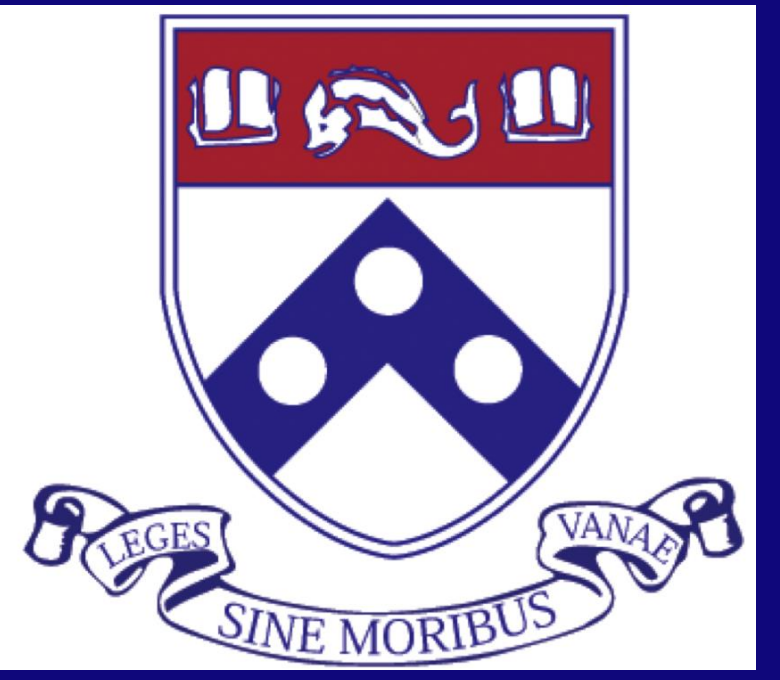




Declines in Postoperative Opioid Prescribing: A Five-Year, Single-Center Experience of Outpatient Pediatric Surgery



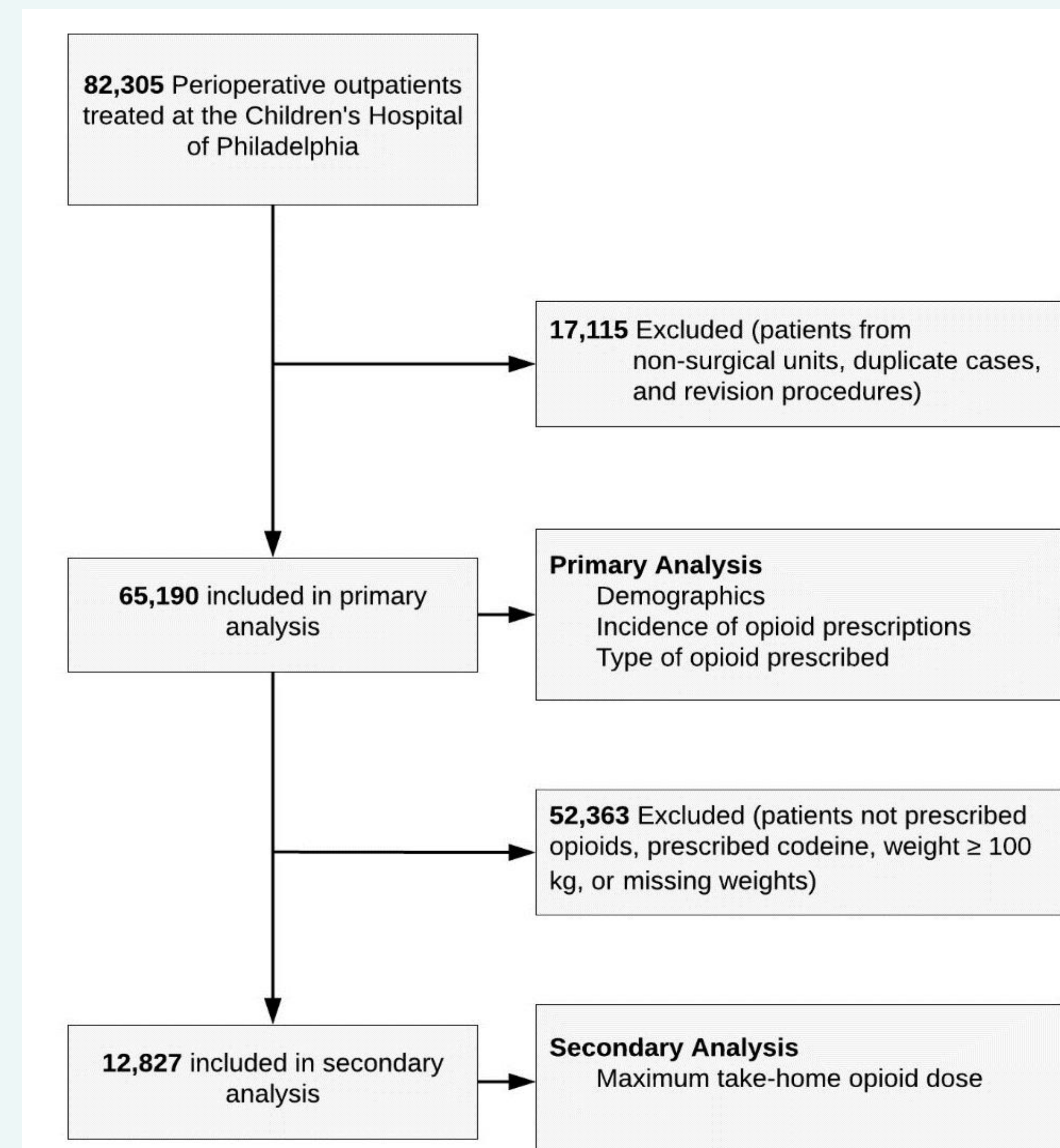
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BACKGROUND

Leftover opioids that are legally prescribed for home use have been linked to their diversion for illegal recreational use. Efforts to decrease opioid prescribing after surgery have been initiated by physician education campaigns and regulatory guidance. The broad aim of this study was to determine if these aforementioned changes and guidelines have resulted in declines in opioid prescribing for home use after pediatric outpatient surgery in a tertiary-care, multispecialty children's hospital and its affiliated community-based freestanding surgical centers. We hypothesized that the incidence rate, dose, and duration of opioid prescriptions declined over the past five years, and may have been influenced by certain independent variables such as surgical service, age, sex, race/ethnicity, and insurance type. Our secondary aims included an examination of the association between receiving an opioid prescription and pain management satisfaction within three days after surgery, and determination of the pattern of codeine use during the study period.

METHODS

We performed a retrospective de-identified database analysis to determine trends in postoperative home-use opioid prescribing from 2013-2017. We determined the incidence rate of prescribing, dose, number of doses available (i.e., duration of therapy) and maximum weight-based home opioid availability. Pain management satisfaction within 1-3 days after surgery was determined by year of service and was available beginning in 2015. Additional independent variables included sex, age, weight, race/ethnicity, insurance type (private vs. public), and surgical service. Institutional Review Board approval was not required for this study because the database utilized only deidentified, non-human data.



RESULTS

The incidence rate of receiving a take-home opioid prescription at discharge ranged from 18% to 21% between 2013 and 2017, with no clear overall trend. Pain management satisfaction increased significantly from 2015 through 2017 ($p < .0001$), but pain management dissatisfaction was approximately twice as likely (20.1% vs. 10.9%) when no opioid was prescribed ($p < .0001$). Among patients prescribed opioids, the maximum available take-home dose steadily declined from 2013 through 2017 ($p < .0001$). This was primarily due to a decrease in the number of doses prescribed (i.e., duration of treatment). Our results were not influenced by the covariates studied.

CONCLUSIONS

Although the rate of postoperative opioid prescribing and the dose prescribed remained at relatively stable levels over the past five years, the maximum available take-home dose declined, which was primarily due to a decrease in the duration of treatment. Further research is required to assess the implications of this decline on children's pain after surgery, and on a broader scale, the impact on opioid diversion nationally.

