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The Official Stevens Pre-Health Professionals Newsletter

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**ETHICS IN HEALTHCARE SERIES:
MISCONCEPTIONS ABOUT AUTISTIC COMMUNITY
IN HEALTHCARE**

By: Leigha Tierney

World Autism Awareness Day is celebrated annually on April 2 to raise visibility and acceptance of people with autism spectrum disorders. Autism spectrum disorders include a range of conditions of varying symptoms and severity, including autism and Asperger Syndrome. Common signs and symptoms of autism spectrum disorders include difficulty in social communication or interaction, restricted interests of intense focus, and repetitive behaviors. According to the [Centers for Disease Control](#), approximately 5.4 million adults in the United States have an autism spectrum disorder. Despite the growing awareness and research surrounding autism spectrum disorders, there are still many misconceptions about the autistic community that can often lead to the perpetuation of misinformation and harmful stereotypes. Here are some of the most common misconceptions about autism and why they are not true: (Autism Fact Checker)

- **More children are being diagnosed with autism** - While the prevalence of autism has increased from 1 in 150 children being diagnosed in 2000 to 1 in 54 children being diagnosed in 2016, this increase is actually the result of growing awareness of autism and the expansion of the diagnostic criteria for autism spectrum disorders.
- **Autism is a behavioral and mental health disorder** - Autism is a neurodevelopmental condition, meaning it has to do with brain growth and development rather than behavior or mood.
- **Autism makes it impossible to form relationships** - While a common symptom of autism spectrum disorders is difficulty in social situations, this does not mean that people with autism cannot or do not want to have fulfilling friendships and romantic relationships.
- **Autism can be cured** - Autism spectrum disorders are lifelong conditions that do not have a “cure”. Some measures that can be beneficial to autistic people include physical therapy, occupational therapy, and speech therapy. Medical treatment can also be used to manage conditions that often appear alongside autism, such as seizures and gastrointestinal issues.

There are many autism advocacy groups run by autistic people that offer further information and resources, such as [Autistic Self Advocacy Network](#), [Autistic Inclusive Meets](#), and [Autistic Women and Nonbinary Network](#).

ETHICS IN HEALTHCARE SERIES: CONTROVERSY OF BMI

By: Mariam Siam

As of April 19, 2021, all individuals over the age of 16 in New Jersey will be eligible for the COVID-19 vaccination. In the different phases of the vaccine rollout, more and more categories of people became eligible to get vaccinated, and in phases 1B and 1C for New Jersey, people considered overweight, obese, and severely obese based on their BMI were added to the list. BMI (Body Mass Index) is a person's weight in kilograms divided by the square of their height in meters. Essentially, it is a metric that compares a person's weight to their height and is used to categorize people in groups that include underweight, ideal, overweight, and obese.

BMI has long been a controversial topic because it does not take into account other factors, including muscle mass, body fat, and bone density. This metric is not deemed sufficient to be indicative or diagnostic of a person's health, because it tells us little about it. An example of this is given by NPR, "A person with strong bones, good muscle tone and low fat will have a high BMI. Thus, athletes and fit, health-conscious movie stars who work out a lot tend to find themselves classified as overweight or even obese." The addition of this category of people to those who are vaccine eligible has faced some controversy for different reasons, including those who believe that the logic and science of this metric is wrong, and others who believe that it is unethical to receive the vaccine based on a metric that says little about their health status. It is often good, as experts state, to take something like BMI with a grain of salt and take many other factors about an individual's body into consideration when making conclusions about their health.

STUDENT HIGHLIGHT



Faizah Chowdhury

Major: Biomedical Engineering

Graduating Year: 2021

"My passion for healthcare and technology drove me to pursue Biomedical Engineering at Stevens, and it has been the best decision I have ever made! Through my involvement holding E-Board position in the Biomedical Engineering Society and the Alpha Eta Mu Beta Biomedical Engineering Honor Society, I have learned so much from my peers and other members about the excitement and forever-evolving field of medical technology. I am also secretary of Stevens Health Professions club and a writer for the DuckMed Newsletter. I have also gained clinical and research experience as a research associate in Hackensack Meridian Medical Center's Emergency Department, and my desire to become a doctor stemmed from my exposure to the profound patient-doctor relationships while there. I aspire to use the skills I learned while studying biomedical engineering, such as problem-solving and using the application of science to help diagnose and treat patients. I am pursuing my other passions through my own small business providing henna and event décor services, which I started in my freshman year. Juggling academics, clubs, research, and a business while making time for family is challenging, but my advice to those who are looking to participate in extracurriculars is to choose activities that are true to your passions. That way, no matter how busy you are, you will be in love with what you're doing, and this will help you get through the rigorous pre-med journey."



EARTH DAY AND ENVIRONMENTAL RACISM

By: Justin Gabriel

Just a few miles from Hoboken, Newark, NJ has long been an industrial powerhouse. Its proximity to an international airport, nation-spanning railroad network, and one of the busiest ports on the East Coast makes it a crucial junction in global trade. Because of this, Newark's predominantly Black and Hispanic populations have faced more chronic pollution than predominantly white areas. Newark's incinerators, trucks, and trains have pumped chemicals like lead and dioxin into the local air for generations. One in four Newark children have asthma, creating a crisis so bad that in 2016, a children's advocacy group singled out asthma as a major factor for chronic absenteeism in Newark's schools. This isn't confined to Newark. A 2018 study demonstrated that communities of color, especially Black, Chinese, and Korean-American communities, face disproportionately high risks of cancer. Another 2011 study demonstrated nationwide correlations between a greater non-Hispanic Black population and worse air quality.

As we celebrate Earth Day this April, we should remember the disproportionate impact that pollution has on communities of color. To truly strive towards a healthier planet and world, we need to ensure that racial justice is integrated in our environmental and public health policy.

DISPOSABLE P.P.E & THE ENVIRONMENTAL IMPACT

By: Nicholas Housel

As the pandemic continues and mask-wearing becomes the new norm, it is necessary to assess the impact that personal protective equipment (P.P.E.) has on the environment. Recent studies estimate that an astounding 129 billion face masks are used globally every month — that is equivalent to 3 million face masks a minute. A majority of these masks are manufactured from long-lasting plastic microfibers and if discarded, can persist in the environment for decades to hundreds of years. Plastic microfibers break down into microplastics, which contaminate and pollute the environment, specifically the ocean. As P.P.E. contributes to the accumulation of microplastics, entire ecosystems become increasingly at risk. Since some animals cannot distinguish the difference between plastic debris and their prey, they often end up choking on these plastic pieces of litter. Even if they do not choke, animals can become malnourished as microplastics fill up their stomachs and provide zero nutrients. Furthermore, small animals can find themselves entangled in the elastic material of improperly disposed of masks and gloves, which can be fatal.

At the end of the day, we don't want this public health crisis to contribute to an already growing plastic pollution crisis. So simply, dispose of your P.P.E. properly.



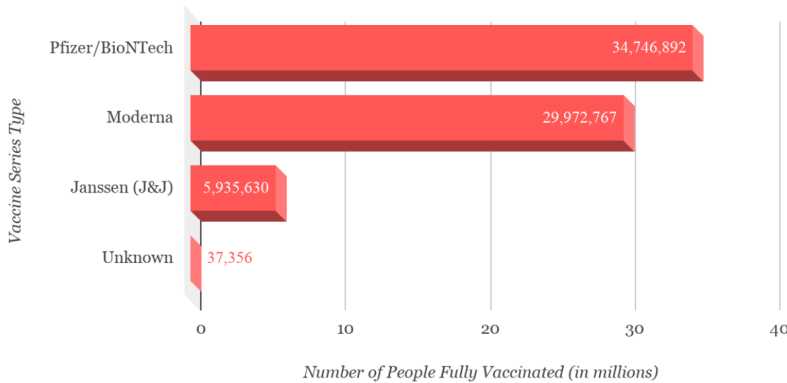
"Gary Stokes of OceansAsia held masks found on a beach near Hong Kong in May. He says masks have been washing up in increasing quantities."
-NY Times

COVID-19 UPDATES

COVID-19 Vaccination Administration in the U.S.

By: Jeel Shah

Number of people that have been fully vaccinated in the U.S. by the COVID-19 Vaccine Series



Administration of the COVID-19 vaccines began in the United States on December 14, 2020. Currently, there are three COVID-19 vaccines approved by the FDA (Food & Drug Administration) for emergency use administration (EUA): Pfizer/BioNTech, Moderna, and Janssen (Johnson & Johnson).

The Pfizer/BioNTech Vaccine was approved for EUA on December 11, 2020. The Moderna Vaccine was approved for EUA on December 18, 2020. Lastly, the Janssen (Johnson & Johnson) Vaccine was approved for EUA on February 26, 2021.

As of April 10, 2021, 21% of the U.S. population is fully vaccinated with 2.81 million doses being administered daily. The diagram (on the left) demonstrates the number of people that have been fully vaccinated in the U.S. by the COVID-19 Vaccine Series:

TIPS OF SUCCESS FROM PROFESSOR



Dr. Ashley Lytle

Assistant Professor of Psychology
College of Arts & Letters

Stress is often a constant reality for undergraduate students. Chronic activation of stress can negatively impact our physical and psychological health; however, a growing body of research suggests we can reappraise (interpret) our stress resulting in better health outcomes.

Stress Reappraisal - when possible, try to reappraise your stress as a "challenge." When taking an exam, you may notice that your heart is racing a bit faster, maybe you are sweating, maybe you feel butterflies in your stomach. We typically view these physiological effects as an indicator that we are not coping well in the situation. But, if you view those physiological signs as indicators that your body is preparing you to tackle a problem, to meet a challenge, your body responds in a healthier way. Your heart is still pounding, but your blood vessels stay more relaxed and in a healthier cardiovascular profile. When we view our stress response as helpful, our bodies and minds respond in a healthier way.

MENTAL HEALTH

MENTAL HEALTH VS FINALS SEASON

By: Va'Shayna Williams

As a college student, it is no secret that one of the most stressful times is finals season. Between a mix of wanting to do well, lack of sleep, and among other things, a college student can experience a decline in their mental health and an increase in anxiety and stress. Here are a few tips on how you can manage your mental health during finals:

- **Sleep:** Try to get seven to eight hours of sleep. Studies show that getting enough sleep is more beneficial than pulling an all-nighter.
- **Exercise:** Research has shown that exercise can increase the release of endorphins and adrenaline in the body, allowing one's mind to become clearer. Use exercise or physical activity as a mental break.
- **Eat well:** Fuel your body and brain with healthy snacks and meals. Avoid large amounts of caffeine.
- **Ask for help:** Your professors care about your success, so do not be afraid to ask questions. Work or study with others.
- **Practice Mindfulness:** Guidance on mindfulness practices can be found on Youtube. Studies show that mindfulness-based meditation can decrease stress and anxiety in college students.
- **Stay Organized:** Make a set of goals you want to meet in the day and be realistic about them. Focus on managing your time properly. Set a study timetable.
- **Stay in Touch with Friends & Family:** Stay connected with your loved ones and set a time in the week to reach out to them. This way, you have something to look forward to during finals weeks.
- **Express Gratitude:** When you're stressed, it may distract you from the things you have in life to be grateful for, including an access to education. Your **self-worth** is not attached to your scores and grades. Strive not only to do well, but to be well.

AAMC UPDATES

By: Faizah Chowdhury

The AAMC debuted their new website on April 7, which features new and improved search tools, FAQ format, and much more! Check out this [link](#) to learn more about the new website and how it can benefit students.

On April 22, 2021, the AAMC will host an event, "Virtual Medical School Fair: Demystifying the Application Process in the Era of COVID-19," where students can connect with over 80 medical schools and attend live sessions. Students can register for free at aamc.org/virtualfair. The 2022 cycle AMCAS application will open May 3, 2021, and submission will open May 27, 2021.

Lastly, the AAMC will open registration for test centers in parts of the United States and some international locations on Wednesday, April 21 at 12 p.m. ET, and in all remaining test center locations on Thursday, April 22 at 12 p.m. ET. The specific locations that will open on each of the two dates can be found [here](#). As a note, COVID protocols will still be followed during this testing season, and all rescheduling and cancellation fees will continue to be waived.

UPCOMING EVENTS



Student Health Professions Club

- GBM on April 29th @ 5pm
- Alumni Panel TBH



Alpha Epsilon Delta

Virtual Shadowing Week
April 26 - April 30

"Have any healthcare related topics you are interested in or passionate about?"

If you want to submit a piece for our next newsletter or if you know of a student who deserves a shout out in our Student Highlight, please contact us at duckmedicine@gmail.com!

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