply separately to each school/degree program and be accepted by both programs to pursue a dual degree.

Part A: Foundational Requirements for the M.P.H. Degree		
Course number	**Course name**	**Credits**
PUBH 5501	Epidemiology I	4
PUBH 5502	Biostatistics I	4
PUBH 5516	Public Health Practice (including IPE)	3
PUBH 5518	Public Health Ethics	1
PUBH 5521	Survey Research Seminar	1
PUBH 5522	Qualitative Research Methods	1
PUBH 5524	The Science of Health Behavior	1
PUBH 5575	Health Equity for Public Health	1
	TOTAL FOUNDATIONAL CREDITS	**16**

Dual degree example 1: In this first example, we delineate the dual M.D./M.P.H. degree, which includes four semesters of M.P.H. coursework within a 5-year course of study for both degrees. A student must apply to and be accepted by the SOM M.D. program and the M.P.H. program to pursue the dual degree. Typically, M.D. students apply to the M.P.H. program in the fall of their second or third year of medical studies and complete the M.P.H. courses in their second and third or third and fourth years of medical school. It is possible for students in the dual M.D./M.P.H. program to complete both degrees in five years. Additional information may be found at on the M.D./M.P.H. dual degree website (https://medschool.vanderbilt.edu/mph/md-mph-dual-degree/). Each student in the dual M.D./M.P.H. degree program selects a concentration track and follows the track-specific requirements for that concentration as delineated below. Dual degree (M.D./M.P.H.) students have pursued each of the three concentrations.

Part B: Concentration Requirements for the M.P.H. Degree in Epidemiology (M.D./M.P.H. Joint Degree with the SOM)		
Course number	**Course name**	**Credits**
APE course (6 credits)		
PUBH 5536-01	Public Health Practicum	6
ILE courses (thesis option; 4–8 credits)		
PUBH 5599-01	Thesis Research I	2–4
PUBH 7999-01	Thesis Research II	2–4
ILE course (capstone option; 1 credit)		
PUBH 5532-01	Capstone ePortfolio Development Part 2	1
Concentration-specific courses for the epidemiology concentration (14 credits)		
PUBH 5508	Epidemiology II	4
PUBH 5509	Biostatistics II	4
PUBH 5527-01	Protocol Development I	1
PUBH 5520	Introduction to Health Policy	2
PUBH 5510 or PUBH 5540	Measurement and Analysis for Improvement or Leadership and Mgmt. in Public Health	3
Concentration-specific courses for the epidemiology concentration (thesis option; 1 credit)		
PUBH 5530-01	Protocol Development II	1
Concentration-specific courses for the epidemiology concentration (capstone option)		
PUBH 5531-01	Capstone ePortfolio Development Part 1	0
Electives (as applicable, required for capstone option)		

Electives	Capstone courses (electives)	9
	TOTAL CONCENTRATION CREDITS	**25–29 (thesis option) 30 (capstone option)**

Part B: Concentration Requirements for the M.P.H. Degree in Global Health (M.D./M.P.H. Joint Degree with the SOM)		
Course number	**Course name**	**Credits**
APE courses (8 credits)		
PUBH 5536-02	Public Health Practicum	8
ILE courses (thesis option; 4–8 credits)		
PUBH 5599-02	Thesis Research I	2–4
PUBH 7999-02	Thesis Research II	2–4
ILE course (capstone option; 1 credit)		
PUBH 5532-02	Capstone ePortfolio Development Part 2	1
Concentration-specific courses for the global health concentration (11 credits)		
PUBH 5540	Leadership and Mgmt. in Public Health	3
PUBH 5541	Essential Skills in Global Health	3
PUBH 5542	Foundations of Global Health	3
PUBH 5550	Global Health Politics and Policy	1
PUBH 5526-02	Global Health Project Development	1
Concentration-specific courses for the global health concentration (thesis option)		
PUBH 5527-02	Protocol Development I	1
Concentration-specific courses for the global health concentration (capstone option)		
PUBH 5531-02	Capstone ePortfolio Development Part 1	0
Electives (as applicable, required for capstone option)		
Electives	Capstone courses or other electives	9
	TOTAL CONCENTRATION CREDITS	**25–29 (thesis option) 30 (capstone option)**

Part B: Concentration Requirements for the M.P.H. Degree in Health Policy (M.D./M.P.H. Joint Degree with the SOM)		
Course number	**Course name**	**Credits**
APE courses (6 credits)		
PUBH 5536-03	Public Health Practicum	6
ILE courses (thesis option; 4–8 credits)		
PUBH 5599-03	Thesis Research I	2–4
PUBH 7999-03	Thesis Research II	2–4
ILE course (capstone option; 1 credit)		
PUBH 5532-03	Capstone ePortfolio Development Part 2	1
Concentration-specific courses for the health policy concentration (14 credits)		
PUBH 5509	Biostatistics II	4
PUBH 5520	Introduction to Health Policy	2
PUBH 5525	Health Economics	2
PUBH 5538	Program and Policy Evaluation	3
PUBH 5510 or PUBH 5540	Measurement and Analysis for Healthcare Improvement or Leadership and Mgmt. in Public Health	3
Concentration-specific courses for the health policy concentration (thesis option; 1 credit)		
PUBH 5527-03	Protocol Development I	1
Concentration-specific courses for the health policy concentration (capstone option)		
PUBH 5531-03	Capstone ePortfolio Development Part 1	0
Electives (as applicable, required for capstone option)		
Electives	Capstone courses or other electives	9

	TOTAL CONCENTRATION CREDITS	**25–29 (thesis option) 30 (capstone option)**

Dual degree example 2: The M.P.H./M.Ed. in International Education Policy and Management program is a seven-academic term program that is typically completed on a full-time basis in 3 years of study. Students must apply to and be accepted separately by both the M.P.H. program in the SOM and the M.Ed. program in Peabody College of Education and Human Development.

Students in this dual M.P.H./M.Ed. program must enroll for a minimum of three terms (fall, spring, and summer) in the SOM, with the M.P.H. as their primary degree program. During these three terms, they complete the 42 credit hours of required M.P.H. coursework, including the public health practicum and culminating experience during the summer term. Up to 15 transfer credit hours from the other degree program may be counted toward the M.P.H. degree, with the approval of the Program Director. Information about the M.Ed. in International Education Policy and Management can be found on the International Education Policy and Management M.Ed. program website (https://peabody.vanderbilt.edu/academics/masters-programs/international-education-policy-and-management-med/). Each student in the dual M.P.H./M.Ed. degree program selects a concentration track and follows the track-specific requirements for that concentration. Dual degree students in this program have only pursued the global health concentration, and that course of study is delineated below.

Part B: Concentration Requirements for the M.P.H. Degree in Global Health (M.P.H./M.Ed. in International Education Policy and Management Dual Degree)		
Course number	**Course name**	**Credits**
APE courses (8 credits)		
PUBH 5536-02	Public Health Practicum	8
ILE courses (thesis option; 4–8 credits)		
PUBH 5599-02	Thesis Research I	2–4
PUBH 7999-02	Thesis Research II	2–4
ILE course (capstone option; 1 credit)		
PUBH 5532-02	Capstone ePortfolio Development Part 2	1
Concentration-specific courses for the global health concentration (11 credits)		
PUBH 5540	Leadership and Mgmt. in Public Health	3
PUBH 5541	Essential Skills in Global Health	3
PUBH 5542	Foundations of Global Health	3
PUBH 5550	Global Health Politics and Policy	1
PUBH 5526-02	Global Health Project Development	1
Concentration-specific courses for the global health concentration (thesis option; 1 credit)		
PUBH 5527-02	Protocol Development I	1
Concentration-specific courses for the global health concentration (capstone option)		
PUBH 5531-02	Capstone ePortfolio Development Part 1	0
Electives (as applicable, required for capstone option)		
Electives	Capstone courses or other electives	9
	TOTAL CONCENTRATION CREDITS	**25–29 (thesis option) 30 (capstone option)**

Dual degree example 3: The dual M.P.H./M.A. (Latin American Studies) program is a seven-academic term program that is completed on a full-time basis in 3 years of study. Students must apply to and be accepted separately by both the M.P.H. program in the SOM and the M.A. in Latin American Studies program in the Graduate School. Students in the dual M.P.H./M.A. (Latin American Studies) program must enroll on a full-time basis for a minimum of three terms (fall, spring, and summer) in the SOM, with the M.P.H. as their primary degree program. During these three terms, they complete 42 or more credit hours of required M.P.H. coursework, including the public health practicum and culminating experience during the summer term. Up to 15 transfer credit hours from the other degree program may be counted toward the M.P.H. degree, with the approval of the Program Director. Additional information about the M.A. in Latin American Studies may be found on the Latin American Studies M.A. webpage

(https://as.vanderbilt.edu/clacx/degree-requirements/). Each student in the dual M.P.H./M.A. degree program selects a concentration track and follows the track-specific requirements for that concentration. Dual degree students in this program have only pursued the global health concentration, and that course of study is delineated below.

Part B: Concentration Requirements for the M.P.H. Degree in Global Health (M.P.H./M.A. in Latin American Studies Dual Degree)		
Course number	**Course name**	**Credits**
APE courses (8 credits)		
PUBH 5536-02	Public Health Practicum	8
ILE courses (thesis option; 4–8 credits)		
PUBH 5599-02	Thesis Research I	2–4
PUBH 7999-02	Thesis Research II	2–4
ILE course (capstone option; 1 credit)		
PUBH 5532-02	Capstone ePortfolio Development Part 2	1
Concentration-specific courses for the global health concentration (11 credits)		
PUBH 5540	Leadership and Mgmt. in Public Health	3
PUBH 5541	Essential Skills in Global Health	3
PUBH 5542	Foundations of Global Health	3
PUBH 5550	Global Health Politics and Policy	1
PUBH 5526-02	Global Health Project Development	1
Concentration-specific courses for the global health concentration (thesis option; 1 credit)		
PUBH 5527-02	Protocol Development I	1
Concentration-specific courses for the global health concentration (capstone option)		
PUBH 5531-02	Capstone ePortfolio Development Part 2	1
Electives (as applicable, required for capstone option)		
Electives	Capstone courses or other electives	9
	TOTAL CONCENTRATION CREDITS	**25–29 (thesis option)** **30 (capstone option)**

Examples of individualized course of study for dual degree and part time students are noted in the ERF Section H1.4.1 (along with advising materials).

3) Provide a matrix, in the format of Template D2-2, that indicates the assessment activity for each of the foundational competencies listed above (1-22). If the program addresses all of the listed foundational competencies in a single, common core curriculum, the program need only present a single matrix. If combined degree students do not complete the same core curriculum as students in the standalone M.P.H. program, the program must present a separate matrix for each combined degree. If the program relies on concentration-specific courses to assess some of the foundational competencies listed above, the program must present a separate matrix for each concentration.

Assessment of Competencies for the M.P.H. (Epidemiology, Global Health, and Health Policy)		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
Evidence-based approaches to public health		
1. Apply epidemiological methods to settings and situations in public health practice	PUBH 5501: Epidemiology I (all concentrations)	**Small group sessions 1–7:** During each small group session, each student is responsible for a specific assignment related to this competency. These assignments include discussion of exercise questions regarding research study design, measurements, analyses, and presentation and discussion of study findings. Students discuss the public health relevance of the exercises and articles reviewed during sessions. Many include hallmark studies and high-impact published research articles.

		Individual students are responsible for answering specific exercise questions or analyzing certain sections of the research articles. Participation of individual students is complemented by a brief discussion to highlight/clarify the main learning objectives in each session.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	1. PUBH 5502: Biostatistics I (all concentrations) 2. PUBH 5522: Qualitative Health Research Methods I (all concentrations)	**1. Homework assignment 1:** Students learn how to select quantitative data methods, analyze quantitative data using a graphical display, and tabulate said methods from the following study: Connor AF, *et al*. The Effectiveness of Right Heart Catheterization in the Initial Care of Critically Ill Patients. *JAMA* 1996;276:889-97. **2. Final assignment:** Students design a qualitative interview guide and describe which methods they will use and where the data will be collected.
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate	1. PUBH 5502: Biostatistics I (all concentrations) 2. PUBH 5522: Qualitative Health Research Methods (all concentrations)	**1. Homework assignments 1–6:** Students learn how to conduct basic statistical analysis and interpret results to best answer a research question using statistical software (Stata, Version 17). **2. In-class assignment:** Students use MAXQDA to identify the key themes in a transcribed interview. Students focus on how home life prior to an HIV diagnosis impacted a person's ability to deal with learning they were HIV positive.
4. Interpret results of data analysis for public health research, policy, or practice	PUBH 5501: Epidemiology I (all concentrations)	**Small group sessions 1–7:** During each small group session, each student is responsible for a specific assignment related to this competency. These assignments include discussion of exercise questions regarding research study design, measurements, analyses, and presentation and discussion of study findings. Students discuss the public health relevance of the exercises and articles reviewed during sessions. Many include hallmark studies and high-impact published research articles. Individual students are responsible for answering specific exercise questions or analyzing certain sections of the research articles. Participation of individual students is complemented by a brief discussion to highlight/clarify the main learning objectives in each session.
Public health & healthcare systems		
5. Compare the organization, structure, and function of healthcare, public health, and regulatory systems across national and international settings	1. PUBH 5520: Introduction to Health Policy (epidemiology and health policy concentrations) 2. PUBH 5540: Leadership and Management in Public Health (global health concentration)	**1. International comparison assignment:** Students design a universal health insurance coverage proposal for the United States based on policies that have been implemented in other countries. *(epidemiology and health policy concentrations)* **2. In-class organizational analysis:** Students choose an organization that aligns with their global health interests. Using the information learned in class, they build a SWOT (strengths, weaknesses, opportunities, and threats) analysis/matrix to present and discuss in class. The objectives of this exercise include comparing the organization, structure, and function of healthcare, public health, and regulatory systems across national and international settings. (*global health concentration)*
6. Discuss the means by which structural bias, social inequities, and racism undermine health	PUBH 5518: Public Health Ethics (all concentrations)	**Written assignment:** Students are tasked with identifying a public health or epidemiological inequity and placing it in historical, ethical, and legal context. Students also address

and create challenges to achieving health equity at organizational, community, and systemic levels		any systemic challenges to equity and discuss how one would work with other stakeholders.
Planning & management to promote health		
7. Assess population needs, assets, and capacities that affect communities' health	PUBH 5516: Public Health Practice (all concentrations)	**1. In-class exercises:** Students identify all potential partners related to an intervention/action, as well as possible resources/assets available from each specific community partner related to the public health issue. **2. Final written assignment:** Students develop and describe a community-involved public health action. The first component prompts students to assess needs and disparities in their specific population.
8. Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs	PUBH 5516: Public Health Practice (all concentrations)	**Final written assignment:** Students develop and describe a public health action. The second component asks them to identify the broad types of community partners they would recruit to ensure the intervention incorporates the appropriate cultural values and practices.
9. Design a population-based policy, program, project, or intervention	PUBH 5516: Public Health Practice (all concentrations)	**Final written assignment:** Students develop and describe a community-involved public health action. Using previously generated United States-based mortality rates, students identify an observed inequality of their choice (based on sex, age, or race/ethnicity) and develop a hypothetical public action to address this public health issue.
10. Explain basic principles and tools of budget and resource management	PUBH 5516: Public Health Practice (all concentrations)	**Budget and management proposal:** Students develop a budget and management proposal using the template of the Office of Health Equity's Community Health Improvement Mini-Grant proposal. The proposed budget must address at least one of the needs prioritized by the community in the community health needs assessment.
11. Select methods to evaluate public health programs	PUBH 5501: Epidemiology I (all concentrations)	**Small group sessions 1–7:** During these small group sessions, each student is responsible for a specific assignment related to this competency. These assignments include discussion of key features of selected surveillance and screening programs, along with their rationale, main goals, and performance. Following guided discussion regarding the relevance of these programs to public health, each student is assigned a portion of the exercises and asked to answer questions using data to illustrate their value in public health. Individual students are typically responsible for specific exercise questions or sections of research articles that have used data from these programs. Participation of individual students is complemented by a brief discussion to highlight/clarify the strengths and weaknesses of each program and to address the main learning objectives of the session.
Policy in public health		
12. Discuss the policy-making process, including the roles of ethics and evidence	1. PUBH 5505: Public Health Ethics (all concentrations) 2. PUBH 5520: Introduction to Health Policy (epidemiology and health policy concentrations)	**1. Written assignment:** Students are tasked with identifying a public health or epidemiological inequity and placing it in historical, ethical, and legal context. Students also address any systemic challenges to equity and discuss how one would work with stakeholders. **2. Policy memo:** Students write a policy memo for an elected representative on a broad health reform topic. The

	3. PUBH 5550: Global Health Politics and Policy (global health concentration)	strengths and weaknesses of the reform should address the following key areas of potential impact: health, equity, and quality of life for patients; access to essential medical services; and financial implications for providers and insurers. *(epidemiology and health policy concentrations*) **3. Policy memo:** Each student develops a policy memo on a global health issue or policy of significance. This policy memo should be written for an elected member of the US Congress from Tennessee. Students address how particular policies impact global public health. Students also apply learned material related to advocacy for political, social, or economic policies and programs that improve health in diverse populations and increase health equity. *(global health concentration)*
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	PUBH 5516: Public Health Practice (all concentrations)	**In-class exercises:** Students are prompted to identify all potential partners related to an intervention/action. They identify all potential resources/assets available from specific types of community partners related to the public health issue. Students select two partners and describe what they can "give" to the intervention and what they can "get" from the intervention/action (construct the Give–Get Grid). **Final written assignment:** As students develop a public health action, in the second component, they are tasked with identifying key stakeholders and community partners for developing and implementing their action.
14. Advocate for political, social, or economic policies and programs that will improve health in diverse populations	1. PUBH 5520: Introduction to Health Policy (epidemiology and health policy concentrations) 2. PUBH 5550: Global Health Politics and Policy (global health concentration)	**1. Op-ed assignment:** Students write an op-ed that targets the general lay public, such as readers of a regional or national newspaper. Criteria for grading the assignment include evaluating whether the op-ed topic is discussed in a way that hooks the audience, uses a minimum of jargon, and conveys a clear call to action. (*epidemiology and health policy concentrations)* **2. Policy memo:** Each student develops a policy memo on a global health issue or policy of significance. This policy memo should be written for an elected member of the US Congress from Tennessee. Students address how particular policies impact global public health. They also apply learned material related to advocacy for political, social, or economic policies and programs that improve health in diverse populations and increase health equity. *(global health concentration)*
15. Evaluate policies for their impact on public health and health equity	1. PUBH 5520: Introduction to Health Policy (epidemiology and health policy concentrations) 2. PUBH 5550: Global Health Politics and Policy (global health concentration)	**1. Policy memo:** Students write a policy memo for an elected representative on a broad health reform topic. The strengths and weaknesses of the reform should address the following key areas of potential impact: health, equity, and quality of life for patients; access to essential medical services; and financial implications for providers and insurers. *(epidemiology and health policy concentrations)* **2. Policy memo:** Each student develops a policy memo on a global health issue or policy of significance. Students address how particular policies impact global public health. They also apply learned material related to advocacy for political, social, or economic policies and programs that

		improve health in diverse populations and increase health equity. *(global health concentration)*
Leadership		
16. Apply leadership and/or management principles to address a relevant issue	1. PUBH 5510: Measurement and Analysis for Healthcare Improvement (epidemiology and health policy concentrations) 2. PUBH 5540: Leadership and Management in Public Health (global health concentration)	**1. Course project:** Throughout the course, each student conducts a small-scale inquiry/project to provide background information on a public health issue. How would a clinical leader measure performance in their clinical microsystem (i.e., hospital unit or clinic) as it pertains to the problem at hand? How would they identify the root causes of this problem in their clinical microsystem? During each class session, each student practices skills by directly applying those skills to their project. Project selection may limit the direct applicability of some skills. Each post-session assignment will also involve students individually applying the same skills to a standardized public health challenge—improving mammography screening rates in Nashville and surrounding counties. *(epidemiology and health policy concentrations)* **2. Analysis of a global health organization:** Students choose an organization that aligns with their public health interests. They connect with a representative of this organization to then interview them in class via phone call or Skype. Students gather information on the organization's history, organizational structure, mission and vision, politics, funding, and organizational/work culture. They deliver this information and the questions they will ask the organizational representative in a 2-page (maximum) paper. One objective of this exercise is to apply the principles of leadership, governance, and management, which include creating a vision, empowering others, fostering collaboration, and guiding decision-making. *(global health concentration)*
17. Apply negotiation and mediation skills to address organizational or community challenges	1. PUBH 5510: Measurement and Analysis for Healthcare Improvement (epidemiology and health policy concentrations) 2. PUBH 5540: Leadership and Management in Public Health (global health concentration)	**1. Systems exercise:** Students are asked to define the system surrounding the problem of the need to increase mammography screening rates for a specific population of patients. Students are provided with the specific population and supporting data. A system is defined as a collection of interdependent people, processes, and infrastructure (physician & virtual) arranged in a way that produces a specific goal or pattern of behavior in this case, with the goal of increasing mammography screening rates. *(epidemiology and health policy concentrations)* **2. Stakeholder negotiation activity:** Students read a two-party negotiation case from *Harvard Business Review* and then attempt to gain leverage through various negotiation methods via an in-class enactment of the terms of the case. A quiz involves a systematic analysis of which negotiation methods worked, which did not, and why. *(global health concentration)*
Communication		
18. Select communication strategies for different audiences and sectors	1. PUBH 5520: Introduction to Health Policy (epidemiology and health policy concentrations)	**1. Op-ed assignment:** Students write an op-ed that targets the general lay public, such as readers of a regional or national newspaper. Criteria for grading the assignment include evaluating whether the op-ed topic is discussed in a way that hooks the audience, uses a minimum of jargon,

	2. PUBH 5550: Global Health Politics and Policy (global health concentration)	and conveys a clear call to action. *(epidemiology and health policy concentrations)* **2. Infographic:** Each student creates an infographic based on information gathered for their policy memo. An infographic is a visual representation of information or data that communicates a message. Students will be introduced to software to produce infographics. *(global health concentration)*
19. Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation	1. PUBH 5527-01: Protocol Development I (epidemiology concentration) 2. PUBH 5530: Protocol Development II (epidemiology concentration thesis students) 3. PUBH 5527-02, 03: Protocol Development (global health and health policy concentration thesis students) 4. PUBH 5531: Capstone ePortfolio Development Part 1 (capstone students, all concentrations)	**1. Public health project proposal presentation.** *(epidemiology concentration)* **2. Public health project written proposal.** *(epidemiology concentration thesis students)* **3. Public health project written proposal and presentation.** *(global health and health policy concentration thesis students)* **4. Written project description and public health portfolio.**
20. Describe the importance of cultural competence in communicating public health content	PUBH 5516: Public Health Practice (all concentrations)	**Quiz:** Students are prompted to describe the importance of cultural humility in communicating public health content.
Interprofessional practice		
21. Integrate perspectives from other sectors and/or professions to promote and advance population health	PUBH 5516: Public Health Practice (all concentrations)	**M.P.H. program requirement:** Each student chooses from a list of interprofessional and intersectoral opportunities in which to participate. Activities may take place on or off campus. Students may also propose activities to fulfill this requirement, but these activities must receive program approval prior to participation.
Systems thinking		
22. Apply a systems thinking tool to visually represent a public health issue in a format other than standard narrative	PUBH 5516 Public Health Practice (all concentrations)	**System thinking diagram:** Students develop and construct a system thinking diagram based on their assigned public health topic that comprehensively describes the system of factors (individual, societal, infrastructure, legal, and governmental) that impact the public health issue.

4) Provide supporting documentation for each assessment activity listed in Template D2-2. Documentation should include the following, as relevant, for each listed assessment:

- assignment instructions or guidelines as provided to students
- writing prompts provided to students
- sample exam question(s)

Please see ERF D2.4 for the supporting documentation (syllabi, assignments, writing prompts, and test questions) for the courses listed in Template D2-2.

5) Include the most recent syllabus from each course listed in Template D2-1, or written guidelines, such as a handbook, for any required elements listed in Template D2-1 that do not have a syllabus.

Please see ERF D2.5 for the syllabi for the courses listed in Template D2-1.

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- All M.P.H. students demonstrate the foundational competencies through the successful completion of the required foundational coursework (Part A, required classes).
- Each student, including dual degree students, declares a concentration competency and fulfills the requirements for that concentration.
- The M.P.H. program addresses and assesses each foundational competency through at least one specific required assessment activity. However, there are multiple competency reinforcement opportunities in both foundational classes and concentration-specific required classes.
- Students self-assess their attainment of foundational public health competencies and concentration-specific competencies each semester prior to their academic advising meetings. Each student's academic advisor uses this self-assessment to guide the conversation during their meeting and to evaluate the need for additional learning opportunities specific to each student's needs and career goals.

Weaknesses:

- Most of the foundational competencies are mapped to the core curriculum of classes, including eight that are mapped to Public Health Practice for the introduction of the competency. Although the instructor of this course has embraced this challenge, it can be a burden. Furthermore, if a student has a weak grasp of the foundational competencies covered in Public Health Practice, reinforcement activities in other classes may not completely remediate any issues, and additional instruction may be required for a particular student.

Opportunities for improvement:

- We have seen no evidence of students who have struggled with the content or attainment of the competencies covered in Public Health Practice. Review of the student self-assessment data on competency attainment continues to demonstrate high attainment of the foundational competencies. However, increasing the number of classes that introduce, cover, and assess each foundational competency is a consideration for improvement and may prevent instructor burnout.
- Continuous review of required courses and assessment methods will continue to occur each year, with a syllabus review at least 4 weeks prior to the start of each course. We will ensure any changes in course assignments, course structure, or faculty instructor are reflected appropriately on the competency maps.
- We will continue to encourage instructors to provide content and use assignments that appropriately reflect and assess the changing needs of public health.
- Each semester, students provide a self-reflection on their foundational and concentration knowledge attainment to their academic advisor for feedback.

D3. Dr.PH. Foundational Competencies

Not applicable.

D4. M.P.H. & Dr.PH. Concentration Competencies

The program defines at least five distinct competencies for each concentration or generalist degree at each degree level. These competencies articulate the unique set of knowledge and skills that justifies awarding a degree in the designated concentration (or generalist degree) and differentiates the degree offering from other concentrations offered by the unit, if applicable.

The list of competencies may expand on or enhance foundational competencies, but, in all cases, including generalist degrees, the competency statements must clearly articulate the additional depth provided beyond the foundational competencies listed in Criteria D2 and D3.

The program documents at least one specific, required assessment activity (e.g., component of existing course, paper, presentation, test) for each defined competency, during which faculty or other qualified individuals validate the student's ability to perform the competency.

Except for cases in which a program offers only one M.P.H. or one Dr.PH. concentration in the unit of accreditation, assessment opportunities must occur in the didactic courses that are required for the concentration.

If the program intends to prepare students for a specific credential (e.g., CHES/MCHES) that has defined competencies, the program documents coverage and assessment of those competencies throughout the curriculum.

1) Provide a matrix, in the format of Template D4-1, that lists at least five competencies in addition to those defined in Criterion D2 or D3 for each M.P.H. or Dr.PH. concentration or generalist degree, including combined degree options, and indicates at least one assessment activity for each of the listed competencies. Typically, the program will present a separate matrix for each concentration.

Assessment of Competencies for the M.P.H. in the Epidemiology Concentration		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Compare the strengths and weaknesses of observational study designs and select an appropriate observational study design for population-based research	PUBH 5508: Epidemiology II	**Exercise 1, Article Discussions 1 and 2, Project 2:** *Exercise 1* asks students to discuss strengths and weaknesses of ecologic studies, case–control studies, cohort studies, and randomized controlled trials. In *article discussions 1 and 2*, there are discussions about specific study designs and their strengths and limitations. *Project 2* motivates the students to think through the type of study design they would implement for a research question.
2. Evaluate sources for confounding, selection, and information bias from a causal-inference perspective and through the use of directed acyclic graphs	PUBH 5508: Epidemiology II	**Exercises 2 and 3, Article Discussion 3, Project 3**: *Exercises 2 and 3* ask conceptual questions related to causal inference, confounding, and bias. *Article discussion 3*, among other articles, encourages conversations in relation to confounding, how to identify confounding, and the appropriateness of adjustment for confounding. *Project 3* reinforces students' theoretical understanding of confounding and bias by asking them to apply directed acyclic graphs to their research question.
3. Build multivariable regression models and interpret statistical output from these models to make appropriate statistical inferences	PUBH 5509: Biostatistics II	**Multiple regression methods in medical research homework exercises:** 3.1a–3.5d, 5.1a–5.1d, and 9.1a–9.3c are on multiple linear regression.

4. Perform regression diagnostics, including residual analyses, to assess how well models fit the data, inspect the presence of outliers, and assess the fulfillment of model assumptions	PUBH 5509: Biostatistics II	**Multiple regression methods in medical research homework exercises:** 3.2e–3.2h, 3.4e, 3.5b, 9.2b, and 9.3c are on multiple linear regression.
5. Develop a study protocol that addresses a research question, includes appropriate selection of a study design, and adequately accounts for potential sources of bias	PUBH 5527-01: Protocol Development I	**Structured PowerPoint presentation** that includes all relevant study design elements and limitations of the potential study.

Assessment of Competencies for the M.P.H. in the Global Health Concentration		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Identify historical and emerging issues of significance in global health from an interdisciplinary vantage point	PUBH 5542: Foundations of Global Health	**Discussion** on an emerging health threat (monkeypox) compared with the HIV epidemic.
2. Apply research method(s) and/or programmatic intervention(s) used to ameliorate health and developmental problems, particularly in low-resource settings	PUBH 5541: Essential Skills in Global Health	**Weekly assignments:** All students choose three of the following five possible assignments: 1. *Creating a REDCap database* for a study that requires a longitudinal data collection instrument 2. *Creating a REDCap survey* for use in the mobile application 3. *Developing a motivational interview* 4. *Calculating and writing up sample size(s) and justification* for a hypothetical study (data provided in class) 5. *Creating a data visualization tool*
3. Describe the fundamentals of organizational behavior and change, particularly in low-resource settings	PUBH 5540: Leadership and Management in Public Health	**Analysis and presentation of a global health organization:** Students gather information on the organization's history, structure, mission and vision, politics, funding, and organizational/work culture.
4. Demonstrate an understanding of the policy process through the development of tools to influence policy design, implementation, or evaluation	PUBH 5550: Global Health Politics and Policy	**Written policy memo assignment:** Students write a nonpartisan policy memo for a member of the US Congress to educate them on a global health issue of significance.
5. Integrate knowledge of cultural humility and health equity in global health research, policy, practice, or advocacy efforts	PUBH 5526: Global Health Project Development	**In-classroom assessment:** Prior to the APE, students present their practicum concept, including elements of cultural humility and health equity in their proposed practicum. To prepare for the assignment, students read four articles on ethics and community engagement (p. 7 of the syllabus) and discuss these articles in class. Students incorporate knowledge from both the articles and the discussion into their practicum concept presentation.

Assessment of Competencies for the M.P.H. in the Health Policy Concentration		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Interpret the main features and challenges related to the financing, incentives, and delivery of healthcare services and public health systems in the United States	PUBH 5525: Health Economics	**Midterm and final exams and in-class problem:** There are specific question(s) related to this competency on both the midterm exam and the final exam. Students also complete an in-class problem (medical arms race assignment).
2. Describe the complementary roles of individualized healthcare services and population-based interventions in maintaining and improving health status	PUBH 5525: Health Economics	**Final exam and problem set 3:** There are specific question(s) related to this competency on the final exam and in problem set 3.
3. Evaluate policies and apply theories of health insurance and the incentives that various approaches to coverage and provider payment create in the health system	PUBH 5525: Health Economics	**Midterm exam:** There are specific question(s) related to this competency on the midterm exam.
4. Analyze the impact of changes in public health policy, healthcare financing, and service delivery on elements such as healthcare cost growth, quality of care, and access to services	PUBH 5538: Quantitative Program and Policy Evaluation	**Written analytic case studies:** Written analytic case study 2: TennCare disenrollment. Written analytic case study 4: Impact of the minimum drinking age on mortality.
5. Conceptualize the data and research methods necessary to address questions of significance to policymakers and other relevant system actors	PUBH 5538: Quantitative Program and Policy Evaluation	**Written analytic case studies:** Written analytic case study 7: Improving Immunization in Rural India. Written analytic case study 9: Oregon health insurance experiment.

2) For degrees that allow students to tailor competencies at an individual level in consultation with an advisor, the program must present evidence, including policies and sample documents, that demonstrate that each student and advisor create a matrix in the format of Template D4-1 for the plan of study. Include a description of policies in the self-study document and at least five sample matrices in the electronic resource file.

Does not apply.

3) Provide supporting documentation for each assessment activity listed in Template D4-1. Documentation should include the following, as relevant, for each listed assessment:

- assignment instructions or guidelines as provided to students
- writing prompts provided to students
- sample exam question(s)

Please see ERF D4.3 for the supporting documentation (syllabi, assignments, writing prompts or instructions, and test questions) for each assessment activity (concentration-specific competencies) in Template D4-1.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- All M.P.H. students meet the concentration competencies through the successful completion of the required concentration-specific coursework (Part B required for each track). All epidemiology

concentration students are required to take PUBH 5527-01: Protocol Development 1 and to develop a protocol as a foundational skill in epidemiology, regardless of the ILE selection (thesis or capstone).
- Students self-assess their attainment of concentration-specific public health competencies each semester prior to their academic advising session. Each student's academic advisor uses this self-assessment to guide conversations during their meeting with the student and to identify additional learning opportunities specific to each student's needs and career goals, including additional elective classes in the broader university.

Weaknesses:
- The epidemiology concentration content includes Epidemiology II and Biostatics II. Applied public health constituents on the advisory committee have noted that the "epidemiologist positions" at the TDH also require leadership skills and/or knowledge of improvement methodology. The two classes in these areas offered as part of the epidemiology concentration (PUBH 5510: Measurement and Analysis for Healthcare Improvement and PUBH 5540: Leadership and Management in Public Health) are not traditionally part of an epidemiology concentration. These were added as concentration-specific classes to help address the changing needs of our public health partners. While students choose one of these classes both were considered needed by our partners and provide slightly different skillsets for an epidemiologist.

Opportunities for improvement:

- Continuous review of required courses and assessment methods will continue to occur each academic year to ensure any changes in course assignments, course structure, or faculty instructors are reflected appropriately on the competency maps.
- Each semester, students will continue provide a self-assessment of concentration competency attainment to their academic advisor for feedback.
- Encourage students in the epidemiology concentration to participate in both PUBH 5510: Measurement and Analysis for Healthcare Improvement and PUBH 5540: Leadership and Management in Public Health particularly if they are considering future employment at TDH or other applied public health agencies.

D5. M.P.H. Applied Practice Experiences

M.P.H. students demonstrate competency attainment through applied practice experiences.

The applied practice experiences allow each student to demonstrate attainment of at least five competencies, of which at least three must be foundational competencies (as defined in Criterion D2). The competencies need not be identical from student to student, but the applied experiences must be structured to ensure that all students complete experiences addressing at least five competencies, as specified above. The applied experiences may also address additional foundational or concentration-specific competencies, if appropriate.

The program assesses each student's competency attainment in practical and applied settings through a portfolio approach, which reviews practical, applied work products that were produced for the site's use and benefit. Review of the student's performance in the APE must be based on at least two practical, non-academic work products AND on validating that the work products demonstrate the student's attainment of the designated competencies.

Examples of suitable work products include project plans, grant proposals, training manuals or lesson plans, surveys, memos, videos, podcasts, presentations, spreadsheets, websites, photos (with accompanying explanatory text), or other digital artifacts of learning. Reflection papers, contact hour logs, scholarly papers prepared to allow faculty to assess the experience, poster presentations, and other documents required for academic purposes may not be counted toward the minimum of two work products.

1) Briefly describe how the program identifies competencies attained in applied practice experiences for each M.P.H. student, including a description of any relevant policies.

Overview:
Through the practicum, or APE, students further develop competencies that are introduced in didactic coursework. The public health practicum is a supervised practical field experience that provides students with the opportunity to develop and apply 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. Students are required to incorporate foundational and concentration-specific competencies over the course of planning and conducting their practicum experience. Through the practicum, each student must demonstrate attainment of at least five competencies, of which at least three must be foundational competencies.

Students work with the Practicum Director and their site supervisor(s) to identify, arrange, and complete a satisfactory field experience that fulfills practicum requirements and addresses the chosen five competencies. The practicum may address more than five foundational and concentration-specific competencies, if appropriate.

Practicum objectives:
- Develop skills/competencies learned through didactics by applying them in a public health practice setting.
- Acquire practical skills that are of use in public health professions and not available through academic instruction.
- Understand the political, economic, social, and organizational contexts in which public health activities are conducted.

Required practicum hours:
Students register for PUBH 5536: Public Health Practicum in the summer term of their first year in the M.P.H. program and receive academic course credit toward the M.P.H. degree and a final grade for the practicum. The academic credit hours and contact hours associated with the practicum are listed below:

	Concentration		
	Epidemiology *	**Global health**	**Health policy**
Practicum contact hours (minimum)	120–240	400	240
PUBH 5536 credit hours (maximum)	3–6	8	6
* Epidemiology students typically complete 6 credits (240 hours); however, students may request a reduction in Practicum hours from the Program Director. Appropriate approval for a reduction may be based on additional hours fulfilled in the course of their 2 years degree (e.g. Clinicians who may do a Quality Improvement project during their degree but outside the scope of their Practicum).			

Students enrolled in PUBH 5536: Public Health Practicum receive the number of academic credit hours specific to their concentration, as listed in the table above, even if the contact hours exceed the minimum requirement or if the student completes more than one practicum.

Competency demonstration:
The Vanderbilt M.P.H. program uses a portfolio approach to assess each student's competency attainment during the practicum. Each student's portfolio is comprised of the deliverables and products they submit from their practicum experience. These documents clearly demonstrate the student's efforts, progress, and achievements during the practicum, as well as their attainment of the specific competencies and learning objectives identified in the practicum agreement.

Each student drives the planning and design of their practicum, resulting in an individualized experience that aligns with their interests and career goals. Regardless of the specific site, all practica must include the following required components:

1. Direct work with a practicing public health leader
2. Regular meetings with the site supervisor
3. Exposure to different facets of the organization and the complexities of its working environment
4. Attendance at managerial meetings and interaction with a variety of people in the organization
5. Completion of one or more specific projects
6. Completion of the required deliverables prior to, during, and after the practicum contact hours have taken place

As part of the final practicum deliverables, each student must submit at least **two** products.
Deliverables for the practicum include assignments, photos, a record of activities and time spent on the practicum (time log), a final report, and at least two products produced during the practicum. The type and number of final products may vary across students; these elements are planned by the student and site supervisor(s). Products may evolve over the course of the practicum. The site supervisor(s) provide feedback on products and deliverables produced on site. All deliverables and products are submitted through a secure online data management platform, REDCap, to the Practicum Director and Course Instructor (M.P.H. Program Director) for review.

Examples of practicum products and deliverables:

- Written assignments
- Journal entries
- Evaluations
- Projects
- Videos
- Multi-media presentations
- Spreadsheets
- Websites
- Posters
- Photos or other digital artifacts of learning

Assessment:
At the end of the practicum, the site supervisor(s) complete and submit an evaluation of the student's efforts and work. The Practicum Director coordinates the evaluation process directly with the site supervisor(s).

The final course grade (pass/fail/incomplete) is determined by the Practicum Director in conjunction with the course instructor (M.P.H. Program Director), who evaluates each student's attainment of the public health competencies. The final course grade is documented in the student record system, Your Enrollment Services, after all course requirements have been completed. If the Practicum Director and course instructor determine that the student has not completed all course requirements, a grade of incomplete (I) may be given. If the student's performance is deemed unsatisfactory, a remediation plan is created by the site supervisor, Practicum Director, and course instructor.

2) Provide documentation, including syllabi and handbooks, of the official requirements through which students complete the applied practice experience.

Please see ERF D5.2 for APE reference documents (practicum handbook and site supervisor guide).

3) Provide samples of practice-related materials for individual students from each concentration or generalist degree. The samples must also include materials from students completing combined degree programs, if applicable. The program must provide samples of complete sets of materials (i.e., Template D5-1 and the work products/documents that demonstrate at least five competencies) from at least five students in the last three years for each concentration or generalist degree. If the program has not produced five students for which complete samples are available, note this and provide all available samples.

<table>
<tr><td colspan="2">Epidemiology concentration M.P.H. student 1: TDH. The Office of Strategic Initiatives at the TDH is responsible for leading projects and developing policies that improve population health and well-being. One of these initiatives is supporting and overseeing the County Health Councils, which provide local representation on the issues and needs of the community. The County Health Councils are required to complete a collaborative multi-step County Health Assessment to select three priorities the county would like to focus on for a 3-year action plan. This student's project focused on per capita personal income and how it relates to COVID-19 to help inform the County Health Councils on steps to address income inequality during the pandemic.</td></tr>
<tr><th>Specific products in portfolio that demonstrate application or practice</th><th>Competency as defined in Criteria D2 and D4</th></tr>
<tr><td rowspan="4">Supported the Office of Strategic Initiatives at the TDH with County Health Council resources and data, as well as developing a white paper to help inform the County Health Councils on steps to address income inequality during the COVID-19 pandemic.

1: White paper to inform the County Health Councils on steps to address income inequality during the COVID-19 pandemic.

2: Presentation of white paper findings on income inequality during the COVID-19 pandemic to the Tennessee State Office of Strategic Initiatives team.</td><td>Interpret results of data analysis for public health research, policy, or practice. (CEPH FC4)</td></tr>
<tr><td>Assess population needs, assets, and capacities that affect communities' health. (CEPH FC 7)</td></tr>
<tr><td>Evaluate policies for their impact on public health and health equity. (CEPH FC 15)</td></tr>
<tr><td>Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation. (CEPH FC 19)</td></tr>
<tr><td></td><td>Integrate perspectives from other sectors and/or professions to promote and advance population health. (CEPH FC 21)</td></tr>
</table>

Epidemiology concentration M.P.H. student 2 (dual degree M.D./M.P.H. student): Siloam Health (faith-based community health clinic serving Nashville's uninsured, underserved, and culturally marginalized). There has been a disproportionate impact of the COVID-19 pandemic on immigrant and refugee communities in Nashville, TN. This project, overseen by an M.P.H. student and alumnus, was conducted in partnership with the Metro Public Health Department (MPHD) and the Siloam Family Health Center. The objectives were to gain a better understanding of the healthcare challenges and the government response during the pandemic and to assess the impact of the pandemic on immigrant communities. An extensive guide was created by the M.P.H. student and used by the community health worker (CHW) team to connect COVID-19 patients with resources to effectively quarantine. Presentations were provided to the CHW team, local advocacy groups, and other organizations working with immigrant and refugee communities. Infographics were produced to highlight updates and shared with Metro Nashville officials and the Mayor's Office. This practicum aided the launch and implementation of a CHW COVID response program, allowed for engagement in direct pandemic response efforts, and provided experience working with both a health department and a nonprofit healthcare clinic. This practicum promoted the CHW model at a government agency and is now embedded in practice.

Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Conducted a cost–benefit analysis of Siloam Health's current quality tracking program for their CHW program and compared it with alternative databases. Analyzed existing data on the CHW program and presented relevant findings and trends. Developed a scheduling database for COVID-19 vaccinations at Siloam Health. 1: Quality tracking summary: Cost–benefit analysis of Siloam Health's existing quality tracking tool for their CHW program, Homebase, in comparison with REDCap, an alternative tracking program. 2: Siloam Health's CHW program: Data overview & analysis presentation for Siloam Health's community board meeting. 3: Siloam vaccine REDCap survey: Patient-facing survey during COVID-19 Moderna vaccine implementation.	Apply epidemiological methods to settings and situations in public health practice. **(CEPH FC 1)** Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate. **(CEPH FC 3)** Interpret results of data analysis for public health research, policy, or practice. **(CEPH FC 4)** Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs. **(CEPH FC 8)** Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation. **(CEPH FC 19)**

Epidemiology concentration M.P.H. student 3: Veterans Affairs Tennessee Valley Healthcare System (VA TVHS). Documented long-term care facility COVID-19 outbreaks underscore the need for proactive infection prevention and diagnostic measures. It is unclear to what extent infection prevention measures like universal masking, screening employees for fever or symptoms, frequent hand hygiene, appropriate personal protective equipment use, and restricting visitors are successfully or consistently deployed in long-term care facilities. This student reported repeated low asymptomatic long-term care employee COVID-19 point prevalence and low long-term care resident COVID-19 infection at the VA TVHS Community Living Center in a context of increased employee-reported masking and high infection prevention measure adherence.

Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Worked with the VA TVHS infection prevention/control interprofessional team during the COVID-19 pandemic response as a physician liaison to frontline healthcare workers, answering	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate. **(CEPH FC 3)**

questions about infection prevention protocols, including the use of disinfectants and personal protective equipment, and reporting concerns back to the infection prevention team and subsequently to incident command. 1: Manuscript detailing results from a community living center asymptomatic screening and survey study: *Low COVID-19 Rates in a Veterans Affairs Long-term Care Facility in the Setting of High Infection Prevention Adherence*. 2: COVID-19 frequently asked questions sheets to centralize information for VA employees.	Design a population-based policy, program, project, or intervention. **(CEPH FC 9)** Integrate perspectives from other sectors and/or professions to promote and advance population health. **(CEPH FC 21)** Evaluate sources for confounding, selection, and information bias from a causal-inference perspective and through the use of directed acyclic graphs. **(Epi 2)** Describe and apply the ethical foundation for research regulations and their principles as applied to human subjects research, including autonomy, beneficence, and justice. **(2021- Epi 5)**

Epidemiology concentration M.P.H. student 4: Wellpath (healthcare provider for incarcerated individuals). The social determinants of health (SDOH) are interrelated and often build on each other. Asking questions about the SDOH conditions experienced by incarcerated individuals can help determine the burden of SDOH that is experienced by different groups and the level of care that is needed. Wellpath's connection of patients to resources in their community to support SDOH needs is designed to reduce recidivism**.**	
Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Worked with Wellpath's Chief Clinical Officer to institute a program focusing on patient-centered care that is specific to a patient's health needs, including SDOH. This was achieved through the creation of a standardized tool to allow providers to collaboratively determine patient-centered needs and to create referrals for programming that addresses the patient's SDOH needs once they are released from incarceration and re-enter the community. 1: Research document including a general background on SDOH, the effect of SDOH on the top disease states in Wellpath's patients, the interaction of SDOH and incarceration, recidivism and SDOH, and health inequalities in different groups of people. 2: Presentation highlighting Wellpath's patient population and what can be implemented to address SDOH.	Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels. **(CEPH FC 6)** Assess population needs, assets, and capacities that affect communities' health. **(CEPH FC 7)** Design a population-based policy, program, project, or intervention. **(CEPH FC 9)** Advocate for political, social, or economic policies and programs that will improve health in diverse populations. **(CEPH FC 14)** Apply a systems-thinking tool to visually represent a public health issue in a format other than standard narrative. **(CEPH FC 22)**

Epidemiology concentration M.P.H. student 5: TDH. The development of a standardized case definition and reporting criteria by the Council of State and Territorial Epidemiologists allowed for the assessment of disease burden for alpha-gal syndrome in Tennessee, including a comparison of interstate disease incidence, and for the monitoring of trends in patient demographic characteristics, morbidity/mortality, and geographic distribution in a region with prevalence of both the lone star tick and the black-legged tick. We identified all cases of patients evaluated for alpha-gal in our hospital system and reviewed all patient records, aiming to implement standardized criteria for alpha-gal syndrome ascertainment.	
Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**

Conducted a pilot project surveilling alpha-gal syndrome presence in Middle Tennessee. This student conducted data entry, organized the study and grouped based on national County State and Territorial Epidemiologists advisement, and organized the results into a paper for submission. 1: Manuscript focusing on alpha-gal syndrome prevalence across Middle Tennessee: *Active Surveillance on the Prevalence of Alpha-Gal (galactose-alpha-1,3-galactose) Syndrome in Middle Tennessee.* *2:* Presentation focusing on alpha-gal syndrome prevalence across Middle Tennessee.	Apply epidemiological methods to settings and situations in public health practice. **(CEPH FC 1)**
	Select quantitative and qualitative data collection methods appropriate for a given public health context. **(CEPH FC 2)**
	Design a population-based policy, program, project, or intervention. **(CEPH FC 9)**
	Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation. **(CEPH FC 19)**
	Integrate perspectives from other sectors and/or professions to promote and advance population health. **(CEPH FC 21)**

Global health concentration M.P.H. student 1: TDH. Health disparities based on race, ethnicity, and class continue to exist despite improvements in overall health in the United States during the 20th Century. This student worked with partners in the TDH to design a course intended to increase awareness and improve the learner's knowledge about healthcare disparities and unequal treatment in medical care. The course focuses on the origins, evolution, and current practice of unequal treatment in medical and public healthcare based on race and ethnicity. The course explores both historical and contemporary legacies of racism in medicine and healthcare, unequal treatment in healthcare, and important data on the current status of health inequity.	
Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Developed training materials through an extensive literature review on health disparities in healthcare for the TDH staff. 1: PowerPoint presentation on unequal treatment. 2: Webinar (course outline) on unequal treatment.	Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels. **(CEPH FC 6)**
	Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs. **(CEPH FC 8)**
	Advocate for political, social, or economic policies and programs that will improve health in diverse populations. **(CEPH FC 14)**
	Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation. **(CEPH FC 19)**
	Describe the importance of cultural competence in communicating public health content. **(CEPH FC 20)**

Global health concentration M.P.H. student 2 (dual degree M.D./M.P.H. student): Primeros Pasos. Primeros Pasos is a not-for-profit primary care clinic that operates in the low-resource western highlands of Guatemala. The clinic, which is located in and supports the rural area surrounding Quetzaltenango City, has mobile projects focused on the nutritional recuperation of children and mothers at high risk of malnutrition and stunting outcomes and on the education of school age children regarding sanitary water and hygiene practices. The clinic also provides affordable diagnostic and clinical care for these populations, along with clinic walk-ins of all ages. This student created a training module for volunteers on cultural competence and revised the clinic's monitoring and evaluation plan.	
Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**

Worked with program staff to streamline the monitoring and evaluation protocol for the outreach programs, with a focus on reducing staff burden, improving evaluations for low-literacy participants, and better incorporating volunteers in data collection and entry. Additionally worked to improve volunteer onboarding and handover and to increase efficiency by updating the clinic's electronic medical record system. 1: Educational presentation on cultural humility for volunteers: This presentation was developed with input from the volunteer coordinator and outreach coordinator and included general principles as well as key information about local factors. 2: Monitoring and evaluation plan revision for the Primeros Pasos outreach program.	Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs. **(CEPH FC 8)**
	Select methods to evaluate public health programs. **(CEPH FC 11)**
	Describe the importance of cultural competence in communicating public health content. **(CEPH FC 20)**
	Apply research method(s) and/or programmatic intervention(s) used to ameliorate health and developmental problems, particularly in low-resource settings. **(GH 2)**
	Integrate knowledge of cultural humility and health equity in global health research, policy, practice, or advocacy efforts. **(GH 5)**

Global health concentration M.P.H. student 3 (dual degree M.P.H./M.A. in Latin American Studies student): Vanderbilt Institute for Global Health and Universidade Eduardo Mondlane. This student conducted a gap analysis report that summarized the results from the Research Administration Needs Assessment survey conducted by the Vanderbilt Institute for Global Health in collaboration with the Office of Project Support and the Finance Department of the Faculty of Medicine at the University Eduardo Mondlane.

Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Addressed research capacity building at the Universidade Eduardo Mondlane in Maputo, Mozambique, through interpreting the University's responses to a needs assessment survey and creating a bilingual gap analysis report based on these responses. 1: English-language version of the gap analysis report. 2: Portuguese-language version of the gap analysis report.	Assess population needs, assets, and capacities that affect communities' health. **(CEPH FC 7)**
	Integrate perspectives from other sectors and/or professions to promote and advance population health. **(CEPH FC 21)**
	Apply a systems-thinking tool to visually represent a public health issue in a format other than standard narrative. **(CEPH FC 22)**
	Describe the fundamentals of organizational behavior and change, particularly in low-resource settings. **(GH 3)**
	Integrate knowledge of cultural humility and health equity in global health research, policy, practice, or advocacy efforts. **(GH 5)**

Global health concentration M.P.H. student 4: Metro Nashville/Davidson County Public Health Department and Siloam Health. This project was designed to address the COVID-19 pandemic in immigrant and refugee communities. The project was created as a response to the disproportionate impact COVID- 19 has had on immigrant and refugee communities in Davidson County and was based on Siloam's CHW model. It was conducted in partnership with Siloam Health and Metro Nashville Davidson Public Health.

Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Worked on a CHW COVID response program through the MPHD and Siloam Health. Managed the database, liaised across agencies, and organized regular meetings with local community agencies. Performed quality improvement and program	Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels. **(CEPH FC 6)**

evaluation as needed to help adapt the program to meet the needs of immigrants and refugees in Davidson County. 1: Resource guide compiled for the CHW team. 2: Presentation given to MPHD investigators, monitors, hospital staff, Metro Nashville Public Schools, social workers, and other community agencies. 3: Report shared with community agencies, MPHD managers and epidemiologists, and Siloam staff.	Assess population needs, assets, and capacities that affect communities' health. **(CEPH FC 7)** Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs. **(CEPH FC 8)** Design a population-based policy, program, project, or intervention. **(CEPH FC 9)** Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes. **(CEPH FC 13)**

Global health concentration M.P.H. student 5: African Health Innovation Centre (AHIC; a public health social enterprise headquartered in Accra, Ghana). AHIC strengthens Africa's burgeoning health innovation ecosystem and empowers emerging leaders to improve health outcomes through entrepreneurship and innovation. AHIC began as a program of Impact Hub Accra in June 2016, mapping Ghana's health innovation ecosystem and leading West Africa's first health innovation hackathon, Health Hack Accra. AHIC is the first organization in Ghana to focus exclusively on empowering entrepreneurs and health professionals to use their experience and talents to create innovative solutions in the health space.	
Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Built out AHIC's HR capacities, including strong and sustainable benefit offerings and a well-being guide geared toward preventing poor health outcomes. Gained insight into the startup and innovation landscape in West Africa. 1: Presentation on the benefits and well-being plan. 2: Written health insurance proposal. 3: Program announcement for an innovative parenthood project.	Assess population needs, assets, and capacities that affect communities' health. **(CEPH FC 7)** Apply leadership and/or management principles to address a relevant issue. **(CEPH FC 16)** Design a population-based policy, program, project, or intervention. **(CEPH FC 9)** Advocate for political, social, or economic policies and programs that will improve health in diverse populations. **(CEPH FC 14)** Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation. **(CEPH FC 19)**

Health policy concentration M.P.H. student 1: Sycamore Institute (independent nonpartisan public policy research center for Tennessee). The Sycamore Institute exists to help policymakers, the media, and the public understand complex issues that affect and connect Tennesseans' health and prosperity. This student worked to understand the financial impact of COVID-19. Medical debt hurt the credit history of an estimated 22% of Tennesseans receiving a credit report in 2018—ranking Tennessee eighth highest among US states. The pandemic's dual economic and public health crises could make medical debt even more common, which would likely hamper economic recovery.	
Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Worked with a nonprofit nonpartisan data science institute focused on Tennessee's issues to create a primer on the impact of COVID-19 on medical debt in Tennessee and how Tennessee's public health infrastructure works. 1: Information for a website on COVID-19 and medical debt. The finished piece can be found on	Interpret results of data analysis for public health research, policy, or practice. **(CEPH FC 4)** Select communication strategies for different audiences and sectors. **(CEPH FC 18)** Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation. **(CEPH FC 19)**

the Sycamore Institute's website (http://www.sycamoreinstitutetn.org/covid-19-medical-debt/). 2: Information for a website on Tennessee's public health infrastructure. The finalized piece can be found on the Sycamore Institute's website (http://www.sycamoreinstitutetn.org/public-health-infrastructure-tennessee/).	Apply a systems-thinking tool to visually represent a public health issue in a format other than standard narrative. **(CEPH FC 22)** Conceptualize the data and research methods necessary to address questions of significance to policymakers and other relevant system actors. **(HP 5)**

Health policy concentration M.P.H. student 2 (dual degree M.D./M.P.H. student): Clinic for Transgender Health at VUMC. To improve transgender individuals' access to healthcare, the approach to transgender medicine needs to be generalized and accessible to physicians in multiple specialties. This student created an educational program that discusses the risks and benefits of initiation of hormone therapy, anticipated effects of masculinizing or feminizing hormones, and the expected timeline of changes.	
Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Participated in a quality improvement project with advisor support, helping to educate internal medicine residents on transgender health. Helped with IRB and ongoing study administration of building an electronic health record phenotype for transgender patients visiting Vanderbilt for care. 1: Provider-based educational materials including a 10-minute movie on transgender health for the education of internal medicine residents and postgraduate trainees. 2: Educational reference sheet on providing care for transgender patients adapted for internal medicine residents.	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate. **(CEPH FC 3)** Assess population needs, assets, and capacities that affect communities' health. **(CEPH FC 7)** Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs. **(CEPH FC 8)** Describe the complementary roles of individualized healthcare services and population-based interventions in maintaining and improving health status. **(HP 2)** Conceptualize the data and research methods necessary to address questions of significance to policymakers and other relevant system actors. **(HP 5)**

Health policy concentration M.P.H. student 3: TDH. The purpose of this student's practicum was to create a toolkit is to help ensure the promising future of Tennessee's children. Adverse childhood experiences (ACEs) are potentially traumatic events that occur in childhood. These events can affect a child's brain development and cause long-term issues. To prevent ACEs, Tennessee communities must work toward promoting relationships and environments that nurture children and facilitate positive growth.	
Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Created a toolkit to help the Tennessee County Health Councils learn more about ACEs and created a plan to address ACEs in their community with the Office of Strategic Initiatives at the TDH. Also drafted equity contract language and presented it to the TDH Heath Equity Advisory Committee. 1: ACEs toolkit: This toolkit was designed to provide information and resources to equip	Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels. **(CEPH FC 6)** Assess population needs, assets, and capacities that affect communities' health**. (CEPH FC 7)** Design a population-based policy, program, project, or intervention. **(CEPH FC 9)** Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health

Tennessee communities to better understand and address ACEs. 2: Written document highlighting equity principles for the TDH to incorporate into their hiring practices.	content, both in writing and through oral presentation. **(CEPH FC19)** Conceptualize the data and research methods necessary to address questions of significance to policymakers and other relevant system actors. **(HP 5)**

Health policy concentration M.P.H. student 4: Open Table Nashville (nonprofit organization that provides direct outreach and housing navigation to people experiencing homelessness). Open Table Nashville is an interfaith homeless outreach nonprofit that disrupts cycles of poverty, journeys with the marginalized, and provides education about issues of homelessness. This student created a toolkit to share the findings and implications from communities that conduct homeless mortality reviews and to provide guidance on developing or improving a homeless mortality review. Lessons include how to create partnerships, methods of data collection and analysis, and examples of how communities have used this information to address homeless mortality

Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**
Worked with Open Table Nashville to provide direct outreach, resource coordination, and eviction prevention for marginalized individuals and people experiencing homelessness in Nashville, TN. Participated in advocacy efforts for transportation justice in Nashville for people experiencing homelessness and created and implemented Open Table Nashville's COVID-19 conscious winter canvassing plan. Expanded Open Table Nashville's initial homeless mortality surveillance efforts, monitored their homeless deaths database, gathered pictures, and wrote one-line tributes. 1: Open Table Nashville's Winter Canvassing Information Packet: Important contact numbers, COVID-19 safety protocol, canvassing route, winter shelter guide, and COVID-19 volunteer waiver. 2: "Humanizing the Statistic" (https://arcg.is/0qeSCe): Online memorial for people experiencing homelessness or with a history of homelessness who died in 2020. 3: National Health Care for the Homeless Council's Mortality Data Toolkit: Contributed to this toolkit describing how to start a homeless mortality surveillance and best practices.	Select quantitative and qualitative data collection methods appropriate for a given public health context. **(CEPH FC 2)** Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels. **(CEPH FC 6)** Assess population needs, assets, and capacities that affect communities' health. **(CEPH FC 7)** Design a population-based policy, program, project, or intervention. **(CEPH FC 9)** Advocate for political, social, or economic policies and programs that will improve health in diverse populations. **(CEPH FC 14)**

Health policy concentration M.P.H. student 5: Meharry-Vanderbilt Alliance (works to build bridges and partnerships across Meharry, Vanderbilt, and the community). The M.P.H. program, the Office of Health Equity, and the Meharry-Vanderbilt Alliance promote health equity through understanding the issues of community residents. The purpose of this M.P.H. student practicum was to evaluate perceptions of community health assets, barriers, and suggestions for change as part of a larger community health needs assessment. Proposed changes to improve health outcomes centered on community outreach among marginalized populations.

Specific products in portfolio that demonstrate application or practice	**Competency as defined in Criteria D2 and D4**

Provided support on initiatives including the Vanderbilt Community Health Needs Assessment, health equity, and capacity-building projects. Addressed systematic barriers that contribute to financial, health, and other inequities in the city of Nashville and surrounding areas. Worked with nonprofit organizations on the ground to help them build capacity and learn what their daily course of work looks like. 1: Presentation for the Williamson County Health Summit: Analyzed data and put together many of the primary and secondary data slides. 2: Presentation on structural and policy decisions made in Nashville that created existing inequities: Foundation for the "seeds of equity" training for leaders across the city.	Interpret results of data analysis for public health research, policy, or practice. **(CEPH FC 4)**
	Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels. **(CEPH FC 6)**
	Assess population needs, assets, and capacities that affect communities' health. **(CEPH FC 7)**
	Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs. **(CEPH FC 8)**
	Advocate for political, social, or economic policies and programs that will improve health in diverse populations. **(CEPH FC 14)**

Please see ERF D5.3 for applied practice-related materials. For each student, we have provided the following:

- Template D5.1, student summary
- Selected competencies for the APE
- Products assessed

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- All M.P.H. students fulfill the APE requirement through the successful demonstration of the required practicum foundational and concentration-specific competencies.
- Students self-select their competencies and work iteratively with site supervisors to create practicum products that are specific to their partner organizations.
- The practicum enriches experiential learning and embeds students in partner organizations to improve the health of individuals in Tennessee and beyond.
- Furthermore, the practicum experience fosters community partnerships between public health science and practice. Students engage in collaborative research, training, and service activities with governmental agencies, community organizations, and partners in the United States and abroad.
- The practicum allows students to disseminate public health knowledge and promote implementation of effective public health policies through presentation of their products and community partnerships.

Weaknesses:

- No significant weaknesses are noted.

Opportunities for improvement:

- We will maintain our continuous review of practicum sites and student experiences each academic year to ensure that any challenges faced by students are addressed appropriately.
- Each year, students provide a report that includes a self-assessment and reflection on their practicum experience to the Practicum Director for feedback. These reports and feedback from students and supervisors will continue to be used to help shape future student practica experiences and site selection.

D6. Dr.PH. Applied Practice Experience

Not applicable.

D7. M.P.H. Integrative Learning Experience

M.P.H. students complete an integrative learning experience (ILE) that demonstrates synthesis of foundational and concentration competencies. Students in consultation with faculty select foundational and concentration-specific competencies appropriate to the student's educational and professional goals; demonstrating synthesis and integration requires more than one foundational and one concentration competency.

Professional certification exams (e.g., CPH, CHES/MCHES, REHS, RHIA) may serve as an element of the ILE, but are not in and of themselves sufficient to satisfy this criterion.

The program identifies assessment methods that ensure that at least one faculty member reviews each student's performance in the ILE and ensures that the experience addresses the selected foundational and concentration-specific competencies. Faculty assessment may be supplemented with assessments from other qualified individuals (e.g., preceptors).

1) List, in the format of Template D7-1, the integrative learning experience for each M.P.H. concentration, generalist degree or combined degree option that includes the M.P.H. The template also requires the program to explain, for each experience, how it ensures that the experience demonstrates synthesis of competencies.

The ILE for **all three concentrations and all dual degree** options requires the student to choose either a thesis or a capstone. Both options follow the same approach:

1. The student self-identifies three to four competencies (foundational and concentration-specific).
2. A thesis or capstone instructor reviews and approves the selected competencies.
3. Assessment of the integration and synthesis of the competencies as part of the culminating experience is performed by two or more faculty for the final presentations and for the final written product.

M.P.H. Integrative Learning Experience for the Epidemiology, Global Health, and Health Policy Concentrations	
Integrative learning experience (list all options)	**How competencies are synthesized**
Thesis	1. Students self-identify competencies at the proposal stage. 2. The thesis instructor approves the proposal and identified competencies. 3. Two or three faculty readers evaluate the competencies (using a standardized rubric) to assess the student's ability to appropriately integrate and synthesize.
Capstone	1. Students self-identify competencies at the proposal stage. 2. The capstone instructor approves the proposal and identified competencies. 3. Two or three faculty readers evaluate the competencies (using a standardized rubric) to assess the student's ability to appropriately integrate and synthesize.
Through the ILE, students must demonstrate attainment of at least three M.P.H. competencies (https://medschool.vanderbilt.edu/mph/academics/competencies/) (a minimum of one foundational competency and one concentration track-specific competency). **1–2** Foundational competencies + **1–2** Concentration-specific competencies = **3–4** Thesis competencies Before selecting competencies, students should meet with their academic adviser (Concentration Track Director) to discuss which competencies are most appropriate for their individual educational and professional goals. The final evaluation of each student's ILE will include an evaluation of the attainment of the approved competencies.	

2) Briefly summarize the process, expectations, and assessment for each integrative learning experience.

Overview:
The primary experiential learning activity and a critical component of the program is the performance of an ILE designed to lead to increasing independence as a public health leader. While classwork provides a foundation, it is through conducting a project that students gain skills and remember, understand, and apply what they have learned in didactic coursework. There are two options for the ILE project: ***thesis*** (mentored research) or ***capstone*** (program evaluation, policy report, curriculum development, or other written product).

ILE objectives:
- Establish a strong foundation in design, methods, and analytics of population health data.
- Achieve increasing independence in critical thinking.
- Build access to members of the community and mentors.
- Demonstrate comprehensive understanding of the inter-related aspects of public health sciences and the health of our communities.

In the spring term of their first year in the M.P.H. program, students meet with their academic advisor to discuss which option is best suited to their specific educational and professional goals. They also discuss potential research areas of interest and possible thesis mentors or focus areas, competencies, and capstone courses with their academic advisor and mentoring committee.

Students submit their selection for the ILE (thesis or capstone), along with a brief career vision statement (50–75 words) and the selection of three competencies (at least one foundational and one concentration-specific). Those who select the capstone option also identify a focus area with related courses.

ILE options:

1. Thesis
The thesis is mentored original research or other scholarly work that may take the form of a manuscript to submit for publication, a draft of a grant application, or other format appropriate for the student's educational and professional goals.

Overview:
Because of the short duration of the M.P.H. training, thesis research in the M.P.H. program is typically (1) a secondary data analysis that tests a hypothesis or (2) a descriptive study. Original data collection can be performed if it can be completed within the M.P.H. timeline (2 years for full-time students and 3–4 years for part-time students). The student discusses any necessary biostatistics support or other resources with their primary mentor when exploring thesis topics and plans.

The final thesis product is a high-quality written product that is developed and delivered in a manner that is useful to external stakeholders including the academic and applied public health professional communities.

Required classes:
Students who choose the thesis option take the following didactics and ILE classes, depending on their concentration.

Course	Semester/ Timing	Concentration
Didactic concentration classes		
PUBH 5527: Protocol Development I	Spring	Concentration requirement for all epidemiology students
PUBH 5527: Protocol Development I	Fall	Concentration requirement for thesis students in global health and health policy
PUBH 5530: Protocol Development II	Summer	Concentration requirement for thesis students in epidemiology
ILE classes for thesis students		
PUBH 5599: Thesis Research I	Fall	Epidemiology Global health Health policy
PUBH 7999: Thesis Research II	Spring	

Final thesis deliverables:

1. Final written manuscript in the following format (approximately 3,000 words without the title page or abstract, unless noted when submitting to the program that a different format is required for a target journal):
    a. Title page
    b. Abstract (Introduction, Methods, Results, Discussion; approximately 300 words)
    c. Introduction
    d. Methods
    e. Results
    f. Discussion
    g. References
    h. Figure legends
    i. Tables
    j. Figures
2. Oral presentation (spring of year 2): 15-minute presentation with 10-minute question and answer session with peers, Concentration Track Directors, mentor committee, and guests

Assessment:
The thesis assessment provides feedback to students through formative assessments at regular intervals throughout the process and a final summative evaluation. The final evaluation includes evaluation of the attainment of the approved competencies and any additional competencies that may be demonstrated during the conduct of the thesis and adequately communicated during the oral presentation.

Students receive feedback from three sources:

1. Thesis instructor: The thesis instructor is responsible for providing formative feedback throughout the process, which includes written feedback. In addition, the thesis instructor evaluates each student's achievement of the selected CEPH competencies and provides a grade for each thesis research course.
2. Primary mentor: This mentor is a faculty member who guides the student throughout the thesis project on a weekly/bi-weekly basis. Each student identifies a faculty mentor in the fall/spring of their first year in the M.P.H. program. In addition to regular feedback, the primary mentor provides an assessment of the final written product and the final oral presentation.
3. Thesis reader: This reader is a faculty member who provides an independent assessment of the final written thesis and the oral presentation. The thesis reader serves as an internal reviewer and gives feedback similar to that of a peer reviewer of a journal submission. This reader is required for students in the epidemiology concentration and is often a member of the epidemiology concentration faculty. Having a thesis reader is strongly encouraged for students in the global health and health policy concentrations.

2. Capstone

The capstone includes a series of specific graduate- or professional-level courses in a selected focus area that aligns with the student's educational and professional goals.

Overview:
At the time they submit their culminating experience selection (spring of year 1), each student identifies an area of focus for their capstone. Each student meets with their academic advisor to discuss their capstone focus area, content courses, and competencies. The advisor helps the student identify areas appropriate for their individual educational and professional goals.

Capstone focus areas:
- Leadership and management
- Health equity
- Public health informatics
- Implementation science
- Program evaluation
- Global health (only available to epidemiology and health policy concentration students)
- Health policy (only available to epidemiology and global health concentration students)
- Biomedical ethics
- Latin American, Caribbean, and Latinx studies
- Lesbian, gay, bisexual, and transgender (LGBT) health
- Other area of focus appropriate for the student's educational and professional goals and approved by the capstone advisor

Required classes:
Students who choose the capstone option take two required capstone classes designed to guide them through synthesizing and reflecting on the public health knowledge and skills they have developed during the M.P.H. program. These students take additional elective courses in their focus area. The focus area and elective courses cannot overlap with the didactic classes required for their concentration.

Course	Semester/Timing	Concentration
Didactic Concentration Class		
PUBH 5531: M.P.H. Capstone ePortfolio Development Part 1	Fall	Concentration requirement for capstone students in epidemiology, global health, and health policy
ILE class for Capstone students		
PUBH 5532: M.P.H. Capstone ePortfolio Development Part 2	Spring	Epidemiology Global health Health policy
Capstone Content/Focus area		
Electives (9 credits minimum)	Fall/Spring	Per focus area

Students take a minimum of 9 credit hours of graduate- or professional-level capstone content courses. They identify these courses at the time they submit their ILE selection (spring of year 1) including alternative coursework if the identified courses are not available because of limited enrollment capacities.

Deliverables:
- All students develop an ePortfolio to showcase their knowledge and skills to an external audience.
- All students complete one of the following two options:
  - Creation of a resource kit of two or more public health tools
  - Development of a public health tool through collaboration with an external public health organization

1. Written product: Both options (resource toolkit and public health tool) must be accompanied by a formal written product describing the development process and the impact of the tool(s) for a community or organization. Examples of public health tools include, but are not limited to, a needs

assessment, monitoring and evaluation plan, program evaluation report, strategic plan, training manual, policy statement, grant application, capital campaign, or curriculum.
2. Oral presentation (spring of year 2): 15-minute presentation with 10-minute question and answer session with peers, Concentration Directors, mentor committee, and guests.

The final written deliverable is submitted in the spring term of the student's final year. The final oral presentation takes place as part of the M.P.H. program's ILE presentations in the spring term of the student's final year.

Assessment:
The capstone assessment provides the student with feedback through formative assessments at regular intervals throughout the process and a final summative evaluation. The final evaluation of the student's capstone includes an evaluation of the final written product, the ePortfolio, and the oral presentation. Assessment is based on the attainment of the approved competencies and any additional competencies that may be demonstrated during the conduct of the capstone and adequately communicated during the oral presentation.

Students receive feedback from three sources:
1. Capstone instructor: The capstone instructor is responsible for providing formative feedback throughout the process. In addition, the capstone instructor compiles feedback from the other reviewers to evaluate each student's achievement of the selected CEPH competencies and provides a grade for the capstone course.
2. Concentration Track Director: The Concentration Track Director is a faculty member who provides an independent assessment of the oral presentation of the capstone ePortfolio and tools. This faculty member serves as an internal reviewer and gives oral and written feedback.
3. Additional faculty reviewers and mentors/public health practitioners who worked directly with the student.

3) Provide documentation, including syllabi and/or handbooks that communicates integrative learning experience policies and procedures to students.

Please see ERF D7.3 for the ILE reference documents (handbooks, syllabi).

4) Provide documentation, including rubrics or guidelines that explains the methods through which faculty and/or other qualified individuals assess the integrative learning experience with regard to students' demonstration of the selected competencies.

Please see ERF D7.4 for the ILE reference documents (rubrics/grading).

5) Include completed, graded samples of deliverables associated with each integrative learning experience option from different concentrations, if applicable. The program must provide at least 10% of the number produced in the last three years or five examples, whichever is greater.

In the past 3 years, there have been a total of 82 ILEs (63 theses and 19 capstones). Please see ERF D7.5 for 10 thesis examples (4 in epidemiology, 3 in global health, and 3 in health policy) and 5 capstone examples (1 in epidemiology, 2 in global health, and 2 in health policy).

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The VU M.P.H. ILE has a strong record of students engaging in research and projects that positively impact public health in local and global communities.

- The capstone option was added in 2020 to provide a more tailored ILE in response to students' diverse career goals and to create tools and products that are of value to our public health partners.
- All students receive frequent feedback from the ILE course instructors (Thesis Instructor or Capstone Instructor). Formative feedback provides learning opportunities and strengthens their final product (either a manuscript or tools).
- Additionally, students receive guidance from their primary thesis mentor or public health capstone project collaborator, providing further learning opportunities from an academic public health researcher or an applied practitioner. This feedback helps to shape the students' final products so that they will be most impactful to the intended audience.
- The final presentation provides students with experience in conference-style presenting and answering questions from a diverse audience of peers and faculty.

Weaknesses:

- No weaknesses noted.

Opportunities for improvement:

- Assessment feedback from instructors, reviewers, mentors, and other faculty reviewers provides information on any needed improvements during the ILE process. We will continue to review feedback annually in the summer and implement changes as needed.

D8. Dr.PH. Integrative Learning Experience

Not applicable.

D9. Public Health Bachelor's Degree Foundational Domains

Not applicable.

D10. Public Health Bachelor's Degree Foundational Competencies

Not applicable.

D11. Public Health Bachelor's Degree Cumulative and Experiential Activities

Not applicable.

D12. Public Health Bachelor's Degree Cross-Cutting Concepts and Experiences

Not applicable.

D13. M.P.H. Program Length

An M.P.H. degree requires at least 42 semester-credits, 56 quarter-credits or the equivalent for completion.

Programs use university definitions for credit hours.

1) Provide information about the minimum credit-hour requirements for all M.P.H. degree options. If the university uses a unit of academic credit or an academic term different from the standard semester or quarter, explain the difference and present an equivalency in table or narrative form.

Candidates for the M.P.H. degree must complete 42 academic credit hours of coursework over five academic terms. The 42 credit hours include both core and concentration-specific courses, as well as courses associated with the public health practicum and ILE. Satisfactory completion of the APE, an IPE, and the ILE is required for all students.

Most students complete the degree within a 2-year course of study. Maximum time to degree (as noted in Section B) is 4 years; a part-time course of study over 3–4 years is an option for certain professionals who wish to attain their M.P.H. degree.

2) Define a credit with regard to classroom/contact hours.

Credit hours are semester hours (e.g., a 3-hour course carries the credit of 3 semester hours). One semester credit hour represents at least 3 hours of academic work per week, on average, for one semester. Academic work includes, but is not necessarily limited to, lectures, laboratory work, homework, research, class readings, independent study, internships, practica, studio work, recitals, practicing, rehearsing, and recitations or the equivalent amount of work over a different amount of time. Some VU courses may have requirements that exceed this definition. More information on credit hours is available in the Vanderbilt SOM's Course Catalog (https://www.vanderbilt.edu/catalogs/kuali/som-22-23.php#/content/626310c6017a7cba77bee63c).

D14. Dr.PH. Program Length

Not applicable.

D15. Bachelor's Degree Program Length

Not applicable.

D16. Academic and Highly Specialized Public Health Master's Degrees

Not applicable.

D17. Academic Public Health Doctoral Degrees

Not applicable.

D18. All Remaining Degrees

Not applicable.

D19. Distance Education

Not applicable.

E1. Faculty Alignment with Degrees Offered

Faculty teach and supervise students in areas of knowledge with which they are thoroughly familiar and qualified by the totality of their education and experience.

Faculty education and experience is appropriate for the degree level (bachelor's, master's, doctoral) and the nature of the degree (research, professional practice, etc.) with which they are associated.

1) Provide a table showing the program's primary instructional faculty in the format of Template E1-1. The template presents data effective at the beginning of the academic year in which the final self-study is submitted to CEPH and must be updated at the beginning of the site visit if any changes have occurred since final self-study submission. The identification of instructional areas must correspond to the data presented in Template C2-1.

The M.P.H. program is committed to providing high-quality public health education. We achieve this goal and the program's mission through building and maintaining a highly qualified, diverse PIF with robust education and experience in disciplines aligning with the program concentrations. The program has three concentrations: epidemiology, global health, and health policy. Certain classes are required by all three concentrations. Often, the PIF who teach these classes are assigned to the epidemiology concentration based on their underlying education and training.

PIF for AY 2023–24 and Alignment with Degrees Offered					
Name*	**Title/ academic rank**	**Tenure status**	**Graduate degrees earned**	**Institution(s) from which degree(s) were earned**	**Discipline in which degrees were earned**
Epidemiology					
Bialostozky, Adriana	Associate Professor	Non-tenured	M.D.	National Autonomous University of Mexico	Medicine
Buckley, Ryan	Assistant Professor	Non-tenured	M.D.	University of Florida	Medicine
Clayton, Ellen	Professor	Tenured	M.D., J.D., M.S.	Harvard University, Yale University, Stanford University	Medicine; Law; Biology
Dupont, William	Professor	Tenured	Ph.D., M.Sc.	Johns Hopkins University, McGill University	Biostatistics; Mathematics
Giri, Ayush	Assistant Professor	Tenure track	Ph.D., M.S.	Vanderbilt University, University of Massachusetts	Epidemiology; Epidemiology
Grijalva, Carlos	Professor	Tenured	M.D., M.P.H.	Universidad Nacional San Luis Gonzaga, Vanderbilt University	Medicine; Epidemiology
Heerman, William	Associate Professor	Tenured	M.D., M.P.H.	Vanderbilt University, Vanderbilt University	Medicine; Epidemiology
Koyama, Tatsuki	Professor	Non-tenured	Ph.D.	University of Pittsburgh	Statistics
Pennings, Jacquelyn	Associate Professor	Non-tenured	Ph.D.	Texas Christian University	Experimental Psychology
Roumie, Christianne	Professor	Tenured	M.D., M.P.H.	Rutgers New Jersey Medical School, Vanderbilt University	Medicine; Epidemiology
Wiese, Andrew	Assistant Professor	Tenure track	Ph.D., M.P.H.	Vanderbilt University, St. Louis University	Epidemiology; Epidemiology
Ye, Fei	Professor	Tenured	Ph.D.	University of South Carolina	Biostatistics
Zhu, Yuwei	Senior Associate	Non-tenured	M.S.	The University of Texas Health Science Center at Houston	Biometry
Global Health					
Audet, Carolyn	Associate Professor	Tenured	Ph.D., M.Sci.	Vanderbilt University, London School of Hygiene and Tropical Medicine	Anthropology; Epidemiology
Barnett, Whitney	Postdoctoral Scholar	Non-tenured	Ph.D., M.P.H.	University of Cape Town, University of Cape Town	Public Mental Health; Epidemiology

Heuser, Brian	Associate Professor	Non-tenured	Ed.D., M.T.S.	Vanderbilt University, Vanderbilt University	Leadership, Policy and Organizations; Ethical Leadership
Howard, Leigh	Assistant Professor	Non-tenured	M.D., M.P.H.	University of Texas Southwestern, Vanderbilt University	Medicine; Epidemiology
Martin, Marie	Assistant Professor (promotion in progress)	Non-tenured	Ph.D., M.Ed.	Tennessee State University, Vanderbilt University	Public Administration; International Education Policy & Management
Rose, Elizabeth	Assistant Professor	Non-tenured	Ed.D., M.Ed., M.P.H.	Northeastern University, Vanderbilt University, Vanderbilt University	Organizational Leadership; International Education; Global Health
Suiter, Sarah	Assistant Professor	Non-tenured	Ph.D.	Vanderbilt University	Community Research and Action
Zamora, Lindsey	Assistant Professor	Non-tenured	M.D., M.P.H.	University of Florida, London School of Hygiene and Tropical Medicine	Medicine; Global Health
Health Policy					
Buckley, Lisa	Assistant Professor	Non-tenured	M.D., M.S.H.P	Medical College of Georgia, University of Pennsylvania	Medicine; Health Policy
Fry, Carrie	Assistant Professor	Tenure track	Ph.D., M.Ed.	Harvard University, Vanderbilt University	Health Policy; Community Development and Action
Graves, John	Associate Professor	Tenured	Ph.D.	Harvard University	Health Policy
Griffith, Kevin	Assistant Professor	Tenure track	Ph.D., M.P.A.	Boston University, The Ohio State University	Health Services Research; Public Administration
Keohane, Laura	Associate Professor	Tenured	Ph.D., M.S.	Brown University, Harvard University	Health Services Research & Health Economics; Health Policy & Management
Leech, Ashley	Assistant Professor	Tenure track	Ph.D.	Boston University	Health Services Research
McBride Murry, Velma	Professor	Tenured	Ph.D.	University of Missouri-Columbia	Family Stress
Stevenson, David	Professor	Tenured	Ph.D., S.M.	Harvard University	Health Policy; Health Policy & Management

2) Provide summary data on the qualifications of any other faculty with significant involvement in the program's public health instruction in the format of Template E1-2. Programs define "significant" in their own contexts but, at a minimum, include any individuals who regularly provide instruction or supervision for required courses and other experiences listed in the criterion on Curriculum. Reporting on individuals who supervise individual students' practice experience (preceptors, etc.) is not required. The identification of instructional areas must correspond to the data presented in Template C2-1.

Non-Primary Instructional Faculty for AY 2023–24 Who Are Regularly Involved in Mentoring, Advising, and Experiential Instruction							
Name*	**Academic rank^**	**Title and current employment**	**FTE**	**Graduate degrees earned**	**Institution(s) from which degree(s) were earned**	**Discipline in which degrees were earned**	**Role**
Epidemiology							
Aliyu, Muktar**	Professor (tenured)	Dept. of Medicine, Endowed Directorship in Global Health; Co-Director, Epidemiology Track	0.45	M.B.B.S., Dr.P.H., M.P.H.	Ahmadu Bello University, George Washington University, University of Alabama at Birmingham	Medicine & Surgery; Public Health; Epidemiology & Biostatistics	Epidemiology Concentration Co-Director, thesis advisor (PIF prior to AY 2023-24)
Banerjee, Ritu	Professor	Dept. of Pediatrics; Director, Pediatric Antimicrobial Stewardship Program	0.15	M.D., Ph.D.	Washington University, Washington University	Medicine; Molecular Cell Biology	Thesis mentor
Barocas, Dan	Professor (tenured)	Dept. of Urology; Executive Vice Chair, Dept. of Urology	0.15	M.D., M.P.H.	Johns Hopkins University, Vanderbilt University	Medicine; Epidemiology	Thesis mentor
Chang, Sam	Professor	Dept. of Urology; Chief Surgical Officer, Vanderbilt Ingram Cancer Center	0.05	M.D., M.B.A.	Vanderbilt University, Vanderbilt University	Medicine; Business	Thesis advisor
Deppen, Stephen	Associate Professor	Depts. of Medicine and Thoracic Surgery, Division of Epidemiology	0.05	Ph.D., M.S.E.S., M.A.	Vanderbilt University, Indiana University Bloomington, University of Tennessee	Epidemiology; Environmental Science; Economics	Thesis advisor
Drolet, Brian	Associate Professor	Depts. of Plastic Surgery and Biomedical Informatics and the Center for Biomedical Ethics and Society; Vice Chair for Education, Dept of Plastic Surgery	0.15	M.D.	Vanderbilt University	Medicine	Thesis mentor
Edwards, Kathryn	Professor (tenured) Emerita in 2023	Dept. of Pediatrics, Sarah H. Sell and Cornelius Vanderbilt Chair; Scientific Director, Vanderbilt Vaccine Research Program	0.05	M.D.	University of Iowa	Medicine	Thesis advisor
Fill, Mary-Margaret	Adjunct Assistant Professor	Dept. of Medicine, Division of Infectious Diseases; Deputy State Epidemiologist, TDH	0.05	M.D., M.P.H.	Mercer University, Vanderbilt University	Medicine; Epidemiology	Career advisor
Halasa, Natasha	Professor (tenured)	Dept. of Pediatrics, Craig Weaver Professor of Pediatrics	0.15	M.D., M.P.H.	Medical College of Ohio, Vanderbilt University	Medicine; Epidemiology	Thesis mentor
Hartert, Tina	Professor (tenured)	Dept. of Medicine and Pediatrics, Lulu H. Owen Chair in Medicine; Director, Center for Asthma and Environmental Sciences; Research Vice President for Translational Research	0.15	M.D., M.P.H.	Vanderbilt University, Vanderbilt University	Medicine; Epidemiology	Thesis mentor

Hawkins, Alexander	Associate Professor (tenured)	Dept. of Surgery, Section of Colon & Rectal Surgery	0.15	M.D., M.P.H.	University of Virginia, Harvard University	Medicine; Quantitative Methods	Thesis mentor
Humphries, Romney	Professor	Dept. of Pathology, Microbiology, and Immunology	0.15	Ph.D.	University of Calgary	Microbiology and Infectious Diseases	Thesis mentor
Katz, Sophie	Assistant Professor	Dept. of Pediatrics, Associate Director, Pediatric Antimicrobial Stewardship	0.05	M.D., M.P.H.	Louisiana State University, Vanderbilt University	Medicine; Epidemiology	Thesis advisor
Kiernan, Colleen	Assistant Professor	Dept. of Surgery	0.05	M.D., M.P.H.	Indiana University, Vanderbilt University	Medicine; Epidemiology	Thesis and career advisor
Lewis, Jennifer	Assistant Professor (tenure track)	Dept. of Medicine, Division of Oncology	0.15	M.D., M.P.H.	George Washington University, Vanderbilt University	Medicine; Epidemiology	Thesis mentor
Luckenbaugh, Amy	Assistant Professor	Dept. of Urology, Division of Urologic Oncology	0.05	M.D.	State University of New York at Buffalo	Medicine	Thesis advisor
McChesney, Shannon	Assistant Professor	Dept. of Surgery	0.05	M.D.	Rush Medical College	Medicine	Thesis advisor
Nelson, Lyndsay Ann	Research Assistant Professor	Dept. of Medicine, Division of General Internal Medicine and Public Health	0.05	Ph.D., M.A.	East Tennessee State University, Appalachian State University	Experimental Psychology; Experimental Psychology	Thesis advisor
Rebeiro, Peter	Assistant Professor (promotion with tenure in process)	Dept. of Medicine, Divisions of Infectious Diseases and Epidemiology	0.15	Ph.D., M.H.S., Sc.M.	Johns Hopkins University, Johns Hopkins University, Johns Hopkins University	General Epidemiology and Methods; Biostatistics; Epidemiology and Infectious Disease	Thesis mentor
Rothman, Russell	Professor	Depts. of Medicine, Pediatrics, and Health Policy; Director, Institute for Medicine and Public Health	0.15	M.D., M.P.P.	Duke University, Duke University	Medicine; Public Policy	Thesis mentor
Shrubsole, Martha ǁ	Professor (tenured)	Dept. of Medicine, Division of Epidemiology	0.15	Ph.D., M.S.	University of South Carolina, The Ohio State University	Epidemiology; Preventative Medicine	Thesis mentor
Spalluto, Lucy	Professor	Dept. of Radiology and Radiological Sciences	0.15	M.D., M.P.H.	University of Virginia, Vanderbilt University	Medicine; Epidemiology	Thesis mentor
Staub, Milner	Assistant Professor	Dept. of Medicine, Divisions of Infectious Diseases Director, Antimicrobial Stewardship	0.05	M.D., M.P.H.	University of Alabama at Birmingham; Vanderbilt University	Medicine; Epidemiology	Thesis advisor
Sterling, Timothy	Professor (tenured)	Dept. of Medicine, Division of Infectious Diseases; Director, Tuberculosis Center	0.05	M.D.	Colombia University College of Physicians and Surgeons	Medicine	Thesis advisor
Sudenga, Staci	Assistant Professor	Dept. of Medicine, Division of Epidemiology	0.05	Ph.D., M.P.H.	University of Alabama at Birmingham; University of Alabama at Birmingham	Epidemiology; Epidemiology	Thesis advisor
Snyder, Brittany	Research Assistant Professor	Dept. of Medicine, Division of Pulmonary Medicine	0.05	Ph.D.	University of Iowa	Maternal-child health; metabolic and genetic epidemiology	Thesis advisor
Talbot, Helen Keipp	Professor (tenured)	Dept. of Medicine, Division of Infectious Diseases	0.15	M.D., M.P.H.	Medical College of Georgia, Vanderbilt University	Medicine; Epidemiology	Thesis mentor

White, John	Adjunct	Survey Research Shared Core Scientific Manager	0.15	Ph.D. (ABD)	University of Mississippi	Political Science	Lecturer, survey research
Global Health							
Ahonkhai, Aima†	Assistant Professor	Dept. of Medicine, Division of Infectious Diseases; Co-Director, Center for AIDS Research Scientific Working Group on Social Determinants of Health	0.15	M.D., M.P.H.	Johns Hopkins University, Johns Hopkins University	Medicine; Epidemiology & Biostatistics	Thesis advisor (PIF prior to AY 2023-24))
Castilho, Jessica	Assistant Professor (tenure track)	Dept. of Medicine, Division of Infectious Diseases	0.20	M.D., M.P.H.	Johns Hopkins University, Johns Hopkins University	Medicine; Epidemiology & Biostatistics	Thesis mentor and advisor
Clouse, Kate	Associate Professor (tenured)	School of Nursing (VU)	0.20	Ph.D., M.P.H.	University of North Carolina at Chapel Hill, University of California-Berkeley	Epidemiology; Health Policy and Management	Thesis mentor and advisor
Idowu, Rachel	Adjunct Assistant Professor	Dept. of Health Policy; Country Director, CDC Liberia	0.15	M.D., M.P.H.	University of California-San Francisco, Vanderbilt University	Medicine; Epidemiology	Thesis mentor
Kirabo, Annet	Associate Professor	Depts. of Clinical Pharmacology and Molecular Physiology & Biophysics	0.05	Ph.D., D.V.M., M.Sc.	University of Florida, Makerere University, St. Cloud State University	Physiology and Functional Genomics; Veterinary Medicine; Cell and Molecular Biology	Thesis advisor
Klein, Lauren	Instructor	Dept. of Pediatrics, Division of Gastroenterology, Hepatology, and Nutrition	0.15	M.D.	University of Virginia	Medicine	Thesis mentor
Koleyni, Camellia	Instructor	Dept. of Medicine, Health, and Society (VU)	0.10	M.D.	University of Tennessee Health Science College of Medicine	Medicine	Thesis advisor
Kauffman, Rondi	Associate Professor	Dept. of Surgery; Associate Program Director, General Surgery Residency; Vice Chair of Global Surgery	0.15	M.D., M.P.H.	University of Minnesota, University of Minnesota	Medicine; Global Epidemiology	Thesis mentor
Moon, Troy†	Professor (tenured)	Dept. of Tropical Medicine, Tulane University	0.15	M.D., M.P.H.	University of Florida, University of Alabama at Birmingham	Medicine; Epidemiology and International Health	Thesis mentor (PIF prior to AY 2023-24)
Moore, Kelly	Adjunct Associate Professor	Dept. of Health Policy; President and Chief Executive Officer, Immunize.org	0.05	M.D., M.P.H.	Vanderbilt University, Harvard University	Medicine; Epidemiology	Thesis advisor
Novak, Laurie	Associate Professor (tenured)	Dept. of Biomedical Informatics; Director, Center of Excellence in Applied AI	0.05	Ph.D., M.H.S.A.	Wayne State University, University of Michigan	Medical and Organizational Anthropology; Health Management Policy	Thesis advisor
Perkins, Jessica	Assistant Professor	Dept. of Human and Organizational Development (VU)	0.20	Ph.D., M.S.	Harvard University, Harvard University	Health Policy; Population and International Health	Thesis mentor and advisor

Reid, Sonya	Assistant Professor (tenure track)	Dept. of Medicine, Division of Hematology & Oncology	0.05	M.D., M.P.H.	University of the West Indies, Vanderbilt University	Medicine; Global Health	Thesis advisor
Shu, Xiao-ou	Professor (tenured)	Ingram Professor of Cancer Research and Associate Director for Global Health, Vanderbilt Ingram Cancer Center	0.05	Ph.D., M.D., M.P.H.	Columbia University, Shanghai Medical College of Fudan University, Fudan University	Epidemiology; Medicine; Epidemiology	Thesis advisor
Velez-Edwards, Digna	Professor (tenured)	Dept. of Obstetrics and Gynecology; Division Director, Quantitative Sciences; Director, Women's Health Research	0.05	Ph.D., M.S.	Vanderbilt University, Vanderbilt University	Human Genetics; Applied Statistics	Thesis advisor
Were, Martin‡	Professor (tenured)	Dept. of Biomedical Informatics, Vice-chair for Diversity, Equity and Inclusion, Biomedical Informatics	0.05	M.D., M.S.	Harvard University, Indiana University	Medicine; Clinical Research	Thesis advisor (PIF prior to AY 2023-24)
Wester, C. William	Professor (tenured)	Dept. of Medicine, Division of Infectious Diseases	0.05	M.D., M.P.H.	Dartmouth University, Harvard University	Medicine; Quantitative Methods	Thesis advisor
Zeigler, Carol	Professor	School of Nursing (VU); Co-Founder, Climate, Health and Energy Equity Lab	0.05	M.S.N., D.N.P.	Vanderbilt University, Vanderbilt University	Nursing	Thesis advisor
Health Policy							
Adgent, Margaret	Research Associate Professor	Dept. of Health Policy	0.15	Ph.D., M.S.P.H.	University of North Carolina, University of Alabama at Birmingham	Epidemiology; Environmental Health/Toxicology	Lecturer, Public Health Practice Thesis advisor
Cooper, William	Professor (tenured)	Depts. of Pediatrics and Health Policy, Cornelius Vanderbilt Professor; Vice Chair for Faculty Affairs	0.15	M.D., M.P.H.	Vanderbilt University, Vanderbilt University	Medicine; Epidemiology	Thesis mentor
Dusetzina, Stacie	Professor (tenured)	Dept. of Health Policy; Ingram Professor of Cancer Research	0.15	Ph.D.	University of North Carolina at Chapel Hill	Pharmaceutical Sciences; Epidemiology	Thesis mentor
Gonzales, Gilbert	Associate Professor (tenured)	Depts. of Health Policy and Medicine, Health, and Society; Director, Program for Public Policy Studies; Associate Director, LGBTQ+ Policy Lab	0.25	Ph.D., M.H.A.	University of Minnesota, University of North Texas	Health Services Research, Policy & Administration; Health Administration	Thesis mentor and advisor
Grogan, Eric	Associate Professor (tenured)	Dept. of Thoracic Surgery, Vice Chair of Research	0.15	M.D., M.P.H.	Vanderbilt University, Vanderbilt University	Medicine; Epidemiology	Thesis mentor
Han, Jin	Associate Professor (tenured)	Dept. of Emergency Medicine	0.15	M.D., M.Sc.	State University of New York Downstate, University of Cincinnati	Medicine; Epidemiology	Thesis mentor
Jennings, Bruce	Adjunct Associate Professor	Dept. of Health Policy and Center for Biomedical Ethics and Society; Senior Advisor, The Hastings Center	0.05	M.A.	Princeton University	Political Science	Thesis advisor

Matheny, Michael	Professor (tenured)	Depts. of Biomedical Informatics, Medicine, and Biostatistics; Director, Center for Improving the Public's Health through Informatics	0.05	M.D. M.P.H., M.S.	University of Kentucky, Harvard University, Massachusetts Institute of Technology	Medicine; Public Health; Biomedical Informatics	Thesis advisor
Patrick, Stephen	Associate Professor (tenured)	Depts. of Pediatrics and Health Policy	0.05	M.D., M.P.H., M.S.	Florida State University, Harvard University, University of Michigan	Medicine; Health Policy and Management; Health and Health Care Research	Thesis advisor
Ramanujam, Rangaraj	Professor	VU, Owen Graduate School of Management	0.15	Ph.D., P.G.D.M.	Carnegie Mellon University, Indian Institute of Management	Organizational Behavior and Theory; Business Management	Thesis mentor
Randolph, JW	Adjunct	Director, Office of Strategic Initiatives, TDH	0.10	M.P.H.	Vanderbilt University	Health Policy	Thesis and career advisor
Schaffner, William	Professor (tenured)	Dept. of Health Policy	0.05	M.D.	Cornell University	Medicine	Thesis advisor
Ward, Michael	Associate Professor (tenured)	Depts. of Emergency Medicine and Biomedical Informatics; Director of Emergency Medicine Research	0.15	M.D., M.B.A., Ph.D.	Emory University, Emory University, University of Cincinnati	Medicine; Business, Operations Management	Thesis mentor
Whitmore, Christine ‖	Research Associate Professor	Dept. of Health Policy	0.05	Ph.D.	Johns Hopkins University	Sociology	Advisor (PIF prior to AY 2022-23)
Zhu, Jinyi	Assistant Professor	Dept. of Health Policy	0.15	Ph.D., M.P.H.	Harvard University, Yale University	Health Policy; Health Policy	Thesis mentor
Zickafoose, Joe	Assistant Professor	Dept. of Pediatrics	0.15	M.D., M.S.	Case Western Reserve University School of Medicine, University of Michigan	Medicine; Health and Health Care Research	Thesis mentor
Zimmerman, Del Ray	Director	Director, Program for LGBTQ Health & Office for Diversity Affairs	0.05	B.S.	University of Tennessee	Communications	Career advisor

* Non-PIF serve as a primary thesis mentors or mentors/advisors on student mentoring committees
** Previously PIF (teaching Essential Skills in Global Health) until AY 2023–24
†Separated from Vanderbilt in AY 2022–23; now serves as a mentor and advisor
‡Taught Public Health Informatics in AY 2021–22 and AY 2022–23; now serves as an advisor
‖ Taught Survey Research Methods from 2017 to 2021

3) Include CVs for all individuals listed in the templates above.

CVs for faculty listed in Templates E1-1 and E1-2 are available in the following electronic resource files:

- ERF E1.3.1 (PIF)
- ERF E1.3.2 (non-PIF)

4) If applicable, provide a narrative explanation that supplements reviewers' understanding of data in the templates.

The faculty listed in Template E1-1 are primary faculty in departments at VUMC and hold faculty appointments at VU. Each faculty member is highly qualified to instruct and mentor students in the noted

discipline based on their training and experience. Many of our faculty were early alumni of the M.P.H. program and are invested in growing academic public health research. Many faculty actively engage in public health practice or bring previous experience in public health practice.

The faculty listed in Template E1-2 (non-PIF [0.05–0.49 FTE]) have significant and robust interactions with M.P.H. students. These faculty provide experiential oversight and mentorship through advising on thesis research, serving on mentorship committees, and holding leadership positions in the program. They are faculty at the VU SOM, the School of Nursing, VUMC, and VU, whose expertise uniquely qualifies them to advise and mentor students. Some non-PIF faculty are mentors who are affiliated and adjunct (community public health professionals who often do not have a Vanderbilt faculty appointment). Often adjunct faculty serve on student mentorship committees to provide career advice and navigation into the job market.

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- All PIF faculty hold terminal graduate degrees from well-respected institutions in disciplines that align with their concentration affiliation. Their training, coupled with their exceptional experience and leadership in public health research and applied practice, makes them well suited to instruct and advise students in the M.P.H. program.
- There are 29 PIF and 63 non-PIF affiliated with the M.P.H. program.
- The distribution of rank for the PIF is as follows: 8 Professors (28%), 7 Associate Professors (24%), 12 Assistant Professors (41%, of which 1 has promotion in progress), 1 Senior Associate, and 1 Postdoctoral Scholar (6%).
- Non-PIF are eager to work with students and have research and applied public health projects that align well with student needs and career foci. Non PIF are seen as leaders within the institution, nationally, and internationally and can mentor and advise students as they grow in their career and refine their career goals.
- VUMC and the SOM provide a rich environment for students to participate in research with faculty and to be mentored by a full committee of faculty and advisors.

Weaknesses:

- Two instructors for key M.P.H. elective classes (Public Health Informatics and Grant Writing) recently departed. We have two vacancies we are looking to fill by AY 2024–25. We will continue to collaborate with the Department of Biomedical Informatics and have discussions with the Concentration Track Directors on persons who may be best suited to teach these two elective classes.

Areas for improvement:

- We will continue to support faculty as needed in advancing in academic rank and in achieving tenure.

E2. Integration of Faculty with Practice Experience

To assure a broad public health perspective, the program employs faculty who have professional experience in settings outside of academia and have demonstrated competence in public health practice. Programs encourage faculty to maintain ongoing practice links with public health agencies, especially at state and local levels.

To assure the relevance of curricula and individual learning experiences to current and future practice needs and opportunities, programs regularly involve public health practitioners and other individuals involved in public health work through arrangements that may include adjunct and part-time faculty appointments, guest lectures, involvement in committee work, mentoring students, etc.

1) Describe the manner in which the public health faculty complement integrates perspectives from the field of practice, other than faculty members' participation in extramural service, as discussed in Criterion E5. The unit may identify full-time faculty with prior employment experience in practice settings outside of academia, and/or units may describe employment of part-time practice-based faculty, use of guest lecturers from the practice community, etc.

Community public health service is a core component of our program's values. We intentionally recruit M.P.H. teaching faculty with robust public health service and experience in a diverse array of public health fields. The table below provides a sample of the experience that faculty (both PIF and Non PIF) have before joining the M.P.H. program or gain during their faculty appointment in our program. Faculty practice experience augments their instruction, mentoring, and advising.

Faculty Member & Program Roles	Applied Practice Experience (past and current)
Epidemiology	
Bialostozky, Adriana Class instruction: PUBH 5575: Health Equity for Public Health	Dr. Bialostozky is an integral member of the Nashville Latino community. She served on the Board of Directors for Conexión Americas, which is a non-profit organization dedicated to helping Hispanic families integrate into the Middle Tennessee community. She has also served as the Co-Chair of Leadership Nashville's Diversity, Equity, and Inclusion Planning Committee. She helped develop the Spanish language clinic at VUMC and has done multiple radio interviews promoting health and wellness. Using this experience, she incorporates examples of cultural awareness into her class instruction.
Dupont, William Class instruction: PUBH 5509: Biostatistics II	Dr. Dupont serves as the Director of the Nashville Breast Cohort Study. He uses multiple data-based examples from the study to teach throughout Biostatistics II. He also serves as a member of the American Joint Committee on Cancer: Statistics Committee. He utilizes this experience as part of his teaching strategy to elucidate examples of statistical practice.
Grijalva, Carlos Class instruction: PUBH 5501: Epidemiology I PUBH 5527: Protocol Development I PUBH 5530: Protocol Development II Mentor and thesis advisor	Dr. Grijalva serves as an advisor to the Centers for Disease Control and Prevention (CDC) on influenza transmission, COVID-19 transmission, and the burden of pneumococcal diseases. He uses his expertise to provide examples throughout Epidemiology I, including the teaching of study design and surveillance.
Heerman, William Epidemiology Concentration Co-Director Class instruction: PUBH 5524: The Science of Health Behavior Mentor and thesis advisor	Dr. Heerman is the Director of the Nashville Collaborative, which is an academic–community partnership involving Vanderbilt, Metro Nashville Parks, and Metro Nashville Public Library. In this capacity, he discusses healthy community-based programming and behaviors and advises on topics related to health and wellness. He uses this experience to guide students in thinking critically about behaviors that motivate healthy living.

Pennings, Jacquelyn Class instruction: PUBH 5521: Survey Research Seminar Thesis advisor	Dr. Pennings served as the Statistical Research Specialist for the Tennessee Department of Mental Health and Substance Abuse Services. She uses her expertise in applied concepts of statistical design throughout the Survey Research Seminar lectures and specifically in areas related to survey design for mental health.
Rebeiro, Peter Director Graduate Education, Ph.D. Epidemiology Program Mentor and thesis advisor	Dr. Rebeiro serves as the Epidemiology & Biostatistics Consultant for the Tennessee Center for AIDS Research (TN-CFAR). This expertise is critical when advising and mentoring students on the use of data sources to evaluate sexually transmitted diseases and AIDS within the state.
Wiese, Andrew Class instruction: PUBH 5516: Public Health Practice Mentor and thesis advisor	Dr. Wiese has intimate knowledge of the inner workings of the TDH and of public health practice, having served as the CDC/ Council of State and Territorial Epidemiologists Applied Epidemiology Fellow. He applies this knowledge and discusses his experience throughout his class. Furthermore, he continues to work closely with partners at TDH on high-need projects.
Global Health	
Audet, Carolyn Class instruction: PUBH 5522: Qualitative Research Methods PUBH 5541: Essential Skills in Global Health (through AY 2022–23) PUBH 5565: Implementation Science Mentor and thesis advisor	Dr. Audet leads the TDH Tennessee Breast and Cervical Screening Program (TBCSP) program evaluation. Dr. Audet applies her expertise and research training in the real world to truly impact the public health setting—this is brought forward in her teaching of both Implementation Science and Qualitative Research Methods. She helped the TBCSP to design formative evaluation efforts that have a real impact on individuals in the state of Tennessee. Dr. Audet is dedicated to training mentees, and she shares her expertise at a level that mentees understand, providing just the right amount of autonomy for them to lead their own projects independently.
Zamora, Lyndsay Class instruction: PUBH 5542: Foundations of Global Health Mentor and thesis advisor	Dr. Zamora worked for a number of years as an OB/GYN and developed a residency education and training program in Georgetown, Guyana. Part of her responsibilities included working with ministries of health and serving as the Guyana representative for the Pan American Health Organization. These skills and lived experience help to shape the organization of her class.
Suiter, Sarah Class instruction: HOD 6200/ PUBH: Course number pending Program Evaluation Mentor and thesis advisor	As the Senior Program Evaluator for the Centerstone Research Institute, Dr. Suiter is very well connected and well versed in program evaluation techniques. She has multiple collaborative partnerships throughout the Nashville community and brings those to the classroom setting, requiring each student group to participate in a program evaluation with a partner community organization.
Were, Martin Class instruction: PUBH 5515: Introduction to Public Health Informatics Mentor and thesis advisor	Dr. Were was previously Chair of the Education Group for the Pan African Health Informatics Association and Coordinator for Health Informatics Research and Training in East Africa. He served as Chief Medical Informatics Officer in Eldoret, Kenya. His intimate knowledge of applied public health informatics has been critical in the development and delivery of the Introduction to Public Health Informatics class. He is able to speak on the critical needs in public health informatics both from a local perspective and from an international perspective.
Health Policy	
Adgent, Margaret Class instruction:	Dr. Adgent has served as a Research Fellow at the National Institute of Environmental Health Sciences and as an ASPH

PUBH 5501: Epidemiology I PUBH 5516: Public Health Practice Mentor and thesis advisor	(ASPPH) Fellow for the US Environmental Protection Agency. This experience shaped how she characterizes prenatal and pediatric exposures and their related health effects. She teaches in Public Health Practice and also mentors students interested in environmental and perinatal exposures.
Dusetzina, Stacie Mentor and thesis advisor	Dr. Dusetzina serves as a mentor to several students whose theses focus on financial toxicities. She serves as the Commissioner for the Medicare Payment Advisory Commission (MedPAC); a Committee Member on the National Academies of Sciences, Engineering, and Medicine's Ensuring Patient Access to Affordable Drugs Committee; and an expert witness for the Senate Aging Committee Hearing on the Complex Web of Prescription Drug Prices. She brings her vast knowledge on Medicare drug pricing and reform to her mentees.
Graves, John Class instruction: PUBH 5538: Quantitative Methods for Program and Policy Evaluation Mentor and thesis advisor	Dr. Graves served as the Economic Studies Intern for the National Bureau of Economic Research. He was also a consultant for the Health Policy Center and modeled the impact of Obamacare expansion. His classes use examples and datasets to reproduce the publicly available results of known policy changes, many of which he participated in as the lead for the policy analysis.
Griffith, Kevin Class instruction: PUBH 5525: Health Economics (lead instructor in AY 2023–24) Mentor and thesis advisor	Dr. Griffith is a former Presidential Management Fellow and Behavioral Research Scientist at the US Army and Department of Defense, where he evaluated the costs and outcomes of interventions to improve mental health and resilience in active-duty soldiers. His research focuses on improving access and lowering the costs of care, especially for our nation's veterans.
Keohane, Laura Health Policy Concentration Co-Director Class instruction: PUBH 5520: Introduction to Health Policy Mentor and thesis advisor	Dr. Keohane served as an Analyst and Intern in the US Government Accountability Office. Through this experience, she became very knowledgeable in evaluation procedures for US policies as they pertain to the health and wellness of the country, particularly at the intersection of multiple government agencies (such as Medicare and Medicaid). She uses this experience in teaching Introduction to Health Policy.
Leech, Ashley Class instruction: PUBH 5512: Decision Analysis Mentor and thesis advisor	As Chair of the Teaching Interest Group for the Society for Medical Decision Making, Dr. Leech shares and learns of best practices in teaching medical decision making and concepts of decision trees, probabilities, and Markov models.
Stevenson, David Health Policy Concentration Co-Director Class instruction: PUBH 5527: Protocol Development I Mentor and thesis advisor	Dr. Stevenson has prior work experience at both the Urban Institute and the Office of Disease Prevention & Health Promotion in the Department of Health and Human Services. He uses this experience as he guides students through examples of appropriate protocols for thesis research. He also serves as a mentor to many health policy students and has appropriate experience to guide them in their final project.
Whitmore, Christine Class instruction: PUBH 5521: Survey Research Seminar (AY 2018 through 2021–22)	Dr. Whitmore was a Research Scientist at the Center for Naval Analysis and a Senior Analyst for the American Institutes for Research. Her experience helped to shape the initial design of the Survey Research Seminar and the class project, which is an iterative construction of survey items.

Several courses include guest speakers from the public health field of practice, including adjunct faculty with significant practice experience in public health. These guest lecturers provide a wealth of practical and current experience working in the public health field across local, state, national, and international levels, as well as in diverse disciplines. In addition, several members of the M.P.H. program's faculty have

held/hold positions in the public health practice community, which allows them to bring their professional perspective to the educational process for our students. For example, our faculty have served in state and national governmental public health organizations, as noted above. Many faculty in global health spend a portion of their time working in low- and middle-income countries, consulting with local ministries of health, as part of their affiliation with the Vanderbilt Institute for Global Health. Furthermore, many of the health policy faculty have significant experience working in policy-based organizations. Many health policy faculty provided advice, and data on a weekly basis to the Metro Nashville COVID 19 advisory board. All this prior experience enriches both the classroom teaching and the mentoring experiences of VU M.P.H. students.

Lecturer (Adjunct)	Organization	Class
Alyssa Rentuza, M.P.H.	Epidemiologist, TDH	Essential Skills in Global Health (PUBH 5541)
Erin Graves, B.S.N, M.P.H.	Senior Program Manager, Friends in Global Health, Vanderbilt Institute for Global Health	Essential Skills in Global Health (PUBH 5541)
Heather Jordan, M.P.H.	Program Manager, Friends in Global Health, Vanderbilt Institute for Global Health	Essential Skills in Global Health (PUBH 5541)
Kate Durst, M.S.	Epidemiologist, TDH	Essential Skills in Global Health (PUBH 5541)
Lizet Tirres, M.S., M.B.A.	Data Manager, Vanderbilt Institute for Global Health	Essential Skills in Global Health (PUBH 5541)
Amy Richardson	Chief Community Health Officer, Siloam Health	Foundations of Global Health (PUBH 5542)
Kevin Colvett PE, B.S., M.S.	Project Manager, Inflo Design Group, LLC	Foundations of Global Health (PUBH 5542)
Jasmine Jiang, B.S.	Global Health Fellow, The Fund for Global Health	Global Health Politics and Policy (PUBH 5550)
Neeley Osteen, B.S.	Global Health Fellow, The Fund for Global Health	Global Health Politics and Policy (PUBH 5550)
Porter Delaney, M.A.	Founding Partner, The Kyle House Group	Global Health Politics and Policy (PUBH 5550)
Frances Anderson, M.P.H.	State Refugee Health Coordinator, Tennessee Office for Refugees	Public Health Practice (PUBH 5516)
Hector Carrasco, M.D., Dr.P.H., M.P.H.	Public Health Policy Director of Health Equity, Division of Family Health and Wellness, TDH	Public Health Practice (PUBH 5516)
Carleigh Frazier, M.P.H.	Community Health Coordinator, Office of Health Equity, VUMC	Public Health Practice (PUBH 5516)
Elizabeth Harvey, Ph.D., M.P.H.	CDC Senior Maternal and Child Health Epidemiology Program, Division of Family Health and Wellness, TDH	Public Health Practice (PUBH 5516)
Tiffany L. Israel, M.S.S.W.	Community Navigator, Vanderbilt Institute for Clinical and Translational Research	Public Health Practice (PUBH 5516) Health Equity for Public Health (PUBH 5575)
Tim Jones, M.D.	Chief Medical Officer, TDH	Public Health Practice (PUBH 5516)
Trevor Henderson, B.A.	Substance Use Consultant, University of Tennessee Institute for Public Service	Public Health Practice (PUBH 5516)
Charlotte Woods, M.P.H., C.H.E.S.	Director, Office of Minority Health, Division of Health Disparities Elimination, TDH	Public Health Practice (PUBH 5516)
Erin Holt-Coyne, M.P.H.	Chief Public Health Informatics Officer, TDH	Public Health Informatics (PUBH 5515)
Shalini Parekh, M.P.H.	Assistant Commissioner, Division of Population Health Assessment, TDH	Public Health Informatics (PUBH 5515)
Rashonda Lewis J.D., M.H.A.	Data Governance and Privacy Specialist, RTI International	Public Health Informatics (PUBH 5515)

Michelle Sarche, PhD	Centers for American Indian and Alaska Native Health, American Indian and Alaska Native Health	Health Equity for Public Health (PUBH 5575)

The M.P.H. program holds a career panel in the fall and spring semesters. Members of these panels represent local and state public health and healthcare organizations from the public, private, and non-profit sectors. These panels provide students with an opportunity to learn more about public health careers and current opportunities for the APE and ILE capstone experiences. Connections formed during these panels often lead to APE placements, ILEs (capstone and thesis projects), and future employment. More information about these panels, including examples of individuals and organizations on them panels, is provided in Section H.

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- Our faculty are seen as leaders in applied and academic public health and incorporate their public health experience into their teaching, mentoring, and advising, which enhances students' experience in the program. Students learn best practices from faculty's real-life experience and examples.
- Guest lecturers provide excellent insight for students into the applied public health field and serve as a robust connection between learning and application. These connections are critical for developing the workforce and providing opportunities for students to network and explore a variety of applied public health opportunities.

Weaknesses:

- Guest lecturers choose to volunteer and are not compensated for their time and effort.

Opportunities for improvement:

- We will continue to engage applied and academic public health practitioners in courses as a means of fostering robust connections between applied public health and the VU M.P.H. program.
- Explore the possibility of an honorarium for guest lecturers who volunteer their time and effort to prepare for class.

E3. Faculty Instructional Effectiveness

The program ensures that systems, policies, and procedures are in place to document that all faculty (full-time and part-time) are current in their areas of instructional responsibility and in pedagogical methods.

The program establishes and consistently applies procedures for evaluating faculty competence and performance in instruction.

The program supports professional development and advancement in instructional effectiveness.

1) Describe the program's procedures for evaluating faculty instructional effectiveness. Include a description of the processes used for student course evaluations and peer evaluations, if applicable.

At the conclusion of each course, a course evaluation is sent to each student enrolled in the course. This may include M.P.H. students, non-degree-seeking students, and students from other programs who are participating in the course (Ph.D. students or master's students in the Department of Medicine, Health, and Society). All students are required to submit course evaluations before grades are released. Student responses remain anonymous. The electronic evaluation includes Likert-type rating scales for satisfaction with the course, effectiveness of the course instructor, and attainment of the foundational competencies associated with the course. Examples of quantitative items on the course evaluation are as follows:

- How effective was the course instructor?
- How effective were specific lectures?
- How well was the course organized?
- How would you rate the weekly discussion facilitation?
- How would you rate the rigor of this course?

Each course evaluation also includes open-ended questions to gather feedback on the course, instructor, and opportunities for improvement. These open-ended items ask students to provide feedback to improve the course. After the evaluations are submitted, the Program Coordinator determines item means and medians and compiles all responses to open-ended items. A report on each course is then sent to the M.P.H. program leadership and to individual class instructors. All course evaluation reports are compiled and reviewed at the next meeting of the curriculum committee.

Evaluations for fall classes, the APE, and IPEs are reviewed at the curriculum committee meeting in January or February. Evaluations for spring, summer classes and the career development series are reviewed at the August curriculum committee meeting. When course evaluations reveal a need for improvement, faculty are directed to the Center for Teaching for consultation and support services.

If an instructor is improving a course or executing a remediation plan for the class based on the advisement of the curriculum committee, a mid-course evaluation is conducted in the next cycle of the course. The mid-course evaluation is conducted by the Center for Teaching, and provides formative feedback on the effectiveness of the improvement plan and the faculty's instruction. If a faculty member continues to receive low student reviews, we transition the course to another faculty instructor. The graduating student exit survey, which is conducted each year, provides comprehensive feedback about teaching effectiveness and course satisfaction.

2) Describe available university and programmatic support for continuous improvement in teaching practices and student learning. Provide three to five examples of program involvement in or use of these resources. The description must address both primary instructional faculty and non-primary instructional faculty.

To support, maintain, and promote our faculty's instruction efficacy, we encourage them to regularly participate in professional development opportunities related to education methodology. Vanderbilt offers many workshops, webinars, and short courses to support faculty in their instruction.

New instructors are made aware of the many resources available when they agree to instruct a class in the M.P.H. program.

- The **Vanderbilt University Center for Teaching** promotes university teaching that leads to meaningful student learning. Center for Teaching staff are invited to the annual M.P.H. faculty meeting to discuss the services and support they offer. In this manner, both new and returning teaching faculty become aware of the support and services the Center for Teaching can provide to improve instructional effectiveness.
  The Center for Teaching provides support to faculty members in four main areas:
  - Opportunities to develop and refine foundational teaching skills through workshops, seminars, and individual consultations.
  - Consulting with educators as they adopt and evaluate new teaching practices as part of their continuing professional development.
  - Fostering campus conversations on teaching and learning that are informed by national and international higher education developments, as well as local issues and priorities.
  - Identifying, sharing, and advocating for research-based practices in university teaching and the resources that support them.
- The **Educator Development Program** offers bi-monthly workshops and webinars on topics ranging from developing learning objectives to using online learning platforms. The program provides an online repository of educator resources that are available to all faculty members. M.P.H. faculty regularly participate in and have been invited to lead Educator Development Program workshops.
- The VUMC Department of Pediatrics holds the **Becoming a Better Educator** 12-part webinar series each summer. Webinar topics cover a range of issues pertinent to instruction, and M.P.H. faculty are encouraged to attend. M.P.H. program faculty have been invited as lead presenters and participants for these webinars. This resource is available to all teaching faculty.
- In AY 2020–21, the M.P.H. program was asked to shift teaching in response to pandemic restrictions on class size and gathering. Many classes during AY 2020–21, and part of AY 2021-22 required reformatting for those who were attending in a hybrid or remote format. All faculty were asked to attend the **Vanderbilt Curriculum Design Institute**. This 2-week full-day intensive training reviewed the basics of curriculum development, introduced methods and materials to engage students in an online environment, and taught best practices in inclusive course design for all learners.

3) Describe means through which the school or program ensures that all faculty (primary instructional and non-primary instructional) maintain currency in their areas of instructional responsibility. Provide examples as relevant. This response should focus on methods for ensuring that faculty members' disciplinary knowledge is current.

We encourage faculty to participate in workshops, conferences, and other professional development opportunities relevant to their discipline. They regularly attend professional conferences that further their disciplinary content knowledge, and they contribute to and engage with the field through presenting posters, participating in panels, and giving presentations. From these engagements, faculty bring knowledge back to the classroom, which helps the program maintain a high level of content relevancy. We also encourage faculty membership in professional organizations. Below is a table of some of the continuing education participation (both on instructional effectiveness and on the maintenance of content expertise) by a sample of faculty members.

Faculty Member	Continuing Educational Participation (on both instructional effectiveness and maintaining content expertise)
Bialostozky, Adriana	Dr. Bialostozky is a member of the Academy for Excellence in Education and recently participated in the ASPPH Incorporating Antiracism in the Curricula seminar.
Audet, Carolyn	Dr. Audet participates in the Society for Implementation Research and serves as a member of the Consortium of Universities for Global Health.
Buckley, Ryan	Dr. Buckley is part of the Association of American Medical Colleges Southern Group on Educational Affairs (SGEA). He

	taught a workshop at the SGEA meeting on innovations in education.
Barnett, Whitney	Dr. Barnett attended the Center for Teaching sessions on Syllabus Design, Student Engagement, and Assignments and had a consultation for course evaluations.
Giri, Ayush	Dr. Giri attended the Center for Teaching session on Syllabus Development and attends the yearly conference of the Society for Epidemiologic Research.
Griffith, Kevin	Dr. Griffith attended multiple Center for Teaching sessions prior to becoming lead instructor for Health Economics in AY 2023–24. Specifically, he attended Introduction to Brightspace, Leading Classroom Discussions, and Teaching at Vanderbilt (orientation to teaching). He attends the AcademyHealth meeting annually.
Grijalva, Carlos	Dr. Grijalva is an elected member of the American Society for Clinical Investigation and attends the annual meetings of both the International Society for Influenza and other Respiratory Virus Diseases and the Infectious Diseases Society of America.
Keohane, Laura	Dr. Keohane attended the Perusall Workshop through the Center for Teaching and attends meetings at AcademyHealth annually, as well as attending the yearly meetings of the Association for Public Policy Analysis & Management and the American Society of Health Economists.
Heerman, William	Dr. Heerman attends the annual meetings of the Academic Pediatric Association and the Society for Pediatric Research.
Martin, Marie	Dr. Martin taught the Training of Trainers Course for Physician Educators in Ethiopia and Tanzania for ImPACT Africa and a 2-week intensive course on Improving Didactic Educational Approaches to Learning Methods for faculty in Nigeria. She has taught webinars and workshops in the VUMC Educator Development Program. She serves on the Educator Advisory Board for Teach Global Health and is Co-Chair of the Sub-committee on Master's and Undergraduate Degrees in Global Health in the Consortium of Universities in Global Health. She was selected for the VUMC Academy for Excellence in Education.
Rose, Elizabeth	Dr. Rose actively participates in the Education Advisory Committee of ASPPH. She taught the Training of Trainers Course for Physician Educators in Ethiopia and Tanzania for the ImPACT Africa program and a 2-week intensive course on Improving Didactic Educational Approaches to Learning Methods for faculty in Nigeria. She has taught multiple webinars and workshops at VUMC, including Leveraging Communication Styles to Increase Your Effectiveness and Best Practices to Engage Learners through Blended Learning. She is an active member of the Consortium of Universities for Global Health and the American Society of Tropical Medicine & Hygiene. She is part of the Academy of Excellence in Education's Fleming Society Scholar program and the Hazinski Society program and attends monthly sessions for educators.
Roumie, Christianne	Dr. Roumie is a member of ASPPH and a Fellow in the American Academy of Pediatrics and the American College Physicians. She often attends the annual meetings of the American Heart Association and the American Diabetes Association and has sponsored her student mentees to attend these annual meetings.
Suiter, Sarah	Dr. Suiter is a member of the American Evaluation Association.

Wiese, Andrew	Dr. Wiese participated in a number of continuing education activities at the Center for Teaching, including the Online Course Design Institute; Nurturing Excellence (a workshop on how to mentor and advise students), and Turnitin workshops. He attends the annual meetings of the Society for Epidemiologic Research and the International Society for Pharmacoepidemiology.
Ye, Fei	Dr. Ye is the Chair-Elect of the Section on Statistics in Epidemiology for the American Statistical Association.
Zamora, Lindsay	Dr. Zamora is part of the Academy of Excellence in Education's Fleming Society Scholar program and attends monthly mentor sessions for educators.

We track the M.P.H. program faculty's maintenance, currency of knowledge, and expertise in their discipline areas in the following ways:

- Before faculty are invited to teach in the program, the Program Director and operations committee review their CV for the currency and relevancy of their expertise to course and program goals.
- Annually, we review faculty members' scholarship, including peer-reviewed publications in their content areas of expertise. This metric serves as a proxy for faculty's continued engagement with the field and the currency of their knowledge.
- The M.P.H program tracks continuing education in instructional effectiveness and educational techniques with an annual inquiry of PIF.
- The VU SOM, where most faculty hold appointments, requires faculty to engage in continuing education; depending on their department, a certain number of continuing education units in their content area may be required for yearly reappointment.

4) Describe the role of evaluations of instructional effectiveness in decisions about faculty advancement.

Appointments and promotions are initiated in each faculty member's department and are evaluated by the Committee on Faculty Appointments and Promotions (COAP) in the VU SOM. The COAP makes recommendations to the Dean and the executive faculty through the executive committee.

Course and teaching evaluations are part of the consideration for faculty advancement and promotion. In both the VU SOM Basic Science Investigator/Physician-Scientist Investigator (tenure) track and the VU SOM Basic Science Educator/Clinician-Educator track, teaching is an important criterion for appointment and promotion to senior ranks because it is part of the VU SOM's core mission. Candidates for promotion must demonstrate a high level of effectiveness in teaching. Teaching evaluations and portfolios provide a useful index of the interest, involvement, and competence of the individual as a teacher. Faculty who are being considered for promotion use the Documentation of Teaching form and the VU SOM electronic educator's portfolio to document and present information about their instructional efficacy, including course evaluation reports. M.P.H. program course evaluations are one part of each candidate's portfolio.

5) Provide quantitative and/or qualitative information that characterizes the unit's performance over the last three years on its self-selected indicators of instructional effectiveness.
Select at least three indicators, meaningful to the unit, with one from each listed category.

Core to the M.P.H. program are the goals to educate innovative and effective public health researchers, educators, and practitioners; advance knowledge in the public health sciences through research and discovery; and participate in the development and implementation of public health programs and policies. Faculty help the program achieve these goals through their teaching, research, service, and advocacy. We monitor their contributions and have summarized them in the table below.

Instructional Effectiveness Indicators				
Outcome	**Target**	**2020–21**	**2021–22**	**2022–23**
CEPH faculty currency				
Internal review of syllabi within 4 weeks prior to the start of class for currency of readings, topics, methods, and integration of equity principles throughout curricula	90%	24/24 (100%)	25/25 (100%)	25/25 (100%)
CEPH faculty instructional technique				
Student satisfaction with course (% of courses with a mean score of ≥ 7.0 [scale: 1–9, 9 = best])	70%	17/24 (71%)	19/25 (76%)	19/25 (76%)
CEPH program-level outcomes				
At least 20% of courses involve community-based practitioners	20%	4/24 (17%)	6/25 (24%)	5/25 (20%)
Other measures of faculty effectiveness				
Student perception of faculty effectiveness (% of courses with a faculty mean score of ≥ 7.0 [scale: 1–9, 9 = best])	75%	92%	92%	88%
Student perception of course rigor (% of courses with a median of 5 [scale: 1–9, 5 = just right])	75%	80%	76%	88%

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The M.P.H. program, along with VU and VUMC, provides robust opportunities for faculty to develop, maintain, and improve their ability to engage with students in the classroom as instructors. There are a variety of programs, courses, webinars, and consulting opportunities that faculty can access throughout the year as part of their continuing professional development in educational instruction.
- Faculty are members of professional organizations that provide continuing support and professional development in their disciplines. Attendance at annual meetings and organizational membership helps faculty to remain current in their content areas of expertise. Many faculty hold leadership positions in these organizations, which further demonstrates their commitment to continuing to grow in and contribute to their field.
- Students have ample opportunities to participate in faculty research. Students have participated in faculty research projects, and many faculty agree to mentor and advise our students.
- Faculty have several well-established community links to facilitate research and partnerships that enhance the health of citizens in our community, state, and region.
- Having national and international leaders in global health and health policy among the faculty allows for further opportunities to enhance our students' experience in learning applied and academic aspects of public health.

Weaknesses:

- Indicators for student satisfaction with M.P.H. program courses fell during the pandemic. We attribute this decline to the pandemic and general difficulty with switching classes back from hybrid and online to an in-person format. In response to this decline, we will bolster faculty training and support.
- The numbers of community-based practitioners and instructors participating in the M.P.H. program also dipped during the pandemic. This decline was likely due to the additional responsibilities faced by applied public health practitioners at this time, which impacted their ability to spend time in the classroom delivering didactic course content.

Opportunities for improvement:

- We will continue to monitor indicators and respond as needed to support faculty to be effective instructors.
- We will strive to increase the number of community-based practitioners to reach at least 30% of all classes including didactics taught by a community-based partner.
- We will continue to promote resources at the Center for Teaching during faculty meetings and when new instructors join the program. Center for Teaching resources have transformed the effectiveness of our instructors and helped them to become more active teachers.

E4. Faculty Scholarship

The program has policies and practices in place to support faculty involvement in scholarly activities. As many faculty as possible are involved in research and scholarly activity in some form, whether funded or unfunded. Ongoing participation in research and scholarly activity ensures that faculty are relevant and current in their field of expertise, that their work is peer reviewed and that they are content experts.

The types and extent of faculty research align with university and program missions and relate to the types of degrees offered.

Faculty integrate research and scholarship with their instructional activities. Research allows faculty to bring real-world examples into the classroom to update and inspire teaching and provides opportunities for students to engage in research activities, if desired or appropriate for the degree program.

1) Describe the program's definition of and expectations regarding faculty research and scholarly activity.

Our faculty are expected to follow their department's or division's expectations for research and scholarly activities, publications, and participation in grants and funded research. As we demonstrate in the tables and the ERF (Section B- Faculty Scholarship Measures), all M.P.H. program faculty (PIF and non-PIF) are considered leaders in their fields and are highly published authors. The majority have grant funding or contracts with public health-serving agencies. Almost all faculty participate in both research and scholarly activities, which the M.P.H. program tracks yearly for students, alumni, and faculty through Flight Tracker software (https://edgeforscholars.vumc.org/information/flight-tracker/). Furthermore, we anchor the M.P.H. education program in structured didactic learning, with complementary experiential learning through the conduct of the ILE and APE. Faculty mentors are facilitators with active roles in advising, pacing, and problem-solving for research and applied public health programs and projects. The PIF and non-PIF include a wide range of M.P.H. program alumni and additional faculty who are committed and skilled. The non-PIF who serve as mentors and career advisors are at varied stages of their careers, with some serving as sponsors and others as coaches. All are well suited to advise students on strategies to improve community health and methodological rigor in study design and methods for a student's culminating experience. Most primary mentors set forth an expectation that the student's scholarly work will be put forth as a potential publication and meet weekly or biweekly with the student to move their thesis or capstone project forward toward publication.

In each of the last 3 years, between 38% and 58% of graduating M.P.H students had at least one first-authored publication at the time of graduation (see ERF B2-1—Unit defined measure 3 Leadership at graduation). This percentage increases in the year after graduation (ERF B2-1—Unit defined measure 5 Publications of all M.P.H. graduates over the last 5 years). The success of our students leads to a generous pool of mentors who are willing and able to actively mentor students through their ILE.

The 29 PIF and 63 non-PIF have more than 2000 publications within the last 3 years.

2) Describe available university and program support for research and scholarly activities.

As mentioned above, each department and division supports individual faculty, and the M.P.H. program does not require grant funding or support for individual PIF. However, there is access to innumerable opportunities through centralized resources at both VU and VUMC which support the research community.

Vanderbilt Institute for Clinical and Translational Research (VICTR) (https://victr.vumc.org/) is Vanderbilt's home for clinical and translational research. VICTR is supported by the Office of Research and the National Institutes of Health (NIH) CTSA program and is in its 17th year. VICTR was built on an integrated, comprehensive, informatics-driven research and administrative infrastructure that has served

as a launch pad for transformative, research-enabling programs and resources such as REDCap, pilot funding vouchers, and community engagement initiatives. Key resources available to faculty, trainees, and students through VICTR include the Learning Health System Platform, academic and community engagement studios, biostatistical clinics, and research informatics support including REDCAP, the Informatics Data Services and Analysis Core, and clinical decision support tools. Vanderbilt began the VICTR Studio program more than 15 years ago to provide expertise to faculty and trainees.

A research studio bring together 6–8 experts from diverse disciplines together with the faculty member to provide input on projects. These 90-minute interactive sessions help shape institutional and research priorities and provide experience and insight relevant to each project and its potential impact on health. Researchers give a 15-minute project presentation and pose specific questions to the expert panel. Experts then provide input on formulating questions to reflect challenges in clinical practice, planning for project conduct, spread and sustainability. Because the results of each scientist's work may include information that may warrant practice change and population health, each scientist then embarks on an active multi-pronged approach to dissemination.

Community Engagement Studios are a mechanism pioneered at Vanderbilt. A Community Engagement Studio provides a structured forum for researchers to gain valuable patient or community input on their research and transforms the way community and academic investigators work together. In an Engagement Studio, a researcher gives a brief presentation about the research project and poses specific questions to a panel of community experts representing the researcher's population of interest. The researcher's presentation about the research project is followed by a facilitated discussion guided by a neutral facilitator to elicit honest and constructive feedback. Community members serve as experts who provide feedback to enhance the design, translation, dissemination, and implementation of community engaged research. To optimize community participation, sessions are scheduled at a time and location convenient to community experts, and community experts are compensated for their time and effort. Feedback from participating researchers and community members indicates that the experience increases and deepens the researcher's understanding of and sensitivity to the community, creates an awareness of community priorities and needs, and provides an opportunity to build a relationship with community partners.

Community experts have indicated that the experience increases their understanding of the research endeavor, including the motivation of the researcher, the benefits of research, and how and why research is conducted. Over 700 diverse community experts have been recruited and trained to participate in the Community Engagement Studio process, empowering them to give insightful feedback on specific research design, dissemination, and implementation topics. For example, 76 Studios were conducted in 6 months to launch the All of Us Research Program to understand issues likely to be faced by participants from underrepresented, disenfranchised, minoritized, and marginalized populations. This model has been adopted by other top-tier academic institutions across the country and has been used in national initiatives to gain valuable patient insight.

Using this infrastructure as the cornerstone, VICTR has been able to grow and refine their resources to enhance the quality and efficiency of the research conducted and to support hundreds of scientists throughout the institution. Today, VICTR is a highly functional and integrated research infrastructure designed to transform the way ideas and research discoveries come to impact the population's health.

Vanderbilt's research infrastructure and the success of our faculty (both PIF and Non PIF) are accomplished through engaging in collaboration with a wide variety of research partners; training, nurturing, and rewarding researchers; funding research; establishing new and innovative ways to involve the community in research; developing new informatics and biostatistical systems; and making available the latest technologies and sound research results affecting the population's health.

IMPH (https://www.vumc.org/medicine-public-health/home) Almost all M.P.H. PIF (28/29, 97%) and most non-PIF (57/63, 90%) are part of the 250 faculty members of IMPH, whose funding exceeds $150 million annually. IMPH guides VUMC's efforts at the intersection of medicine and public health. The mission of IMPH is to improve personal and public health through discovery, training, and services designed to

protect against threats to health, promote healthier living, improve the quality of health services, and prepare leaders to advance health and healthcare. IMPH provides support, direction, and leadership to 30 institutes, centers, and programs to address healthcare research, quality and safety of care, epidemiology, and public and global health.

IMPH provides support for the Departments of Biostatistics and Health Policy; the Centers for Health Services Research, Epidemiology, Quality Aging, Biomedical Ethics and Society, Women's Health Research, Effective Health Communication, and Quality and Implementation Research; the Institute for Global Health; and research training programs (M.P.H., Ph.D., and postdoctoral trainees). IMPH oversees institutional research cores in database management and analysis, human factors, qualitative research, survey research, health policy claims, and biostatistics. Faculty scientists have access to the IMPH research cores, pilot funding, space, administrative support, biostatistical support, and enrichment activities. Each core service uses an approach of creativity, collaboration, and learning to help the scientist with their individual needs. Because mentors are conducting research and scholarly activities, they are well suited and can guide students in obtaining skills in **research**.

This access to intellectual capital is open and freely available for students, trainees, and faculty at all levels. The calendar of events and seminars for students and faculty is posted on the M.P.H. Google calendar (https://medschool.vanderbilt.edu/mph/subscribe-to-the-google-calendar/). These events include the following:

- *Work-in-Progress Seminars (weekly, hybrid, 1 hour).* Faculty and students can attend the Work-in-Progress Seminar weekly. Scientists can present their research in progress, including their methods and anticipated challenges, for discussion, suggestions, and refinement.
- *Implementation Science Scholarly Seminar (weekly, remote, 1 hour).* In this seminar series focusing on dissemination and implementation methods, works in progress, and completed studies, featured speakers are experts in quality improvement, operational leaders of centers and departments at VUMC, and visiting guest speakers including health system stakeholders and operational leaders of other health systems.
- *Studios (remote)* are sessions with an expert panel of consultants (described above). They bring institutional knowledge, expertise, and services intended to enhance research quality, foster advances in clinical practice, and generate new hypotheses. Since 2007, more than 5,000 experts have participated in 1000+ studios. The composition of the expert panels is flexible. Studios serve as conduit to integrate interdisciplinary perspectives.
- *Edge Grant Review sessions (https://edgeforscholars.vumc.org/)* are offered 1 month prior to each NIH funding cycle for K-award and R01 applications/resubmissions. The review, group structure, process, time for discussion, scoring, and comments are handled as in an NIH study section. Sessions are video recorded, and applicants are encouraged to review their critiques and recording with their mentor and/or mentor panel. Funding rates for grants reviewed in mock study section have been 44% for Ks and **53% for R01s**.
- *Grant Writing and Pacing Workshops* begin 16 weeks before each major NIH deadline. This program introduces best practices and is augmented by resources to mature grant preparation skills, including process management for grant preparation and effective timelines.
- *Community Engaged Research Series.* (https://victr.vumc.org/cenrtrainingforresearchers/) This training series on community engagement includes the following modules: Overview of Community Engaged Research, Building Effective Partnerships, Ethics and Community-Engaged Research, Program Evaluation, Dissemination, and Nashville 101.
- *Peer Mentor Community.* Faculty moderators and students have the option to participate in a Peer Mentoring Community with other students and recent alumni. Meetings serve to build support and networks.
- *Clinical Research Center Clinical Research Skills Workshops.* This program was developed to provide practical training in research. The weekly workshops offer instruction and advice on commonly encountered topics, such as training in responsible conduct of research and effective use of informatics tools for data collection and management.

- The *Funded Grants Library* includes more than 140 funded grants with submissions, critiques, and, if applicable, resubmissions. The grants library is maintained in a password-protected archive available to faculty who request access. Intellectual property protections are in place, and uptake has been strong.
- *Manuscript Sprint Teams* are small groups organized for writers to help each other complete a manuscript over 6 to 8 weeks. Sprint Teams of three to five authors meet weekly to review components of each other's papers and to create accountability in "keeping the pace." Teams submit manuscript sections to their group members by email 1 week before meetings and commit to providing written comments each week.
- *Shut Up and Write Sessions* encourage writers to protect writing time and develop regular writing habits. Shut Up and Write groups provide writers with a regular time and campus space to meet and work.
- *Book Club* addresses issues *outside* academia, such as personal care, finances, health, and family life. Such topics are generally not addressed in many faculty programs yet are immensely important for a well-rounded experience, as well as retention, productivity, and personal happiness.
- The *Edge for Scholars* website (https://edgeforscholars.org/), launched in November 2013, is the first platform of its kind to focus on the needs of academics across the full arc of their career. The site is modeled on platforms that crowdsource, tag, and rank content for quick access (such as LifeHacker), with special emphasis on the needs of students and early-career faculty.

3) Describe and provide three to five examples of student opportunities for involvement in faculty research and scholarly activities. This response should focus on instances in which students were employed or volunteered to assist faculty in faculty research projects and/or independent student projects that arose from or were related to a faculty member's existing research.

For the examples below, student names are listed in **boldface**, and primary mentor is underlined.

Example 1: Dr. Carlos Grijalva has many opportunities each year for M.P.H. students to collaborate on his grant-funded research as research assistants or for their thesis research. He has multiple current CDC and NIH grants available for student collaboration. These research projects include R01s and R21s evaluating respiratory viruses, SARS-CoV-2, vaccinations, and opioid use disorder. Three examples of his work with students are as follows:

- **Horn A**, Adgent MA, Osmundson SS, Wiese AD, Phillips SE, Patrick SW, Griffin MR, Grijalva CG. Risk of Death at 1 Year Following Postpartum Opioid Exposure https://pubmed.ncbi.nlm.nih.gov/35640619/
- **Wu A,** Budge PJ, Williams J, Griffin MR, Edwards KM, Johnson M, Zhu Y, Hartinger S, Verastegui H, Gil AI, Lanata CF, Grijalva CG. Incidence and Risk Factors for Respiratory Syncytial Virus and Human Metapneumovirus Infections among Children in the Remote Highlands of Peru. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0130233
- **Antoon JW**, Williams DJ, Thurm C, Bendel-Stenzel M, Spaulding AB, Teufel 2nd RJ, Reyes MA, Shah S, Kenyon CC, Hersh AL, Florin TA, Grijalva CG. The COVID-19 Pandemic and Changes in Healthcare Utilization for Pediatric Respiratory and Nonrespiratory Illnesses in the United States. https://pubmed.ncbi.nlm.nih.gov/33734976/

Example 2: Dr. William Heerman has several M.P.H. students who collaborate with him on his research and are mentored by him for their ILE. He currently has three NIH R01s focused on behavioral interventions to prevent childhood obesity among Latino families that are available for student collaboration. Three examples of his work with students are as follows:

- **Apple R**, Samuels LR, Fonnesbeck C, Schlundt D, Mulvaney S, Hargreaves M, Crenshaw D, Wallston KA: Heerman WJ. Body Mass Index and Health Related Quality of Life. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6180707/
- **Fletcher GE,** Teeters L, Schlundt D, Bonnet K, Heerman WJ. Maternal Conception of Gestational Weight Gain among Latinas: A Qualitative Study. https://pubmed.ncbi.nlm.nih.gov/28967775/
- **Blasingame M,** Samuels LR, Heerman WJ. The Combined Effects of Social Determinants of Health on Childhood Overweight and Obesity. https://pubmed.ncbi.nlm.nih.gov/36989504/

Example 3: Dr. Carolyn Audet leads multiple NIH grants, including a U01, four R01s, and numerous others. Many students collaborate with her each year on her research, which includes community-based interventions in the United States and in low-income countries. Three examples of her work with students are as follows:

- **Vigo JAA,** Stovall JG, Moon TD, Audet CM, Diez Canseco F. Perceptions of Community Involvement in the Peruvian Mental Health Reform Process among Clinicians and Policy-Makers: A Qualitative Study. https://pubmed.ncbi.nlm.nih.gov/31779299/
- **Spalluto LB,** Bonnet K, Sonubi C, **Ernst LL**, Wahab R, Reid SA, Agrawal P, Gregory K, Davis KM, Lewis JA, Berardi E, Hartsfield C, Selove R, Sanderson M, Schlundt D, Audet CM. Barriers to Implementation of Breast Cancer Risk Assessment: The Health Care Team Perspective. https://pubmed.ncbi.nlm.nih.gov/36922108/
- **Morris M**, Okoth V, Prigmore HL, Ressler DJ, Mbeya J, Rogers A, Moon TD, Audet CM. The Prevalence of Interpersonal Violence (IPV) Against Women and Its Associated Variables: An Exploratory Study in the Rongo Sub-County of Migori County, Kenya. https://pubmed.ncbi.nlm.nih.gov/32627662/

Example 4: Dr. Ashley Leech has a grant to evaluate treatment outcomes for pregnant women with opioid use disorder, and there are multiple opportunities for student collaboration. Two examples of student collaboration and publication are as follows:

- **Grossarth S**, Osmundson SS, Wiese AD, Phillips SE, Pham A, Leech AA, Patrick SW, Spieker AJ, Grijalva CG, Adgent MA. Maternal Opioid Use Disorder and the Risk of Postneonatal Infant Mortality. https://pubmed.ncbi.nlm.nih.gov/37155175/
- **Wisotzkey AK,** Leech AA, Graves AR, Lwelu CC, Pourali SP, Osmundson SS. Obstetrical Clinician Opioid Prescribing Perspectives after Cesarean Delivery in Tennessee. https://pubmed.ncbi.nlm.nih.gov/36509357/

Example 5: Dr. Christianne Roumie has multiple Veterans Health Administration grants and has mentored numerous M.P.H students in the epidemiology and health policy concentrations to appropriately use large datasets. The following are three examples that resulted in student-led publications:

- **Edwards GC**, Martin RL, Samuels LR, Wyman K, Bailey CE, Kiernan CM, Snyder RA, Dittus RS, Roumie CL. Association of Adherence to Quality Metrics with Recurrence or Mortality among Veterans with Colorectal Cancer. https://pubmed.ncbi.nlm.nih.gov/33169321/
- **Shah SC**, Halvorson AE, McBay B, Dorn C, Wilson O, Denton J, Tuteja S, Chang K, Suzuki A, Cho K, Hunt CM, Siew E, Matheny ME, Hung A, Greevy RA, Roumie CL. Proton Pump Inhibitor Use Is Not Associated with an Increased Risk of Severe COVID-19-Related Outcomes: A Propensity Score-Weighted Analysis of a National Veteran Cohort. https://pubmed.ncbi.nlm.nih.gov/34663578/
- **Lewis JA**, Samuels LR, Denton J, Matheny ME, Maiga A, Slatore CG, Grogan E, Kim J, Sherrier RH, Dittus RS, Massion PP, Keohane L, Roumie CL, Nikpay S. Association of Health Care System Resources with Lung Cancer Screening Implementation. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9529611/

4) Describe and provide three to five examples of faculty research activities and how faculty integrate research and scholarly activities and experience into their instruction of students. This response should briefly summarize three to five faculty research projects and explain how the faculty member leverages the research project or integrates examples or material from the research project into classroom instruction. Each example should be drawn from a different faculty member, if possible.

Example 1: Dr. Carolyn Audet uses qualitative methods in her research and teaches the M.P.H. Qualitative Research Methods class, which is required for all VU M.P.H. students. In this course, she uses examples from her research in Mozambique, Nigeria, and South Africa to illustrate concepts about qualitative research methods. When explaining how to design a study, engage with participants, or analyze data, she provides examples from her research successes and notes her research mistakes as areas where students can improve. Some of the populations with whom Dr. Audet collaborates are

illiterate or speak a different language. She brings a unique perspective on conducting research among diverse populations. From her experience, students learn multiple methods for designing qualitative research and collecting and interpreting qualitative data. She also provides guidance to students doing thesis research using qualitative methods.

Example 2: Dr. Carlos Grijalva teaches the M.P.H. Epidemiology I class, which is required for all VU M.P.H. students. In this course, he uses his research on acute respiratory infections among households in rural Peru to provide examples of using epidemiological methods. Through Dr. Grijalva's descriptions of his research experience on the household transmission of airborne diseases, including influenza and SARS-CoV-2, students gain a deeper understanding of the applicability and utility of epidemiology in identifying, tracing, and containing disease within communities.

Example 3: Dr. Marie Martin's research is in public health policy, capacity strengthening, and program management. She teaches two courses in the M.P.H. global health concentration: Global Health Project Development and Global Health Politics & Policy. In both classes, she incorporates experiences from her research. In Global Health Project Development, Dr. Martin uses examples from both CDC- and USAID-funded projects. Students learn about the value of using a "North Star" approach to identify program goals as she explains the process of a curriculum redesign with the University of Liberia Medical School. Students develop and use a logistical framework approach. The "logframe" takes the form of a four-by-four project table that students apply to develop their final projects. In Global Health Politics & Policy, Dr. Martin uses an example from her work and research in the creation of an M.P.H. program with the University of Guyana.

Example 4: Dr. Ashley Leech incorporates her own research and academic papers into her teaching, which is integral to her teaching approach. In her introductory methods class for decision science, she uses examples from her own research experience. She extensively discusses the challenges encountered while working with simulation models in her own studies. She notes how she and her collaborators have addressed these challenges, including using strategies employed by other researchers in the field when confronted with similar obstacles. Furthermore, she engages students in hands-on learning by having them create decision trees based on cost-effectiveness studies that she has previously published. She encourages students to critically evaluate these published studies, highlighting instances where the authors may have overlooked essential methodological considerations. This approach provides students with a comprehensive understanding of the practical application of decision science methods.

5) Describe the role of research and scholarly activity in decisions about faculty advancement.

Appointments and promotions are initiated within each faculty member's department and are evaluated by the COAP in the VU SOM. The COAP makes recommendations to the Dean and the executive faculty through the executive committee.

Promotion on the Investigator/Physician-Scientist Investigator track requires excellence in research, scholarship, or creative expression in one's discipline of sufficiently high quality to gain favorable recognition within the discipline at the national level. Research or scholarship is essential for tenured academic appointments. The conduct of research of high quality or other evidence of scholarship or creative expression is a necessary requirement for advancement. Research and/or scholarship includes the discovery, development, and dissemination of new knowledge or understanding, regardless of whether this takes place in a laboratory, clinical setting, or teaching setting. Scholarly activity may consist of innovative conceptualizations or novel solutions to healthcare problems that receive national recognition. Candidates considered for tenure have already achieved and show promise in continuing to achieve a high level of excellence in their contributions to the discipline or profession. By the time of tenure review, they must have completed and made available research, scholarship, or other original contributions of such high quality as to gain favorable recognition within their discipline at the national level. Such recognition will usually be based on the unique and creative nature of the candidate's contributions.

Certain types of activities are generally recognized as demonstrative of an individual's stature in research or scholarship:

A. The conduct of meritorious, independent, and original research and/or scholarship in a sustained fashion that makes a significant contribution to new knowledge. This activity may be assessed in a number of ways:
    - Identification and evaluation by leaders in the field of the specific contribution of the individual, the importance of the contributions, and an assessment of the investigator's stature in the scientific community.
    - Sustained publication of independent research and/or scholarly writings in leading peer-reviewed journals in the individual's area of endeavor. Quality rather than quantity of publications is important. Vanderbilt recognizes the critical importance of collaboration ("team science") in research and scholarly activity and that the contributions of middle authors in multi-authored publications are often seminal and of the highest quality. When the research and/or scholarship is pursued in a collaborative fashion and results in multi-authored publications, the specific contributions of the candidate must be clear and significant. The candidate's role can be described via the critical reference form that must be included in the promotion dossier. In addition, their Department chair, the manuscript's senior author, and external correspondents can assess the quality and impact of a middle author's contribution.
    - Peer recognition demonstrated by invited participation in major scientific meetings; invited authorship of books, monographs, book chapters, and critical reviews; the receipt of honors for scientific achievements; and election or selection to membership and/or leadership positions in professional organizations.
B. The recognition by peers of the quality of research or scholarship as indicated by the receipt of funding from such organizations as the NIH, the Veterans Administration, national scientific organizations, and other funding agencies that use peer review.
C. The attraction and training of graduate students and postdoctoral fellows in the scientific field of interest of the investigator.
D. Membership on scientific and professional advisory committees at the national and international levels (e.g., NIH study sections, the National Research Council, national professional societies, and national commissions and task forces).
E. Editorial activities and regular reviewing for a learned or scientific journal.
F. For those with clinical responsibilities, the performance of patient care-related activities in a manner that extends beyond routine management and is characteristic of the scholarly, creative clinician. Evidence of such a scholarly approach to clinical practice would include the following:
    - Publication of major papers, chapters, and books that integrate, synthesize, and summarize the clinical literature for other clinicians.
    - Publication of case reports and other clinical articles.
    - Introduction of innovative advances to clinical medicine, documented by appropriate publications and reflecting the individual's status as being on the "cutting edge" of issues in clinical management.
    - Evaluation by peers from within the institution and the local community, as well as at the regional and national levels, that provides evidence of the individual's influence on clinical practice.
    - Invited participation in clinical conferences, rounds, seminars, and similar activities outside the institution in regional, national, or international settings.

The above information can be found on the Faculty Affairs & Career Development webpage (https://www.vumc.org/faculty/investigator-track-basic-sciencephysician-scientist).

6) Provide quantitative data on the unit's scholarly activities from the last three years in the format of Template E4-1, with the unit's self-defined target level on each measure for reference. In addition to at least three from the list that follows, the program may add measures that are significant to its own mission and context.

Faculty Research and Scholarly Activities				
Outcome measure	**Target**	**2020**	**2021**	**2022**
CEPH faculty scholarship 1				
Percent of PIF participating in research activities (*N* = 29)	90%	28/29 (97%)	28/29 (97%)	28/29 (97%)
CEPH faculty scholarship 2				
Number of articles published in peer-reviewed journals by PIF (*N* = 29)	87 (3 per faculty per year)	194 Mean = 6.7	217 Mean = 7.5	239 Mean = 8.2
CEPH faculty scholarship 3				
Presentations at professional meetings by PIF (*N* = 29)	29 (1 per faculty per year)	77 Mean = 2.6	93 Mean = 3.2	94 Mean = 3.2
Additional measures of faculty scholarship*				
Percent of all faculty who participate in research (*N* = 92)	75%	81/92 (88%)	81/92 (88%)	81/92 (88%)
Number of articles published in peer-reviewed journals by all faculty (*N* = 92)	276 (3 per faculty per year)	779 Mean = 8.5	879 Mean = 9.6	858 Mean = 9.3
Presentations at professional meetings by all faculty (*N* = 92)	92 (1 per faculty per year)	294 Mean = 3.2	379 Mean = 4.1	381 Mean = 4.1
All faculty RCR and Altmetric scores † (2018–2023)	Total publications N=7,747	RCR = Median: 1.13 Altmetric = Median: 7.75		

* CV missing for three non-PIF.
† Search restricted to July 1, 2018–June 30, 2023.
The Relative Citation Index (**RCR**) is endorsed by NIH and is based on weighting the number of citations an article has received to a comparison group within the same field. A value of 1 indicates that an article is performing as expected; > 1 indicates that an article has received more citations than its peers for that year and subject area.
The **Altmetric Attention Score** is an indicator of the amount of attention a paper has received in social media, news outlets, and public policy documents.
The combination of these two scores demonstrates attention within both the scientific and the lay communities.

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The M.P.H. program, along with VU and VUMC, provides multiple opportunities for faculty to become leaders in research and scientific innovation. There are a variety of programs, courses, webinars, and opportunities for faculty to advance their science and research.
- Both PIF and non-PIF have robust research portfolios and funding. They choose to mentor M.P.H. students and have strong mentoring relationships with students. Mentors help students in the conduct of their ILE which are often embedded in faculty research projects.
- Access to institutional resources to support faculty research is unparalleled. This assists faculty in becoming research and educational leaders in their field.
- Faculty publish often and in high-impact journals.

Weaknesses:

- None noted.

Opportunities for improvement:

- We will continue to monitor indicators and respond as needed to support faculty to be effective instructors.
- We will continue to expand our mentor pool and encourage faculty to incorporate students into their research. A large and interdisciplinary mentor pool allows a broader group of students to join faculty projects, provides opportunities for students to engage in faculty research, and facilitates the dissemination of student research to a national audience.

E5. Faculty Extramural Service

The program defines expectations regarding faculty extramural service activity. Participation in internal university committees is not within the definition of this section. Service as described here refers to contributions of professional expertise to the community, including professional practice. It is an explicit activity undertaken for the benefit of the greater society, over and beyond what is accomplished through instruction and research.

As many faculty as possible are actively engaged with the community through communication, collaboration, consultation, provision of technical assistance and other means of sharing the program's professional knowledge and skills. While these activities may generate revenue, the value of faculty service is not measured in financial terms.

1) Describe the program's definition and expectations regarding faculty extramural service activity. Explain how these relate/compare to university definitions and expectations.

Faculty extramural service is a core value of the M.P.H. program. Each faculty member participates in extramural service that is aligned with the interests and expectations of their department or division. The M.P.H. program does not mandate such service. Rather, we look for faculty who are leaders in their field to become instructors in the program.

We define faculty participation in extramural service as participation in grant review, national or international leadership activities or advisory boards within their field, and journal review and editorial responsibilities.

PIF and Their Program Roles	Extramural Service
Epidemiology	
Bialostozky, Adriana Diversity Chair Class instruction: PUBH 5575: Health Equity for Public Health	• Abstract reviewer, Pediatric Academic Societies • Reviewer, *Journal of Health Care for the Poor and the Underserved*, *Pediatrics* • Co-chair, Immigrant Health Committee, Tennessee Chapter of the American Academy of Pediatrics • National Board of Certified Medical Interpreters • Board Member, Board of Health
Buckley, Ryan Class instruction: PUBH 5510: Measurement and Analysis for Healthcare Improvement	• American College of Physicians Clinical Skills Committee • Site Co-Lead, Project UPSIDE, Hospital Medicine Reengineering Network • Founder and Board of Directors, Greatest Gift, Inc. • Subject Matter Expert, Health Systems Science Module: What to Know about Health Care Delivery Systems, American Medical Association
Clayton, Ellen Class instruction: PUBH 5518: Public Health Ethics	• Editorial Boards: *Genomics*; *Society and Policy*; *Journal of Law, Medicine, and Ethics*; *JAMA Pediatrics* • National Academy of Medicine Strategic Initiative on Reproductive Health, Equity, & Society • External Advisory Board, Economic and Social Research Council Centre for Genomics in Society, University of Exeter, UK • External Advisory Board, CITI Japan • Ethics Working Group, International Society for Stem Cell Research
Dupont, William Class instruction: PUBH 5509: Biostatistics II	• Member, Environmental Influences on Child Health Outcomes–Children's Respiratory and Environmental Workgroup Publication Committee • Editorial Advisory Boards: *Cancer*, *The Breast*, *Stata Journal* • Multiple National Cancer Institute and Epidemiology Study Sections for NIH
Giri, Ayush Class instruction: PUBH 5508: Epidemiology II	• Reviewer, *American Journal of Obstetrics & Gynecology*, *American Journal of Sports Medicine*, *British Journal of Cancer*, *Clinical Medicinal Chemistry*, *European Urology*, *Frontiers in Genetics*, *International Urogynecology*

	Journal, *PLoS ONE*, *Translational Research*, *Paediatric and Perinatal Epidemiology* • Abstract Reviewer, Society for Reproductive Investigation • Reviewer, National Heart, Lung, and Blood Institute Mentored Transition to Independence Study Section (K22, K25, K99/R00 applications)
Grijalva, Carlos Class instruction: PUBH 5501: Epidemiology I; PUBH 5527: Protocol Development I PUBH 5530: Protocol Development II Mentor and thesis advisor	• Standing Member, NIH Population-based Research in Infectious Disease Study Section • Advisor, Pandemic Influenza Household Transmission Studies, CDC, Atlanta, GA • Advisor, Estimating the National Burden of Pneumococcal Disease, CDC, Atlanta, GA
Heerman, William Epidemiology Concentration Co-Director Class instruction: PUBH 5524: The Science of Health Behavior Mentor and thesis advisor	• National Institute of Minority Health and Health Disparities (NIMHD) Special Emphasis Grant Review Panel for U01 Awards: Reducing Health Disparities through CBPR. • NIMHD Special Emphasis Grant Review Panel for R13 awards. ZMD1 DRI • Member, National Institute of Child Health and Human Development Study Section for R03 awards (ZHD1 DSR-R) • Co-Chair, Early Stage Investigator Sub-Committee for NIH Childhood Obesity Prevention and Treatment Research Consortium • Associate Editor, *BMC Public Health*
Koyama, Tatsuki Class instruction: PUBH 5502: Biostatistics I	• Statistical Advisory Board, *PLOS ONE* • Board of Statisticians, *The Journal of Urology* • Associate Editor, *Japanese Journal of Statistics and Data Science* • ASCO Grants Selection Committee, Career Development Award Review Panel • Florida Department of Health Biomedical Research Programs Review Panel • Cancer Research Program, Department of Defense Congressionally Directed Medical Research Programs, Broad Agency Announcement within the Congressionally Directed Medical Research Programs Review Panel
Pennings, Jacquelyn Class instruction: PUBH 5521: Survey Research Seminar Thesis advisor	• External reviewer, *Health Education and Behavior*, *BMC Musculoskeletal Disorders*, *Quality of Life Research* • Scientific Reviewer, Army Medical Research and Material Command, Department of Defense • Scientific Reviewer, Precision Medicine and Health Disparities Collaborative
Roumie, Christianne M.P.H. Program Director Class instruction: PUBH 5536: Public Health Practicum Mentor and thesis advisor	• NIH Center for Scientific Review (CSR)—Integrated Review Group (IRG) Health Services Organization and Delivery Study section; IRG Biostatistical Methods and Research Design Study Section; National Heart, Lung, and Blood Institute K grant reviewer (Mentored Patient-Oriented Research Review Committee) • Grant Reviewer, Endocrinology Study Section, Veterans Health Administration Office of Research and Development; QUERI Rapid Response projects; Office of Academic Affiliations Health Services Research Advanced Fellowship review; Career Development Awardee Study Section • Reviewer, American Heart Association International Stroke Conference • Abstract reviewer and moderator, Agency for Healthcare Research and Quality Annual Health Services Research Conference • External reviewer, multiple journals • External dissertation reviewer, Ph.D. candidate, Epidemiology, Queens University Belfast
Wiese, Andrew Class instruction: PUBH 5516: Public Health Practice Mentor and thesis advisor	• Tennessee Men's Health Report Card Committee • Guest Academic Editor, *PLOS Medicine* • External reviewer, multiple journals • Abstract reviewer, International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Society for Epidemiologic Research

	Conference, International Conference for Health Economics and Outcomes Research
Ye, Fei Class instruction: PUBH 5502: Biostatistics I	• Assistant Editor for Statistics, *JAMA Oncology* • NIH CSR Health Services: Quality and Effectiveness Study Section. • Member (Statistician), Data Monitoring Committee, PREVENT-MINS trial • NIH CSR Special Emphasis Panel: Cancer Prevention and Immunotherapy • Reviewer, 2023 American Statistical Association Section on Statistics in Epidemiology Young Investigator Awards • Biostatistical/Bioinformatics Reviewer, NIH CSR Clinical Oncology Study Section
Global Health	
Audet, Carolyn Class instruction: PUBH 5522: Qualitative Research Methods PUBH 5565: Implementation Science Mentor and thesis advisor	• Associate Editor, *BMC Pregnancy and Childbirth* • Editor, *BMC Public Health* • Reviewer, National Institute for Mental Health, multiple study sections: Risk, Prevention, and Health Behavior Integrated Review Group Special Emphasis Panel; Population and Public Health Approaches to HIV/AIDS Study Section; Risk, Prevention, and Health Behavior Integrated Review Group Special Emphasis Panel
Heuser, Brian Class instruction: PUBH 5540: Leadership and Management in Public Health	• National panelist for the David L. Boren National Security Education Fellowship Selection Committee, Washington, DC
Howard, Leigh Class instruction: PUBH 5541: Essential Skills in Global Health Mentor and thesis advisor	• Invited member, Mentoring and Career Development Committee, Infectious Diseases Clinical Research Consortium for the NIH Vaccine Treatment and Evaluation Unit • Moderator, The News in Viral Infections in Pediatrics, Annual Meeting of the Infectious Diseases Society of America, Washington, DC • External Dissertation Reviewer, Ph.D. Candidate, Clinical Microbiology and Infectious Diseases, University of the Witwatersrand, Johannesburg, South Africa • External reviewer, *Journal of the American Medical Association*, *Chest*, *JAMA Pediatrics*, *Clinical Infectious Diseases*, *PLoS ONE*, *AIDS*, *Open Forum Infectious Diseases*, *Journal of Medical Virology*, *Clinical and Vaccine Immunology*, *Journal of the Pediatric Infectious Diseases Society*, *Academic Pediatrics*, *The Pediatric Infectious Diseases Journal*, *Pediatrics*, *BMC Infectious Diseases*, *Frontiers in Virology*
Martin, Marie Global Health Concentration Co-Director Class instruction: PUBH 5526: Global health Project Development PUBH 5550: Global Health Politics and Policy Thesis advisor	• External reviewer, *American Journal of Tropical Medicine and Hygiene*, *Annals of Global Health*, *Journal of International Educational Development* • Pedagogy in Health Promotion Board Member, Tennessee Global Health Coalition • Women Leaders in Global Health Conference Planning Committee, Friends of Global Health • Innovation Prize Judge, Global Health and Innovation Conference Annual Competition, Unite for Sight • National Association of County and City Health Officials Global-Domestic Health Expert Advisory Group Project: Transforming Local Public Health Practice through Global Health Exchange (through the Robert Wood Johnson Foundation's Global Ideas for US Solutions Program) • Co-Chair, Consortium of Universities for Global Health Sub-committee on Master's and Undergraduate Degrees in Global Health • Educator Advisory Board, Teach Global Health
Rose, Elizabeth Global Health Concentration Co-Director Class instruction:	• External reviewer, *American Journal of Tropical Medicine and Hygiene*, *Annals of Global Health* • Grant Reviewer, Volunteer Tennessee, AmeriCorps • President, Xavier University Nashville Alumni Chapter

PUBH 5531 and 5531: Capstone ePortfolio Development Thesis advisor	• Advisory Council Member, Nashville International Center for Empowerment • Education Advisory Committee Member, Association of Schools & Programs in Public Health • Conference Workshop Application Reviewer, Tennessee Conference on Volunteerism & Service-Learning • Abstract Reviewer, Consortium of Universities for Global Health International Conference
Suiter, Sarah Class instruction: HOD 6200/PUBH: Program Evaluation Mentor and thesis advisor	• Co-Leader, Research Education Evaluators Group, National Cancer Institute Partnerships to Advance Cancer Health Equity • Council on Education, Society for Community Research and Action, American Psychological Association
Zamora, Lindsey Class instruction: PUBH 5542: Foundations of Global Health	• Preventing Mother to Child Transmission of HIV Advisor to the Ministry of Health, Georgetown, Guyana • Clinical Guidelines Committee for outpatient and intrapartum management of HIV in pregnancy for Guyana; also reported to the Pan American Health Organization Guyana representative on management changes • Maternal Mortality Advisor to the Guyana Ministry of Health • Guyana representative, Pan American Health Organization • Guyana National Scientific Conference Moderator • ObGyn Board Examiner, Georgetown, Guyana • Patient Liaison, Siloam Health Center
Health Policy	
Buckley, Lisa Class instruction: PUBH 5510: Measurement and Analysis for Healthcare Improvement	• Board of Directors, Greatest Gift, Inc. • Rheumatology Honoree, Arthritis Foundation Walk to Cure Arthritis • Steering Board Member, EPIC Rheumatology • External reviewer, *Clinical Pediatrics*
Fry, Carrie Class instruction: PUBH 5620: Health Policy II Mentor and thesis advisor	• External reviewer, *Preventing Chronic Disease*, *Health Affairs*, *American Journal of Evaluation*, *Journal of Comparative-Effectiveness Research*, *Health Services Research*, *Journal of Research on Educational Effectiveness*, *Annals of Internal Medicine*, *INQUIRY*, *American Journal of Managed Care*, *Psychiatric Services*, *JAMA Network Open*, *Journal for the Healthcare of the Poor and Underserved*, *JAMA Psychiatry*, *Substance Abuse and Treatment*, *JAMA Health Forum*, *Journal of Behavioral Health Services & Research*, *American Journal of Preventive Medicine*, *Journal of Rural Health*, *International Journal of Drug Policy* • Editorial Board: *Health Services Research* • Discussant, Association for Public Policy Analysis and Management • AcademyHealth Behavioral Health Abstract Reviewer
Graves, John Class instruction: PUBH 5538: Quantitative Program and Policy Evaluation Mentor and thesis advisor	• Technical Advisory Panel Member, COVID-19 modeling • Member, Health Care Effectiveness and Outcomes Research Study Section, Agency for Healthcare Research and Quality • External reviewer, *New England Journal of Medicine*, *JAMA*, *American Economic Review*, *Journal of Political Economy*, *Health Affairs*, *Milbank Quarterly*, *JAMA Psychiatry*, *JAMA Internal Medicine*, *JAMA Health Forum*, *American Economic Journal: Policy*, *Journal of Human Resources*, *Medical Decision Making*, *Journal of Health Economics*, *Journal of Public Economics*, *Pediatrics*, *Health Economics*, *Health Services Research*, *American Journal of Health Economics*
Griffith, Kevin Class instruction: PUBH 5525: Health Economics Mentor and thesis advisor	• Discussant, American Society of Health Economists • Editorial Board: *Health Services Research* • Reviewer Board: *Journal of Clinical Management* • Reviewer, *Journal of Health Economics*, *Diabetology*, *Journal of the American Medical Informatics Association*, *JAMA Health Forum*, *JAMA Internal Medicine*, *Health Affairs*, *Diabetes Care*, *Journal of General Internal*

	Medicine, *American Journal of Managed Care*, *Medical Care*, *Social Science & Medicine*, *Value in Health*, *American Journal of Preventive Medicine* • Session Chair and Discussant, Association for Public Policy Analysis & Management Fall Research Conference
Keohane, Laura Health Policy Concentration Co-Director Class instruction: PUBH 5520: Introduction to Health Policy Mentor and thesis advisor	• External reviewer, multiple journals • Editorial Board: *Medical Care Research and Review* • Advisory Board Member, AcademyHealth Long-term Services and Supports Interest Group • Member, ASHEcon Scientific Review Committee • AcademyHealth 2021 Annual Research Meeting Planning Committee • Reviewer, Robert Wood Johnson Foundation, Health Data for Action • National Institute on Aging, P01 Grant Review Committee • National Institute of Dental and Craniofacial Research Special Emphasis Panel • National Institute on Aging, Health Services Organization, Delivery, Quality and Effectiveness Special Emphasis Panel
Leech, Ashley Class instruction: PUBH 5512: Decision Analysis in Medicine and Public Health Mentor and thesis advisor	• External reviewer, *JAMA Network Open*, *Annals of Internal Medicine*, *Value in Health*, *Value in Health Regional Issues*, *Health Services Research*, *Women's Health Issues*, *Journal of Patient-Reported Outcomes*, *Health and Quality of Life Outcomes*, *MDM Policy and Practice*, *WHO Bulletin*, *BMJ Open*
McBride Murry, Velma Course instruction: PUBH 5575: Health Equity for Public Health Thesis advisor	• Editorial Board: *Journal of Adolescent Research* • Associate Editor, *Journal of Applied Developmental Science* • National Advisory Mental Health Council, National Institute of Mental Health • National Academies of Sciences, Engineering, and Medicine Board of Children, Youth, and Families, Consensus Study Committee on Addressing the Long-Term Impact of the COVID-19 Pandemic on Children and Families • Appointed to the Expert Panel on Improving Rural Health through Telehealth-Guided Provider-to-Provider Communication. NIH Pathways to Prevention Panel Member
Stevenson, David Health Policy Concentration Co-Director Class instruction: PUBH 5527: Protocol Development Mentor and thesis advisor	• Editorial Boards: *Health Services Research*, *Journal of Pain and Symptom Management*, *Journal of the American Medical Director's Association* • Study Panel on Universal Family Care, National Academy for Social Insurance • Reviewer, Healthy Longevity Global Competition, National Academy of Medicine • Appointed to the Expert Panel, The Quality of Care in Nursing Homes, National Academies of Sciences, Engineering, and Medicine • Committee Co-Chair, Improving Quality Assurance and Oversight, Moving Forward Nursing Home Quality Coalition, John A. Hartford Foundation • Advisory Board Member, Integrated Palliative Care (In-Sup C) Research Initiative Integrated Palliative Care, an EU Framework 7 Programme
Selected Non-PIF	
Aliyu, Muktar Epidemiology Concentration Co-Director Mentor and thesis advisor	• Editorial Boards: *BMC Public Health*, *Case Reports in Obstetrics and Gynecology*, *Current HIV Research*, *International Journal of Environmental Research and Public Health* • Co-Chair and Reviewer, NIH CSR, International and Cooperative Projects Study Section • University College London-Lancet Commission on Nigeria, University College London, London, UK • International Scientific Advisory Board, Africa Center of Excellence in Population Health and Policy, Bayero University, Nigeria
Cooper, William Mentor	• Appointed to the Expert Panel Inclusion of Pregnant and Lactating Persons in Clinical Trials, National Academies, Washington DC • Member, Neonatal Abstinence Steering Committee, TDH

Rothman, Russell Mentor and thesis advisor	• Associate Editor, ACP Journal Club • Reviewer, Multiple journals • Reviewer National Academy of Medicine, Building Data Capacity for Patient-Centered Outcomes Research: Interim Report 3 – A Comprehensive Ecosystem for PCOR • Chair, PCORnet Executive Committee and Executive Management Team (PCORI) • Writing Committee, NHLBI Connects Outpatient • Primary Representative, Association for Schools and Programs of Public Health (ASPPH) • Co-Chair, Steering Committee, HERO Program (PCORI) • Past President, Academy for Communication in Healthcare (ACH)
Schaffner, William M.P.H. founding faculty Mentor and thesis advisor	• Scientific Advisory Board, Every Child by Two • Advisory Board, Immunization Action Coalition • Advisory Committee on Immunization Practices, CDC • Consultant in Epidemiology, TDH
H. Keipp Talbot Mentor and thesis advisor	• Peer Reviewed Medical Research Program review panel for the Department of Defense Congressionally Directed Medical Research Programs • Guest RSV Expert, NIH Infectious Diseases Clinical Research Consortium RSV Task Force • Board of Directors, National Foundation for Infectious Diseases • Chair, Continuing Professional Education Committee, National Foundation for Infectious Diseases • Chair, Influenza Work Group, Advisory Committee on Immunization Practices • Co-Chair, COVID-19 Vaccine Safety Technical Work Group and Influenza Work Group, Advisory Committee on Immunization Practices

2) Describe available university and program support for extramural service activities.

Each faculty member's home department or division determines support for extramural service activities. As described in the previously mentioned criteria for promotion and tenure, faculty are expected to gradually increase in their provision of extramural service commensurate with their rank within the organizations and roles.

3) Describe and provide three to five examples of faculty extramural service activities and how faculty integrate service experiences into their instruction of students. This response should briefly summarize three to five faculty extramural service activities and explain how the faculty member leverages the activity or integrates examples or material from the activity into classroom instruction. Each example should be drawn from a different faculty member, if possible.

Example 1: Dr. Sarah Suiter teaches a community-engaged program evaluation course that is taken by M.P.H. students each semester (six reserved seats for M.P.H. students). She has a history of serving on non-profit boards and is well connected in the Nashville non-profit community. Through her connections, she invites community partners to actively participate in her program evaluation course as "live" case studies. These community partners are paired with small groups of students, who work closely with each partner to develop a program evaluation plan for the organization. These evaluation plans include a context analysis, stakeholder analysis, logic model, study design, data collection instruments, and data management, analysis, and dissemination plans that are implemented by the partner.

Example 2: Dr. Aima Ahonkhai previously taught grant writing for M.P.H. students (AY 2022–23) but then separated from Vanderbilt. As a member of the Grants for Emerging Researcher/Clinician Mentorship Program in the Infectious Diseases Society of America, she incorporated her experiences as a grant writer and reviewer into class lecturers and examples. Through these "real-life" examples, students learned effective techniques in developing the components and sections of a grant. Students were able to use these examples and her experience to enhance their skills in grantsmanship.

Example 3: Dr. Ayush Giri teaches Epidemiology II and serves as a reviewer for multiple journals and for a National Heart, Lung, and Blood Institute study section. He brings this experience into the classroom. His lectures and examples cover topics including how to conduct a peer review of an observational cohort study through an epidemiologic methods lens, particularly examining analyses/papers for sources of selection bias and unmeasured confounding; how to assess the propriety of regression methods (parametric, non-parametric, and semi-parametric) in light of the distribution of the outcome, study population size, and event rate in the exposed group; and how to address methodologic or data completeness concerns diplomatically with editors, other reviewers, and/or authors. Students gain a better understanding of applied epidemiology through these related examples and case studies covered during class.

4) Provide quantitative and/or qualitative information that characterizes the unit's performance over the last three years on the self-selected indicators of extramural service, as specified below.

   Select at least three of the following indicators that are meaningful to the program. In addition to at least three from the list in the criteria, the program may add indicators that are significant to its own mission and context.

The VU M.P.H. program has a strong history of collaborating with public health organizations at multiple levels. These activities serve and influence the health of our local community and the nation. In the table below, we use the following definitions:

- *Community service projects* are projects with a community partner that may be local, national, or international in scope and that are related to the health of the community.
- *Service funding* is the number of contracts and total amount funded for service to public health organizations obtained by our faculty.
- *Applied public health service* includes service (advisory committee, contracts, or expertise) to the CDC, Food and Drug Administration (FDA), Advisory Committee on Immunization Practices, TDH, Veterans Affairs, World Health Organization, Centers for Medicare & Medicaid Services (CMS), and international ministries of health, as well as membership in guideline committees and other organizations that shape the frontline of public health.
- *Faculty leadership* includes editorial board membership, leadership in or serving as meeting chair for national or international organizations and having a national or international reputation in the field.

Indicators of VU Commitment to Public Health				
	Target	**2020**	**2021**	**2022**
CEPH extramural service measure 1				
Percent of PIF participating in extramural service activities* (*N* = 29)	90%	26/29 (90%)	26/29 (90%)	26/29 (90%)
CEPH extramural service measure 2				
Number of community-based service projects for all faculty §	10	22	29	36
CEPH extramural service measure 3				
Total service funding for PIF † (*N* = 29)		7 projects ($5,991,089)	5 projects ($7,579,054)	4 projects ($6,168,786)
Additional service funding for non-PIF †		$8,188,740	$16,614,473	$19.786,405
Additional measures of faculty service*				
Percent of total faculty engaged in extramural service* (*N* = 92)	50%	82/92 (89%)	83/92 (90%)	83/92 (90%)
Percent of total faculty engaged in applied public health service ‡ (*N* = 92)	50%	45/92 (48%)	50/92 (54%)	49/92 (53%)
Percent of total faculty engaged in leadership activities ‖ (*N* = 92)	50%	60/92 (65%)	60/92 (65%)	63/92 (68%)

* CV missing for three non-PIF. Extramural service includes peer review, editorships, external committees, and grant review activities.
§ Community-based service projects are projects with a community partner that may be local, national, or international in scope and that are related to the health of the community. These can be funded or volunteer.
† Service funding includes **applied public health contracts** with state, CDC, FDA, CMS, and other public health organizations and excludes traditional NIH research funding.
‡ Applied public health service includes service (advisory committee, contracts, or expertise) for the CDC, FDA, Advisory Committee on Immunization Practices, TDH, Veterans Affairs, World Health Organization, CMS, or international ministries of health, or membership in a guideline committee.
‖ Leadership activities are defined as serving on an editorial board, leadership in or serving as meeting chair for a national or international organization, and having a national or international reputation in the field.

5) Describe the role of service in decisions about faculty advancement.

Appointments and promotions are initiated within the faculty member's department and are evaluated by the COAP in the VU SOM. The COAP makes recommendations to the Dean and the executive faculty through the executive committee of the executive faculty.

Faculty members have obligations in such areas as internal governance, university outreach, patient care, and other professional services to the department, school, university, and community, as well as obligations to make contributions to professional and learned societies. Vanderbilt expects its tenure track faculty to assume a fair share of such service and to perform it satisfactorily. Promotion on the Science Educator/Clinician Educator Track can be attained when the candidate performs in an exemplary fashion in one area (teaching or service) and is deemed competent in the other.

Achievement in service sufficient for promotion on this track must be of such a nature as to make significant, special contributions to the missions of the school. Time in rank is not sufficient justification for promotion or appointment to senior ranks on this track. Such achievement might take the following forms:

A. Provision of exemplary clinical care of such nature as to serve as an excellent role model for students and residents. Documentation might include the following:
    - Letters of evaluation from other recognized leaders in the field that cite the candidate's achievements and provide an explanation for the candidate's reputation.
    - Invited participation in clinical conferences, rounds, or seminars outside the institution.
    - Publication of case reports.
    - Evidence of influence on the practice of medicine not only within the institution but also at regional or national level, as reflected in the individual's clinical referral and consultative activities.
B. Performance of patient care-related activities in a manner that extends beyond routine management and is characteristic of the academic clinician. Documentation might include the following:
    - Publication of manuscripts, chapters, and/or books that integrate, synthesize, and summarize the clinical literature for other clinicians. When these publications are co-authored by several individuals, the specific contribution of the faculty member being considered for promotion should be described in the promotion dossier by the candidate's Department chair, senior author(s), or external correspondents. In addition, the candidate can describe their role as a middle author on publications via the critical reference form, which must be included in the promotion dossier.
    - Introduction of innovative advances to clinical medicine that reflect the candidate's status as being on the "cutting edge" of clinical management.
    - Participation in establishing and maintaining regional and national standards of care and management as evidenced by membership on a specialty board, residency review committee, regional or national commissions, or examination committees.
    - Successful participation in federal and industry-sponsored clinical trials.
    - Objectively measured achievements in quality and process improvement projects or programs that enhance efficiency, patient safety, and processes of care.

C. Development of new programs or significant enhancements of established programs. Such programs may include not only clinical programs, but also programs of importance to other missions of the institution.
D. Special contributions to the SOM and university in such areas as internal governance, policy development, and university outreach beyond those customarily expected of faculty. Documentation might include the following:
    - Recognition by faculty peers, as reflected by selection for significant service on important policy-making committees of VUMC and VU. Contributions to various departmental and other university committees that are customarily expected of faculty do not fulfill this requirement.
    - Extramural consultation of a scientific and/or professional nature with governmental agencies, industry, and other academic institutions that enhances the goals and functions of VU and the SOM.
    - Service related to one's academic activities in community organizations that enhance the health and welfare of citizens in our region. Examples include establishing or teaching community-based educational programs, participating or leading health-related community-based organizations and advisory boards, and participating in campus–community partnerships that serve community needs while providing learning experiences for our students, residents, and postdoctoral trainees.

The above information can be found on the Faculty Affairs & Career Development webpage (https://www.vumc.org/faculty/educator-track-basic-scienceclinician).

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The M.P.H. program faculty are viewed as national and international leaders in public health and are often asked to provide service in research and scientific innovation. Many are part of editorial boards and grant review study sections.
- The faculty are research and educational leaders in their field.

Weaknesses:

- Approximately half of the total faculty are engaged in applied public health activities and community-based activities.
- Promotion based on service must be of such a nature as to make significant, special contributions to the mission of the SOM and often must include national and/or international service to the discipline.

Opportunities for improvement:

- We will continue to encourage faculty to participate in applied public health activities and to build collaborations with applied public health partners. These collaborations can lead to an improvement in the number of community-based projects and academic–applied public health partnerships. We will provide faculty with opportunities for these collaborations. We will ask the operations committee to serve as a "connector" to opportunities to facilitate more academic–applied public health collaborations.
- We will continue to encourage faculty to incorporate their service and learning opportunities into their classroom instruction, provide opportunities for students to create networking opportunities, and facilitate connections with leaders in the field.

F1. Community Involvement in Program Evaluation and Assessment

The program engages constituents, including community stakeholders, alumni, employers, and other relevant community partners. Stakeholders may include professionals in sectors other than health (e.g., attorneys, architects, parks, and recreation personnel).

Specifically, the program ensures that constituents provide regular feedback on its student outcomes, curriculum, and overall planning processes, including the self-study process.

1) Describe any formal structures for constituent input (e.g., community advisory board, alumni association, etc.). List members and/or officers as applicable, with their credentials and professional affiliations.

The Vanderbilt M.P.H. program has three committees that provide guidance and support: the advisory committee, the curriculum committee, and the diversity committee (see Section A). All three of these committees include program alumni and public health professionals and consultants from academia and applied settings.

The Vanderbilt M.P.H. program advisory committee provides support and advice to the M.P.H. program administration in the areas of program governance, evaluation, and planning. The advisory committee meets at least once per year, with meetings scheduled more often as needed. The composition of the advisory committee is described in Section A above. In brief, the advisory committee comprises public health professionals working in academia and in the applied public health community who facilitate the long-range planning efforts of the program through a **strategic planning** process that occurs once every 5 years. Both the advisory committee and the strategic planning process provide guidance to the program as requested on specific issues. An additional purpose of the strategic planning process is to explore ways to strengthen ties to key constituencies, including public health professionals practicing in the community and public health researchers, students, alumni, and faculty.

The composition of the strategic planning committee includes the advisory committee and a broader range of academic and applied public health professionals. The last meeting in 2019, for the 5-year strategic plan implemented between 2020–2025, is noted in the ERF along with the strategic planning documents and final report.

The Vanderbilt M.P.H. program curriculum committee composition includes a number of community-based public health professionals and program alumni who advise on the program curriculum and related instruction in terms of consistency with the program's mission, goals, objectives, and values and concerning appropriateness for demonstrating the professional competencies identified by the program. The committee monitors and as needed, makes recommendations regarding the courses offered in the program, ensuring the relevance of learning objectives, the appropriateness of procedures for assessing student competencies, and the quality of faculty and student performance in each course. The composition of the curriculum committee is noted in Section A.

In the diversity committee, alumni, faculty, and students offer programming suggestions for the Satcher Lectureship and provide curricular suggestions for improving cultural humility. Faculty evaluate papers, examples, and case studies used in classes to ensure an appropriately broad representation of populations.

2) Describe any other groups of external constituents (outside formal structures mentioned above) from whom the unit regularly gathers feedback.

The M.P.H. program has strong ties and connections with the Tennessee Department of Health (TDH). This relationship is formalized through an academic health department contract that outlines a scope of collaborative activities, including continuing education programs (for both the M.P.H. program and TDH).

The VU M.P.H. program, including the Practicum Director and the Program Director, meet at least twice yearly with constituencies within TDH to plan internships and assess their needs. This has led to growth in the number of students embedded in TDH for internships and APEs. These joint meetings lead to a more complete understanding of learning needs for the current TDH workforce and additional opportunities for VU M.P.H. faculty, students, and alumni to participate and address these needs.

3) Describe how the program engages external constituents in regular assessment of the content and currency of public health curricula and their relevance to current practice and future directions.

As noted above, our partners in applied and academic public health are regular constituencies who are invited to participate in the standing M.P.H. committees and provide input on the needs and skills most crucial for the future workforce. In the last strategic planning meeting, these partners noted health equity/social determinants and public health informatics as areas they considered high priorities for public health workforce planning and growth. We find the input of our constituencies invaluable to the M.P.H. program planning, as this helps us to better understand the skills needed by frontline applied public health professionals. We strive to meet their needs through the development of relevant skills and competencies in M.P.H students using both didactic teaching and experiential learning environments.

4) Describe how the program's external partners contribute to the ongoing operations of the program, including the development of the vision, mission, values, goals, and evaluation plan and the development of the self-study document.

The strategic planning process provides a forum for conversations among institutional leaders, faculty, students, staff, alumni, and members of the broader public health community around the evolving public health landscape and directions for the VU M.P.H. program. Through these conversations, we examine current public health needs, national trends in education and workforce development, and institutional priorities and directions for VU, including the SOM, VUMC and IMPH. Faculty, staff, alumni, and public health practitioners provide important insight into their frontline experience, day-to-day work, and career trajectories. They also provide insight into their experience in the profession and into the skills and competencies they find most valuable for success in the field. A day-long "DesignShop" planning retreat brings together stakeholders from VU, VUMC, and the community to engage in activities and conversations around possibilities for the M.P.H. program's future. At each strategic planning session and as part of the annual advisory committee meeting, we review the current vision, mission, and goals of the M.P.H. program, as well as the evaluation plan. Recommendations for improvements and action/implementation plans are the major results of each of these meetings.

5) Provide documentation (e.g., minutes, notes, committee reports, etc.) of external contribution in at least two of the areas noted in documentation requests 3 and 4.

Please see the strategic plan notes and final report document, as well as the advisory committee meetings and notes. These are located in ERF F1.5 (evidence of community input).

6) Summarize the findings of the employers' assessment of program graduates' preparation for post-graduation destinations and explain how the information was gathered.

In July 2023, we conducted a mixed-methods evaluation of employers who commonly hire our graduates (see the ERF for the full methodology). We invited 15 employers who had hired graduates of the program within the last 5 years, and 11 (73.3%) agreed to participate in a 30-minute one-on-one interview session.

The following organizations were represented:

- Vanderbilt University Medical Center
    - Department of Health Policy
    - Department of Pediatrics

    - Vanderbilt Institute for Clinical and Translational Research
    - Vanderbilt Institute for Global Health
- Siloam Health Center
- TennCare
    - Office of Strategic Planning and Innovation
- TDH
    - Office of Strategic Initiatives
    - Communicable and Environmental Diseases and Emergency Preparedness

Employers enthusiastically described the various and numerous contributions that alumni have made on their teams.

Employers' Mean Rating of Their Employees Who Graduated from the Vanderbilt M.P.H. Program within the Past 5 Years		
Category (1 = *emerging*, 2 = *adequate*, 3 = *skilled*, 4 = *advanced*)	**Mean rating**	**Range of ratings**
Public health knowledge	3.3	2-4
Public health skills	3.4	3-4
Communication	3.5	3-4
Professionalism	3.5	2-4
Interprofessional and intersectoral teamwork	3.5	2-4

Themes that emerged included

- Abilities in data management and analysis;
- Communication and dissemination of knowledge;
- Translating public health knowledge for diverse audiences, including co-workers/interprofessional teamwork;
- Adapting their skillset to solve problems/thinking critically; and
- Managing and implementing programs.

Theme 1: Data Management

Employers were very pleased with graduates' skills in data management and analytics, as well as their ability to work with large datasets, especially when evaluating those who had taken advanced biostatistics and epidemiology courses during the M.P.H. program. Although employers were impressed with graduates' analytical contributions to the team, some employers discussed a need for training in specific statistical packages including SAS, R, and Python. There was a consensus, however, that it is more important for employees to be fluent in study design and analytic planning than in multiple statistical programs and that our graduates display such fluency and analytical ability.

Theme 2: Communication

Graduates were reported to be helpful in initiating manuscript outlines, including analyzing data and discussing findings. Employers also noted that our graduates excel in communicating with stakeholders and across professionally and culturally diverse teams. Employers provided examples of alumni with strong skills in disseminating knowledge, including through presentations and data visualization. Some employers mentioned that alumni skills in communicating to lay audiences could be stronger and that grant-writing skills and foreign language skills (for graduates of the global health concentration) would make graduates more competitive in the job market.

Theme 3: Interprofessional teamwork

A major strength that employers described was our graduates' excellent ability to work in interprofessional and intersectoral environments. Employers observed that graduates effectively navigated working on varied projects with team members from diverse cultural and professional backgrounds. They described

alumni's ability to coordinate projects across stakeholders from different organizations, funders, and other employees and team members ranging from statisticians to neurologists; and engage with multisectoral groups with diverse foci, including "One Health" and national preparedness. Employers applauded the program for our training and preparation of graduates to work on interprofessional teams. Our alumni demonstrate a high level of public health knowledge and translate that knowledge for their co-workers, strengthening their team overall. Employers described our graduates' ability to teach other team members key elements of public health practice, surveillance, and social determinants of health, especially during the pandemic.

Theme 4: Critical thinking
Employers described our alumni as critical thinkers who can ask the right questions and help their superiors think through to the "big picture." Alumni were described as having strong skills in problem solving, innovative thinking, and strategic planning. Employers appreciated that alumni have brought innovation and transformation to their teams and that they push for opportunities to engage in answering additional research questions. Graduates were also seen as action oriented, with a track record of effectively managing and completing all aspects of a project as well as developing and growing new initiatives.

Theme 5: Managing programs
Through coordinating with community health workers and various city organizations, our graduates help navigate project implementation and raise the level of public health theory upon which programs are grounded. Employers noted that our graduates are very collaborative and aware of the public health perspective they bring to their teams. One employer said that alumni would benefit from additional training in health policy and policy formation, as these elements impact their teams' public health work.

In summary, employers praised our graduates for their flexible skillset. Not only do our alumni apply public health skills in their work and teach other employees; they are also able to apply techniques and methods to new areas, demonstrating continual learning and adaptability. Employers lauded alumni's broad skillset and ability to transfer those skills to other roles and experiences within the department or organization. They are easily trained on next steps, receptive to feedback and other perspectives, and work well individually and on teams.

7) Provide documentation of the method by which the program gathered employer feedback.

Please see ERF F1.7 for the employer feedback methodology.

8) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The strategic planning process last occurred in 2019 for implementation in AY 2020–25. This process included multiple constituencies who provided key input on the direction of the program. Elements of the M.P.H. program's future direction included the following:
    - The creation of a part-time program, which was implemented in 2020.
    - Novel methods of instruction, including online classes as an option. We, along with many other programs, implemented a remote learning option in 2020 because of the COVID-19 pandemic. There were many lessons learned after this online learning took place, which has resulted in the VU M.P.H. program shifting back to predominantly in-person instruction.
    - Creation of two classes in 2020 to address emerging applied public health needs (Public Health Informatics and Health Equity).
    - More collaboration with the workforce, as well as increasing skills in program evaluation. This recommendation continues to be implemented via the academic public health contract between VU and TDH. We have created more interactions between VU and applied public health constituents at TDH to provide M.P.H. programmatic input, create professional

development opportunities, and offer continuing education for applied public health employees.

- Employers reported that our alumni work well on interprofessional and intersectoral teams; have strong analytical, communication, public health, and critical thinking skills; and are action oriented, helping to implement and manage programs.

Weaknesses:

- The public health informatics class was highly regarded by students and provided an additional elective class. The instructor of this class has left teaching due to additional responsibilities; identifying a new instructor is seen as a critical need for AY 2024–25. The Department of Biomedical Informatics is committed to hiring a new instructor who specializes in and focuses on public health informatics. We are collaborating with their Vice Chair for Education to identify an appropriate instructor.
- Post-pandemic workforce needs are increasing, as many public health employees in key positions are experiencing burnout. This makes key constituencies less likely to participate in advisory committee meetings or day-long strategic planning events.

Opportunities for improvement:

- We will explore different avenues and the use of incentives for gathering feedback from both academic and applied public health stakeholders.
- We will invite key stakeholders in IMPH to contribute to both the advisory committee and the strategic plan.
- We will invite partners with other IMPH population health programs to build community and allow for additional input and cohesion between all programs.
- Work closely with VUMC departments and divisions who control the hiring of faculty to assure that the M.P.H. program needs are met and that we can fulfil strategic plan.

F2. Student Involvement in Community and Professional Service

Community and professional service opportunities, in addition to those used to satisfy Criterion D5, are available to all students. Experiences should help students to gain an understanding of the contexts in which public health work is performed outside of an academic setting and the importance of learning and contributing to professional advancement in the field.

1) Describe how students are introduced to service, community engagement, and professional development activities and how they are encouraged to participate.

VU M.P.H. students have abundant opportunities to participate in service, community engagement, and professional development. These experiences provide students with an understanding of the contexts in which public health work is performed outside an academic setting and of the importance of learning and contributing to professional advancement in the field. Prior to their first semester, students have individual meetings with the Practicum Director. These 30-minute meetings begin to gather information about the student, including their professional goals, desired experiences, and any preferences for which organizations they wish to work with for their APE.

Introduction to additional activities and career and professional development continues throughout the first year through individual academic advising sessions, the career development program, and PHSA events. Students are required to participate in the information-gathering meeting and academic advising, and they are strongly encouraged to participate in both the career and professional development series and PHSA.

PHSA is introduced to students prior to orientation, and opportunities for leadership positions are noted in the orientation materials. Class of 2025 students were sent recruitment emails explaining PHSA and inviting them to apply for the open officer positions. We noted that this is a professional organization focused on leadership development. The two candidates for open positions from the class of 2025 met with the PHSA president and vice president and then began their duties in their new positions. Many incoming students joined the organization.

2) Provide examples of professional and community service opportunities in which public health students have participated in the last three years.

The following activities are **in addition** to APE and ILE student experiences.

Examples of Professional Development and Community Service Opportunities Involving Students (2019–22)	
Category	**Examples of Activities**
Service and community engagement	• National Public Health Week activities • **Second Harvest** (volunteer event) • **Soles 4 Souls** (started an online fundraiser) • Health Equity Innovation Awards Review Committee • Community Health Improvement Mini Grant Review Committee • PHSA participation • **Art of Healing** (WHO Art exhibition) • **Community Scholars Award** (program with the Office of Health Equity and Meharry Medical College) • **Flulapalooza** • **Boosta-Palooza** • **Project Pyramid**
Research and lecture series	• Annual David Satcher Dean's Lecture • Research Into Policy and Practice lecture series • Health Policy Grand Rounds Series

	• TN Emerging Infections Program Scientific Presentation Day • Flexner Dean's Lecture Series • Global Health Grand Rounds • Center for Clinical Quality and Implementation Research Scholarly Series • TDH Family Health and Wellness Division (FHW) seminar series on disparities and racial equity • Vanderbilt Learning Health and Implementation Science Symposium
Presentation or participation at regional or national conferences	• Emerging Infections Program Scientific Presentation Day • Consortium of Universities for Global Health • AcademyHealth Annual Research Meeting • American Public Health Association • Tennessee Public Health Association • Association of Maternal and Child Health Programs conference • Comparative and International Education Society meeting • American Society of Pediatric Hematology/Oncology meeting • ID Week meeting • Agency for Healthcare Research and Quality National Research Service Award Trainee Research Conference • National Veterans Affairs Quality Scholars Summer Institute • Fulbright Association annual conference
Professional and career development seminars	**M.P.H. special events** • **Conversations with Dr. Anthony Fauci** **M.P.H. Program Career Development Series** • Envisioning Your Career: Developing Your Elevator Pitch • An Introduction to Mentoring • Advocating Public Health • Exploring Public Health in Middle Tennessee • Practicum and Internship Search 101: Resumes, Cover Letters, and Informational Interviewing • Public Health Communication 101 • The Do's and Don'ts of an Effective Poster Presentation • What I Wish I'd known before graduating: Making the Most of Your Final Semester • Professional Writing (Part 1) • Professional Writing (Part 2) • Capstone or Thesis? Student Perspectives • Interview Tips and Techniques (Part 1) • Practice Interview Session (Part 2) • Post-Graduate Employment Opportunities **Edge for Scholars Seminar Series** • Financing Your Science before a Major Grant • Staying on Top of the Literature • Biostats/Study Design Refresher • Developing a Communications Portfolio • Best Practices for Paper Writing • Teaching with Case Studies • Navigating the Rapids of Life • Conveying Institutional Support • Maintaining Motivation

	Newman Society Seminars • How to Write your CDA Progress Report • Vanderbilt Translational Research Forum • Lessons Learned while Building a Career • Developing a Communications Portfolio • Essentials of Essentialism • Managing Competing Priorities • Navigating the Rapids of Life • Management from Multiple Perspectives • Maintaining Motivation

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- We offer multiple student events, lectures, and career development opportunities designed to provide networking and broad knowledge in both academic and applied public health.
- Multiple opportunities are provided for personal and professional development, including leadership opportunities through PHSA and more broadly within the program and in the greater Vanderbilt and Nashville communities.
- Almost all students take advantage of professional development funds to attend and present at national meetings.

Weaknesses:

- Student participation in community events and career development lectures was sparse during AY 2020–21 and again in AY 2021–22 because of COVID-19 restrictions and student hesitancy to engage in in-person events.
- This may have led to lower satisfaction with the career development series for our recent 2023 graduates even though all sessions have a hybrid option for participation.

Opportunities for improvement:

- In AY 2022–23, we have seen more robust participation in career development and community-based events.
- We will continue to encourage students' social engagement through PHSA and service activities as these build community for students and reflect the vibrant culture and environment of the program.
- We will continue to structure career and professional development advising to better adapt to and address students' future career needs.
- We will continue to promote activities for professional development and provide professional development funding to students to support their participation in local and national meetings.

F3. Delivery of Professional Development Opportunities for the Workforce

The program advances public health by addressing the professional development needs of the current public health workforce, broadly defined, based on assessment activities. Professional development offerings can be for-credit or not-for-credit and can be one-time or sustained offerings.

1) Provide two to three examples of education/training activities offered by the program in the last three years in response to community-identified needs. For each activity, include the number of external participants served (i.e., individuals who are not faculty or students at the institution that houses the program) and an indication of how the unit identified the educational needs. See Template F3-1.

The Vanderbilt M.P.H. program and TDH maintain a strong bidirectional relationship that provides both organizations with mutually beneficial interactions and opportunities. This relationship is formalized through an academic health department contract that outlines a scope of collaborative activities, including continuing education programs.

Education/training activity offered	How did the unit identify this educational need?	External participants served*
Example 1: Development of curriculum modules for the TRAIN Learning Management System for TDH (curriculum delivered in AY 2022–23)		
Overview and Basics of Health Policy (2-part series): In addition to describing the basic overview of the course, the goal of this first module is to detail the general goals, structure, and performance of the US health system. In the second module, the lecturer will discuss the substantial progress made over the past century in advancing our nation's health and health care, as well as the challenges that remain. ***Medicare, Medicaid, and Their Interaction:*** These sessions provide an overview of the Medicare and Medicaid programs and how they interact for individuals who are dually eligible for both. The module addresses the programs' intertwined histories, their financing and basic structures, the populations served by each program, and programmatic spending. ***LGBTQ Health Policy:*** This module provides an overview of LGBTQ-based inequities in health and health care outcomes in the United States. The module explores explanations for the relationships between these factors and various health outcomes, using examples from the literature to highlight concepts.	During the COVID-19 pandemic, TDH received a contract to develop a centralized continuing education program to educate for their public health workforce. Once the continuing education program was in place, they needed several modules to populate the learning management system and asked the M.P.H. program to develop content based on our faculty, staff, and student expertise. We delivered 4 modules along with post course assessment items.	There are approximately 3000 TDH employees. These four modules were developed for their learning management system. The modules are available to all TDH employees.
Example 2: Development of a health equity seminar series for TDH FHW. This continuing education program used M.P.H. program faculty, alumni, and students to develop content and provide lectures (series conducted in AY 2021–22)		

Lectures: ***Measuring Trust in Biomedical Research in Racial and Ethnic Minorities by Previous Research Participation*** ***Unequal Treatment in Public Health and Medical Care in the United States: An Old Problem with Contemporary Parallels*** ***Vaccine Hesitancy: Barriers and Potential Strategies to Increase Uptake*** ***Health Equity: From M.P.H. to Practice (Focus on Equitable Access)*** ***Access Equity: Trust and Telemedicine Use in a Diverse Primary Care Pediatric Population***	The TDH FHW health equity steering committee leadership submitted a technical assistance request to the M.P.H. program. The need was for the creation of educational programming in health equity. The VU M.P.H, program was tasked with creating a seminar series based on our faculty, staff, and student expertise. The five lectures were provided as "Lunch and Learn" zoom sessions over AY 2021–22 to all TDH FHW employees.	There are 130 TDH FHW employees. Approximately 40 individuals participated in each session in real time. The sessions were also made available via streaming for those who did not attend in person.
Example 3: Development of a training curriculum for TDH (curriculum assembled and conducted in AY 2020–21)		
Health Disparities, Unequal Treatment, and Culturally and Linguistically Appropriate Services (CLAS): M.P.H. students developed a curriculum and webinar on health disparities and unequal treatment for use by TDH FHW. They conducted an extensive literature review on the history of racial and ethnic health disparities; identified important milestones on health disparities; highlighted the evolution of unequal treatment; created modules on the history of unequal treatment, racial and ethnic data, refugee and immigrant health issues, minorities in health training and the workforce, and strategic solutions; and developed pre- and post-tests to assess knowledge gained. The course was designed to improve understanding of the historical and contemporary development–implementation of CLAS to improve healthcare services, address disparities, and achieve health equity standards to provide effective, equitable, understandable, and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy, and communication needs. Improving public health worker cultural competency is vital to reduce health disparities and achieve equity. Standardized curricula and training modules, such as these developed by VU M.P.H. students play a vital role in closing knowledge gaps.	The TDH FHW health equity steering committee leadership requested assistance in developing a health equity curriculum designed to meet the needs of TDH FHW staff. The request included the following: 1. Planning, as well as assessing the learning needs of staff regarding CLAS and health disparities. 2. Development of course content and course materials. 3. Selecting methods of course delivery. 4. Course evaluation.	There are approximately 130 TDH FHW employees, each of whom has access to this training curriculum.

In AY 2023–24, Dr. Roumie was asked to participate as one of the 15 members of the TDH Primary Prevention Clinical Advisory Committee (PPCAC). The TDH PPCAC is expected to study relevant topics and make recommendations related to clinical workforce development in health professions education. Professions included in the PPCAC are nursing, medicine, pharmacy, dentistry, public health, social work,

mental and behavioral health, and nutrition. Suggestions brought forth from individual programs across the state are shared, and best practices are developed for education. The goal is to create a health professions education curriculum to meet TDH's needs for workforce development and health professions education, particularly around two identified needs: population health concepts and social determinants of health. This participation will result in additional activities and shape both the TDH and the VU M.P.H. program training of public health professionals.

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The collaborative relationship with TDH has increased over the last 5 years and is strong. This has led to a mutually beneficial contract between the VU M.P.H. program and TDH as an academic health department.
- There is strong support, along with multiple and increasing opportunities for workforce development with TDH, particularly in certain divisions (i.e., FHW and Maternal & Child Health)
- The M.P.H. program has created individual seminars and curricula for TDH FHW, as well as curricula targeting all employees of TDH.

Weaknesses:

- The Metropolitan Nashville Public Health Department has continued needs. The pipeline between the M.P.H. program and this organization is less robust and can be grown and strengthened.
- There is a need for increased collaboration with other divisions within TDH to create opportunities for workforce development.
- Community partnered organizations also have needs for public health students, curricula, and continuing education opportunities.

Opportunities for improvement:

- We will pursue continued growth in relationships with public health agencies and constituencies.
- Continued growth and development opportunities exist for work with non-profit and community organizations.
- We will continue to engage in relationship building to develop opportunities that are mutually beneficial for applied public health partners.
- We will continue to evaluate public health needs using a process that engages key personnel at local and state health departments, as well as key community-based partners. Invitation for all constituents to participate in a key needs assessment at least once a year so the program can better fulfill constituent workforce needs.
- Participation in the PPCAC advisory committee will likely shape both VU M.P.H. and TDH training and the health professions workforce training across the state and professions. Future improvements will be determined as this group continues to meet this AY.
- We will approach leaders at the Metropolitan Nashville Public Health Department to address workforce development issues. Specifically, we can offer to create professional development workshops that focus on topics like leadership and management, media training, and grantsmanship, which conforms to the state and Metro Nashville needs assessments.
- We will explore collaborative opportunities with IMPH population health training programs, as well as workforce needs that can be addressed more broadly.

G1. Diversity and Cultural Competence

The school or program defines systematic, coherent, and long-term efforts to incorporate elements of diversity. Diversity considerations relate to faculty, staff, students, curriculum, scholarship, and community engagement efforts.

The school or program also provides a learning environment that prepares students with broad competencies regarding diversity and cultural competence, recognizing that graduates may be employed anywhere in the world and will work with diverse populations.

Schools and programs advance diversity and cultural competency through a variety of practices, which may include the following:

- **incorporation of diversity and cultural competency considerations in the curriculum**
- **recruitment and retention of diverse faculty, staff, and students**
- **development and/or implementation of policies that support a climate of equity and inclusion, free of harassment and discrimination**
- **reflection of diversity and cultural competence in the types of scholarship and/or community engagement conducted**

1) List the program's self-defined, priority under-represented populations; explain why these groups are of particular interest and importance to the program; and describe the process used to define the priority population(s). These populations must include both faculty and students and may include staff, if appropriate. Populations may differ among these groups.

The Vanderbilt M.P.H. program has demonstrated a commitment to diversity and cultural humility, which have become a target focus since the last CEPH self-study. Social diversity and a diverse faculty, staff, and student body improve the M.P.H. program. Including a diverse learning community enhances the experience for all learners and faculty, as well as resulting in better outcomes for public health.

In line with the VU and SOM designations, the M.P.H. program's underrepresented populations include people who have been subject to structural racism and bias and those who have been historically marginalized and excluded from professional opportunities in healthcare, including individuals who are Black (African/African American), Latino/Hispanic (Mexican American, Cuban, Puerto Rican, Central American, or South American), Native American with tribal affiliation, Native Hawaiian, or Pacific Islander, as well as those who face bias based on gender/sexual identity (LGBTQ). In alignment with VU and SOM policies, the M.P.H. program recognizes that diversity extends beyond race/ethnicity or sex and includes factors such as socioeconomic status, religion, national origin, age, disability, military service, sexual orientation, gender identity, and gender expression. We also have invested in the important area of socioeconomic diversity to improve the equality of educational opportunities for all students.

The Vanderbilt Racial Equity Plan was set forth in early 2022 with an overarching goal for education and training (see ERF Section G for the full Racial Equity Plan and 3 page summary). Sections V and VI of the Racial Equity Plan specifically pertain to educating students and trainees to become a workforce that seeks racial equity and to recruiting and retaining students and trainees from racial and ethnic groups historically excluded from the health sciences. This goal was set with the intentions of preparing all learners to understand the social construct of race and the impact of racism on health and of equipping learners to seek racial equity in all their endeavors. Increasing the inclusion of individuals from underrepresented backgrounds is of paramount importance in our efforts to develop public health professionals with broad skills regarding diversity and cultural humility. With increasing recognition of racism as a public health crisis over the last several years (https://www.apha.org/Topics-and-Issues/Racial-Equity/Racism-Declarations), we must engage in efforts to eradicate the impacts of structural racism in all training programs, including those in public health. We seek to create innovative and stimulating learning environments. We prepare students to work with diverse communities, ensuring that our graduates are able to recognize and adapt to cultural differences and contribute to correcting the health inequalities resulting from years of racism.

2) List the program's specific goals for increasing the representation and supporting the persistence (if applicable) and ongoing success of the specific populations defined in documentation request 1.

1. Recruit and retain a socially diverse group of highly talented students
The mission of the Vanderbilt M.P.H. program is to train future research scientists and public health professionals to be innovative leaders dedicated to using their skills and knowledge to achieve optimal health and well-being in all people. One of the key objectives required to reach this program goal is recruiting a highly talented and socially diverse group of students who are committed to public health and who will become leaders in the public health sciences through research, discovery, and practice.

We seek diversity as a natural extension of our institutional culture, which values excellence and team science. Over the past 15 years, the M.P.H. program has committed to recruiting, supporting, training, and retaining a diverse pool of students and faculty. The SOM and Graduate School deans and the VUMC administration are committed to the development of programs to enhance diversity within the Vanderbilt community. As an institution, Vanderbilt has received national recognition for its success in attracting students from underrepresented groups to pursue advanced degrees.

About 15% of faculty and 17% of undergraduates identify as underrepresented at VU. With a codified diversity plan within the Office of Health Equity, we have increased the number of underrepresented M.P.H. students over the last 15 years. We have planned and implemented a highly flexible approach to student recruitment and retention to accommodate individual needs. We provide a diverse mentor pool and individualized training designed to facilitate the achievement of each student's career goals. The M.P.H. program's operations and diversity committees have worked with the Senior Associate Dean for Health Equity and Inclusive Excellence in the SOM (Dr. Consuelo Wilkins) to develop programs and procedures to increase minority recruitment:

Diversity Initiatives	Description of Activities and Objectives
Office for Diversity, Vanderbilt University SOM and VUMC ***Established in 1999 to enhance SOM recruitment and retention***	• Letters (including videotapes) soliciting applicants • College visits to recruit minority pre-med students • Minority scholarships: Cornelius Vanderbilt Scholarships • M.P.H. David Satcher Scholarship • Unconscious Bias Training for all clinical departments • Yearly Department Chair Assessment Metric: % applicants who are Black, Indigenous, and People of Color • Visiting Minority Scholars: covers the cost of invited scholars
Vanderbilt "Women On Track" ***https://www.vumc.org/women-on-track/***	• Promoting the advancement of women in science • Providing mentorship for women faculty • Working to attract and retain talented women at the house staff and postdoctoral levels at Vanderbilt
Racial and ethnic diversity ***Recruitment of underrepresented racial and ethnic groups***	• Annual Black and Hispanic Weekend for recruitment • Bridges Program: Ph.D. opportunities for minority students • M.P.H. diversity committee manages the Satcher Scholarship; one scholarship per track is available for recruitment
Meharry-Vanderbilt Alliance ***www.meharry-vanderbilt.org Formal alliance of Vanderbilt with Meharry Medical College (one of three US minority medical colleges)***	• Meharry Focused Partnership, Stopping Health Disparities Program • Meharry-Vanderbilt partnership: provides access to training and research resources for both institutions • Recruiting from Meharry graduates

Alliance for Cultural Diversity in Research	• Aiding and retaining diverse groups pursuing research careers
Individuals with disabilities	• Vanderbilt Disability Service Program: assists with accommodations, investigates discrimination, and conducts training. • Vanderbilt's campus and the M.P.H. classroom is wheelchair accessible
Individuals with disadvantaged backgrounds	• Travel vouchers/alternative virtual interviews are offered

We are intentional about fostering advancement and respect for equity, diversity, and inclusion for all students, faculty, and staff. To bring our vision to life, we recruit, admit, promote, and support diverse groups. We embrace the plurality of humanity that composes our community, including in age, race, ethnic origin, socioeconomic background, gender identity, sexual orientation, physical ability, political views, and religion. We affirm the inherent worth of everyone to protect, promote, and optimize the achievement and well-being of all people. We accept responsibility for fostering culturally sensitive professionals who mirror the diverse populations we serve and for ensuring a faculty and staff who are committed to this end.

2. Enhance diversity in the public health workforce by supporting the David Satcher Public Health Scholars program

The Satcher Scholarship was implemented to enhance the diversity of individuals working in public health and to increase diverse perspectives and cultural awareness in the M.P.H. program. The Vanderbilt M.P.H. David Satcher Public Health Scholars program honors the public health contributions of David Satcher, M.D., Ph.D. Dr. Satcher was the 16th Surgeon General of the United States. He is a former president of Meharry Medical College and serves as the current Director of the Satcher Health Leadership Institute at Morehouse School of Medicine. He has made a commitment to improve public health policy for all Americans and to eliminate health inequities for minorities, poor people, and other groups due to racism and economic disadvantages. Any M.P.H. students with an interest in health inequities can 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.

The merit-based Satcher Scholarships provide tuition support for the 2-year M.P.H. program and are awarded to applicants from historically disadvantaged groups. Application for the Satcher Scholars program occurs at the time of initial application to the M.P.H. program. We use the applicants' SOPHAS application (transcripts, statement of purpose, and letters of recommendations) to determine the distribution of scholarships. The application includes an additional question to distinguish students who self-identify as facing challenges due to disadvantage (Satcher Scholarship applicants):

The David Satcher Public Health Scholars program provides tuition support to Vanderbilt M.P.H. students from underrepresented backgrounds. The program honors the public health contributions of David Satcher, M.D., Ph.D., and his commitment to eliminate health disparities. If you would like to be considered for tuition support through the David Satcher Public Health Scholars program, please tell us why you are a strong candidate for this award.

Each written application is evaluated by two track reviewers and assigned a priority score from 1 (highest) to 5 (lowest) based on 1) academic aptitude, 2) professional or academic experience, 3) commitment to a career in public health, and 4) strength of letters of reference. The final ranking of applicants from highest to lowest priority and candidate selection are performed in a meeting of the full admissions committee.

3. Incorporate cultural and social diversity throughout the M.P.H. curriculum, addressing 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 faculty to incorporate cultural humility in their course materials. The M.P.H. program provides systematic opportunities for faculty to assess the extent to which diversity and cultural humility are addressed in their courses and to identify areas to be strengthened.

During curriculum committee and advisory committee meetings, we actively discuss ways to ensure that the curriculum includes diverse perspectives. Over the last 2 years, we have begun to focus on antiracism and antibias education and training. Information from student feedback is incorporated into these efforts. Diverse perspectives are included in the curriculum, using multiple strategies:

- Core public health courses now include incorporation of cases studies, as well as topics and articles that are more global health focused. The concept of disparities due to structural racism is introduced early in the curriculum of the Epidemiology I course. The addition of the global health and health policy tracks have provided increasing opportunities for further expansion on cultural issues in health and on health inequities in the United States and in low-resourced settings.
- Beginning in 2022, the M.P.H. program added antiracism training, including microaggression training, for all incoming students and faculty as part of their respective orientation sessions. During this workshop, the students and faculty are encouraged to identify opportunities for improvement in their personal and professional lives.
- The Health Equity for Public Health course was added as a curricular requirement for all students in 2021. This course addresses key concepts in health inequities and the historical reasons that impacted the development of health inequities affecting marginalized populations. Covered factors include structural racism, immigrant health and Deferred Action for Childhood Arrivals (DACA), as well as intersectionality of health and race.
- In addition to the cultural humility efforts incorporated in the M.P.H. curriculum, the David Satcher Public Health Scholars program, introduced above, is a multifaceted program designed to increase cultural awareness and to promote an environment free from racism and bias in the M.P.H. program.

The annual Vanderbilt M.P.H. David Satcher Public Health Scholars visiting lectureship was established in 2009, and all students are required to attend. Past and planned speakers are as follows:

- 2009 David Satcher, M.D., Ph.D.
- 2010 Deborah Prothrow-Stith, M.D.
- 2011 Michelle D. Holmes, M.D., M.P.H., Dr.P.H.
- 2012 Herman A. Taylor Jr., M.D., M.P.H.
- 2013 Ana E. Núñez, M.D.
- 2014 Donald R. Hopkins, M.D., M.P.H.
- 2015 Neil R. Powe, M.D., M.P.H., M.B.A.
- 2016 Camara P. Jones, M.D., Ph.D., M.P.H.
- 2017 Hannah Valantine, M.D.
- 2018 Selwyn Rogers, M.D., M.P.H.
- 2019 David Satcher, M.D., Ph.D.
- 2020 Mona Hanna-Attisha, M.D., M.P.H.
- 2022 David R. Williams M.P.H., M.A., Ph.D.
- 2023 Ana Diez-Roux, M.D., M.P.H
- (Anticipated) 2024 Assistant Secretary Loyce Pace, M.P.H.

In addition to meeting with students, VU SOM and M.P.H. administration, and faculty, the Satcher Lecturer gives a Dean's Lecture to the entire Vanderbilt community. The anticipated 2024 lecturer, Assistant Secretary Loyce Pace, will begin her visit with meetings with both faculty and the administration to discuss strategies to improve diversity in public health and address the topic of racism as a public health emergency. She will give a noon lecture to the Vanderbilt community *"Global Health in the Biden-Harris Administration: Look Back and Look Ahead"*. Following the lecture, she will be invited for small-group student meetings to share her experiences as a leader in the Office of Global Affairs for the US Department of Health & Human Services. She was Executive Director of the Global Health Council and a member of President Biden's COVID-19 Advisory Board. These meetings between M.P.H. students and the Satcher Lecturer are often highly regarded and allow students a glimpse into how they can be "change agents" to impact health disparities and public health in the future.

4. Maintain an active standing diversity committee

The Vanderbilt M.P.H. diversity committee was established in 2009 (composition described in Section A1) and includes program administrators, faculty, students, and SOM leadership. The diversity committee monitors and makes recommendations on strategies to recruit an inclusive and diverse population of students, faculty, and staff and on 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 and considers all nominations for the yearly Satcher Lecture. They also provide input on the curriculum, as noted in Section 3 above.

3) List the actions and strategies identified to advance the goals defined in documentation request 2, and describe the process used to define the actions and strategies. The process may include collection and/or analysis of program-specific data; convening stakeholder discussions and documenting their results; and other appropriate tools and strategies.

1. Recruit and retain a culturally and socially diverse group of highly talented students
The Vanderbilt M.P.H. program is committed to developing a culturally competent faculty, staff, and student body who have the broad skills related to diversity and cultural competency necessary to work with and be responsive to diverse individuals and communities. During advisory committee, operations committee, and diversity committee meetings, there are discussions regarding appropriate strategies to advance the program's diversity and cultural humility efforts and recruitment, considering all aspects of social diversity. The M.P.H. program's website provides links to VU's Office of Diversity. The M.P.H. program communicates with underrepresented faculty, house officers, and medical students about the program. This outreach for a more inclusive student body and faculty complements our diversity efforts.

While in the program, students are made aware of multiple resources for cultural and identity affinity groups, including, for example, the Bishop Joseph Johnson Black Cultural Center, the Margaret Cuninggim Women's Center, the Office for LGBTQ Life, and the Office of the University Chaplain and Religious Life. Many affinity groups are introduced to students as part of orientation activities, and group representatives are given time to introduce themselves and their services to students.

2. Enhance diversity in the public health workforce by supporting the David Satcher Public Health Scholars program
The David Satcher Scholarship and annual lecture have been very successful as strategies to increase diversity among the student body. The M.P.H. program provides three scholarships annually to qualified applicants (as delineated above). The need for student scholarships among our socioeconomically diverse students is greater than we can meet at this time. As demonstrated, almost 50% of the incoming AY 2023–24 class noted an HRSA indicator, and we can provide merit-based scholarships to approximately 10% of incoming students. Our success in recruiting a socially and economically diverse incoming class will depend on increased development funds and endowments. The annual Satcher Lecture program raises awareness of our diversity efforts and the endowment funds. The annual lecture also highlights the importance of continued work to reduce health inequities and the continuing health needs of diverse and marginalized populations to the broader VU and VUMC community.

3. Incorporate cultural diversity throughout the M.P.H. curriculum, addressing 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 offer yearly opportunities for faculty and staff to develop and refine curricula that address and build competency in diversity and cultural humility. Curricular review is conducted across all classes each year approximately 4 weeks prior to class start. As a result of this review, topics related to health equity and health disparities are updated in the curriculum (e.g., required readings, article review exercises, examination topics, homework problems, interactive lecture materials). The Health Equity for Public Health course was formulated in 2020 in part because of curriculum reviews and in response to a request during the 2019 strategic plan. The strategic plan identified a need (of constituents) for our students to have skills in health equity as an area of future growth (see Table B2-2 for curricular change).

They key learning objectives covered in Health Equity for Public Health (PUBH 5575) include the significance of privilege, bias, and power dynamics and student reactions to "different" others, with regard

to race, class, gender, religion, sexuality, disability, and age. The course also discusses marginalization associated with immigration status. Further, students learn the theoretical and conceptual frameworks that explain how historical context and social and cultural differences are used to justify systematic oppression, inequalities, and social injustice in public health. Finally, students develop skills in applying social justice and equity frameworks through a public health lens.

4. Maintain an active standing diversity committee
M.P.H. program applicants are invited to meet with a member of the diversity committee during campus visits or as part of the application process. All students are informed of our diversity efforts during orientation. The diversity committee has conducted several initiatives over the past several years to create a sense of community for students:

- Welcome dinner (started in 2016) for the diversity committee and part of orientation activities: occurs during the first 2 weeks of classes to welcome first-year students and introduce them to other committee members
- Special art reception (https://news.vanderbilt.edu/2020/01/07/visionary-aponte-art-and-black-freedom-opens-at-cohen-hall, March 2020): reception and curator-led gallery tour at Cohen Fine Arts Gallery, including a speech by VU Professor María Magdalena Campos-Pons (with the Department of Pediatrics)
- VUMC Underrepresented in Medicine listserv (started in 2020): M.P.H. students are added to Office for Diversity Affairs listserv
- VU Black Cultural Center (2020): Dean Roosevelt Noble meets and connects Black students with the VU Black Cultural Center, increasing awareness of programming for M.P.H. students to participate in events.
- Life coach mentoring program (started in 2016): voluntary program where first-year students are paired with a faculty mentor to serve as an additional resource throughout their time in the M.P.H. program

The diversity committee hosts antiracism and antibias microaggression training as part of the M.P.H. program orientation. The evaluation of the microaggression training in August 2022 and 2023 is summarized in the following table (reported as means of respondent responses on a Likert-type scale, where 1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, and 4 = *strongly agree*):

I feel confident in my ability to...	**AY 2022–23** ***N* = 14 responses (49%)**	**AY 2023–24** ***N* = 29 responses (90%)**
1) …notice when a microaggression is occurring.	3.79	3.41
2) …respond as an active bystander when I notice a microaggression occurring.	3.36	3.10
3) …respond as the recipient when I experience a microaggression toward me.	3.07	3.07
4) …respond as the source when I notice I have engaged in a microaggression.	3.57	3.24
5) …debrief the microaggression situation with the recipient and other bystanders.	3.43	3.00

Feedback solicited after the microaggression training included the following two themes:

Theme 1: Safe environment for sharing experiences
Students noted that they enjoyed this training but suggested that it "…would be helpful to include more trigger warnings at the beginning in cases where those have experienced a microaggression." Another suggestion was that "we could do this later, once we have met each other more and are more likely to share opinions." One student noted, "it would have created a more open atmosphere to not have second-year students lead the activity but rather let the first years have more 1:1 time to connect on their own and do the training." Finally, students asked for ways to respond to peer-to-peer microaggressions rather than only in student and faculty scenarios.

Theme 2: Sufficient time and structure of the training
Multiple students remarked that they felt like they needed more time for discussion in small groups and that those smaller discussions could have been a bit more structured, with a smaller number of students (three or four students instead of six or seven). Small-group work was seen as helpful, and the provided examples of microaggressions and how to respond depending on your role in the interaction were also seen as helpful.

4) List the actions and strategies identified that create and maintain a culturally competent environment and describe the process used to develop them. The description addresses curricular requirements; assurance that students are exposed to faculty, staff, preceptors, guest lecturers and community agencies reflective of the diversity in their communities; and faculty and student scholarship and/or community engagement activities.

As described above, Vanderbilt M.P.H. students are required to

- Complete antiracism (Microaggression Part 1) training during orientation
- Take the Health Equity for Public Health course, which also incorporates antiracism training (Microaggression Part 2, project completion)
- Attend the Satcher Lecture and reception
- Adopt a commitment to the diversity in their approach to public health science

Faculty

The Vanderbilt M.P.H. program and VU have made a commitment to recruiting and supporting a diverse faculty. A number of policies support this commitment, as described in the Vanderbilt Faculty Manual (https://www.vanderbilt.edu/faculty-manual/). No exclusion in recruitment, 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 also described in the Vanderbilt 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 monitor the university's compliance with equal opportunity and affirmative action laws and coordinate and implement the provisions of the Affirmative Action Plan.

VU SOM Senior Associate Dean Consuelo Wilkins directs the Office of Health Equity (OHE) and has regular interactions with the M.P.H. program, including serving on the advisory committee, meeting with the Satcher Lecturer, and serving as a program mentor and practicum supervisor in her OHE roles. In 2016, Vanderbilt was selected as one of eight "Building a Systems Approach to Community Health" institutions. This project created the OHE. Supervised by Dr. Wilkins, the OHE serves as an institutional home for clinical, educational, research, and operational initiatives to address health inequities among minoritized and disadvantaged populations. The OHE works closely with the M.P.H. program as a placement site for students' APEs. The OHE's community health teams and public health students lead efforts to bridge gaps in equity, working in close partnership. To date, more than 20 M.P.H. students have been involved in community health needs assessments and are impacting improvements in the community. Multiple examples of student APE projects that are embedded in the OHE are included in Section D.

The VU SOM Office for Diversity (https://www.vumc.org/diversity/) 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." The Office for Diversity supports VU SOM student affinity groups with mentoring, funding, and other resources throughout the academic year. Diversity efforts are evaluated school wide on an annual basis with input provided from the multiple levels of the organization to the Dean of the SOM.

The Health Equity Plan (ERF Section G) builds on the initial diversity plans of 2005 and 2009. The most recent plan has led to greater diversity in the SOM and a structure for prospectively increasing diversity in graduate medical education and in the faculty ranks. The VU M.P.H. program works closely with the OHE and the departments and divisions to recruit faculty who are appropriate candidates as instructors for

PUBH classes where there is a current vacancy, as mentioned in Section E (Public Health Informatics and Grant Writing).

The Health Equity Plan's overall goal is to increase diversity among faculty and department chairs in the SOM and to provide annual results on diversity performance measures (listed below) to the Vice Chancellor for Health Affairs and the Dean of the SOM, along with the other reported year-end performance results. There will be a series of cluster hires that will recruit at least eight new tenure-track minority faculty within the next 4 years.

Measures for faculty include the following:

- Increase good faith efforts to recruit more diversified faculty in each department
- Increase the diversity of postdoctoral scholars, house staff (including fellows), and instructors in each department
- Develop and implement faculty development programs aimed at racial/ethnic minority faculty
- Increase the number of consultation/collaboration events involving diverse faculty or related to health inequity community issues, as well as the diversity of the number of speakers invited for basic science department lectures/seminar series and for other efforts

5) Provide quantitative and qualitative data that document the program's approaches, successes and/or challenges in increasing representation and supporting persistence and ongoing success of the priority population(s) defined in documentation request 1.

Below, we note the demographic characteristics of the last five incoming M.P.H. cohorts. As evidenced in the table, we have emphasized recruitment of students who are underrepresented in public health, those who note HRSA indicators, and international students. Over the past 20 years, there has been a sustained and successful effort at Vanderbilt to recruit, support, train, and retain a diverse pool of students and scientists. There is a codified diversity plan, as well as additional scholarship opportunities for minoritized students and students from socioeconomically disadvantaged backgrounds. **In 2016, 20% of our students self-identified with groups that are underrepresented in public health, and 18% noted an HRSA indicator. In the incoming class for Fall 2023, 55% are from groups that are underrepresented in public health, and almost 50% indicate one or more HRSA indicators.**

Year	Matriculants	Underrepresented* in Public Health (% of Total)	One or More HRSA Indicators† (% of Total)	International Matriculants (% of Total)
Fall 2023	31	55%	42%	16%
Fall 2022	27	26%	44%	15%
Fall 2021	28	36%	39%	14%
Fall 2020	31	45%	29%	2%
Fall 2019	27	41%	37%	11%

*This includes those who self-identify as non-white; categories are not mutually exclusive—students may select international, HRSA, and underrepresented in public health.

† one or more of the following HRSA indicators selected:

- Your parent's family income falls within the table's guidelines, and you are considered to have met the criteria for economically disadvantaged.
- I graduated from a high school from which a low percentage of seniors received a high school diploma.
- I graduated from a high school where 50% or less of graduates go to college.
- I graduated from a high school where I was eligible for free or reduced price lunches.
- I am from a family that receives public assistance or lives in an area that is designated as a Health Professional Shortage Area.
- I am a high-school drop-out who received AHS diploma or GED or I am receiving public assistance.
- I am the first generation in my family to attend college (neither my mother nor my father attended college).
- English is not my primary language.

While the proportions of students who self-identify as having economic need and international students have generally increased over the last 5, years we did observe a slight decline in the proportion of individuals who self-identify as non-white who matriculated in the program in 2022. While underrepresented matriculants have declined slightly, the percentage of accepted students who are underrepresented remains steady at over 45%. The biggest reason accepted applicants decide not to matriculate is the cost of the degree and the cost of living in Nashville.

Applications, Acceptances and Matriculations among Non-White students				
Year	Total applications, *N*	Applicants underrepresented* in public health/non-citizens, *N* (and % of total applicants)	Accepted students underrepresented* in public health/non-citizens, *N* (and % of underrepresented applicants)	Matriculating students underrepresented* in public health/non-citizens, *N* (and % of underrepresented accepted students)
2022–2023	203	136 (67%)	97 (71%)	17 (18%)
2021–2022	194	106 (54%)	50 (47%)	7 (14%)
2020–2021	232	96 (41%)	47 (49%)	10 (21%)
2019–2020	199	115 (58%)	55 (48%)	12 (22%)

Section III of the Health Equity Plan notes the faculty distribution. We have seen the impact of the "minority tax" or the excess burden placed on minoritized faculty to represent and advocate for diverse faculty. As a result of added responsibilities, we saw the recent departure of two faculty members (two who stepped away from teaching responsibilities and another who transferred to a new institution).

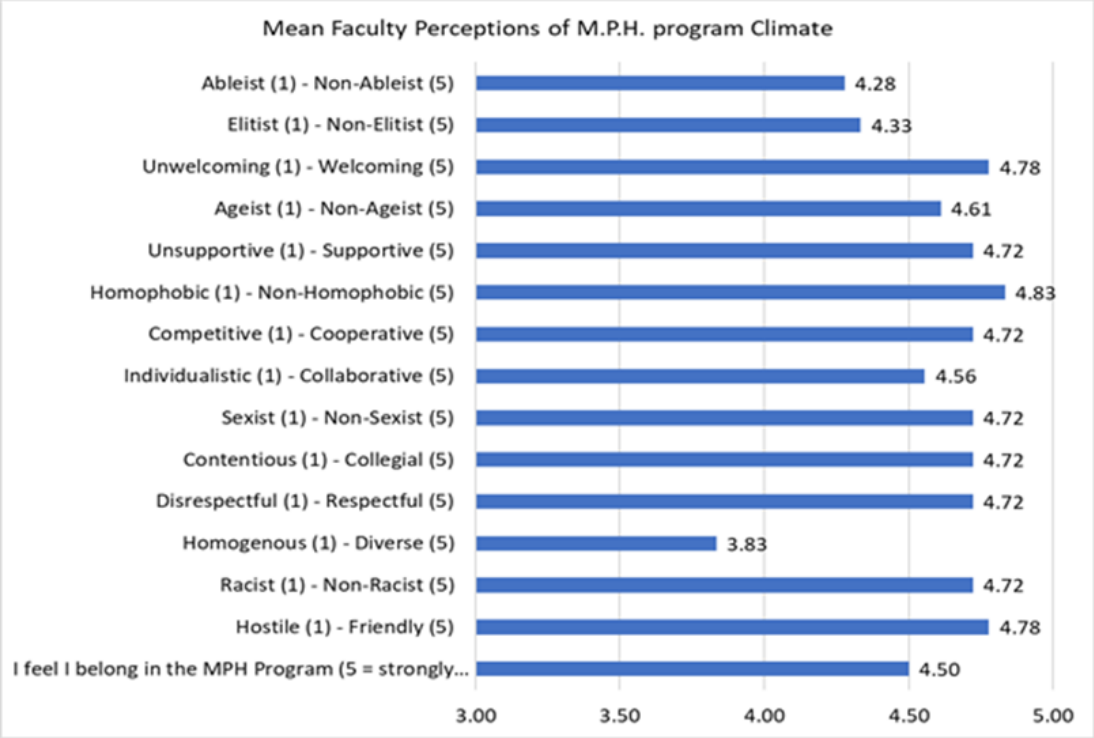
Faculty Racial and Ethnic Distribution			
	VU SOM faculty	VU M.P.H. PIF in AY2023–24 (*N* = 29)	VU M.P.H. PIF in AY2022–23 (*N* = 29)
Black/African American	3%	3%	14%
Hispanic/Latino	3%	7%	7%
Asian	11%	14%	14%
American Indian/Alaska Native,	< 1%	0	0
Native Hawaiian/Pacific Islander	< 1%	0	0

6) Provide students and faculty (and staff, if applicable) perceptions of the program's climate regarding diversity and cultural competence.

In July 2023 we conducted a mixed-methods evaluation of the M.P.H. program's climate and cultural humility. The instructional faculty (*N* = 27) were invited to participate in the survey, and 19 (70.4%) responded.

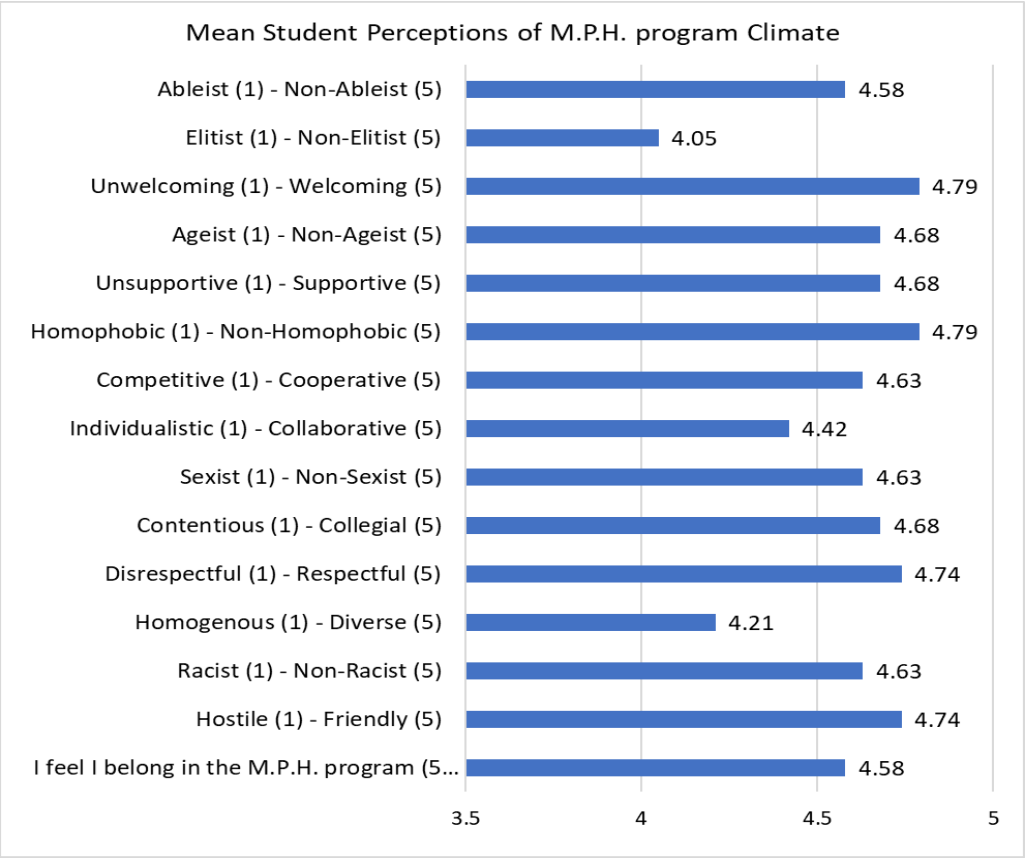
Item	**Mean**	**Median**
The M.P.H. curriculum represents diverse perspectives, especially historically underrepresented perspectives. (5 = *strongly agree*)	4.28	4.50
Course materials (e.g., readings, articles) in the M.P.H. program represent diverse authors, particularly authors from historically underrepresented groups. (5 = *strongly agree*)	3.83	4.00
The M.P.H. program is committed to increasing representation of underserved populations in the program. (5 = *strongly agree*)	4.56	5.00
M.P.H. faculty and staff demonstrate cultural humility and respect for people from all backgrounds and abilities. (5 = *strongly agree*)	4.61	5.00
M.P.H. students demonstrate cultural humility and respect for people from all backgrounds and abilities. (5 = *strongly agree*)	4.67	5.00

The M.P.H. program has a strong commitment to diversity, equity, and inclusion. (5 = *strongly agree*)	4.72	5.00
I feel I belong in the M.P.H. program. (5 = *strongly agree*)	4.50	5.00
The M.P.H. program provides programs and resources to support the success of a diverse student body. (5 = *strongly agree*)	4.39	5.00



We also invited the second-year M.P.H. students (*N* = 29) to participate in the survey, and 19 (66%) responded.

Item	Mean	Median
The M.P.H. curriculum represents diverse perspectives, especially historically underrepresented perspectives. (5 = *strongly agree*)	4.53	5.00
Course materials (e.g., readings, articles) in the M.P.H. program represent diverse authors, particularly authors from historically underrepresented groups. (5 = *strongly agree*)	4.37	5.00
The M.P.H. program is committed to increasing representation of underserved populations in the program. (5 = *strongly agree*)	4.89	5.00
M.P.H. faculty and staff demonstrate cultural humility and respect for people from all backgrounds and abilities. (5 = *strongly agree*)	4.58	5.00
M.P.H. students demonstrate cultural humility and respect for people from all backgrounds and abilities. (5 = *strongly agree*)	4.74	5.00
The M.P.H. program has a strong commitment to diversity, equity, and inclusion. (5 = *strongly agree*)	4.74	5.00
I feel I belong in the M.P.H. program. (5 = *strongly agree*)	4.58	5.00
The M.P.H. program provides programs and resources to support the success of a diverse student body. (5 = *strongly agree*)	4.47	5.00



Both students and faculty rated "*diverse"* and *"non-elite"* as the lowest characteristics of the M.P.H. program climate.

The survey included a text box to collect qualitative information. The prompt for students (*N* = 11 responded), staff (*N* = 4), and faculty (*N* = 9) was **"What is the most important thing the M.P.H. program can do or keep doing to support students of different races, ethnicities, cultures, and abilities?"** The following themes (with representative response extracts) emerged:

Theme 1: Satcher Scholarship and diversity in admissions

- "I personally feel that the Vandy M.P.H. program makes an effort to be inclusive to diversity. You all provide one of the only scholarship opportunities I could find to help support low-income/first-gen students get an M.P.H. rather than a Ph.D. Having that debt-free opportunity enables folks like me to attend a great school that would otherwise be out of reach financially. This opportunity, I'm sure, improves the diversity of the program. It's a shame that more scholarships like the David Satcher Scholarship do not exist commonly elsewhere or are not more present at Vanderbilt. I am extremely grateful for it, as I'm sure other scholarship recipients also are." (Student 1)
- "The selection of candidates for the Satcher Scholarship is a thoughtful process that views the candidate through a holistic lens. The scholarship offers tuition support to economically and socially marginalized underrepresented minorities." (Faculty 1)
- "Increasing diversity in admissions has been a priority – 1) scholarships support URMs to matriculate; 2) beginning in the 2023-24 admissions cycle, a plan has been proposed (by the global health track) to increase outreach to HBCUs to recruit more diverse students." (Faculty 3)

- "Provide scholarships and other financial support as needed; provide targeted mentoring for students who don't have a family/etc. background in graduate study in the US (e.g., first gen, international students, etc.)" (Faculty 8)
- "I think that what's important for me is to know that my experiences of anything in the program would not be possible without funding to attend, and so I find it important to stress the importance of that rather than my experiences themselves, which I think will improve for future students as financial barriers are removed." (Student 6)

Theme 2: Safe and collaborative learning environment

- "Program leadership has also worked to create a climate that values a diverse, inclusive, and welcoming learning environment with tailored mentoring, a DEI faculty lead, diverse faculty, and a scholarship program that is targeted to underrepresented students." (Faculty 1)
- "Vanderbilt's M.P.H. program creates a climate that prioritizes diversity, equity, and inclusion. This occurs through formal didactics, including seminars on implicit bias, lectures on social determinants of health, and courses on health equity. Our faculty are deeply committed to creating a safe learning environment and to incorporating and exemplifying the principles of justice, diversity, equity, and inclusion." (Faculty 2)
- "The program culture is welcoming, not only of diverse identities and backgrounds, but of diverse viewpoints on professional, scientific, and public health policy and practice concerns. There is a strong *esprit de corps* among both faculty and students in the program, extending to historically underrepresented groups in STEM disciplines. There is also a broad appreciation of the strengths that different cultural perspectives, including different lived experiences (both in and outside of academia), lend to methodologic, theoretical, and practical discussions of epidemiology and public health practice within the program—whether in the classroom, during seminars, during research meetings, or simply in casual conversation among colleagues." (Faculty 4)
- "I think the MPH program does an overall good job in regard to diversity and cultural humility. The class of students come from many backgrounds and professions, and many courses of the program encourage students to share their unique experiences, allowing others to learn and educate themselves on perspectives they haven't considered before. Many courses also dive into the importance of cultural humility when it comes to evaluating and treating patients too—often debunking long-held medical myths. Professors emphasize that an individual should be treated on a case-to-case basis, but also highlight how certain demographics have been on the brunt end of social and economic hardships and thus need more consideration and resources devoted to have them catch up to national health standards." (Student 2)
- "I believe that having as much two-way interaction with students [as possible] and creating a friendly supportive atmosphere is of great importance. Getting to know students and winning their trust is critical in this endeavor." (Faculty 7)
- "We have phenomenal diversity of race, ethnicity, and culture. We are often rigid of life circumstances of the student (needing to go remote for short period of time when once upon a time classes were entirely remote). We do not have diversity of thought. I often feel I am in an echo chamber, and I would love to hear more differing perspectives. I do think this is an overall challenge in public health." (Student 4)
- "Be a safe place for discussion—especially when there are opposing viewpoints. In today's culture, it is really hard to have opposing viewpoints, but I think it's necessary to learn how to move forward towards a common goal." (Student 5)

Theme 3: Culturally competent training

- "We have worked hard to incorporate diversity and cultural humility into our program through regular education and training opportunities and community initiatives." (Faculty 1)
- "Many of the social determinants of health that drive health inequities, which were brought into the public sphere during the pandemic, can only be addressed by [a] culturally competent workforce." (Staff 2)
- "The program offers opportunities for students to confront implicit biases, gain knowledge about cultures different from their own, and recognize systemic issues stemming from cultural

incompetence. This prepares them to effectively address these challenges when they enter the workforce." (Staff 3)
- "Courses highlight social determinants of health and the importance of recognizing the impact that culture has in public health programs; the health equity course helps students increase their cultural humility." (Faculty 3)
- "Continue to create opportunities for students to hear from a diverse range of faculty and speakers from different races, ethnicities, cultures, and abilities through coursework and guest lecture opportunities." (Faculty 6)
- "Implementing initiatives that help new students from different backgrounds adapt in the US life and guide them through the process." (Student 3)
- "Please ensure international students are taken under someone's wing while they get settled. I overheard some struggling with housing and a culture shock the first few months, and how it was hard for them to deal with due to not knowing anyone yet." (Student 8)
- "I appreciate the desire for more diversity, inclusion, and cultural humility. I love that there are people from all over the world in the program. It provides diverse perspectives, which are valuable." (Student 9)
- "Incorporating more diverse perspectives into the curriculum and events to promote deeper understanding of global health issues." (Student 6)

Theme 4: Satcher Lectureship and microaggression training

- "We have been very intentional and have done [a] good job in always giving the Scholars and other underrepresented minorities the opportunity to participate in the selection and the planning of the lecture. Scholars have the opportunity to interact one on one with the yearly Satcher Lecturer. This has been extremely well received and is one of the highlights in the training of our Scholars." (Faculty 5)
- "We have successfully implemented two required microaggression sessions (one during orientation and [the] other during the spring semester). To engage students, we have successfully trained second-year students to conduct the discussion of cases for the first session. Both lectures have been well received." (Faculty 2)
- "You are preaching to the choir re- microagressions" (Student 4)

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- Our diversity committee is an active part of the M.P.H. community, providing input on program structure, curriculum, and direction since 2009.
- The David Satcher endowment is fully funded and continues to grow. This endowment supports scholarships for students who are underrepresented in public health and committed to reducing health disparities.
- The M.P.H. program has close ties with the OHE. These collaborations allow students to apply skills learned in foundational courses such as Health Equity for Public Health to their APE, in conjunction with community health needs assessments and implementation plans.
- We accept responsibility for fostering culturally sensitive professionals who mirror the diverse populations we serve and for ensuring a faculty and staff who are committed to this end.

Weaknesses:

- We are consistently able to offer three full Satcher Scholarships per year, but student need has been greater than what the internal program support can provide.
- Among both faculty and second-year students, diversity and non-elitist were the lowest-rated features of the M.P.H. program's climate. Additionally, while we have increased the proportion of international students and those with HRSA indicators and economic need, the proportion of students underrepresented in public health has dipped in the 2022 year. This decline has been at the step of

matriculation, as both applications from underrepresented students and acceptances in this group have remained steady in the last few years.

- Three minority PIF faculty stepped back from teaching responsibilities this AY, two of them cited additional responsibilities. The departure of these teaching faculty has changed the composition of the PIF, which is currently more reflective of the demographic characteristics of the Vanderbilt SOM faculty and, as a result, less diverse than in previous years.

Opportunities for improvement:

- We will pursue growth in endowments and philanthropy to advance scholarships for underrepresented students and those with economic need.
- We will work closely with the OHE and faculty chairs in departments and divisions to recruit diverse faculty to become PIF in the M.P.H. program.
- The Supreme Court's recent decision will remove race from all SOPHAS applications; however, we can and will increase recruitment activities at historically Black colleges and universities to strengthen and grow the pipeline of potential candidates from these institutions applying to the VU M.P.H. program.

H1. Academic Advising

The program provides an accessible and supportive academic advising system for students. Each student has access, from the time of enrollment, to advisors who are actively engaged and knowledgeable about the program's curricula and about specific courses and programs of study. Qualified faculty and/or staff serve as advisors in monitoring student progress and identifying and supporting those who may experience difficulty in progressing through courses or completing other degree requirements. Orientation, including written guidance, is provided to all entering students.

1) Describe the orientation processes. If these differ by degree and/or concentration, provide a brief overview of each.

The M.P.H. program prepares students for campus arrival by emailing the incoming cohort at least monthly from April to August with orientation, training and administrative tasks to complete and helpful resources for their transition.

In July, incoming students schedule a one-on-one meeting with the Practicum Director so that he can gain a better understanding of their career goals, mentorship needs, and interests in public health content and methodology. Notes from these meetings help the Concentration Track Directors design robust mentoring committees and pair students with student employment that aligns with their career goals.

In August, we conduct an informative, comprehensive, and engaging 2-day orientation for first-year students prior to the start of classes. All students are required to participate in programming on both days. The first day is focused on creating a welcoming environment, building community, and orienting students to Vanderbilt. The second day is focused on orienting students to program requirements and support resources.

In AY 2022–23, the day one orientation events included introductions of faculty, staff, and students; anti racism training on microaggressions and biases; instruction on identifying one's strengths and understanding the importance of working with others who have different strengths (using the StrengthsFinder® model); and a tour of campus. The second day activities included an overview of the program, practicum, culminating experience, and requirements for graduation; university support services, including mental health support; campus safety; library orientation; tips on professionalism; and career development offerings. To continue building community and help the students become familiar with the campus, they were divided into groups for a photo challenge across campus. The activity included visiting offices of key personnel in the M.P.H. program, including academic advisors. Students informally met their advisors in a fun environment, which helped form bonds for later advising. The orientation concluded with students meeting in track-specific sessions to learn more about requirements for their track and to meet their Concentration Track Directors and classmates in a small group.

Later in the week, students from each track were invited to a dinner with their Concentration Track Directors and second-year students. This was an opportunity to build community and for students to get to know one another in an informal setting. Other social events at the beginning of the AY, include an off-campus Nashville social event which helps the M.P.H. students connect with students in other Vanderbilt IMPH population health graduate programs.

2) Describe the program's academic advising services. If services differ by degree and/or concentration, a description should be provided for each public health degree offering.

The Concentration Track Directors serve as academic advisors to the students. Before students matriculate into the M.P.H. program, the Concentration Track Directors review the list of incoming students and divide the list of students among themselves. Each Co-Track Director will remain that particular student's academic advisor for the duration of the student's time in the program. Students meet as a group and individually with their academic advisor in the fall and spring semesters before course

registration. Information about academic advising is provided to students online (https://medschool.vanderbilt.edu/M.P.H./course-registration) and in emails.

Prior to their advising meetings, students receive resources to help with course selection, and they submit an online form that is reviewed in the meeting with their academic advisor. This form longitudinally tracks their courses completed, planned courses for the upcoming semester, CEPH competency self-assessment, and notes on their practicum and culminating experience progress. Students can fill in a free-text area to indicate items they wish to discuss with their advisor. Advisors receive and review these forms prior to advising meetings so they are prepared to advise each student. In academic advising meetings, the advisor and the student review progress toward the course of study, discuss upcoming courses, and review practicum and/or culminating experience updates. Should a student need additional meeting time beyond once a semester, they can arrange for additional meetings with their academic advisor on an as-needed basis. Further, Dr. Roumie holds weekly office hours to meet with students individually as needed.

Course instructors report to Concentration Track Directors any students who are struggling with course content. This mechanism identifies "students of concern" prior to academic advising. To support these students, advising meetings outside of academic advising are arranged to intervene in cases where students may be having difficulty progressing through courses or degree requirements. The Concentration Track Directors and the Program Director monitor students of concern at the monthly operations meeting and develop remediation plans and adjustments as needed.

3) Explain how advisors are selected and oriented to their roles and responsibilities.

The VU M.P.H. Concentration Track Directors serve as academic advisors for students in their track. As Concentration Track Directors, each has intimate knowledge about and insight into program and course requirements for their concentration and the program as a whole. They are well positioned to provide guidance to students on their individual program of study and career goals. Orientation to academic advising is part of the training for new Concentration Track Directors. In their first semester of advising, they shadow their Co-Track Director, and the two Co-Directors conduct advising meetings jointly. During this process, academic advisors are oriented to online forms and the advising portal in Your Enrollment Services. These resources are used to track student progress, grades, course registrations, and Vanderbilt's online course catalog. Academic advisors also review the student handbook, program requirements, and a typical program of study to become well versed in elements needed for progression toward graduation. After their orientation is complete, advisors conduct advising sessions individually with students with support from their Co-Track Director and the M.P.H. Program Director as needed.

4) Provide a sample of advising materials and resources, such as student handbooks and plans of study, that provide additional guidance to students.

Please see ERF H1.4.1 for M.P.H. program samples of advising materials, the student handbook, and full time, part time and individualized courses of study for dual degree students. The student handbook is password protected- we will sign in during your visit for you to view but a PDF of the sections in the handbook is provided.

5) Provide data reflecting the level of student satisfaction with academic advising during each of the last three years. Include survey response rates, if applicable.

All graduating students are required to complete the exit survey prior to graduation. The survey includes an item on satisfaction with academic advising (exit interview, p. 11). The survey item and rating scale are provided below, along with the percentage of students who selected *good* or *excellent* each year:

How would you rate the following elements of the M.P.H. program?
(4 = *excellent*, 3 = *good*, 2 = *fair*, 1 = *poor)*

Survey response: 100%	2021 (*N* = 24)	2022 (*N* = 28)	2023 (*N* = 29)
Academic advising	96.6%	78.5%	75.9%

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The M.P.H. program has a robust advising system that guides students in their career path to ensure their success. This success is demonstrated by the graduation rate of our students. Of the 170 students who matriculated from 2016 to 2021, all but three either have completed the requirements for the M.P.H. degree or remain in the program.
- Regular group and individual advising meetings between students and their academic advisor help ensure they receive support that will guide them to degree completion and that is tailored to their professional interests and needs in the program.
- Program requirements are clearly defined on the program's website and in the VU SOM Course Catalog, the student handbook, and advising documents.

Weaknesses:

- Some students may not completely align with their academic advisor based on personal preference or style of advising, potentially leading to lower satisfaction for a small number of students.

Opportunities for improvement:

- Academic advisors will continue to provide timely, individualized support for students to help them successfully progress through the program.
- Given that each concentration will have two Co-Directors starting in AY 2023–24, we will create an option for students to ask for a change in academic advisor if there is lack of alignment in terms of personality or based on personal preference. This initiation of an advisor change process will be brought to the attention of the Practicum Director or the Program Manager. The Program Director will then evaluate and approve any requested changes.

H2. Career Advising

The program provides accessible and supportive career advising services for students. All students, including those who may be currently employed, have access to qualified faculty and/or staff who are actively engaged, knowledgeable about the workforce and sensitive to their professional development needs; these faculty and/or staff provide appropriate career placement advice, including advice about enrollment in additional education or training programs, when applicable. Career advising services may take a variety of forms, including but not limited to individualized consultations, resume workshops, mock interviews, career fairs, professional panels, networking events, employer presentations and online job databases.

The program provides such resources for both currently enrolled students and alumni. The program may accomplish this through a variety of formal or informal mechanisms including connecting graduates with professional associations, making faculty and other alumni available for networking and advice, etc.

1) Describe the program's career advising and services. If services differ by degree and/or concentration, a brief description should be provided for each. Include an explanation of efforts to tailor services to meet students' specific needs.

The M.P.H. program has developed a comprehensive career and professional development workshop series that is held throughout the fall and spring semesters. The workshop series was developed and is co-led by the M.P.H. program's Practicum Director, Dr. Brad Hawkins, and Global Health Track Co-Director, Dr. Elizabeth Rose. The workshops in this series are selected based on students' needs in terms of career and professional development, as well as available resources at VU and VUMC and in the Nashville community. These workshops often incorporate alumni who are public health professionals on different career paths to demonstrate the multiple professional options for students.

Workshops are held bi-weekly and include hands-on workshops and professional development skill building. Examples in these two domains are listed below:

Experiential/Hands-on Skills	Professional Development Skills
Developing a career vision statement	Interviewing for a job
Conducting informational interviews	Writing clear & concise manuscripts and abstracts
Creating a poster	Speaking to the media
Designing your resume	Career panels with alumni

The AY 2023–24 workshop series schedule (provided below) is linked on the M.P.H. career development webpage (https://medschool.vanderbilt.edu/M.P.H./current-students/career-development). First-year students are required to attend at least three sessions during the year; second-year students are required at attend at least two sessions during the year. All workshops are recorded and posted for students to view in the program's online learning management system, Brightspace.

In addition, the Vanderbilt M.P.H. program provides students with individualized career advising as well as CV/resume reviews and interview preparation upon request. Drs. Hawkins and Rose, the Concentration Track Directors, and the Program Director each provide such career advising and individual consultations to students. Drs. Hawkins and Rose hold regular office hours in the spring semester for career advising, including resume and cover letter review and interview practice. Dr. Hawkins, who develops a close understanding of students' career interests in their first year through his role as Practicum Director, sends tailored career opportunities to second-year students and further advises students to seek individual consultation with specific faculty, the Program Director, and/or program alumni. Students can connect with alumni through the LinkedIn Vanderbilt M.P.H. program alumni group. Alumni are often a resource for informational interviews, career advice and mentorship, and career opportunities.

The M.P.H. career development webpage has additional resources including lists of job websites and databases, professional organizations and associations, and fellowships where students can find practicum and career opportunities. M.P.H. students are invited to participate in many offerings from career service offices across the university and sponsored through IMPH. These resources are designed for students in multiple fields with a range of career paths. Career support services and resources include the following:

- Edge for Scholars program (Translational Bridge and Newman Society Seminar Series)
- BRET Office of Career Development
- gradLEAF
- VU Graduate School Career Development Office
- VU Career Center

M.P.H. Program Career and Professional Development Workshop Series Schedule for AY 2023–24	
Mentoring In this series designed for first-year M.P.H. students, you will define your public health interests, learn how to communicate your career vision in a polished and succinct way to potential employers and professionals, identify effective practices to maximize mentorship opportunities, and prepare for mentoring committee meetings.	
August 31 10:30 to 11:30 am	**Part 1: Developing Your Elevator Pitch** William O. Cooper, M.D., M.P.H., (VU M.P.H. 1998), *Depts. of Pediatrics and Health Policy*
September 14 10:30 to 11:30 am	**Part 2: An Introduction to Mentoring** Marie Martin, Ph.D., M.Ed., *Vanderbilt Institute for Global Health, Dept. of Health Policy*
September 21 10:30 to 11:30 am	**Part 3: Mentors vs. Coaches vs. Sponsors—Making the Most of Your Mentoring Committee** Christianne L. Roumie, M.D., M.P.H., (VU M.P.H. 2005), *Vanderbilt M.P.H. Program*
Practice of Public Health In this series, you will explore the practice of public health, attend local public health conferences, learn about practical training and the tools needed to secure your practicums, hear about Middle Tennessee public health and community organizations, learn how to utilize practice in your culminating experience, and expand your professional network.	
October 12 10:30 to 11:30 am	**Practicum Orientation: Tools to Take the Next Steps** Brad Hawkins, M.S., Ph.D., M.P.H., *Vanderbilt M.P.H. Program* Elizabeth Rose, Ed.D., M.P.H., (VU M.P.H. 2015), *Vanderbilt Institute for Global Health*
October 18 8:00 am to 3:30 pm	**Public Health Presentations: Annual TN Emerging Infections Program (EIP) Day** EIP is a partnership between the TDH and VUMC to study infectious diseases. (Location: Loveless Barn)
November 7 11:30 am to 12:30 pm	**Exploring Public Health in Middle Tennessee** Vanderbilt M.P.H. students/alumni
January 26 1:00 to 3:00 pm	**Public Health Presentations: Public Health Practicum Colloquium** The colloquium provides students with an opportunity to present their practicum experiences in a conference-like setting. (Location: TBD)
February 2 8:00 am to 4:00 pm	**Annual Vanderbilt Translational Research Forum** Early career scientists share discoveries and advances, and a guest speaker gives a lunchtime plenary presentation. (Location: Student Life Center)
March 7 12:30 to 1:30 pm	**Capstone or Thesis? Student Perspectives** Vanderbilt M.P.H. students/alumni

Professional Communication Skills In this series, you will learn essential skills to communicate public health; use strategies to craft abstracts for varying audiences, conferences, and professional writing submissions; apply presentation principles to present your public health work at the Practicum Colloquium, in culminating experience presentations, and at conferences; learn how to apply fundamental writing principles to your public health work; discover useful writing tips for class assignments, your thesis, and article submissions; and tap into free VU writing resources to take your writing skills to the next level.	
September 8 12:00 to 1:00 pm	**Writing Part 1: Abstracts** Muktar Aliyu, M.B.B.S., Dr.P.H., M.P.H., *Vanderbilt Institute for Global Health, Dept. of Health Policy*
January 16 12:05 to 12:50 pm	**Public Health Presentations** Bill Heerman, M.D., M.P.H., (VU M.P.H. 2014), *Vanderbilt M.P.H. Program*
January 18 12:15 to 1:15 pm	**Writing Part 2: Foundational Structure** Elizabeth Rose, Ed.D., M.P.H., (VU M.P.H. 2015), *Vanderbilt Institute for Global Health*
January 25 12:15 to 1:15 pm	**Writing Part 3: Addressing Criticism** Christianne L. Roumie, M.D., M.P.H., (VU M.P.H. 2005), *Vanderbilt M.P.H. Program*
April 5 12:15 to 1:15 pm	**Public Health Communication 101** Colin Walsh, M.D., M.A., *Department of Biomedical Informatics*
Life after M.P.H. In this series designed for second-year M.P.H. students, you will focus on your time after graduation. With the ever-changing landscape of interviews and networking opportunities, professionals must be able to adapt to convey their knowledge, skills, and abilities in new ways. Learn easy and innovative approaches to market yourself for the opportunities you want in the current environment, explore postgraduate training opportunities, and hear advice from recent alumni.	
December 1 12:00 to 1:00 pm	**20 Weeks until Graduation!** Elizabeth Rose, Ed.D., M.P.H., (VU M.P.H. 2015), *Vanderbilt Institute for Global Health* Brad Hawkins, M.S., Ph.D., M.P.H., *Vanderbilt M.P.H. Program*
February 8 12:15 to 1:15 pm	**Marketing Yourself as a Professional (workshop—bring your resume)** Elizabeth Rose, Ed.D., M.P.H., (VU M.P.H. 2015), *Vanderbilt Institute for Global Health* Kim Lovell, M.P.H., M.B.A., *Dept. of Health Policy*
February 22 12:15 to 1:15 pm	**Securing My First Position** Vanderbilt M.P.H. alumni
March–May	**Office Hours with Elizabeth and Brad:** Book a one-on-one session

2) Explain how individuals providing career advising are selected and oriented to their roles and responsibilities.

Drs. Hawkins and Rose have served as career advisors since 2018. They were selected based on their prior experience and training in advising students. Their orientation included becoming familiar with M.P.H. program career development and advising structures through reviewing past career development programming and evaluations. Drs. Rose and Hawkins also met with multiple career advisors across the university and gained a more complete understanding of the resources available to students. Each year, Drs. Roumie, Rose, and Hawkins review the evaluations from the career development sessions and based on that feedback, plan the sessions for the upcoming year, including brainstorming new topics and revising career development workshops with lower scores or those noted to be less useful to students.

3) Provide three examples from the last three years of career advising services provided to students and one example of career advising provided to an alumnus/a. For each category, indicate the number of individuals participating.

M.P.H. program career advising services include bi-weekly workshops and individual advising as described in H2.1. Examples include the following:

Student Example 1: "Envisioning Your Career: Developing Your Elevator Pitch" workshop.
This annual workshop begins the M.P.H. career and professional development workshop series. In this workshop, students are guided to think through their career interests and goals to develop a career vision statement that will become the cornerstone of their time in the M.P.H. program, informing their practicum and career searches. This session is regularly attended by about 70% of first-year students and 20% of second-year students.

Student Example 2: "Marketing Yourself as a Professional" resume workshop.
This annual workshop is part didactic and part hands-on. Students learn best practices in developing a resume and then work with a peer or a career advisor to revise their own resume. Students are encouraged to continue revising their resume and then submit it to a career advisor for review. In 2023, this workshop was attended by about 30% of students.

Student Example 3: Individual interview preparation.
Students regularly contact the career advisors to practice for job interviews. Recently, both advisors worked closely with a second-year health policy track student to prepare her for a series of interview rounds with over seven companies. Preparation included sharing resources on how to interview with various organizations and individuals within those companies. They further conducted mock interviews and prepared her for common questions. When she received a job offer, the advisors provided resources and coaching to guide her through salary negotiations.

Alumni Example: M.P.H. alumni support.
Alumni reach out to the members of the M.P.H. operational committee for assistance in navigating fellowship, educational, and employment processes. Alumni maintain close relationships with the M.P.H. team because of the small program size. We provide support to alumni frequently, on an as-needed basis. Alumni outreach often includes facilitating a search for new job opportunities or providing assistance in preparing materials for an advanced degree program (e.g., Ph.D., M.D.). In 2022–23, the M.P.H. program provided 10 letters of evaluation or recommendation for Ph.D. programs and 4 for undergraduate medical education (medical school or osteopathic school), as well as 6 letters of reference for fellowships or job applications.

4) Provide data reflecting the level of student satisfaction with career advising during each of the last three years. Include survey response rates, if applicable.

The exit survey includes an item on satisfaction with career development workshops and other events. The survey question and rating scale are presented below, along with the percentage of students who selected *good* or *excellent* each year. We provide programming throughout the AY on guidance for career services and professional development. These are not well attended by all students, with each student typically coming to one or two sessions a year. Fall workshops are often better attended than spring workshops, and first-year attendance is better than second-year attendance. Overall average attendance is shown below with the rating of the career development series. The sessions are open to non-degree-seeking students, other professional and population health students, and alumni/friends of the M.P.H. program but attendance is only tracked for M.P.H. students.

How would you rate the following elements of the M.P.H. program?

- Career development seminars, workshops, and other events (4 = *excellent*, 3 = *good*, 2 = *fair*, 1 = *poor*)

Survey Response rate 100%	2020-21 (*N* = 24)	2021-22 (*N* = 28)	2022-23 (*N* = 29)
Career development seminars, workshops, and other events (% excellent or good)	87.1%	82.1%	72.4%

Mean attendance for entire AY across all M.P.H students	17%	15%	20%

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- The M.P.H. program provides a comprehensive workshop series to help students find career opportunities and position themselves as competitive employment candidates.
- Career advisors, program staff, and the Program Director are available to meet with students individually and provide tailored support.

Weaknesses:

- Students often request additional career advising and counseling workshops; however, many of the workshops that have been arranged have not been well attended. We have asked students to attend at least two to three per year to demonstrate the value of the career development workshops and the opportunities to network.
- We have been disappointed by student attendance at the career workshops. It appears that many students do not have a sense of urgency regarding identifying a job until just before graduation.
- We believe that attendance is low because of a lack of understanding of the importance of beginning the job search early. First-year students appear eager to attend workshops in the beginning of the fall semester, but their attendance wanes through the year and continues to drop off in the second year.

Opportunities for improvement:

- We will continue to evaluate the workshop series and identify students' needs and interests in career development and advising. Additionally, we will review the workshop schedule and propose new times to increase attendance.

H3. Student Complaint Procedures

The program enforces a set of policies and procedures that govern formal student complaints/grievances. Such procedures are clearly articulated and communicated to students. Depending on the nature and level of each complaint, students are encouraged to voice their concerns to program officials or other appropriate personnel. Designated administrators are charged with reviewing and resolving formal complaints. All complaints are processed through appropriate channels.

1) Describe the procedures by which students may communicate complaints and/or grievances to program officials, addressing both informal complaint resolution and formal complaints or grievances. Explain how these procedures are publicized.

M.P.H. students have access to a variety of individuals whom they can approach with complaints and/or grievances to achieve due process. These options are discussed during orientation and shared via electronic communications at various intervals throughout a student's training. The program leadership is available to students in-person, via virtual meetings, and through emails and phone calls. The Program Director has an "open door" policy for students and has set office hours when students can meet with her (Mondays from 7 to 9 am). Students may also reach out to their Concentration Track Director, academic advisor, primary research mentor, or mentor committee.

The university also provides independent resources through the Graduate and Postdoc Academic Success Services team and the Dean of Students office. Additionally, the University Counseling Center and Student Care Network offer extensive outreach, counseling, and guidance services, including academic life coaching, for all graduate students. The M.P.H. program leadership is dedicated to quickly addressing and successfully resolving student complaints.

2) Briefly summarize the steps for how a formal complaint or grievance is filed through official university processes progresses. Include information on all levels of review/appeal.

Students should seek redress of a problem with a grade as soon as possible after receiving the grade and in no case later than 4 weeks after the grade is recorded. Students with a problem should confer directly with the Course Instructor. Every effort should be made to resolve the problem fairly and promptly at this level. If the student cannot resolve the problem through discussion with the Course Instructor, the student should request an appeal by writing (email is acceptable) to the M.P.H. Program Director. This policy is in alignment with the grade grievances procedure outlined in the VU SOM Course Catalog (https://www.vanderbilt.edu/catalogs/kuali/som-22-23.php#/content/626310c6017a7c0d88bee63f).

3) List any formal complaints and/or student grievances submitted in the last three years. Briefly describe the general nature or content of each complaint and the current status or progress toward resolution.

We have no knowledge of any formal complaints or grievances submitted in the past 3 years.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- Students are provided with information regarding procedures to file complaints.

Weaknesses:

- We have not noted significant weaknesses.

Opportunities for improvement:

- We will continue to monitor student satisfaction with the program.

H4. Student Recruitment and Admissions

The program implements 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.

1) Describe the program's recruitment activities. If these differ by degree (e.g., bachelor's vs. graduate degrees), a description should be provided for each.

The M.P.H. Program Manager leads a wide range of recruitment efforts, including the following:

- Email and social media campaigns
- "This is Public Health" virtual graduate school fairs facilitated by CareerEco and sponsored by Association of Schools and Programs of Public Health member public health schools and programs
- Regular online open houses in Zoom
- One-on-one Zoom meetings with applicants
- In-person informational sessions

Email and social media campaigns announce important admissions deadlines, events, and scholarships; highlight unique attributes of the program and university; and showcase student, faculty, and alumni accomplishments.

Email campaigns are sent to mailing lists of interested individuals, those with applications in progress, relevant undergraduate student organizations and advisers, and M.P.H. faculty members, mentors, and alumni. Faculty advisers, mentors, and leaders from historically black colleges and universities (HBCUs), organizations supporting economically disadvantaged and first-generation students, and undergraduate organizations for underrepresented students are included in the mailing list and receive additional mailings about the David Satcher Public Health Scholars program, which provides M.P.H. scholarships for students from underrepresented backgrounds (See Section G).

Social media campaigns are distributed through the VU SOM, VUMC IMPH, and other campus and medical center partners such as the Vanderbilt Institute for Global Health and the Department of Health Policy.

Virtual and in-person recruitment events provide prospective applicants with information about the program and the application process. They also give applicants an opportunity to ask questions and interact with current students and faculty members. As the admissions cycle progresses, the Program Manager serves as a primary point of contact for applicants. She answers questions, provides additional information and assistance, and connects applicants with faculty members, current students, and the SOM's Director of Student Financial Aid.

Applicants are invited to visit VU. The Program Manager schedules half-day visits on an individual basis according to the applicant's availability. The Program Manager meets with the visiting applicant, gives them a campus tour, arranges for the applicant to sit in on a class, and schedules meetings for the applicant with faculty and current students. Applicants unable to visit campus in person are offered virtual meetings with the Program Manager, M.P.H. faculty, and students. We also provide a Google Map with specific M.P.H. points of interest to give applicants a sense of the campus and its amenities.

Concentration Track Directors often reach out to admitted applicants by email, inviting them to connect by phone or Zoom. This provides another opportunity for applicants to ask questions, familiarize themselves with the VU program, and build rapport with the faculty members they will work with if they choose to attend Vanderbilt.

2) Provide a brief summary of admissions policies and procedures. If these differ by degree (e.g., bachelor's vs. graduate degrees), a description should be provided for each. Detailed admissions policies, if relevant, may be provided in the electronic resource file and referenced here.

Information about how to apply to the M.P.H. program, eligibility, and application requirements is publicly available to interested individuals on our admissions webpage (https://medschool.vanderbilt.edu/MPH/admissions/).

Eligibility requirements include holding a bachelor's, master's, or doctoral degree. We seek applicants who have a good sense of their career interests (as described in their statement of purpose). At least 2 years of relevant professional experience is preferred, but not required, for admission.

Application requirements include official documentation of prior academic degrees and academic course work (i.e., transcripts), a CV or resume, a statement of purpose detailing career interests in public health and the selected concentration, and three letters of recommendation from persons qualified to evaluate the applicant's academic and professional abilities, including at least one letter from an academic source. Since the 2020–21 application cycle, GRE and MCAT score requirements have been waived. International applicants are required to submit TOFEL test scores unless they hold a degree for which the language of instruction was English. An application missing any of the required components will be considered incomplete and will not be reviewed.

Individuals may apply to the M.P.H. program through the SOPHAS online application portal beginning each year on September 1. For all concentrations, there are two application deadlines:

- "Priority round" on December 15—Applications submitted and complete with all required documents in SOPHAS on or before the priority round deadline will receive priority consideration for scholarships awarded by the VU M.P.H. program.
- "Regular round" on February 15—All applications must be submitted and complete with all required documents in SOPHAS by the regular round deadline to be considered for admission.

After the regular round deadline, applications may be reviewed on a rolling basis, as space permits, through May 1. The M.P.H. Program Manager reviews each application for completeness, connects with applicants to request missing materials, and assigns two reviewers in the applicant's concentration of interest to each application. Application reviewers include the Concentration Track Directors and individuals with an M.P.H. and/or experience in each concentration (epidemiology, global health, and health policy).

Reviewers rate the applications using a scale of 1–5 (1 = *exemplary*; 5 = *unacceptable*) on five categories (academic aptitude, experience in the selected concentration, long-term commitment to a career in public health, letters of reference, and issues of concern) and provide an overall rating (1–5) and qualitative comments. One of the Concentration Track Directors in each concentration will compile these ratings and comments for discussion of all the applications. The full committee, including all Concentration Track Directors, will then determine whether to admit, waitlist, or decline each applicant. The admissions committee meets bi-weekly during application season (January through April) to discuss applicants and nominate them for acceptance into the program. The admissions committee determines the prioritization of applicants for scholarships, which are decided collaboratively by the committee. All admission and scholarship decisions are sent to the applicants via SOPHAS.

Applications, Acceptances, and Matriculations for All students

Application year	*N* applications	*N* accepted (% accepted of applicants)	*N* matriculated (% matriculated of accepted)
2019–20	199	75 (37.7%)	27 (36.0%)
2020–21	232	131 (56.5%)	28 (21.4%)
2021–22	194	126 (65.0%)	27 (21.4%)
2022-23	203	152 (74.9%)	31 (20.4%)

3) Provide quantitative data on the unit's student body from the last three years in the format of Template H4-1, with the unit's self-defined target level on each measure for reference. In addition to at least one from the list that follows, the program may add measures that are significant to its own mission and context.

Outcome Measures for Recruitment and Admissions					
Outcome Measure	**Target**	**Year 1** **2020 cohort** *N* = 29	**Year 2** **2021 cohort** *N* = 28	**Year 3** **2022 cohort** *N* = 31	**Year 4** **2023 cohort** *N* = 31
CEPH Measure 1: Percentage of priority under-represented students (as defined in Criterion G1) accepting offers of admission					
Student body is culturally diverse, and there is diverse social representation	• 30% of matriculants underrepresented in public health; • 10% of matriculants international students • 30% of matriculants with HRSA indicators	Under-represented*: 45% International 2% HRSA†: 29%	Under-represented*: 36% International 14% HRSA†: 39%	Under-represented*: 26% International 15% HRSA†: 44%	Under-represented*: 55% International 16% HRSA†: 42%
Unit defined Measures of Admission					
Equitable distribution of matriculants across concentrations: epidemiology, global health, health policy	No more than 50% of incoming cohort in a single concentration	**Epi.** 34% **Global health** 38% **Health policy** 28%	**Epi.** 34% **Global health** 33% **Health policy** 33%	**Epi.** 45% **Global health** 29% **Health policy** 26%	**Epi.** 31% **Global health** 42% **Health policy** 27%
Equitable distribution of women and men matriculants	Women make up no more than 75% of incoming cohort	22 **women** (75%) 7 **men** (25%)	19 **women** (67%) 7 **men** (33%)	22 **women** (71%) 9 **men** (29%)	23 **women** (75%) 8 **men** (25%)

*Underrepresented in public health; this includes those who self-identify as non-white
†: HRSA indicators include

- Your parent's family income falls within the table's guidelines, and you are considered to have met the criteria for economically disadvantaged.
- I graduated from a high school from which a low percentage of seniors received a high school diploma.
- I graduated from a high school where 50% or less of graduates go to college.
- I graduated from a high school where I was eligible for free or reduced price lunches.
- I am from a family that receives public assistance or lives in an area that is designated as a Health Professional Shortage Area.
- I am a high-school drop-out who received AHS diploma or GED or I am receiving public assistance.
- I am the first generation in my family to attend college (neither my mother nor my father attended college).
- English is not my primary language.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Strengths:

- There is a strong number of applicants to the program.
- The 5-year average matriculation rate approaches 30% for all three tracks.
- The program offers multiple opportunities for applicants to receive one-on-one support throughout the application process and after program matriculation.
- Cohorts have an equitable distribution of women and men matriculants.

Weaknesses:

- Scholarships funded from internal sources and an expansion of scholarship opportunities and endowments are a priority need to yield a higher proportion of matriculants with socioeconomic needs.

Opportunities for improvement:

- We will continue to identify alternate funding sources, such as training grants and philanthropy, to support our students to broaden the program's capacity to diversify research area offerings for potential students.

H5. Publication of Educational Offerings

Catalogs and bulletins used by the program to describe its educational offerings must be publicly available and must accurately describe its academic calendar, admissions policies, grading policies, academic integrity standards and degree completion requirements. Advertising, promotional materials, recruitment literature and other supporting material, in whatever medium it is presented, must contain accurate information.

1) Provide direct links to information and descriptions of all degree programs and concentrations in the unit of accreditation. The information must describe all of the following: academic calendar, admissions policies, grading policies, academic integrity standards and degree completion requirements.

Program Element	Webpage Link
M.P.H. program	
M.P.H. program description	https://medschool.vanderbilt.edu/MPH/about/
M.P.H. epidemiology track description	https://medschool.vanderbilt.edu/MPH/about/epidemiology-track/
M.P.H. global health track description	https://medschool.vanderbilt.edu/MPH./about/global-health-track/
M.P.H. health policy track description	https://medschool.vanderbilt.edu/MPH/about/health-policy-track/
Academic calendar	https://medschool.vanderbilt.edu/MPH/current-students/calendars/course-calendars/
Admissions policies	https://medschool.vanderbilt.edu/MPH/admissions/
Grading policies	https://www.vanderbilt.edu/catalogs/kuali/som.php#/content/60da2185030bed4c5190f81e
Academic integrity standards	https://www.vanderbilt.edu/catalogs/kuali/som.php#/content/60da2185030bed562790f813
Degree completion requirements	https://medschool.vanderbilt.edu/mph/wp-content/uploads/sites/58/2023/09/2023-2024-Required-Courses-by-Track1.pdf
VU SOM catalog	https://www.vanderbilt.edu/catalogs/kuali/som-22-23.php#/content/626310c7017a7c127fbee6c7