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**UNITED STATES**
**CONSUMER PRODUCT SAFETY COMMISSION**

**Memorandum**

Date: April 3, 2020

TO: The Commission
Alberta E. Mills, Secretary

THROUGH: Mary T. Boyle, Executive Director

DeWane Ray, Deputy Executive Director

Duane Boniface, Assistant Executive Director
Office of Hazard Identification and Reduction

FROM: Steve Hanway, Associate Executive Director for Epidemiology

SUBJECT: Supplemental Analysis of the Value of Data from Urgent Care Centers for CPSC

***Background***

CPSC's Fiscal Year 2020 Operating Plan directs the Office of Hazard Identification and Reduction (EXHR) to "conduct a follow-up analysis of the utility of product-related incident data from urgent care centers." This memorandum conveys the findings of the analysis.

Staff initiated the contract work to investigate the utility of product-related data from urgent care centers in FY 2019, with a period of performance from mid-December 2018 to mid-December 2019. The scope of work included construction of a *sampling frame.* A sampling frame is an inclusive list from which to draw a nationally representative sample. The frame could be used to collect data about Urgent Care Centers (UCCs) nationally and produce valid nationally representative data. The contractor asked for an extension, and we received the final report and sampling frame of UCCs in January 2020.

In addition to the actual sampling frame of UCCs provided, the contractor prepared and furnished detailed documents describing the methodology, as well as descriptive findings about care provided in UCCs, relative to other care settings. A summary and analysis of the work and findings is provided below.

### *Analytic Approach*

Readily available frames for sampling UCCs do not exist in a publicly available or readily attainable private manner. This is because UCCs are not required to register or self-identify as such with a single organization or entity in a publicly identifiable way. To explore the potential for obtaining information from a scientific sample of UCCs, CPSC contracted work to construct a sampling frame. The data acquired for constructing such a frame not only served the objective of building a frame, but also provided valuable insights about the nature of care in UCC settings.

To construct a sampling frame of sufficient quality, inclusive data sources of care providers, with indicators of the type of care dispensed, were sought, so that UCCs could be distinguished from other care settings. In the absence of these indicators, 50 or more care settings might need to be sampled before a single UCC could be identified (via research and contact with each care setting selected).

The indicators of UCC care provision do not need to be 100 percent accurate to be valuable. Instead, they just need to be useful predictors that a selected care setting is a UCC to ensure that the sampling frame is inclusive of the bulk of UCCs (to avoid coverage error) without too many false positives (for efficiency of use of the frame). This allowed the evaluation of what treatments these facilities provided.

### *Identification of UCCs*

The contractor used two data sources to identify UCCs: the National Plan and Provider Enumeration System (NPPES)[1] from 2019, and health insurance claims data[2] spanning the period from 2016 to the first quarter of 2019. The NPPES is publicly available and contains all individual and organizational providers who bill to Medicare, which covers nearly all providers in the United States. The FAIR Health database has claims from more than 60 insurers nationwide, with representation in every state. The claims data have a larger number of fields than NPPES from which to identify UCCs, which is why they were included. The claims provided an opportunity to identify UCCs that would otherwise be missed (11,806 vs. only 8,877 that could be identified using NPPES).

Both data sources included a National Provider Identifier (NPI) used for billing purposes on health insurance claims, which includes a taxonomy code that identifies a facility as providing urgent care. The claims data additionally included a Place of Service (POS) field, which includes a code to indicate a UCC. The claims data also contained a Current Procedural Terminology (CPT) code, which indicated either a global fee to a UCC, or a service provided in a UCC. This allowed the CPT to be used as an identifier of UCCs. The contractor used a minimum of 10 claims as a threshold for identification within the claims data, to screen out the occasional outlier or miscode.

[1] NPPES. National Plan & Provider Enumeration System. 2019; https://nppes.cms.hhs.gov/#/.
[2] FAIR Health. FAIR Health data. 2019; https://www.fairhealth.org/data.

Two approaches to UCC identification were attempted. One restricted claims to just scenarios where an injury code was used. Another looked at claims with non-injury diagnoses. A 5 percent sample of each was then validated by researching the individual provider. The former (injuries only) correctly identified UCCs 92 percent of the time. The latter (all diagnoses, minus injuries) correctly identified UCCs 66 percent of the time. When both groups are combined, the accuracy averages to 87 percent. The UCCs identified for non-injuries tended to be smaller (60% had fewer than 100 claims) than those identified using injuries only (30%).

Any sample selected using either approach would need to take into account the need for verification of UCC status (*i.e.*, the sample selected would need to be slightly larger than actually intended to account for ineligibility).

***Services Provided in Various Care Settings***

Although the primary purpose of a UCC sampling frame was to identify UCC facilities, the datasets used provided an inclusive set of care settings. With the additional information these datasets included, the sampling frame allowed comparisons to be made among the different care settings regarding the types of treatments administered. Six broad categories of care settings were detected: physician offices (62.3% of injury claims), hospital outpatient departments (16.6%), emergency departments (5.7%), hospital inpatient departments (5.4%), UCCs (1.9%), and "other" (8.1%).

The proportion of injuries seen in UCCs can rise above 1.9 percent in some cases. For example, UCC's had 7.9 percent of records with diagnoses of "contact with hot substances," 4.0 percent with "assault, firearm," 3.2 percent with "falls," and 2.0 percent of records with "assaults, other" were seen in UCCs. Others fell below the 1.9 percent mark, including "head injuries, intercranial" (0.8%), "poisonings, medication" (0.7%), "complications of trauma" (0.7%), "asphyxiation" (0.1%), and "drowning" (0.0%).

The most common injuries seen in UCCs were to the wrist/hand (22.7%), foot (19.8%), head (8.6%), knee/lower leg (8.3%), back/abdomen (4.8%), elbow/forearm (4.7%), thorax (4.6%), shoulder/upper arm (4.0%), "deprivation, abuse, other effects" (3.9%), and "harmful objects" (2.6%).

These findings appeared to conform to prior research, which found evidence that patients can appropriately self-triage between UCCs and emergency departments,[3] although it does appear that UCCs may be a setting patients disproportionately seek in cases of assault (which falls outside CPSC's of jurisdiction, but may be of interest to those seeking to identify medically treated assaults).

[3] Weinick R, Burns R, Mehrotra A. How Many Emergency Department Visits Could be Managed at Urgent Care Centers and Retail Clinics? https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3412873/

***Volume of Care seen in UCCs***

A large share of the urgent care injury treatments are provided in a small proportion of all UCCs. The largest 5 percent of UCCs, in terms of the volume of claims they received, account for 71 percent of the total volume of UCC injury claims. The next largest, 20 percent of UCCs, accounted for an additional 24 percent of the total volume. The next largest quartile of UCCs accounted for only 4 percent of injury claims, and the bottom half of UCCs accounted for the remaining 1 percent of injury claims.

This unequal distribution of claims suggests that any sample of UCCs should focus on the UCCs that see larger volumes of injuries to maximize utility and sample efficiency. Little descriptive information for the population as a whole would come from the smallest providers. Omitting the smallest providers is akin to the National Electronic Injury Surveillance System (NEISS) standard of omitting emergency departments with fewer than six hospital beds.

The volume information was claims-based versus visit-based, however; and no clear enumeration of visits to UCCs was identified or exists in a manner that would allow for the kind of extrapolation needed to make national estimates of visits. Although claims and visits are likely to be highly correlated, a precise relationship specific to UCCs would not be available. Therefore, it does not appear that national estimates of visits like those made from NEISS, or that CPSC has made by combining the U.S. Fire Administration's National Fire Incident Reporting System with the National Fire Protection Association's Survey of Fire Departments for U.S. Fire Experience would be possible.

***Conclusions***

The following conclusions can be made, based on the work provided:

- Claims data appeared to be a better way to identify UCCs than NPPES alone (the delivered frame provides CPSC the option to pursue either approach).
- False positive indications of UCCs are possible, meaning any sample taken should include a cushion for ineligibility.
- UCCs accounted for a small share (1.9%) of injury claims.
- The diagnoses and body parts information appeared consistent with prior research, suggesting that patients can self-triage between emergency departments and UCCs appropriately.
- A higher share of assaults (which fall outside CPSC's jurisdiction) were seen in UCCs than would be expected, purely on the basis of the total volume of injuries treated.

- A UCC sampling approach that focuses on UCCs that see large volumes of injuries appeared to be more useful/efficient than one that would include UCCs that see lower volumes.

- A sampling of UCCs would not be able to produce national-level estimates of UCC visits, as can be done with NEISS data from emergency departments.

***Recommendations***

Given these findings, a large-scale data collection from UCCs does not appear advisable. It does not seem likely that this is an important treatment setting for severe injuries, at least at this time. It does not appear that collection of this information would appreciably advance the mission of CPSC.