

# Kids Get into Everything: Poisoning Prevention Pearls



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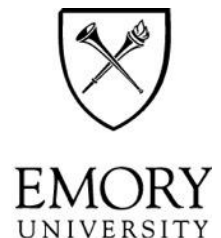
# Kids Get Into Everything: Poisoning Prevention Pearls

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Maneesha Agarwal MD

Assistant Professor of Pediatric Emergency Medicine

Tuesday, May 3<sup>rd</sup>, 2022



# Objectives

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- What is a poison?
- The data
- The specialists
- Prevention pearls



# What Is A Poison?









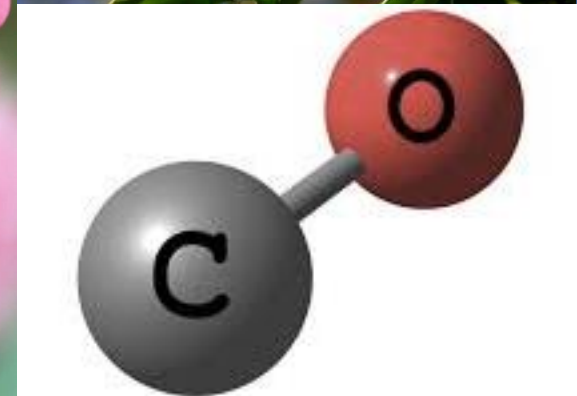
# **Suboxone®** (buprenorphine and naloxone) sublingual film 8 mg/2 mg

**Rx only**

Children who accidentally take SUBOXONE will need emergency medical care. Keep SUBOXONE out of the reach of children.











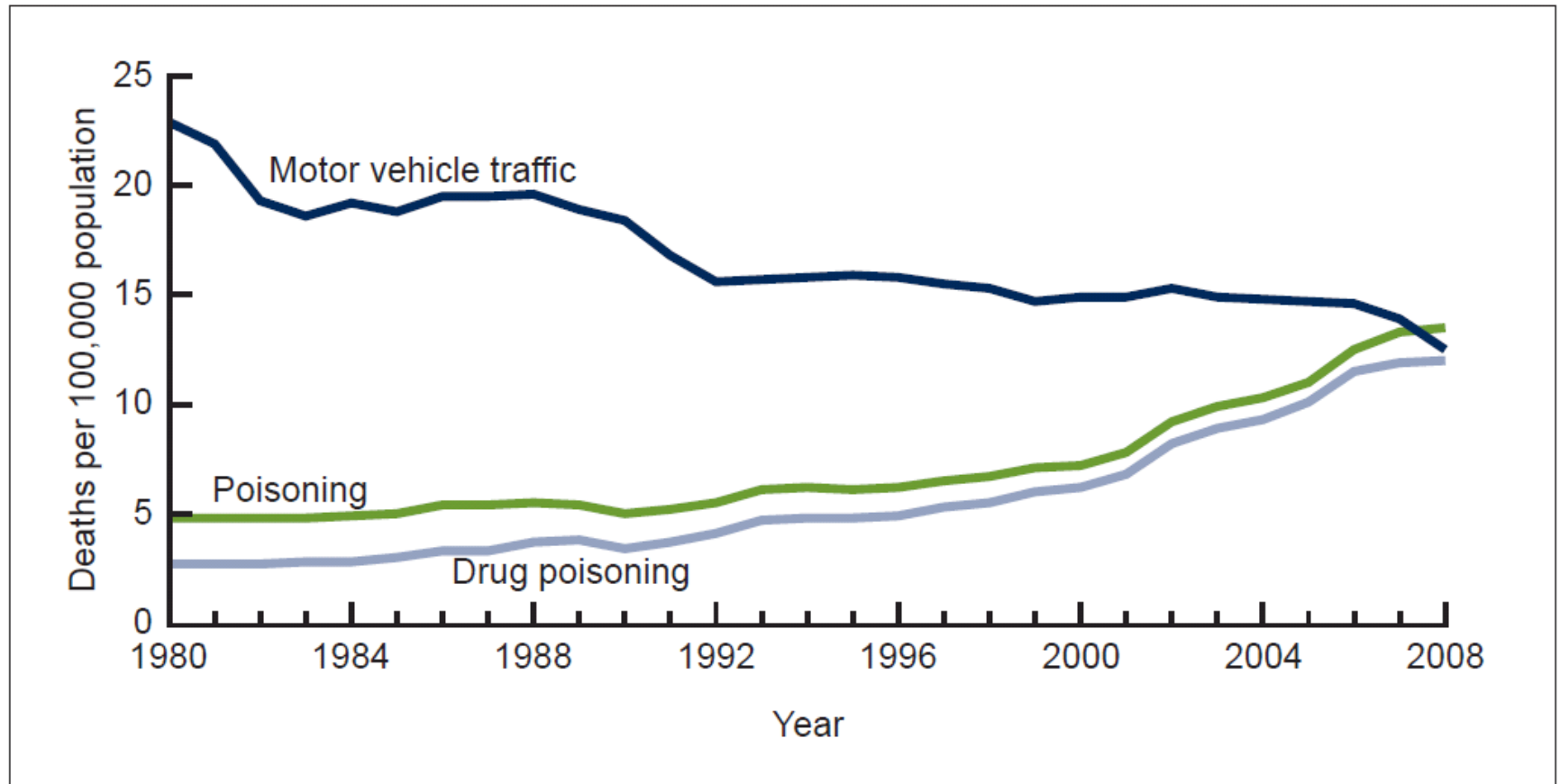


# The Data



# A Growing Crisis for All

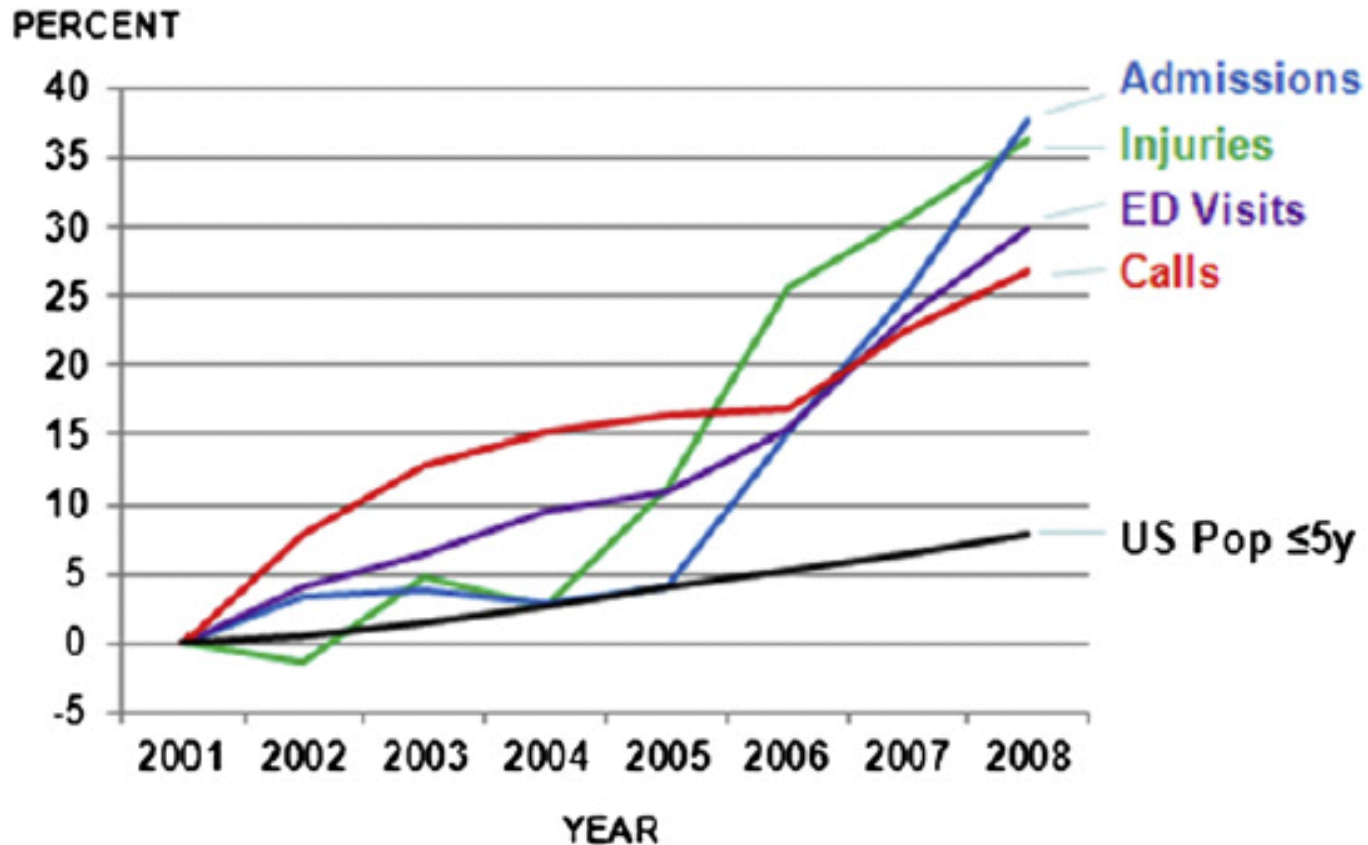
Figure 1. Motor vehicle traffic, poisoning, and drug poisoning death rates: United States, 1980–2008



Warner M, et al. Drug poisoning deaths in the United States, 1980–2008. NCHS data brief, no 81. National Center for Health Statistics. 2011.

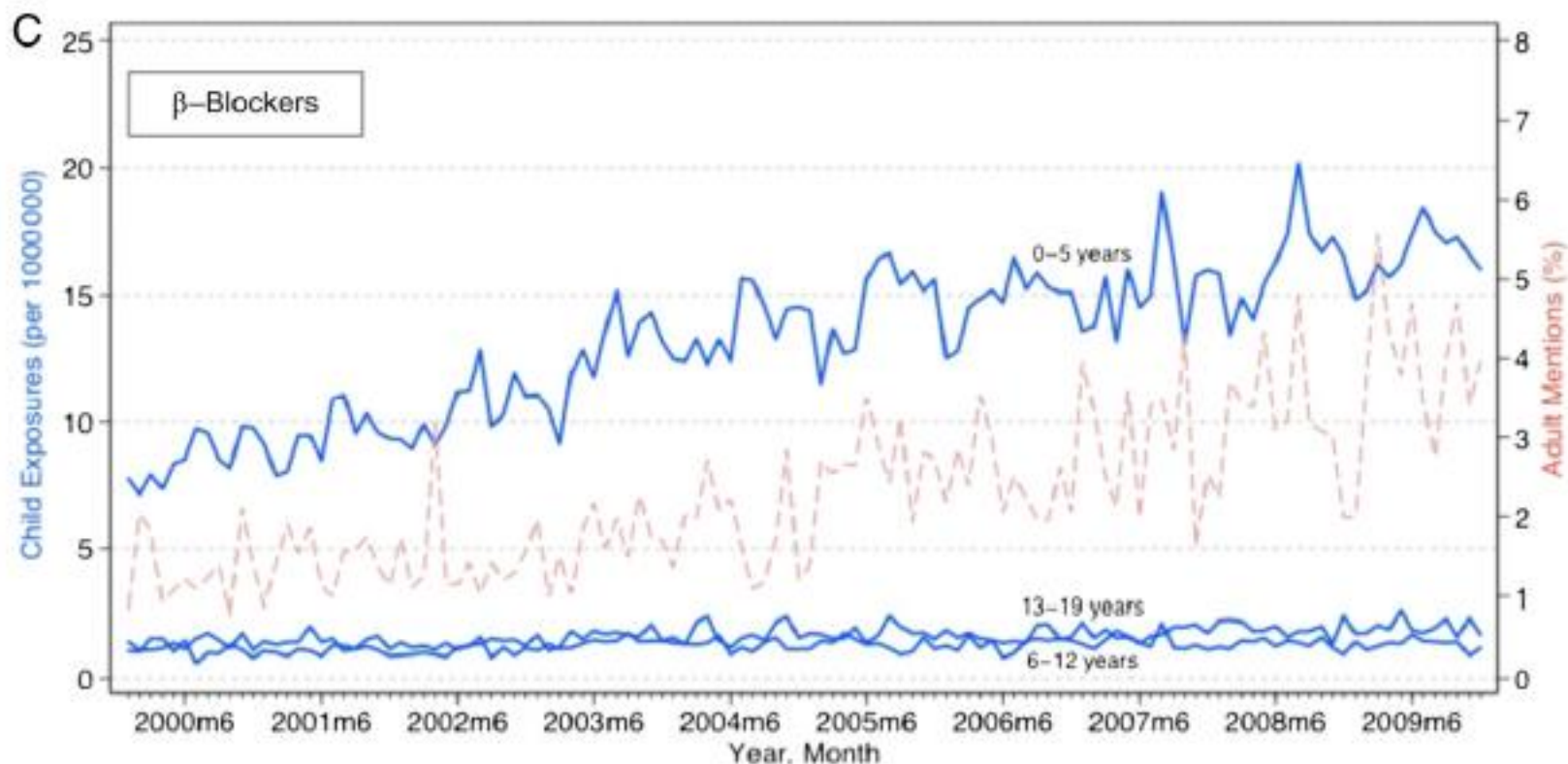


# A Growing Crisis for Kids



**Figure 2.** Pediatric poisoning trends vs population change from 2001 baseline. Visual display shows actual values, see text for

# More Adults on Meds → More Exposures

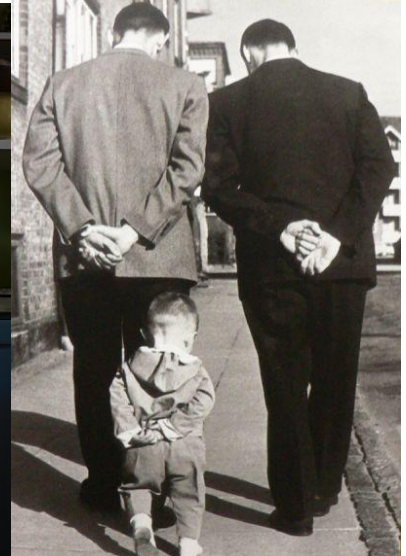


Burghardt LC, et al. Adult prescription drug use and pediatric medication exposures. Pediatrics. 2013;132 (1):18-27.



# Why Children?

- They explore
- They grow
- They like to copy adults
- They think it's candy
- They put everything in their mouths



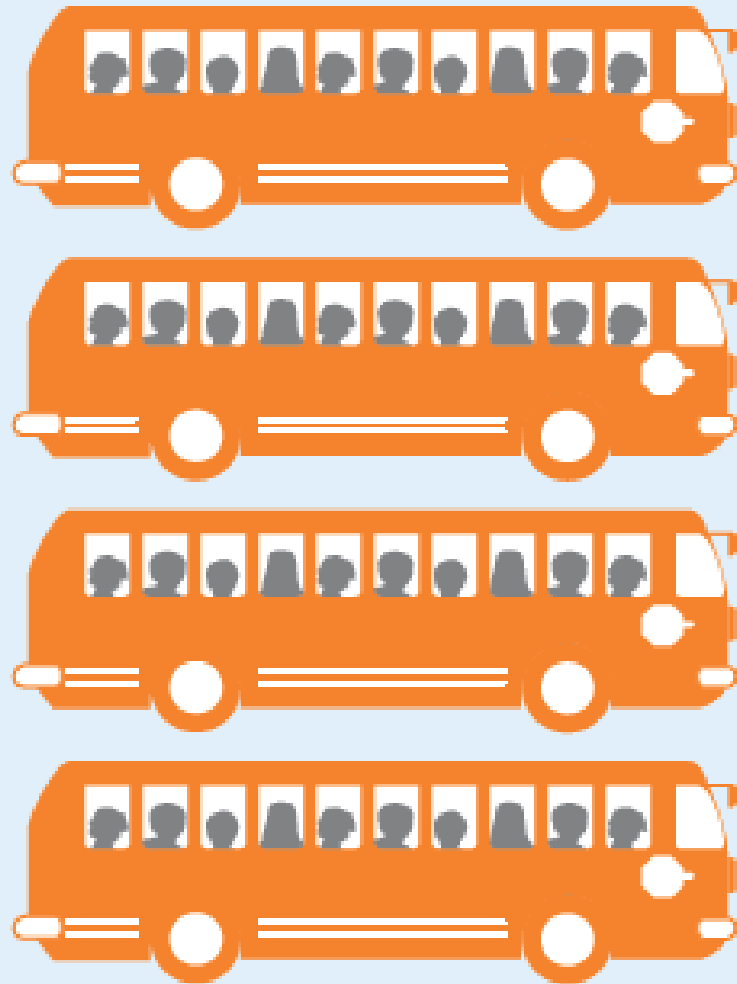
# The Burden

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165 young children per day  
(roughly four busloads) are  
brought to the ER after taking  
medications on their own.<sup>6</sup>

60,000

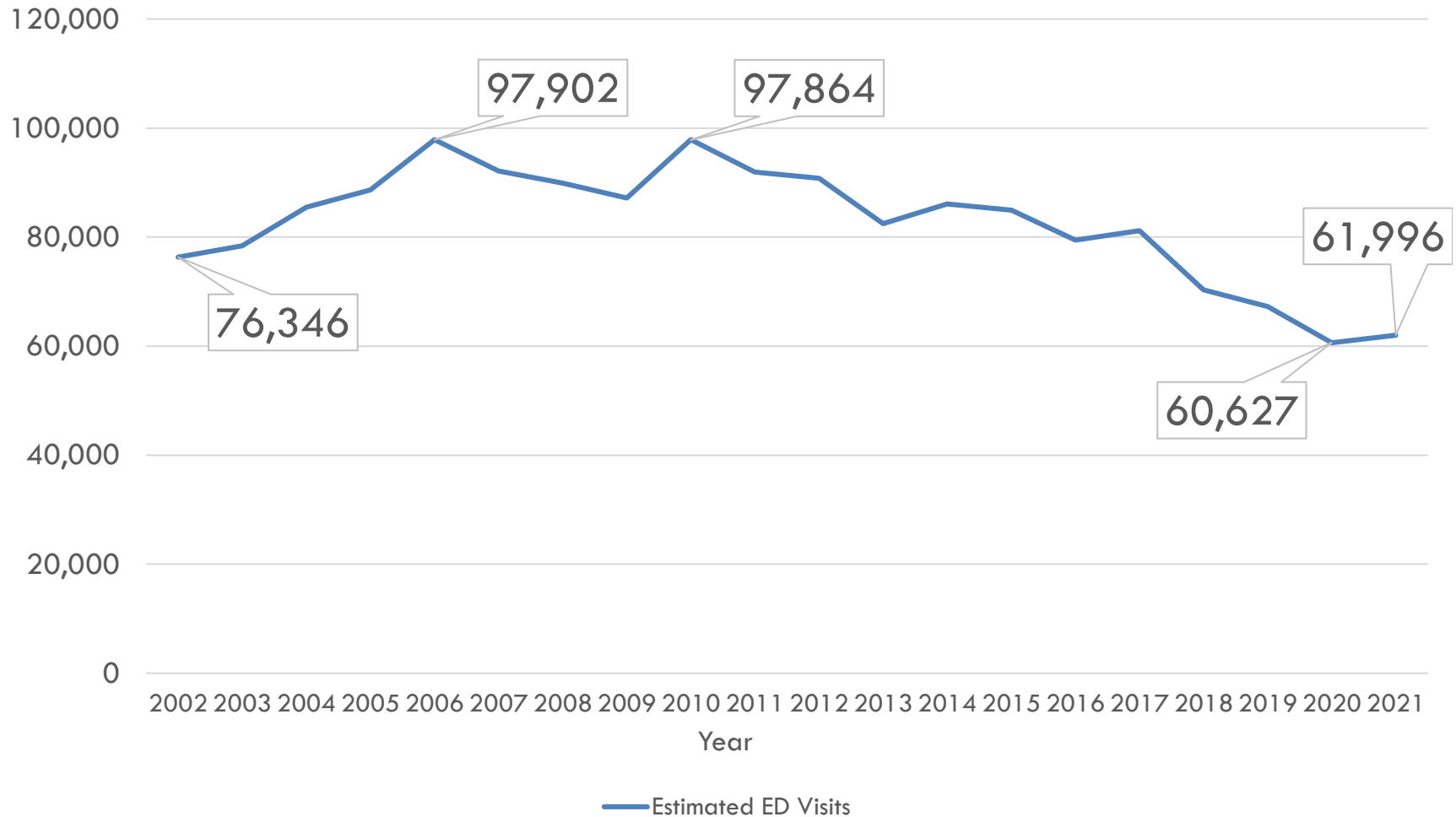
young children are treated  
in the ER due to accidental  
unsupervised medication  
ingestions each year.<sup>5</sup>



From "Safe Storage, Safe Dosing, Safe Kids: A Report to the Nation on Safe Medication." Safe Kids Worldwide, 2012



# Estimated ED Visits for Poisonings in Children < 6 Yrs (NEISS)



# Poisonings Decreased Due To...?

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- Flow restrictors



# Improvement Due To...

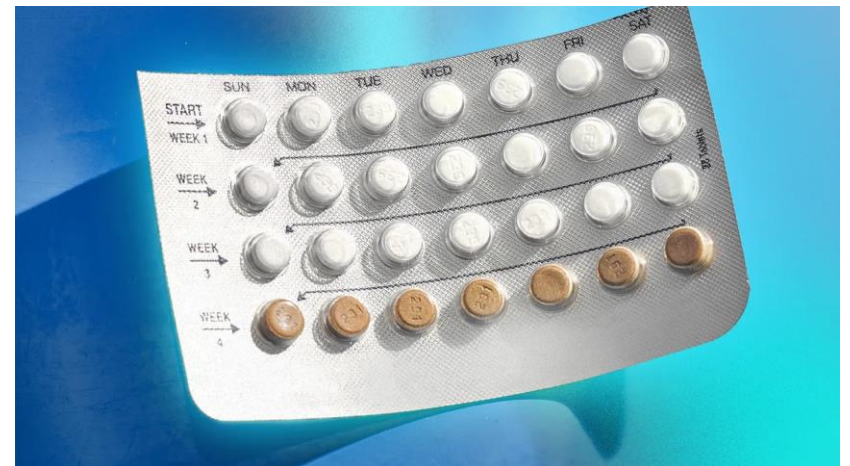
- Flow restrictors
- Transition to mL dosing





# Improvement Due To...

- Flow restrictors
- Transition to mL dosing
- Unit-dose packaging



# Improvement Due To...

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- Flow restrictors
- Transition to mL dosing
- Unit-dose packaging
- General education

up **AND** away  
and out of sight

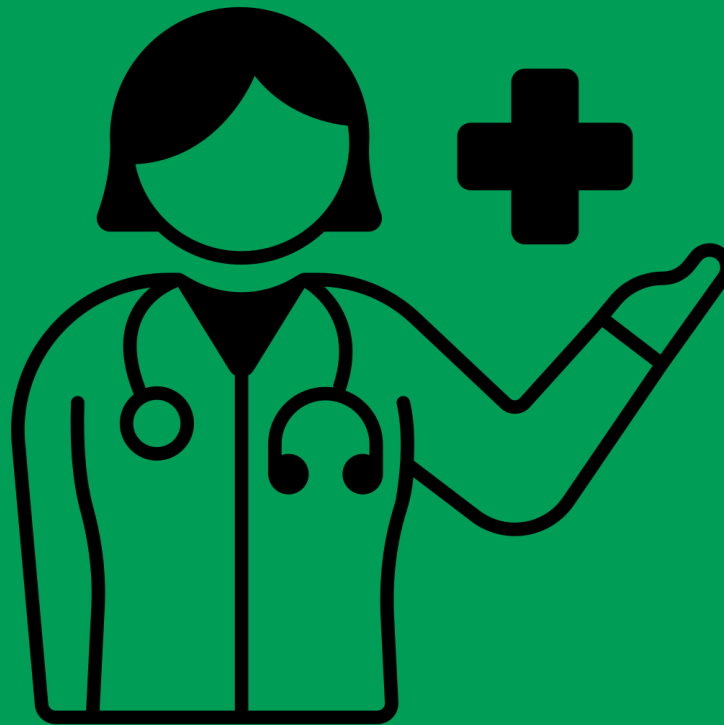
# NPDS 2020 Data

**Worst year  
on record**

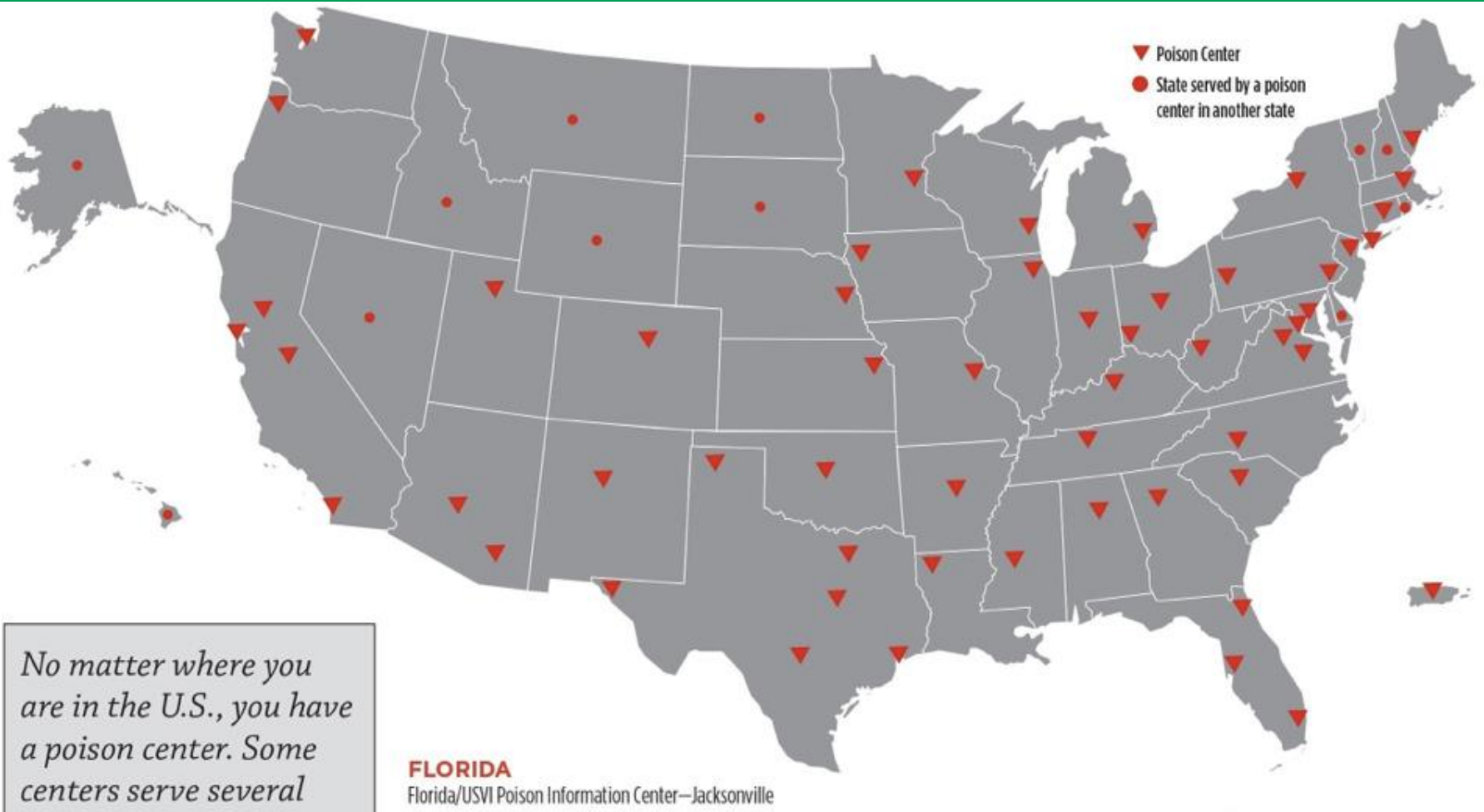
- > 2.1 million exposures
  - 55% in patients 0-19 yrs
  - 42% in children < 6 yrs
- Top substances
  - Cosmetics/personal care 11.8%
  - Cleaning substances 11.3%
  - Analgesics 7.6%
  - Foreign bodies 6.7%
  - Supplements/herbals 6.4%
- Deaths = 57
  - Analgesics
  - Fumes/gases/vapors
  - Cardiovascular drugs
  - Batteries
  - Chemicals
  - Alcohols
  - Cold & cough



# The Specialists



# The American Association of Poison Control Centers



# The American Association of Poison Control Centers

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- Resources for acutely poisoned
  - General public: calls & online
  - Healthcare facilities: calls & consults
- Maintain & monitor data
- Education
  - General public
  - Healthcare professionals
  - Development of experts
- Research



# The People

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- ~1,700 healthcare professionals
- Medical toxicologists – MD/DO physicians with 2 yrs of additional training beyond residency (9 yrs post-undergrad)
- Clinical toxicologists – PharmD with 1-2 yrs of additional training beyond pharmacy school (5 yrs post-undergrad)
- Specialists in poison information (SPIs) – RN or PharmD
- Health educators, researchers, data/tech support

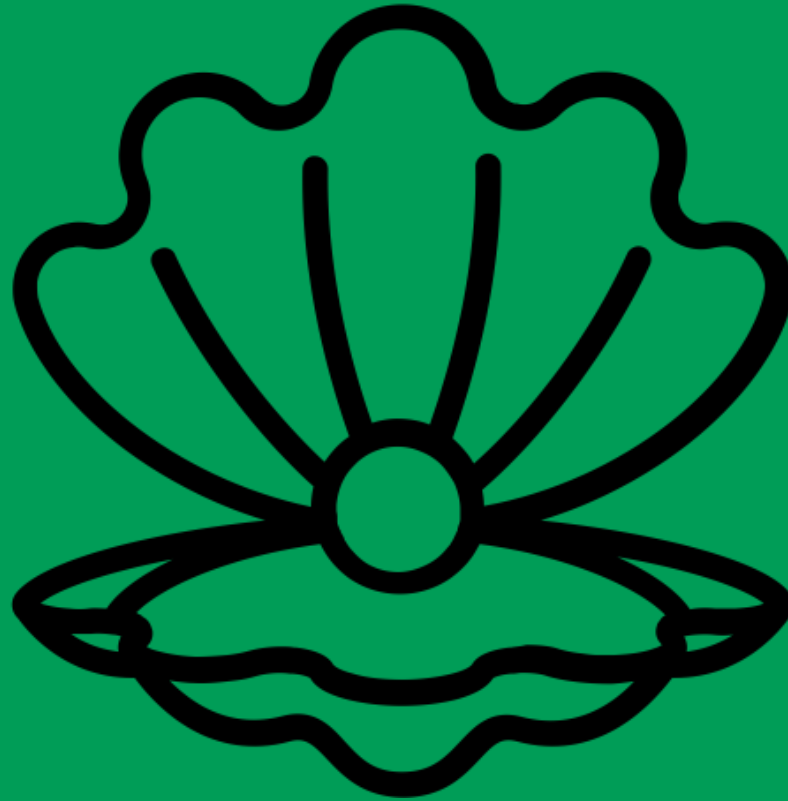
# Georgia Poison Control

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- >114,000 calls in 2021
- ~90% of cases managed at home → saving \$\$\$
- 8 medical toxicologists (MD/DO)
- 2 clinical toxicologists (PharmD)
- ~20 specialists in poison information (RN or PharmD)
- MD/DO and PharmD trainees
- ~10 support staff



# Prevention Pearls





# Poison Control Center: 800-222-1222

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- Program into cell phone!!!
- FREE
- PoisonHelp.org
- Georgia offers a chat function
- Translation services available
- Majority of exposures can be managed at home
- Healthcare professionals
  - Confidential
  - Have heard it all



# Child-Resistant ≠ Child-Proof

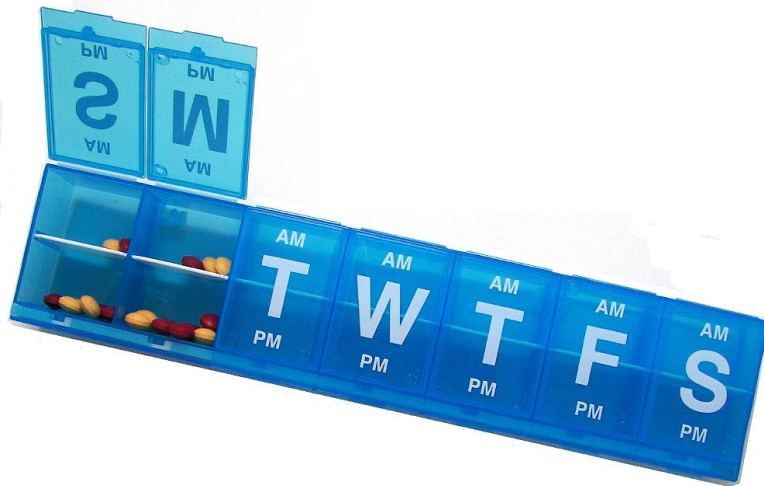
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- Toddlers given bottle for 5 min
- If not opened, demonstrate
- Given another 5 min
- 20% of children can open the bottle & it still be “child resistant”
- Cap failure / breakdown
- Not properly engaged



# Keep It In the Original Container

- ~33% of exposures had been removed from packaging!
- ~50% Prescription exposures
  - 17% in alternate container (e.g. pill minder)
  - 34% in **NO** container at all!



# Store Out of Reach

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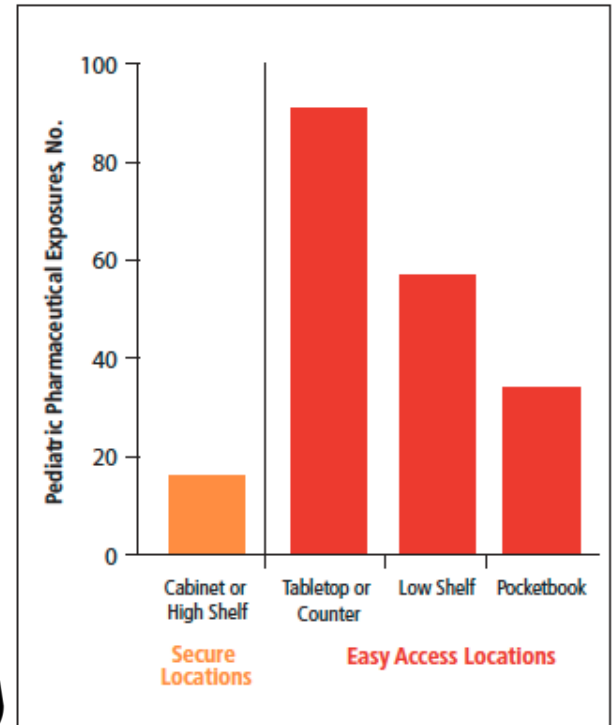
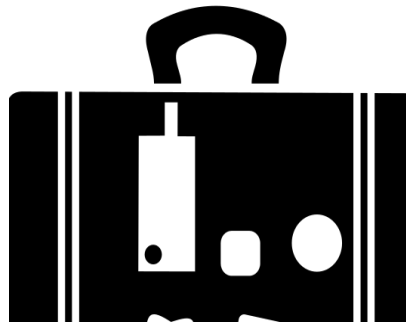
- Up & away
- Every time





# Caution With Guests & Travel

- Remind guests about safe storage
- Pocketbooks, luggage, coats, etc



# Additional Pearls

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- Child education
- Medicine ≠ candy
- Liquid medicines in syringes/dosing cups, not spoons
- Storage if mental health concerns in teens
- Safely dispose of medicines
- Throw out ipecac

# Additional Pearls

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- Watch out for edibles
- Install & check carbon monoxide alarms
- Check for lead in older (a. 1978) homes
- Throw away old, unused products
- Keep products in original containers
- Watch out for button batteries

# Questions?

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