

**2019 PRAC Report
IU Richard M. Fairbanks School of Public Health**

Background

The IU Richard M. Fairbanks School of Public Health became a school of public health in 2012. The school obtained accreditation from the Council on Education for Public Health (CEPH) in 2015. This past year, the school underwent a self-study in preparation for reaffirmation of accreditation in 2020. The CEPH self-study focused primarily on the public health programs offered by the school. The 2019 PRAC report includes assessment information from the self-study this year. Instructional degrees and concentrations offered by the school include:

			Categorized as public health	Campus based	Distance based
Bachelor's Degrees					
Community Health	BSPH		X	BSPH	
Environmental Health (recently renamed Global Health Protection)	BSPH		X	BSPH	
Epidemiology	BSPH		X	BSPH	
Health Data Science	BS			BS	
Health Services Management	BS			BS	
Master's Degrees	Academic	Professional			
Biostatistics	MS	MPH	X	MPH, MS	
Environmental Health		MPH	X	MPH	
Epidemiology		MPH	X	MPH	
Health Policy and Management		MPH	X	MPH	
Public Health Informatics		MPH	X	MPH	
Social and Behavioral Sciences		MPH	X	MPH	
Health Administration		MHA		MHA	
Product Stewardship	MS				MS
Doctoral Degrees	Academic	Professional			
Biostatistics	PhD		X	PhD	

Epidemiology		PhD		X	PhD	
Health Policy and Management		PhD		X	PhD	
Global Health Leadership			DrPH	X		DrPH
Joint/Accelerated Degrees		Academic	Professional			
2nd Degree Area	Public Health Concentration					
Law	Health Policy and Management		MPH-JD	X	MPH	
Law			MHA-JD		MHA	
Medicine	Any Concentration		MPH-MD	X	MPH	
Social Work	Social and Behavioral Sciences		MPH-MSW	X	MPH	
Business			MHA-MBA		MHA	
Dental	Any Concentration		MPH-DDS	X	MPH	
Health Administration	Health Policy and Management		MPH-MHA	X	MPH	
Philosophy with a Concentration in Bioethics	Any Concentration		MA-MPH	X	MPH	
4+1 Accelerated	Community Health; Social and Behavioral Sciences		MPH	X	MPH	
4+1 Accelerated	Environmental Health Science (now Global Health Protection); Environmental Health		MPH	X	BSPH MPH	
4+1 Accelerated	Environmental Health Science (now Global Health Protection); Product Stewardship				BSPH	MS
4+1 Accelerated	Epidemiology; Epidemiology		MPH	X	BSPH MPH	
4+1 Accelerated	Community Health; Social and Behavioral Sciences		MPH	X	BSPH MPH	
4+1 Accelerated	BS in Biology; Any Concentration		MPH	X	MPH	
4+1 Accelerated	Health Services Management; Health Administration		MHA		BSHSM MHA	

In addition to the programs listed in the table above, the FSPH is in the process of proposing two new initiatives. The first is an online MPH in Epidemiology, and the second is a new 30-credit MS degree in Global Health and Sustainable Development. Both are projected to begin in January of 2020.

Overview of Assessment in 2018-19

PLUS: The school's undergraduate programs were linked to the new Profiles of Learning for Undergraduate Success (PLUS) and submitted to the IUPUI Undergraduate Affairs Committee. As a next step, the faculty will map their undergraduate capstone courses to PLUS, similar to the way in which programs were mapped to PLUS. Faculty will also be asked to identify a required 300-level mid-point course in each undergraduate program that will map to PLUS.

DOMAINS AND COMPETENCIES: The school's accreditation criteria stipulate that evaluation methods and measures should track the school's progress in (1) advancing the field of public health (including instruction, scholarship and service) and (2) promoting student success. The Academic Leadership Team (ALT) monitors student assessment policies and procedures that pertain to the entire school. Student assessment policies and procedures that are unique to a particular program, such as a capstone requirement, are monitored by the program director and faculty who teach in that program.

Assessment of Public Health Domains in the Bachelor of Science in Public Health (BSPH)

Key: I = Introduced: The content is presented in at least one lecture in the course.
 C = Covered: The content is presented in two or more lectures in the course.

Public Health Domains	Course Name and Number				
	A316 Environmen- tal Health Science	B300 Intro to Biostatistics	E322 Principles of Epidemiolog- y	H220 Public Health Systems & Behavior	S315 Community Health
Overview of Public Health: Address the history and philosophy of public health as well as its core values, concepts, and functions across the globe and in society					
<i>Public Health History</i>	I		C	I	I
<i>Public Health Philosophy</i>	I		I	I	C
<i>Core PH Values (i.e. equity, social justice, access, etc.)</i>	I		I	C	I
<i>Core PH Concepts</i>	C	I	C	I	I
<i>Global Functions of Public Health</i>	I		I	C	I
<i>Societal Functions of Public Health</i>	C		I	I	I

Role and Importance of Data in Public Health: Address the basic concepts, methods, and tools of public health data collection, use, and analysis and why evidence-based approaches are an essential part of public health practice					
<i>Basic Concepts of Data Collection</i>		C	C		
<i>Basic Methods of Data Collection</i>		C	C		
<i>Basic Tools of Data Collection</i>		C	C		
<i>Data Usage</i>		C	C		
<i>Data Analysis</i>		C	C		
<i>Evidence-based Approaches</i>	I	C	C	I	C
Identifying and Addressing Population Health Challenges: Address the concepts of population health, and the basic processes, approaches, and interventions that identify and address the major health-related needs and concerns of populations					
<i>Population Health Concepts</i>	I	I	C	I	C
<i>Introduction to Processes and Approaches to Identify Needs and Concerns of Populations</i>	I		I	I	C
<i>Introduction to Approaches and Interventions to Address Needs and Concerns of Populations</i>	I		I	I	C
Human Health: Address the underlying science of human health and disease including opportunities for promoting and protecting health across the life course					
Science of Human Health and Disease	I	C			
<i>Health Promotion</i>	I	I			C
<i>Health Protection</i>	C	I			
Determinants of Health: Address the socio-economic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities					
<i>Socio-economic Impacts on Human Health and Health Disparities</i>	C		I	I	I
<i>Behavioral Factors Impacts on Human Health and Health Disparities</i>	I		I		C
<i>Biological Factors Impacts on Human Health and Health Disparities</i>	I		C		I
<i>Environmental Factors Impacts on Human Health and Health Disparities</i>	C		I		I
Project Implementation: Address the fundamental concepts and features of project implementation, including planning, assessment, and evaluation					

<i>Introduction to Planning Concepts and Features</i>					C
<i>Introduction to Assessment Concepts and Features</i>			C		C
<i>Introduction to Evaluation Concepts and Features</i>		C	C		I
Overview of the Health System: Address the fundamental characteristics and organizational structures of the U.S. health system as well as to the differences in systems in other countries					
<i>Characteristics and Structures of the U.S. Health System</i>				C	
<i>Comparative Health Systems</i>				C	
Health Policy, Law, Ethics, and Economics: Address the basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy, and the roles, influences and responsibilities of the different agencies and branches of government					
<i>Legal dimensions of health care and public health policy</i>				C	
<i>Ethical dimensions of health care and public health policy</i>			I	C	
<i>Economical dimensions of health care and public health policy</i>				C	
<i>Regulatory dimensions of health care and public health policy</i>	I			C	
<i>Governmental Agency Roles in health care and public health policy</i>	I		I	C	
Health Communications: Address the basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology					
<i>Technical writing</i>	C		I	I	
<i>Professional writing</i>	I		I	C	I
<i>Use of Mass Media</i>	C				C
<i>Use of Electronic Technology</i>	C	I	I	I	C

Assessment of Public Health Competencies in the Bachelor of Science in Public Health (BSPH)

- the ability to communicate public health information, in both oral and written forms, through a variety of media and to diverse audiences
- the ability to locate, use, evaluate and synthesize public health information

Competencies	Course number(s) and name(s) or other educational requirements	Specific assessment opportunity
Public Health Communication: Students should be able to communicate public health information, in both oral and written forms and through a variety of media, to diverse audiences		
Oral communication	PHBL H220 Public Health Systems & Policy	PBHL H220: All students are required to work in groups to research the healthcare system of another country and give an 8-10 minute oral presentation comparing it to the U.S. healthcare system. Each group member must contribute to the oral presentation.
Written communication	PBHL A316 Environmental Health Science	PBHL A316: Each student completes a semester-long technical writing assignment in which they interpret and analyze information about complex environmental and social issues.
	PBHL H220 Public Health Systems & Policy	PBHL H220: Students conduct a review of the literature from research and write a technical report on one health topic of interest. The issue analysis includes data on the magnitude of the issue/problem: Who is most impacted? What age group? What racial group? How many new cases a year in Indiana and the U.S.? Students identify the interventions or treatments available to address the issue and identify two laws at the state or federal level that have been written to address the issue. Students provide three alternative policies that address the issue and provide the pros and cons of each alternative proposal. Students recommend one of the alternative policies identify whether it is at the local, state or federal level.

Communicate with diverse audiences	PBHL H220 Public Health Systems & Policy	PBHL H220: All students are required to work in groups to research the healthcare system of another country and give an 8-10 minute oral presentation comparing it to the U.S. healthcare system. Each group member must contribute to the oral presentation. Each group is required to present to an assumed diverse panel of community stakeholders.
Communicate through variety of media	PBHL H220 Public Health Systems & Policy	PHBL H220: Students conduct a policy analysis and communicate it through oral PP presentations.
	PBHL A316 Environmental Health Science	PBHL A316: Students are required to communicate in writing through the creation of a semester-long technical writing project in which they demonstrate the ability to locate, interpret, synthesize and analyze information about complex environmental and social issues. They examine social, economic and political contexts of environmental health, make informed decisions, and provide support for their decisions in relation to environmental health and safety concerns.
	PBHL S315 Community Health	PBHL S315: Students deliver messages using a variety of communication strategies, methods, and techniques and engage in advocacy for health and health education/promotion.
Information Literacy: Students should be able to locate, use, evaluate and synthesize public health information		
Locate information	PBHL A316 Environmental Health Science	PHBL A316: All BPSH students complete A316 and are required to submit a written technical report in which they demonstrate the ability to locate, use, interpret, synthesize and analyze information about complex environmental and social issues, make informed decisions and provide support for their decisions in relation to environmental health and safety concerns.
	PBHL H220 Public Health Systems & Policy	PBHL H220: Students choose a health topic of interest, locate information by conducting a review of the literature, analyze the information and data, and write a technical report. In addition, students must summarize two articles on public health policy issues or events using sources such as peer-reviewed journals, CDC website, WHO website, APHA website, a state/local health department website, newspaper or other reputable sources.
Use information	PBHL B300 Introduction to Biostatistics	PBHL B300: All BSPH students complete B300, which requires students to identify sources of existing data for potential studies and list the strengths and weaknesses of using secondary data.

	PHBL E322 Principles of Epidemiology	PBHL E322: All BSPH students complete E322, which requires students to use health indicators and secondary data sources to solve problems on the three exams.
Evaluate information	PBHL B300 Introduction to Biostatistics	PBHL B300: All BSPH students complete B300, which requires students to evaluate information using confidence intervals, one-way ANOVA and two-way ANOVA to solve problems on the three exams.
	PBHL E322 Principles of Epidemiology	PBHL E322: All BSPH students complete E322, which requires students to evaluate information and explain when it is appropriate to use various epidemiologic techniques, and calculate measures of disease rates and measures of association between factors and diseases.
Synthesize information	PBHL B300 Introduction to Biostatistics	PBHL B300: All BSPH students complete B300, which requires students to synthesize information to solve problems on the exams through inferences using t procedures, inferences for proportions, and analysis of two-way tables.
	PBHL E322 Principles of Epidemiology	PBHL E322: All BSPH students complete E322, which requires students to synthesize public health information to answer questions and solve epidemiology problems on in their homework assignments and on exam questions.
	PBHL E316 Environmental Health Science	PHBL E316: All BPSH students complete E316 in which they create a semester-long technical writing project in which they demonstrate the ability to locate, interpret, synthesize and analyze information about complex environmental and social issues. They examine social, economic and political contexts of environmental health, make informed decisions, and provide support for their decisions in relation to environmental health and safety concerns. The technical paper is worth 50% of their overall grade for the course.

Cumulative and Experiential Activities through which BSPH Students have the Opportunity to Integrate, Synthesize and Apply Knowledge

BSPH in Community Health	
Cumulative and Experiential Activity (internships, research papers, service-learning projects, etc.)	Narrative describing how activity provides students the opportunity to integrate, synthesize and apply knowledge.
PBHL S499 Internship / Capstone	Students integrate public health theory and practice in an applied practice setting. The capstone experience is tailored to students' expected post-baccalaureate goals. Students select from a variety of public health experiences available, including an internship, a service-learning project, a portfolio project, a research paper, or an honors thesis.
BSPH in Environmental Health Science (now Global Health Protection)	
Cumulative and Experiential Activity (internships, research papers, service-learning projects, etc.)	Narrative describing how activity provides students the opportunity to integrate, synthesize and apply knowledge.
PBHL A380 Internship / Capstone	The internship in environmental health science and global health protection provides students with an opportunity to gain meaningful and appropriate experience in the disciplines within environmental health and global health protection. Students apply what they have learned in class in a practice setting in local, state, national, or international organizations in the government, not-for-profit or private sectors.
BSPH in Epidemiology	
Cumulative and Experiential Activity (internships, research papers, service-learning projects, etc.)	Narrative describing how activity provides students the opportunity to integrate, synthesize and apply knowledge.
PBHL E404 Internship	This course provides epidemiology students with an opportunity to synthesize and apply knowledge and skills from the BSPH program to the practice setting. Internship experiences can take place within local, state, national, or international governmental agencies, academia, nonprofit organizations, industry, or healthcare sectors, and must be led by a qualified preceptor.
PBHL-E 491 Capstone	The capstone in epidemiology provides students with an opportunity to synthesize and apply skills and knowledge they have learned throughout the BSPH program to study the distribution and determinants of health-related events. Students conduct research, prepare a report of their findings, and present their work as a research poster. Students must demonstrate the ability to define a problem, use appropriate methodology for understanding the problem, analyze the findings (primary or secondary data), describe the significance of their findings, and offer appropriate solutions and/or recommendations.

Means through Which the School Implements the Cumulative Experience and Field Exposure Requirements in the BSPH Program.

Major	Cumulative Experience	Field Exposure
BSPH in Community Health	PBHL S499 Internship / Capstone: Students integrate public health theory and practice in an applied practice setting. The capstone experience is tailored to students' expected post-baccalaureate goals. Students select from a variety of public health experiences available, including an internship, a service- learning project, a portfolio project, a research paper, or an honors thesis.	PBHL S499 Internship / Capstone: Students integrate public health theory and practice in an applied practice setting. The capstone experience is tailored to students' expected post-baccalaureate goals. Students select from a variety of public health experiences available, including an internship, a service- learning project, a portfolio project, a research paper, or an honors thesis.
BSPH in Environmental Health (now Global Health Protection)	PBHL A380 Internship / Capstone: The internship / capstone experience enables students to integrate theory and practice in an applied practice setting. They gain meaningful and appropriate experience while applying what they have learned in their didactic coursework to real-world environmental health settings.	PBHL A380 Internship / Capstone: The internship in environmental health science and global health protection provides students with an opportunity to gain meaningful and appropriate experience in the disciplines within environmental health and global health protection. Students may seek internships in local, state, national, or international organizations in the government, not-for-profit, business, or industrial sectors, providing the work of the internship reflects one of the environmental health and global health protection disciplines. Internships may be paid or unpaid.
BSPH in Epidemiology	The E491 capstone in epidemiology provides students with an opportunity to synthesize and apply skills and knowledge they have learned throughout the BSPH program to study the distribution and determinants of health-related events. Students conduct research, prepare a report of their findings, and present their work as a research poster. Students must demonstrate the ability to define a problem, use appropriate methodology for understanding the problem, analyze the findings (primary or secondary data), describe the significance of their findings, and offer appropriate solutions and/or recommendations.	The E404 course provides epidemiology students with an opportunity to synthesize and apply knowledge and skills from the BSPH program to the practice setting. Internship experiences can take place within local, state, national, or international governmental agencies, academia, nonprofit organizations, industry, or healthcare sectors, and must be led by a qualified preceptor.

Manner in Which the Curriculum and Co-curricular Experiences Expose Students to the Concepts Identified by CEPH

Concept	Manner in which the curriculum and co-curricular experiences expose students to the concepts
<p>Advocacy for protection and promotion of the public's health at all levels of society</p>	<p>FSPH Public Health Corps FSPH National Public Health Week PBHL S315: All BSPH students complete this course in which they identify, develop, and deliver messages using a variety of communication strategies, methods, and techniques and engage in advocacy for health and health education/promotion.</p>
<p>Community dynamics</p>	<p>FSPH Days of Service IUPUI Engaging with Communities FSPH Public Health Corps PBHL S315: All BSPH students complete this course in which they provide service in the community. Students spend a minimum of 20 hours working for a community-based agency. Serving gives them an opportunity to learn about their community creates an awareness of the social/health needs and problems in the community. In addition, students volunteer hours at a community event that lasts a minimum of 3 consecutive hours. Students evaluate and reflect upon their service experiences in class and in midterm and final reports, reflecting on their experiences as they relate to them personally, their agency, and community health.</p>
<p>Critical thinking and creativity</p>	<p>PBHL A316: Environmental Health Science - All BSPH students complete A316 in which they demonstrate critical thinking and creativity through the creation of a semester-long technical writing project in which they examine social, economic and political contexts of environmental health, and interpret and analyze information about complex environmental and social issues.</p>
<p>Cultural contexts in which public health professionals work</p>	<p>-FSPH Public Health Corps -IUPUI Study Abroad and FSPH Study Abroad -FSPH Poverty Simulations -General Education Cultural Understanding Course Requirement -PBHL S315: All BSPH students complete this course in which they provide service in the community. Students spend a minimum of 20 hours working for a community-based agency. Serving gives them an opportunity to learn about their community creates an awareness of the social/health needs and problems in the community. In addition, students volunteer hours at a community event that lasts a minimum of 3 consecutive hours. Students evaluate and reflect upon their service experiences in class and in midterm and final reports, reflecting on their experiences as they relate to them personally, their agency, and community health.</p>
<p>Ethical decision making as related to self and society</p>	<p>PHBL S315: All BSPH students complete S315: Community Health, which includes measures of students' ability to demonstrate an understanding of cultural competency and ethical decision making. PBHL E322: All BSPH students complete E322: Principles of Epidemiology, which includes a module (Module 8) on ethical issues in research.</p>

Independent work and a personal work ethic	<p>Students demonstrate their independence and work ethic through their internship/capstone experiences:</p> <ul style="list-style-type: none"> -PBHL S499: Internship/Capstone for BSPH majors in Community Health -PBHL A380: Internship/Capstone for BSPH majors in Environmental Health Science -PHBL E404: Internship/Capstone for BSPH majors in Epidemiology
Networking	<ul style="list-style-type: none"> -In January of 2019, an evening Career Panel event was held featuring Young Professionals in Public Health. Speakers were comprised of graduates who had 1-5 years of professional experience in their respective fields. Representatives from epidemiology, community health, and health services management spoke to 28 undergraduate students. The panel session was followed by informal networking and several students connected with the speakers for informational interviews and shadowing. -Networking through Eta Sigma Gamma (national honorary society) -Networking through IUPUI Career Services -Networking through the IUPUI Spring Career Fair -Networking through the IUPUI Fall Intern Fair -Networking with Alumni Association -Networking at the Indiana Public Health Conference -Free student membership in the Indiana Rural Health Association -Networking through the Undergraduate Student Association Activities
Organizational dynamics	<p>All BSPH students must complete H220 Public Health Systems and Policy. In H220, students must attend and observe a policy meeting, legislative meeting, or board meeting. Examples might be a school board, city council meeting, legislative session or legislative hearing. Students complete the <i>Observation Summary Form</i> after they observe the organizational dynamics of the meeting.</p>
Professionalism	<ul style="list-style-type: none"> -Professional development events sponsored by FSPH Career Services -Participation in Eta Sigma Gamma (national honorary society) -BSPH field experiences provide practical, professional experiences -IUPUI Resources re: Resume Writing, Professional Attire, Interviews
Research methods	<ul style="list-style-type: none"> -BSPH students in Community Health complete PHBL S399: Research Methods in Public Health -BSPH students in Environmental Health Science (now Global Health Protection) complete PHBL A310: Exposure Assessment Laboratory and Data Analysis -BSPH students in Epidemiology complete PBHL E422: Methods in Epidemiology -In addition, all BSPH students complete the following biostatistics and epidemiology courses: <ul style="list-style-type: none"> • PHBL B300: Introduction to Biostatistics • PBHL E322: Principles of Epidemiology
Systems thinking	<p>PBHL H220: All BSPH students are required to work in groups to research the healthcare system of another country and give an 8-10 minute oral presentation comparing it to the U.S. healthcare system. Each group member must contribute to the oral presentation.</p>

Teamwork and leadership	<p>Teamwork: All BSPH students complete group projects in PBHL H220: Students are required to work in groups to research the healthcare system of another country and give an 8-10 minute oral presentation comparing it to the U.S. healthcare system. Each group member must contribute to the oral presentation.</p> <p>Leadership: All BSPH students have the opportunity to get involved in the IUPUI Student Government and FSPH Undergraduate Student Association and BSPH students in Community Health have the opportunity for leadership positions in Eta Sigma Gamma.</p>
-------------------------	--

Assessment of 22 Competencies for the MPH Program, Regardless of Concentration

Competency	Course number(s) and name(s)	Describe specific assessment opportunity
Evidence-based Approaches to Public Health		
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	PBHL P511 Comprehensive Methods and Applications in Biostatistics and Epidemiology (3 credits)	Students in P511 are required to apply epidemiological methods in the prevention/rate calculation assignment, where students assess data, construct a table that describes both descriptive and analytical epidemiology of an issue using case studies that feature diverse settings and situations.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	PBHL P511 Comprehensive Methods and Applications in Biostatistics and Epidemiology (3 credits)	<p>In the <i>Legionnaires Disease</i> and <i>Framingham Study</i> assignments, students in P511 must be able to differentiate between quantitative and qualitative data in a case study that utilizes both quantitative and qualitative data to assess a public health emergency and select methods to ameliorate the hazards.</p> <p>In the <i>Qualitative and Mixed Methods</i> homework assignment, students must provide an in-depth comparative analysis of quantitative and qualitative methods, to demonstrate their knowledge of the difference and purpose of each data collection approach. This comparative analysis measures students' ability to select appropriate data collection methods given the context. Students complete and apply their knowledge to a mixed-methods case study example. Additionally, this assignment assesses students' knowledge via multiple-choice questions related to introductory qualitative and mixed methods research concepts.</p>
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	PBHL P511 Comprehensive Methods and Applications in Biostatistics and Epidemiology (3 credits)	<p>Students in P511 are required to use Microsoft Excel, and SPSS software to assess outcomes from large, publicly available data sets in both the <i>Legionnaires</i> assignment, <i>Framingham Study</i> assignment, and Prevention/Rate Calculation assignment. They have to apply biostatistical tests to that data and then accurately interpret those results for public health action.</p> <p>In three homework assignments, students are presented with datasets they must analyze using SPSS, and then answer questions about the data.</p> <p>In the <i>Qualitative Data Analysis & Write-Up</i> homework assignment, students are given a dataset of qualitative interview responses that were collected via open-</p>

		ended questions that were included as part of a survey. Students code and analyze the qualitative responses for themes that emerge from the interview responses. Specifically, they provide an exhaustive list of themes and subthemes from the dataset, as well as providing exemplary quotes from participants' qualitative responses that are representative of the themes and subthemes that were identified.
4. Interpret results of data analysis for public health research, policy or practice	PBHL P511 Comprehensive Methods and Applications in Biostatistics and Epidemiology (3 credits)	Students in P511 analyze data from a cross-sectional data set, a case-control data set, and a cohort data set, and then interpret results to assess risk and identify an exposure to an outcome. In the <i>Legionnaires Disease</i> case control study, students apply the knowledge from what they learned in the study to prevent future occurrences of disease, including policies that prevent exposures.
Public Health & Health Care Systems		
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	PBHL P510 Introduction to Public Health (3 credits)	In the <i>Infographic Assignment</i> in P510, students must review the health care and public health systems in another country, and review environmental and health policies around one of the specific sustainable development goals. Students share their infographics and are able to compare the structure of health care and public health across international settings. Students also examine a regulation in the federal registry. They examine the agency proposing it, the issue being addressed, and the comments for and against the regulation. They are asked to indicate what they would do if they had a vote, and compare the regulation to those in other states and countries.
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	PBHL P510 Introduction to Public Health (3 credits)	In the County Health Rankings skill-building assignment in P510, students are given a county public health issue and they are to look at the social determinants that contribute to the challenges in achieving health equity. They also participate in classroom discussions about bias, racism and social inequity issues at various levels after reading the: <i>The Blue Sweater</i> , and <i>Fresh Fruit, Broken Bodies: Migrant Farmworkers in the United States</i> , two assigned non-fiction books associated with social and behavioral aspects of public health.
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health	PBHL P513 Planning, Evaluation & Management (3 credits)	All students in P513 are required to complete a community health assessment in which they assess factors that affect the health of the community and identify available resources to address those factors.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	PBHL P513 Planning, Evaluation & Management (3 credits)	All students in P513 are required to plan a culturally-appropriate program for a specific county project following their community health assessment. They plan a program and a policy based on resources available to meet the needs that were determined by the community health assessment.
9. Design a population-based policy, program, project or intervention	PBHL P513 Planning, Evaluation & Management (3 credits)	All students in P513 are required to plan a culturally-appropriate program for a specific county project following their community health assessment. They plan a program and a policy based on resources available to meet the needs that were determined by the community health assessment.

10. Explain basic principles and tools of budget and resource management	PBHL P513 Planning, Evaluation & Management (3 credits)	Students in P513, one of the quizzes requires students to explain the basic principles and tools of budget and resource management. They also apply principles and tools of budget and resource management through the creation of a business plan and funding/resource plan which includes a specific budget. They are required to find two grant resources that could fund the policy and the program.
11. Select methods to evaluate public health programs	PBHL P513 Planning, Evaluation & Management (3 credits)	Students in P513 select methods to evaluate public health programs in the evaluation plan they create. They identify the data that will be collected to know if the goals and objectives are met.
Policy in Public Health		
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	PBHL P510 Introduction to Public Health (3 credits)	<p>In the P510 skill-building activity using the CDC Chronic Disease Prevention and Health Promotion guide, students are assigned a state and a health priority of the state. They then write an analytical paper to discuss the health issue, the current state health policies associated with the issue, and then propose evidence based intervention strategies to address social/environmental determinants of the health issue, and evidence based policy changes to improve the public policy approach to the health issue.</p> <p>Students apply ethical considerations associated with policy and social, economic, political and environmental determinants of health when writing their two op-ed pieces.</p> <p>Also in P510, students partner with the staff of the Indiana Institute for Working Families, who use skill building pedagogy to teach the multiple dimensions of building a policy for the State of Indiana. The students work to make a public health bill, present it to a mock session of the legislature and seek approval of the executive branch.</p>
	PBHL P513 Planning, Evaluation & Management (3 credits)	In P513, there is a class lecture and discussion on critical analysis of evidence-based practice.
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	PBHL P512 Communication & Leadership (3 credits)	In P512, students must read a journal article re: beverage tax and propose strategies for building coalitions and describe how to pass legislation around an unpopular tax.

<p>14. Advocate for political, social or economic policies and programs that will improve health in diverse populations</p>	<p>PBHL P510 Introduction to Public Health (3 credits)</p> <p>PBHL P512 Communication & Leadership (3 credits)</p>	<p>In P510, students look at policies that would improve the health of their assigned countries as part of their <i>Infographic</i> skill-building assignment. After reading <i>The Blue Sweater: Bridging the Gap Between Rich and Poor in an Interconnected World</i>, students write an Op-Ed piece about microeconomics to train and sustain efforts.</p> <p>In P512, students read an article about declining health services during a fiscal crisis and answer specific questions about how to advocate for political, social or economic policies that improve health in diverse communities. In addition, students met with a state representative who chaired the public health committee for the state of Indiana and discussed the legislative process. The students then determined how and where each of them can be involved and connect with their representatives at the local, state, and federal level. Following the meeting with the state representative, students were asked to describe on an exam what they learned about legislation, policies, and advocacy.</p>
<p>15. Evaluate policies for their impact on public health and health equity</p>	<p>PBHL P510 Introduction to Public Health (3 credits)</p> <p>PBHL P512 Communication & Leadership (3 credits)</p>	<p>In P510, students evaluate policies for their impact on public health and health equity by first reading the book: <i>Fresh Fruit, Broken Bodies Migrant Farmworkers in the United States</i>, evaluate federal and state policies regarding immigrant health, and write an Op-Ed piece addressing this issue.</p> <p>In P512, students review cases studies around cigarette and beverage taxes and then review the outcomes of those taxes. In the <i>Public Health Solutions</i> assignment, students identify a public health problem in a community and then identify three possible solutions to that problem. In these assignments, students evaluate the impact of policy on public health.</p>
<p>Leadership</p>		
<p>16. Apply principles of leadership, governance, and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making</p>	<p>PBHL P512 Communication & Leadership (3 credits)</p>	<p>In P512, students apply principles of leadership, governance, and management when creating their own personal vision statement with goals and objectives. Then, they determine how and what they need to achieve these goals and objectives and who else needs to be involved (collaboration, empowering others). Finally, following engagement with renowned leaders in the community through guest speakers and Q&A, students write their own vision statement that guides their personal, academic and professional life.</p>
<p>17. Apply negotiation and mediation skills to address organizational or community challenges</p>	<p>PBHL P512 Communication & Leadership (3 credits)</p>	<p>In P512, students apply negotiation and mediation skills to address organizational or community challenges by identifying a “wicked” problem within an organization and what makes it “wicked”. Students are then required to identify a complex solution and more importantly its implementation strategy. Following a lecture on negotiation and mediation, students answer an exam question in which they apply negotiation and mediation skills to address a specific example. They must identify which groups they would need to negotiate with and how they would mediate the challenge.</p>
<p>Communication</p>		

<p>18. <i>Select communication strategies for different audiences and sectors</i></p>	<p>PBHL P510 Introduction to Public Health (3 credits)</p> <p>PBHL P512 Communication & Leadership (3 credits)</p>	<p>In P510, students apply various communications strategies for different audiences by creating an Infographic, an Op-Ed piece, and other communication materials.</p> <p>In P512, students write a press release for an actual public health event, such as an outbreak of a communicable disease. Students write the press release at a sixth grade level to demonstrate the difficulty of communicating complex topics so all can understand and take action.</p>
<p>19. <i>Communicate audience-appropriate public health content, both in writing and through oral presentation</i></p>	<p>PBHL P512 Communication & Leadership (3 credits)</p>	<p>In P512, students are required to identify a public health solution to a complex problem in the community. This was a project in which teams are randomly assigned and the teams write a press release for an actual public health event, such as an outbreak of a communicable disease. Students write the press release at a sixth grade level to demonstrate the difficulty of communicating complex topics so all can understand and take action.</p> <p>Students communicate their final projects in writing and orally during the MPH Poster Session required of all students shortly before they graduate.</p>
<p>20. <i>Describe the importance of cultural competence in communicating public health content</i></p>	<p>PBHL P512 Communication & Leadership (3 credits)</p>	<p>In P512, after a class lecture about cultural competence and communicating with broad audiences, students apply cultural competence in communicating public health content by creating a press release based on an outbreak of disease in the community. They write the press release at a sixth grade reading level using plain language to ensure everyone in the community can understand the information regarding the outbreak.</p>
<p>Interprofessional Practice</p>		
<p>21. <i>Perform effectively on interprofessional teams</i></p>	<p>PBHL P510 Introduction to Public Health (3 credits)</p> <p>PBHL P511 Comprehensive Methods and Applications in Biostatistics and Epidemiology (3 credits)</p> <p>PBHL P512 Communication & Leadership (3 credits)</p> <p>PBHL P513 Planning, Evaluation & Management (3 credits)</p>	<p>In P510, P511, P512 and P513, students spend several hours performing on interprofessional teams with students from medicine, dentistry, social work, nursing, occupational therapy, rehabilitation sciences, pharmacy and other professions. Faculty from all of the health schools are present during the IPE sessions to facilitate and evaluate student participation and performance during each IPE Anchors.</p> <p>P510: IPE Anchor 1 = Introduction to Team Science</p> <p>P511: IPE Anchor 2 = Interprofessional Communication Skills</p> <p>P512: IPE Anchor 3 = Application of Interprofessional Teamwork Skills</p> <p>P513: IPE Anchor 4 = Integration of Interprofessional Teamwork Skills</p>
<p>Systems Thinking</p>		

<p>22. <i>Apply systems thinking tools to a public health issue</i></p>	<p>PBHL P511 Comprehensive Methods and Applications in Biostatistics and Epidemiology (3 credits)</p> <p>PBHL P512 Communication & Leadership (3 credits)</p>	<p>In P511, students demonstrate their ability to apply systems thinking tools to a public health issue in the <i>Legionnaires Disease</i> case control study assignment where they apply their knowledge of systems thinking to first identify the exposure and then identify solutions to both stop the outbreak and add corrective measures to prevent it from occurring again in the future.</p> <p>In P512, students demonstrate their ability to apply systems thinking tools to a public health issue by identifying a challenge for the population (local, regional, or state). They then use a systems approach to dissect that challenge and assess it from all angles using a system tool, like the <i>Six Thinking Hats</i> method around the cigarette tax. Next, they determine the appropriate steps to begin to solve that challenge and improve outcomes for the population in the <i>Public Health Solutions</i> assignment. In the <i>Public Health Solutions</i> paper, students work on a team project in which they identify a public health problem in a specific jurisdiction and apply systems thinking to provide three evidence-based solutions. In case study #4, students learn about systems thinking in organizational change. Students watch Peter Senge’s introductory video on Systems Thinking and apply systems thinking to a public health problem in a reflection paper. Students also watch the Equiate Webinar on Systems Thinking and Public Health and apply systems thinking to a public health issue in a reflection paper.</p>
---	---	---

Competencies and Assessment Activities for Each Concentration within the MPH Program

<p>Assessment of Competencies for MPH in Biostatistics Concentration <u>MPH Competencies in Biostatistics</u></p>		
<p>Competency</p>	<p>Course number(s) and name(s)</p>	<p>Describe specific assessment opportunity</p>
<p>1. Describe basic concepts of probability, random variation and commonly used statistical probability distributions.</p>	<p>PBHL B562 Biostatistics for Public Health II</p> <p>PBHL B571 Biostatistics Methods I-Linear Regression Model</p>	<p>In B562, students are required to describe and perform the advanced statistical methods, including parametric test, non-parametric test, linear regression, logistic regression, model selection, ANOVA, ANCOVA, ROC, random effects model, and survival model. Students are also required to know the appropriate SAS procedures.</p> <p>In B571, homework assignments 2-9 require students to be able to describe and perform analyses using ANOVA, simple linear regression, multiple linear regression, confounding analysis, partial correlations and other linear regression techniques. The examples include infant birthweight and maternal smoking status, body fat evaluations, growth</p>

	PBHL B572 Biostatistics Methods II: Categorical Data Analysis	rates, and others. Students in B572 complete homework assignment #3, problem #4, which asks students to prove that Pearson's chi-square test works well for case-control studies.
2. Develop a plan to apply descriptive techniques used to summarize biomedical data.	PBHL B 562 Biostatistics for Public Health II PBHL B572 Biostatistics Methods II: Categorical Data Analysis	In B562, students are required to generate the plots and tables based on the SAS output as well as interpret those in both statistical and clinical standpoints. Please see document "HW4.docx". One of the homework assignments in B572 requires students to apply descriptive techniques to calculate risk of peptic ulcer for type O blood compared to type A/B/AB blood, adjusting for the effect of location of patients. Another homework assignment requires students to develop a plan to evaluate the effect of service that patients receive at the time of ICU admission on the vital status at hospital discharge, after adjusting for the effect of patient age and whether patients received CPR prior to ICU admission. Students are asked to interpret the results of their analysis, delineating the role of each variable on the outcome, and predicting the probability of survival at discharge.
3. Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question.	PBHL B 562 Biostatistics for Public Health II PBHL B572 Biostatistics Methods II: Categorical Data Analysis	IN B562, students are required to state the hypothesis then carry out the appropriate analysis and explain the reason why the method is selected. Finally, they must write the conclusion both in statistical and clinical terms. IN B572, to demonstrate their ability to develop written and oral presentations based on statistical analyses for both public health professionals and educated lay audiences, a written project is required for every student based on analysis using descriptive summary, multivariable logistic regression, variable selection, model diagnostics, and interpretation of final results. Students are required to write their report in the form of a scientific journal article. Students are encouraged to choose a data set in public health.
4. Interpret results of advanced statistical analyses found in biomedical research.	PBHL B571 Biostatistics Methods I-Linear Regression Model	In B571, analysis results from Homework 2-9 are required to be interpreted from both the statistical and scientific points of view.
5. Develop a technical report based on advanced biostatistical methods.	PBHL B571 Biostatistics Methods I-Linear Regression Model PBHL B572 Biostatistics Methods II: Categorical Data Analysis	In B571, a written project is required based on a comprehensive data analysis using linear regression techniques, such as model selection, model diagnostics, estimation, hypothesis testing, and interpretation. Data from public health are encouraged. In B572, a written project is required for every student based on analysis using descriptive summary, multivariable logistic regression, variable selection, model diagnostics, and interpretation of final results. Students are required to write their report in the form of a scientific journal article.

Assessment of Competencies for MPH in Environmental Health Science Concentration		
<u>MPH Competencies in Environmental Health Science</u>		
Competency	Course number(s) and name(s)	Describe specific assessment opportunity
1. Apply a framework to anticipate, recognize, evaluate, prevent, and control environmental and occupational exposures that pose risks to human health and safety.	PBHL A661 Fundamentals of Toxicology	Each student in A661 is required to complete a series of quizzes based on actual environmental situations to identify, evaluate, prevent, and control environmental and occupational exposures.
2. Explain mechanisms of toxicity and injury associated with environmental and occupational exposures.	PBHL A661 Fundamentals of Toxicology	Each student in A661 is required to work in a small team to write a term paper on a selected topic to describe the issue, environmental and occupational exposure pathways, mechanisms of toxicity and injury, and human health effects.
3. Apply appropriate risk assessment methods for environmental and occupational health and safety issues.	PBHL A662 Human Health Risk Assessment	Each student in A662 is required to work in a small team to write a risk assessment report for an environmental and occupational health and safety issue based on a toxicant, its location, and release. This includes hazard identification, exposure scenarios, dose received, and remedial actions necessary.
4. Recommend prevention, control, and management strategies for environmental and occupational health and safety issues.	PBHL A623 Management and Leadership in Health Protection PBHL A662 Human Health Risk Assessment	Each student in A623 is required to provide written response to a series of scenario-based assignments to recommend strategies in prevention, control, and management. Each student in A662 demonstrates this ability by working in a small team to write a risk assessment report, which includes hazard identification, exposure scenarios, dose received, and remedial actions necessary.
5. Critique communication approaches for diverse stakeholders on environmental and occupational health and safety issues.	PBHL A623 Management and Leadership in Health Protection	Each student in A623 is required to provide a written critique on how an example organization responded to a crisis and communicated risk.

Assessment of Competencies for MPH in Epidemiology Concentration
[MPH Competencies in Epidemiology](#)

Competency	Course number(s) and name(s)	Describe specific assessment opportunity
<p>1. Apply descriptive epidemiology to assess health status and the burden of disease in populations.</p>	<p>PBHL E601 Advanced Epidemiology</p> <p>PBHL E635 Foundations in Public Health Informatics</p>	<p>In E601 each student is required to demonstrate mastery of the basic analytical techniques on homework assignments and mid-term and final exam test questions.</p> <p>Each student in E635 is required to analyze a data set on a chronic disease observed in a population of 1 million people. Students must load the data set into an analysis platform and link the dataset to indicators relevant to the social determinants of health. Students then analyze the combined dataset and create a “data story” that summarizes their analysis.</p>
<p>2. Interpret and apply epidemiologic research methods and findings to the practice of public health.</p>	<p>PBHL E601 Advanced Epidemiology</p> <p>PBHL E635 Foundations in Public Health Informatics</p>	<p>In E601, each student is required to perform a mini research study in which the student identifies a research question, articulates their hypothesis, develops a questionnaire, interviews and collect data on a minimum of 100 study participants, analyzes their data using the most appropriate statistics, identifies the limitations in their study and articulates their conclusions and recommendations.</p> <p>Each student in E635 is required to use a data set from the U.S. Department of Veterans Affairs to examine Lyme disease testing patterns as well as prevalence of disease. Students must query the data from a database and then conduct an analysis. Results are summarized in a written report, submitted to the instructor for grading.</p>

<p>3. Demonstrate the ability to identify and use existing key sources of epidemiologic data at the local, state, national, and international level.</p>	<p>PBHL E635 Foundations in Public Health Informatics</p>	<p>Each student in E635 is required to identify and describe a data set available on the government site healthdata.gov. Students critically examine the data set for adherence to information standards and utility. Their analysis is summarized in a document graded by the instructor.</p>
<p>4. Integrate key components of disease surveillance and screening into public health programs.</p>	<p>PBHL E601 Advanced Epidemiology</p>	<p>Each student in E601 is required to analyze a dataset obtained from a CDC screening program and evaluate the screening test and its impact on the disease surveillance of the population. Students demonstrate mastery of the basic concepts of positive and negative predictive value, sensitivity, specificity, and the impact on these parameters as the prevalence of the underlying condition changes over time.</p>
<p>5. Develop written and oral presentations based on epidemiologic analyses for both population health professionals and lay audiences.</p>	<p>PBHL E601 Advanced Epidemiology</p>	<p>In E601 each student is required to work within a group setting to design a study addressing an occupational exposure to a potential carcinogenic agent. The group then orally presents their proposed written research study detailing their methodology, threats to validity, biases, analysis plan, and how they will control for potential confounding, to the other members of the class.</p>
<p>6. Demonstrate basic data management and analysis skills using statistical software such as SAS by translating raw epidemiologic data into actionable public health information.</p>	<p>PBHL B552 Fundamentals of Data Management</p> <p>PBHL B562 Biostatistics for Public Health II</p>	<p>Students in B552 are required to complete several assignments in which they must critique a data collection form, design a data management system, import data into SAS, run quality control measures, generate clean-up queries, and create summary reports containing basic statistics.</p> <p>In addition, in B562 each student is required to complete a project where they must collect their own epidemiologic data, analyze that data using statistical methods, and properly interpret the results of their SAS output.</p>
<p>7. Identify the principles and limitations of public health screening programs</p>	<p>PBHL-P511 Comprehensive Methods and Applications in Biostatistics and Epidemiology</p> <p>PBHL E601 Advanced Epidemiology</p>	<p>Students have an assignment in which they are to calculate and interpret sensitivity, specificity, predictive value positive and negative and it is reviewed in the lecture prior to the homework assignment.</p> <p>Students also demonstrate their ability to identify principles and limitations of public health screening programs in E601 mid-term and</p>

		final exam test questions.
8. Explain the importance of epidemiology for informing scientific, ethical, economic, and political discussion of health issues	PBHL-P511 Comprehensive Methods and Applications in Biostatistics and Epidemiology PBHL E601 Advanced Epidemiology	There are examples given in E511 during the lecture and then students have assignments that focus on outbreaks of disease and health outcomes in populations that have to be summarized and explained to an effort to prevent additional people from becoming ill or to minimize morbidity in a population. The importance of epidemiology for informing discussion of health issues is expressed by students in their answers to the mid-term and final exam questions.
9. Evaluate the strengths and limitations of epidemiological research and reports.	PBHL E635 Foundations in Public Health Informatics	Each student in E635 is required to review a published study pertaining to an information system intervention used to capture, manage, or use population-level data. Students must critically review the article, summarizing the strengths and weaknesses of the study design, methods, and conclusions given the population, context, results, and other key details outlined in the article.

Assessment of Competencies for MPH in Health Policy and Management Concentration		
<u>MPH Competencies in Health Policy and Management</u>		
Competency	Course number(s) and name(s)	Describe specific assessment opportunity
1. Propose policy solutions that could be recommended to management.	PBHL H628 Healthcare Information Systems PHBL H611 Policy Design, Implementation and Management	As part of their H628 class participation assessment, students use real-world data from an electronic health record to analyze populations (e.g., patients with diabetes, patients at risk of hospital readmission) and make management- and policy-relevant inferences. Students in H611 prepare three papers: one assessing a potential health policy issue, one developing and comparing policy options, and one designing an implementation strategy. Part of the grading process assesses the students' ability to select, analyze, and present pertinent data to support each paper.

<p>2. Apply public health ethical concepts and analytical frameworks to current local, national or international public health events.</p>	<p>PBHL H641 Public Health Ethics</p>	<p>CASE STUDY, FINAL PAPER & PRESENTATION</p> <p>1) <i>Case Description for Final Paper (100 points)</i> Students prepare a case study that reflects an ethical dilemma encountered in the course of their public health career, or that they find in the news. The case study describes a specific moral problem in a public health setting.</p> <p>2) <i>Final Paper (140 points)</i> The final paper consists of an analysis of an original case study. In their analysis of the case, students are expected to use one or more of the numerous public health ethics analytical frameworks offered during the course to describe and assess the ethical issues involved, propose 2 or 3 options available to the moral agents involved in the case, and to defend a position in favor of a particular approach on ethical grounds. Defending a particular position includes raising and analyzing what the student believes to be the best argument(s)/critiques against the position, not just asserting the strengths of the student's stance.</p> <p>3) <i>Final Presentation (60 points)</i> At the final class session, students make 6-minute, 40-second Pecha Kucha-style presentations on their case studies and analyses to their classmates, and classmates then discuss the cases and offer feedback.</p>
<p>3. Identify a policy recommendation through analysis of multiple policy alternatives, evaluating potential strengths and weaknesses of each.</p>	<p>PHBL H611 Policy Design, Implementation and Management</p> <p>PBHL H628 Healthcare Information Systems</p>	<p>Each student in H611 prepares three papers requiring effective writing to provide compelling evidence of the importance of the selected health issue and the feasibility of policy options to address the issue. The policy implementation issue paper requires an evaluation plan to provide feedback on the implementation of the option and the ultimate contribution to addressing the identified health policy issue. The student teams present their three papers at the end of the course with an opportunity for class members to raise issues with the presented papers.</p> <p>In H628, all students complete a series of three written assignments and a final project presentation. Over the course of these assessments, they identify an information system problem in an actual organization, write a need statement, identify stakeholders, conduct requirements analysis, conduct a process gap analysis, design a solution involving people, process, and technology, and propose an implementation and evaluation plan. Written and oral deliverables are evaluated partially based on clarity, conciseness, formatting, and professionalism in communication.</p>

<p>4. Identify characteristics of leadership in healthcare or public health.</p>	<p>PBHL H616 Leading Public Health Service Organizations</p>	<p>Using a structured interview guide, each student in H616 is required to conduct an interview of a healthcare leader and write a two-page paper on a characteristic of leadership discussed during the interview. A minimum of three sources must be used to support the pertinent leadership characteristic being promulgated by the interviewee.</p>
<p>5. Apply the diverse segments of financial management to an understanding of the financial viability of a public health organization.</p>	<p>PBHL H619 Financial Management for Public Health Organizations</p>	<p>Chapter 2 homework problems require students to prepare budgets and financial statements showing all of their work within the excel document for any calculations or computations completed. They must show revenues and expenses by line item, show the expected profit or loss, determine the viability, and explain factors that should be considered by the organization if a loss is expected. After students have a solid understanding of the financial statements required for financial managers and have worked through various budgeting exercises, students apply various financial analysis concepts such as ratio analysis and variance analysis. Chapter 14 homework problems require students to provide an analysis of a not-for-profit organization's financial position and calculate common size ratios for the statements of financial position and statements of activities, the current ratio, days of cash on hand, the debt to equity ratio, the total margin, and the program services ratio for a fictional organization that provides training for the unemployed.</p>

Assessment of Competencies for MPH in Public Health Informatics Concentration

MPH Concentration in Public Health Informatics

Competency	Course number(s) and name(s)	Describe specific assessment opportunity
1. Propose informatics strategies that support or improve work processes within health care and public health organizations.	PBHL E645 Information Exchange for Population Health	Students work in groups in E645 to select an organization and review its mission, service line, and information architecture. For the final project, students must then propose an informatics strategy to enhance the organization's capacity to capture, manage, use, share, and analyze data. Each member of the team is required to contribute to the project and presentation. Students must inform the instructor when they're meeting as a group via Zoom. Teams of students prepare recommended strategies as both a written document and an oral presentation to their peers.
2. Apply analytics to the discovery, interpretation, and communication of population health data.	PBHL E635 Foundations in Public Health Informatics PBHL B552 Fundamentals of Data Management PBHL H628 Healthcare Information Systems	Each student in E635 is required to analyze a data set on a chronic disease observed in a population of 1 million people. Students must load the data set into an analysis platform and link the dataset to indicators relevant to the social determinants of health. Students then analyze the combined dataset and create a "data story" to communicate their findings with a lay audience. In B552, students must use statistical software to apply analytics to multiple datasets to demonstrate they can appropriately execute and interpret an analysis. In H628 class participation assessment, students use real-world data from an electronic health record to perform analytics on population health datasets (e.g., patients with diabetes, patients at risk of hospital readmission) and make management- and policy-relevant inferences.
3. Design an evaluation plan to measure the impact of information systems and informatics interventions on	PBHL E645 Information Exchange for Population Health	Each student in E645 is required to design an evaluation plan for an intervention driven by health information exchange (HIE). Students must summarize the objective of the evaluation, study design, methods, and impact on clinical or public health practice. These details are presented as an abstract for submission to a scientific meeting, which is graded by the instructor.

<p>population health outcomes.</p>	<p>PBHL H628 Healthcare Information Systems</p>	<p>Students in H628 identify an information system problem in an actual organization, design a solution to the problem and design an evaluation plan to measure the impact of the proposed solution.</p>
<p>4. Generalize computer and information science methods to the capture, storage, management, exchange and use of data among health care and public health organizations.</p>	<p>PBHL E635 Foundations of Public Health Informatics</p> <p>PBHL E647 Introduction to Population Health Analytics (while E647 is an elective course, it is taken by all students in this concentration)</p>	<p>Students use structured query language (SQL) to link two data files and extract the data necessary to answer questions provided by the instructor about a population of patients (individuals tested for Lyme disease). Students answer basic epidemiology questions (e.g., prevalence, positivity) using data extracted with SQL statements within a relational database. Students further document their methods alongside their answers to allow assessment not only of the final result but also their process for finding, managing, and using the data extracted from the database.</p> <p>Students identify and download aggregate-level data sets published by various public health organizations. Using python or GUI based tools, they collate these datasets into CSV files for storage and analytical use. Next, using Weka or python based scripts, they analyze these datasets to identify points of interest such as the most significant features, correlation patterns within datasets, completeness and accuracy of data.</p>
<p>5. Apply available data and information standards to the use of informatics systems that enhance the public health infrastructure.</p>	<p>PBHL E635 Foundations in Public Health Informatics</p> <p>PHBL E645 Information Exchange for Population Health</p>	<p>Each student in E635 is required to identify and describe a data set available on the government site healthdata.gov. Students critically examine the data set for adherence to information standards. Their analysis is summarized in a document graded by the instructor.</p> <p>In E645, students play the role of a consultant hired by a hospital to apply available data standards to improve how the hospital captures, managed and used social determinant data. Students must assess which social determinants can be encoded using information standards. Students must also identify which information systems could encode these data and make them available for use by end users. The students prepare a report for their "client" which is graded by the instructor.</p>

Assessment of Competencies for MPH in Social and Behavioral Sciences Concentration**MPH Competencies in Social and Behavioral Sciences**

Competency	Course number(s) and name(s)	Describe specific assessment opportunity
1. Produce at least one advocacy strategy to address public health priorities.	PHBL S617 Health Promotion and Disease Prevention	Students write a health policy brief in the Health Promotion and Disease Prevention course.
2. Design a communication tool to optimize individual and/or community health across different audiences.	PBHL S617 Health Promotion and Disease Prevention	Students design and produce a Community Solutions Podcast episode in the Health Promotion and Disease Prevention course.
3. Design, implement, and analyze research studies, in collaboration with a community agency, to address an agency-identified public health issue.	PBHL S615 Qualitative Research Methods	Students develop and implement and analyze a qualitative study in the Qualitative Research Methods course.
4. Construct in partnership with a community agency a program implementation and evaluation plan to address an agency-identified public health issue.	PBHL S614 Advanced Program Planning PBHL S510 Research Methods and Program Evaluation	Students develop a community health program in S614 Advanced Program Planning, and an associated evaluation plan in S510 Research Methods and Program Evaluation.
5. Develop a grant proposal and fund raising case statement to advance a community agency's programming and mission.	PBHL S510 Research Methods and Program Evaluation PBHL S614 Advanced Program Planning	In S510, students develop a grant proposal. In S614, students develop a fundraising case statement for a community health program.

Assessment of Synthesis of Competencies for the MPH Program

<i>MPH Integrative Learning Experience for the Biostatistics Concentration</i>	
<i>Integrative learning experience (list all options)</i>	<i>How competencies are synthesized</i>
Capstone Paper and Poster Presentation (completed as an independent research project in PBHL B701)	Students self-identify competencies in the proposal stage. The faculty advisor approves the proposal and identified competencies. Faculty evaluate the paper and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation. Guidelines for expectations of the paper and poster are outlined in the handbook.

<i>MPH Integrative Learning Experience for the Environmental Health Science Concentration</i>	
<i>Integrative learning experience (list all options)</i>	<i>How competencies are synthesized</i>
Capstone Paper and Poster Presentation (completed as an independent research project in PBHL A703)	Students self-identify competencies in the proposal stage. The faculty advisor approves the proposal and identified competencies. Faculty evaluate the paper and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation. Guidelines for expectations of the paper and poster are outlined in the handbook.

<i>MPH Integrative Learning Experience for the Epidemiology Concentration</i>	
<i>Integrative learning experience (list all options)</i>	<i>How competencies are synthesized</i>
Capstone Paper and Poster Presentation (completed as part of the PBHL E711 & PBHL E712 course or as an independent research project)	Students integrate foundational and concentration competencies in one of two ways: (1) In E711 and E712, students address foundational and concentration-specific competencies by conducting a research project from start to finish, carrying out necessary development, writing, and analysis tasks related to their projects. They search scientific literature to identify relevant epidemiologic and other studies related to a research topic, formulate focused research questions and hypotheses, analyze data to evaluate associations using stratified

in PBHL E704)	<p>analyses to estimate odds ratios and relative risks, estimate risk estimates and/or rates for an association, evaluate confounding and effect modification, and identify the most appropriately adjusted or stratified presentation of risk estimates to answer a research question. They organize and display research findings in standard table formats used in epidemiologic journals and present final study results in the format of a scientific paper for publication including an abstract, introduction, methods, results, and discussion of findings. They develop and present a scientific poster and talk of study results. Faculty evaluate the paper and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation.</p> <p>(2) Students in D704 self-identify competencies in the proposal stage. The faculty advisor approves the proposal and identified competencies. Faculty evaluate the paper and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation. Guidelines for expectations of the paper and poster are outlined in the handbook.</p>
---------------	--

<i>MPH Integrative Learning Experience for the Health Policy and Management Concentration</i>	
<i>Integrative learning experience (list all options)</i>	<i>How competencies are synthesized</i>
<p>Capstone Paper and Poster Presentation</p> <p>(completed as part of the PBHL H711 capstone course or as an independent research project in PBHL H705)</p>	<p>Students integrate foundational and concentration competencies in one of two ways:</p> <p>(1) Students in H711 have six individual assignments: (60 points)</p> <ol style="list-style-type: none"> 1. Description of a timely, local, and relevant public health issue 2. Brief literature review 3. Description of methods used to study the issue, including analysis of the data 4. Report of results and conclusions, including limitations of the work 5. Proposed policy or practice interventions, including potential unintended consequences 6. Description of individual responsibilities in executing the project <p>Students in H711 also have a group project: (20 points)</p> <p>Students work collaboratively in groups to address a specified need. A final product is required that compiles everyone's work into a comprehensive cohesive user-friendly final package that can be used by others once the class is complete. The format of the final product is up to the group. An outline of the final product is approved by the instructor by mid-point in the semester. Faculty evaluate the paper and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation.</p> <p>(2) Students in H705 self-identify competencies in the proposal stage. The faculty advisor approves the proposal and identified competencies. Faculty evaluate the paper and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation. Guidelines for expectations of the paper and poster are outlined in the handbook.</p>

MPH Integrative Learning Experience for Public Health Informatics Concentration

**Integrative learning experience
(list all options)**

How competencies are synthesized

Capstone Paper and Poster Presentation
(completed as an independent research project in PBHL E706 or PBHL H706)

This is a new concentration, so students have not completed the MPH ILE in this concentration yet. Whether students register for E706 or H706, they will identify competencies in the project proposal stage. The faculty advisor approves the proposal and identified competencies. Faculty evaluate the paper and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation. Guidelines for expectations of the paper and poster are outlined in the handbook.

MPH Integrative Learning Experience for Social and Behavioral Sciences Concentration

**Integrative learning experience
(list all options)**

How competencies are synthesized

Capstone Project/Paper and Poster Presentation
(Students who entered the program prior to the fall of 2019 completed the ILE as part of the PBHL S711 capstone course or as an independent research project in PBHL S702. Students who entered the program in the fall of 2019 or after will complete the ILE as part of a two-semester course sequence in the Advanced Program Planning course followed by Research Methods/Program Evaluation course.)

This concentration underwent a curricular revision starting with the students who matriculated in the fall of 2019. For students admitted to the program prior to 2019 competencies were synthesized in the following manner:

- (1) Students in S711 have six individual assignments: (60 points)
1. Description of a timely, local, and relevant public health issue
 2. Brief literature review
 3. Description of methods used to study the issue, including analysis of the data
 4. Report of results and conclusions, including limitations of the work
 5. Proposed policy or practice interventions, including potential unintended consequences
 6. Description of individual responsibilities in executing the project

Students in S711 also have a group project: (20 points)

Students work collaboratively in groups to address a specified need. A final product is required that compiles everyone's work into a comprehensive cohesive user-friendly final package that can be used by others once the class is complete. The format of the final product is up to the group. An outline of the final product is approved by the instructor by mid-point in the semester. Faculty evaluate the final product and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation.

(2) Students in S702 identify competencies in the proposal stage. The faculty advisor approves the proposal and identified competencies. Faculty evaluate the paper and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation.

For students admitted to the program in the fall of 2019 and beyond, competencies will be synthesized in a two-semester sequence of courses completed in the final year of the program.

PBHL S614 (S662) ILE1: Advanced Program Planning (Final Year, First Semester)

Students will individually work collaboratively with a community agency and take a systematic approach to planning a community-based health promotion project prioritized by their agency partner.

Products include:

- 1) A focused health assessment infographic
- 2) A health promotion program that builds on behavior change theory and evidence-based practice.
- 3) A draft evaluation plan
- 4) A fundraising portfolio.

Feedback is provided by the course instructor and agency partner on all products.

PBHL S510 (S664) ILE2: Research Methods and Program Evaluation

Students will continue to work with their community partner and build on their work in ILE1 by re-examining their evaluation plans. Products include:

- 1) Revised evaluation plan
- 2) Evaluation tools and analytical plan
- 3) Grant proposal

At the end of the 2 semesters, students will have created a health promotion project, evaluation plan and tools for the project, and a grant and fundraising portfolio to raise funds for the project, all of which will be designed to be of help to their community agency. Faculty evaluate the projects and use a rubric to assess the student's ability to appropriately integrate and synthesize competencies in their poster presentation.

Assessment of 20 Competencies for the DrPH Program

Assessment of Competencies for DrPH in Global Health Leadership		
Competency	Course number(s) and name(s)	Describe specific assessment opportunity
Data & Analysis		
1. Explain qualitative, quantitative, mixed methods and policy analysis research and evaluation methods to address health issues at multiple (individual, group, organization, community and population) levels	H760: Essentials of Practice-based Research H768: Global Health Policy Analysis and Advocacy H771: Program Evaluation for Global Health Leaders	In H760: Essentials of Practice-based Research, each scholar will select a relevant article from the peer-reviewed health science literature. The scholar leads a discussion in which they explain the methods and critique of the article. Although H768: Global Health Policy Analysis and Advocacy has not been offered yet, students will be required to address public health issues through analysis, communication and advocacy at multiple levels, based on public health science. Course H771: Program Evaluation for Global Health Leaders assessment methods are to come; this course hasn't been fully developed or taught yet.
2. Design a qualitative, quantitative, mixed methods, policy analysis or evaluation project to address a public health issue	H768: Global Health Policy Analysis and Advocacy H771: Program Evaluation for Global Health Leaders	Although H768: Global Health Policy Analysis and Advocacy has not been offered yet, students will be required to address public health issues through analysis, communication and advocacy at multiple levels, based on public health science. H771: Program Evaluation for Global Health Leaders assessment methods are to come; this course hasn't been fully developed or taught yet.
3. Explain the use and limitations of surveillance systems and national surveys in assessing, monitoring and evaluating policies and programs and to address a population's health	H763: Leadership Challenges in Global Health Informatics H771: Program Evaluation for Global Health Leaders	In H763: Leadership Challenges in Global Health Informatics, students prepare a 5-minute presentation on a national e-health strategy and organizational mission, vision and values taking into consideration the population's health needs and challenges. They summarize strengths, limitations and recommendations and present these to their peers for feedback. In addition, students prepare a 3-to-5 page paper outlining their solution and its fit with the organization and community. H771: Program Evaluation for Global Health Leaders assessment methods are to come; this course hasn't been fully developed or taught yet.

Leadership, Management & Governance		
4. Propose strategies for health improvement and elimination of health inequities by organizing stakeholders, including researchers, practitioners, community leaders and other partners	H755: Organizational Leadership Theory and Practice	In a group project in H555: Organizational Leadership Theory and Practice, students propose strategies for health improvement and health equity that include working with stakeholders and partners.
5. Communicate public health science to diverse stakeholders, including individuals at all levels of health literacy, for purposes of influencing behavior and policies	H767: Executive Communication for Global Health Leaders	Although H767: Executive Communication for Global Health Leaders has not been offered yet, the primary focus of this course is executive communication to facilitate consensus and influence change. Students will communicate public health issues to diverse audiences.
	H768: Global Health Policy Analysis and Advocacy	Although H768: Global Health Policy Analysis and Advocacy has not been offered yet, students will be required to address public health issues through analysis, communication and advocacy at multiple levels, based on public health science.
6. Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems	H756: Leadership in Global Health Law and Ethics	In the end-of-semester reflection paper for H756: Leadership in Global Health Law and Ethics, students reflect on the need to collaborate with professionals from a variety of disciplines and systems to solve public health problems.
7. Create a strategic plan	H769: Strategic Theory and Practice in Global Health Leadership	This course has not been taught yet, but students will create organizational change strategies and develop a strategic plan in H769: Strategic Theory and Practice in Global Health Leadership.
8. Facilitate shared decision making through negotiation and consensus-building methods	H767: Executive Communication for Global Health Leaders	Although H767: Executive Communication for Global Health Leaders has not been offered yet, the primary focus of this course is executive communication to facilitate consensus and influence change. Students will communicate public health issues to diverse audiences.
9. Create organizational change strategies	H769: Strategic Theory and Practice in Global Health Leadership	This course has not been taught yet, but students will create organizational change strategies and develop a strategic plan in H769: Strategic Theory and Practice in Global Health Leadership.

10. Propose strategies to promote inclusion and equity within public health programs, policies and systems	H759: Leadership in Global Health Systems	In H759: Leadership in Global Health Systems, students use selected journal articles to apply policy analysis in identifying ethical and social issues such as inclusion and equity in different countries.
11. Assess one's own strengths and weaknesses in leadership capacities including cultural proficiency	H755: Organizational Leadership Theory and Practice	Students assess their leadership and cultural competence in an individual paper required for H755: Organizational Leadership Theory and Practice.
12. Propose human, fiscal and other resources to achieve a strategic goal	H765: Financing Global Health	In H765: Financing Global Health, students complete an activity that requires them to develop a business plan, including resources and revenue streams needed to addresses a strategic goal.
13. Cultivate new resources and revenue streams to achieve a strategic goal	H765: Financing Global Health	In H765: Financing Global Health, students complete an activity that requires them to develop a business plan, including resources and revenue streams needed to addresses a strategic goal.
Policy & Programs		
14. Design a system-level intervention to address a public health issue	H762: The Science of Global Health Implementation	Students in H762: The Science of Global Health Implementation write individual papers in which they articulate the relevance of implementation research and practice, and apply conceptual frameworks. Additionally, there is a final team paper that involves developing a comprehensive implementation plan for a specific public health problem.
15. Integrate knowledge of cultural values and practices in the design of public health policies and programs	H768: Global Health Policy Analysis and Advocacy	Although H768: Global Health Policy Analysis and Advocacy has not been offered yet, students will be required to address public health issues through analysis, communication and advocacy at multiple levels, based on public health science.
16. Integrate scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis	H756: Leadership in Global Health Law and Ethics	The <i>Public Health Ethics Framework</i> assignment in H756: Leadership in Global Health Law and Ethics requires students to assimilate scientific approaches, ethical frameworks and stakeholder interests.

17. Propose interprofessional^ team approaches to improving public health	H762: The Science of Global Health Implementation	Students in H762: The Science of Global Health Implementation write individual papers in which they articulate the relevance of implementation research and practice, and apply conceptual frameworks. Additionally, there is a final team paper that involves developing a comprehensive implementation plan for a specific public health problem that includes identification of diverse stakeholders.
Education & Workforce Development		
18. Assess an audience's knowledge and learning needs	Seminar provided by IU Center for Teaching and Learning: Activity modeled background knowledge probe.	During the sessions when all students are together in Indianapolis, the IU Center for Teaching and Learning (CTL) staff facilitate require students to assess an audience's knowledge and learning needs through an activity in which they reflect on background knowledge probe questions.
19. Deliver training or educational experiences that promote learning in academic, organizational or community settings	Seminar provided by IU Center for Teaching and Learning: Activity in which students deliver training that promotes learning.	During the sessions when all students are together in Indianapolis, the IU Center for Teaching and Learning (CTL) staff facilitate an activity in which students use best practice modalities in pedagogical practices to complete a lesson plan that incorporates an active learning strategy in that class session. The lesson plan also includes a strategy that will assess their audience knowledge and learning needs.
20. Use best practice modalities in pedagogical practices	Seminar provided by IU Center for Teaching and Learning: Activity on lesson planning and active learning.	During the sessions when all students are together in Indianapolis, the IU Center for Teaching and Learning (CTL) staff facilitate an activity in which students use best practice modalities in pedagogical practices to complete a lesson plan that incorporates an active learning strategy in that class session. The lesson plan also includes a strategy that will assess their audience knowledge and learning needs.

Assessment of Competencies in Global Health Leadership Concentration

Assessment of Competencies for DrPH in Global Health Leadership Concentration
DrPH Competencies in Global Health Leadership

The DrPH Program is new. The first cohort matriculated in the fall of 2018.

Competency	Course number(s) and name(s)	Describe specific assessment opportunityⁿ
1. Analyze the roles and relationships of international organizations and other entities	PHBL H768 Global Health Policy Analysis and Advocacy	This course hasn't been offered yet and the syllabus is under development. Assessment of students' analysis of the roles and relationships of international organizations and other entities influencing

influencing global health.		global health will be included in H768.
2. Critique the impact of global policies on health equity and social justice across a range of cultural, economic and health contexts.	PBHL H759 Leadership in Global Health Systems	In H759, students draft a commentary to a journal editor on a paper on national and international relationships and global health from a social justice perspective.
3. Apply an understanding of global economic, political, and social conditions on population health worldwide.	PHBL H768 Global Health Policy Analysis and Advocacy	This course hasn't been offered yet and the syllabus is under development. Assessment of this competency will be conducted via a context analysis for a selected policy scenario.
4. Apply diplomacy and conflict resolution strategies with global partners.	PHBL H767 Executive Communication for Global Health Leaders	This course hasn't been offered yet and the syllabus is under development. Assessment of students' ability to apply diplomacy and conflict resolution strategies with global partners will be conducted as part of this course.
5. Exhibit communication skills that demonstrate respect for other perspectives and cultures.	PHBL H767 Executive Communication for Global Health Leaders	This course hasn't been offered yet and the syllabus is under development. Students will be assessed on their ability to communicate in a manner that demonstrates respect for other perspectives and cultures.

Assessment of Advising in the School

Proactive Advising (first 8 weeks of fall 2019)	% Freshmen w/Appointment	% Moderate Risk Students w/Appointment	% All Undergrads w/Appointment	N Undergrads
Fairbanks Sch of Public Health	54.2%	62.6%	56.4%	305
Herron School of Art and Desig	30.1%	28.0%	25.4%	639
Kelley School of Business	81.1%	48.0%	50.8%	1186
Lilly Fam Sch of Philanthropy	0.0%	0.0%	0.0%	56
O'Neill Public & Environ Aff	8.1%	4.5%	4.1%	627
Sch of Informatics & Computing	21.8%	23.6%	27.3%	766
School of Dentistry	0.0%	0.0%	0.0%	86
School of Education	9.1%	11.7%	7.8%	591
School of Engr & Tech	49.7%	35.6%	29.8%	2717
School of Hlth & Human Sci	78.9%	56.2%	49.5%	1224
<i>School of Liberal Arts - General Studies</i>	<i>N/A*</i>	<i>N/A*</i>	<i>N/A*</i>	437
School of Liberal Arts - Non- General Studies	63.2%	35.0%	30.2%	1458
School of Medicine	<i>No Freshmen</i>	0.0%	1.4%	277
School of Nursing	0.0%	2.4%	3.9%	790
School of Science	45.2%	28.0%	28.3%	2583
School of Social Work	25.0%	3.9%	2.4%	294
University College	75.4%	71.1%**	65.9%	4551
University College - Non-Degree	88.9%	90.0%	15.4%	493
University College - Student Athletes	82.1%	76.9%	81.1%	37
Total	63.9%	40.2%	37.3%	19117

Quantitative and Qualitative Assessment of Student Satisfaction with Academic Advising

	Very Satisfied	Satisfied	Neutral Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied	N
2017						
BSPH	15 (58%)	6 (23%)	4 (15%)	1 (4%)	0	26
MPH	17 (50%)	12 (35%)	4 (12%)	1 (3%)	0	34
Doctoral	N/A	N/A	N/A	N/A	N/A	N/A
2018						
BSPH	7 (78%)	2 (22%)	0	0	0	9
MPH	9 (32%)	11 (39%)	5 (18%)	1 (4%)	2 (7%)	28
Doctoral	5 (71%)	2 (29%)	0	0	0	7
2019						
BSPH	17 (86%)	3 (14%)	0	0	0	20
MPH	28 (47%)	14 (23%)	13 (21%)	5 (9%)	0	58
Doctoral	12 (67%)	3 (17%)	3 (16%)	0	0	18

The FSPH gathers quantitative and qualitative data regarding student satisfaction with academic advising. Results of the Student Satisfaction surveys (above) are discussed by the Dean, Associate Deans and Department Chairs at the Academic Leadership Team (ALT) meetings. Qualitative data is also obtained from students. During monthly meetings between student government leaders, the dean and the associate dean

for education, students provide regular feedback about their educational experiences, including advising resources available to them. Qualitative comments are also obtained via student satisfaction surveys. Examples of qualitative feedback from students include the following:

- “I’m aware of the faculty advisors in my discipline. I’ve noticed one will ask how things are going every time I see him. It’s wonderful. He’s wonderful. Insightful. Encouraging. Asks appropriate questions to gauge how I’m doing.”
- “We have 2-3 professors who serve as advisors. We have scheduled advising meetings a couple times a semester to avoid confusion about the qualifying exam and masters thesis. I think more frequent periodic cohort advising sessions would be helpful so we can get reminders of upcoming things we need to know about, projected schedule of classes, when we can begin registering for the next term, etc.”
- “For the undergrad students, [the advisors] do a really, really good job. I’ve never had an issue in the four years I’ve been here. My schedules have been complicated as a student athlete. They’re a great resource. Great advocates.”
- My assigned advisor has changed several times since I started the program, both due to faculty changes and the change in my concentration.
- My meeting with [my faculty advisor] was helpful in coordinating my internship.
- I have only met with my advisor once, which was before I started classes. He was very helpful and helped me plan my whole time in school. He was very welcoming and listened to all of my questions and concerns. I look forward to working with him again when the time comes.
- I didn't feel like I was taken seriously.
- [My faculty advisor] is great. He has definitely helped me find direction, but always seems like he is way too busy to spend too much time.
- [My faculty advisor] is amazing. She is easy to talk to and is excited about things going on in my life; she is very personable.
- He answers e-mails quickly and is happy to help.
- My relationship with my advisor is very cordial, the advice is very fatherly. I love my advisor.
- My Faculty Advisor, who is also the chair of my committee, is very effective in his interactions, guidance, mentorship, and advising duties. He ensures that the student is able to do their best, and he is very approachable, and willing to help, as and when need arises.

Evidence Obtained from the School's Direct and Indirect Measures Used in Assessment

The school defines qualitative and/or quantitative methods designed to maximize response rates and provide useful information. Data from recent graduates within the last five years are typically most useful, as distal graduates may not have completed the curriculum that is currently offered.

Summarize the findings of alumni self-assessment of success in achieving competencies and ability to apply competencies after graduation.

Alumni from 2016, 2017 and 2018 were sent a survey in March 2019 requesting their perceptions of their own success in achieving the defined program competencies and ability to apply these competencies after graduation. A total of 309 individuals received the email request, and 107 responses were obtained, for a response rate of 35%.

When asked for alumni perceptions regarding how well the curriculum prepared them to achieve their program competencies, 100% of the BSPH respondents, 87% of the MPH respondents, 67% of the MS in Biostatistics respondents, and 67% of the PhD respondents indicated that they were either somewhat satisfied or very satisfied.

The school engages external constituents in regular assessment of the content and currency of public health curricula and its relevance to current practice through multiple means. For example, the FSPH NAC provides feedback to the department chairs, associate deans, and dean after they present updates from their unit each year. The NAC makes recommendations regarding content that should be included in the curricula based on national trends and pressing public health issues. Community stakeholders, including the NAC, are well-represented in strategic planning sessions, which enables them to help set program priorities for the school.

The FSPH Alumni Association supports the school through a variety of networking and mentoring events. This provides an opportunity for faculty to work directly with students and discuss the progress of the school at regular Alumni Association meetings.

At the August 3, 2018 MPH Community Practice Committee (CPC) meeting, stakeholders provided input regarding MPH student interns they had mentored and recent MPH graduates they had hired. Members indicated that areas of strength included (1) excellent attitude toward public health, (2) ability to understand and apply the basics of epidemiologic analysis and strong statistical skills, (3) solid understanding of core public health concepts, allowing more flexibility in the workplace, and (4) strong work ethic. They indicated areas that could be strengthened were (1) understanding of bioinformatics, (2) scientific/technical writing, (3) community assessment and (4) ability to survey the public. Their recommendations regarding curricular content that continues to be critically important to address public health issues in the future included (1) grant writing, (2) SAS, biostatistics and bioinformatics, (3) opioid use disorder, obesity, infant mortality and (4) public health policy. Following each MPH CPC meeting, members attend the MPH student poster session in which students present their Integrated Learning Experience (ILE), so they have an opportunity to review the projects and ask questions of students.

The Advisory Committee to the BSPH in Environmental Health (now Global Health Protection) was integrally involved in the recent EHAC reaccreditation during the 2018-19 academic year. They provided recommendations regarding the curriculum and self-study, and met with site visitors while they were on campus.

In May of 2019, the FSPH invited the health officers from Indiana SACCHO (State Association of County and City Health Officers) to attend the MPH poster session in which students presented projects from their Integrated Learning Experiences (ILEs). Members of IN-SACCHO discussed the projects with students and asked questions of them throughout the poster session.

The FSPH faculty, staff, and students have extensive connections with stakeholders at local, state, national, and international levels, including health departments, non-government organizations (NGOs), and academic institutions. These connections provide opportunities to solicit continuous feedback from stakeholders regarding the school’s programs and activities. For example, public health informatics faculty meet monthly with county and state public health agencies to discuss informatics strategy, collaboration, needs, and trends which can then be integrated into the curriculum at the undergraduate and graduate levels.

National and international collaborations are supported through participation in professional societies, establishing and maintaining disciplinary and interdisciplinary coordination, and networking with professionals in the U.S. and abroad. Recommendations for the curriculum are available to faculty and administrators through these connections such as Public Health National Center for Innovations Advisory Panel and Global Affiliations and Partnerships.

Another example was the solicitation of input from external constituents when revising the MPH curriculum in the Social and Behavioral Sciences concentration. Faculty discussed potential curricular changes with a number of alumni and agency partners to identify areas to include as well as to identify partner interest in working with students in a two-semester ILE activity. In addition, agency partners are asked to evaluate the students and usefulness of their work as part of PBHL S614/662.

Assessment of Alumni Perceptions of the Extent to Which the Curriculum Prepared Them to Achieve Their Program Competencies

	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable	Number of Respondents
2016-2019							
BSPH	14 (52%)	13 (48%)	0	0	0	0	27 (100%)
MPH	25 (35%)	37 (52%)	4 (6%)	4 (6%)	1 (1%)	0	71 (100%)
Doctoral	4 (67%)	0	1 (17%)	1 (17%)	0	0	6 (100%)
Total							107

When asked for alumni perceptions regarding how they felt about their ability to effectively apply their program competencies in their current professional role, 92% of the BSPH respondents, 82% of the MPH respondents, 33% of the MS in Biostatistics respondents, and 100% of the PhD respondents indicated that they were somewhat satisfied or very satisfied with their ability to effectively apply their program competencies in their current professional role.

	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable	Number of Respondents
2016-2019							
BSPH	13 (50%)	11 (42%)	2 (8%)	0	0	0	26 (100%)
MPH	24 (33%)	35 (49%)	6 (8%)	6 (8%)	1 (1%)	0	72 (100%)
DrPH	(no graduates yet)	(no graduates yet)	(no graduates yet)	(no graduates yet)	(no graduates yet)	(no graduates yet)	(no graduates yet)
Total							98

Assessment of Student Satisfaction with Instructional Quality

Sample of FSPH Student Satisfaction with Instructional Quality in 2018-2019 "5" represents "Strongly Agree" and "1" represents "Strongly Disagree"				
	Fall 2018		Spring 2019	
	GRAD	UGRAD	GRAD	UGRAD
N	533	822	555	906
Response Rate	55%	42%	51%	44%
The instructor was fair in dealing with students.	4.47	4.51	4.56	4.38
The instructor made the subject matter meaningful to my discipline through the use of examples and applications.	4.28	4.45	4.40	4.32
The instructor showed a genuine interest in his/her students.	4.35	4.51	4.49	4.35
The instructor respected students' questions and views about the subject matter.	4.46	4.55	4.57	4.39
The instructor was very helpful and concerned that the students understand the subject matter of the course.	4.28	4.51	4.45	4.33
The instructor was well prepared for class meetings.	4.34	4.57	4.41	4.38
The instructor displayed an enthusiastic interest in the subject of this course.	4.49	4.59	4.61	4.45

Internal Quality Review of Existing Curricula

Program review of course content and sequence occurs regularly by faculty in each department. Examples of extensive curricular review over the past three years include the following:

- At the graduate level, the curriculum for the MPH program in Epidemiology was reviewed and revised in 2016-17. The curriculum for the MPH program in Health Policy and Management was reviewed and revised in 2017-18. The curriculum for the MPH program in Social and Behavioral Sciences was reviewed and revised in 2018-19. The curriculum for the MS in Biostatistics was reviewed and revised in 2017-18.
- At the undergraduate level, the curriculum for the BSPH in Environmental Health Science (now Global Health Protection) was reviewed and revised in 2017-18. The curriculum for the BSPH in Community Health will be reviewed and revised in 2019-2020.

Assessment of Post-Graduation Outcomes

Post-Graduation Outcomes - BSPH	2015-16 Number and percentage	2016-17 Number and percentage	2017-18 Number and percentage
Employed	14 (64%)	17 (50%)	16 (76%)
Continuing education/training (not employed)	2 (9%)	4 (12%)	2 (9%)
Not seeking employment or not seeking additional education by choice	0	0	0
Actively seeking employment or enrollment in further education	4 (18%)	0	0
Unknown	2 (9%)	13 (38%)	3 (14%)
Total graduates (known + unknown)	22 (100%)	34 (100%)	21 (100%)

Post-Graduation Outcomes - MPH	2015-16 Number and percentage	2016-17 Number and percentage	2017-18 Number and percentage
Employed	53 (85%)	60 (80%)	38 (79%)
Continuing education/training (not employed)	4 (6%)	6 (8%)	4 (8%)
Not seeking employment or not seeking additional education by choice	1 (2%)	0	0
Actively seeking employment or enrollment in further education	3 (5%)	0	0
Unknown	1 (2%)	9 (12%)	6 (13%)
Total graduates (known + unknown)	62 (100%)	75 (100%)	48 (100%)

Evidence on Ongoing Improvement:

In December of 2018, a survey was sent to 75 employers of FSPH graduates. Survey responses were received from 23 individuals, for a 30% response rate. Of the 14 employers who had hired an FSPH graduate within the past three years, 86% indicated they either agree or strongly agree that the employee was well-prepared for their role. The vast majority (92%) of employer respondents indicated that they were likely or extremely likely to hire another FSPH graduate if presented with a vacancy at their place of work.

The majority of graduates from the past three years who responded to the survey indicated satisfaction with the extent to which the curriculum prepared them to achieve their program competencies. Most respondents felt they could apply the competencies to their current professional role.

Action(s) Taken in Response to Findings: Future data collection will allow for students to enter qualitative responses to explain what could be done (in the opinion of those surveyed) to improve satisfaction levels with the extent the curriculum prepared them to achieve their program competencies and with the extent to which they are able to effectively apply their program competencies in their current professional role.

Demonstration of Systematic Attention to Ongoing Improvement

New developments in the program's assessment work over the past year include adoption of new learning outcomes, new assessment methods, and new approaches to assessment, as outlined above. The school's National Advisory Committee (NAC) is comprised of community stakeholders who are involved in evaluation and assessment activities on an annual basis. Deans, department chairs and directors provide updates to the NAC each year during a two-day retreat. Members of the NAC provide feedback to the school's administration regarding future direction of the school.

FSPH National Advisory Committee (NAC) Member Names and Titles	
Name <i>(in alphabetical order)</i>	Title
Jerome M. Adams, MD, MPH	Surgeon General United States of America
Leslie Beitsch, MD, JD	Professor and Chair of Behav. Sciences and Social Medicine Florida State University
Kaye Bender, PhD, RN, FAAN	President and CEO Public Health Accreditation Board
Georges C. Benjamin, MD	Executive Director American Public Health Association
Virginia Caine, MD	Director Marion County Public Health Department 2004 President of the American Public Health Association
Kristina Box, MD, FACOG	State Health Commissioner Indiana State Department of Health
Timothy Garnett, MD, FRCOG, MFFP, FFPM	Chief Medical Officer and Senior Vice President Eli Lilly & Company
Arnold Kaluzny, PhD	Emeritus Professor, Health Policy & Management Emeritus Director, Public Health Leadership Program University of North Carolina at Chapel Hill
Robert Lubitz, MD, MPH, FACHE	System Lead for Quality and Safety Vice President of Medical Affairs WellStar Health System Inc.
Glen P. Mays, PhD, MPH	Scutchfield Endowed Professor in Health Services and Systems Research University of Kentucky

Judith Monroe, MD	President and CEO Centers for Disease Control and Prevention Foundation
Alonzo Plough, PhD	Vice President of Research-Evaluation-Learning Chief Science Officer Robert Wood Johnson Foundation
William Riley, PhD	Professor Arizona State University
Mary Selecky, BA	Clinical Professor, Health Services University of Washington
William Tierney, MD	Chair, Department of Population Health The University of Texas at Austin Dell Medical School
Hugh Tilson, MD, DrPH	Adjunct Professor, Epidemiology Adjunct Assistant Professor, Public Health Leadership Program University of North Carolina