

- What does the MCAC do?
- Do I need the MCAC?
- How do I get to medical (dental, optometry, etc.) school?
- How do I become pre-med?
- Where do I get reliable information?
- What do I need to apply?
- Am I a good candidate for medical school?
- What courses do I need?
- Do I have to be a biology major?
- Do minors help?
- Do I need to shadow more than one doctor?
- Do I need research?
- When should I get started?
- What are my chances of getting in?
- How important is the MCAT?
- Is the GPA more important than the MCAT?
- Does my major matter at all?
- Is my C in Orgo going to keep me out of medical school?
- What is the minimum GPA to apply? Is there a minimum MCAT to apply?
- MD vs DO?

- **Can you talk to my parents?***
- **How long should I study for the MCAT?**
- Should I take an MCAT prep course?
- When should I take the MCAT?
- I want to stay (or leave) NJ?
- Which schools? How many?
- Does it help to be in state?
- **When should I apply?**
- Is it better to apply early?
- How many letters of recommendation?
- **Who gets a composite letter?**
- **What happens if I don't get a composite letter?**
- What are my chances of getting in?
- Should I take the MCAT again?
- Should I apply to MD, MD and DO, or DO only?
- What happens if I apply later in the cycle?
- **When should I think about a gap year(s)?**
- When will I know if I get in?
- If I'm on the waitlist does it mean I'll get in?
- What happens if I don't get in?
- Are post-bac programs worth it?

Medical Careers Advisory Committee (MCAC)

MCAC Chair

- Sudhir Nayak, PhD
- Professor of Biology
- >15 years at TCNJ

MCAC Administrative Support

- Ms. Helen Kull
- General Advisor, Program Assistant, and Knower of Things
- Department of Biology
- >15 years at TCNJ

Ad Hoc MCAC Members (examples):

Biology: Dr. Jeffery Erickson, Dr. Tracy Kress

Chemistry: Dr. David Hunt*, Dr. Benny Chan

Engineering: Dr. Christopher Wagner

Public Health: Dr. Brenda Seals

Psychology: Dr. Andrew Leynes, Dr. Betsy Ruddy

MCAC

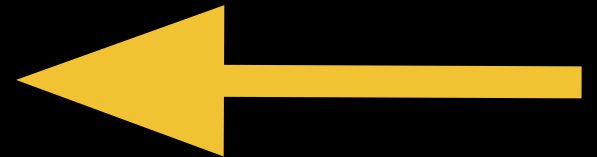
- Assist **TCNJ students and alumni** applying to medical school and other health professional schools
 - Help students **from any major**
- Provide validated resources
- Data-driven advising and mentoring
- Generate the **composite letter**

Useful resources

- [TCNJ MCAC website](#)
- PAWS for **everyone** (next slide)
 - QR code to sign up
- Canvas course for juniors and seniors **only**
 - Most courses completed
 - MCAT completed or scheduled
 - By request through mcac@tcnj.edu
- **Soon:** Canvas course for freshmen and sophomores



**Form to Join
Health
Professions
Student Group**



What is pre-med?

What is pre-med?

- **It's not a thing - just a series classes**
 - Useful for planning
 - Useful for advising
 - It does not get you anything
 - It does not guarantee you anything
- No official pre-medical track or degree at TCNJ

Pre-med potato and turtle



You want to be a physician

MD (Allopathic) -vs- DO (Osteopathic) Medicine

- **Both programs = physician**
- Similarities
 - 4 year course of study
 - Residencies programs vary - **Most programs are accepting either exam (USMLE or COMLEX)**
- Differences
 - Philosophy
 - >60% of DO graduates are in primary care
 - <30% of MD graduates are in primary care
 - Criteria for acceptance

Timeline

- 1st year and 2nd year
 - **DO NOT need the MCAC** (presentations, general information, MCAC website, **PAWS**)
- What should you do?
 - Develop skills (testing, study, time management)
 - Grades should be strong (>3.5 overall, >3.5 STEM)
 - Engagement (**AMSA**, Tri-beta, etc.) and activities
 - Make sure you are getting a return on investment of time
 - Volunteer toward the greater good (summer/semester)
 - Shadowing for medical experience (summer/semester)
 - Plan for possible summer certifications (EMT, CNA)

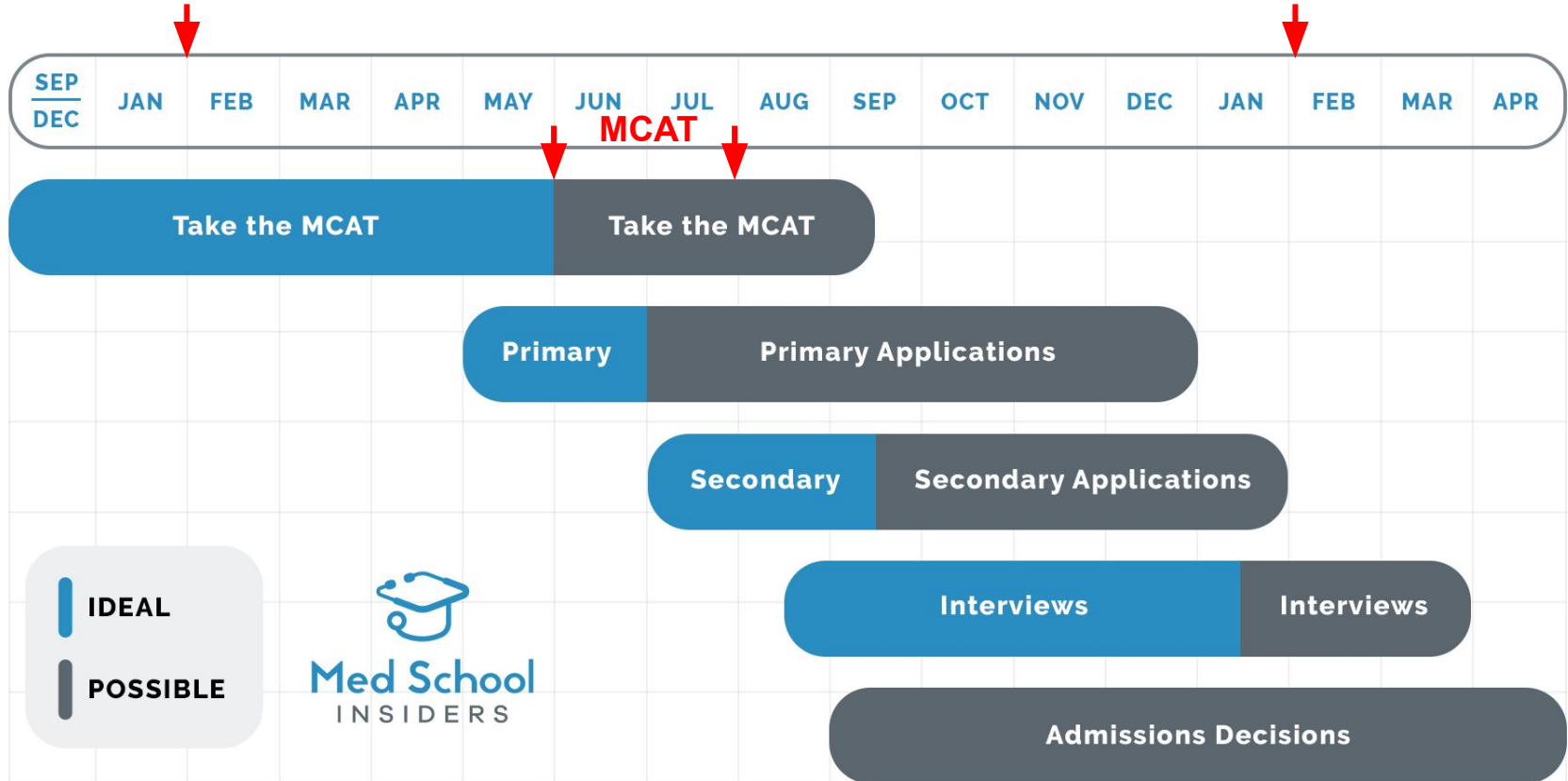
Timeline

- What are you trying to achieve?
 - MD, DO, DDS/DMD, OD, PA, OT, PT?
- Are you a good test taker?
 - MCAT prep plans
- Will you need summer courses at TCNJ?
 - BIO 201, BIO 231, CHE 331/332, MAT 127, PHY 201/202
- **Are you a GAP year candidate?**

Timeline

- **3rd year and beyond**
 - Now it gets serious
 - Join the MCAC Canvas course*
- Application development **and reflection**
 - MCAT, DAT, OAT
 - Completing courses, study plan
 - AMCAS, AACOMAS, ADEA AADSAS, OptomCAS application
 - Grades
 - Volunteering toward the greater good
 - Direct patient contact experiences, shadowing, medical volunteering
 - Letters of recommendation
 - DO school applicants should have a letter from a DO
 - Personal statement

Medical School Admissions Timeline



Timeline - In cycle (no gap year)

- MCAT
 - **Ideal:** Taken by the end of May junior year
 - **Latest:** Taken by the end of July
- Open a file with the MCAC
 - Spring of junior year
 - **≈18 months prior to intended start of med school**
- Application cycle services open about 16 months prior to intended start date at med school
 - Application cycle naming convention uses the intended start year at med school

MCAT prep - A real example

- **Diagnostic test (full length): 496 ($\approx 39\%$)**
- Month 1: 503 (≈ 65 hours)
- Month 2: 507 (≈ 50 hours)
- Month 3: 510 (≈ 38 hours)
- Month 4: 512 (≈ 40 hours)
- Month 5: 518 (≈ 60 hours)
- Month 6: 516 (≈ 60 hours)
- **MCAT score: 515 ($\approx 94\%$) taken in month 6**
 - 506 hours logged not including some basic content review
 - Approximately ≈ 50 -100 hours

Paths to Medical School

- Complete 4-yr undergraduate degree and apply
 - Traditional or standard route
 - Nationally: **>60% take gap year(s)**
 - Med school start age: 24-26
 - Overwhelming majority go this route
- Others
 - Combined 7 year BS-MD Program with NJ Medical School
 - Combined 8 year BS-MD Program with Jefferson*

What do I need to apply?

- Undergraduate degree*
 - Accredited college or university
- Appropriate standardized test
 - MD/DO, OD, dental, PA, etc.
 - MCAT, DAT, OAT, GRE
- Experience with patients and demonstrated service to others
- Letters of recommendation
- **Required coursework***

Required Coursework MD/DO

- Standard
 - 2 semesters of Biology with laboratory
 - **BIO 201 and BIO 211**
 - 2 semesters of Inorganic Chemistry with laboratory
 - **CHE 201 and CHE 202**
 - 2 semesters of Organic Chemistry with laboratory
 - **CHE 331 and CHE 332**
 - 2 semesters of Physics with laboratory
 - **PHY 201 and PHY 202**
 - **Most do not require calculus based physics**
- Your grades in these courses are important

Required Coursework MD/DO

- Most medical schools also require:
 - 2 semesters of English or writing intensive courses
 - **Any TCNJ major covers this**
 - 1-2 semesters of Math
 - MAT 127 and STA 215 (or MAT 128)*
 - **Non-STEM majors need to address this**
- Other considerations
 - Courses have prerequisites
 - Examples: MAT 127, CHE 201
 - Recommended: **Biochemistry***, genetics, psych/Soc, public health, microbiology, advanced courses, etc.
 - Will vary for MD, DO, dental, optometry, etc.

Composite Letter: Do you need one?

- Some schools recommend or require a **composite letter**
 - Medical school (allopathic/MD, osteopathic/DO)
 - Podiatry/DPM, dental, optometry
 - Aka committee letter
- **It is basically a letter of letters**
 - Summary and commentary on student accomplishments
 - Provides context
 - **Can increase your chances of admission**
 - Includes all individual letters
- Other schools recommend “individual” letters
 - Veterinary school, PA Programs, accelerated nursing, etc.

Who gets a composite letter?

- Each student is a unique case
 - **GPA**
 - Higher is better, coursework (minimal vs preparatory)
 - **MCAT/DAT/OAT**
 - Higher is better
 - **Experience**
 - Shadowing, direct patient contact, volunteering, CNA, EMT, etc.
 - **Service**
 - Long term commitments, working toward the greater good, priorities
 - **Letters**
 - Aptitude, attitude, reliability, dependability, social skills, teamwork, communication, skill building, ethics
 - **Other**
 - First generation, ESL, significant work / service / performance, etc.
 - **Disciplinary action, student code of conduct, academic integrity**

AAMC Core Competencies

- **Interpersonal Competencies** (experience and letters)
 - Service Orientation
 - Social Skills
 - Cultural Competence
 - Teamwork
 - Oral Communication
- **Intrapersonal Competencies** (experience, letters, essay)
 - Ethical Responsibility to Self and Others
 - Reliability and Dependability
 - Resilience and Adaptability
 - Capacity for Improvement
- **Thinking and Reasoning Competencies** (MCAT, GPA, coursework)
 - Critical Thinking
 - Quantitative Reasoning
 - Scientific Inquiry
 - Written Communication
- **Science Competencies** (MCAT, GPA, coursework)
 - Living Systems
 - Human Behavior

Rank these in order of importance

- Composite letter / letters of recommendation
- Medical College Admissions Test (MCAT)
- Extracurricular Activities (volunteer, patient contact)
- Interview evaluation
- Transcript (GPA, STEM coursework)

Rank these in order of importance

1. Medical College Admissions Test (MCAT)
2. Transcript (GPA, STEM coursework)
3. Extracurricular Activities (volunteer, patient contact)
4. Composite letter / letters of recommendation
5. Interview evaluation

Important:

- Any one of them can be a red flag
- Admission committees favor well rounded applicants

Is doing research an important part of getting into medical school?

Do I need research?

- **No.**
 - There is no difference between the admission rates
- Positive
 - Strong letter **if you do a good job**
 - Problem solving skills
- Negative
 - Takes time away from medically relevant opportunities
 - EMT, volunteering, shadowing, MCAT prep
- Exceptions
 - MD / PhD

Do I need research?

- American Medical Association (AMA) Position
 - Research isn't required to secure a residency position (or for admission to medical school)
 - Research isn't required for admission to medical school
 - Survey of program directors conducted by the National Resident Matching Program
 - **12 other factors were seen as more important** over “involvement and interest in research”
- Really, the answer is **NO**

Are you a good candidate?

- **Do you exceed the averages of the school?**
 - In state -vs- out of state bias*
 - Public -vs- private
- **Strong GPA***
 - 3.6 is OK, >3.7 is better
- **Strong test score***
 - MCAT - 510 is OK but 512 (>80%) for MD is better
 - DAT - 20 or better (>75%)
 - OAT - 330 or better (>75%)

Reflect: Are you a good candidate?

- Service and/or clinical experience
 - Shadowing vs **direct patient contact**
- Strong letters of recommendation
 - Please, please, please, **select your writers carefully**
- Strong communication and people skills
 - The interview is important
- Long term commitments: “Ask them if they are just checking boxes or actually committing to things.”

Things to consider - Major

- **Your major does not matter***
 - Student interest is more important
 - More interest = more work = better grades = better skills
- How your major choice will allow you to meet the criteria used in selection?
 - AAMC Core Competencies
- Other
 - How much overlap is there?
 - Major coursework and the medical school prerequisites
 - Is there sufficient room in your schedule?
 - Complete required courses
 - Do you need an extra semester or year?
 - Will you have adequate time to pursue other interests - minor, concentration, study abroad?

What are my chances?

- MD vs DO
- Nationally -vs- NJ -vs- TCNJ
- In state -vs- out of state
- MCAT score
- GPA

By the numbers - Nationally

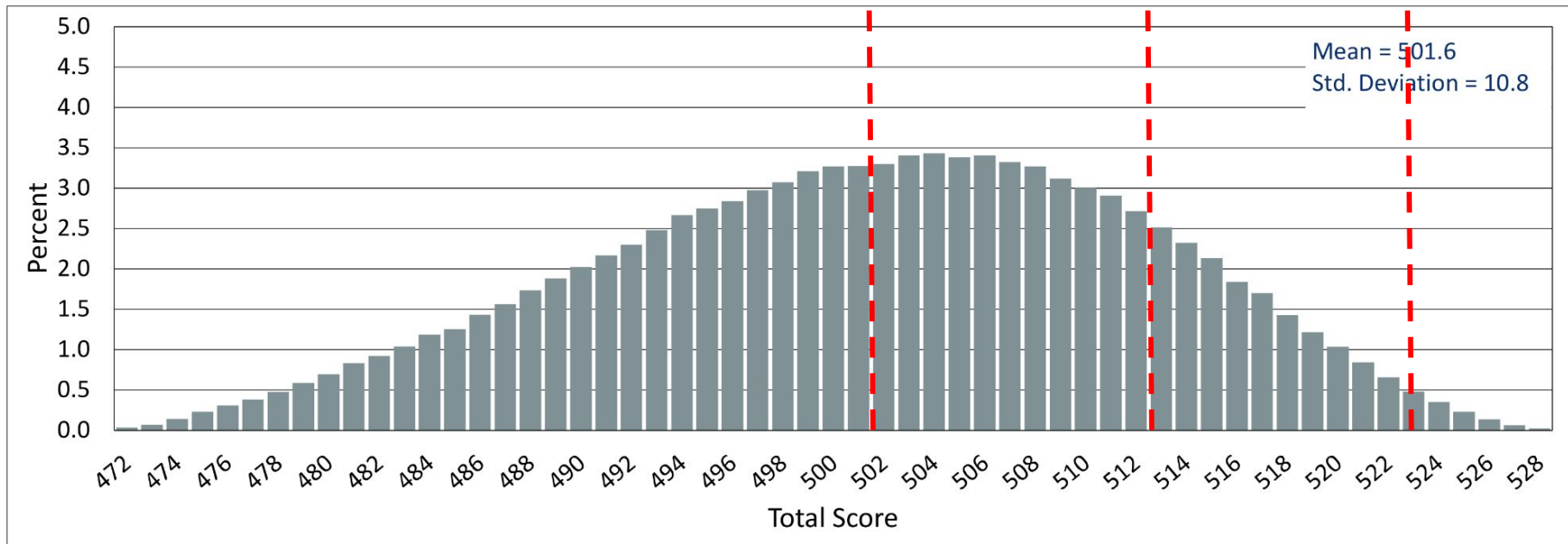
- MD - 157 schools
 - GPA: 3.7
 - MCAT: 512 (≈85%)
- DO - 43 schools
 - GPA: 3.6
 - MCAT: 505 (≈65%)
- NOTE
 - **The numbers are not minimums!**
 - Some schools have in-state preference
 - Some schools have application minimums listed
 - Around 490-500
 - **Actual minimum 505**
 - Other schools have minimums based on the applicant pool

Summary of MCAT Total and Section Scores

Percentile Ranks in Effect May 1, 2022 – April 30, 2023

N = 276,779

MCAT Total



By the numbers - NJ Edition

- MD - 4 schools
 - GPA: 3.7
 - MCAT: 513
- DO - 1 school
 - GPA: 3.6
 - MCAT: 506
- NOTE
 - **The numbers are not minimums!**
 - Same caveats as on the previous slide

By the numbers - Rutgers

- MD - NJMS (Rutgers)
 - GPA: 3.7
 - MCAT: 514
 - Higher for out-of-state students
- NOTE
 - **The numbers are not minimums!**
 - Some schools have in-state preference
 - Some schools have application minimums
 - Rutgers does not have an MCAT minimum for application
 - Robert Wood has a 498 MCAT minimum for application
 - Low chance of admission below 508 to either school

By the numbers - TCNJ

- Applicants MD / DO
 - \approx 60-80/year
 - GPA: \approx 3.8
 - MCAT: \approx 511
- Admitted
 - \approx 55-80% first pass
 - \approx 34-36 nationally*
 - **We regularly double the national average because TCNJ is just that awesome**

What do you think you need?

- 50% chance of being admitted to medical school
 - \cong GPA
 - \cong MCAT
- **Important**
 - Chances of being admitted to a medical school if you apply to \cong 20 schools
 - NOT admitted to 50% of medical schools that you apply to

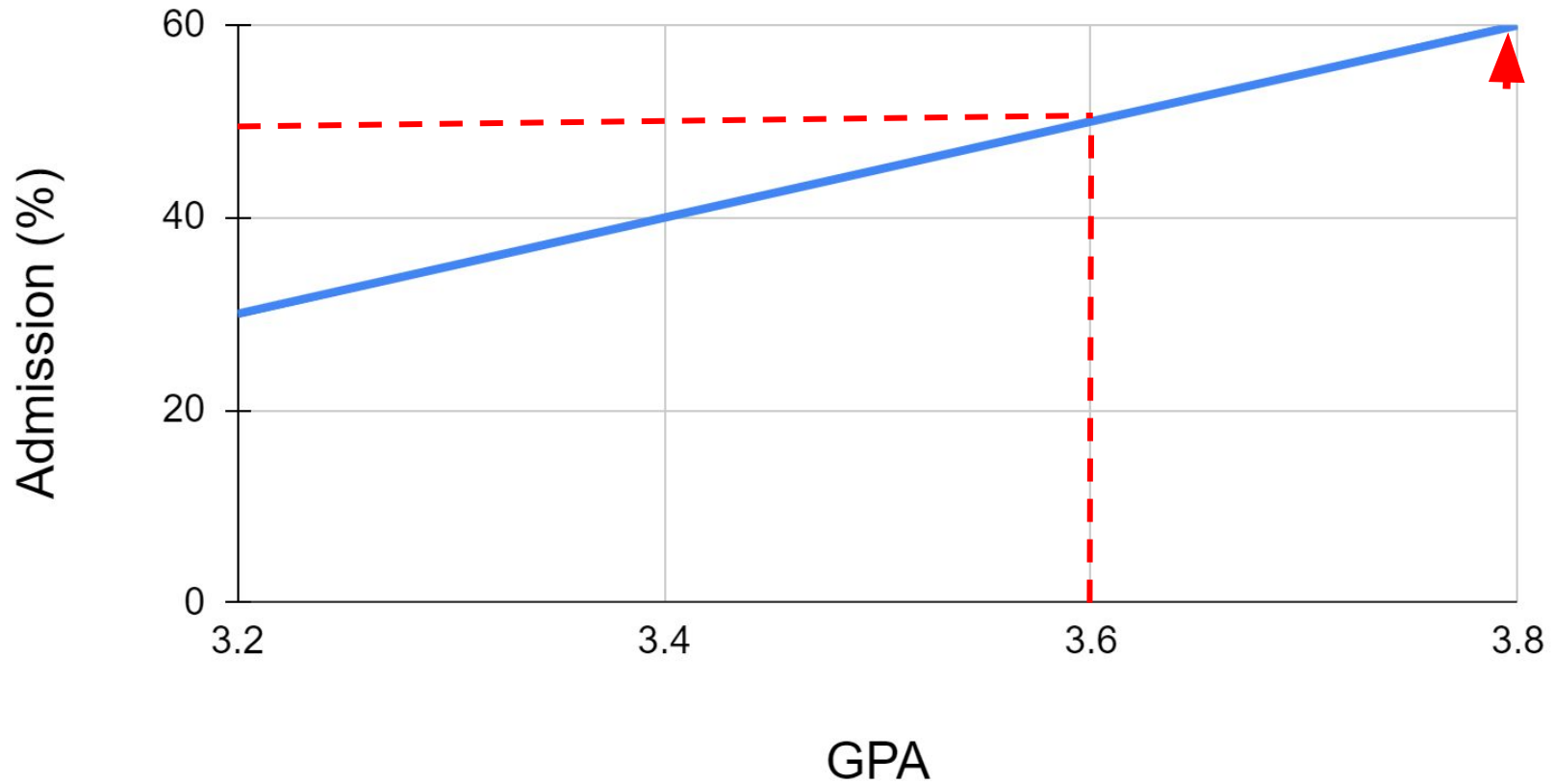
What are my chances?

- Assumptions
 - MD schools
 - Solid application
 - Letters, experience, essay, course selection, no red flags, etc.
 - Applying to reasonable schools
 - ≈20 schools
 - Application is **early in the cycle**

How much does the GPA matter?

- Examples (assumes a solid application):
 - GPA: 3.2 + MCAT: 510 \cong 30%
 - GPA: 3.3 + MCAT: 510 \cong 35%
 - GPA: 3.4 + MCAT: 510 \cong 40%
 - GPA: 3.5 + MCAT: 510 \cong 45%
 - **GPA: 3.6 + MCAT: 510 \cong 50%**
 - GPA: 3.7 + MCAT: 510 \cong 55%
 - GPA: 3.8 + MCAT: 510 \cong 60%

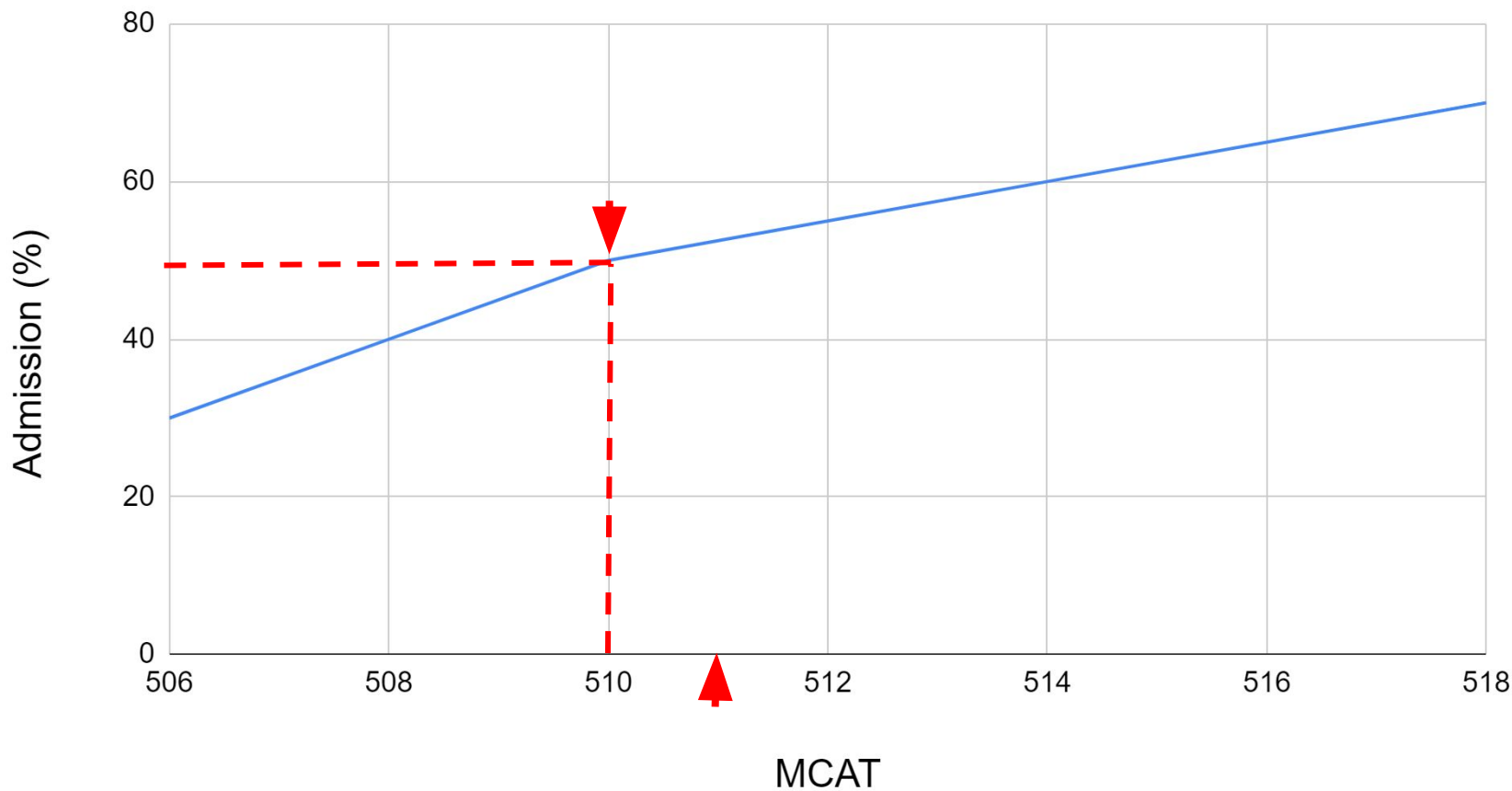
Admission (%) vs. GPA @ MCAT 510



How much does the MCAT matter?

- Examples (assumes a solid application):
 - GPA: 3.6 + MCAT: 506 \cong 30%
 - GPA: 3.6 + MCAT: 508 \cong 40%
 - **GPA: 3.6 + MCAT: 510 \cong 50%**
 - GPA: 3.6 + MCAT: 512 \cong 55%
 - GPA: 3.6 + MCAT: 514 \cong 60%
 - GPA: 3.6 + MCAT: 516 \cong 65%
 - GPA: 3.6 + MCAT: 518 \cong 70%

Admission (%) vs. MCAT @ GPA 3.6



Take home messages

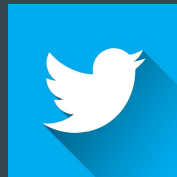
- Everyone has their own path
 - Apply when you are ready
 - **There is no guarantee of admission**
- The **MCAC** is here for advice and support
 - Have a schedule and a plan, but **be flexible**
- **Our advice**
 - Focus on your undergraduate studies
 - **Build measurable skills**
 - You cannot repeat your college career
 - **Academic damage is difficult to undo**
 - Be self reflective and realistic
 - **Know when to consider other medical careers**

General MCAC information

mcac@tcnj.edu

Website

<https://mcac.tcnj.edu/>



@TCNJMedCareers

When should I start MCAT prep?

- No easy answer - **entirely depends on on student**
- Considerations
 - How is your will power?
 - How much time do YOU need to get the score you want?
 - Are you going to take a course? (\$\$\$\$)
 - Are you going to start studying as you finish that series of courses? Or after you finish them all?
 - CHE 201/202, CHE 331/331, PHY 201/202
 - How many practice tests do you think you will need?
 - Is it MD only or MD or DO?
- General range: **250-500 hours of intense study and 6 full length practice tests**

MCAT preparation

- **Biological and Biochemical Foundations of Living Systems**
 - Biology, organic chemistry, inorganic chemistry, and biochemistry
- **Chemical and Physical Foundations of Biological Systems**
 - Biochemistry, biology, general chemistry, organic chemistry, and physics
- **Psychological, Social, and Biological Foundations of Behavior**
 - Psychology, sociology, and biology
- **Critical Analysis and Reasoning Skills (CARS)**
 - Reading comprehension - humanities and social sciences

About 250-500 hours

- Princeton Review, Kaplan, Barrons, Examkrackers, etc. have different recommended footprints
 - **The MCAC does not recommend one over the other**
- General recommendation
 - 10-15 hours/week x 24 weeks = 240-360
 - 20-30 hours/week x 12 weeks = 240-360
- **IMPORTANT:** You need to prepare until you are consistently getting the score you want/need
 - Average the last 3 full-length practice tests

Option #1

- Take a full-length diagnostic **BEFORE** you start prep
 - Full-length MCAT every 4 weeks
- Positive
 - Efficient, focus study the things you don't know
 - Context review is focused on improving score
 - You can see your score go up and **find plateaus**
- Negative
 - Volume of things you don't know/forgot is intimidating
 - Early full-length MCATs can be ego crushing

Option #2

- **Take a full-length diagnostic AFTER content review**
 - Full-length MCAT every week
- **Positive**
 - Initial MCAT score can be uplifting
 - Works OK for most students
- **Negative**
 - Inefficient, end up studying things you already knew well enough
 - Do not get to see score increase dramatically

Options #3

- **Take an MCAT prep course**
- Positive
 - Excellent for students that need structure
 - Less intimidating - information pre-processed
 - The expensive ones provide some individual attention
 - Better than not studying
- Negative
 - Little/no improvement over studying on your own
 - Extremely inefficient - you follow their curriculum instead of focusing on things you need to review
 - Expensive for highly structured versions
 - \$1,500-2,000 for self-paced programs
 - \$5,000-15,000 for multi-week bootcamp style courses

Who gets a composite letter?

- Students that follow instructions and don't make Ms. Kull angry
- Each candidate is treated as a unique case
 - Transcript (GPA, coursework, rigor)
 - Testing (MCAT, DAT, OAT)
 - Application data
 - Medical experience, patient contact, volunteering, long-term commitments, leadership, etc.
 - Letters of recommendation
 - Other
 - Job, athletics, special circumstances, first generation college, etc.

What's in the composite letter?

- **Letter of letters**
 - Summary of letters, trends, common themes
- Undergraduate highlights
 - GPA, academic awards, coursework, scholarship
 - Mentoring, tutoring, community, research, leadership, etc.
 - Working toward the greater good
- Medical / clinical exposure
 - Shadowing, EMT, CNA, pharmacy tech, clinic work, etc.
- Commentary
 - Extenuating circumstances, special considerations, atypical students, exceptional performance, high/low MCAT, etc.
 - Incongruent GPA and MCAT

What happens to the letters of recommendation?

- Final upload contains ALL of the individual letters used to generate the composite letter
 - AMCAS and the med schools require original copies
- Medical school admissions committees can read everything that was written for a particular candidate

Are you a good candidate for medical school?

- Academic measurables
 - MCAT score, GPA, transcript, courses, preparation
- Letters of recommendation
- Clinical experience
 - For example: 1000hrs as an EMT (TCNJ EMS), 4 semesters as a medical scribe
 - Hands on experience > shadowing
- Leadership experience and service
 - For example: Long-term commitments to the greater good, NCAA athlete, started a company, started a charity, compete in robotics, job, first-gen, etc.
- **Recent measurable outcomes?**

Things to remember

- **Everyone has their own path to medical school**
- Apply to medical school when YOU are ready
 - What other people are doing is not your concern
- Academic credentials are important
 - Focus on your undergraduate studies
 - It is difficult to undo academic damage
 - Take the required courses and **prepare** for the MCAT
- MCAC is here for advice and support
 - Have a schedule and a plan, but be willing to change it
 - **BE FLEXIBLE**

By the numbers - Nationally

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- Admitted
 - $\approx 55-75\%$ first pass
 - $\approx 34-36$ nationally*

Overall (2021-2022)

- MD Applications: 62,443
 - Matriculated: 22,666
 - Rate: 36%
- DO Applications: 27,277
 - Matriculated: 9,575
 - Rate: 35%
- The average student applied to 16-20 schools

Rutgers New Jersey Medical School Example

- GPA: ≈ 3.7
- MCAT: ≈ 514 ($\approx 90-92\%$)
- Interview Rate
 - 33% in-state
 - **5% out-state**
- Acceptance Rate
 - **$\approx 75\%$ (of interviews)**
 - $\approx 5.5\%$ of total
- **60% of admitted students were out at least 1 year**

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