INTRODUCTION TO HEALTH CAREERS
Pre-Health Advising

• Nicole Labrecque-Blue, Program Manager
• Abby Voss, Assistant Director
• We don’t just advise pre-med... 😊
Agenda

• Exploration Resources

• Introduction to a few Healthcare Programs/Careers

• MD/DO is not the only rewarding health career!
Exploration…

ExploreHEALTHCareers  
http://explorehealthcareers.org/en/home

Occupational Outlook Handbook  
http://www.bls.gov/ooh/healthcare/home.htm

Google  
https://www.google.com
Physician Assistant: What is it?

What is a Physician Assistant

- Physician assistants work under the supervision of a physician; however, their specific duties and the extent to which they must be supervised differ from state to state.
- Physician assistants work in all areas of medicine, including primary care and family medicine, emergency medicine, and psychiatry. The work of physician assistants depends in large part on their specialty and what their supervising physician needs them to do. For example, a physician assistant working in surgery may close incisions and provide care before and after the operation. A physician assistant working in pediatrics may examine a child and give routine vaccinations.
- In rural and medically underserved areas, physician assistants may be the primary care providers at clinics where a physician is present only 1 or 2 days per week. In these locations, physician assistants confer with the physician and other healthcare workers as needed and as required by law.

Job Responsibilities

- Review patients’ medical histories
- Conduct physical exams to check patients’ health
- Order and interpret diagnostic tests, such as x rays or blood tests
- Make diagnoses concerning a patient’s injury or illness
- Give treatment, such as setting broken bones and immunizing patients
- Educate and counsel patients and their families—for example, answering questions about how to care for a child with asthma
- Prescribe medicine when needed
- Record a patient’s progress
- Research the latest treatments to ensure the quality of patient care
- Conduct or participate in outreach programs; talking to groups about managing diseases and promoting wellness
PA Program Details

• 190 accredited PA programs in the US
• Degree earned: Master’s
• Duration: 2-2.5 years
  • 1 year didactic (classroom) work
  • 1 year clinical rotations
• Pre-requisites
  • Courses – see next slide
  • Healthcare experience – PA programs are expecting that applicants have significant health and patient care related experience. Most prefer hands-on clinical experience. The required number of hours for each program vary, ranging from 250-3000 hours.
    • Most applicants complete their undergraduate degree and work for at least a year to gain experience and enhance their application.
    • Many programs ask for a LOR from your clinical healthcare supervisor.
• Standardized Test: GRE
  • Not all PA programs require the GRE. Some will also accept MCAT score in place of GRE.
MA: Physician Assistant Programs

- Requirements for PA programs vary.
- Review program websites and the links below for more information:
  Physician Assistant Education Association: http://www.paeaonline.org/
  CASPA: https://portal.caspaonline.org
Nurse Practitioner: What is it?

What is a Nurse Practitioner?

- Nurse practitioners (NPs) are advanced practice registered nurses who provide care to patients throughout the lifespan, from premature newborns to the elderly.
- They perform comprehensive and focused physical examinations; diagnose and treat common acute illnesses and injuries; provide immunizations; manage high blood pressure, diabetes, depression and other chronic health problems; order and interpret diagnostic tests such as X-rays and EKGs, as well as laboratory tests; prescribe medications and therapies; perform procedures; and educate and counsel patients and their families regarding healthy lifestyles and health care options.
- NPs can prescribe medications, including controlled substances, in all 50 states. In 26 states, NPs have authority to practice independently.

Job Responsibilities

- Ordering, performing and interpreting diagnostic tests such as lab work and x-rays.
- Diagnosing and treating acute and chronic conditions such as diabetes, high blood pressure, infections, and injuries.
- Prescribing medications and other treatments.
- Managing patients' overall care.
- Counseling.
- Educating patients on disease prevention and positive health and lifestyle choices.
Nurse Practitioner Program Details

• Direct entry programs – no nursing background required
• In 2012, there were 71 direct entry NP programs; 7 additional programs were in the development phase.
• Degree earned: Master’s
• Duration: varies, 2-4 years
• BSN and MSN? – Some programs award both degrees, but not all.
• Pre-requisites
  • Courses – see next slide
  • Healthcare experience – Not typically required by programs for admission, but it is **HIGHLY** recommended that you have exposure to nursing and the healthcare environment.
• Standardized Test: GRE
  • Not all programs require the GRE.
MA: Direct Entry Nursing Programs

- Requirements for MSN programs vary.
- Review program websites and the links below for more information:

**American Association of Colleges of Nursing:**
http://www.aacn.nche.edu/

**NursingCAS:**
http://www.nursingcas.org/

<table>
<thead>
<tr>
<th>Massachusetts Direct Entry Nursing Program Information — Fall 2014</th>
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<tbody>
<tr>
<td><strong>Institution</strong></td>
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<tr>
<td>Boston College</td>
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<td>Drexel Institute</td>
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<td>Northeastern University</td>
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<tr>
<td>Brown College</td>
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<tr>
<td>University of Massachusetts Medical School</td>
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*Please Note:* Each program may have varying degrees of flexibility regarding pre-requisite course completion and health care experience hours. Please review program websites for more specific information.
Accelerated BSN Programs

• Accelerated Nursing programs for applicants with no nursing background.
• 256 Accelerated BSN programs in US
• Degree: Bachelor’s degree
• Duration: 12-18 months
• Pre-Requisites: Similar to MSN programs – check websites
  • Healthcare experience – Not typically required by programs for admission, but it is **HIGHLY** recommended that you have exposure to nursing and the healthcare environment.
• BSN vs. MSN – patient care vs. leadership role
Physical Therapy: What is it?

What is a Physical Therapist?

- **Physical therapists (PTs)** are health care professionals who diagnose and treat individuals of all ages, from newborns to the very oldest, who have medical problems or other health-related conditions that limit their abilities to move and perform functional activities in their daily lives.

- PTs examine each individual and develop a plan using treatment techniques to promote the ability to move, reduce pain, restore function, and prevent disability. In addition, PTs work with individuals to prevent the loss of mobility before it occurs by developing fitness- and wellness-oriented programs for healthier and more active lifestyles.

- Physical therapists provide care for people in a variety of settings, including hospitals, private practices, outpatient clinics, home health agencies, schools, sports and fitness facilities, work settings, and nursing homes. State licensure is required in each state in which a physical therapist practices.

Job Responsibilities

- Diagnose and manage movement dysfunction and enhance physical and functional abilities.

- Restore, maintain, and promote not only optimal physical function but optimal wellness and fitness and optimal quality of life as it relates to movement and health.

- Prevent the onset, symptoms, and progression of impairments, functional limitations, and disabilities that may result from diseases, disorders, conditions, or injuries.

- Examinations and Evaluations
PT Program Details

• 200+ accredited PT programs in the US
• Degree earned: Doctor of Physical Therapy (DPT)
• Duration: 3 years
• Pre-requisites
  • Courses – vary; Anatomy and Physiology, Biology, Advanced Biology, Gen Chem, Physics, Psych, Stats, English
  • Healthcare experience – Most PT programs expect that you have volunteered/worked with a licensed PT. Hour requirements vary, minimum 50 hours.
    • Programs like to see experience in at least 2 work environments or with two patient populations.
    • Many programs ask for a LOR from a licensed PT.
  • Standardized Test: GRE

• American Physical Therapy Association: http://www.apta.org/ProspectiveStudents/
• PT Centralized Application Service: http://www.ptcas.org/ProgramPrereqs/
Pharmacy: What is it?

What is a Pharmacist?

- Pharmacists dispense medications prescribed by physicians and other health practitioners and monitor patient health. They advise physicians and other health practitioners on the selection, dosages, interactions and side effects of medications.

- Pharmacists must understand the use, clinical effects and composition of drugs, including their chemical, biological and physical properties. Pharmacists are the medication experts. They protect the public by ensuring drug purity and strength.

Job Responsibilities

- Pharmacists’ responsibilities include a range of care for patients, from dispensing medications to monitoring patient health and progress to maximize their response to the medication. Pharmacists also educate consumers and patients on the use of prescriptions and over-the-counter medications, and advise physicians, nurses and other healthcare professionals on medication decisions.

- Pharmacists provide expertise about the composition of medications, including their chemical, biological and physical properties, as well as their manufacture and use. They ensure drug purity and strength and make sure that medications do not interact in a harmful way. Pharmacists are the medication experts ultimately concerned about their patients’ health and wellness.
Pharmacy Program Details

- 150+ accredited Pharmacy programs in the US - graduate programs
- Degree earned: Doctor of Pharmacy (PharmD)
- Duration: 3-4 years
- Pre-requisites
  - Courses - Biology, Chemistry, Organic Chem, Microbiology, Physics, Stats, Calc, Biochem, Psych, Human Physiology
  - Healthcare experience - Not required, but recommended; would be beneficial to understand what a Pharmacist does and the nature of the work environment.
- Standardized Test: PCAT
  - Biology, Chemistry, Quantitative Reasoning, Verbal, Reading Comprehension, Essay

- American Association of Colleges of Pharmacy: [http://www.aacp.org/resources/student/Pages/default.aspx](http://www.aacp.org/resources/student/Pages/default.aspx)
- Pharm Centralized Application Service: [http://www.pharmcas.org/](http://www.pharmcas.org/)
Optometry: What is it?

What is an Optometrist?

- Doctors of Optometry (O.D.s/optometrists) are the independent primary health care professionals for the eye. Optometrists examine, diagnose, treat, and manage diseases, injuries, and disorders of the visual system, the eye, and associated structures as well as identify related systemic conditions affecting the eye.

- An optometrist has completed pre-professional undergraduate education in a college or university and four years of professional education at a college of optometry, leading to the doctor of optometry (O.D.) degree. Some optometrists complete an optional residency in a specific area of practice.

Job Responsibilities

- Doctors of Optometry prescribe medications, low vision rehabilitation, vision therapy, spectacle lenses, contact lenses, and perform certain surgical procedures.

- Optometrists counsel their patients regarding surgical and non-surgical options that meet their visual needs related to their occupations, avocations, and lifestyle.

- Optometrists are eye health care professionals state-licensed to diagnose and treat diseases and disorders of the eye and visual system.
Optometry Program Details

• 21 accredited Optometry programs in the US
• Degree earned: Doctor of Optometry (OD)
• Duration: 4 years
• Pre-requisites
  • Courses – similar to pre-med; Microbiology, Calc, Stats, Psych
  • Healthcare experience – No minimum requirement; 100 hours of healthcare experience/exposure.
    • Many programs ask for a LOR from an Optometrist.
  • Standardized Test: OAT
    • Natural Sciences (biology, general chem, organic chem), Physics, Quantitative Reasoning, and Reading Comprehension

• American Optometric Association: http://www.aoa.org/about-the-aoa/what-is-a-doctor-of-optometry?sso=y
• Optometry Centralized Application Service: http://www.optomcas.org/
Podiatry: What is it?

What is a Podiatrist?

• A podiatrist is a doctor of podiatric medicine (DPM), also known as a podiatric physician or surgeon. Podiatrists diagnose and treat conditions of the foot, ankle, and related structures of the leg.

• Podiatrists are the most qualified doctors to care for your feet. They complete four years of training in a podiatric medical school and three years of hospital residency training. This training is similar to that of other doctors.

• Podiatrists can specialize in many fields, including surgery, sports medicine, wound care, pediatrics (children), and diabetic care, orthopedics, dermatology, physical medicine and rehabilitation.

Job Responsibilities

• A Doctor of Podiatric Medicine (DPM) specializes in the prevention, diagnosis, and treatment of foot disorders, diseases and injuries. A DPM makes independent judgments and performs or orders all necessary diagnostic tests.

• They perform surgery; administer medications, including DEA-restricted medications; and prescribe physical therapy regimens.

• DPMs often detect serious health problems that may otherwise go unnoticed, because a number of diseases manifest first through symptoms of the lower extremities (i.e., diabetes, arthritis, heart disease, or kidney disease).
Podiatry Program Details

• 9 accredited Podiatric Medical Colleges in the US
• Degree earned: Doctor of Podiatric Medicine (DPM)
• Duration: 4 years professional program / 3 year residency
• Pre-requisites
  • Courses – similar to pre-med
  • Healthcare experience – No minimum requirement; 100 hours of healthcare experience/exposure.
    • Many programs ask for a LOR from a Podiatrist.
  • Standardized Test: MCAT (US DAT or GRE is accepted by SOME programs)

• American Podiatric Medical Association: https://apma.org/index.cfm
• Centralized Application Service: https://aacpmas.liaisoncas.com/applicant-ux/#/login
More healthcare careers...

- Anesthesiologist Assistant
- Pathologist Assistant
- Medical Dosimetrist (Physics or Math)
- Occupational Therapy
- Chiropractic
- Naturopathic Medicine
- Healthcare Administration
- Public/Community Health
- Social Work
Past workshops

Slides from past workshops can be found at: http://www.brandeis.edu/acserv/health/events/slides.html

- Allopathic Physician (MD) vs. Osteopathic Physician (DO)
- Physician Assistant and Nurse Practitioner
- Dentistry, Podiatry, and Optometry
CONTACT PRE-HEALTH ADVISING

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QUICK QUESTIONS DROP-IN APPOINTMENTS
MONDAY – FRIDAY, 1:30-2:30PM