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## Emergency Medicine Providers Systematically Underestimate Their Opioid Prescribing Practices

Sean S. Michael

*University of Massachusetts Medical School*

*Et al.*

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## **Emergency Medicine Providers Systematically Underestimate Their Opioid Prescribing Practices**

Sean S. Michael, MD<sup>1</sup>, Kavita M. Babu, MD<sup>1</sup>, Christopher Androski Jr., MS<sup>2</sup>, Martin A. Reznick, MD, MBA<sup>1</sup>

<sup>1</sup>Department of Emergency Medicine, University of Massachusetts Medical School, <sup>2</sup>University of Massachusetts Medical School

### **Background:**

Opioid misuse is a known public health problem, nationwide and in Massachusetts. The Massachusetts Hospital Association (MHA) developed recommendations to address opioid prescribing in the ED setting, and UMassMemorial Health Care recently implemented a system-wide opioid practice guideline mirroring the MHA policy. Little is known about methods to influence behavior change among ED providers related to opioid prescribing practices. Guideline implementation provided a unique opportunity for a natural experiment related to prescribing patterns, and we hypothesized that a simultaneous experimental intervention to provide clinicians with their individual prescribing data would alter their practices beyond any effect achieved solely by being subject to the new guidelines.

### **Methods:**

As part of an ongoing, prospective, randomized trial of an intervention hypothesized to influence providers' opioid prescribing, we developed a survey instrument consisting of graphical depictions of the distributions of three measures of opioid prescribing among all ED providers at four UMass-affiliated EDs (attending and resident physicians and advanced practice providers). Clinicians randomized to the intervention arm were asked to identify his/her perceived position on each distribution. We compared each provider's self-perception to their actual decile.

### **Results:**

Fifty-one providers were randomized to the intervention arm. Forty-eight completed the survey (94%). Providers underestimated their decile of opioid prescriptions per hundred total prescriptions by a median of one decile ( $p=0.0399$  for difference from zero). Attendings underestimated their decile of percentage of patients dispositioned with an opioid prescription by a median of two deciles ( $p=0.0292$ ), while residents did not exhibit a significant difference. Providers showed systematic disagreement with their raw number of prescriptions for extended-release opioid formulations ( $\kappa = -0.18$ ), underestimating by a median of one.

### **Conclusions:**

Based upon three measures of ED opioid prescribing, providers' self-perceptions of their practices systematically underestimated their actual prescribing, which likely has implications related to efforts to influence clinician behavior change.

Sean Michael, MD  
Administrative Leadership Fellow  
Department of Emergency Medicine  
UMassMemorial Health Care  
[sean.michael@umassmemorial.org](mailto:sean.michael@umassmemorial.org)  
Cell: 303-961-3009