When I first started my emergency medicine residency, I thought what all of you are thinking: operations (whatever that is) is boring. I was interested in other, cooler, things, like medical student education, ultrasound, and simulation. So, as I went through my residency, I became involved with hands-on sessions and electives for the medical students, improved my ultrasound skills, and even helped put together a few SIM sessions. All of that was great, but whenever I worked a shift, I found myself increasingly frustrated.

No matter when, where, or with whom I worked, I could always count on one constant — inefficiency. And the inefficiency was inevitably met with even less efficient workarounds. I found myself running back and forth across the department to grab equipment that wasn’t stocked in the right place or in the right amount. I pushed patients to CT scan when transport was nowhere to be found. I was constantly on the phone with admitting providers, arguing — having a discussion — about why or why not this admission was appropriate for their service. I was bombarded by overhead pages that I couldn’t even understand, and that didn’t seem to do anything to further patient care. I sat around, refreshing the screen again and again, hoping that some of the patients in the waiting room would magically be put in an area that had been closed all day because of staffing constraints. I was there to learn by seeing patients and doing procedures, but my time was consumed with all of these other unnecessary tasks.

Over time, these system inefficiencies began to really wear on me. And then, on one shift, sometime near the end of my second year, I had my ‘aha moment’. These problems that seemed to suck the life out of every shift needed to be fixed. And, I wanted — no, needed — to be a part of the solution. It was the only way I could see to get back to what residency was supposed to be all about. But, I didn’t know who to talk to, or where to go, to start making a change.

That’s when I learned what emergency department (ED) operations was. ED operations is akin to the business concept of operational management, which strives to achieve the highest level of efficiency in an organization (in our case, an ED), by optimally converting resources (staff, equipment, space) into goods and services (patient care). Efficiency of an ED is measured in throughput metrics, most commonly door-to-doc time (how long it takes a patient to get seen by a provider), time-to-disposition (how long it takes that provider to make a disposition decision, typically admission or discharge), and turnaround time (the total time a patient spends in the ED). Goods and services are measured in patient satisfaction scores and by the absence of adverse events, which serve as a proxy for a measurement of patient safety. Lots of people are involved in ED operations, including the medical director, the associate and assistant medical directors, nursing leaders, and even administrative leaders within the department and within the hospital. When it comes to ED operations, the whole department really is a sum of how it and the people within it function day-to-day, because all of these metrics are continuously measured over time.

But, ED operations isn’t just about those numbers and scores. It’s about using them for the greater good — to find errors (or potential errors) within a system and use those to improve upon the existing structure. Medical error has been gaining more attention since the landmark publication from the IOM, “To Err is Human” back in 1999, which highlighted the alarming predominance of medical error in the US Healthcare System, and furthermore attributed the majority of those errors to failings within the existing system itself, rather than assigning blame to individual providers. In the classic “Swiss Cheese model” of error, the holes in the cheese are systems errors. But, the holes can’t be seen unless they are visualized in the context of the cheese. The cheese is ED Operations.

The ED Operations team constantly works to close those holes and improve the ED environment for both patients and providers. It is through the operations team that new policies are created, such as those that streamline processes for admission or transport, new protocols, developed with other departments, are put in place to coordinate care more effectively, that new guidelines are created to reduce variation in diagnostic and treatment plans, and that new par systems are put in place to eliminate an excess of supplies, to list just a few things. Yes, this often requires a meeting, or two (or ten), but your time is often well spent, and well worth the time and stress saved on future shifts.

Without an understanding of how your ED operates, you cannot improve the existing system. Quite simply, you can’t fix what you don’t know is broken.