Inequity 911:
Racial Disparities in Emergency Treatment by Oregon EMS Agencies

New research on racial minorities in Oregon receiving lower quality of Emergency Medical Services care compared to white Oregonians

Fact Sheet

October 2018

Study Summary

The first of its kind in Oregon, the *Inequity 911* study assessed the racial equity of medical treatment by Emergency Medical Services (EMS) providers when Oregonians called 911 for painful emergencies. Using the most comprehensive dataset of EMS medical charts available in the state, this investigation analyzed over 104,000 medical charts from 2015-2017, finding EMS medical providers treated Black and Asian patients with significantly less pain medication than White patients.

Key Findings

- Black patients are 40% less likely, and Asian patients are 36% less likely, to receive pain medication from EMS providers compared to White patients in Oregon. Importantly, these treatment disparity results hold constant other factors that may influence pain medication including differences in pain scores, patient gender, patient age, patient insurance status, working diagnosis, and the anatomical location of the injury or complaint of pain.
    - EMS providers documented that pain assessment procedures were performed 38% of the time for all patients who called 911 for these conditions. White patients and Black patients received pain assessments 40% of the time, while Hispanic patients (37%) and Asian patients (34%) received pain assessments less often.
    - While controlling for rates of pain assessments as well the severity of the reported pain, White patients received pain medications 19% of the time, while racial minorities received them less often: Black patients received them 14%, Asians also 14%, and Hispanics 16%, received pain medication significantly less often from EMS providers.
- When comparing patients with private insurance, the racial treatment disparity is even larger. Black patients with private insurance were 56% less likely to receive pain medications compared to White patients with private insurance.

Key Implications of the Study

- When holding constant clinically relevant factors and common confounders that influence pain treatment for traumatic or painful emergencies, this study provides evidence that the non-clinically relevant factor of the patient's race is significantly influencing the quality of their EMS treatment.

- Over the last few decades, EMS medical providers (EMTs and Paramedics) can provide almost the full component of medical care in the field that most Emergency Departments are able to provide in the hospital environment. EMS medical professionals provide medical treatment for all manner of traumatic and medical emergencies such as motor vehicle collisions, heart attacks, strokes, seizures, and the like.

  In Oregon, one of the most progressive areas for EMS treatment nationally, EMS providers work under standing orders and can make independent decisions with the clinical information they collect in the field. They then need to diagnose the patient's problem, make and execute a treatment plan, and often decide if transportation is needed to a hospital for further treatment; or increasingly, help evaluate if the patient if there is a more appropriate medical facility for the patient's condition (primary care provider, mental health services, etc.). All of this is frequently accomplished without consultation with a medical doctor or nurse while on scene due to the emergency nature of the health condition.

- When compared to many other medical specialties (oncology, cardiology, etc.) EMS and the Emergency Department operate as safety-net medical providers providing treatment to a larger proportion of vulnerable populations, which further increases the importance of providing care equitably across social categories of race, gender, and class.

Study Methodology

In the spring and summer of 2018, over 104,000 EMS medical charts from Oregon EMS agencies providing 911-initiated medical treatments were analyzed from the Oregon National Emergency Medical Services Information System (OR-NEMSIS) dataset, which is managed by the Oregon Health Authority. For a thorough description of the methodology used, a complete copy of this report is available at the Office of Rural Health, Emergency Medical Services webpage under Support for EMS Research and Quality Improvement.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number H54RH00049, Medicare Rural Hospital Flexibility Program. This information, content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government. This study received approval from the Institutional Research Boards of both the Oregon Public Health Division / Multnomah County Health Department and the Oregon Institute of Technology.

Citation and Contact Information

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