Cleveland Clinic

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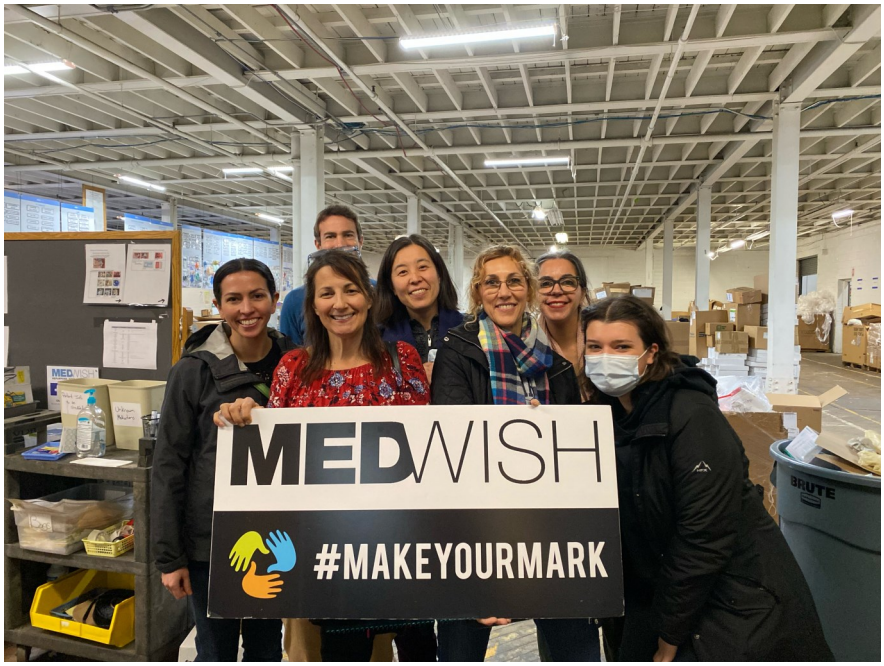
Value Added

Center for Value-Based Care Research



To get into the holiday spirit, members of the Center for Value-Based Care Research team spent time together volunteering at MedWish International, a non-profit that repurposes discarded medical equipment and supplies to developing countries.

FEATURED PUBLICATION

Estimating the costs of physician turnover in hospital medicine

Matthew Pappas, MD, MPH, FHM

What prompted you to study the cost of physician turnover in hospital medicine?

Earlier work found that replacing one physician with another is extremely expensive, and Hospital Medicine has fairly high turnover compared to other specialties. If a hospital spent large sums of money every year replacing outgoing hospitalists with new hospitalists, it would be better to instead spend some of that money on retaining current hospitalists and the rest on patient care.

But we thought that the earlier estimates were probably inaccurate for a few reasons. First, most of the cost of turnover in earlier studies was from lost clinical services—patients that left when their doctor left, and probably went to a different hospital for care. But that doesn't really happen in Hospital Medicine—the things that lead patients to be admitted at one hospital instead of another are complex, but probably don't have very much to do with the hospitalist that takes care of that patient after he or she is admitted. Second, technology has reduced costs in many other sectors of the economy in the past 20 years, so many of the administrative costs from earlier studies were probably out of date.

Third, the cost of hiring one more physician is probably lower in a large hospital than a small one, and hospitals have grown, on average. Hospital mergers have sometimes cited exactly that kind of efficiency as a reason for mergers and consolidation!

Did you find anything to be especially interesting or unexpected as you conducted the study?

Featured Publication

Ongoing Work

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The thing that I found most interesting to think about are the implications of low turnover costs, and in particular the mixed benefits and drawbacks of a flexible workforce. It's really good that we can spend less on things that don't directly improve patient outcomes, and it's really good that we have a flexible workforce of physicians who can meet increased demand when that happens. The COVID-19 pandemic might have been much, much worse if we didn't have physicians who are capable of taking care of very sick patients when local demand required it, either through moonlighting or by moving to a new institution. A flexible workforce that can see patients where the patients need to be seen is a really great thing to have if you want to provide medical care for a population!

But low turnover costs can be abused, too. In one paragraph of the paper's discussion, we talk about how Uber and Lyft aggregate rider demand and commoditize drivers, and the parallels between systems like that and medical staffing. Although systems like those efficiently match rider demand with driver supply, they also reduce the driver to an interchangeable component. The logic of markets can be very powerful, but we can't and shouldn't rely solely on financial logic to value professionals. Balance sheets have a hard time valuing things like community and collegiality, and we should make sure we are building professions and groups that take advantage of the logic of markets without taking advantage of people.

What exactly did you find?

Between July 2017 and June 2020, 34 hospitalists left our practice, 97 hospitalists were hired, and a total of 234 hospitalists provided adult care at 6 hospitals in Northeast Ohio. Direct costs of turnover totaled $6,166 per incoming physician. Additional clinical coverage required at times of transition was the largest expense, followed by physician time recruiting and interviewing prospective candidates. The salary difference between outgoing and incoming hospitalists was cost-saving. Reduced billing would add a mean of $1,197 in indirect costs per hired hospitalist. Institutions that hire fewer hospitalists are likely to incur higher costs per physician; in our simulation using national wage data, programs hiring one hospitalist would spend a mean of $56,943 and programs hiring 20 hospitalists would spend a mean of $28,906 per hospitalist.

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What were some limitations to the study?

First, because the Cleveland Clinic is a large hospital, and our Department of Hospital Medicine is one of the largest in the country, we know that the costs of turnover per hired physician are probably lower here than the national average. We simulated likely costs based on labor prices across the country for groups that hire fewer physicians per year, but that's less certain than our own data. Second, there are clearly intangible costs that we can't measure. Burnout is a big problem in medicine, and turnover might lead to loss of community that makes the work of medicine less pleasant than it would be in a collegial group. Those are really important, but also really hard to measure. Third, there are rare-but-catastrophic problems that didn't happen here, and where it's hard to know how much turnover contributes. For example, if two physicians left from a group of five, the work might be much more difficult for the remaining three, who might be more likely to leave as a result. Some practices have collapsed entirely, but it's hard to know whether turnover contributed or how likely that is to happen. Again, that's important, but hard to measure and include in a study like this one.

What do your findings indicate for future work either in your research or within the clinical setting?

I think we need to be mindful that values are necessarily pluralistic. The philosopher Elizabeth Anderson uses a wonderful example to illustrate how not all things can be valued in money: suppose you invited a friend over for dinner and, at the end of the meal, your friend looked around the table, made a tally of the food, and offered to pay you for the meal. You would probably be confused and offended: the thing you wanted was to share a meal with a friend, which is a thing that most of us value on a completely different axis from the cost of groceries. Each of those actions communicates a different way of valuing the world.

Similarly, I think we need to make sure our policies and actions reflect the many different ways in which we can and should value medical professionals. Communities and institutions can express value in many different ways: for example, early in the pandemic, ensuring adequate PPE was a clear sign of care for medical professionals. Our interactions with a consulting team communicates something about how we value those consultants. Our policies that encourage or discourage physicians from attending national conferences with other members of their specialty communicate something about how we value their professional development. Spending on things like advertisements for job openings does not improve the health of our patients, so lower costs of turnover probably means better healthcare value for patients. But lower turnover costs also means that we have to genuinely value professionals in ways that feel meaningful to them.

For an institution to attract and retain professionals when turnover costs are low, it has to build the sort of workplace in which professionals feel valued and want to stay.

ONGOING WORK

Modifiable determinants of disparities in multiple myeloma treatment patterns

Hamlet Gasoyan, DMD, PhD, MPH

What prompted this investigation? What is unique about the topic?

Multiple myeloma is the second most common hematologic malignancy in the US with an estimated 34,920 incident cases in 2021. Black individuals have a dramatically higher incidence of multiple myeloma, as well as a higher rate of mortality related to multiple myeloma, compared with White individuals. This is likely due to several, complex risk factors, such as genetics and differences in exposure to established multiple myeloma risk factors, such as obesity. While novel treatment agents and regimens are available, newly diagnosed Black patients are less likely to undergo stem cell transplantation, use prescription oral medication lenalidomide, or be treated with triplet (3-drug) regimens, than their White peers. Black patients also receive these novel therapies later compared to their White peers.

Treatment of multiple myeloma is costly. Health insurance coverage likely has an important role in racial disparities in accessing novel therapies for multiple myeloma. Nevertheless, the role of uninsurance or underinsurance in multiple myeloma care patterns was not well studied. Additionally, the COVID-19 pandemic has made presenting for in-person medical care even more challenging, particularly for individuals from underserved communities. Nonetheless, no study to date investigated how the COVID-19 pandemic impacted disparities in multiple myeloma care patterns.

My research focuses on value-based care, health insurance design, health disparities, and health outcomes with applications to obesity, obesity-related chronic diseases, and obesity-related cancers. Given the importance and timeliness of the issue, I designed my career development (K99/R00) award proposal around it.

What are your major goals? What outcomes do you anticipate, if any?

The project's goal is to examine the modifiable determinants of these treatment-related disparities in multiple myeloma. Specifically, we will study whether patients' insurance coverage and social determinants of health can explain the racial disparities in multiple myeloma treatment patterns. We will also assess the effects of the COVID-19 pandemic on multiple myeloma care patterns.

Is there anything unusual/unexpected about your findings in the work you've done so far?

In a pilot study, funded by Cancer Intervention and Surveillance Modeling Network's (CISNET) Junior Investigator Career Enhancement Research Award, we found that the median total cost of care in the first year after multiple myeloma diagnosis almost dou-bled during 2012-2019, from $133,938 (expressed in 2018 USD) in patients diagnoses in2012 to $252,559 in patients diagnoses in 2018. However, the patient out-of-pocket costs remained relatively stable. The out-of-pocket limits imposed by the Affordable Care Act are likely key in preserving access to care for patients with multiple myeloma, particularly among patients with high out-of-pocket cost plans.

How will your work impact scientific literature, and if applicable, clinical practice?

This project examines more granular and modifiable determinants of access to care such as insurance benefit features, as well as social determinants of health, which could help in developing specific and actionable strategies to reduce the health disparities in patients with multiple myeloma.

We'd love to hear from you!

Questions or comments?

Email us at research4C@ccf.org or call 216-445-0719.

To visit our website, click here.

To remove your name from our mailing list, please email Victoria Criswell, criswev@ccf.org

Check out the Center for Value-Based Care Research team's recent publications!

- Qualitative Analysis of Patient-Physician Discussions Regarding Anticoagulation for Atrial Fibrillation
- Personalized Disease Prevention (PDP): study protocol for a cluster-randomized clinical trial
- Physician Gender and Its Association With Patient Satisfaction and Visit Length: An Observational Study in Telemedicine
- Derivation and validation of a risk assessment model for drug-resistant pathogens in hospitalized patients with community-acquired pneumonia
- Informed Decision Making for Anticoagulation Therapy for Atrial Fibrillation
- Estimating the costs of physician turnover in hospital medicine
- Evaluating and Modeling Neighborhood Diversity and Health Using Electronic Health Records
- Simple diagnostic algorithm identifying at-risk nonalcoholic fatty liver disease patients needing specialty referral within the United States
- Addressing insurance-related barriers to novel antiobesity medications: Lessons to be learned from bariatric surgery
- Integrating patient-centeredness into online patient-clinician communication: a qualitative analysis of clinicians' secure messaging usage
- Relationship Between Primary Care Providers' Perceptions of Alcohol Use Disorder And Pharmacotherapy Prescribing Rates
- Adoption and Trends in Uptake of Updated ICD-10 Codes for Clostridioides difficile – A Retrospective Observational Study