DEI – Pain management **3/27/25**

1. **A Systematic Review of Race, Sex, and Socioeconomic Status Differences in Postoperative Pain and Pain Management. *J Perianesth Nurs* 2023 ;383:504–515. Thurston KL, Zhang SJ, Wilbanks BA, Billings R, Aroke EN.** Purpose: Optimal postoperative pain management remains a significant problem despite the availability of multiple preoperative, intraoperative, and postoperative pain management interventions. Recent studies suggest that racialized minorities, female sex, and individuals of lower socioeconomic status (SES) are more likely to experience more severe pain and inadequate pain management postoperatively. Our systematic review aimed to determine race, sex, and SES differences in postoperative pain and postoperative pain management.; Design: This study is a systematic review of literature.; Methods: Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology, we systematically searched 5 databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, Embase, Scopus, and Cochrane. We included primary source peer-reviewed articles published after 1990 that measured postoperative pain and race/ethnicity, sex/gender, or SES, which were published in English. Two pairs of reviewers independently screened each title, abstract, and article for inclusion. In cases of disagreement, a third reviewer broke the tie.; Findings: A total of 464 articles were screened, of which 32 were included in this study. In most studies, Blacks/African American experience more severe postoperative pain than Whites/Caucasians. Whites were more likely to be prescribed opioids for pain management than Blacks, Hispanics, and Asians. Also, individuals of lower SES and females reported more postoperative pain. One study found no race/ethnic group differences in pain scores and opioid use after the implementation of the enhanced recovery after surgery (ERAS) protocol.; Conclusions: Optimal postoperative pain relief continues to be a challenge for individuals who self-identify as racialized minorities, females, and those of lower SES. Standardization of care may help reduce disparities in postoperative pain management. (Copyright © 2022 American Society of PeriAnesthesia Nurses. Published by Elsevier Inc. All rights reserved.)10.1016/j.jopan.2022.09.004 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36464570&site=ehost-live.
2. **How Can We Get to Equitable and Effective Postpartum Pain Control? *Clin Obstet Gynecol* 2022 ;653:577–587. Johnson JD, Cooper S, Badreldin N, Green C.** Postpartum pain is common, yet patient experiences and clinical management varies greatly. In the United States, pain-related expectations and principles of

adequate pain management have been framed within established norms of Western clinical medicine and a biomedical understanding of disease processes. Unfortunately, this positioning of postpartum pain and the corresponding coping strategies and pain treatments is situated within cultural biases and systemic racism. This paper summarizes the history and existing literature that examines racial inequities in pain management to propose guiding themes and suggestions for innovation. This work is critical for advancing ethical practice and establishing more effective care for all patients. (Copyright © 2022 Wolters Kluwer Health, Inc. All rights reserved.)10.1097/GRF.0000000000000731 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35703219&site=ehost-live.

3. **Disparities in the Treatment of the LGBTQ Population in Chronic Pain Management. *J Pain Res* 2021 ;14:3623–3625. Abd-Elsayed A, Heyer AM, Schatman ME.** Competing Interests: Dr Michael E Schatman serves as a research consultant for Modoscript. The authors report no other conflicts of interest in this work.10.2147/JPR.S348525 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34880669&site=ehost-live.
4. **Association of Patient Race and Ethnicity With Differences in Opioid Prescribing by Primary Care Physicians for Older Adults With New Low Back Pain. *JAMA Health Forum* 2021 ;29:e212333. Ly DP.** Importance: Substantial patient racial and ethnic differences in opioid prescribing have been documented, but how much of these differences were attributable to physicians prescribing opioids differently to patients of racial and ethnic minority groups is unknown, particularly during the first wave of the opioid epidemic when the dangers of opioid prescribing and use were not as well known.; Objective: To examine associations of patient race and ethnicity with differences in opioid prescribing by the same primary care physician (PCP) for new low back pain episodes among older adults from 2007 to 2014.; Design Setting and Participants: This cross-sectional study used Medicare data of PCP office visits by Medicare beneficiaries who were 66 years or older with new low back pain.; Main Outcomes and Measures: Prescribing of any opioid in the first year of a new low back pain episode (days 1-365) and subsequent long-term use of an opioid (prescribed for ≥180 days in days 366-730).; Results: Among the study population of 274 771 patients (mean SD] age, 77.1 7.2] years; 192 105 69.9%] women) with new low back pain, 15 285 (6%) were Asian or Pacific Islander, 16 079 (6%) were Black, 21 289 (8%) were Hispanic, and 222 118 (81%) were White, cared for by 63 494 physicians. In adjusted analysis, on average, 11.5% of the White patients (95% CI, 11.4 to 11.6) received an opioid prescription in the first year of new low back pain. The same prescribing physician was 1.5 percentage points (PP; 95%

CI, -2.2 PP to -0.8 PP) less likely to prescribe an opioid if the patient was Black, 2.7 PP (95% CI, -3.5 PP to -1.8 PP) less likely if the patient was Asian or Pacific Islander, and 1.0 PP (95% CI, -1.7 PP to -0.3 PP) less likely if the patient was Hispanic. The same physician was more likely to prescribe a prescription nonsteroidal anti-inflammatory drug to a patient of a racial or ethnic minority group. White patients with new low back pain were more likely to develop subsequent long-term opioid use than patients of racial and ethnic minority groups (eg, 1.8% for White patients vs 0.5% for Hispanic patients).; Conclusions and Relevance: This cross-sectional study found that from 2007 to 2014, primary care physicians prescribed opioids for new low back pain more often to White patients than to patients of racial and ethnic minority groups. These results suggest that there may have been unequal treatment of pain by physicians when less was known about the morbidity associated with opioid use.; Competing Interests: Conflict of Interest Disclosures: None disclosed. (Copyright 2021 Ly DP. JAMA Health Forum.)10.1001/jamahealthforum.2021.2333 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35977182&site=ehost-live.

5. **Racial Inequality in Prescription Opioid Receipt - Role of Individual Health Systems. *N Engl J Med* 2021 ;3854:342–351. Morden NE, Chyn D, Wood A, Meara E.** Background: Historically, the receipt of prescription opioids has differed among racial groups in the United States. Research has not sufficiently explored the contribution of individual health systems to these differences by examining within-system prescription opioid receipt according to race.; Methods: We used 2016 and 2017 Medicare claims data from a random 40% national sample of fee-for-service, Black and White beneficiaries 18 to 64 years of age who were attributed to health systems. We identified 310 racially diverse systems (defined as systems with ≥200 person-years each for Black and White patients). To test representativeness, we compared patient characteristics and opioid receipt among the patients in these 310 systems with those in the national sample. Within the 310 systems, regression models were used to explore the difference between Black and White patients in the following annual opioid measures: any prescription filled, short-term receipt of opioids, long-term receipt of opioids (one or more filled opioid prescriptions in all four calendar quarters of a year), and the opioid dose in morphine milligram equivalents (MME); models controlled for patient characteristics, state, and system.; Results: The national sample included 2,197,153 person-years, and the sample served by 310 racially diverse systems included 896,807 person-years (representing 47.4% of all patients and 56.1% of Black patients in the national sample). The national sample and 310-systems sample differed meaningfully only in the percent of person-years contributed by Black patients (21.3% vs. 25.9%). In the

310-systems sample, the crude annual prevalence of any opioid receipt differed slightly between Black and White patients (50.2% vs. 52.2%), whereas the mean annual dose was 36% lower among Black patients than among White patients (5190 MME vs. 8082 MME). Within systems, the adjusted race differences in measures paralleled the population trends: the annual prevalence of opioid receipt differed little, but the mean annual dose was higher among White patients than among Black patients in 91% of the systems, and at least 15% higher in 75% of the systems.; Conclusions: Within individual health systems, Black and White patients received markedly different opioid doses. These system-specific findings could facilitate exploration of the causes and consequences of these differences. (Funded by the National Institute on Aging and the Agency for Healthcare Research and Quality.). (Copyright © 2021 Massachusetts Medical Society.)10.1056/NEJMsa2034159 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34289277&site=ehost-live.

6. **Racial and Ethnic Differences in Emergency Department Pain Management of Children With Fractures. *Pediatrics* 2020 ;1455Goyal MK, Johnson TJ, Chamberlain JM, et al.** Objectives: To test the hypotheses that minority children with long-bone fractures are less likely to (1) receive analgesics, (2) receive opioid analgesics, and (3) achieve pain reduction.; Methods: We performed a 3-year retrospective cross-sectional study of children <18 years old with long-bone fractures using the Pediatric Emergency Care Applied Research Network Registry (7 emergency departments). We performed bivariable and multivariable logistic regression to measure the association between patient race and ethnicity and (1) any analgesic, (2) opioid analgesic, (3) ≥2-point pain score reduction, and (4) optimal pain reduction (ie, to mild or no pain).; Results: In 21 069 visits with moderate-to-severe pain, 86.1% received an analgesic and 45.4% received opioids. Of 8533 patients with reassessment of pain, 89.2% experienced ≥2-point reduction in pain score and 62.2% experienced optimal pain reduction. In multivariable analyses, minority children, compared with non-Hispanic (NH) white children, were more likely to receive any analgesics (NH African American: adjusted odds ratio aOR] 1.72 95% confidence interval 1.51-1.95]; Hispanic: 1.32 1.16-1.51]) and achieve ≥2-point reduction in pain (NH African American: 1.42 1.14-1.76]; Hispanic: 1.38 1.04-1.83]) but were less likely to receive opioids (NH African American: aOR 0.86 0.77-0.95]; Hispanic: aOR 0.86 0.76-0.96]) or achieve optimal pain reduction (NH African American: aOR 0.78 0.67-0.90]; Hispanic: aOR 0.80 0.67-0.95]).; Conclusions: There are differences in process and outcome measures by race and ethnicity in the emergency department management of pain among children with long-bone fractures. Although minority children are more likely to receive analgesics

and achieve ≥2-point reduction in pain, they are less likely to receive opioids and achieve optimal pain reduction.; Competing Interests: POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose. (Copyright © 2020 by the American Academy of Pediatrics.)10.1542/peds.2019-3370 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=32312910&site=ehost-live.

7. **Overcoming Barriers: A Comprehensive Review of Chronic Pain Management and Accessibility Challenges in Rural America. *Healthcare (Basel)* 2024 ;1217Baker MB, Liu EC, Bully MA, et al.** In the United States (U.S.), chronic pain poses substantial challenges in rural areas where access to effective pain management can be limited. Our literature review examines chronic pain management in rural U.S. settings, identifying key issues and disparities. A comprehensive search of PubMed, Web of Science, and Google Scholar identified high-quality studies published between 2000 and 2024 on chronic pain management in the rural U.S. Data were categorized into thematic areas, including epidemiology, management challenges, current strategies, research gaps, and future directions. Key findings reveal that rural populations have a significantly higher prevalence of chronic pain and are more likely to experience severe pain. Economic and systemic barriers include a shortage of pain specialists, limited access to nonpharmacologic treatments, and inadequate insurance coverage. Rural patients are also less likely to engage in beneficial modalities like physical therapy and psychological support due to geographic isolation. Additionally, rural healthcare providers more often fulfill multiple medical roles, leading to burnout and decreased quality of care. Innovative approaches such as telehealth and integrated care models show the potential to improve access and outcomes. Our review highlights the need for increased telehealth utilization, enhanced provider education, and targeted interventions to address the specific pain needs of rural populations.10.3390/healthcare12171765 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39273789&site=ehost-live.
8. **Disparities in pain management among transgender patients presenting to the emergency department for abdominal pain. *Acad Emerg Med* 2025 ;322:130–136. Engstrom K, Bellolio F, Jeffery MM, et al.** Objective: Transgender and gender-diverse (TGD) individuals have a gender identity or expression that differs from the sex assigned to them at birth. They are an underserved population who experience health care inequities. Our primary objective was to identify if there are treatment differences between TGD and cisgender lesbian/gay/bisexual/queer (LGBQ) or heterosexual individuals presenting with abdominal pain to the emergency

department (ED).; Methods: Retrospective observational cohort study of patients ≥12 years of age presenting to 21 EDs within a health care system with a chief complaint of abdominal pain between 2018 and 2022. TGD patients were matched 1:1:1:1 to cisgender LGBQ women and men and cisgender heterosexual women and men, respectively. Propensity score matching covariates included age, ED site, mental health history, and gastrointestinal history. The primary outcome was pain assessment within 60 min of arrival. The secondary outcome was analgesics administered in the ED.; Results: We identified 300 TGD patients, of whom 300 TGD patients were successfully matched for a total cohort of 1300 patients. The median (IQR) age was 25 (20-32) years and most patients were treated in a community ED (58.2%). There was no difference between groups in pain assessment within 60 min of arrival (59.0% TGD vs. 63.2% non TGD, p = 0.19). There were no differences in the number of times pain was assessed (median IQR] 2 1-3] vs. 2 1-4], p = 0.31) or the severity of pain between groups (5.5 4-7] vs. 6 4-7], p = 0.11). TGD patients were more likely to receive nonsteroidal anti-inflammatory drugs (32.0% vs. 24.9%, p = 0.015) and less likely to receive opioids than non-TGD patients (24.7% vs. 36.9%, p = <0.001). TGD and nonbinary patients, along with LGBQ cisgender women (24.7%) and heterosexual cisgender women (34%), were less likely to receive opioids than LGBQ cisgender men (54%) and heterosexual cisgender men (42.3%, p < 0.01).; Conclusion: There was no difference in frequency of pain assessment, regardless of gender identity or sexual orientation. More cisgender men, compared to TGD and cisgender women, received opioids for their pain. (© 2024 Society for Academic Emergency Medicine.)10.1111/acem.15027 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39363515&site=ehost-live.

9. **Racial and Ethnic Minorities Underrepresented in Pain Management Guidelines for Total Joint Arthroplasty: A Meta-analysis. *Clin Orthop Relat Res* 2024 ;4829:1698–1706. Merk K, Arpey NC, Gonzalez AM, et al.** Background: Total joint arthroplasty aims to improve quality of life and functional outcomes for all patients, primarily by reducing their pain. This goal requires clinical practice guidelines (CPGs) that equitably represent and enroll patients from all racial/ethnic groups. To our knowledge, there has been no formal evaluation of the racial/ethnic composition of the patient population in the studies that informed the leading CPGs on the topic of pain management after arthroplasty surgery.; Questions/purposes: Using papers included in the 2021 Anesthesia and Analgesia in Total Joint Arthroplasty Clinical Practice Guidelines and comparing them with US National census data, we asked: (1) What is the representation of racial/ethnic groups in randomized controlled trials compared with their representation in the US national

population? (2) Is there a relationship between the reporting of racial/ethnic groups and year of data collection/publication, location of study, funding source, or guideline section?; Methods: Participant demographic data (study year published, study type, guideline section, year of data collection, study site, study funding, study size, gender, age, and race/ethnicity) were collected from articles cited by this guideline. Studies were included if they were full text, were primary research articles conducted primarily within the United States, and if they reported racial and ethnic characteristics of the participants. The exclusion criteria included duplicate articles, articles that included the same participant population (only the latest dated article was included), and the following article types: systematic reviews, nonsystematic reviews, terminology reports, professional guidelines, expert opinions, population-based studies, surgical trials, retrospective cohort observational studies, prospective cohort observational studies, cost-effectiveness studies, and meta-analyses. Eighty-two percent (223 of 271) of articles met inclusion criteria. Our original literature search yielded 27 papers reporting the race/ethnicity of participants, including 24 US-based studies and three studies conducted in other countries; only US-based studies were utilized as the focus of this study. We defined race/ethnicity reporting as the listing of participants' race or ethnicity in the body, tables, figures, or supplemental data of a study. National census information from 2000 to 2019 was then used to generate a representation quotient (RQ), which compared the representation of racial/ethnic groups within study populations to their respective demographic representation in the national population. An RQ value greater than 1 indicates an overrepresented group and an RQ value less than 1 indicates an underrepresented group, relative to the US population. Primary outcome measures of RQ value versus time of publication for each racial/ethnic group were evaluated with linear regression analysis, and race reporting and manuscript parameters were analyzed with chi-square analyses.; Results: Two US-based studies reported race and ethnicity independently. Among the 24 US-based studies reporting race/ethnicity, the overall RQ was 0.70 for Black participants, 0.09 for Hispanic participants, 0.1 for American Indian/Alaska Natives, 0 for Native Hawaiian/Pacific Islanders, 0.08 for Asian participants, and 1.37 for White participants, meaning White participants were overrepresented by 37%, Black participants were underrepresented by 30%, Hispanic participants were underrepresented by 91%, Asian participants were underrepresented by 92%, American Indian/Alaska Natives were 90% underrepresented, and Native Hawaiian Pacific Islanders were virtually not represented compared with the US national population. On chi-square analysis, there were differences between race/ethnicity reporting among studies with academic, industry, and dual-supported funding

sources (χ 2 = 7.449; p = 0.02). Differences were also found between race/ethnicity reporting among US-based and non-US-based studies (χ 2 = 36.506; p < 0.001), with 93% (25 of 27) of US-based studies reporting race as opposed to only 7% (2 of 27) of non-US-based studies. Finally, there was no relationship between race/ethnicity reporting and the year of data collection or guideline section referenced.; Conclusion: The 2021 Anesthesia and Analgesia in Total Joint Arthroplasty Clinical Practice Guidelines provide evidence-based recommendations that reflect the current standards in orthopaedic surgery, but the studies upon which they are based overwhelmingly underenroll and underreport racial/ethnic minorities relative to their proportions in the US population. As these factors impact analgesic administration, their continued neglect may perpetuate inequities in outcomes after TJA.; Clinical Relevance: Our study demonstrates that all non-White racial/ethnic groups were underrepresented relative to their proportion of the US population in the 2021 Anesthesia and Analgesia in Total Joint Arthroplasty Clinical Practice Guidelines, underscoring a weakness in the orthopaedic surgery evidence base and questioning the overall external validity and generalizability of these combined CPGs. An effort should be made to equitably enroll and report outcomes for all racial/ethnic groups in any updated CPGs.; Competing Interests: Each author certifies that there are no funding or commercial associations (consultancies, stock ownership, equity interest, patent/licensing arrangements, etc.) that might pose a conflict of interest in connection with the submitted article related to the author or any immediate family members. All ICMJE Conflict of Interest Forms for authors and Clinical Orthopaedics and Related Research® editors and board members are on file with the publication and can be viewed on request. (Copyright © 2024 by the Association of Bone and Joint Surgeons.)10.1097/CORR.0000000000003026 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38497759&site=ehost-live.

10. **Racial and ethnic disparities in the management of acute pain in US emergency departments: Meta-analysis and systematic review. *Am J Emerg Med* 2019 ;379:1770–1777. Lee P, Le Saux M, Siegel R, et al.** Objective: This review aims to quantify the effect of minority status on analgesia use for acute pain management in US Emergency Department (ED) settings.; Methods: We used the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology to perform a review of studies from 1990 to 2018 comparing racial and ethnic differences in the administration of analgesia for acute pain. Studies were included if they measured analgesia use in white patients compared to a racial minority in the ED and studies were excluded if they focused primarily on chronic pain, case reports and survey studies. Following data abstraction, a meta-analysis

was performed using fixed and random-effect models to determine primary outcome of analgesia administration stratified by racial and ethnic classification.; Results: 763 articles were screened for eligibility and fourteen studies met inclusion criteria for qualitative synthesis. The total study population included 7070 non-Hispanic White patients, 1538 Hispanic, 3125 Black, and 50.3% female. Black patients were less likely than white to receive analgesia for acute pain: OR 0.60 95%-CI, 0.43-0.83, random effects model]. Hispanics were also less likely to receive analgesia: OR 0.75 95%-CI, 0.52-1.09].; Conclusion: This study demonstrates the presence of racial disparities in analgesia use for the management of acute pain in US EDs. Further research is needed to examine patient reported outcomes in addition to the presence of disparities in other groups besides Black and Hispanic.; Trial Registration: Registration number CRD42018104697 in PROSPERO. (Copyright © 2019 Elsevier Inc. All rights reserved.)10.1016/j.ajem.2019.06.014 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31186154&site=ehost-live.

11. **Documenting Race and Gender Biases in Pain Assessment and a Novel Intervention Designed to Reduce Biases. *J Pain* 2024 ;259:104550. Ruben MA, Stosic MD.** Disparities in pain care are well-documented such that women and people of color have their pain undertreated and underestimated compared to men and White people. One of the contributors of the undertreatment of pain for people of color and women may be the inaccurate assessment of pain. Understanding the pain assessment process is an important step in evaluating the magnitude of and intervening on pain disparities in care. In the current work, we focus on documenting intersectional race and gender biases in pain assessment and present the results of a novel intervention for reducing these biases. Across 3 studies (N = 532) and a mini meta-analysis using real videotaped people in pain as stimuli, we demonstrate that observers disproportionately underestimated women of color's pain compared to all other groups (men of color, White women, and White men). In study 3 (N = 232), we show that a novel intervention focused on behavioral skill building (ie, practice and immediate feedback) significantly reduced observers' pain assessment biases toward marginalized groups compared to all other types of trainings (raising awareness of societal biases, raising awareness of self-biases, and a control condition). While it is an open question as to how long this type of intervention lasts, behavioral skills building around assessing marginalized people's pain more accurately is a promising training tool for health care professionals. PERSPECTIVE: This article demonstrates the underestimation of pain among people of color and women. We also found support that a novel intervention reduced observers' pain assessment biases toward marginalized groups. This could be used

in medical education or clinical care to reduce intersectional pain care disparities. (Copyright © 2024 United States Association for the Study of Pain, Inc. Published by Elsevier Inc. All rights reserved.)10.1016/j.jpain.2024.104550 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38692397&site=ehost-live.

12. **Disparities in Pain Management. *Anesthesiol Clin* 2023 ;412:471–488. Nguyen LH, Dawson JE, Brooks M, Khan JS, Telusca N.** Health disparities in pain management remain a pervasive public health crisis. Racial and ethnic disparities have been identified in all aspects of pain management from acute, chronic, pediatric, obstetric, and advanced pain procedures. Disparities in pain management are not limited to race and ethnicity, and have been identified in multiple other vulnerable populations. This review targets health care disparities in the management of pain, focusing on steps health care providers and organizations can take to promote health care equity. A multifaceted plan of action with a focus on research, advocacy, policy changes, structural changes, and targeted interventions is recommended. (Copyright © 2023 Elsevier Inc. All rights reserved.)10.1016/j.anclin.2023.03.008 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37245951&site=ehost-live.
13. **Understanding Racial and Ethnic Disparities in Perioperative Pain Management After Routine Pediatric Tonsillectomy. *Paediatr Anaesth* 2025 ;353:215–222. Pershad AR, Moscoso-Morales R, Di Bono G, et al.** Background: Hispanic/Latino (H/L) patients are often excluded from studies addressing pain management. Limited data suggests disparities in administration of perioperative opioid analgesia. We hypothesize that H/L patients are less likely to have their pain assessed and managed appropriately with opioids following routine pediatric tonsillectomy.; Aims: Our primary outcome was to compare the proportion of H/L patients who receive perioperative opioids to their non-H/L counterparts. Secondarily, we studied the proportion of H/L patients who had their pain score assessed.; Methods: A retrospective medical record review of patients receiving routine tonsillectomy from October 2017 to March 2022 was performed. Descriptive statistics, univariate, and multivariate analyses were conducted with levels of significance at 0.05 and calculation of adjusted odds ratios (aORs).; Results: Of 6553 patients included, 582 (9%) of those self-identified as H/L. The median age of the cohort was 5.6 years (IQR 3.4-9.1) and 53.3% identified as male. H/L patients were more likely to have a higher BMI ($p < 0.001$), have an income level of < $100 000/year ($p < 0.001$), and utilize public insurance ($p < 0.001$) than non-H/L patients. On multivariate analysis, non-H/L patients were less likely to receive opioids (aOR 0.78 0.66, 0.93], $p = 0.006$). They were also more likely to have their

pain assessed (aOR 2.38 1.75, 3.21], p < 0.001).; Conclusions: Disparities in perioperative pain management following routine pediatric tonsillectomy exist. In contrast with current literature and our prior hypothesis, children of non-H/L ethnicity were less likely to receive opioids and more likely to have their pain assessed. Given H/L patients received fewer pain assessments, they are at risk for inferior pain management. Further understanding of factors driving differences in pain management may improve perioperative patient experience, quality of care, and aid in the creation of more standardized protocols. (© 2024 John Wiley & Sons Ltd.)10.1111/pan.15048 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39620914&site=ehost-live.

14. **Equity in the Early Pain Management of Long Bone Fractures in Black vs White Patients: We Have Closed the Gap. *West J Emerg Med* 2024 ;255:809–816. Jehle D, Paul KK, Troung S, et al.** Introduction: Patients with long bone fractures often present to the emergency department (ED) with severe pain and are typically treated with opioid and non-opioid analgesics. Historical data reveals racial disparities in analgesic administration, with White patients more likely to receive analgesics. With the diversifying US population, health equity is increasingly crucial. In this study we aimed to evaluate the early administration of opioid and non-opioid analgesia among Black and White patients with long bone and femur fractures in EDs over different time frames using a substantial database.; Methods: We retrospectively extracted Information from 57 US healthcare organizations within the TriNetX database, encompassing 95 million patients. The ED records from 2003-2023 were subjected to propensity score matching for age and gender. We focused on four cohorts: two comprising Black and White patients diagnosed with long bone fractures, and another two with Black and White patients diagnosed solely with femur fractures. We examined analgesic administration rates over 20 years (2003-2023) at five-year intervals (2003-2008; 2008-2013; 2013-2018; 2018-2023), and further analyzed the rates for the most recent two-year period (2021-2023).; Results: Disparities in analgesic administration significantly diminished over the study period. For patients with long bone fractures (1,095,052), the opioid administration gap narrowed from 6.3% to 1.1%, while non-opioid administration disparities reduced from 4.4% to 0.3%. Similar trends were noted for femur fractures (265,181). By 2021-2023, no significant differences in analgesic administration were observed between racial groups.; Conclusion: Over the past 20 years, the gap in early administration of opioid and non-opioid analgesics for Black and White patients presenting with long bone fractures or femur fractures has been disappearing.; Competing Interests: Conflicts of Interest: By the WestJEM article submission agreement, all authors are required to disclose all affiliations, funding sources and

financial or management relationships that could be perceived as potential sources of bias. This study was conducted with the support of the Institute for Translational Sciences at the University of Texas Medical Branch, supported in part by a Clinical and Translational Science Award (UL1 TR001439) from the National Center for Advancing Translational Sciences, National Institutes of Health. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. There are no other conflicts of interest or sources of funding to declare.10.5811/westjem.18531 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39319813&site=ehost-live.

15. **From stepping stones to scaling mountains: overcoming racialized disparities in pain management. *Pain Manag* 2024 ;141:5–12. Booker SQ, Merriwether EN, Powell-Roach K, Jackson S.** 10.2217/pmt-2023-0098 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38193345&site=ehost-live.
16. **Pain management inequities by demographic and geriatric-related variables in older adult inpatients. *J Am Geriatr Soc* 2024 ;7210:3000–3010. Rambachan A, Neilands TB, Karliner L, Covinsky K, Fang M, Nguyen T.** Background: Pain is ubiquitous, yet understudied. The objective of this study was to analyze inequities in pain assessment and management for hospitalized older adults focusing on demographic and geriatric-related variables.; Methods: This was a retrospective cohort study from January 2013 through September 2021 of all adults 65 years or older on the general medicine service at UCSF Medical Center. Primary exposures included (1) demographic variables including race/ethnicity and limited English proficiency (LEP) status and (2) geriatric-related variables including age, dementia or mild cognitive impairment diagnosis, hearing or visual impairment, end-of-life care, and geriatrics consult involvement. Primary outcomes included (1) adjusted odds of numeric pain assessment versus other assessments and (2) adjusted opioids administered, measured by morphine milligram equivalents (MME).; Results: A total of 15,809 patients were included across 27,857 hospitalizations with 1,378,215 pain assessments, with a mean age of 77.8 years old. Patients were 47.4% White, 26.3% with LEP, 49.6% male, and 50.4% female. Asian (OR 0.75, 95% CI 0.70-0.80), Latinx (OR 0.90, 95% CI 0.83-0.99), and Native Hawaiian or Pacific Islander (OR 0.77, 95% CI 0.64-0.93) patients had lower odds of a numeric assessment, compared with White patients. Patients with LEP (OR 0.70, 95% CI 0.66-0.74) had lower odds of a numeric assessment, compared with English-speaking patients. Patients with dementia, hearing impairment, patients 75+, and at end-of-life were all less likely to receive a numeric assessment. Compared with

White patients (86 MME, 95% CI 77-96), Asian patients (55 MME, 95% CI 46-65) received fewer opioids. Patients with LEP, dementia, hearing impairment and those 75+ years old also received significantly fewer opioids.; Conclusion: Older, hospitalized, general medicine patients from minoritized groups and with geriatric-related conditions are uniquely vulnerable to inequitable pain assessment and management. These findings raise concerns for pain underassessment and undertreatment. (© 2024 The Author(s). Journal of the American Geriatrics Society published by Wiley Periodicals LLC on behalf of The American Geriatrics Society.)10.1111/jgs.19076 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38997213&site=ehost-live.

17. **Racial Disparities in Opioid Administration Practices Among Undifferentiated Abdominal Pain Patients in the Emergency Department. *J Racial Ethn Health Disparities* 2024 ;111:416–424. Boley S, Sidebottom A, Stenzel A, Watson D.** Objectives: The purpose of this study was to examine racial disparities in opioid prescribing practices for patients presenting to the emergency department (ED) with a common chief complaint of abdominal pain.; Methods: Treatment outcomes were compared for non-Hispanic White (NH White), non-Hispanic Black (NH Black), and Hispanic patients seen over 12 months in three emergency departments in the Minneapolis/St. Paul metropolitan area. Multivariable logistic regression models were used to estimate odds ratios (OR) with 95% confidence intervals (CI) to measure the associations between race/ethnicity and outcomes of opioid administration during ED visits and discharge opioid prescriptions.; Results: A total of 7309 encounters were included in the analysis. NH Black (n = 1988) and Hispanic patients (n = 602) were more likely than NH White patients (n = 4179) to be in the 18-39 age group (p < 0. 001). NH Black patients were more likely to report public insurance than NH White or Hispanic patients (p < 0.001). After adjusting for confounders, patients who identified as NH Black (OR: 0.64, 95% CI: 0.56-0.74) or Hispanic (OR: 0.78, 95% CI: 0.61-0.98) were less likely to be given opioids during their ED encounter when compared to NH White patients. Similarly, NH Black patients (OR: 0.62, 95% CI: 0.52-0.75) and Hispanic patients (OR: 0.66, 95% CI: 0.49-0.88) were less likely to receive a discharge opioid prescription.; Conclusions: These results confirm that racial disparities exist in the ED opioid administration within the department as well as at discharge. Future studies should continue to examine systemic racism as well as interventions to alleviate these health inequities. (© 2023. W. Montague Cobb-NMA Health Institute.)10.1007/s40615-023-01529-1 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36795292&site=ehost-live.

18. **Racial/Ethnic Disparities in Peripartum Pain Assessment and Management. *Jt Comm J Qual Patient Saf* 2024 ;508:552–559. Greene NH, Kilpatrick SJ.** Objective: This study was conducted to determine if there were racial/ethnic disparities in pain assessment and management from labor throughout the postpartum period.; Methods: This was a retrospective cohort study of all births from January 2019 to December 2021 in a single urban, quaternary care hospital, excluding patients with hysterectomy, ICU stay, transfusion of more than 3 units of packed red blood cells, general anesthesia, or evidence of a substance abuse disorder. We characterized and compared patterns of antepartum and postpartum pain assessments, epidural use, pain scores, and postpartum pain management by racial/ethnic group with bivariable analyses. Multivariable regression was performed to test for an association between race/ethnicity and amount of opioid pain medication in milligram equivalent units, stratified by delivery mode.; Results: There were 18,085 births between 2019 and 2021 with available race/ethnicity data. Of these, 58.3% were white, 15.0% were Hispanic, 11.9% were Asian, 7.4% were Black, and the remaining 7.4% were classified as Other/Declined. There were no significant differences by race/ethnicity in the number of antepartum or postpartum pain assessments or the proportion of patients who received epidural analgesia. Black and Hispanic patients reported the highest maximum postpartum pain scores after vaginal and cesarean birth compared to white and Asian patients. However, Black and Hispanic patients received lower daily doses of opioid medications than white patients, regardless of delivery mode. After adjusting for patient factors and non-opioid medication dosages, all other racial/ethnic groups received less opioid medication than white patients.; Conclusion: Inequities were found in postpartum pain treatment, including among patients reporting the highest pain levels. (Copyright © 2024 The Joint Commission. Published by Elsevier Inc. All rights reserved.)10.1016/j.jcjq.2024.03.009 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38594132&site=ehost-live.
19. **Addressing Bias in Acute Postoperative Pain Management. *Curr Pain Headache Rep* 2023 ;279:407–415. Harbell MW, Maloney J, Anderson MA, Attanti S, Kraus MB, Strand N.** Purpose of Review: This review evaluates disparities in acute postoperative pain management with regard to gender, race, socioeconomic status, age, and language. Strategies for addressing bias are also discussed.; Recent Findings: Inequities in acute postoperative pain management may lead to longer hospital stays and adverse health outcomes. Recent literature suggests that there are disparities in acute pain management related to patient gender, race, and age. Interventions to address these disparities are reviewed but require further investigation. Recent literature highlights inequities in postoperative pain

management, particularly in relation to gender, race, and age. There is a need for continued research in this area. Strategies such as implicit bias training and using culturally competent pain measurement scales may help reduce these disparities. Continued efforts by both providers and institutions to address and eliminate biases in postoperative pain management are needed to ensure better health outcomes. (© 2023. The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature.)10.1007/s11916-023-01135-0 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37405551&site=ehost-live.

20. **Racial and Ethnic Disparities in Opioid Prescriptions for Patients with Abdominal Pain: Analysis of the National Ambulatory Medical Care Survey.** ***J Clin Med*** **2023 ;1215Ahmed A, McHenry N, Gulati S, Shah I, Sheth SG.** Background: Disparities in pain control have been extensively studied in the hospital setting, but less is known regarding the racial/ethnic disparities in opioid prescriptions for patients with abdominal pain in ambulatory clinics.; Methods: We examined opioid prescriptions during visits by patients presenting with abdominal pain between the years of 2006 and 2015, respectively, in the National Ambulatory Medical Care Survey database. Data weights for national-level estimates were applied.; Results: We identified 4006 outpatient visits, equivalent to 114 million weighted visits. Rates of opioid use was highest among non-Hispanic White patients (12%), and then non-Hispanic Black patients (11%), and was the lowest in Hispanic patients (6%). Hispanic patients had lower odds of receiving opioid prescriptions compared to non-Hispanic White patients (OR = 0.49; 95% CI, 0.31-0.77, p = 0.002) and all non-Hispanic patients (OR 0.48; 95% CI 0.30-0.75; p = 0.002). No significant differences were noted in non-opioid analgesia prescriptions (p = 0.507). A higher frequency of anti-depressants/anti-psychotic prescriptions and alcohol use was recorded amongst the non-Hispanic patients (p = 0.027 and p = 0.001, respectively).; Conclusions: Rates of opioid prescriptions for abdominal pain patients were substantially lower for the Hispanic patients compared with the non-Hispanic patients, despite having a decreased rate of high-risk features, such as alcohol use and depression. The root cause of this disparity needs further research to ensure equitable access to pain management.10.3390/jcm12155030 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37568432&site=ehost-live.
21. **SIO-ASCO guideline on integrative medicine for cancer pain management: implications for racial and ethnic pain disparities.** ***JNCI Cancer Spectr*** **2023 ;74Liou KT, Ashare R, Worster B, et al.** Racial and ethnic disparities in pain management pose major challenges to equitable cancer care delivery. These

disparities are driven by complex interactions between patient-, provider-, and system-related factors that resist reductionistic solutions and require innovative, holistic approaches. On September 19, 2022, the Society for Integrative Oncology and the American Society of Clinical Oncology published a joint guideline to provide evidence-based recommendations on integrative medicine for cancer pain management. Integrative medicine, which combines conventional treatments with complementary modalities from cultures and traditions around the world, are uniquely equipped to resonate with diverse cancer populations and fill existing gaps in pain management. Although some complementary modalities, such as music therapy and yoga, lack sufficient evidence to make a specific recommendation, other modalities, such as acupuncture, massage, and hypnosis, demonstrated an intermediate level of evidence, resulting in moderate strength recommendations for their use in cancer pain management. However, several factors may hinder real-world implementation of the Society for Integrative Oncology and the American Society of Clinical Oncology guideline and must be addressed to ensure equitable pain management for all communities. These barriers include, but are not limited to, the lack of insurance coverage for many complementary therapies, the limited diversity and availability of complementary therapy providers, the negative social norms surrounding complementary therapies, the underrepresentation of racial and ethnic subgroups in the clinical research of complementary therapies, and the paucity of culturally attuned interventions tailored to diverse individuals. This commentary examines both the challenges and the opportunities for addressing racial and ethnic disparities in cancer pain management through integrative medicine. (© The Author(s) 2023. Published by Oxford University Press.)10.1093/jncics/pkad042 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37307074&site=ehost-live.

22. **Bias in Musculoskeletal Pain Management and Bias-Targeted Interventions to Improve Pain Outcomes: A Scoping Review. *Orthop Nurs* 2022 ;412:137–145. Eze B, Kumar S, Yang Y, Kilcoyne J, Starkweather A, Perry MA.** Bias in healthcare negatively impacts disparities in care, treatment, and outcomes, especially among minority populations. A scoping review of the literature was performed to provide a deeper understanding of how bias influences musculoskeletal pain and potential effects of bias-targeted interventions on reducing pain disparities, as well as identify gaps and make suggestions for further research in this area. Publications from peer-reviewed journals were searched using the databases PubMed/MEDLINE, PsycINFO, CINAHL, and Scopus, with 18 studies identified. The literature review revealed that clinician-based bias and discrimination worsen pain and disability by reducing access to treatment and increasing patient pain-related injustice,

catastrophizing, depression, and perceived stress. In contrast, clinician education and perspective-taking, patient decision tools, and community outreach interventions can help reduce bias and disparities in musculoskeletal pain outcomes. Increasing the diversity of the healthcare workforce should also be a priority. Models of care focused on health equity may provide an ideal framework to reduce bias and provide sustainable improvement in musculoskeletal pain management.; Competing Interests: The authors have disclosed no conflicts of interest. (Copyright © 2022 by National Association of Orthopaedic Nurses.)10.1097/NOR.0000000000000833 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35358134&site=ehost-live.

23. **Health Care Disparity in Pain. *Neurosurg Clin N Am* 2022 ;333:251–260. Hamilton TM, Reese JC, Air EL.** Disparity in the treatment of chronic pain has become increasingly pertinent in health care, given the large burden of disease and its economic costs to society. That disease burden is disproportionally carried by minorities and those of lower socioeconomic status for a host of historical and systemic reasons. Only by understanding the cause of such disparities, collecting accurate and thorough data that illuminate all contributing factors, and diversifying the health care workforce, can we achieve more equitable treatment and reduce the burden of chronic pain.; Competing Interests: Disclosure The authors have nothing to disclose. (Copyright © 2022 Elsevier Inc. All rights reserved.)10.1016/j.nec.2022.02.003 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35718394&site=ehost-live.
24. **Not Quite There Yet: Progress in Alleviating Racial Disparities in Acute Surgical Pain Management Using Enhanced Recovery Programs. *J Cardiothorac Vasc Anesth* 2022 ;369:3712–3713. Kumar JE, Kumar N, Chidambaran V, Essandoh M.** 10.1053/j.jvca.2022.05.031 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35778321&site=ehost-live.
25. **Opioid use and social disadvantage in patients with chronic musculoskeletal pain. *PM R* 2022 ;143:309–319. Cheng AL, Brady BK, Bradley EC, et al.** Background: Historically, marginalized patients were prescribed less opioid medication than affluent, white patients. However, because of persistent differential access to nonopioid pain treatments, this direction of disparity in opioid prescribing may have reversed.; Objective: To compare social disadvantage and health in patients with chronic pain who were managed with versus without chronic opioid therapy. It was hypothesized that patients routinely prescribed opioids would be more likely to live in socially disadvantaged communities and report worse health.; Design: Cross-sectional analysis of a retrospective cohort defined from medical records from 2000 to 2019.; Setting: Single tertiary safety net medical

center.; Patients: Adult patients with chronic musculoskeletal pain who were managed longitudinally by a physiatric group practice from at least 2011 to 2015 (n = 1173), subgrouped by chronic (≥4 years) adherent opioid usage (n = 356) versus no chronic opioid usage (n = 817).; Intervention: Not applicable.; Main Outcome Measures: The primary outcome was the unadjusted between-group difference in social disadvantage, defined by living in the worst national quartile of the Area Deprivation Index (ADI). An adjusted effect size was also calculated using logistic regression, with age, sex, race, and Patient-Reported Outcomes Measurement Information System (PROMIS) Pain Interference and Physical Function scores as covariates. Secondary outcomes included adjusted differences in health by chronic opioid use (measured by PROMIS).; Results: Patients managed with chronic opioid therapy were more likely to live in a zip code within the most socially disadvantaged national quartile (34.9%; 95% confidence interval CI] 29.9-39.9%; vs. 24.9%; 95% CI 21.9-28.0%; P < .001), and social disadvantage was independently associated with chronic opioid use (odds ratio OR] 1.01 per ADI percentile 1.01-1.02]). Opioid use was also associated with meaningfully worse PROMIS Depression (3.8 points 2.4-5.1]), Anxiety (3.0 1.4-4.5]), and Pain Interference (2.6 1.7-3.5]) scores.; Conclusions: Patients prescribed chronic opioid treatment were more likely to live in socially disadvantaged neighborhoods, and chronic opioid use was independently associated with worse behavioral health. Improving access to multidisciplinary, nonopioid treatments for chronic pain may be key to successfully overcoming the opioid crisis. (© 2021 American Academy of Physical Medicine and Rehabilitation.)10.1002/pmrj.12596 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33773068&site=ehost-live.

26. **Racial disparities in post-operative pain experience and treatment following cesarean birth. *J Matern Fetal Neonatal Med* 2022 ;3526:10305–10313. Poehlmann JR, Avery G, Antony KM, Broman AT, Godecker A, Green TL.** Objective: To evaluate racial/ethnic differences in post-operative pain experience and opioid medication use (morphine milligram equivalent) in the first 24 h following cesarean birth.; Methods: This study was a single-center retrospective cohort of birthing persons who underwent cesarean deliveries between 1/1/16 and 12/31/17. A total of 2,228 cesarean deliveries were analyzed. The primary outcome was average pain, which was the mean of all documented self-reported pain scores (0-10 scale) during the first 24 h post-delivery. The secondary outcome included oral morphine equivalents used in the first 24 h post-delivery. Linear regression was performed to examine whether the race/ethnicity of the birthing parent was associated with mean pain scores and oral morphine equivalents, controlling for confounding variables.; Results: In multivariate analyses

non-Hispanic Black birthing persons reported higher mean pain scores (Coefficient: 0.61, 95% confidence interval 0.39-0.82], p < .001]) than non-Hispanic White birthing persons, but received similar quantities of morphine milligram equivalent (Coefficient: -0.98 mg, 95% confidence interval -5.93-3.97], p = .698]). Non-Hispanic Asian birthing persons reported similar reported mean pain scores to those of non-Hispanic White birthing persons (Coefficient: 0.02 mg, 95% confidence interval -0.17-0.22], p = .834]), but received less morphine milligram equivalent (Coefficient: -5.47 mg, 95% confidence interval -10.05 to -0.90], p = .019). When controlling for reported mean pain scores, both non-Hispanic Black (Coefficient: -6.36 mg, 95% confidence interval -10.97 to -1.75], p = .007) and non-Hispanic Asian birthing persons (Coefficient: -5.66 mg, 95% confidence interval -9.89 to -1.43], p = .009) received significantly less morphine milligram equivalents.; Conclusion: Despite reporting higher mean pain scores, non-Hispanic Black birthing persons did not receive higher quantities of morphine milligram equivalent. Non-Hispanic Asian birthing persons received lower quantities of morphine milligram equivalent despite reporting similar pain scores to non-Hispanic White birthing persons. These differences suggest disparities in post-operative pain management for birthing persons of color in our study population.10.1080/14767058.2022.2124368 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36195464&site=ehost-live.

27. **The relationship between patients' income and education and their access to pharmacological chronic pain management: A scoping review. *Can J Pain* 2022 ;61:142–170. Atkins N, Mukhida K.** Background: Though chronic pain is widespread, affecting about one-fifth of the world's population, its impacts are disproportionately felt across the population according to socioeconomic determinants such as education and income. These factors also influence patients' access to treatment, including pharmacological pain management.; Aim: A scoping review was undertaken to better understand the association of socioeconomic factors with physicians' pain management prescribing patterns for adults living with chronic pain.; Methods: An electronic literature search was conducted using the EMBASE, CINAHL, SCOPUS, and Ovid MEDLINE databases and 31 retrieved articles deemed relevant for analyses were critically appraised.; Results: The available evidence indicates that patients' lower socioeconomic status is associated with a greater likelihood of being prescribed opioids to manage their chronic pain and a decreased likelihood of receiving prescription medications to manage migraines, rheumatoid arthritis, and osteoarthritis.; Conclusions: These results suggest that individuals with lower socioeconomic status do not receive equal prescription medicine opportunities to manage their chronic pain conditions. This is influenced

by a variety of intersecting variables, including access to care, the potential unaffordability of certain therapies, patients' health literacy, and prescribing biases. Future research is needed to identify interventions to improve equity of access to therapies for patients with chronic pain living in lower socioeconomic situations as well as to explain the mechanism through which socioeconomic status affects chronic pain treatment choices by health care providers.; Abbreviation: SES: socioeconomic status; RA: rheumatoid arthritis; IV: intravenous; SC: subcutaneous; bDMARDs: biological disease-modifying antirheumatic drugs; DMARDS; disease-modifying antirheumatic drugs; TNFi: tumour necrosis factor inhibitors; NSAIDs: non-steroidal anti-inflammatory drugs.; Competing Interests: No potential conflict of interest was reported by the author(s). (© 2022 The Author(s). Published with license by Taylor & Francis Group, LLC.)10.1080/24740527.2022.2104699 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36092247&site=ehost-live.

28. **Beyond Black vs White: racial/ethnic disparities in chronic pain including Hispanic, Asian, Native American, and multiracial US adults. *Pain* 2022 ;1639:1688–1699. Zajacova A, Grol-Prokopczyk H, Fillingim R.** Abstract: Previous literature on race/ethnicity and pain has rarely included all major US racial groups or examined the sensitivity of findings to different pain operationalizations. Using data from the 2010 to 2018 National Health Interview Surveys on adults 18 years or older (N = 273,972), we calculated the weighted prevalence of 6 definitions of pain to provide a detailed description of chronic pain in White, Black, Hispanic, Asian, Native American, and multiracial groups. We also estimated modified Poisson models to obtain relative disparities, net of demographic and socioeconomic (SES) factors including educational attainment, family income, and home ownership; finally, we calculated average predicted probabilities to show prevalence disparities in absolute terms. We found that Asian Americans showed the lowest pain prevalence across all pain definitions and model specifications. By contrast, Native American and multiracial adults had the highest pain prevalence. This excess pain was due to the lower SES among Native Americans but remained significant and unexplained among multiracial adults. The pain prevalence in White, Black, and Hispanic adults fell in between the 2 extremes. In this trio, Hispanics showed the lowest prevalence, an advantage not attributable to immigrant status or SES. Although most previous research focuses on Black-White comparisons, these 2 groups differ relatively little. Blacks report lower prevalence of less severe pain definitions than Whites but slightly higher prevalence of severe pain. Net of SES, however, Blacks experienced significantly lower pain across all definitions. Overall, racial disparities are larger than previously recognized

once all major racial groups are included, and these disparities are largely consistent across different operationalizations of pain. (Copyright © 2022 International Association for the Study of Pain.)10.1097/j.pain.0000000000002574 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35250011&site=ehost-live.

29. **Association between sex and perioperative opioid prescribing for total joint arthroplasty: a retrospective population-based study. *Br J Anaesth* 2021 ;1266:1217–1225. Soffin EM, Wilson LA, Liu J, Poeran J, Memtsoudis SG.** Background: Scarce data exist on differential opioid prescribing between men and women in the pre-, peri-, and postoperative phases of care among patients undergoing total hip/knee arthroplasty (THA/TKA).; Methods: In this retrospective population-based study, Truven Health MarketScan claims data were used to establish differences between men and women in (1) opioid prescribing in the year before THA/TKA surgery, (2) the amount of opioids prescribed at discharge, and (3) chronic opioid prescribing (3-12 months after surgery). Multivariable regression models measured odds ratios (OR) with 95% confidence intervals (95% CI).; Results: Among 29 038 THAs (42% men) and 48 523 TKAs (52% men) men (compared with women) were less likely to receive an opioid prescription in the year before surgery (54% vs 60%, and 54% vs 60% for THA and TKA, respectively); P<0.001. However, in multivariable analyses male sex was associated with higher total opioid dosages prescribed at discharge after THA (OR=1.04; 95% CI 1.03, 1.06) and TKA (OR=1.05; 95% CI 1.04, 1.06); both P<0.001. Chronic opioid prescribing was found in 10% of the cohort (THA: n=2333; TKA: n=5365). Here, men demonstrated lower odds of persistent opioid prescribing specifically after THA (OR=0.90; 95% CI 0.82, 0.99) but not TKA (OR=0.96; 95% CI 0.90, 1.02); P=0.026 and P=0.207, respectively.; Conclusions: We found sex-based differences in opioid prescribing across all phases of care for THA/TKA. The results highlight temporal opportunities for targeted interventions to improve outcomes after total joint arthroplasty, particularly for women, and to decrease chronic opioid prescribing. (Copyright © 2021 British Journal of Anaesthesia. Published by Elsevier Ltd. All rights reserved.)10.1016/j.bja.2020.12.046 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33674073&site=ehost-live.
30. **Gender Biases in Estimation of Others' Pain. *J Pain* 2021 ;229:1048–1059. Zhang L, Losin EAR, Ashar YK, Koban L, Wager TD.** Caregiving and other interpersonal interactions often require accurate perception of others' pain from nonverbal cues, but perceivers may be subject to systematic biases based on gender, race, and other contextual factors. Such biases could contribute to systematic under-recognition and undertreatment of pain. In 2 experiments, we studied the impact of

perceived patient sex on lay perceivers' pain estimates and treatment recommendations. In Experiment 1 (N = 50), perceivers viewed facial video clips of female and male patients in chronic shoulder pain and estimated patients' pain intensity. Multi-level linear modeling revealed that perceivers under-estimated female patients' pain compared with male patients, after controlling for patients' self-reported pain and pain facial expressiveness. Experiment 2 (N = 200) replicated these findings, and additionally found that 1) perceivers' pain-related gender stereotypes, specifically beliefs about typical women's vs. men's willingness to express pain, predicted pain estimation biases; and 2) perceivers judged female patients as relatively more likely to benefit from psychotherapy, whereas male patients were judged to benefit more from pain medicine. In both experiments, the gender bias effect size was on average 2.45 points on a 0-100 pain scale. Gender biases in pain estimation may be an obstacle to effective pain care, and experimental approaches to characterizing biases, such as the one we tested here, could inform the development of interventions to reduce such biases. Perspective: This study identifies a bias towards underestimation of pain in female patients, which is related to gender stereotypes. The findings suggest caregivers' or even clinicians' pain stereotypes are a potential target for intervention. (Copyright © 2021 The Authors. Published by Elsevier Inc. All rights reserved.)10.1016/j.jpain.2021.03.001 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33684539&site=ehost-live.

31. **Is physician implicit bias associated with differences in care by patient race for metastatic cancer-related pain? *PLoS One* 2021 ;1610:e0257794. Fiscella K, Epstein RM, Griggs JJ, Marshall MM, Shields CG.** Rationale: Implicit racial bias affects many human interactions including patient-physician encounters. Its impact, however, varies between studies. We assessed the effects of physician implicit, racial bias on their management of cancer-related pain using a randomized field experiment.; Methods: We conducted an analysis of a randomized field experiment between 2012 and 2016 with 96 primary care physicians and oncologists using unannounced, Black and White standardized patients (SPs)who reported uncontrolled bone pain from metastatic lung cancer. We assessed implicit bias using a pain-adaptation of the race Implicit Association Test. We assessed clinical care by reviewing medical records and prescriptions, and we assessed communication from coded transcripts and covert audiotapes of the unannounced standardized patient office visits. We assessed effects of interactions of physicians' implicit bias and SP race with clinical care and communication outcomes. We conducted a slopes analysis to examine the nature of significant interactions.; Results: As hypothesized, physicians with greater implicit bias provided lower

quality care to Black SPs, including fewer renewals for an indicated opioid prescription and less patient-centered pain communication, but similar routine pain assessment. In contrast to our other hypotheses, physician implicit bias did not interact with SP race for prognostic communication or verbal dominance. Analysis of the slopes for the cross-over interactions showed that greater physician bias was manifested by more frequent opioid prescribing and greater discussion of pain for White SPs and slightly less frequent prescribing and pain talk for Black SPs with the opposite effect among physicians with lower implicit bias. Findings are limited by use of an unvalidated, pain-adapted IAT.; Conclusion: Using SP methodology, physicians' implicit bias was associated with clinically meaningful, racial differences in management of uncontrolled pain related to metastatic lung cancer. There is favorable treatment of White or Black SPs, depending on the level of implicit bias.; Competing Interests: The authors have declared that no competing interests exist.10.1371/journal.pone.0257794 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34705826&site=ehost-live.

32. **Race, pain, and opioids among patients with chronic pain in a safety-net health system. *Drug Alcohol Depend* 2021 ;222:108671. Haq N, McMahan VM, Torres A, et al.** Background: Recent changes in opioid prescribing practices in the US may exacerbate disparities in opioid access among Black compared to White patients.; Methods: To evaluate racial disparities in opioid prescribing and stewardship, we used baseline data collected from 2017 to 2019 for a longitudinal cohort of patients with chronic non-cancer pain and a history of illicit substance use. Sociodemographic characteristics, pain, psychological distress, substance use, and opioid prescription practices were compared between Black and White participants. We conducted multivariable logistic regression with race as the outcome. We also compared yellow flag events (opioid-related emergency department visits, illicit substances on urine drug screens, provider-documentation of concerning behaviors) by race.; Results: Over half of participants analyzed were Black (57%) and the remainder White (43%). Participants with worse average pain in the past three months (adjusted odds ratio AOR]:1.29, 95%CI:1.08-1.55, p = 0.006) had higher odds of being Black. Past-year injection drug use (AOR:0.39, 95%CI:0.16-0.94, p = 0.04) and a higher past-year maximum opioid dose (AOR per 10 morphine milligram equivalents (MME):0.99, 95%CI:0.98-1.00, p = 0.006) were associated with lower odds of being Black. We found no differences by race in the use of opioid stewardship measures or discontinuation of opioids based on yellow flag events.; Conclusion: Lower past-year maximum MME dose, despite higher average pain and less injection drug use, may represent bias away from prescribing opioids for chronic pain among Black patients. This could be due to unmeasured implicit

provider bias or patient-level factors (e.g., utilizing non-opioid pain coping strategies or being less likely to request additional opioids). (Copyright © 2021 Elsevier B.V. All rights reserved.)10.1016/j.drugalcdep.2021.108671 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33810908&site=ehost-live.

33. **Racial disparities in analgesic use amongst patients presenting to the emergency department for kidney stones in the United States. *Am J Emerg Med* 2021 ;39:71–74. Berger AJ, Wang Y, Rowe C, Chung B, Chang S, Haleblian G.** Introduction: We sought quantify racial disparities in use of analgesia amongst patients seen in Emergency Departments for renal colic.; Methods: We identified all individuals presenting to the Emergency Department with urolithiasis from 2003 to 2015 in the nationally representative Premier Hospital Database. We included patients discharged in ≤1 day and excluded those with chronic pain or renal insufficiency. We assessed the relationship between race/ethnicity and opioid dosage in morphine milligram equivalents (MME), and ketorolac, through multivariable regression models adjusting for patient and hospital characteristics.; Results: The cohort was 266,210 patients, comprised of White (84%), Black (6%) and Hispanic (10%) individuals. Median opioid dosage was 20 MME and 55.5% received ketorolac. Our adjusted model showed Whites had highest median MME (20 mg) with Blacks (-3.3 mg 95% CI: -4.6 mg to -2.1 mg]) and Hispanics (-6.0 mg 95% CI: -6.9 mg to -5.1 mg]) receiving less. Blacks were less likely to receive ketorolac (OR: 0.72, 95% CI: 0.62-0.84) while there was no difference between Whites and Hispanics.; Conclusions: Black and Hispanic patients in American Emergency Departments with acute renal colic receive less opioid medication than White patients; Black patients are also less likely to receive ketorolac.; Competing Interests: Declaration of competing interest None. (Copyright © 2020 Elsevier Inc. All rights reserved.)10.1016/j.ajem.2020.01.017 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31987745&site=ehost-live.
34. **Racial, Ethnic, and Socioeconomic Discrepancies in Opioid Prescriptions Among Older Patients With Cancer. *JCO Oncol Pract* 2021 ;176:e703–e713. Vitzthum LK, Nalawade V, Riviere P, et al.** Purpose: Minority race and lower socioeconomic status are associated with lower rates of opioid prescription and undertreatment of pain in multiple noncancer healthcare settings. It is not known whether these differences in opioid prescribing exist among patients undergoing cancer treatment.; Methods and Materials: This observational cohort study involved 33,872 opioid-naive patients of age > 65 years undergoing definitive cancer treatment. We compared rates of new opioid prescriptions by race or ethnicity and

socioeconomic status controlling for differences in baseline patient, cancer, and treatment factors. To evaluate downstream impacts of opioid prescribing and pain management, we also compared rates of persistent opioid use and pain-related emergency department (ED) visits.; Results: Compared with non-Hispanic White patients, the covariate-adjusted odds of receiving an opioid prescription were 24.9% (95% CI, 16.0 to 33.9, P < .001) lower for non-Hispanic Blacks, 115.0% (84.7 to 150.3, P < .001) higher for Asian-Pacific Islanders, and not statistically different for Hispanics (-1.0 to 14.0, P = .06). There was no significant association between race or ethnicity and persistent opioid use or pain-related ED visits. Patients living in a high-poverty area had higher odds (53.9% 25.4 to 88.8, P < .001]) of developing persistent use and having a pain-related ED visit (39.4% 16.4 to 66.9, P < .001]).; Conclusion: For older patients with cancer, rates of opioid prescriptions and pain-related outcomes significantly differed by race and area-level poverty. Non-Hispanic Black patients were associated with a significantly decreased likelihood of receiving an opioid prescription. Patients from high-poverty areas were more likely to develop persistent opioid use and have a pain-related ED visit.; Competing Interests: Paul RiviereConsulting or Advisory Role: Peptide Logic Loren K. MellHonoraria: NanobiotixConsulting or Advisory Role: BayerResearch Funding: Merck, AstraZeneca Timothy FurnishTravel, Accommodations, Expenses: Boston Scientific, Medtronic, Abbott Laboratories, Nevro James D. MurphyConsulting or Advisory Role: Boston Consulting GroupResearch Funding: eContourNo other potential conflicts of interest were reported.10.1200/OP.20.00773 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33534647&site=ehost-live.

35. **Racism in Pain Medicine: We Can and Should Do More. *Mayo Clin Proc* 2021 ;966:1394–1400. Strand NH, Mariano ER, Goree JH, et al.** 10.1016/j.mayocp.2021.02.030 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34088411&site=ehost-live.
36. **Treatment Disparities Among the Black Population and Their Influence on the Equitable Management of Chronic Pain. *Health Equity* 2021 ;51:596–605. Knoebel RW, Starck JV, Miller P.** Introduction: Growing evidence suggests disparities in the prevalence, management, progression, and outcomes of chronic, nonmalignant pain-related conditions, especially for African American patients. Objective: The purpose of this review is to explore studied causative factors that influence the management of chronic pain among African Americans, including factors that result in disparate care that may contribute to unfavorable outcomes. Methods: This narrative review is based on available literature published on this topic published within the last 10 years. Results: Assessment of chronic pain is

multifaceted, often complicated by patient medical comorbidities and a complex set of biopsychosocial/spiritual/financial and legal determinants. These complexities are further exacerbated by a patient's race, by provider bias, and by structural barriers-all intersecting and culminating in disparate outcomes. Conclusions: A comprehensive analysis is needed to identify quality improvement interventions and to mitigate major barriers contributing to disparities in the management of chronic pain in the African American population.; Competing Interests: No competing financial interests exist. (© Randall W. Knoebel et al., 2021; Published by Mary Ann Liebert, Inc.)10.1089/heq.2020.0062 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34909526&site=ehost-live.

37. **Mixed studies review of factors influencing receipt of pain treatment by injured black patients. *J Adv Nurs* 2020 ;761:34–46. Aronowitz SV, Mcdonald CC, Stevens RC, Richmond TS.** Aim: To explore the factors that influence provider pain treatment decision-making and the receipt of pain management by injured Black patients in the United States.; Design: We completed a systematic mixed studies review using a results-based convergent synthesis design.; Data Sources: PubMed, SCOPUS and CINAHL were searched for articles published between 2007-2017 using the search terms 'African American', 'Black American', 'race', 'pain treatment', 'pain management' and 'analgesia'. Twenty studies were included in this review.; Review Method: A search of databases and hand-searching identified peer-reviewed published papers. The Mixed Method Appraisal Tool was used to appraise the studies.; Results: The results indicate that healthcare provider characteristics, racial myths about pain sensitization and assumed criminality all impact provider treatment decision-making and the receipt of pain treatment by injured Black patients.; Impact: This review addresses racial disparities in pain management by focusing on the factors that impact the receipt of pain treatment by injured Black patients. The findings will have an impact on providers who prescribe pain treatment and on the patients they treat. These findings suggest that assumed criminality of certain patients can negatively impact care, which is a type of bias not frequently explored or discussed in health disparities research. This review will help inform further research in healthcare disparities and prompt providers to examine their assumptions about the patients for whom they care.; Conclusion: These results provide important areas for further study, including how assumed criminality of certain patients can have a negative impact on care. (© 2019 John Wiley & Sons Ltd.)10.1111/jan.14215 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31566791&site=ehost-live.

38. **The Unique and Interactive Effects of Patient Race, Patient Socioeconomic Status, and Provider Attitudes on Chronic Pain Care Decisions. *Ann Behav Med* 2020 ;5410:771–782. Anastas TM, Miller MM, Hollingshead NA, Stewart JC, Rand KL, Hirsh AT.** Background: Compared to White and high socioeconomic status (SES) patients, Black and low SES patients receive less adequate pain care. Providers may contribute to these disparities by making biased decisions that are driven, in part, by their attitudes about race and SES.; Purpose: We examined the effects of patient race and SES on providers' chronic pain decisions and the extent to which providers' implicit and explicit attitudes about race and SES were related to these decisions.; Methods: Physician residents/fellows (n = 436) made pain care decisions for 12 computer-simulated patients with chronic back pain that varied by race (Black/White) and SES (low/high). Physicians also completed measures assessing implicit and explicit attitudes about race and SES.; Results: There were three significant race-by-SES interactions: (a) For high SES patients, Black (vs. White) patients were rated as having more pain interference; the opposite race difference emerged for low SES patients. (b) For high SES patients, Black (vs. White) patients were rated as being in greater distress; no race difference emerged for low SES patients. (c) For low SES patients, White (vs. Black) patients were more likely to be recommended workplace accommodations; no race difference emerged for high SES patients. Additionally, providers were more likely to recommend opioids to Black (vs. White) and low (vs. high) SES patients, and were more likely to use opioid contracts with low (vs. high) SES patients. Providers' implicit and explicit attitudes predicted some, but not all, of their pain-related ratings.; Conclusion: These results highlight the need to further examine the effects of patient race and SES simultaneously in the context of pain care. (© Society of Behavioral Medicine 2020. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.)10.1093/abm/kaaa016 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=32227158&site=ehost-live.
39. **Care Disparities in Chronic Pain. *Curr Pain Headache Rep* 2019 ;236:36. Abd-Elsayed A, Fiala K.** 10.1007/s11916-019-0779-8 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31044317&site=ehost-live.
40. **Classism in Pain Care: The Role of Patient Socioeconomic Status on Nurses' Pain Assessment and Management Practices. *Pain Med* 2019 ;2011:2094–2105. Brandão T, Campos L, de Ruddere L, Goubert L, Bernardes SF.** Objective: Research on social disparities in pain care has been mainly focused on the role of race/racism and sex/sexism. Classism in pain assessment and management practices has been much less investigated. We aimed to test the effect of patient

socioeconomic status (SES; a proxy of social class) on nurses' pain assessment and management practices and whether patient SES modulated the effects of patient distress and evidence of pathology on such practices.; Design: Two experimental studies with a two (patient SES: low/high) by two (patient distress or evidence of pathology: absent/present) between-subject design.; Subjects: Female nurses participated in two experimental studies (N = 150/N = 158).; Methods: Nurses were presented with a vignette/picture depicting the clinical case of a female with chronic low back pain, followed by a video of the patient performing a pain-inducing movement. Afterwards, nurses reported their pain assessment and management practices.; Results: The low-SES patient's pain was assessed as less intense, more attributed to psychological factors, and considered less credible (in the presence of distress cues) than the higher-SES patient's pain. Higher SES buffered the detrimental impact of the presence of distress cues on pain assessment. No effects were found on management practices.; Conclusions: Our findings point to the potential buffering role of SES against the detrimental effect of certain clinical cues on pain assessments. This study contributes to highlighting the need for further investigation of the role of SES/social class on pain care and its underlying meanings and processes. (© 2019 American Academy of Pain Medicine. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.)10.1093/pm/pnz148 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31361014&site=ehost-live.

41. **Racial and ethnic differences in the experience and treatment of noncancer pain. *Pain Manag* 2019 ;93:317–334. Meints SM, Cortes A, Morais CA, Edwards RR.** The burden of pain is unequal across racial and ethnic groups. In addition to racial and ethnic differences in the experience of pain, there are racial and ethnic disparities in the assessment and treatment of pain. In this article, we provide a nonexhaustive review of the biopsychosocial mechanistic factors contributing to racial and ethnic differences in both the experience and treatment of pain. Using a modified version of the Socioecological Model, we focus on patient-, provider- and system-level factors including coping, perceived bias and discrimination, patient preferences, expectations, patient/provider communication, treatment outcomes and healthcare access. In conclusion, we provide psychosocial factors influencing racial and ethnic differences in pain and highlight future research targets and possible solutions to reduce these disparities.10.2217/pmt-2018-0030 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31140916&site=ehost-live.
42. **Racial and Ethnic Disparities in the Evaluation and Management of Pain in the Outpatient Setting, 2006-2015. *Pain Med* 2019 ;202:223–232. Ly DP.** Objective:

Much is known about racial and ethnic disparities in receipt of opioids for pain in emergency departments. Less is known about such disparities in the evaluation and management of pain in the outpatient setting.; Methods: Using the nationally representative National Ambulatory Medical Care Survey (NAMCS), we estimated disparities in visit time with physicians and opioid receipt in the outpatient setting. We focused on patients whose reason for visiting was abdominal pain or back pain. Our sample included 4,764 white patients, 692 black patients, and 682 Hispanic patients.; Results: Back pain visits of Hispanic patients lasted 1.6 fewer minutes than those of white non-Hispanic patients (P = 0.04 for the difference). Black patients were 6.0% less likely than white patients to receive opioids for abdominal pain (P = 0.04 for the difference) and 7.1% less likely than white patients to receive opioids for back pain (P = 0.046 for the difference). Hispanic patients were 6.3% less likely than white patients to receive opioids for abdominal pain (P = 0.003 for the difference) and 14.8% less likely than white patients to receive opioids for back pain (P < 0.001 for the difference). Hispanic patients were more likely than white patients to receive nonopioids instead of opioids for both abdominal pain and back pain. Differences in opioid receipt did not narrow during the examined time period.; Conclusions: Identifying causes of racial and ethnic disparities in the evaluation and treatment of pain in the outpatient setting is important to improving the health and function of patients. (© 2018 American Academy of Pain Medicine. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.)10.1093/pm/pny074 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29688509&site=ehost-live.

43. **Racial Disparities in Postpartum Pain Management. *Obstet Gynecol* 2019 ;1346:1147–1153. Badreldin N, Grobman WA, Yee LM.** Objective: To evaluate racial and ethnic differences in women's postpartum pain scores, inpatient opioid administration, and discharge opioid prescriptions.; Methods: We conducted a retrospective cohort study of all deliveries at a single high-volume tertiary care center from December 1, 2015, through November 30, 2016. Women were included if they self-identified as non-Hispanic white, non-Hispanic black, or Hispanic; were at least 18 years of age; and did not have documented allergies to nonsteroidal antiinflammatory drugs or morphine. Medical records were queried for three outcomes: 1) patient-reported postpartum pain score (on a scale of 0-10) at discharge (dichotomized less than 5 or 5 or higher), 2) inpatient opioid dosing during postpartum hospitalization (reported as morphine milligram equivalents MMEs] per postpartum day), and 3) receipt of an opioid prescription at discharge. The associations between each of these outcomes and maternal race-ethnicity were assessed using multivariable logistic regression models with random effects to

account for clustering by discharge physician. A sensitivity analysis was conducted in which women of different race and ethnicity were matched using propensity scores.; Results: A total of 9,900 postpartum women were eligible for analysis. Compared with non-Hispanic white women, Hispanic and non-Hispanic black women had significantly greater odds of reporting a pain score of 5 or higher (adjusted odds ratio aOR] 1.61, 95% 1.26-2.06 and aOR 2.18, 95% 1.63-2.91, respectively) but received significantly fewer inpatient MMEs/d (adjusted β -5.03, 95% CI -6.91 to -3.15, and adjusted β -3.54, 95% CI -5.88 to -1.20, respectively). Additionally, Hispanic and non-Hispanic black women were significantly less likely to receive an opioid prescription at discharge (aOR 0.80, 95% CI 0.67 to -0.96 and aOR 0.78, 95% CI 0.62-0.98) compared with non-Hispanic white women. Results of the propensity score analysis largely corroborated those of the primary analysis, with the exception that the difference in inpatient MMEs/d between non-Hispanic white and non-Hispanic black women did not reach statistical significance.; Conclusion: Hispanic and non-Hispanic black women experience disparities in pain management in the postpartum setting that cannot be explained by less perceived pain.10.1097/AOG.0000000000003561 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31764723&site=ehost-live.

44. **A randomized controlled trial testing a virtual perspective-taking intervention to reduce race and socioeconomic status disparities in pain care. *Pain* 2019 ;16010:2229–2240. Hirsh AT, Miller MM, Hollingshead NA, et al.** We conducted a randomized controlled trial of an individually tailored, virtual perspective-taking intervention to reduce race and socioeconomic status (SES) disparities in providers' pain treatment decisions. Physician residents and fellows (n = 436) were recruited from across the United States for this two-part online study. Providers first completed a bias assessment task in which they made treatment decisions for virtual patients with chronic pain who varied by race (black/white) and SES (low/high). Providers who demonstrated a treatment bias were randomized to the intervention or control group. The intervention consisted of personalized feedback about their bias, real-time dynamic interactions with virtual patients, and videos depicting how pain impacts the patients' lives. Treatment bias was re-assessed 1 week later. Compared with the control group, providers who received the tailored intervention had 85% lower odds of demonstrating a treatment bias against black patients and 76% lower odds of demonstrating a treatment bias against low SES patients at follow-up. Providers who received the intervention for racial bias also showed increased compassion for patients compared with providers in the control condition. Group differences did not emerge for provider comfort in treating patients. Results suggest an online intervention that is tailored to providers

according to their individual treatment biases, delivers feedback about these biases, and provides opportunities for increased contact with black and low SES patients, can produce substantial changes in providers' treatment decisions, resulting in more equitable pain care. Future studies should examine how these effects translate to real-world patient care and the optimal timing/dose of the intervention.10.1097/j.pain.0000000000001634 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31568099&site=ehost-live.

45. **Addressing Cancer Pain Inequities Through Intervention. *Oncol Nurs Forum* 2018 ;452:141–142. Lucas MS.** The Power Over Pain-Coaching (POP-C) intervention was developed to improve functional status and decrease pain and pain-related distress among ambulatory African American patients with cancer. By bypassing the effects of disparities, the POP-C intervention may help to decrease suffering among African American patients with cancer pain; consequently, it contributes to improving quality of life and addressing social and other determinants of health among members of this population. .10.1188/18.ONF.141-142 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29466343&site=ehost-live.
46. **Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *Proc Natl Acad Sci U S A* 2016 ;11316:4296–4301. Hoffman KM, Trawalter S, Axt JR, Oliver MN.** Black Americans are systematically undertreated for pain relative to white Americans. We examine whether this racial bias is related to false beliefs about biological differences between blacks and whites (e.g., "black people's skin is thicker than white people's skin"). Study 1 documented these beliefs among white laypersons and revealed that participants who more strongly endorsed false beliefs about biological differences reported lower pain ratings for a black (vs. white) target. Study 2 extended these findings to the medical context and found that half of a sample of white medical students and residents endorsed these beliefs. Moreover, participants who endorsed these beliefs rated the black (vs. white) patient's pain as lower and made less accurate treatment recommendations. Participants who did not endorse these beliefs rated the black (vs. white) patient's pain as higher, but showed no bias in treatment recommendations. These findings suggest that individuals with at least some medical training hold and may use false beliefs about biological differences between blacks and whites to inform medical judgments, which may contribute to racial disparities in pain assessment and treatment.10.1073/pnas.1516047113 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27044069&site=ehost-live.

47. **Sociodemographic inequalities in barriers to cancer pain management: a report from the American Cancer Society's Study of Cancer Survivors-II (SCS-II). *Psychooncology* 2016 ;2510:1212–1221. Stein KD, Alcaraz KI, Kamson C, Fallon EA, Smith TG.** Objective: Research has increasingly documented sociodemographic inequalities in the assessment and management of cancer-related pain. Most studies have focused on racial/ethnic disparities, while less is known about the impact of other sociodemographic factors, including age and education. We analyzed data from a large, national, population-based study of cancer survivors to examine the influence of sociodemographic factors, and physical and mental health comorbidities on barriers to cancer pain management.; Methods: The study included data from 4707 cancer survivors in the American Cancer Society's Study of Cancer Survivors-II, who reported experiencing pain from their cancer. A multilevel, socioecological, conceptual framework was used to generate a list of 15 barriers to pain management, representing patient, provider, and system levels. Separate multivariable logistic regressions for each barrier identified sociodemographic and health-related inequalities in cancer pain management, controlling for years since diagnosis, disease stage, and cancer treatment.; Results: Two-thirds of survivors reported at least 1 barrier to pain management. While patient-related barriers were most common, the greatest disparities were noted in provider- and system-level barriers. Specifically, inequalities by race/ethnicity, education, age, and physical and mental health comorbidities were observed.; Conclusion: Findings indicate survivors who were nonwhite, less educated, older, and/or burdened by comorbidities were most adversely affected. Future efforts in research, clinical practice, and policy should identify and/or implement new strategies to address sociodemographic inequalities in cancer pain management. (Copyright © 2016 John Wiley & Sons, Ltd.)10.1002/pon.4218 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27421683&site=ehost-live.
48. **Analgesic Access for Acute Abdominal Pain in the Emergency Department Among Racial/Ethnic Minority Patients: A Nationwide Examination. *Med Care* 2015 ;5312:1000–1009. Shah AA, Zogg CK, Zafar SN, et al.** Background: Prior studies of acute abdominal pain provide conflicting data regarding the presence of racial/ethnic disparities in the emergency department (ED).; Objective: To evaluate race/ethnicity-based differences in ED analgesic pain management among a national sample of adult patients with acute abdominal pain based on a uniform definition.; Research Design/subjects/measures: The 2006-2010 CDC-NHAMCS data were retrospectively queried for patients 18 years and above presenting with a primary diagnosis of nontraumatic acute abdominal pain as defined by the

American Association for the Surgery of Trauma. Independent predictors of analgesic/narcotic-specific analgesic receipt were determined. Risk-adjusted multivariable analyses were then performed to determine associations between race/ethnicity and analgesic receipt. Stratified analyses considered risk-adjusted differences by the level of patient-reported pain on presentation. Secondary outcomes included: prolonged ED-LOS (>6 h), ED wait time, number of diagnostic tests, and subsequent inpatient admission.; Results: A total of 6710 ED visits were included: 61.2% (n=4106) non-Hispanic white, 20.1% (n=1352) non-Hispanic black, 14.0% (n=939) Hispanic, and 4.7% (n=313) other racial/ethnic group patients. Relative to non-Hispanic white patients, non-Hispanic black patients and patients of other races/ethnicities had 22%-30% lower risk-adjusted odds of analgesic receipt OR (95% CI)=0.78 (0.67-0.90); 0.70 (0.56-0.88)]. They had 17%-30% lower risk-adjusted odds of narcotic analgesic receipt (P<0.05). Associations persisted for patients with moderate-severe pain but were insignificant for mild pain presentations. When stratified by the proportion of minority patients treated and the proportion of patients reporting severe pain, discrepancies in analgesic receipt were concentrated in hospitals treating the largest percentages of both.; Conclusions: Analysis of 5 years of CDC-NHAMCS data corroborates the presence of racial/ethnic disparities in ED management of pain on a national scale. On the basis of a uniform definition, the results establish the need for concerted quality-improvement efforts to ensure that all patients, regardless of race/ethnicity, receive optimal access to pain relief.10.1097/MLR.0000000000000444 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26569642&site=ehost-live.

49. **Education to identify and combat racial bias in pain treatment. *AMA J Ethics* 2015 ;173:221–228. Drwecki BB.** 10.1001/journalofethics.2015.17.3.medu1-1503 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25813588&site=ehost-live.
50. **Racial Disparities in Pain Management of Children With Appendicitis in Emergency Departments. *JAMA Pediatr* 2015 ;16911:996–1002. Goyal MK, Kuppermann N, Cleary SD, Teach SJ, Chamberlain JM.** Importance: Racial disparities in use of analgesia in emergency departments have been previously documented. Further work to understand the causes of these disparities must be undertaken, which can then help inform the development of interventions to reduce and eradicate racial disparities in health care provision.; Objective: To evaluate racial differences in analgesia administration, and particularly opioid administration, among children diagnosed as having appendicitis.; Design, Setting, and Participants: Repeated cross-sectional study of patients aged 21 years or

younger evaluated in the emergency department who had an International Classification of Diseases, Ninth Revision diagnosis of appendicitis, using the National Hospital Ambulatory Medical Care Survey from 2003 to 2010. We calculated the frequency of both opioid and nonopioid analgesia administration using complex survey weighting. We then performed multivariable logistic regression to examine racial differences in overall administration of analgesia, and specifically opioid analgesia, after adjusting for important demographic and visit covariates, including ethnicity and pain score.; Main Outcomes and Measures: Receipt of analgesia administration (any and opioid) by race.; Results: An estimated 0.94 (95% CI, 0.78-1.10) million children were diagnosed as having appendicitis. Of those, 56.8% (95% CI, 49.8%-63.9%) received analgesia of any type; 41.3% (95% CI, 33.7%-48.9%) received opioid analgesia (20.7% 95% CI, 5.3%-36.0%] of black patients vs 43.1% 95% CI, 34.6%-51.4%] of white patients). When stratified by pain score and adjusted for ethnicity, black patients with moderate pain were less likely to receive any analgesia than white patients (adjusted odds ratio = 0.1 95% CI, 0.02-0.8]). Among those with severe pain, black patients were less likely to receive opioids than white patients (adjusted odds ratio = 0.2 95% CI, 0.06-0.9]). In a multivariable model, there were no significant differences in the overall rate of analgesia administration by race. However, black patients received opioid analgesia significantly less frequently than white patients (12.2% 95% CI, 0.1%-35.2%] vs 33.9% 95% CI, 0.6%-74.9%], respectively; adjusted odds ratio = 0.2 95% CI, 0.06-0.8]).; Conclusions and Relevance: Appendicitis pain is undertreated in pediatrics, and racial disparities with respect to analgesia administration exist. Black children are less likely to receive any pain medication for moderate pain and less likely to receive opioids for severe pain, suggesting a different threshold for treatment.10.1001/jamapediatrics.2015.1915 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26366984&site=ehost-live.