Evaluation of a Master of Public Health Integrated Core Curriculum: Generating Evidence to Inform Future Course Implementation

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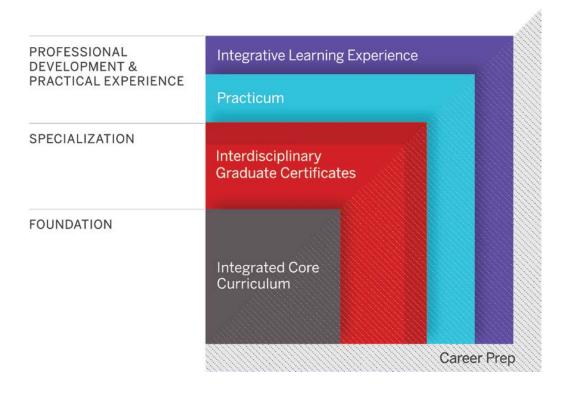
Outline

- BU MPH Curriculum Evaluation
- First Step: Integrated Core Course Evaluation
- Evaluation Plan (questions, logic model, and plan)
- Results
- Course Revisions
- Lessons Learned
- Next Steps



The BU MPH

Interdisciplinary training in population health





BU MPH Curriculum Evaluation

- Why evaluate the BU MPH?
 - Determine program impact
 - Inform decision-making
 - Ensure accountability
 - Produce evidence to serve multiple purposes
 - Create a collective community at BU SPH
- Engage stakeholders in each step
- Evaluation activities answer evaluation questions, which are developed based on a logic model

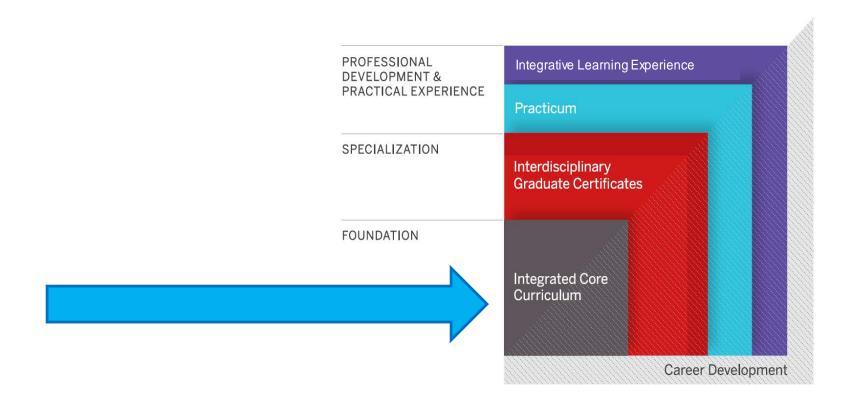


Evaluation Plan - Timeline

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	2016 2017																							
EVALUATION ACTIVITIES BY CURRICULAR COMPONENT	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	1	1	Aug	Sep	Oct	Nov	Dec
General Evaluation Activities																								
Engage stakeholders in evaluation design and tool development	-																							
Finalize EES Charge and Membership				-												-								
Disseminate results of evaluation to stakeholders	-																						$\overline{}$	
COMPONENT 1: Integrated Core Curriculum																								
Spring 2016 Cohort - Pilot Evaluation																								
Administer Surveys (pre-course, post-course, follow-up)	•				•					•														
Conduct focus groups with students										•														
Dissemination of results (conferences, SPH Adminstration,																								
faculty/staff)								•			•			•										
Fall 2016 Cohort - Full-Scale Evaluation																								
Administer Surveys (pre-course, post-course, follow-up)									•			•			•									
Conduct focus groups with students											Ì					•	Ī							
Dissemination of results (conferences, SPH Adminstration,			İ		İ					Ì		Ì		•			i i	•			•			
faculty/staff)																		_					$\overline{}$	
Instructor evaluation activities (focus groups, interviews, document																	•—			•				
course revisions)																								
Fall 2017 Cohort - Full-Scale Evaluation (cont.)																								
Administer Surveys (pre-course, post-course, follow-up)					-							-		_			-		_		•		-	•
Continue Integrated Core Course evaluation activities	_																						\perp	
COMPONENT 2: Certificates																								
Planning Phase																								
Redesign and pre-test BU SPH course evaluations								_												-			\square	
Develop evaluation plan and data collection tools																								
Evaluation Phase																								
Implement Certificate evaluation plan																								
Implement new BU SPH course evaluations																								•
COMPONENT 3: Practicum																								
Planning Phase																								
Redesign practicum forms and tools																								
Evaluation Phase																								
Implement Practicum evaluation plan																	-						$\overline{}$	
COMPONENT 4: Integrative Learning Experience																								
Planning Phase																								
Design ILE forms and tools (i.e., "course" evaluation, grading rubrics,																								
reflection questions)																								
Evaluation Phase																								
Implement Integrative Learning Experience evaluation plan																								
COMPONENT 5: Career P.R.E.P.																								
Spring 2017 Course																								
Administer Surveys (pre-course, post-course, follow-up)													•				•				•			
Conduct focus groups with students			İ		İ					Ì		İ		İ			İ					•		
Fall 2017 Course																								
Administer Surveys (pre-course, post-course, follow-up)																					•			•
Evaluate new online Career P.R.E.P.																							=	_
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First Step: Integrated Core Course Evaluation





Integrated Core Curriculum (ICC)

Strong foundation across spectrum of disciplines

- Quantitative methods for public health
- Individual, community and population health
- Health systems, law and policy
- Leadership and management in public health



ICC: Activities to Date

- Spring 2016 Cohort Pilot Evaluation (16 students, 7 faculty, 4 TAs)
 - Implementation challenges (student perspective)
 - Competency achievement (unrelated to certificates)
- Fall 2016 Cohort Full Scale Evaluation (350 students, 24 faculty, 30 TAs)
 - Implementation challenges (student and faculty perspectives)
 - Competency achievement and applicability to certificates
 - Faculty-centered outcomes (i.e., resources, course implementation, etc.)
- Fall 2017 Cohort Full Scale Evaluation (403 students, 30 faculty, 50 TAs)
- Evaluation on each cohort uses mixed methods approach
 - Pre-course, post-course, and follow-up course surveys
 - Follow-up course focus groups
 - Students 6 focus groups, 34 attendees (facilitated by BUSPH Evaluation Team)
 - Faculty 4 focus groups, 20 attendees (facilitated by external consultant)
 - Teaching Assistants 2 focus groups, 9 attendees (facilitated by BUSPH Evaluation Team)

Evaluation Plan: Integrated Core Logic Model

RESOURCES / INPUTS

- Course faculty (instructor, teaching assistant)
- BUSPH approved course learning objectives
- Guest lecturers, as applicable
- Rooms and teaching resources
- Internal BUSPH collaborations with Registrar, Student Services, Admissions, Education Office
- Trained Certificate Directors (faculty)
- CEPH criteria
- Matriculating students in Spring 2016

ACTIVITIES

- 14-week semester of classes
- Weekly labs for application of content
- Assessments, linked to learning objectives
- Group work activities
- PowerPoint lectures and other knowledge dissemination
- Student presentation opportunities
- Required readings (textbook and online readings)

Teaching Team

- Regular meetings of Core Directors and Education Office
- Regular meetings of Integrated Core Course Teaching Team

OUTPUTS

- # students enrolled in the integrated core course cohort
- Proportion of students passing course
- # faculty teaching courses
- Proportion of teaching faculty engaged in course design
- # other teaching (i.e., TA)
- # new materials developed
- Competency Maps (one per core)
- Interactions in group work activities (quality and frequency)
- Attendance and participation in class
- Proportion of students who complete the required readings
- Completion of assignments
- Courses implemented to fidelity

SHORT-TERM OUTCOMES (at the point of finishing integrated core course) Student centered

- Mastery of learning objectives
- Students report that faculty and staff are accessible
- Increased engagement in classroom learning
- Increased positive feedback from students on course evaluations, as compared with the previous curriculum
- Increased knowledge and understanding of classroom expectations, assignments, and course competencies.
- Satisfaction with the course (would recommend to other students)
- Reported appropriateness of course objectives

Faculty centered

- Faculty feel engaged in integrated core curriculum
- Faculty report increased knowledge, willingness, and confidence in ability to implement 4 integrated core courses
- Teaching team (faculty, TA, graders) report adequate instructional support (administrative resources, training, etc.)
- Teaching team reports addressing all learning objectives outlined in syllabus

INTERMEDIATE OUTCOMES (after semester through point of graduation) Student centered

- Students acquire useful <u>skills</u> to implement in other courses or jobs
- Students acquire <u>knowledge</u> to implement in other courses or jobs
- Course well-received by students
- Achievement of program competencies
- Students prepared for workforce

Faculty centered

- Successfully implement Integrated Core
 Curriculum
- Develop multidisciplinary materials and approaches for courses
- Engage in interdisciplinary teaching
- Report sufficient resources to implement curriculum
- Course well-received by students, BUSPH administration



<u>LONG-TERM OUTCOMES (6 months to 5 years post-graduation)</u>

- Alumni report use of interdisciplinary coursework
- Alumni identify key skills and content knowledge developed at BUPSH that is been integral to their current professional position in public health
- Alumni recommend BUSPH to prospective students





Evaluation Methods

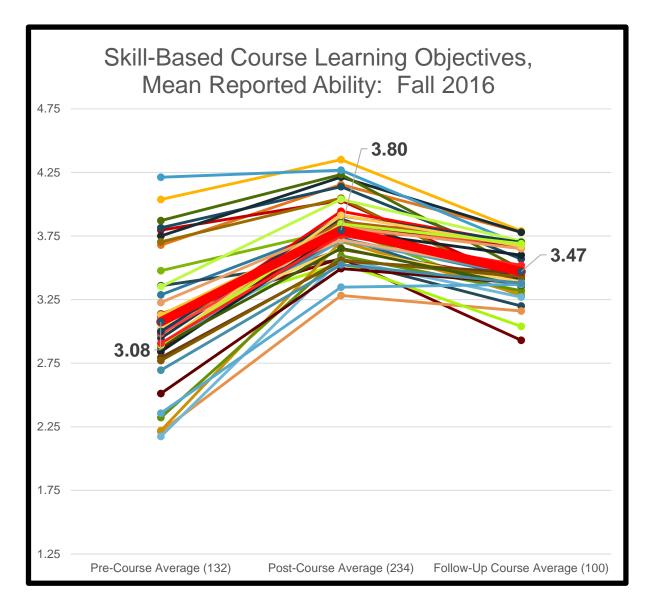
Assessments in Fall 2016 and 2017 Full-Scale Implementation

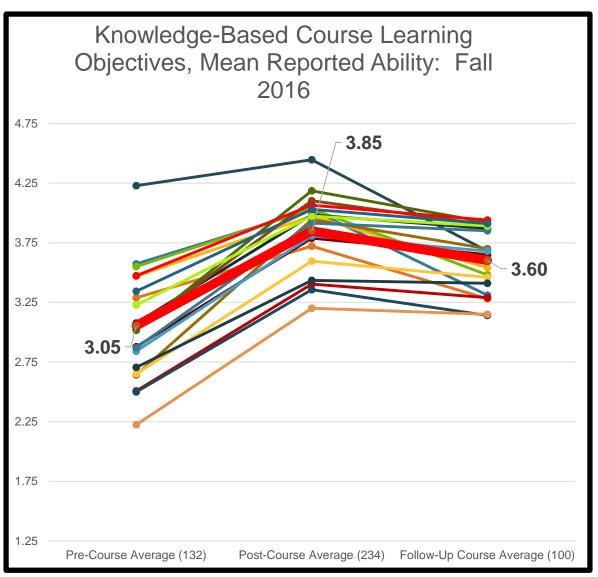
Faculty	Student
Document review (i.e., syllabus)	Pre-course, post-course, and follow-up survey
Regular meetings*	Mid-semester survey (standardized)*
Key informant interviews	BU SPH Course Evaluations
Time tracking*	Key informant interviews
In-class observations*	Student focus group
Focus groups	School Survey

^{*}Activities not conducted in Fall 2016 or 2017 evaluation but planned for Fall 2018 evaluation.



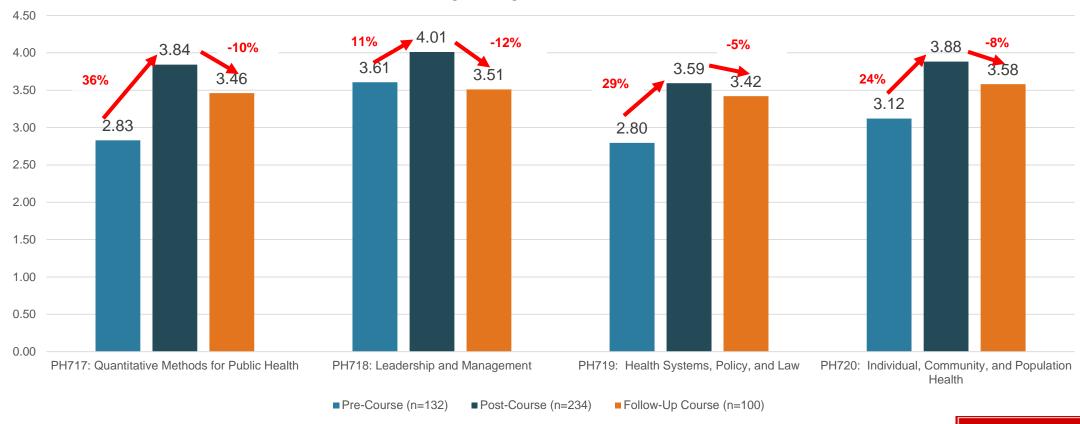
Results: Student Outcomes – Skills and Knowledge Fall 2016





Results: Student Outcomes – Skills and Knowledge by Core Course: Fall 2016

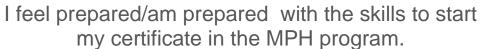
Knowledge and Skill Competencies Addressed by Each Integrated Core Course, Average Rating Fall 2016





Results: Student Outcomes – Preparedness at Follow-Up: Fall 2016

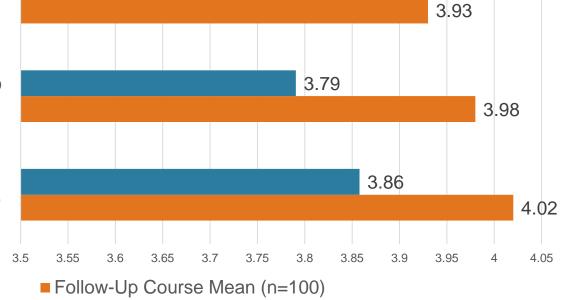
Perceived Preparedness: Knowledge and Skills, Post-Course and Follow-Up



I feel prepared/am prepared with the knowledge to start my certificate in the MPH program.

I obtained a solid foundation in public health.

■ Post-Course Mean (n=234)



3.71



ICC Results: Focus Group Themes (Students)

- Academic Experience
 - Class size (some classes worked better in a larger setting and others in a smaller one)
 - Grading (inconsistencies across cohorts for the same course)
 - Pace (lack of communication across core instructors within a cohort led to confusion)
- Academic Support
 - More support needed for certain curricular components, part-time students
 - Cohort structure provided both benefits and challenges
 - Writing center a huge benefit
- ICC Content
 - Lacking depth in some areas, good foundation for rest of degree
 - Skill acquisition viewed favorably, want more opportunities (if not used, lose the ability)
 - General positive perspectives on certificate readiness



ICC Results: Focus Group Themes (Faculty)

- Implementation Barriers
 - A lot of material to cover
 - Class size impacted pedagogy used (i.e., active learning opportunities minimal)
 - Communication and coordination across core courses lacking
 - Lab timing and content not optimal
 - Time concerns related to preparation before and during the semester
- Implementation Facilitators
 - Benefit of having Core Directors (support, coordination, advice)
 - Teaching Assistants, though lead TAs were recommended
 - Teamwork, interdisciplinary support, and peer learning opportunities were benefits
- ICC Content
 - Agreement with Student Focus Group results
 - Integration across core courses lacking
 - Doubts about students' preparedness for certificates



Course Revisions: Using the Evaluation for Fall 2017

COURSE	REVISIONS				
Quantitative methods for public health	 Updating learning objectives 				
	 Incorporating more programming review sessions for R 				
	 Clarifying student expectations around TA sessions 				
Individual, community and population	Updated team project grading				
health	 Standardizing TA feedback on written assignments 				
	 Adding required lab session on the writing style of ICPH-specific 				
	assessments				
Health systems, law and policy	 Adding optional revision process to policy memo assessment 				
	 Providing more in-depth feedback on policy paper 				
	 Adding more exam style assessments in order to give students 				
	feedback earlier in the semester				
Leadership and management in public	 Adding more graded individual assignments 				
health	 Including more guidance around team project and grading 				
	 Adding 1 hour didactic session on public speaking before 				
	presentation				
	 Training TAs in discussion facilitation and working with troubled 				
	teams				

Lessons Learned (and How We Will Apply Them)

- Educational evaluations are a useful exercise in ensuring curriculum is implemented as intended and expected outcomes are achieved
 - Process findings can be incorporated now and in the future
 - Outcomes tracked into later semesters allows for conclusions on application
- Engagement of stakeholder groups (i.e., students, faculty) provides a more comprehensive picture of effectiveness
- Don't underestimate the importance of both quantitative and qualitative data
 - Qualitative information helps explain quantitative findings
- Ongoing follow-up is important to understand long-term impacts of curriculum



Thank you!

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