Author Contributions: Dr Balderston had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: Balderston, Gertz, Seedat, Rankin, Golladay.

Acquisition, analysis, or interpretation of data: All authors.

Drafting of the manuscript: Balderston, Gertz, Seedat, Rodriguez, Golladay.

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Editor's Note

Reappraising Medical Syntax—Does Race Belong in the First Line of the Patient History?

In the midst of the resurgent movement for racial justice, physicians and health care institutions should carefully look within for potential sources of racial and ethnic health disparities. In this issue of *JAMA Internal Medicine*, Balderston et al¹ report on differential documentation of race in the first line of the history of present illness (HPI). In 1200 admissions to an academic medical center in Richmond, Virginia, 33% of Black patients had their race documented in the first line of their admission note compared with 17% of White patients (adjusted odds ratio, 1.57; 95% CI, 1.11-2.25). Black clinicians had 58% lower odds of documenting race than White clinicians (adjusted odds ratio, 0.42; 95% CI, 0.20-0.80), and attending physicians had 2.37 times greater odds of documenting race than resident physicians (95% CI, 1.73-3.27) in adjusted analyses.

Why do Black patients have their race identified more often? The study does not answer this question; however, the function of race in the HPI merits further scrutiny. Hospital ad-

mission notes are intended to communicate relevant information in a predictable sequence, with key elements such as age and sex prioritized to facilitate efficient communication and formation of a differential diagnosis and plan. Race, however, is a social construct that explains minimal genetic or physiologic difference between 2 people. ^{2,3} Indeed, there is greater genetic variation within races than between races. Thus, in many cases, identifying Black race in the first line of the HPI may do little to facilitate medical communication while labeling patients as "other"—a potential conduit for bias.

The study by Balderston et al¹ was limited to a single academic medical center; the findings may or may not be generalizable to other hospitals or health systems. Moreover, the authors did not investigate clinical outcomes associated with differential documentation of race. The findings, however, raise the question of whether basic medical practices, such as how patients are characterized in the first line of the HPI, invite stereotypes and bias into clinical judgment. The rote documentation of race in the first line of the HPI is unlikely to serve a useful function, and the practice of differential documentation offers potential for harm. Given the important implications related to the experience of structural racism, we suggest that race should be documented as part of a complete social history in cases where it is deemed useful.

Jesse C. Ikeme, MD James W. Salazar, MD, MAS Richard W. Grant, MD, MPH

Author Affiliations: Department of Medicine, University of California, San Francisco (Ikeme, Salazar); Editorial Fellow, *JAMA Internal Medicine* (Salazar); Division of Research, Kaiser Permanente Northern California, Oakland (Grant); Associate Editor, *JAMA Internal Medicine* (Grant).

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Corresponding Author: Jesse C. Ikeme, MD, Department of Medicine, University of California, San Francisco, 505 Parnassus Ave, Room M1480, San Francisco, CA 94143 (jesse.ikeme@ucsf.edu).

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Trends in Outpatient Care Delivery and Telemedicine During the COVID-19 Pandemic in the US

The coronavirus disease 2019 (COVID-19) pandemic has dramatically altered patterns of health care delivery in the US. In the context of declining in-person outpatient visits, many clinicians began using telemedicine for the first time, spurred in

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Supplemental content

part by regulatory changes that expanded public and private insurer reimbursement

for a wider range of telemedicine services.^{1,2} To understand how telemedicine compensated for declining outpatient

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volume and geographic variation in changing patterns of outpatient care, we examined telemedicine and in-person outpatient visits in 2020 among a national sample of 16.7 million individuals with commercial or Medicare Advantage insurance.

Methods | We used insurance claims from the OptumLabs Data Warehouse³ to capture all outpatient visits over a 24-week period from January 1, 2020, to June 16, 2020. We included enrollees with 12 months of continuous enrollment (July 2019-June 2020). We assessed data completeness using weekly childbirth rates (eAppendix in the Supplement). We defined outpatient visits as Medicare's list of Common Procedural Terminology (CPT) codes eligible for telemedicine⁴ and telemedicine visits via modifier codes GT, GQ, or 95 or CPT codes 99441-99443.

We assessed changes in outpatient visit volume by capturing weekly rates per 1000 enrollees of telemedicine, inperson, and total visits over the study period. For each state, during the final 4 weeks of the study period (May 20 to June 16), we calculated the percent of total weekly visits delivered by telemedicine and the percent change in total weekly visits compared to the 4 week period preceding expansion of telehealth coverage by Medicare (February 12 to March 10). ⁵ The

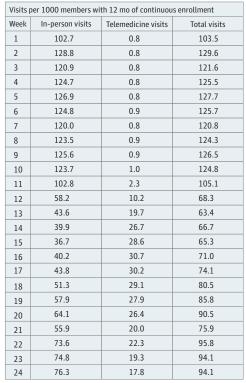
Harvard Medical School institutional review board exempted this study from review and informed consent because all data were deidentified.

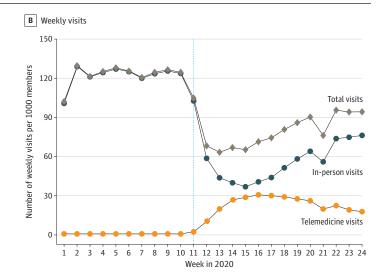
Results | Among 16 740 365 enrollees, the weekly rate of telemedicine visits increased during the pandemic period, peaking in the week of April 15, 2020, before declining by the week of June 10, 2020 (Figure 1). From the weeks of January 1 to June 10, the rates for telemedicine visits increased from 0.8 to 17.8 visits per 1000 enrollees (increase of 17.0 or 2013% change); in-person visits dropped from 102.7 to 76.3 (decrease of 26.4 or -30.0% change); total visits (telemedicine and in-person visits combined) decreased from 103.5 to 94.1 (-9.1% change).

By the last 4 weeks of the study period, May 20 through June 16, there was wide geographic variation in the percent of total visits delivered by telemedicine (ranging from 8.4% in South Dakota to 47.6% in Massachusetts) and the percent change from baseline in total visit rates (ranging from –73.2% in Hawaii to –16.0% in Alaska) (Figure 2). Some states, especially in the South, had a small decline in total visits and lower rates of telemedicine use (ie, Tennessee, –23.6% change in total visits with 10.4% of all visits as telemedicine; Alabama, –21.5% and 13.4%, respectively).

Figure 1. Trends in In-Person, Telemedicine, and Total (In-Person Plus Telemedicine) Visits per Week During the Pre-COVID-19 and COVID-19 Periods, January 1, 2020, to June 16, 2020^a

A In-person, telemedicine, and total visits





The dotted vertical line in panel B indicates the week of March 17, 2020, (week 11), when Medicare expanded reimbursement for telemedicine visits due to the COVID-19 pandemic.⁴

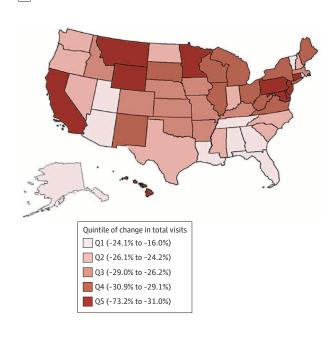
^a Week 21 (May 20 to May 26, 2020) includes Memorial Day, a federal holiday in the US. The work week was likely 4 days for many practices resulting in a decrease in visit volume.

Figure 2. US Geographic Variation in the Percent Change in Total Visits and Percent of Total Visits Delivered by Telemedicine From May 20 to June 16, 2020

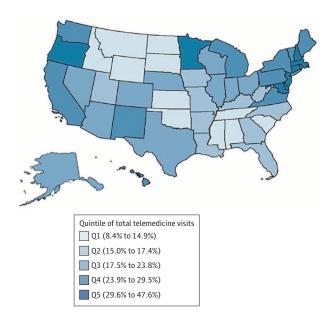
A Weekly visits per 1000 members with 12 mo continuous enrollment

State	Change in weekly total visits per 1000 members (wks 21-24	Weekly total visits per 1000 members delivered via telemedicine
	to 7-10), %	(wks 21-24), %
Alabama	-21.5	13.4
Alaska	-16.0	23.0
Arizona	-22.1	19.1
Arkansas	-26.8	15.4
California	-31.0	29.5
Colorado	-26.2	23.4
Connecticut	-34.3	31.5
Delaware	-32.9	33.8
District of Columbia	-32.2	43.1
Florida	-24.0	17.4
Georgia	-22.7	15.6
Hawaii	-73.2	24.5
Idaho	-27.6	10.9
Illinois	-29.4	23.8
Indiana	-26.0	22.0
Iowa	-29.0	15.1
Kansas	-27.4	13.0
Kentucky	-27.6	16.3
Louisiana	-22.6	15.9
Maine	-29.8	27.6
Maryland	-32.7	36.1
Massachusetts	-28.5	47.6
Michigan	-30.5	28.2
Minnesota	-32.2	34.5
Mississippi	-25.2	13.3
Missouri	-27.8	16.3
Montana	-31.2	11.3
Nebraska	-26.9	18.4
Nevada	-24.8	18.2
New Hampshire	-25.1	33.4
New Jersey	-36.3	30.3
New Mexico	-30.6	26.0
New York	-29.8	28.8
North Carolina	-24.5	16.7
North Dakota	-25.3	11.3
Ohio	-23.3	21.1
Oklahoma	-29.1	14.9
	-26.7	30.3
Oregon		26.6
Pennsylvania	-31.7	40.6
Rhode Island	-20.0	
South Carolina	-24.2	11.4
South Dakota	-29.7	8.4
Tennessee	-23.6	10.4
Texas	-25.0	20.3
Utah	-22.3	17.3
Vermont	-22.2	29.3
Virginia	-30.2	26.0
Washington	-24.6	24.4
West Virginia	-29.3	15.3
Wisconsin	-29.9	21.0
Wyoming	-33.1	12.2

B Change in total visits, %



C Total visits delivered by telemedicine, %



A, Data used to create panels B and C. B, Percent change in total weekly visits is defined as the difference between the total weekly visits from weeks 21 to 24 (May 20 to June 16) and baseline (weeks 7 to 10, February 12 to March 10) divided by the total weekly visits at baseline. Quintitles based on the distributions across all US states. C, Percent of total visits delivered by telemedicine is based on visits during weeks 21 to 24 (May 20 to June 16). Quintitles based on the distributions across all US states. Q1-Q5 indicates quintiles 1 to 5.

Discussion | In this national study of a commercially insured population, growth in telemedicine use offset roughly two-thirds of the decline in in-person visit volume during the COVID-19 pandemic. Although there was geographic variation in the magnitude of changes, every state experienced a drop in total visits, illustrating the broad scope of deferred care during the first months of COVID-19. Although some deferred care may have represented discretionary care that could be postponed without harm, these results also substantiate concerns that patients may fall behind in chronic illness management or face complications from deferred acute medical issues. This would be consistent with evidence from natural disasters resulting in decreased access to care associated with greater morbidity and mortality not directly related to the disaster itself.⁶

An important limitation is that results may not generalize to other populations (eg, traditional Medicare or Medicaid). Telemedicine use during the early COVID-19 pandemic only partially offset a drop in total outpatient care.

Sadiq Y. Patel, PHD, MS, MSW Ateev Mehrotra, MD, MPH Haiden A. Huskamp, PhD Lori Uscher-Pines, PhD Ishani Ganguli, MD, MPH Michael L. Barnett, MD, MS

Author Affiliations: Department of Health Care Policy, Harvard Medical School, Boston, Massachusetts (Patel, Mehrotra, Huskamp); Division of General Medicine, Beth Israel Deaconess Medical Center, Boston, Massachusetts (Mehrotra); OptumLabs Visiting Fellow, Eden Prairie, Minnesota (Mehrotra); RAND Corporation, Arlington, Virginia (Uscher-Pines); Division of General Internal Medicine and Primary Care, Department of Medicine, Brigham and Women's Hospital, Boston, Massachusetts (Ganguli, Barnett); Department of Health Policy and Management, Harvard T. H. Chan School of Public Health, Boston, Massachusetts (Barnett).

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Corresponding Author: Michael L. Barnett, MD, MS, Department of Health Care Policy and Management, Harvard T. H. Chan School of Public Health, 677 Huntington Ave, Kresge 411, Boston, MA 02115 (mbarnett@hsph.harvard.edu).

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Concept and design: Patel, Mehrotra, Barnett.

Acquisition, analysis, or interpretation of data: Patel, Huskamp, Uscher-Pines, Ganguli, Barnett.

Drafting of the manuscript: Patel.

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Media Portrayals of Outcomes After Extracorporeal Membrane Oxygenation

Extracorporeal membrane oxygenation (ECMO) can provide temporary cardiac or respiratory support for the most severely ill patients in the intensive care unit. Use of ECMO has rapidly increased recently, with studies suggesting

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favorable outcomes in selected patient populations.^{2,3} However, ECMO is associated with

important complications¹; it consumes considerable resources⁴; and patients receiving ECMO remain at substantial risk of shortand long-term morbidity and mortality.^{1,4}

Because ECMO can improve outcomes in extremely ill patients, cases of survival after ECMO may gain media attention. However, this focus on survivors who are extremely ill may lead the media to preferentially publish stories with favorable outcomes. Because patients and families often gather medical information from news sources, including the internet,⁵ such biased reporting could lead patients and families to have unrealistic expectations regarding the success of ECMO. We evaluated reports of patients receiving ECMO published in online media to systematically assess how mortality and disability attributed to this therapy were portrayed.

Methods | In this cross-sectional study, we conducted a systematic search to identify relevant news articles related to ECMO. We searched English-language news reports from Google News (http://news.google.com) and Bloomberg (http://www.bloomberg.com) published from January 1, 1960, through April 30, 2020. This literature review exempted from institutional review board approval and followed the