

INTRODUCTION

The MD/MPH dual degree program, combining the M.D. and the Master of Public Health programs, is specifically tailored to the needs of students enrolled in the Columbia University College of Physicians and Surgeons (P&S) and is available only to them. Thirty-five points in public health coursework are required beyond the points needed for the M.D. degree, and tuition must be paid to the Mailman School of Public Health (MSPH) for at least 30 of these points. Medical students may take courses in the School of Public Health under their medical school registration at no additional cost during the first three years at P&S. Most students elect to undertake the public health program between the third and fourth year of medical school, completing both degrees in five years. It is difficult to complete the public health degree in its entirety during the four years of medical school.

Medical students from other universities may obtain the MPH degree from the Mailman School of Public Health through individually designed intensive one-year programs. Students from other universities are required to complete and pay for 45 public health points in order to earn the MPH.

ADMISSION

The admissions process, financial aid, and course registrations for each program are handled separately. It is not necessary to apply to both schools simultaneously because P&S students are permitted to take public health courses under their P&S enrollment during the first three years. However, students beginning in P&S must apply to the Mailman School of Public Health no later than the end of the third year of medical school to take advantage of the dual degree option. For P&S students, it is extremely important to discuss their plans with the Associate Dean for Student Affairs of the College of Physicians and Surgeons and the student academic coordinator of the relevant Mailman School of Public Health department.

Applicants to the Mailman School of Public Health need not submit standardized test scores or transcripts from previous schools if these are already on file at P&S. The Student Affairs Office at P&S can arrange for duplicating and sending the relevant material to Admissions at the Mailman School of Public Health. A MSPH application fee and a personal statement about the student's public health goals are required in addition to three letters of recommendation, one of which should be from the Associate Dean for Student Affairs.

REGISTRATION

To graduate with both degrees, the registration requirements of the College of Physicians and Surgeons for the MD degree and of the Mailman School of Public Health for the MPH degree must be met. Students cannot be registered in P&S and MSPH during the same term. They can take MSPH courses under their P&S registration, keeping in mind they will have to take 30 points under MSPH registration. A student in the dual program must:

1. register as a medical student at P&S for 4 academic years of full-time work, paying full tuition and fees to P&S, and

2. earn at least 35 points from the Mailman School of Public Health, and receive advanced standing of 10 points for relevant courses in the P&S curriculum, for a total of 45 points needed to earn the MPH degree. Of the 35 points earned in courses at the MSPH, payment of tuition will be made to MSPH for 30 points, while 5 points will be covered by tuition paid to P&S.

The student will meet the 45-point MPH requirement as follows:

- a) Register as a matriculated student in the MSPH for a minimum of 30 points, paying MSPH by the point. The student may register at the SPH in the summer semester before medical school, during the summer after the first year at P&S, or at some time before the start of the fourth year of P&S.
- b) Cross-register from P&S for at least 5 points of public health courses. Tuition for these courses will be covered by tuition paid to P&S. This type of cross-registration can take place during all Fall and Spring semesters. Summer courses must be registered through the MSPH and must be paid for.
- c) Choose from the medical school's required and elective curriculum those courses which also meet the criteria of the MPH degree program, for up to an equivalent of 10 academic points, with tuition covered by the regular P&S tuition fee.

To summarize tuition requirements: The dual degree student, throughout the four years, will pay the usual full tuition and fees to P&S. In addition, the student will pay tuition to the School of Public Health for 30 points. Students cannot be registered in two schools of Columbia University simultaneously.

CURRICULUM

Dual degree students, in consultation with their advisors, develop individually tailored programs that integrate the educational components of the MD and MPH curricula, involving shared and mutually accepted elective courses and time periods. These individual programs are arranged within the following curricular framework:

The MD curriculum at the College of Physicians and Surgeons is a full-time four-year program. Throughout the first three years, during non-scheduled hours and in the summer recess following the first year, medical students are permitted to take courses outside the medical curriculum. The fourth year is primarily for electives, permitting the use of the resources of the entire University and its affiliated institutions for individually tailored programs in basic science, clinical and interdisciplinary areas. A requirement of this elective year is that each student work five months or more in a number of clinical specialties.

The MPH curriculum at the Mailman School of Public Health is arranged by academic terms -3 terms per calendar year. A total of 45, academic points are required for the MPH degree, with at least 30 points for courses taken at the School of Public Health. Courses are distributed as follows:

- 1) 10 points shared with the medical curriculum
- 2) up to 15 points of required public health core courses
- 3) 20 points of public health courses. Requirements and electives vary by department and program.

1) Courses Shared with the Medical Curriculum:

The 10 points to be shared jointly by the two degree programs are arranged as follows:

- a) Students will receive a total of 10 MSPH points for required first-, second-, and third- year courses at P&S that cover areas such as biostatistics, epidemiology, the health care system, parasitic diseases, and primary care.
- b) The dual degree student will choose a number of appropriate fourth-year electives in the usual way from the P&S elective catalog, in consultation with P&S and Public Health advisors. Of the current fourth-year elective offerings, a significant number are clearly relevant to the objectives of the dual degree as indicated by the course description, the subject area, the teaching approach and the professional orientation of the course faculty. The following examples are purely illustrative:

PBOIP	Public Health
PBO2P	Medicine in the Tropics
CR9IC	Preventive Cardiology
MDO7P	Occupational Medicine
SOOIP	Externship in Human Rights
MDO3P	Ambulatory Care/Public Health
PEO2P	Adolescent Medicine in GPGP
EM6IR	Pre-Hospital Medicine/Emergency Medical Service
MDOSP	Hypertension
FP8OO	Family Practice
MD60R	Addiction Medicine
MD90P	Clinical Decision Analysis
PSO8P	Forensic Psychiatric Service
OBO1P	Family Planning and Reproductive Health
SOO2P	Research in Social & Ethical Aspects of Medicine

Many of the other electives listed under "Ambulatory Care" are also appropriate. Points toward the MPH degree will be assigned by the School of Public Health to the pertinent electives chosen by the dual degree student. Point values will depend on course content, length, hours and nature of work, and academic rigor. It is important to note that points assigned for fourth-year electives are part of the 10 points shared with the medical curriculum and do not contribute to the 35 points of required and elective points that must be earned in the Mailman School of Public Health.

In some departments at the MSPH, these 4th year electives can serve as the basis for the student's practicum.

2) Public Health Core Courses:

Required courses represent basic "core" material in Biostatistics (P6103 or P6104), Sociomedical Sciences (P6700 or a designated alternative), Epidemiology (P6400), Health Policy and Management (P6530), and Environmental Health Sciences (P6300). Dual degree students take two required medical school courses which resemble, in abbreviated form, two of the MSPH required core courses: epidemiology and biostatistics. They are encouraged to take the waiver examinations offered in the biostatistics and epidemiology core courses, or to arrange for tutorials that build on the basic exposure provided in the briefer P&S courses. These options cannot be used to reduce the 35 point MSPH course requirement, but they allow the student to avoid duplication and to devote more of the 35 points to MSPH elective courses.

3) Public Health Elective Courses and Concentration:

Each dual degree student, in consultation with his or her advisor, selects an area of public health concentration from among the following: Biostatistics, Environmental Health Sciences, Epidemiology, General Public Health, Health Policy and Management, Population and Family Health, or Sociomedical Sciences. For a variety of reasons, including the need for flexible scheduling, most dual degree students select the General Public Health concentration, although other options are available. Elective courses in all of these areas are generally available to students, regardless of the concentrations they have chosen.

4) Timing of Public Health Courses:

A few dual degree students take their first public health courses in the summer before medical school begins. A larger number take their first public health course in the evening during the fall of their first year at P&S. The majority take their first public health course in the evening during the spring semester of their first year at P&S.

Dual degree students can complete 3 - 12 points during the summer after their first year of medical school. This can be done by taking MSPH courses and/or taking a tutorial based on fieldwork or research in the U.S. or abroad and must be approved by the student's adviser at MSPH. For this experience to count as the practicum, the student must already be enrolled in the MSPH.

Dual degree students can take one or two evening courses during each semester of their second year at P&S. During the third year there is little, if any, opportunity for MSPH coursework.

In the fourth year at P&S, the remaining points needed for the MPH can be obtained through courses that are carefully scheduled in coordination with clinical rotations. One way to earn some of these points is to work with a School of Public Health faculty member to design a tutorial that builds on the clinical experiences involved in one or more fourth-year P&S electives. This generally involves reading assignments,

research or analysis, and a paper that go beyond the usual requirements of the clinical elective.

5) Sample courses of study

Department of Health Policy and Management (fifth year option)

Policy

Fall Semester: (17 credits)

- P6530 Issues and Approaches to HPM
- P6103 Introduction to Biostatistics (or elective if waiver passed)
- P6400 Epidemiology (or elective if waiver passed)
- P8531 Seminar in Health Policy or P8575 Cross National Health Policy or P8546 Governments Role in the US Health Insurance System or another policy elective
- P6300 Environmental Health Sciences (or elective if waiver passed)
- P6503 Health Economics or Elective

Spring Semester: (18 credits)

- P8502 Research Techniques and Applications
- P6508 Health Policy and the Political System
- P8541 Cost Benefit Analysis and Health
- P8511 Lessons From the States
- P6503 Health Economics or Elective
- P6300 Environmental Health Sciences (or elective if waiver passed)

Management

Fall Semester: (17-18 credits)

- P6530 Issues and Approaches to HPM
- P6103 Introduction to Biostatistics (or elective if waiver passed)
- P6400 Epidemiology (or elective if waiver passed)
- P6529 A & B
- P8517 Managing Complex Organizations
- P8557 Managerial and Organizational Behavior or P8558 Strategic Management

Spring Semester: (17-18 credits)

- P8502 Research Techniques and Applications-
- P6508 Health Policy and the Political System
- P8533 Health Care Finance
- P Health Management elective
- P6503 Health Economics or elective
- P6300 Environmental Health Sciences (or elective if waiver passed)

Program in General Public Health

- P6530 Issues and Approaches to HPM
 - P6103 Introduction to Biostatistics (or elective if waiver passed)
 - P6400 Epidemiology (or elective if waiver passed)
 - P6300 Environmental Health Sciences(or elective if waiver passed)
 - P6700 Introduction to Sociomedical Sciences or P6000 or P6001 History and Philosophy of Public Health
- 20 points of electives

Practicum:

A one-term practicum is usually required for the MPH degree, but this requirement in some cases, may be waived with documentation of appropriate previous public health or professional experience, or if house officer training will follow immediately after graduation.

Some students are able to meet the practicum requirement by working throughout the academic year in concert with their studies.

A public health masters essay is required of students concentrating in Epidemiology or in Sociomedical Sciences, but not in General Public Health or other concentrations.

LENGTH OF PROGRAM AND AWARDING OF DEGREES

The key to the length of the combined program is the point in time when the medical student decides to pursue a dual *MD/MPH*. The earlier the decision, the greater the opportunity to use free and elective time in the medical school curriculum, to plan an integrated educational experience, and to complete all requirements for both degree within four years. Students who have begun MPH course work in the summer prior to starting medical school have almost always been able to receive both degrees simultaneously at the end of four years. Students may, however, extend the time needed to complete MPH requirements one or more terms beyond the four- year graduation date of the medical school. In these situations, the MD degree will be awarded when it is earned, and the MPH degree will be awarded later, when all requirements have been met. Failure to complete either the MD or MPH part of the dual program will not necessarily jeopardize the successful completion of the other part. Should a dual degree student not complete P&S, the MPH degree cannot be awarded unless the student completes the 45 points required for a single degree.

FACULTY AND PROGRAM ADVISORS

Each MD/MPH student is assigned an individual faculty advisor in each school.