INSTITUTIONAL CONTEXT

Temple University (TU) is a comprehensive urban public research university located in Philadelphia that enrolls almost 38,000 students, 42% of whom report their ethnicity as other than White. It has 17 schools and colleges, including schools of Law, Medicine, Pharmacy, Podiatry, and Dentistry, and a renowned Health Sciences Center. Temple is the 25th largest research university and the 7th largest provider of professional education in the United States. It offers 7 professional degrees, 2 associate degrees, 138 bachelor’s degrees, 125 master’s degrees, and 60 doctoral degrees. Dr. Russell H. Conwell founded the institution in 1884 as an informal response to the pressing need for educational opportunity in all communities. It was chartered as Temple College in 1888 and incorporated as Temple University in 1907. In 1965, by the Act of the Legislature of the Commonwealth of Pennsylvania, Temple University became a state-related institution in the Pennsylvania Commonwealth. Based on Dr. Conwell’s vision, Temple’s mission is to provide access to excellence for talented and motivated students regardless of status or station in life, as well as to strengthen ties to Temple’s communities by creating a culture of engagement.

The Department of Public Health is located in the College of Health Professions and Social Work, which is currently made up of eight departments, including communication sciences, health information management, kinesiology, nursing, rehabilitation sciences, physical therapy, public health and the School of Social Work. It ranks in the top 10 Health Professions schools in National Institutes of Health (NIH) funding. The College’s goal is to foster interdisciplinary collaboration among students, staff, industry leaders, clients and the community to better address health needs, eliminate disparities in care, increase lifespan and improve quality of life. Immersed in the activity of a major metropolitan health center, students’ perspective extends beyond their own programs. This combined environment expands students’ intellectual exposure, enhances learning, encourages scientific inquiry, sharpens clinical performance and produces professionals who are intellectually and practically prepared to work in a collaborative setting. The Department of Public Health offers graduate programs in public health (Ph.D., MPH, MD-MPH, DO-MPH [Doctor of Osteopathy], MSW-MPH [Master of Social Work], DPM-MPH [Doctor of Podiatric Medicine], MS-Epidemiology [Master of Science]), as well as an undergraduate Bachelor of Science degree in public health and a minor. Its programs are accredited by CEPH and its undergraduate program is one of only 11 fully accredited undergraduate public health programs in the country.

PROGRAM DEVELOPMENT

Temple’s program began in 1985, offering a Bachelor of Science degree in Community Health Education. In the late nineties, we realized that as the number and magnitude of health threats to the society increased, the need for public health had grown accordingly. As professionals with special expertise in one or more areas of health, opportunities for public health workers had increased and public health, as a distinct specialty, had expanded. The demand for public health, both within our community and in organizations and institutions throughout the area, had also grown. Consequently, we changed our curriculum to address these issues in 2000 when we revised the curriculum, offering coursework in all core areas of public health and getting approval to expand the degree to become a Bachelor of Science in Public Health. As an adjunct, we also proposed a minor in public health for students interested in public health but pursuing other majors. This change in degree program has resulted in a more than 300% increase in enrollment since 2000. We had 352 majors and approximately 50 minors in the 2010-2011 school year.
PROGRAM ADMINISTRATION

The BS in Public Health is offered in the Department of Public Health. It is a natural extension to our graduate programs, providing opportunities for students to work with and be taught by public health research faculty, learn about graduate public health opportunities and have access to public health internship experiences. Most public health faculty teach in the undergraduate program, providing instruction in the core areas of public health. Faculty teach courses corresponding to their expertise, thus there is no specific extra preparation that occurs. It is a goal of the program to have full time public health faculty teach upper level courses so our undergraduates are exposed to working professionals with public health expertise.

Though the majority of our curriculum is taught within the department, we do collaborate with a number of other departments that provide courses required by public health. For example, we work with the Department of Health Administration, housed in the Fox School of Business, which offers an Introduction to Health Administration course our majors are required to take. We have similar agreements with the Department of Strategic Communication which offers a Public Speaking course and the Department of Computer Science which offers an Introduction to Computer Information Science course. In addition, we have numerous contacts with community agencies. Because our undergraduates are required to complete two internship experiences, we maintain close ties with over 200 community agencies, university research centers, hospitals and Public Health departments to ensure students can choose from a number of different types of experiences.

If a student with a BS in Public Health from Temple applies for the MPH program, he/she must have the same credentials as other applicants to the program and are judged by the same acceptance criteria. We do allow our undergraduates to waive taking program planning and evaluation at the graduate level in exchange for a public health elective because they gain extensive experience in this area as an undergraduate. All other courses in the MPH program are required. For those students with undergraduate degrees in public health from other institutions, a review of their curriculum occurs with the MPH Director to ascertain if the same program planning and evaluation skills are present or if there are other courses that could be waived. Finally, our undergraduates do not have special approval to be admitted to the MPH program. Approximately 20% of our students go on to MPH programs or other graduate programs directly after graduation; many to Temple.

CURRICULUM

The overarching philosophy of our program is that undergraduate public health education can make a substantial contribution to building an educated citizenry as well as an entry level work force that understands the role and value of public health. Students study a broad range of public health concerns including individual disease prevention and harm reduction behaviors, distribution and development of disease through epidemiological assessment and community program development, implementation, and evaluation. They also have coursework in public health research methods and complete over 600 hours of in-the-field internships. Their experience is thus rooted in the community and it is expected that graduates will understand the role public health has in fostering health within communities, especially those that are underserved. This philosophy is closely aligned with the graduate public health programs in the department, as well as the College of Health Professions and Social Work. Our emphasis on underserved communities is also in concert with the university’s mission, which aims to provide educational opportunities to diverse communities.

As indicated above, the program grew from a specific emphasis on community health education. Faculty reviewed the curriculum at that time and realized that to provide a program in public health all core areas needed to be represented. Since 2000, Introduction to Public Health, Epidemiology, Environmental Health and Ethnicity, Culture and Health courses have been added to the curriculum. We have also added a number of public health electives, including courses in man-made disasters, international health and health communication to provide a
Healthy People 2020 and Education For Health
Successful Practices in Undergraduate Public Health Programs

A broad array of choices for students interested in different aspects of public health. In 2005 we also developed an exhaustive list of public health competencies we expect our students to master by the time they graduate (see: http://chpsw.temple.edu/publichealth/students/undergraduate-competencies). The curriculum and competencies are reviewed annually and discussed to discern if other changes should be made to address current public health issues.

The public health major requires 124 credit hours to complete, 95 of which are dictated by the major. Sixty-five credits are taken in the public health department and 30 are cognate courses taken outside the department but required by the major. Required courses in the Department of Public Health include: Introduction to Public Health, Nutrition and Health, Society, Drugs and Alcohol, Human Sexuality, Disease Prevention and Control, Environmental Health, Culture, Ethnicity and Health, Epidemiology, Research Methods, Counseling Techniques, Professional Seminar in Public Health, Teaching and Learning Processes, Internship I, Introduction to Community Health Programs (capstone, writing intensive), Administration and Marketing of Public Health Programs (capstone, writing intensive), Internship II, and three public health electives which are the choice of the student. Required courses for the major outside the Department of Public Health include: Health Psychology and Human Behavior, Anatomy and Physiology I, Anatomy and Physiology II, Public Speaking, Intro to Health Services Systems, and Computers and Applications. All content courses and public health electives are open to students throughout the university. Upper level classes, i.e. epidemiology, research methods, capstone and internships, are for public health majors only.

Public health electives are generally taken in the department but we also allow students to take some courses in other departments to count as elective credit. Electives within the department include: International Health, Contemporary Health Issues, Health Communication, Man-Made Disasters: Radiological, Chemical and Biological Terrorism, AIDS and Society, Diet and Weight Management, Coping with Stress, Holistic Health and Aging, Principles of Emergency Management, Natural Disasters: Response and Recovery, Violence and Injury Prevention, Communication in Healthcare Settings, Advanced Human Sexuality, Trauma and Coping, Power, Politics and Payments in US Healthcare, Special Populations: Strategic Community Outreach, HEART Peer Educator Training, and International Health Study Abroad. Approved electives outside the department include (list is not exhaustive; students may get special permission to take others): Contemporary Aspects of Disability, Introduction to Health Professions, Medical Anthropology, Introduction to Counseling Psychology, Interviewing Techniques, Medical Terminology, US Health Care System, Healthcare Finance and Information Technology, Integrated Delivery Systems and Managed Care, Ethics in Medicine, Death and Dying, Health and Disease in American Society, Sexuality and Gender, and Sociology of Medicine.

In the undergraduate public health program, an emphasis is placed on community-based public health so majors learn to use educational interventions to provide health information, gain experience in assessing the needs of target populations, clarify program goals and objectives, and develop strategies to motivate their clients in educational interventions. To apply these skills, public health majors must produce a capstone project as well as complete two experiential internships. The capstone is completed in a two semester, writing intensive program planning and evaluation sequence which provides students an opportunity to put together the skills they have learned in other coursework to create and plan a community based public health intervention. This is done through the mechanism of writing a grant proposal to a fictitious foundation, so students also learn budget skills, persuasive writing and gain understanding of how public health interventions are funded. Students choose a health topic of interest and a specific community to develop an intervention for. Undergraduates are required to write a complete project proposal, including a need-based rationale, community assessment, program objectives, program description including a review of existing intervention programs, proposed program intervention activities, including all educational curricula and implementation strategies, an evaluation plan, a marketing plan and a program budget and budget justification. Final projects usually exceed 65 pages.
Majors are also required to complete one five credit and one nine credit Internship in their last two semesters. During these internships students work under site supervisors who are required to have 3 to 5 years experience working in public health and who are willing to provide time to mentor students at the sites. The first internship, taken after the student has completed all public health content courses, anatomy and physiology, and the first semester of the capstone course requires the students to be out in the field approximately 15 hours a week for a total of 200 hours. The second internship, taken the student’s last semester, is at another site location and requires the student to be out in the field approximately 30 hours a week for a total of 400 hours. Site locations vary and students are able to choose from a wide array of locations, including local public health departments, large and small community based organizations, academic public health research projects, industry and clinical care locations such as hospitals. For example, we have placed students in the Philadelphia Department of Health (all divisions), Pennsylvania’s Hospital’s Diabetes Education Program, The Food Trust and Temple University’s Risk Communication Laboratory, just to name a few. A number of students also complete internships abroad; we have a Costa Rica study abroad program as well as other international opportunities. In these settings, students are expected to assume responsibility for tasks in the implementation of the programs of the agency. We work with each student in his/her professional seminar course to establish personal goals and public health interests so we can advise them on internship sites. We maintain a database of over 200 sites they can choose from, or they can present another option to be approved. For preceptors an introductory letter is sent at the beginning of each semester which outlines the responsibilities of the intern, faculty advisor and preceptor. This is followed up with a phone call to answer any questions a preceptor might have. Most preceptors have worked with our interns extensively and require little training. For new preceptors, our Fieldwork Coordinator would work with them to provide whatever they need.

STUDENTS

There were 352 majors and approximately 50 minors in the program in the 2010-2011 school year. Temple’s public health majors are quite diverse; over 60% report their ethnicity as other than white, with 40.5% African American, 7.2% Asian, 3.3% Hispanic, .6% American Indian or Alaskan Native, and 11.1% some other ethnicity. The majority of students are female (88%). It should be noted that most students come to the public health major as intra-university transfers, meaning they started as one major and transferred into public health most commonly as a sophomore or junior. While the trend has been for more students to declare public health as a major as freshmen, they still constitute less than 10% of the total. Students transfer into the major from a variety of programs, most notably biology, chemistry or pre-nursing. Others “find” the major when they take content courses such as Nutrition, Human Sexuality, Introduction to Public Health or AIDS and Society, which are open to all students.

We have seen substantial growth and interest in our program in the past decade. This is a challenge for the department in terms of offering enough sections of classes to provide a positive pedagogical experience. To ensure that our students are able to have access to faculty and get a rich learning experience, we have developed sections of content courses that are smaller and for majors only. We also offer almost all classes both semesters, and many are offered in the summer, to provide majors a variety of opportunities. The growth in the program, however, has required the department to reach out to a cadre of qualified adjuncts to teach some courses. While the majority of upper level courses are still taught by full time faculty, one concession to growth has been to use experienced adjuncts to fill in teaching gaps. Using experienced public health adjunct faculty has allowed us to continue to offer multiple sections of classes with smaller enrollments to ensure students have access to faculty and working public health professionals, allowing them to feel part of a public health community.

LESSONS LEARNED
The most important contribution of our program has been the realization that undergraduate public health education can be administered in tandem with graduate public health education. We have found that our undergrads are in high demand in the public health workforce, but do not pose a threat to compete with our graduate public health graduates. The experience we have had over the past decade has illustrated the feasibility of offering public health education at the undergraduate level. It prepares students well not only for entry level public health employment, but to transfer that knowledge into graduate public health programs or other clinical health professions. This does, however, cause some challenges. First, substantial growth in the program has caused many administrative issues for the department. Managing curricula, providing student advising, finding and supervising fieldwork sites and ensuring quality instruction have all been recurring issues. Another major concern has been to ensure a sense of community for students. As class sizes increase this has been a challenge that we have tried to address by offering “majors only” sections of classes, providing access to a student run public health club and having “meet and greet” events with the program director. Another major concern has been advising. Up until 2010, faculty did the bulk of course advising which was a large burden on their time. Because of growth in enrollment, the College assigned a full time undergraduate advisor to provide day-to-day advising for students last year. This has allowed senior faculty to provide professional advising on career and graduate school options, allowing students to also have more meaningful exchanges with faculty. We have also had to address the stress of class size on the capstone and internship experiences. University restrictions on enrollment in writing intensive classes have required us to offer multiple sections of the course, which require faculty with community intervention experience. While this is a positive pedagogical experience for students, it is a challenge to the department. Similarly, advising, placing and supervising interns are also challenging. With 50-70 students going out on internship in any semester, and only one full time faculty overseeing the placements, sustaining internships was untenable. To address this, we proposed a new position that was recently approved to help with internship oversight of both the undergraduate and MPH fieldwork experiences, providing an “economy of scale” and adequate resource distribution among programs.

One option for the future that we have considered is the development of an accelerated 3+2 (BS/MPH) program for outstanding incoming students. This would provide a natural feeder into our graduate program. Another future direction is to review courses outside the department that our majors might need to prepare them for upper division courses. The University recently changed its general education and quantitative courses in statistics are no longer accepted for general education credit. Consequently, we have seen our students having problems in our epidemiology and research methods courses. We are now evaluating the feasibility of again requiring statistics as an added course to general education, or providing biostatistics within the department.

We hope that other institutions thinking of developing undergraduate public health programs or curricula, especially those with graduate public health programs, are clear in their planning on how undergraduate public health education can enhance their department, as well as their student body. Our experience illustrates the benefit of having a natural feeder to graduate public health programs, but the program also benefits the wider community by having entry level public health workers who have a background in and understanding of public health concepts. Undergraduate public health education is a valuable tool in developing an educated citizenry and our experience illustrates it worth.