

**Office of the President**

**TO MEMBERS OF THE ACADEMIC AND STUDENT AFFAIRS COMMITTEE:**

**ACTION ITEM**

*For Meeting of September 18, 2019*

**ESTABLISHMENT OF A SCHOOL OF PUBLIC HEALTH, SAN DIEGO CAMPUS**

**EXECUTIVE SUMMARY**

UC San Diego proposes the establishment of a School of Public Health. The mission of the School would be to improve the health and well-being of individuals and communities through education, research, innovation, dissemination, and service. While being anchored in the traditional core competencies of public health (i.e., biostatistics, epidemiology, health policy, environmental health sciences, social, and behavioral sciences), the School would leverage expertise across UC San Diego in the life sciences, genomics, oceanography, and geoscience, as well as in engineering design, informatics, and data science. In so doing, the School would engage in collaborative and interdisciplinary inquiry with the goal of creating new approaches to public health education, research, and practice, impacting an array of disciplines including climate and earth science, population and mental health, and aging and longevity science. At the campus level, the School would address the fragmentation of teaching and research efforts in public health across UC San Diego while bridging the campus' biomedical, clinical, population health, social science, and engineering expertise with public health.

Most of the core Public Health degree programs required for establishing eligibility for UC San Diego's School of Public Health accreditation are already approved or developed and the projected rate of enrollment growth will be incremental and modest.

**RECOMMENDATION**

The President of the University recommends that the Academic and Student Affairs Committee recommend to the Regents that Section 15 (a) of the Academic Units and Functions, Affiliated Institutions, and Related Activities of the University, as provided for in Standing Order 110.1, be amended as follows:

**Additions shown by underscoring**

15. Professional Schools

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Public Health

- School of Public Health, at San Diego, with curricula leading to the degrees of Bachelor of Science, Master of Public Health, Master of Science, Master of Advanced Study, and Doctor of Philosophy.

**BACKGROUND**

Currently, teaching and research efforts in public health are fragmented across the UC San Diego campus. There are public health courses and projects being led in the Department of Family Medicine and Public Health and the Department of Medicine within UC San Diego Health Sciences; in the Education, Anthropology, and Engineering departments; and in the Scripps Institute of Oceanography. Establishment of the School of Public Health will provide an educational home to these existing courses and projects while serving as the foundation for cross-campus synergies in public health. With a mission of improving the health and well-being of individuals and communities through education, research, innovation, dissemination, and service, and while being anchored in the traditional core competencies of public health, the School would leverage expertise across UC San Diego in the above departments and academic units among others. It would engage in collaborative and interdisciplinary inquiry with the goal of creating new approaches to public health education, research, and practice.

***Meeting Campus and System Priorities***

The need for a School of Public Health at UC San Diego is based on three factors. First, as a result of establishing the School, UC San Diego's strengths in health, engineering, technology, data sciences, and social sciences would be brought together to synergistically provide new approaches to persistent and emerging public health problems. This effort will place the campus at the forefront of public health education, scientific inquiry, and policy change. Second, integration of public health educational and research efforts from across the campus will increase internal visibility for faculty and trainees working in public health, strengthening collaboration, expanding scientific advances, and increasing success in extramural funding. The increased visibility of an accredited School of Public Health, rather than the existing set of disjointed programs, is expected to attract greater numbers of internationally-ranked faculty and top-level students. Third, the School will help address the national and statewide shortage of public health professionals, providing graduates with a modernized curriculum on 21st-century public health issues while helping to recruit and retain other students from around the globe with an interest in public health education, research, and careers.

If approved, the School of Public Health at UC San Diego would join the Schools of Public Health at UC Berkeley and UCLA. Schools of public or global health are being considered at UC Irvine, UC Merced, UC Davis (School of Population and Global Health), and UC San Francisco (Global Health).

Most of the core Public Health degree programs required for establishing eligibility for UC San Diego’s School of Public Health accreditation are already approved or developed. These core educational programs are currently in Health Sciences and led by the Public Health and Global Public Health faculty. Following are the current public health degree programs at UC San Diego that will be incorporated into the School:

- Bachelor of Science in Public Health;
- Master of Public Health;
- Master of Science in Biostatistics;
- Ph.D. Programs in Biostatistics;
- UC San Diego/San Diego State University Joint Doctoral Program in Public Health;
- Master of Advanced Studies in the Leadership of Healthcare Organizations; and
- UC San Diego/San Diego State University Joint Doctoral Program in Interdisciplinary Research on Substance Use.

The School plans to establish a second independent Ph.D. program with students matriculating fall 2022. The focus of this program is yet to be determined but will draw on the strengths of the School and UC San Diego and will likely be in one of the following disciplinary areas: climate and health, data science, engineering and public health, population health, or mental health and public health. This second Ph.D. program will be necessary to meet accreditation requirements and is projected to be a small program that leverages much of the existing curriculum in the Public Health doctoral program.

Given the Schools reliance on existing programs, it can project student enrollment with relative accuracy:

Total Student Enrollment		AY 17/18	AY 18/19	AY 19/20	AY 20/21	AY 21/22	AY 22/23
Degree program	Bachelor of Science in Public Health	479	384	500	500	500	500
	Master of Public Health	0	21	58	85	108	120
	Master of Science in Biostatistics	0	0	1	16	35	40
	Ph.D. Programs in Biostatistics	10	13	19	24	26	26
	UCSD/SDSU Joint Doctoral Program in Public Health	60	58	60	60	60	60
	Master of Advanced Studies in the Leadership of Healthcare Organizations	20	20	20	20	20	20
	UCSD/SDSU Joint Doctoral Program in Interdisciplinary Research on Substance Use	12	16	18	19	19	19
	Second independent Ph.D. program	0	0	0	3	6	9
Totals	Undergraduate student total	479	384	500	500	500	500
	Graduate student total	102	128	176	227	274	294
	Grand total	581	512	676	727	774	794

As evidenced above, the projected rate of enrollment growth will be incremental and modest given that the majority of degree programs exist.

Existing degree programs in global health (the B.A. and M.A. in Global Health and the Global Health Minor) would have affiliations with the School while being administered outside the School of Public Health.

Employment and/or graduate school opportunities for these students can be divided by program. For example, the majority of graduates from the Bachelor of Science in Public Health program are expected to apply to graduate school, primarily ones focused on a health-related discipline. Those who choose to enter the job market immediately will take positions in public health research, healthcare administration, health behavior/community health, environmental and occupational health, and ancillary health positions (e.g., medical assistant and Emergency Medical Technician). Master of Public Health graduates typically pursue positions at local, State and national levels in the areas of health education, health and safety, community health, environmental health and science, healthcare administration, biostatistics, mental health and substance abuse, and epidemiology. It is also expected that some will continue on to doctoral study after completing the Master of Public Health. The M.S. and Ph.D. programs in Biostatistics are meant to address the critical shortage of data scientists with a combination of quantitative expertise, collaborative skills, and life-sciences training both at the master's and doctoral levels. Biostatisticians are in high demand for positions in academic biomedical centers, in government agencies, and in the pharmaceutical and biotech industries; graduates from the Biostatistics programs will enter the job market at local, statewide and national levels.

The School of Public Health will set out to make diversity a priority for its programs and initiatives, to engrain inclusiveness and equity into the School's culture, and to rethink how diversity is achieved in existing activities; diversity and inclusion will be a central priority for the School. With regard to student diversity and at the undergraduate level, UC San Diego's public health programs have already demonstrated a commitment to a diverse student body. The B.S. in Public Health student population, which is approximately 25 percent Latino and 5 percent African-American, is more diverse than the UC San Diego undergraduate population as a whole. Public Health majors are also more likely to be first-generation college students and to have family incomes of less than \$52,000 per year. Similarly, the Master of Public Health applicant pool is more diverse than most other graduate programs at UC San Diego, with about 80 percent female and 80 percent non-white applicants. With regards to faculty diversity, of the 67 current public health faculty in the Department of Family Medicine and Public Health, approximately 18 percent are underrepresented minorities and, of the global public health faculty in the Department of Medicine, about a third are underrepresented minorities. This compares with a diversity component of seven percent among faculty from these groups at the School of Medicine and across the campus as a whole.

These efforts will be the foundation for further work to increase diversity of students and faculty. Among other strategies, the School of Public Health will partner with local elementary, middle, and high schools to introduce public health concepts early and develop a relationship of trust and respect for UC San Diego, partner with historically black colleges and universities

towards mentoring relationships with the goal of UC San Diego being an attractive option for graduate and postdoctoral training in public health, and recruit and retain under-represented faculty by creating an environment of inclusiveness in hiring, mentoring, and evaluation processes.

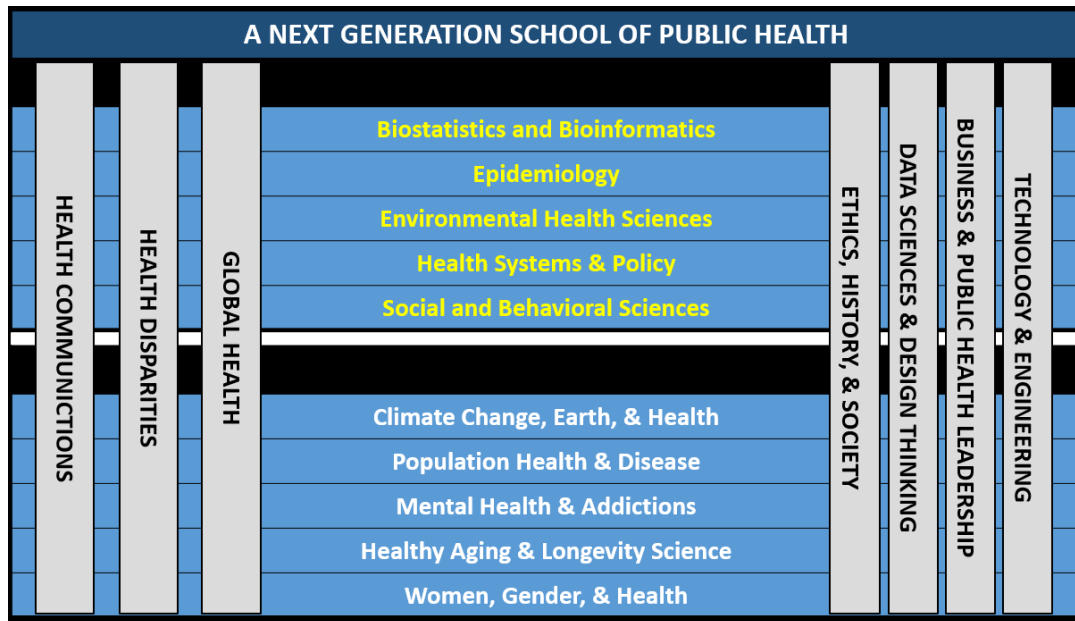
The School of Public Health will also focus on research based on the principles of diversity. With respect to research populations and research questions, the public health faculty have already included a focus on diversity locally and globally. Faculty participatory research includes going into marginalized communities and engaging them in the process of the research, including them in establishing some of the priorities for the research, and ensuring the research is applied to benefit the community. Some faculty are heavily engaged in work related to health risk and modifying health-related behaviors of underrepresented groups. Some are developing interventions that targets diverse populations at risk for prevention and early intervention. Many faculty study diversity in their research as it relates to a central challenge in public health: reducing the large disparities in health outcomes between the advantaged and the disadvantaged. Research within the School of Public Health will seek to catalyze interdisciplinary work on reducing disparities, in which traditional public health faculty conduct research focused on how to improve health outcomes for the disadvantaged with colleagues in climate science, engineering, and the social sciences.

### ***Academic Rigor***

In addition to the traditional core public health domains, the School has identified five key public health issues that UC San Diego is particularly well suited to address: climate change and the environment; population health and disease; mental health and addictions; healthy aging and longevity science; and women, gender and health. Research, teaching, and learning in these areas will be buttressed by a set of business concepts embedded into the School's initiatives, including innovative person-, home-, and community-based technologies, perspectives on environmental science (e.g., climate change), engineering (bioengineering, nanoengineering, mechanical engineering, electrical and computer engineering, information technology, and data sciences), social science (economics, anthropology, political science, public policy, communication, psychology, and cognitive sciences), and the humanities (arts, ethics, and history). It is this interdisciplinary mix that would position the School to address the evolving public health challenges and community needs in San Diego County and beyond.

Relatedly, the School of Public Health would support interdisciplinary public health education not only for students directly enrolled in the School, but also for students in medicine, pharmacy, business, engineering, oceanography, public policy, international relations, economics, social sciences and humanities, urban planning, and other joint degree programs or public health courses. The School anticipates offering cross-discipline training in Doctor of Medicine-Master of Public Health, Master of Business Administration-Master of Public Health, Doctor of Pharmacy-Master of Public Health, engineering Master of Science and/or Ph.D.-Master of Public Health, and other joint programs.

The figure below is the conceptual framework of the School of Public Health. Students will be engaged in traditional core public health competencies (see yellow print), cutting-edge “21st-century core topical areas” (see white print), and the seven cross-cutting themes of Technology and Engineering; Global Health; Health Disparities; Data Science and Design Thinking; Business and Public Health Leadership; Health Communications; and Ethics, History and Science. These currently-identified core topics and cross-cutting themes will evolve over time as new issues become essential for education of public health professionals.



To deliver this curriculum, the School anticipates 30 faculty full-time equivalents (FTEs) at the point of establishment and would have existing space for the approximately 100 faculty expected to have a primary appointment in the School. The School plans to migrate faculty without eroding the quality of existing departments, which will be primarily based on faculty having the choice to move their primary appointment into the School. Current School of Medicine departments will be maintained and faculty members will be able to elect to join the School of Public Health as a primary appointee or simply affiliate with the new School. The largest impact of the formation of the School of Public Health will be on the current Family Medicine and Public Health Department as virtually all of the public health faculty in this department have expressed interest in moving their primary appointment to the School.

With this foundation of core faculty and strong educational and research programs at the outset, combined with the quality of its UC San Diego’s campus-wide partners, the School of Public Health has set the goal of developing into a top-5 ranked school of public health nationally within its first ten years.

***Financial Viability***

The bulk of the resources needed for establishment of the School of Public Health are existing resources that would migrate to the School; the School's financial plan uses current resources and does not request any additional state funds or FTEs. These resources, however, will be supplemented in two significant ways. First, Dr. Herbert and Nicole Wertheim have committed to donating \$25 million as their initial gift in support of the School. Second, UC San Diego's Chancellor and the Vice Chancellor of Health Sciences have committed an additional \$7 million of new funds to support the School. This includes a commitment to fund five \$1 million endowed chairs in the School and a commitment of \$500,000 per year for four years to fund faculty recruitment and startup costs. In addition, the UC San Diego Development Office has formulated a comprehensive fund raising plan and is committed to aggressively implementing that plan.

In sum, the proposed School of Public Health is expected to improve UC San Diego's visibility, increase grant funding, address student and faculty needs, create societal benefits, encourage philanthropy in public health, and elevate the campus' draw of highly competitive student and faculty applicants, all of which would support the investment in the school.

***Review and Approvals***

The proposal for the School of Public Health has been reviewed and recommended for approval on the UC San Diego campus and subsequently at the Office of the President, following all required procedures. These rigorous procedures involve committees of the Academic Senate on the campus and systemwide, as well as the responsible academic leaders at UC San Diego and UC Office of the President, culminating in the recommendation for approval from the UC San Diego Chancellor and from the UC President.