

# MASTER OF PUBLIC HEALTH DEGREE PROGRAM

KBOR Summarized Program Review and  
Assessment of Student Learning (ASL) Reports

**KSU COLLEGE OF VETERINARY MEDICINE**

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## **Master of Public Health Program at Kansas State University**

### **A. Summarized Review of Degree Program Report**

#### **1. Mission, Centrality, Uniqueness**

The mission of the Kansas State University Master of Public Health Program (MPH) is to provide education, research, and service across multiple disciplines of public health, impacting human, animal, and community health locally, regionally, and globally. The centrality of the program is illustrated by the fact that the public health infrastructure in the United States and Kansas is dependent on people and requires a workforce that can meet the continuing and emerging challenges of the 21<sup>st</sup> century. Many of the public health issues of our nation are mirrored in the population of Kansas, with the state ranking very low in many aspects of public health. K-State's MPH degree has four emphasis areas that are aligned with the strengths of the University: (1) food safety and biosecurity; (2) infectious diseases and zoonoses; (3) public health nutrition; and (4) public health physical activity. Compared to accredited schools and other graduate programs of public health in the United States, this blend of areas of emphasis, for a Master of Public Health degree, is very unique. Our tie to this university's land grant mandate of research, service and extension activities and integrating public health related activities in our multiple college and department partners provide a strong linkage to individuals, families and communities throughout the state. This program is also very unusual because of its close relationship with one of only 28 colleges of veterinary medicine in the United States; this alignment provides outstanding opportunities and linkages to tremendous expertise in emerging diseases and population-based health solutions.

#### **2. Quality of Faculty**

Currently, there are 55 graduate faculty members from four colleges (Agriculture, Arts & Sciences, Human Ecology, and Veterinary Medicine), eight departments and three support units who have asked to be part of the MPH faculty. In addition to their own departmental duties, which include a variety of administrative, instruction, research, extension, service and/or outreach, they serve as advisors and supervisory committee members for MPH students. The breadth and depth of public health-related expertise in our faculty are major strengths, compared to some other, more traditional public health graduate programs. At Kansas State University, our students have easy access to an extraordinary blend of faculty members, representing an outstanding blend of very relevant public health areas of emphasis.

#### **3. Quality of Students**

The quality of students is demonstrated by an increase in diversity, full graduate admissions, success in core courses, and an excellent employment record after graduation. The MPH program has sought to attract a diverse, knowledgeable group of students, and it has succeeded. Diversity has increased every year, demonstrated by the change in student enrollment of 88% Caucasian in 2009 to 79% in 2011. For the

past five years, full graduate admission rates were very high—88% of all admissions—and have included 3 Muskie fellows, 4 Fulbright scholars, and 1 Truman scholar. The average GPA of all MPH graduates was 3.80, with 96.9% of all grades in the five core areas of public health being an A or B. At the present time, with a target of 100%, grades of A and B received by all MPH students in core public health courses are at 97.5%.

#### **4. Employer Demand**

During the period 2008-2010, 100% of the graduates seeking employment have found job placement within 12 months of graduation.

#### **5. Service Provided to Discipline, the University and Beyond**

Events in the opening years of the 21<sup>st</sup> century have reinforced and confirmed the need for professionals with both breadth and depth of knowledge and skills in specific public health-related areas. Some examples include the ever growing world-wide obesity epidemic, the lack of health care for a growing population of medically indigent, an aging population, impending crises foreshadowed by natural disasters and acts of bioterrorism, and outbreaks of foodborne illness and emerging diseases. The public health infrastructure in the U.S. requires a well trained workforce that can meet the continuing and emerging challenges placed upon the health care system. As the population ages and becomes increasingly diverse, the need for public health services will expand and, as they do, so will the number of jobs. The Master of Public Health Program at Kansas State produces graduates, each in one of a unique blend of four areas of emphasis—food safety and biosecurity, infectious diseases and zoonoses, public health nutrition, and public health physical activity—that are immediately prepared to contribute as part of the needed public health workforce. Our faculty and graduates are contributing locally, regionally, nationally, and globally, in improved proactive, multidisciplinary approaches to better health.

#### **6. Cost Effectiveness**

The program currently incurs very little direct costs, limited to a .75 FTE for the Program Director, the .50 FTE for Program Assistant, and operating expenses. The total of such annual expenditures was less than \$200,000. Supporting colleges and departments pay the costs related to faculty involved with this interdisciplinary program. All tuition income flows to the central university funds and is redistributed to campus units, based on historical funding. So, the program provides extraordinary breadth of expertise to students, using existing faculty and courses in supporting departments and colleges. However, the opportunity does exist to strengthen the MPH program, building on its unique areas of emphasis, through a more predictable reinvestment strategy. With the unprecedented growth of the program in the past three years (242%), there are increased demands for new courses and more sections of existing courses. The program should be accredited by the Council on Education for Public Health (CEPH), in order to make future graduates competitive in the marketplace, and accreditation will require improvements in organization and allocation of resources in the program.

## **B. Summarized Assessment of Student Learning (ASL) Report**

### **1. What were the students expected to learn in the degree program?**

The students in the Master of Public Health (MPH) program obtain a combination of broad-based knowledge in the core areas of public health, along with specific training in one of four areas of emphasis—food safety and biosecurity, infectious diseases and zoonoses, public health nutrition, or public health physical activity—culminating in application of that knowledge in either public health field experience and/or public health research. The MPH Graduate Faculty has adopted the following five student learning outcomes for the graduates of the program: (a) knowledge: describe and discuss the five core areas of knowledge that are basic to public health and biosafety (*i.e.*, biostatistics, epidemiology, environmental health science, health services administration, and social and behavioral sciences); (b) skills: demonstrate acquisition of skills and experiences in the application of knowledge from an area of emphasis to the solution of regional, national, and international public health problems; (c) integration: demonstrate the ability to integrate knowledge and skills to solve problems and to produce scholarly work in a culminating experience in the form of a thesis, report, and/or community-based field project; (d) diversity: affirm the worth and personal dignities of everyone regardless of individual differences and contribute to a climate of civility, community, trust, and reasoned discussion on campus and in public health delivery settings; and (e) professional development: recognize the value of intellectual curiosity and the need for lifelong learning in order to keep abreast of changes in the fields of public health, biosafety, and security.

### **2. What forms of evidence were gathered to assess the extent to which students learned?**

Core competencies are measured by the instructors of the required courses in each of the five core areas of public health. Measures used include assignments and evaluations developed by the course instructor and/or coordinator and the final grades posted for each student. The main direct assessment is performed by the supervisory committee during the student's culminating experience, during and after completion of their field experience and/or thesis presentation. Recently, comprehensive indirect measures of the program were begun to enhance existing measures. These include an updated field experience on-line evaluation and student surveys at entrance, mid-program, exit, and as alumni. These surveys provide assessment from the students as they move through the program. The preceptor field experience survey provides an indirect measure from an outside source about the quality of instruction provided to the student. All surveys provide an indication of changes in knowledge, from the student perspective and on a programmatic level.

### **3. Assessment Results**

Of the 50 students who completed all course requirements, the supervisory committees approved all during their culminating experience assessment. However, there is no data provided from the supervisory committee to the program office at the present time. The average GPA of all graduates was 3.80, with 96.9% of all their grades in the five

core areas of public health being an A or B. At the present time, with a target of 100%, grades of A or B received by all MPH students in core public health courses total 97.5%. Each graduate was given the opportunity to complete an exit survey, and the results provided feedback on core courses, other required or elective courses, field experience or research, advising, and overall communication and support. Much of the data collected was very qualitative, most of it positive toward individual courses and faculty and staff support. Some comments were geared toward some courses being “veterinary” focused, particularly in epidemiology, and the faculty responded with a new option for a broader audience. Additionally, 13 alumni completed a recent follow-up survey; 50% rated the curriculum very good or excellent and 64% rated the instructions as very good or excellent.

#### **4. Assessment Review, Actions, Future Plans**

Most of the actions taken so far relate to Council on Education for Public Health (CEPH) requirements and the survey results, and have included several curriculum revisions: (a) addition of six semester credit hours, changing from 36 to 42 total required hours for the degree, beginning with students admitted in Fall 2008; (b) addition of a new introductory course in epidemiology (DMP 754) in Fall 2010, allowing students to choose between two options to attain core knowledge in epidemiology; (c) addition of a requirement for at least 3 credit hours of field experience, beginning with students admitted in Spring 2011; and (d) addition of new introductory course in biostatistics (STAT 701) in Fall 2011 as a new core course requirement for newly admitted students. The addition of the six hours for the degree and the requirement for field experience enhances student learning, through breadth and depth of knowledge and an application of that knowledge in a professional, non-academic setting. The additional courses in epidemiology and biostatistics will improve student learning in those core areas of public health. Through the continuation of the self-study process for accreditation, and with the help of OEIE, we plan to improve our assessment tools, in order to better align each core and other required courses with Kansas State University student learning outcomes as well as CEPH-required competencies for each area of emphasis. We also plan to better quantify survey results as well as provide the program administration a feedback mechanism from the course instructors and supervisory committees. New surveys will be conducted routinely on current students (entrance, mid-program, and exit), employers, faculty and graduates/alumni. Development of these surveys has already begun and is being tested, used and refined.