Graduate and Professional Education in Global Health
A guide from UW-Madison’s Certificate in Global Health
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1. Introduction

This document is intended both for students interested in “professional” schools (programs that are closely tied to a particular career – medical school, nursing school, physical therapy school, etc.) and graduate schools (a wider variety of programs that are less closely tied to very particular jobs).

Why go to graduate or professional school?

There are at least three possible answers to that:

1) There are things you just can’t learn on the job – In many organizations, you are so busy doing whatever your job is that you can’t step back to get perspective on why you’re doing it, whether it really helps the organization achieve its mission or not, and how you might do it differently. Graduate school can be a good time to think without having to do all the time.

2) Professional advancement – In almost any field, the tasks you are qualified to do with a bachelor’s degree may be stimulating for a while, but if you want to move to a more complicated set of tasks (especially one that involves managing other people), you will probably need to do an advanced degree at some point that will give you the new set of skills (or at least a formal credential to show you have them…).

3) A higher salary – Hopefully, along with professional advancement in your chosen field you will get a higher salary.

Graduate or professional school and your age

If you already know what kind of program you would like to be in, you can certainly try to get into graduate or professional school right out of college, though students graduating now (2013-2020) are at the peak of a demographic curve and will face stiffer competition than people
applying 10 years ago or (probably) 10 years from now. Average students entering medical school (MD or DO) programs are now about 24 or 25 years old; students entering master’s-level public health programs (MSPH or MPH) are a bit older, an average of 26-27. Statistics for other degree programs vary but are comparable. If you are trying to get into such a program right out of college at age 21-23, you are competing with people who have been doing something else for 2-5 years since graduating. That doesn’t mean you won’t get in right after a BA or BS, because some people do, but it does mean either that you might want to wait a bit to apply or that you should at least have a backup plan. The next section discusses the question of when to pursue more education in more detail.

2. Graduate school now vs. later

Students nearing graduation often ask certificate staff if they should try to go to graduate or professional school right away or if they should work for a bit first. Our standard reaction is “Work first!” Why? Several reasons:

A. *You’ll be a better candidate* – Medical schools across the country (including UW’s) are increasingly choosing applicants who have been out of school for at least one or two years (or more – nothing prevents you from starting medical school as late as your early thirties). That’s because those applicants are less obsessed with grades in medical school, drop out at lower rates, are better communicators, and generally have more of the competencies they will need to work with patients as part of increasingly complex healthcare teams. The same is true of other kinds of health programs.

B. *Graduate school carries many costs; make sure you want to do it at all and explore particular programs carefully* – Most graduate programs take at least two or three years of focused work, and medical school plus residency is at least a 6-8 year commitment. Tuition alone for four years of medical school is now at least $100,000 and other forms of graduate study are proportionately expensive. If working for a year or two convinces you that you either do or don’t want to pursue a particular graduate or professional degree and a related career, it was probably a good use of your time. The Certificate in Global Health is still a pretty new program (we became official in 2011), but we have already had quite a few graduates tell us that working for as little as a single summer after college changed their graduate/professional school plans.

C. *Maybe what you always thought you would be is not what you will be* -- Many of you have been conditioned from an early age to think you will (or must) become doctors, or nurses, or whatever. Often this is because there isn’t enough time in grades K-12 to talk about helping, health-related careers that are not clinical in nature, or because your teachers didn’t know about those careers. You may indeed become a clinical professional, and that’s great (necessary for some important global health work!), but taking time to explore other career options can be worth it.

D. *You are young, you have been a student for as long as you can remember, and the world is very big* – You are, you have, and it is. We encourage you to try out looking at the world for a few years through a lens other than that of “student.” Especially if you think you might like to try living and working abroad, it may never be as easy to do that in terms of family and other commitments as it is now.
We’ve encouraged you to work for a bit, but it’s also important how you think about the time you spend not being in school. Students interested in graduate school often talk about taking a “gap year” after college. You may not think of it this way, but the word “gap” can make it sound either like a vacation (some of which is fine, of course) or as though you are looking for some not-too-serious thing to use to fill a gap while waiting to get to the really important thing (graduate school). We encourage you not to think of the time that way. Ideally, it’s not time off, but time “on,” time spent exploring one or more areas in which you would potentially like to work for the long term, and where even a little work experience can help you decide whether or not a related graduate program is something to consider. We also encourage you not to think of the post-college, pre-graduate time as one year – one year may not be enough time to try multiple areas of work in global health (or even one, really), decide that you either do or don’t want to pursue them further, and make informed decisions about applying to graduate or professional programs.

Finally, we recognize that it is easy to feel as though there’s urgency in applying to graduate school. Students tell us things like “I’ll forget what I need to know to do well on the MCAT/GRE/etc.!” and “I’ll forget how to study!” and “I won’t want to go back to school!” and “I need to get another degree in order to make a difference!” and “Everyone in my family expects me to go to graduate school!” In our experience, though, the schools will still be there a few years from now, you will be an even better candidate for having worked a while first, and parental/familial expectations can be dealt with by explaining that you are not taking time off, but taking time to choose a field of graduate study in a way that will make you happier in the long run. Exploring for a bit may save you and them money, too, if you avoid starting a degree you won’t finish or use.

3. **A special section for pre-med students**

Many of the undergraduate students who consider themselves pre-med as freshmen will not end up actually applying to medical school. Of those who apply, many will not get in. And, of those who get in, some more will not finish or will finish but never practice. This is not meant to be discouraging, or not very discouraging, anyway — it’s just a fact, and for some people is a useful reality check. While there are amazing, important things you can only do in public/global health if you are a doctor, there are lots of other rewarding health-related careers that don’t involve 8-10 years of medical school and residency, hundreds of thousands of dollars in debt, and potential exposure to drug resistant *Staph aureus*. As mentioned in the previous section, some people are medical school oriented when they start college only because they’ve never had the chance to learn about other interesting careers.

If you do make it through your undergrad years still determined to go to medical school AND interested in public or global health, that’s great, but you should be aware that not all medical schools are equally public or global health-oriented (UW’s now is, though it wasn’t until 2005 that the school added “and Public Health” to “School of Medicine”). You will potentially want to find a school that offers one or more of the following options:

A. **A dual degree option (MD/MPH)** – Many schools of medicine allow you to complete both a medical degree and a master’s in public health, usually in a total of about 5 years
(you still need to do your residency after that!). How and when the coursework happens varies. Some schools have you do several years of medical school, then all of your MPH coursework at once before your last year of medical school. Some schools (including UW-Madison) integrate the MPH coursework with the medical coursework from your first semester, and a few have you finish the MPH first.

B. **A certificate or specialization in public or global health** – Some schools, UW-Madison included, have a certificate in public health or global health that you can complete as a graduate or professional student. Such a certificate is less work than a separate master’s degree but would likely include a field experience and would deepen your knowledge of the field.

C. **A public or global health-focused medical school track** – Some schools, UW-Madison included, have a track for medical students that includes at least a little bit of dedicated public health coursework (less than you would do for the above options) while also making efforts to incorporate more public health into standard medical school courses and experiential learning opportunities than is typically the case. At UW, the relevant program for medical students is called the Path of Distinction in Public Health.

If you are med-school bound and interested in global health rather than “just” public health, the American Association of Medical Colleges (AAMC) recently started an initiative called Global Health Learning Opportunities (GHLO), which supports various kinds of global health training for advanced medical students. If you go to the [GHLO web page](#), you can learn more about the program, including seeing a list of participating institutions. The list does not include all US medical schools that are supportive of public health education, but it does include some of the best ones. If you want your eventual practice to involve providing care in global health settings, you might want to focus on applying to these schools.

### 4. Exploring graduate school in public health and global health

If you’ve taken any of the certificate’s core courses, you hopefully know that you can contribute to well-being of people, non-human animals, and the environment through careers as diverse as engineering, education, psychology, agronomy, journalism, law, business, and of course medicine. While you may want to explore graduate or professional degrees in those fields (see section 5), many alums of our certificate are completing a master’s-level degree in public or global health either on its own or jointly with another degree.

Whether you complete “just” a master’s in public health or a public health degree and another degree depends in part on how clear an idea you have of what you want to do. If you want to be a policymaker focused on improving the quality of Americans’ diets, for example, you might want to earn a graduate nutrition-focused degree (MS or PhD in nutrition, for example) plus a master’s in public health with a focus on policy. Or, if you like the prevention focus of public health but aren’t sure what you want to do with it, you might want to either delay graduate school for a while or do “just” a master’s in public health followed by a possible second degree at a later date. “Joint” or “dual” degree programs can be complicated to enter and expensive and time-consuming to finish, so they’re something not to undertake lightly.

**MPH vs. MSPH vs. DPH**
There are three commonly offered degrees in public health, two at the master’s level (typically a two or three-year commitment) and one at the doctoral level (often a 4-6 year commitment, though how long you take depends in part on whether you have already done a master’s degree in the same field when you start). UW’s Center for Pre-Health Advising has kindly given us permission to cut, paste, and expand on their nice descriptions of these three degrees:

**MPH – Master’s in Public Health**

The MPH degree focuses on public health practice, as opposed to research or teaching. What that means is that if you finish an MPH, you are likely to end up helping to administer a program aimed at preventing a particular health care problem or lowering barriers to access to medical care for a particular population.

A traditional MPH program includes five core areas of public health: biostatistics, epidemiology, health services administration, social and behavioral science (with an emphasis on health education), and environmental science. If you choose a program or track with a global health emphasis, you may study global health in addition to or possibly instead of one of those focus areas. Some MPH programs require you to complete a thesis and some do not. If you do a thesis, it is potentially based on a field experience you have working with an organization you might like to join after graduation.

The MPH may be paired with a health-related professional degree or graduate degree. At UW-Madison, for example, there are dual degree program options in medicine, nursing, public affairs, pharmacy, physical therapy, and veterinary medicine, to name just the most common options.

**MSPH – Master’s of Science in Public Health**

The MSPH is more research-oriented than the MPH. Typical MSPH coursework includes most of the same classes needed for the MPH degree, but in addition the MSPH degree requires additional coursework in research methods, epidemiology, biostatistics, and related work. MSPH students must typically complete a research thesis. The extra coursework plus the research-based thesis together require an average of one more year of study than the MPH degree. If you finish an MSPH, you are likely to end up working either in a university or with a government agency or nonprofit that measures the health of a particular population, designs interventions to improve the health of that population, and measures the effectiveness of those interventions. You may also go on to earn a PhD.

**DPH – Doctor of Public Health**

The DPH degree (sometimes called a DrPH) is for those who intend to become researchers, teachers, or high-level managers in universities, government agencies, and nongovernmental organizations where advanced analytical and conceptual capabilities are required. Some people do a DPH early in their careers, while for others it is a mid-career move. A common requirement for entry into a DPH program is an MPH or master’s in a related field. Earning a DPH always requires completion of a substantial research project.
Finding public health degree programs

Public health graduate programs fall into two categories: those that have received accreditation by the Council on Education for Public Health (CEPH) and those that have not. Accreditation is supposed to indicate that a program has strengths in key subtopics within public health (biostatistics, epidemiology, environmental health sciences, health services administration, and social and behavioral sciences). It’s also supposed to be a measure of the quality of other aspects of a program (for example, the amount of hands-on training it requires and supports its students in doing). Schools that are not accredited by CEPH may still be excellent but may not be accredited for a variety of reasons. They may just not have done it, for example (the process of accreditation is long and very complex), or they may not offer courses or degrees in enough different subjects in public health to achieve accreditation.

We won’t enter into the “Should you or should you not apply to non-CEPH-accredited schools?” debate except to say that 1) going to a CEPH-accredited school would by definition let you explore more different topics within public health, 2) to take the Certified in Public Health (CPH) exam (which you might want to do later), you must have attended a CEPH-accredited school, and 3) some non-CEPH schools do have excellent programs.

To do a comprehensive search for graduate programs in public and global health, the CEPH/not-CEPH split means you potentially need to look in two places:

A. The Council for Education in Public Health (CEPH) web site — http://www.ceph.org/ -- As you would expect, if you do what the site calls a “search for accredited degrees,” you are looking through programs that have the CEPH seal of approval. The CEPH search engine allows you to look for degree programs by subtopic (epidemiology, infectious disease, maternal and child health, nutrition, etc. – note that global health is one of the listed subtopics), by level (master’s level, doctorate level, etc.) and in other ways. One possibly useful way to search is to restrict yourself to programs that accept the widely used common application called SOPHAS (read more about applying through SOPHAS in section 7). You can also search for programs that participate in a program called Master’s International (MI). MI lets you complete a master’s degree in combination with two years in the Peace Corps.

B. The Association of Schools and Programs in Public Health (ASPPH) web site -- http://www.aspph.org/ -- ASPPH is an organization that many public health graduate schools choose to join, but it does NOT evaluate/accredit them. Some schools that choose to be members of ASPPH are CEPH accredited while others are not. Some CEPH-accredited schools (like UW-Madison) are not members of ASPPH and don’t show up in the ASPPH list. When in doubt, check the CEPH list of schools – if a school is not on there, they’re not CEPH accredited (though you may still want to apply). The ASPPH search engine works very much like the CEPH one, but for the reasons described, it will potentially give you some results that the CEPH engine does not (and vice versa).

Presentations by public health admissions staff
On October 9th, 2013, we were fortunate to have presentations by admissions representatives and program staff from both UW’s MPH program and the public health programs of Yale, Harvard, Princeton, and Johns Hopkins. Our guests kindly agreed to have us share their powerpoint presentations. In addition to information about the programs themselves (their basic structure, dual degree options, application requirements, etc.), the presentations include helpful details on financial aid, internships and other activities you can pursue to prepare for graduate school, and basic clarifying information about what public health means to these schools (something you should really understand when you apply!).

Those presentations (in pdf format):

UW

Yale, Harvard, Princeton, and Johns Hopkins (joint presentation)

5. Exploring graduate school in fields allied to public health (education, social work, agronomy, etc.)

If you want to support well-being of people, animals, or the environment, but you either don’t want to do a public health degree or want to complete both a public health degree and a degree that may not be commonly paired with public health, there are so many possible options that it’s harder for us to give you specific pointers here. We’ll do what we can!

As with the Council for Education in Public Health (CEPH) and The Association of Schools and Programs in Public Health (ASPPH) in the field of public health, in many fields there are one or more organizations that represent (and in some cases, evaluate and accredit) graduate programs. Finding out what those organizations are is a key first step to finding good graduate programs.

To do that, you need to first figure out the “official” names used graduate programs use for the particular kind of work you want to do. In some cases this is trickier than you might think. If you want to study agricultural sustainability, for example, you might think you’d be looking at a single type of program, but different aspects of sustainability are covered in different kinds of graduate programs. Interested in increasing the nutritional content of particular crops? You may want to study either agronomy (if you are interested in breeding “major” crops like corn, soybeans, or rice) or horticulture (if you would like to breed vegetable crops) or nutrition (if you are interested in whether modified crops actually improve human health) or education (if you want to learn how to convince people to eat modified crops). Other aspects of sustainability might be covered in soil science (do new agricultural methods protect soil?), rural sociology (how do we protect the rural communities on which farmers depend?), or degree programs with half a dozen other titles (including newish interdisciplinary MS/PhD programs with names like “Agroecology” or “Sustainability Studies”).

The single best method for figuring out what kinds of graduate programs you want to apply to is probably to talk to advisors and (even better) professors whose courses you have enjoyed or whose research is something you would like to do yourself: “I want to do X. What do you call a
graduate program where I could learn to do that, and can you recommend some good ones? Do you know of an organization that oversees those programs?"

Besides networking, you can, of course, search the web. Gradschools.com and Peterson’s are two of the more comprehensive sites. The Career Collection in College Library includes several guidebooks that are more comprehensive than free web sites.

As mentioned in section four, there is a program called Master’s International (MI) that lets you complete a master’s degree in combination with two years in the Peace Corps. You can do an MI master’s degree in many fields other than public health.

6. A quick note on programs outside the US

Any global health-related field you might study in the US is probably represented by equally good (or even better) programs in other countries. This is particularly true in countries like Australia and England that either are tropical or subtropical or used to have tropical empires. One of the world’s most famous institutions, for example, is the London School of Hygiene and Tropical Medicine, where (among many, many topics) you can do an M.S. focused on diagnosis of malaria and other parasites (how cool is that?). Particularly if you think you want to end up working abroad, a graduate degree abroad may be an option.

If you think you might want to study public/global health outside the US, you might want to poke at a database developed by the Consortium of Universities for Global Health — by clicking and unclicking boxes, you can find programs in particular countries and at particular levels (MS, PhD, etc.). You have to poke around a bit to find the web addresses of the listed programs, but they are there.

There are a few factors to keep in mind as you consider graduate work abroad:

A. (Non)portability of your degree — Some degrees are only recognized by employers in the country where they were earned. Before you commit to a graduate program in a particular country, check to see whether or not the credential you would earn is recognized in the US and other countries where you might want to work.

B. (Non)existence of financial aid — Just as US schools charge high tuition to many international students, a lot of foreign schools charge American students more for tuition than they charge students from their own country. They also may provide Americans with less (or no) financial aid.

C. Admissions requirements — Just as most American graduate programs require one or more exams (the MCAT, the GRE, etc.), many foreign programs need you to have taken an exam, particular prerequisite coursework, etc. Check these requirements carefully.

D. Language ability — If you are going to a country where the primary language is not English, check carefully to see what language is used for instruction. If it’s not English, you will need to be quite fluent in the appropriate language to do graduate-level work and will likely need to demonstrate your fluency by your performance on an exam similar to the Test of English as a Foreign Language (TOEFL) that foreign students take to study in the US.
E. General adjustment issues — Living abroad (even in another English-speaking country) requires adjustments large and small. If you have never worked or lived outside the US for more than a few weeks, jumping into a multi-year program abroad may be unwise.

7. Preparation, timing, and how to apply

Preparing to apply

Not sure you’re prepared to apply to graduate programs? Visit web sites of some programs to which you’d like to apply, taking note of things like:

A. Course prerequisites -- Some programs (e.g., MSPH with an epidemiology focus) may require you to have prerequisites like biostatistics.
B. Standardized tests you’d need to take – Many graduate programs also want you to have taken the general Graduate Record Exam (GRE), the subject specific GRE exam, and/or another test (MCAT, LSAT, etc.). This is something students often do in the summer between their junior and senior years. You can take the GRE lots of places, including electronic testing centers around Madison and other decent-sized cities. You can take online and in-person courses from Kaplan and others to prepare for the GRE, but for self-motivated students, research shows that getting a book with an associated CD containing practice tests works just about as well. Scores from the GRE are good for five years, so you can take the test during college even if you don’t plan to go to graduate school for a few years. Some public health graduate programs also accept the MCAT, LSAT, and other tests instead of the GRE. If you are not a US citizen, you may need to take the TOEFL to demonstrate English proficiency.
C. Work experience and other requirements – Most public health graduate programs want you to complete at least a year or two of work experience outside your undergraduate years before you apply, though they may be flexible about what that work involves.
D. What concentrations or tracks are offered – Does the school have a way to focus your degree on the area you’re most interested in? Or is it big enough that you think you could find something of interest to do if you’re not sure when you apply?
E. What research faculty are doing – If you can read profiles of faculty and you find yourself saying “That person is doing what I want to do!”, then that’s a good sign.
F. What alumni are doing – Same thing as reading about faculty.

Keep in mind – especially given the work requirement for many graduate programs – that you can’t or don’t need to apply right away. It can still be good, though, to look at some programs that seem interesting while you are still in college and file them away in your head as options for later and as guides for the work you do before applying.

Timing of applications

Even if you aren’t ready to apply, thinking about graduate school while you have at least one semester of college left is wise (what if you need to take a particular class as a prerequisite for the program you most want to enter?). More generally, you should be prepared to apply at least a year from when you might like to start graduate school. Most programs admit the majority of
their students to start in the fall, and accept applications from about September of the previous year through January or February of the year you would start classes (so, for example, someone wanting to start graduate school in September 2015 would want to apply Sept. 2014 and Feb. 2015). Make sure to check the precise dates of programs you want to apply to!

**How to apply**

Most accredited public health graduate programs (but not UW-Madison, sadly) use a common application called the Schools of Public Health Application Service, or SOPHAS — see [http://www.sophas.org/](http://www.sophas.org/) Check the SOPHAS web site in any given year for a list of participating institutions, application deadlines, content of the application, and other details (they have a good “Getting Started Checklist” as well as FAQs). If the school you want to apply to does not use SOPHAS, then find their application and follow the process they describe carefully.

If you are applying in a field that is public/global health related but not traditional public health, there may or may not be a single common application that covers all or even most of the schools to which you might apply.

Keep in mind that just applying to graduate school can be expensive – the costs of standardized tests plus application fees for multiple schools can easily top $500.

**8. A few tips on applying and paying for graduate school**

You might think that you would get into graduate school just by applying as directed on the web site or printed materials of a particular program. That is often how it works, but especially for PhD-level programs (and, to a lesser extent, for MS-level programs), savvy students get a head start on the application process by directly contacting one or more faculty members they would like to work with. If the faculty member makes positive noises (saying, for example, that she/he has or might have money to support a student, that she/he likes your credentials and expression of interest, and that she/he will advocate for you in the admissions process), then you go ahead and apply through the standard process but with greater assurance of getting in and having financial support once you’re in. If you’re not able to set up a deal like that, you may still get in but will need to pay your own way, at least for a year until you can do some networking and find someone who can pay you to work with them. A nice [page put together by UW’s MPH program](http://www.sophas.org/) provides some advice on funding your way through an MPH. Unsurprisingly, just as with college, many of you are likely to make it through graduate school with some combination of employment, scholarships, loans, and family support.

For PhD-level students (and, much less often, for MS-level students), there is sometimes the option to fund yourself by working as a teaching assistant in addition to or instead of working as a research assistant. Getting teaching experience is great if you want to work in higher education as a career, and may be enjoyable even if you don’t. Those who have a choice between a research assistantship and a teaching assistantship typically choose the research assistantship, at least as long as the research they will be working on is “theirs” (that is, is the work they need to complete and write up for a thesis; some research assistantships involve work your advisor/mentor needs to get done that is not “yours”).
In general, applying for public health graduate programs at any level is very different than applying to medical school. Medical schools get so many applications that they use GPA and MCAT scores as easy tools for filtering out large numbers of applicants (after which they do a more holistic process of sorting through the remaining folks). Partly because they get fewer applicants, but also because graduate education and professional work in public health are very different than medical school and the practice of medicine, most public health schools are less rigid about your numbers (that is, your GPA and standardized test scores) and pay more attention to your personal statement and your letters of recommendation. Is there still a GPA or standardized test score that’s too low? In some cases, yes — check the web sites of programs you are interested in and they may list minimum acceptable numbers.

If you are applying to do two degrees (MD and MPH, for example), bear in mind that you may need two sets of letters of recommendation, one making it clear why you are a good fit for medical school and one making it clear why public health is for you. They can come from the same people and they can even describe how you plan to merge work in one area with work in public health, but they should be different (if you were a professor of public health on an admissions committee, would you want to read a letter that said “Student X would make an excellent physician?”).