DPM NEWS

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A Road Trip

On this page, Dr. Galton discusses the pandemic in relation to a road trip down I-80.

State Recognition

Three names you might know received recognition at Vital Signs this past November. See who on *page 3*.

Take Care of Yourself

Beginning on *page 4*, read two articles that are more about taking care of yourself than others which is as important now as ever.

DPM News is always interested in contributions from a diverse range of authors. In 2022, if you have an article or even an idea, please reach out to me so we can get it included in an upcoming edition. Similarly, if you are aware of someone who has written or presented on a topic you believe a broad cross section of regional providers should hear from, I would be happy to contact the person and solicit interest in providing an article. Cheers to an excellent new year!

Eric Rathfelder
Editor-In-Chief

Are We There Yet?

Christopher Galton MD, NRP, FP-C

In general, I consider myself fortunate to have two children that are pretty normal. When we have taken road trips in the last few years, they plug into their fancy technology and tune out as my wife and I drive them down the road. Right now, it seems like we are traveling down interstate 80 in Nebraska (insert whatever long, lonely road you know best here) and the kids are just hammering you with "are we there yet?"

In the last few months, I have had to spend a lot more time dealing with COVID than I have since Jan and Feb 2021. It's deflating and disheartening when it seemed like we were actually fairly close to getting around the bend. Then the delta variant kicked the butt of a great number of people and we had to hit the reset button. At this point, I would be willing to personally vaccinate every last person in the US if that's what it took to make this stop. To top it off, many of us are having a crisis of compassion. We have given up so much of our lives to help our society and to see this pain and suffering just continue to get dragged out when there are preventative measures takes the wind right out of our sails.

I want you to know that you are not alone. You are not alone to think that people who don't get vaccinated are missing out on a chance to avoid serious health consequences. You are not alone to think that they could have avoided the episodes of dyspnea, cough, and hypoxia that send them in your

Upcoming Events

Melinda Johnston

For more information about any event listed below, please visit the training calendar at MLREMS.org

January

8 - BLS Core Content 1

15 - BLS Core Content 2

22 - BLS Core Content 3

24 - MLREMS Council

24 - REMAC Case Conf

February

9 - Competency-based RSI

28 - REMAC Meeting

March

21 - MLREMS Council

21 - RSI Case Review Session

overburdened ambulances to overrun hospitals. You are not alone to think that previous vaccinations have not been met with such strident fervor. You are not alone to be sad when thinking herd immunity prevents highly infectious diseases from spreading to people that cannot be vaccinated due to age, allergic reactions, or other health related reasons. You are not alone to think that politicians got involved in something they should not have been involved in and it resulted in a catastrophic failure that led to hundreds of thousands of people dying, potentially unnecessarily. You are not alone to sit on a bench and rip your hair out while screaming at the top of your lungs "just stop the madness." You are not alone.

If you are reading this thinking this must be some form of catharsis for Galton, you would be right. I want to be done calling the father of two kids to tell him his wife just died with her unborn child because she was worried about what the vaccine would do to her fetus. I want to be done calling the son with COVID at home to tell him that he likely killed his mother when he went over to shut down her AC unit for the winter and infected her. I want to be done "calling" everyone. I want to talk to people in person, like it was for all my years in health care before COVID. I want to talk to people without my mask on so they can see my facial expressions and know that I care about them. I want to be able tell a family that their loved one died from a MI, cancer, pneumonia, liver disease, or anything else besides COVID.

I need things to get back towards normal. This is not how our society is supposed to operate. I know that we can get through this. You should know that you are not alone if you feel similarly. They are the same things that I speak to my colleagues in EMS and at the hospital about all the time. It's easy for us to hide those thoughts because we know that those around us depend on us to keep a level head when things are bad. They depend on us to forge ahead when it's the dark of night. We are in EMS because we are capable of moving past all of these negative thoughts and to do the right thing without bias. We are in EMS because we can dig deeper than anyone else to find the compassion that all others left behind months ago. Finding that compassion is what separates us and what gets us out of bed in the middle of the night. It's time to remember why you got into this business and what truly makes you feel good about yourself when you do right by another human being, even if you don't agree with their choices.

It's always darkest before the dawn. I don't see the sun on the horizon yet, but I know it's coming. Remember, you are not alone and it's OK to feel the way you do. I appreciate everything you are doing to help all the members of our community without regard to the choices they have made.

If you have any questions about this article or just need a sympathetic ear to bend, you can reach me at christopher_galton@urmc.rochester.edu.

Three Local Providers Earn Statewide Recognition

In November, three of our local EMS providers and leaders were recognized at Vital Signs for their accomplishments. Included below are excerpts from the conference literature. Congratulations to Rob Sparks, Sharon Chiumento, and Dr. Cushman!

Robert "Rob" Sparks – New York State EMS Council 2021 Award Recipient: Advanced Life Support Provider of the Year

Robert (Rob) Sparks has been selected as ALS Provider of the Year. Rob's passion and dedication to his craft of Paramedicine and EMS has been remarkable. Rob consistently approaches each day as a new learning opportunity. Rob's dedication to professional growth has not only influenced colleagues around Rob, but his sons as well. Rob has clearly left an impression that this field is special, that it is privileged work worth doing right, and service to your community matters. Rob has lived this mantra by putting the needs of the community before his own throughout the COVID-19 pandemic. Congratulations Rob on earning the ALS Provider of the Year.

Jeremy Cushman, MD – New York State EMS Council 2021 Award Recipient: Physician of Excellence

Dr. Jeremy Cushman has served in various roles throughout his tenure in EMS and the medical community. These various roles have led to Dr. Cushman becoming a tireless advocate for the EMS profession. Dr. Cushman's influence and tireless efforts can be seen in the training and education of his EMS providers, and the development of policies and procedures that govern them. Dr. Cushman's leadership is driven by many qualities, but three stand out, caring, supportive, and accountable. Dr. Cushman is an asset to the EMS community. Congratulations Dr. Cushman on earning the Physician of Excellence award.

Sharon Chiumento, RN, BSN, EMT-P – New York State EMS Council 2021 Award Recipient: Dr. Robert Kanter EMS for Children Leadership Award

Sharon Chiumento is a worthy successor to the legacy Bob created. A nurse since 1969, and a paramedic and officer in the Gates Volunteer Ambulance Service since 1992, Sharon has had a personal hand in teaching and training nearly all paramedics in the Rochester area for nearly thirty years. She has faithfully served on the Board of the STEP Council of the Genesee Region. Sharon has edited three books related to emergency medical services for children, most recently, Prehospital Detective: Analyzing Clues to Enhance Patient Care, and is the primary author of the Pediatric Resuscitation and Children with Special Health Care Needs cards carried on every ambulance in New York State. Her service to emergency medical services in New York State is impressive. There is no doubt that she is truly a star among us, and on behalf of the New York State Emergency Medical Services for Children Advisory Committee, we are intensely proud to present her with this recognition.

Everything is just not fine... Mental Health in EMS

Susie Burnett, MS, EMT-P
Christopher J. Fullagar, MD, EMT-P, FACEP

It's 1810 hrs., your shift ended 10 minutes ago and you're still holding the wall up at the hospital waiting to transfer care of your patient with no end in sight. Your 24 was busier than normal because you were called into neighboring districts while their crews were stuck at hospitals or covering mutual aid calls of their own. Your partner has made a mess with every routine call today for no reason and is too busy flirting with the only nice nurse left to make the stretcher while you turn over to that less-than-nice nurse who asked you to find another hospital for your next patient. You're tired, hungry, and smell like you've had a busy 24 and now you're going to be late for dinner with your friend. You have to be back in for another shift in 11 hours, but you can't cancel on your pal again, they texted during that last call to remind you about the last three times you backed out and told you they're starting to feel like you don't want to hang out anymore. At least you'll get to eat and maybe there will be enough left over for lunch tomorrow so you don't have to get up even earlier to pack something.

This same and similar scenes have played out in the lives of EMS professionals regularly and it feels like they'll continue for the foreseeable future. Just because it wasn't <insert horrific call here>, we feel stressed by the repeated exposure to seemingly small, everyday irritants. This sort of cumulative stress, combined with the other nagging issues in our personal and professional lives (pay, COVID, winter, holidays, the list goes on, ad infinitum), may take an even greater toll on us than stress caused by critical incidents because, eventually, our methods of managing them aren't as successful. Sometimes, we even slide into maladaptive coping techniques, which further compounds our stress.

None of this is surprising to you, of course. It's no secret that EMS professionals and firefighters have higher rates of post-traumatic stress, depression, and suicidality (Collopy, 2012; Eisenhauer, 2017; Essex & Scott, 2008; Hruska & Barduhn, 2021; Vigil et al., 2021). We're strong, we're resilient (according to those trainings and social media campaigns), and those stressors don't affect us. Until they do. We keep our feelings to ourselves, we don't talk about the calls that bother us (no matter if it's a pediatric arrest or our favorite frequent caller), we pick and choose calls when we can, we get away with doing the bare minimum, drink alcohol to forget, and engage in risky behaviors (Collopy, 2012; Essex & Scott, 2008). Those behaviors might seem fine, at least temporarily, but they aren't and we know it. Eventually, they lead to other stressors like avoiding calls because we're hung over or still drunk, angry family members, speeding tickets, or worse. It's a never-ending downward spiral and we know it. Awareness of mental health concerns in EMS is improving, but we have a long way to go because of stigma, ignorance, and apathy.

There are a number of resources available, yet many are fragmented and the task an agency undertakes to establish an effective, comprehensive mental health program may be overwhelming in itself. We have teamed up with colleagues from across the state in an ongoing effort to achieve goals that will help address the general and specific challenges that face first responder mental health. One of the primary objectives of the group is to provide a roadmap to assist agencies in achieving the steps to create a comprehensive mental health program for their members. These programs may include the provision of

initial and ongoing education and awareness sessions, the designation of an employee assistance program, a formalized peer support program, a chaplaincy, and a method for conducting routine wellness checks. In addition to programs at the agency level, there are strategies you can use to cope with stress now:

- Prioritize – figure out what's important to you and do what you need to distance yourself from the things that don't support your personal and professional 'big picture' (e.g., attending that meeting may not be useful to future you, but taking the AHA instructor class supports your goal of being a public health educator so long as it does not mean missing your child's birthday party)
- Cognitively restructure a thought or modify a behavior – figure out what the negative part of a thought or behavior is and change it (e.g., if you find sweeping the floor an unpleasant task, trade chores with someone or time yourself to see if you can do it before the end of a great song or faster than you did yesterday – we are people who like challenges so this works for several unpleasant chores)
- Set boundaries – learn to say no when you need to (e.g., "I'm flattered you asked me to help you study, but I'm overcommitted right now. Maybe another time?")
- Write stuff down – either as a journal, a to do list, or a memo to yourself to get it out of your head (the cognitive overload in just thinking about stuff is stressful)
- Exercise – the stress response is the same one we feel when we physically exert ourselves, so our bodies physiologically rehearse how to deal with stress by recovering from intense workouts (plus exercise makes us feel good, so it's a multifaceted win)
- Sleep – as EMS professionals, we get used to little sleep, but that doesn't mean we can go without any or rely on naps (you know you need sleep – try it, you'll like it!)
- Eat nutritiously – your body needs good fuel to function well (if the intake is bad, the output won't be great – there's nothing magical in your body that turns chips, caffeine, and eight-hour old roller dogs into prime performance, unless your version of prime performance is heartburn and too-tight pants)
- Deep breathing – concentrate on taking slow, deep breaths while pushing your abdomen out on inhalation and letting it move back in as you exhale (it works instantly and can be done anywhere)
- Remember why you're here – something attracted you to this profession and it might get lost in everyday activities, but see if you can find and celebrate meeting the goals the former you used to want to achieve (e.g., if you wanted to make a difference in someone's life, think about when you assured the patient's dog had a bowl of fresh water before you transported – that made a difference to your patient and the pup)
- Put the energy into the work you want to get back – positive and negative attitudes are infectious – if you put out happy vibes, others will feel happy and feed that energy back to you, which makes the whole environment a nicer one to be in
- Ask for help when you need it – no one can be everything all the time – if you or someone you know needs more mental health support, try these resources:
    - National Suicide Prevention Hotline: 1-800-273-8255
    - Fire/EMS Helpline: 1-888-731-3473
    - New York State Crisis Text Line: Text GOT5 to 741741
    - New York State Emotional Support Helpline: 1-844-863-9314
    - SAMHSA – Substance Abuse and Mental Health Services Administration National Helpline: 1-800-662-HELP (4357)
    - NYS Domestic Violence Hotline: 1-800-942-6906

- New York State Smoker's Quitline: 1-866-NY-QUITS (1-866-697-8487) or nysmokefree.com
- The Code Green Campaign: https://codegreencampaign.org/
- Firefighter Behavioral Health Alliance: https://www.ffbha.org/
- Responder Strong: https://responderstrong.org/
- Psychological First Aid for First Responders: https://www.apa.org/practice/programs/dmhi/psychological-first-aid/resources
- James Boomhower and Distance CME: Fit for Duty https://www.distancecme.com/stress
- Reviving Responders: http://www.revivingresponders.com

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What Else Can I Do?

Eric Rathfelder, MS, EMT-P

So, you have received your COVID-19 vaccine. You wear your surgical mask when you are treating patients. You wear your N-95 when you are doing aerosolizing procedures on a suspected COVID-19 patient in the back of your ambulance. Maybe you received a booster shot. Still harboring anxiety about your risk, confident you have done everything you can to minimize your risk from infection, you grab a venti salted caramel mocha frappuccino and turn to social media to argue with people who disagree with you. After all, there is nothing more to be done, right? Wrong!

An unfortunate side effect of the COVID-19 pandemic and measures taken in response to the pandemic has been sidelining the focus on many other medical conditions and risk factors for poor health. Many found their gyms closed, less urgent medical care and appointments canceled, and comfort foods just a few feet from their new "office" at home as they struggled to incorporate homeschooling their children. Overall, lifestyles were more likely to trend towards sedentary than active. Mental health declined. And, inadvertently, many of us increased a significant, modifiable risk factor for a bad COVID-19 outcome - obesity.

One meta-analysis on the relationship between COVID-19 outcomes and obesity found a 113% increased risk for hospitalization, a 74% higher rate of ICU admission, and 48% higher mortality (Papkin et al., 2021, p. 3-7). It even showed a higher prevalence of COVID-19 infection! Though, with any conclusions related to infection rates, I think we probably are not careful enough to specify that the capture rate is really tenuous, so I don't put as much weight behind that result. There are many theories about why this relationship exists but it should not be too surprising since obesity is a serious risk factor for many other

health problems like hypertension, cardiovascular disease, and type 2 diabetes. Perhaps most significant, a large number of COVID-19 deaths occur due to complications from acute respiratory distress syndrome (ARDS) for which obesity is a well known risk factor (Papkin et al., 2021, p. 8).

I also came across an interesting article about a study, which has not yet been peer reviewed, that sampled adipose tissue from bariatric surgery patients and patients who died of COVID-19 in order to investigate the mechanism responsible for obesity as a risk factor. The Stanford University School of Medicine researchers found that certain types of adipose cells could become directly infected with COVID-19 causing a major inflammatory response (Martinez-Colon, 2021). David Kass MD, a professor of cardiology at John Hopkins Medicine said, "The coronavirus appears to evade the body's immune defenses and 'hang out' in fat tissue, which allows it to replicate and trigger a severe immune response" (Rabin, 2021). Furthermore, the adipose tissue surrounding vital organs such as the heart and intestines contained the virus which could contribute to the organ damage which occurs in patients with severe cases of COVID-19. While this *in vivo* research is in its early stages, it provides some indicators that obesity may play a more direct link to mobility and mortality from COVID-19 than simply contributing to other risk factors such as diabetes and cardiovascular disease (Martinez-Colon, 2021).

Something we all know is if being fit was easy many more of us would be! But it isn't. Even before this pandemic most EMS providers understood the benefits of healthy eating and exercise; but knowing something and consistently implementing it are very different. Recognizing the high failure rate associated with attempts at weight loss, Glenn A. Gaesser and Siddhartha S. Angadi published a meta-analysis in September of this year exploring their hypothesis that focusing on increasing physical activity (PA) and cardiorespiratory fitness (CRF) is more effective than focusing on weight loss for reducing all hazard mortality linked to obesity. The data from the studies used by the pair was largely collected prior to COVID-19 and cannot be generalized to apply to risks affiliated with that disease but does provide some interesting and useful conclusions related to the other health risks from obesity. They do not argue that both reducing obesity and increasing PA would be the best result but instead acknowledge that weight loss strategies as the cornerstone of obesity treatment have largely failed. Gaesser and Angadi (2021) conclude:

> "However, many obesity-related health conditions are more likely attributable to low PA and CRF rather than obesity per se. Epidemiological studies show that CRF and PA significantly attenuate, and sometimes eliminate, the increased mortality risk associated with obesity. More importantly, increasing PA or CRF is consistently associated with greater reduction in risk of all-cause and CVD mortality than intentional weight loss." (p. 17)

If you are interested, then take a look at this paper because it contains a much more detailed and nuanced breakdown of this topic than I am providing here. The graphic included below provides a good visual summary. An individual's all-cause and cardiovascular mortality is impacted more by cardiorespiratory fitness than BMI. So, being of healthy weight and having good CRF places you in the lowest risk category but increasing your PA and CRF is at least, and likely more, important than just losing weight in order to reduce mortality.

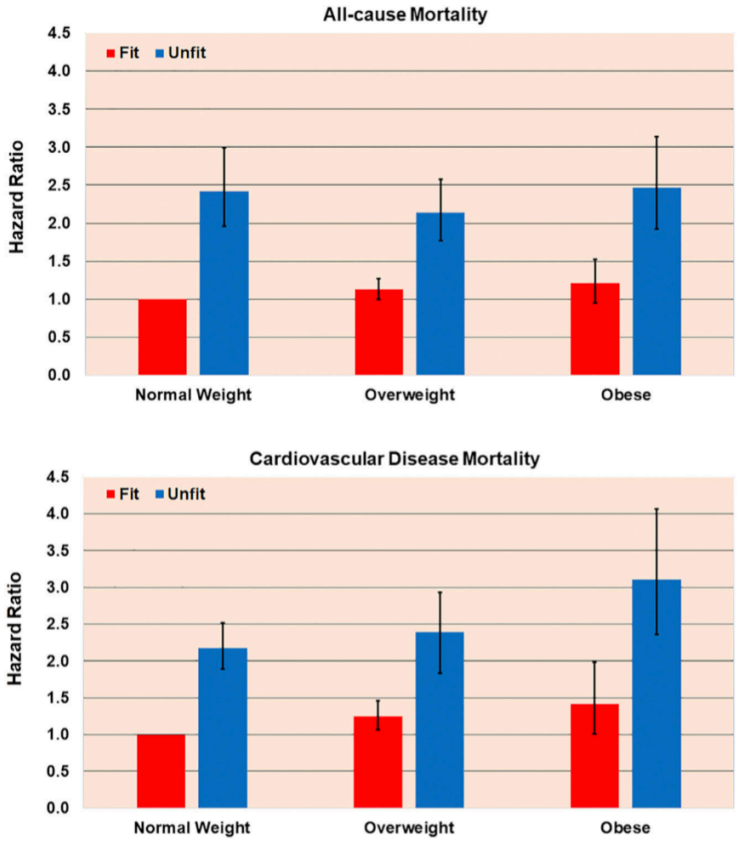

Figure 2. Cardiorespiratory fitness, body mass index, and mortality risk
Joint associations between cardiorespiratory fitness (CRF), body mass index (BMI), and all-cause (top) and cardiovascular disease (CVD) (bottom) mortality. Hazard ratios reflect the pooled data from the meta-analyses of Barry et al. for all-cause mortality (Barry et al., 2014) and cardiovascular disease mortality (Barry et al., 2018). For all-cause mortality, the meta-analysis included 6 cohorts of men only, 2 cohorts of women only, and 2 cohorts of both men (~80%) and women. For CVD mortality, the meta-analysis included 8 cohorts of men only and 1 cohort of both men (89%) and women. Vertical lines for each bar represent 95% confidence intervals. Normal weight (BMI = 18.5-<25.0 kg/m^2) and Fit is the referent group. Overweight = BMI 25.0-<30.0 kg/m^2, and obese = BMI ≥30 kg/m^2. "Fit" includes the top 75%–80% of age-adjusted CRF distribution. See text for details.

In conclusion, most EMS providers have received a COVID-19 vaccine, place masks on their patients, and wear appropriate PPE while treating patients in order to reduce their chance of catching the virus. Our efforts should not stop there. Increase your physical activity. Improve your cardiorespiratory fitness. Eat healthier. Lose weight. Doing so will reduce your risk of a bad outcome from COVID-19, decrease all-cause mortality, and provide countless other benefits of a healthy lifestyle that were not covered in this article. Seize control of your modifiable risk factors - you are the only one who can!

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