1st draft

Health Policy, Advocacy, Law, and Medicine Curriculum Reform Subcommittee

Population and Public Health working group

April 2018

A. PROGRAM NAMES: Attached please find reports on the following programs:

- Duke University
- UVA
- University of Pittsburg
- Case Western
- University of Louisville

B. ADDITIONAL programs to look into:

- McMaster Medical School

C. PRIORITY IDEAS

We were very excited about some aspects of the programs we investigated. This includes both large and smaller concepts/programs to consider.

1. **LGBTQ Equality project-**
    a. Description-
        i. Integrating sex/gender/sexuality into endocrine block, giving the basic terms, providing students an opportunity to interact with LGBTQ patients, reviewing LGBTQ cases, presenting gender affirmation medicine
        ii. Use communications course to help students become more comfortable with patients of gender and sexual minority groups
        iii. Use IPED/PBL for students to have at least two cases centered around LGBTQ health disparities/struggles (because one case is not enough to cover a spectrum)
    b. Example- Louisville

2. **Becoming a Doctor- 5 week 1st block on population health and a doctor's role in society**
    a. **Description-** Case Western's first block, Becoming a Doctor, five weeks in duration, gives students an understanding of population health and the doctor's role in society. Typically students begin their medical education by studying basic science at the molecular level, and are often not fully aware of the relevance that this knowledge has in their future education as physicians or how it relates to the actual practice of medicine. Covers: how physicians can act as advocates for their patients in the health care system; how social and environmental factors impact health; and the importance of population health. Medical students participate in a variety of experiential, longitudinal, learning experiences including epidemiology,

biostatistics, community assessment, health risk behavior, and social-environmental determinants of health.
Pittsburgh's Intro to Being a Physician Course (1st week of Medical School): helps students learn from the beginning that their responsibilities include care of communities not just individual patients, that achieving better health depends on much more than a well educated physician, and that prevention is just as important and often more effective than sophisticated treatment. Projects in health literacy and poverty are introduced very early in the clinical setting in 1st year.
UVA has about a month and a half of "non-medical" education at the beginning of first year, which seems as though they instruct their students on what it means to hold the title of a physician before giving them the academic side of medicine. Then it seems as though they reinforce those ideas through the curriculum with their weekly PBL cases and integrating societal/cultural issues into disease processes that they learn.

b. **Examples**- Case Western, Pittsburgh, UVA,

3. **Population Health Course**
   a. **Description**- Pittsburgh's 2nd year required course covers six major topics: health care finance, public health, social determinants of health, global health, patient safety, and health care reform. Goal of the course is for students to develop a deeper understanding of the interconnected issues that influence the health of populations. Duke integrates population health throughout the curriculum. Cultural determinants of health and health disparities are introduced in their clinical skills foundations (fall years 1 and 2)
   b. Example- Pittsburgh, Duke, see Case Western as well (these two could fit together in a Case-Western style intro)

4. **Individualization of course work**
   a. Description- Duke curriculum allows individualization of courses and experiences- the sequence and placement of events may differ among students. UVA has threads like CU's, but includes: Disabilities, Human Sexuality/LGBT, Nutrition, Pain Management, Palliative Care. Pittsburgh curriculum allows considerable individualization of course work – each student picks an area of concentration with unique electives, 1:1 mentorship and required scholarly work. This would allow students with interest in the topic area to take a much deeper dive and use time in 4th year to do meaningful learning
   b. Examples: UVA, Duke

5. **Ethics/Humanity/Law**
   a. **Description-** develops a critical understanding of the multiple factors that affect the practice of medicine, public health and research. Teaches about the interface between medical practice and health systems (including

socio-economic and public policy issues). Incorporates ethical principles in clinical practice and research

b. Vanderbilt has a Structural Competency Masters degree (targets pre-health students)

c. Examples- Duke, Vanderbilt

6. **Stronger PBL program/Cultural education/Making critical thinking a core competency-**
    a. **Description**
        - Giving lectures on basics, but encourage other ways of learning.
        - Small groups on other topics- two PBL cases and small group discussions per week. UVA has weekly/biweekly small groups (with pre-reading) on cultural education throughout the curriculum.
        - Supporting questioning and critical thinking- McMaster medical school uses an intensive, hands-on approach to learning medicine through Problem-based Learning. The problem is used to help students identify their own learning needs as they attempt to understand the problem, to pull together, synthesize and apply information to the problem, and to begin to work effectively to learn from group members as well as physician tutors. Tutorials occur twice a week. Students are expected to study and research the case and present their findings during that week's second tutorial.
        - Case Western appears to support faculty well for this- "Provide development around interactive teaching and facilitation of student-centered discussions"
    b. **Examples**- UVA, McMaster medical school

Individual Reports:

Program name- Case Western J. Meredith

1**. Content Covered *(HIGHLIGHTS)***

The WR2 Curriculum has 10 Guiding Principles:

1. The core concepts of health and disease prevention are fully integrated into the curriculum.
2. Medical education is experiential and emphasizes the skills for scholarship, critical thinking, and lifelong learning.
3. Educational methods stimulate an active interchange of ideas among students and faculty.
4. Students and faculty are mutually respectful partners in learning.
5. Students are immersed in a graduate school educational environment characterized by flexibility and high expectations for independent study and self-directed learning.
6. Learning is fostered by weaving the scientific foundations of medicine and health with clinical experiences throughout the curriculum. These scientific foundations include basic science, clinical science, population-based science, and social and behavioral sciences.
7. Every student has an in-depth mentored experience in research and scholarship.
8. Recognizing the obligations of physicians to society, the central themes of public health, civic professionalism and teamwork & leadership are woven through the curriculum.
9. The systems issues of patient safety, quality medical care, and health care delivery are emphasized and integrated throughout the curriculum.
10. Students acquire a core set of competencies in the knowledge, mastery of clinical skills and attitudes that are pre-requisite to graduate medical education. These competencies are defined, learned and assessed and serve as a mechanism of evaluation of the school's success.

3. Competencies

The medical education programs at Case Western Reserve University School of Medicine are based on nine core competencies. The following competencies and Educational Program Objectives describe the knowledge, skills and behaviors a student must demonstrate to qualify for an MD degree. **(MORE DETAIL AVAILABLE)**

Research and Scholarship: Demonstrates knowledge and skills required to interpret, critically evaluate, and conduct research

Knowledge for Practice: Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care

Interpersonal and Communication Skills: Demonstrates effective listening, written and oral communication skills with patients, peers, faculty and other health care professionals in the classroom, research and patient care settings

Professionalism: Demonstrates commitment to high standards of ethical, respectful, compassionate, reliable and responsible behaviors in all settings, and recognizes and addresses lapses in behavior

Personal and Professional Development: Demonstrates the qualities required to sustain lifelong personal and professional growth

1. Critically reflects on personal values, priorities, and limitations to develop strategies that promote personal and professional growth
2. Recognizes when personal views and values differ from those of patients, colleagues, and other care givers and reflects on how these can affect patient care and research
3. Identifies challenges between personal and professional responsibilities and develops strategies to address them

Patient Care: Demonstrates proficiency in clinical skills and clinical reasoning; engages in patient-centered care that is appropriate, compassionate and collaborative in promoting health and treating disease

Teamwork and Interprofessional Collaboration: Demonstrates knowledge and skills to promote effective teamwork and collaboration with health care professionals across a variety of settings

1. Performs effectively as a member of a team
2. Respects and supports the contributions of individuals on an Interprofessional health care team to deliver quality care

Systems-based Practice: Demonstrates an understanding of and responsiveness to health care systems, as well as the ability to call effectively on resources to provide high value care

Reflective Practice: Demonstrates habits of ongoing reflection and analysis to both identify learning needs and continuously improve performance

1. Demonstrates habits of ongoing reflection using feedback form others as well as self-assessments to both identify learning needs and practice continuous quality improvement

5. Educational Strategy/Pedagogy:

- The first block, Becoming a Doctor, is five weeks in duration, and gives students an understanding of population health and the doctor's role in society. Typically students begin their medical education by studying basic science at the molecular level, and are often not fully aware of the relevance that this knowledge has in their future education as physicians or how it relates to the actual practice of medicine. This curricular block focuses on how physicians can act as advocates for their patients in the health care system; how social and environmental factors impact health; and the importance of population health. Medical students participate in a variety of experiential, longitudinal, learning experiences designed to introduce them to key population health concepts including epidemiology, biostatistics, community assessment, health risk behavior, and social-environmental determinants of health.
- Curriculum- n/a so far.

Competencies & Educational Program Objectives- Key Features

Flexibility

- Emphasize independent study and scheduling choices
- Begin mentored experiences in research during the first 18 months, and provide multiple opportunities in the schedule for a dedicated 4 month research block and future ongoing research experiences
- Redesign elective structure to supplement educational experiences in core curriculum

Process of Teaching and Learning

- Focus on the amount of student-focused and self-directed learning time instead of calculating the amount of teaching time
- Promote student responsibility for learning
- Hold 3 interactive student-centered discussions/week
- Schedule a maximum of 20 contact hours/week (including student-centered discussions, laboratories, lectures, clinical skills, etc.)
- Emphasize clinical mastery through clinical exposure and simulation.
- Emphasize learning from multiple sources (including a rich array of web-based resources) and limit the use of an extensive syllabus

Content

- Initiate medical school education at the macro level with a focus on the social and behavioral context of health and disease in the broader population.
- Identify new educational focus at the interface of clinical medicine and public health
- Weave biomedical science, population health, scholarship, clinical medicine, leadership and civic professionalism longitudinally across the curriculum
- Create clinical experiences within biomedical and population sciences, as well as basic science instruction within clinical rotations
- Recommit to clinical mastery in the craft of Medicine

Faculty Support

- Provide development around interactive teaching and facilitation of student-centered discussions
- Foster clinical teaching faculty who directly observe students' clinical skills
- Provide financial and academic support for faculty curriculum leaders during curriculum design, implementation and ongoing delivery
- Provide enhanced financial support and academic rewards for the instruction of medical students

6. Assessment

- Change assessments from methods that emphasize passive learning (e.g., the memorization and recall of specific facts to methods that emphasize active learning and concept synthesis
- Define core competencies for clinical mastery
- Evaluate all elements of the new system rigorously

PRIORITY IDEAS

- 5 week “The first block, Becoming a Doctor”

University of Louisville
Max Cabrera

Content covered

- LGBTQ health education (median 5 hours of LGBTQ education nationwide)

Competencies

- **Clinical skills**
  - The ability to recognize elder, child, and partner abuse, including neglect, physical abuse, sexual abuse, and emotional abuse.
- **Communication**
  - Active listening with ethnic, racial, and cultural sensitivity.
- **Social, Cultural and Community Contexts of Health**
  - A commitment to promote patient and community health.
  - An understanding of population-based medicine, broad public health issues and resources.
  - The ability to educate patients, families, and communities about modifiable risk factors and how to move toward healthy behaviors and lifestyles.
  - Knowledge of the unique problems facing special populations and specific occupations.
  - The ability to apply health screening and disease surveillance guidelines.
  - An understanding of the guidelines for disease prevention through immunization; disease reporting; and other chemical, environmental, and public health procedures.

Audience (year, core/elective, etc.)

- Core, currently predominately preclinical, but has started to be introduced into clinical clerkships (psychiatry, pediatrics, OB/GYN)

Educational strategies/pedagogy

- During endocrine block:
  - 8:20-9:10 am: didactic session on transgender medicine and management of transition
  - 9:15-9:35 am: transgender patient introduction and Q&A.
  - 9:35-9:50 am: mock patient encounter with gender-dysphoric patient
  - 10:00 am-12:00 noon: LGBT health care disparities curriculum, panel discussion, and small-group case exercises
  - https://www.mededportal.org/publication/10536/
- IPED-like conference involving (1) 10 minute sharing of experiences of LGBTQ individuals in a healthcare setting (2) 25 minute lecture on health disparities and social determinants of health in LGBTQ communities (3) 25 minute case discussion

(transgender woman experiencing domestic partner abuse and a questioning teen experiencing depression) (4) 15 minute debrief
    - https://www.mededportal.org/publication/10551/

Assessment
- Endocrine block course
    - 73% stated they were more prepared to care for transgender patients than before, and 26% felt equally as prepared.

Outcomes
- IPED conference:
    - Improved knowledge and attitudes related to LGBTQ health equity
    - High rate of referrals from students, suggesting a disconnect in application of knowledge, so they plan on including more targeted questions for why people referred

Lessons learned
- 50.5 hours of required curriculum time in LGBTQ, GNC, and DSD individuals
    - Integrated into 33 hours of existing content
    - 17.5 hours of LGBTQ patient information

Priority ideas
- Integrating sex/gender/sexuality into endocrine block, giving the basic terms, providing students an opportunity to interact with LGBTQ patients, reviewing LGBTQ cases, presenting gender affirmation medicine
- Use communications course to help students become more comfortable with patients of gender and sexual minority groups
- Use IPED/PBL for students to have at least two cases centered around LGBTQ health disparities/struggles (because one case is not enough to cover a spectrum)

UVA
Max Cabrera

Content covered:

- Cultural competencies

Competencies:

Pre- and during clerkship cultural competencies that seemed unique

- Describe historical models of common health beliefs (for example, illness in the context of “hot and cold”) and identify health practices and beliefs that might be important in a specific local community.
- Identify patients’/families’ healing traditions/practices and beliefs, including ethno-medical beliefs
- Describe the impact of the patient’s context (cultural heritage, gender, class, ethnic-racial identity, sexual orientation, disability, age and spirituality) on clinical decision making.
- Recognize and describe how access, historical, political, environmental, and institutional factors (including racism and discrimination) impact health and underlie health and healthcare disparities.
- Describe the functions of an interpreter and effective ways of working with an interpreter. Identify when an interpreter is needed and collaborate effectively with an interpreter.
- Models used
    - National Standards for Culturally and Linguistically Appropriate Services (CLAS)
        - Provide effective, equitable, understandable and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy and other communication needs.
    - LEARN
        - Listen with sympathy and understanding to the patient's perception of the problem (
        - Explain your perceptions of the problem
        - Acknowledge and discuss the differences and similarities
        - Recommend treatment
        - Negotiate agreement
    - Kleinman's Explanatory Model questions
        - What do you call your illness? What name does it have?
        - What do you think has caused the illness?
        - When did it start and why do you think it started?
        - What do you think your illness does to you? How does it work?
        - How severe is your illness? Will it have a short or long course?
        - What kind of treatment do you think you should receive? What are the most important results you hope to receive from this treatment?

        - What are the biggest problems your illness has caused for you?
        - What do you fear most about your illness?

https://med.virginia.edu/ume/wp-content/uploads/sites/216/2015/09/Cultural-Competence-objectives-preclerkship.pdf

Audience (year, core/elective, etc.)

- Seems to be all core information, I don't think UVA allows first/second years to take electives or has any electives

Educational strategy/pedagogy

- **Cells to Society**: 3 day-experience in which students focus on a disease through its cellular and societal components, beginning of first year
    - Could be something like the presentation Dr. Lee and Dr. Kaul gave during orientation followed by small group discussions on cases (similar to PBL) focusing on the areas that impact health
- **Foundations of Medicine and Cells, Tissues and Mechanisms of Disease** includes foundational elements of human behavior, doctor/patient relationship, decision sciences, and standard medical stuff
- **Integrated Organ Systems** with clinical skills ranging from physical examination to addressing cultural and social issues, including public health policy
- **Social Issues in Medicine/Exploratory** experience also runs concurrently with and is fully integrated into each system. SIM helps students recognize and analyze the interrelationships between socio-cultural environments and the occurrence, prevention, and treatment of disease

Assessments

- Almost all of the links relating to curriculum assessments were broken

Outcomes

- Above

Lessons learned

- UVA has threads like CU's, but includes: Disabilities, Human Sexuality/LGBT, Nutrition, Pain Management, Palliative Care,
- UVA has about a month and a half of "non-medical" education at the beginning of first year, which seems as though they instruct their students on what it means to hold the title of a physician before giving them the academic side of medicine. Then it seems as though they reinforce those ideas through the curriculum with their weekly PBL cases and integrating societal/cultural issues into disease processes that they learn

Priority ideas

- Block of cultural education that then gets threaded into the curriculum with weekly/biweekly small groups that have pre-reading (hopefully the amount of lecture time will be reduced, so more time for exploration can be allotted)

Food for thought:

Bring in patients (like sickle cell) and focus on racial inequities in health care they face

A standard LEADS project, but for everyone? (community organization collaboration, could be rural, underserved, global aka refugee)

Electives:

- Adoption and foster care elective/teaching about non-traditional families, panels
- Domestic violence
- Physician advocacy
- LGBTQ health
- Refugee health

If people are shortening the academic period, how about a block of cultural education? Or a week?

Put some type of diversity in graduation requirements

UPitt:

- Poverty simulation exercise: pretend to be impoverished (or see what life is like with those options)? Be allotted a certain number of days? Maybe do it during clinical interlude?
- Scholarships: emergency loan fund

Make the diversity page visible, accessible, and functional

University of Pittsburgh – Jennifer Adams

Population Health Course

- Content Covered
- Six major topics are being addressed: health care finance, public health, social determinants of health, global health, patient safety, and health care reform. goal of the course is for students to develop a deeper understanding of the interconnected issues that influence the health of populations
- Competencies
- Audience (yr, core/elective etc)
    - 2nd year medical school course
    - required curriculum
- Educational Strategy/Pedagogy
- The learning modalities include self-study of background materials plus various application activities.
- background materials provide an opportunity to learn the basic knowledge on the topic, and include video presentations and selected readings.
- application activities: problem-solving exercises, identify key issues, and participate in a unique simulation exercise.
- methods:
    - large group didactics
    - self-study assignments
    - poverty simulation exercise
    - small group exercises
    - written assignments
- course objectives:

1. Describe strategies for physicians to improve the health of their patient population.
2. Discuss the relationship of socioeconomic differences to health status.
3. Discuss factors contributing to disparities in health care and potential interventions.
4. Outline variables that influence access to health care.
5. Discuss the special needs of vulnerable populations in Western Pennsylvania.
6. Explain public, employer and personal sources of health care payment.
7. Explain the differences between Medicare, Medicaid and commercial insurance.
8. Describe the challenges faced by patients attempting to understand their health insurance choices.
9. Define health care quality, medical error and adverse outcome.
10. Discuss the impact of medical error and the importance of communication and teamwork in preventing error.

- Assessments
    - pass/fail course
- a student must complete all assignments and participate in all face-to-face sessions. In addition, a student must receive a passing grade of at least 60% on the final exam.
- Outcomes

- Lessons Learned

Population and Public Health Curricular Themes

- Content Covered
- Competencies
- Audience (yr, core/elective etc)
    - these are longitudinal in nature, spanning 4 years
    - some required, some elective
- Educational Strategy/Pedagogy

- Intro to Being a Physician Course (1st week of Medical School): learn from the beginning that their responsibilities include care of communities not just individual patients, that achieving better health depends on much more than a well educated physician, and that prevention is just as important and often more effective than sophisticated treatment.
- Areas of concentration for dedicated study (topic elective, but everyone must choose one): underserved medicine, women's health, geriatrics, global health and public health. **others do not related as directly to public/population health
    - longitudinal electives through 4 years
- Content and didactic material, including journal clubs, literature review, national meeting participation, syllabus, and reading lists
- Faculty mentorship
- Experiential component
- Preparation of a scholarly project, often including presentation at a local or national forum in 4th year
- Evaluation of student participants
    - Prevention Course (examples of longitudinal content)
- Among the activities in this course is a student project on developing patient educational materials. This project helps students develop unique insights about the challenges of communicating with patients, that barriers posed by low health literacy, and the potential power of the media in improving public health.
- immunization for preventable illness is taught in the context of the Medical Microbiology course and re-emphasized during the Pediatrics, Family Medicine, Combined Ambulatory Medicine and Pediatrics (CAMPC), and Obstetrics and Gynecology clerkships.
- Anticipatory guidance and preventive concepts such as the use of bicycle helmets and seatbelts and firearm safety, are initially addressed in the Clinical Experiences course but are later emphasized during the pediatrics aspects of the clerkship year.
    - Clinical Experiences course (years 1-2) ie. FDC
- 2 core objectives: 1) to appreciate the human and social context of medical care delivery such as cultural sensitivity and health literacy. 2) to observe the impact of health care financing on medical practice
- includes service learning project required for all students
    - Obesity and Nutrition Theme
- In basic science courses, overweight and obesity content is introduced in the context of other coursework, particularly where its impact as a co-morbid condition helps students gain perspective on the impact of obesity on health.

- In the Behavioral Medicine course taught during the latter half of the first year, the curriculum includes sessions on overweight and obesity. In an interactive lecture, students learn about the epidemiology and consequences of obesity. During this session, they are encouraged to think about solutions for individual patients and for populations, including changes in public policy
- Subsequent course sessions address behavioral aspects of diet and nutrition; psychosocial, behavioral, and therapeutic issues in obesity; complementary and alternative approaches to weight loss; and surgical treatments
-motivational interviewing (MI) as our main practical therapeutic technique for the course; students practice MI techniques on patients with weight problems, laying a foundation for clinical rotations to come. The obesity theme is then contextualized in the clinical curriculum.
    - 4th year electives
- Examples include a month-long rotation with Operation Safety Net , a mobile service providing medical care on the streets of Pittsburgh, and elective rotations in public health conducted in conjunction with the Graduate School of Public Health. Students may also opt for customized rotations crafted around their individual interests in areas such as healthcare finance or patient safety.
- Assessments
    - required courses are graded
- Outcomes
- Population medicine, public health and prevention have been incorporated as fundamental curriculum themes throughout the UPSOM curriculum
- Lessons Learned

- **PRIORITY IDEAS**

1. Population health course robust with significant time dedicated, multiple requirement and an exam – Graded course. I think this would allow students to value the content equally with science courses in the pre-clerkship timeframe
2. curriculum allows considerable individualization of course work – each student picks an area of concentration with unique electives, 1:1 mentorship and required scholarly work. This would allow students with interest in the topic area to take a much deeper dive and use time in 4th year to do meaningful learning
3. Service learning required for all students in 3rd year as part of the Doctoring course
4. Themes in social medicine and projects in health literacy and poverty introduced very early in the clinical setting (1st year) when students first exposed to patients

Duke University School of Medicine– Regina Richards

Major topics being addressed: Cultural determinants of health and health disparities, quantitative medicine and decision making (1 & 2), health policy and global health, scholarly experience (biomedically related research)

- Integration of basic, clinical, psychophysical and population information and skills throughout the four years of medical school
- Structured active learning which includes explicit experience in leadership and cooperative roles
- Mentorship of students by faculty in all facets of the learning process

- Competencies

Education Program Objectives

- acquire an understanding of core basic and clinical science knowledge;
- develop the clinical skills to care for diverse patient populations;
- explore how scientific investigation transforms medical knowledge and clinical care;
- demonstrate creativity, leadership, scholarship, and teamwork;
- direct and practice respectful patient-centered care;
- display professional, ethical and humanistic behaviors; and
- build the skills necessary to be a lifelong learner.

Domains Include:

#1 – Patient Care
#2 – Knowledge of Practice
#3 – Practice-Based Learning Improvement
#4 – Interpersonal and Communication Skills
#5 - Professionalism
#6 – Systems Based Practice
#7 – Interprofessional Collaboration
#8 – Personal and Professional Development
#9 – Scientific Foundations of Health and Disease
#10 – Research and Scholarly Activity

- Educational Strategy/Pedagogy

- General introduction to basic and clinical science for one year each, followed by two years of individualized curricular options that promote professional diversity and personal development
- Application activities:

DID NOT INDICATE

- Methods:

- Flipped classroom – Team Based Learning
- Incorporation of information technology and use of computer and simulation into student learning and evaluation

- Assessments

Progress monitoring of knowledge, skills and attitudes appropriate for future goals of each student

- Content Covered

Learning Objectives – by graduation each medical student will be able to:

Scientific Foundations

Goal 1: Understand the normal structure and function of the human body, at levels from molecules to cells to organs, to the whole organism.
Goal 2: Understand the basic principles of human behavior.
Goal 3: Describe the major pathological processes and their biological alterations.
Goal 4: Describe how the major pathological processes affect the organ systems.
Goal 5: Integrate basic science concepts with clinical reasoning.

Basic Clinical Skills

Goal 6: Establish and maintain appropriate therapeutic relationships with patients.
Goal 7: Obtain a sensitive, thorough medical history.
Goal 8: Perform a sensitive and accurate physical exam.
Goal 9: Able to perform general clinical procedures
Goal 10: Develop the knowledge, skills and attitudes needed for culturally competent care.
Goal 11: Participate in discussions and decision-making with patients and families.
Goal 12: Work effectively with other providers in the health care arena.
Goal 13: Clearly communicate medical information in spoken and written form.

Prevention

Goal 14: Develop knowledge, skills and attitudes to practice basic principles of prevention.
Goal 15: *Not Indicated*
Goal 16: Understand health planning for communities and populations.

Diagnosis

Goal 17: Demonstrate sound clinical reasoning.
Goal 18: *Not indicated*
Goal 19: Appropriately use testing to help guide diagnostic and therapeutic decisions.
Goal 20: Diagnose and demonstrate basic understanding of common diseases and conditions.

Treatment, Acute and Chronic

Goal 21: Understand therapeutic options and participate in the care of patients with common problems.
Goal 22: Recognize acute life-threatening medical problems and initiate care.
Goal 23: Acquire the knowledge and skills necessary to assist in the management of chronic diseases.

Patient Safety and Quality Improvement

Goal 25.1: Identify, report, and identify strategies for mitigating common sources of medical errors.
Goal 26: Understand and apply models of Quality Improvement.

Information Management

Goal 28: Use information and educational technology to facilitate research, education, and patient care.

Ethics, Humanities and the Law

Goal 29: Develop a critical understanding of the multiple factors that affect the practice of medicine, public health, and research.
Goal 30: Understand the interface between medical practice and health systems, including the related socio-economic and public policy issues.
Goal 31: Incorporate ethical principles in clinical practice and research.

Professionalism

Goal 32: Demonstrate professional behaviors.
Goal 33: Model service to patients and community.

Leadership

Goal 34: Develop skills to become tomorrow's physician leaders.

Scholarship and Life Long Learning

Goal 35: Develop skills for scholarly investigation, pursuit of new knowledge, and transmission of knowledge to others.

Goal 36: Demonstrate commitment to life-long pursuit of learning.
Goal 37: NOT LISTED
Goal 38: Engage in Evidence-Based Medical Practice

- Year 1 – (Basic Science)

The MS1 year introduces you to the building blocks of medicine--the basic sciences. Duke pares these subjects down to the essentials you'll need in medical practice. Basic science content is integrated into four interdisciplinary courses enabling students to learn the material within the appropriate context. Clinical Correlations tie basic science content to the clinical context through the use of Team Based Learning. In addition, students will take courses in Practice, Interprofessional Education and Leadership.

- Year 2 (Clinical Rotations)

During MS2, principles learned in the first year basic science courses will come to life and be continually reinforced as you work with a variety of patients during the clinical clerkships.

The second year consists of eight core clerkship rotations, a longitudinal Practice course and Clinical Skills course, a Health Policy/Global Health course, two Selective periods and a summative Clinical Skills assessment.

- Year 3 (Scholarly Research)

In the first two years of the program, the overview of basic science, Practice and Clinical Skills courses, clinical rotations and selectives all combine to enable you to make thoughtful decisions about the path you want to pursue during the third and fourth years. Duke's unique third year is a time of opportunity to study an area of particular interest in depth--a time to gain special insight into your long-term career goals and mature your approach to medicine.

During the third year, you will spend 10 – 12 months of scholarly investigation and complete your clinical electives. You may also choose to do a dual degree program as part of a quantitative research thesis.

- 4th (Year Electives)

The clinical elective experience, usually occurring in the fourth year, is used to: (a) aid in decision-making about the area of choice of postgraduate training, (b) obtain experiences in areas that would not be included in that postgraduate training and, above all, (c) pursue active experiences in patient care sufficient to provide the basic skills necessary for doctor-patient interaction. Students are required to complete 28 hours of coursework including a four-week, five credit sub-internship, a four-week critical care elective, and the Capstone course.

- Outcomes

In the 1960s, faculty leaders here at Duke began a bold experiment to increase the opportunities for medical students to tailor their education to serve students' personal interests and career goals. Our first year curriculum includes four integrated basic science courses that are taught around organ systems, and we have 10-to-12 months of devoted time to investigate scholarly experiences in biomedically related research.

- Lessons Learned

DID NOT INDICATE

- **PRIORITY IDEAS**

1. Population health is integrated throughout the curriculum with specific goals defined and measured.
2. Curriculum allows individualization of courses and experiences required for completion of the MD degree. Foundations for Excellence Curriculum indicates " the sequence and placement of events may differ among students". The curriculum also indicates 1:1 mentorship from faculty of all students required in scholarly work.
3. Service learning required for all students as defined and measured in Goal 33.
4. Cultural determinants of health and health disparities introduced in clinical skills foundations (1 & 2)
5. Four weeks of dedicated Step 1 Study Time is provided

***Students are also required to take Step 1 and Step 2 CK and CS exams prior to graduation. (Passing is not required to progress through the curriculum or graduate.) For more information about these exams click here. (http://www.nbme.org)