# Dramatic drops in ER visits likely led to uncounted deaths

May 25 2020, by Alvin Powell

Credit: CC0 Public Domain

Hospital officials, anticipating a surge of COVID-19 cases, urged deferring routine, nonemergency care so doctors, nurses, and other personnel could focus on pandemic patients. But a new study from Beth

Israel Deaconess Medical Center suggests that too many, either to avoid straining medical resources or fearing infection at the hospital, may have put off emergency care for issues like heart attacks and strokes, at a cost of lives. Dhruv Kazi, director of Beth Israel's Cardiac Critical Care Unit and a Harvard Medical School faculty member, and associate director of the hospital's Smith Center for Outcomes Research in Cardiology, spoke with the Gazette about the study's findings of a 33 percent drop in heart attack patients and 58 percent drop in stroke patients at the hospital during March and April.

## Q&A: Dhruv Kazi

## GAZETTE: What did you find when you looked at hospitalizations for non-COVID conditions at Beth Israel?

KAZI: Early on in the pandemic, it became clear to those of us who work in the intensive care unit and more broadly in cardiology that the number of patients seeking care for emergencies such as heart attacks or strokes had dropped precipitously. Patients were simply not showing up.

And, as we had conversations with colleagues across the country, we realized that this was a national phenomenon and, in fact, an international phenomenon. Patients are not seeking care for conditions that we would normally think of as emergent and potentially life-threatening. So we compared the rates of patients presenting with heart attacks and stroke during the course of the pandemic with an equivalent period of time earlier in the year, before the start of the pandemic.

We used last year's data to adjust for the usual month-to-month variation you would expect over this time period. We expected to find a decline but were still surprised by the magnitude of it: a 33 percent reduction in

hospitalizations for heart attacks and a 58 percent reduction in strokes. The reduction in heart attacks my co-investigators and I had seen firsthand as cardiologists, but the stroke numbers were pretty stunning.

## GAZETTE: Is it possible that people are calmer because they're home, less stressed, so fewer of these things are happening?

KAZI: The data can only tell us what's actually happening, not why these numbers have dropped. There's a possibility that we're at home and, hypothetically, we're eating better, working out more often, feeling less stressed about trying to beat Boston traffic. We also know that, to some extent, air quality has gotten better. But none of these factors, individually or collectively, can explain the magnitude of this decline. In fact, recently released census data suggest that concerns about the pandemic and the resulting economic uncertainty are increasing levels of anxiety and stress in the population.

The decline in heart attack hospitalizations has been seen across the country and the world, including places like Northern California, where the COVID-19 pandemic didn't hit nearly as hard as it did in Boston, and Italy, where they had a public health catastrophe. So it's clear that the messaging that this is a highly infectious disease and that people need to shelter in place, combined with images of hospitals that are overwhelmed—even far away—has encouraged patients to stay at home. The effect we saw on heart attacks and strokes I think is primarily driven by fear of contagion. And that fear has important public health implications.

It means that we, as health systems, have to do a better job convincing patients that hospitals are safe for emergencies. And, as we open up, we've got to do a better job convincing patients that hospitals are safe for

routine care. Because if this fear lingers, people are going to continue to put off routine and even urgent care.

## GAZETTE: Talking specifically about Massachusetts, aren't guidelines for nonemergency care loosening up?

KAZI: Good point. It's important to remember that even at the peak of the lockdown, there were no restrictions at all on emergency care. That's why heart attacks and strokes shouldn't, in an ideal world, have seen any drop at all. With regard to nonemergency care, the state is starting to open up slowly, but there are pretty strict requirements in terms of maintaining adequate social distancing and reducing crowding in waiting rooms. Patients should rest assured that hospitals and clinics have developed systems to safeguard their health while they're in the hospital for care.

## GAZETTE: How dangerous were ERs for people presenting without COVID? Did you have a lot of cases of people who came in for other conditions who wound up getting COVID in the hospital?

KAZI: No, all of our hospitals in Boston—and the same is true nationally—have extensive experience with infection control in emergency room settings. Very quickly, for instance, we split our emergency room into a section that would care for people with respiratory complaints that might be COVID-19 and an entirely separate section that dealt with individuals who clearly did not have complaints resembling COVID-19. In the COVID-19 section of the emergency room, patients were masked immediately, and clinicians took ample precautions to ensure there was no risk of transmission from patients to

clinicians or among patients. This went into place even before the first trickle of patients started showing up in our emergency rooms. So, the risk was very, very low from the get-go.

## GAZETTE: Do you know whether there were any cases of infections in the emergency room?

KAZI: I don't know of any transmission in the emergency room, and this is exactly the kind of question patients need answered. I think we did a really effective job communicating the importance of staying at home, and I'm not undervaluing what we achieved. Let's be clear about this—staying at home and "flattening the curve" in Boston saved lives. We have the luxury in Boston of having numerous world-class hospitals, and each of the big hospitals more than doubled their critical care capacity. In hindsight, the early outbreak in the beginning of March may have pushed us all to prepare well in advance, yet, even with the flattened curve, most hospitals got pretty close to being full during the peak of the pandemic. So, I don't interpret our findings to mean that we shouldn't have locked down or shouldn't have sheltered in place. Far from it. Even our hospitals with all of their spare capacity would have been completely overwhelmed if we had had the same numbers as New York. But I think we could have done a better job communicating about emergencies. And that's a job that's not finished.

## GAZETTE: Do we know whether there were excess deaths that are attributed to non-COVID conditions and that did not occur in the hospitals?

KAZI: Based on the heart attack and stroke data that we just discussed, it's very clear that there are patients who are having heart attacks and strokes and deciding to sit it out. They are either presenting to the hospital late—and not eligible for some of the very effective therapies

for cardiovascular conditions that must be administered early on—or they may have died at home. We know from data from the Centers for Disease Control and Prevention that Massachusetts has had approximately 5,000 excess deaths since the pandemic started. Many of these are due to the pandemic itself, and some may be undiagnosed COVID-19 cases, but my hunch is that many of those deaths are from undiagnosed cardiovascular conditions, like heart attacks and strokes, where people decided to sit out the symptoms and it didn't work out well.

GAZETTE: One of the reasons we've become a healthier society is that people have gotten the message, "Don't wait; come in; get screened; get checked out." How valuable has that "catch it early" message been and is it a potentially unrecognized casualty of COVID, from a public health messaging standpoint?

KAZI: Absolutely. That's exactly what is happening here. Over the past two decades, organizations like the American Heart Association have done a really good job of messaging around the "golden hour," the need to respond early, the importance of—particularly among women—recognizing that some symptoms might be atypical. When in doubt, call 911, go get checked out because in cardiology we say, "Time is muscle." The longer you wait during a heart attack, the more heart muscle you lose. The neurologists say, "Time is brain." The longer you wait during a stroke, the more brain tissue you lose. We've communicated to the public that time is essential for these conditions and we're going to have to get that message out again. Our data suggests that we've taken a small but real step backward in the time of COVID.

## GAZETTE: Besides heart ailments and strokes, did the tendency to avoid hospital visits have any other public health effects for non-COVID patients?

KAZI: Talking about these unintentional consequences of our response to the pandemic, the second part of our study examines cancer diagnoses. Breast cancer is most frequently diagnosed by a screening mammogram, and blood cancers are diagnosed when a patient with minor symptoms goes to their primary care doctor and has an abnormal routine blood test. Starting in March, all screening tests and most primary care visits were deferred so if you didn't have something urgent, you just rescheduled your primary care visit for later. Screening tests like mammograms and colonoscopies were put off.

Again, the intention there was a good one. We didn't want healthy individuals to be coming into the health care system. We wanted to preserve our protective equipment for the surge of COVID-19 patients we anticipated were coming down the pike, and it worked. It's one thing to defer a mammogram by two weeks, but when we start talking about deferring screening tests and primary care visits over a longer period for an entire population, that's a lot of delay in care and a high potential for harm.

We saw that, starting April 1, referrals for breast cancer and blood cancers and hematologic cancers went down more than 60 percent. Those findings are important because these findings are a real marker of health care disruption from deferred primary care and screening. And it harks back to my original point that, as a health system, we're going to have to convince patients that, (a), the hospital is a safe place to come for emergencies. And, (b), as we start to open up again, it will be important not to defer routine care, because this is evidence-based care, tried and tested. We know that it works, and it saves lives.

*This story is published courtesy of the* Harvard Gazette*, Harvard University's official newspaper. For additional university news, visit* Harvard.edu.

MedicalXpress

Provided by Harvard University

Citation: Dramatic drops in ER visits likely led to uncounted deaths (2020, May 25) retrieved 23 April 2024 from https://medicalxpress.com/news/2020-05-er-uncounted-deaths.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.