**Access the entire webinar series here:**
https://files.asprtracie.hhs.gov/documents/aspr-tracie-healthcare-operations-during-covid-19-pandemic-webinar-series.pdf

**Access Ms. Weber's bio here:**
https://files.asprtracie.hhs.gov/documents/poison-center-roles-during-the-pandemic-speaker-bio.pdf

**Access this webinar recording here:** https://attendee.gotowebinar.com/recording/4905363792792380432

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

# Healthcare Operations during the COVID-19 Pandemic- Speaker Series

September 2021

ASPR
ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE



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AMERICAN ASSOCIATION OF
POISON CONTROL CENTERS

# POISON CENTER ROLES DURING THE PANDEMIC

American Association of
Poison Control Centers

POISON Help
1-800-222-1222
PoisonHelp.org

# Julie Weber, RPh, CSPI

President, American Association of Poison Control Centers

Director, Missouri Poison Center
SSM Health Cardinal Glennon Children's Hospital

*I have no relevant financial relationships or conflicts to disclose.*

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# Objectives

1. Understand the role of poison center in public health and response.
2. Describe how poison center toxicologists, specialists in poison information, and educators are integrated into disaster response.
3. Apply examples from previous disasters and public health events to the COVID-19 pandemic.

READY FOR ANYTHING. EVEN 2020.

# American Association of Poison Control Centers

- The American Association of Poison Control Centers (AAPCC) is a national nonprofit organization representing each of the 55 poison control centers (PCCs) in the United States.
- AAPCC's mission is to actively advance the health care role and public health mission of its members through information, advocacy, education, and research.
- The 55 PCCs provide information and treatment advice, 24/7/365, through the national Poison Help Line & www.PoisonHelp.org website.

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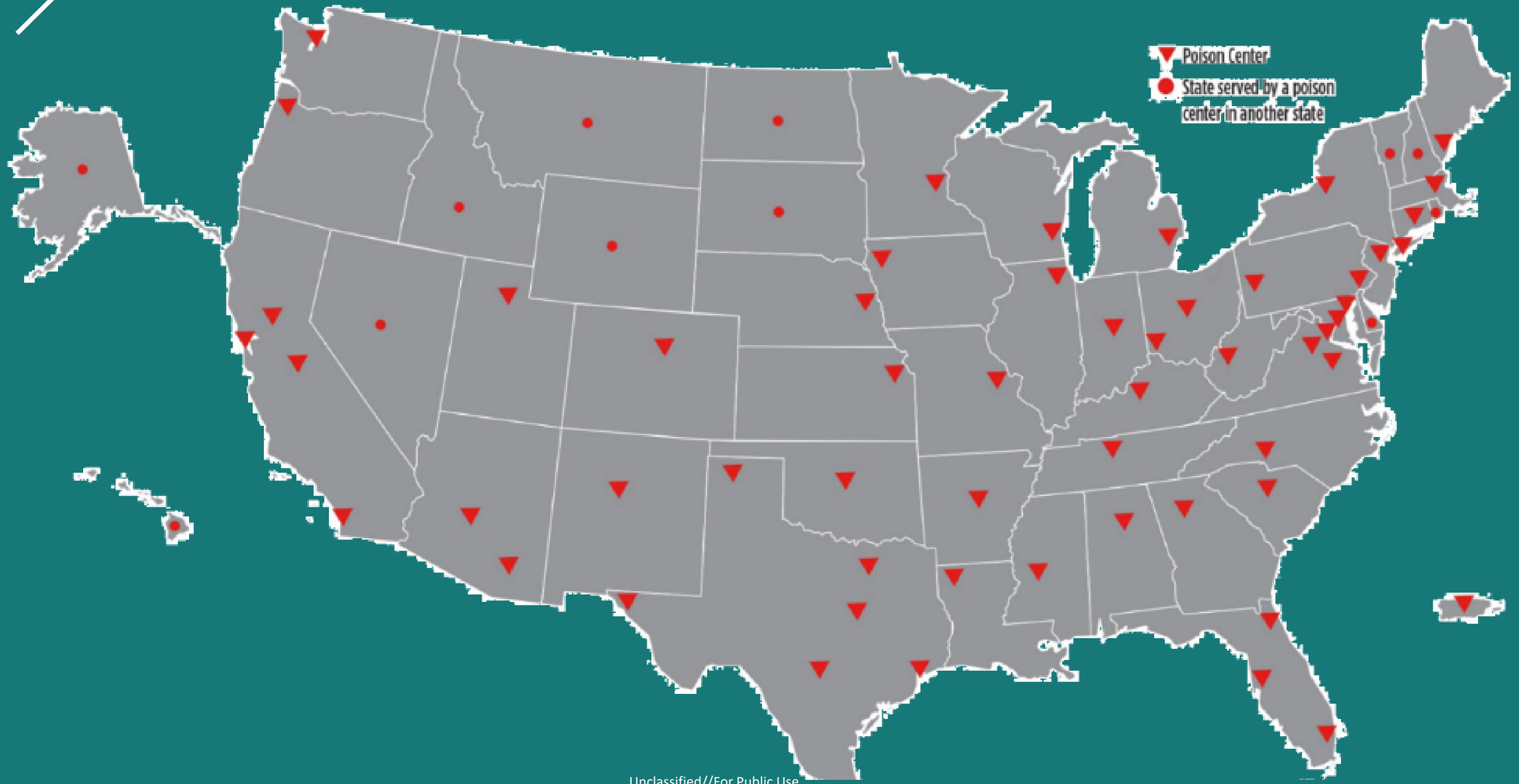
# United States Poison Centers



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# Poison Help Line
## 1 (800) 222-1222

- The Poison Help Line covers 100% of the U.S. population; help is provided in 240 languages.
- Calls to Poison Help are free, confidential, and answered by clinical *experts*: specially trained nurses, toxicologists, pharmacists, and physicians.
- PCCs continuously upload case data into the National Poison Data System (NPDS)— the only near real-time comprehensive poisoning surveillance database in the U.S. on average over 9,000 cases/day.
- Education is conducted through national outreach efforts.

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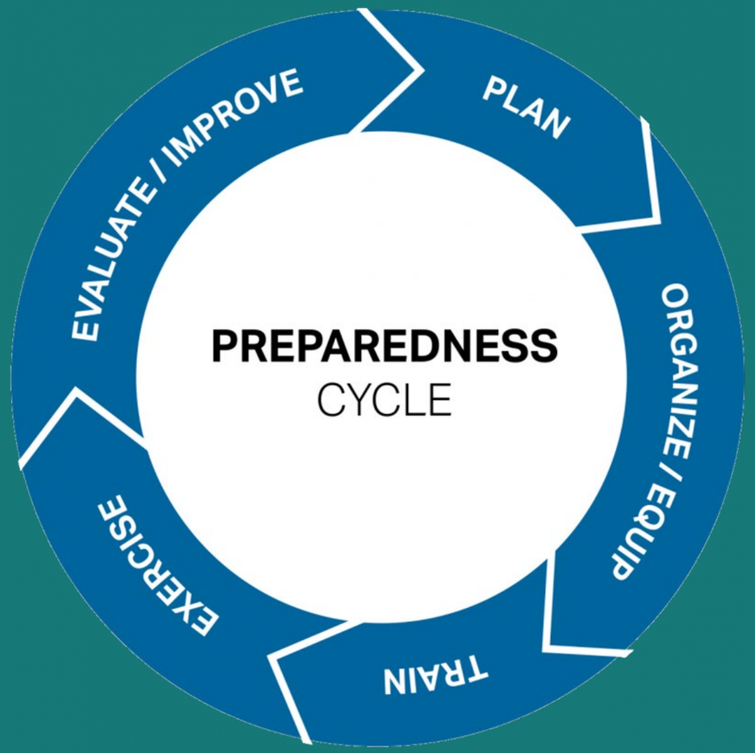
# Poison Help Line
## Disaster Response

- H1N1 Influenza Response
- West Nile Virus
- Deepwater Horizon Oil Spill
- Fukushima
- Ebola



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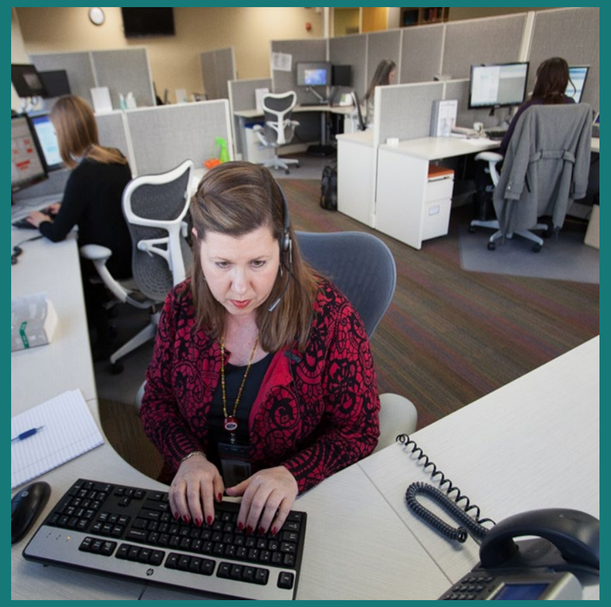
# Poison Center Roles During the Pandemic

**Background**:

January 2020 - several poison centers become involved as the Coronavirus hotline for their state.



**Why?**

Poison centers stand ready

- Infrastructure in place
- 24/7/365
- Staffed by health care professionals
- Known and trusted resource

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# Poison Center Roles During the Pandemic

**Public Health Presence:**

- Established relationships with public health partners.

**Calm the Chaos**

- Coordinated to give consistent message.

**Real-time feedback to the state about citizen concerns**

- How can I get tested?
- How do I know if I've been exposed?
- What are the symptoms?

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# What is the Best Telephone Pathway to Answer Pandemic Questions?

**Regular Poison Center Hotline vs New Separate Pandemic Line**:

Reasons to use the National Toll-Free Hotline Number (800-222-1222)

- It is an established public information line
- Healthcare facilities already use the line

However…..

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# What is the Best Telephone Pathway to Answer Pandemic Questions?

**New Separate Pandemic Line**:

- It became evident immediately that a separate pandemic line was needed because of the growing number of pandemic calls.
- Enhanced workflow was needed to prioritize poison calls which is our primary mission.
- Due to the everchanging and complex information, a specific pandemic line was needed to focus on these COVID-19 issues.

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# Telephone Contact is Not Enough

**Options for contact**:

- Online @ poisonhelp.org
- Telephone
- Texting
- Chatting
- Interactive Voice Response (IVR) System as an adjunct to hotline live response

**Internet presence for prevention messaging**

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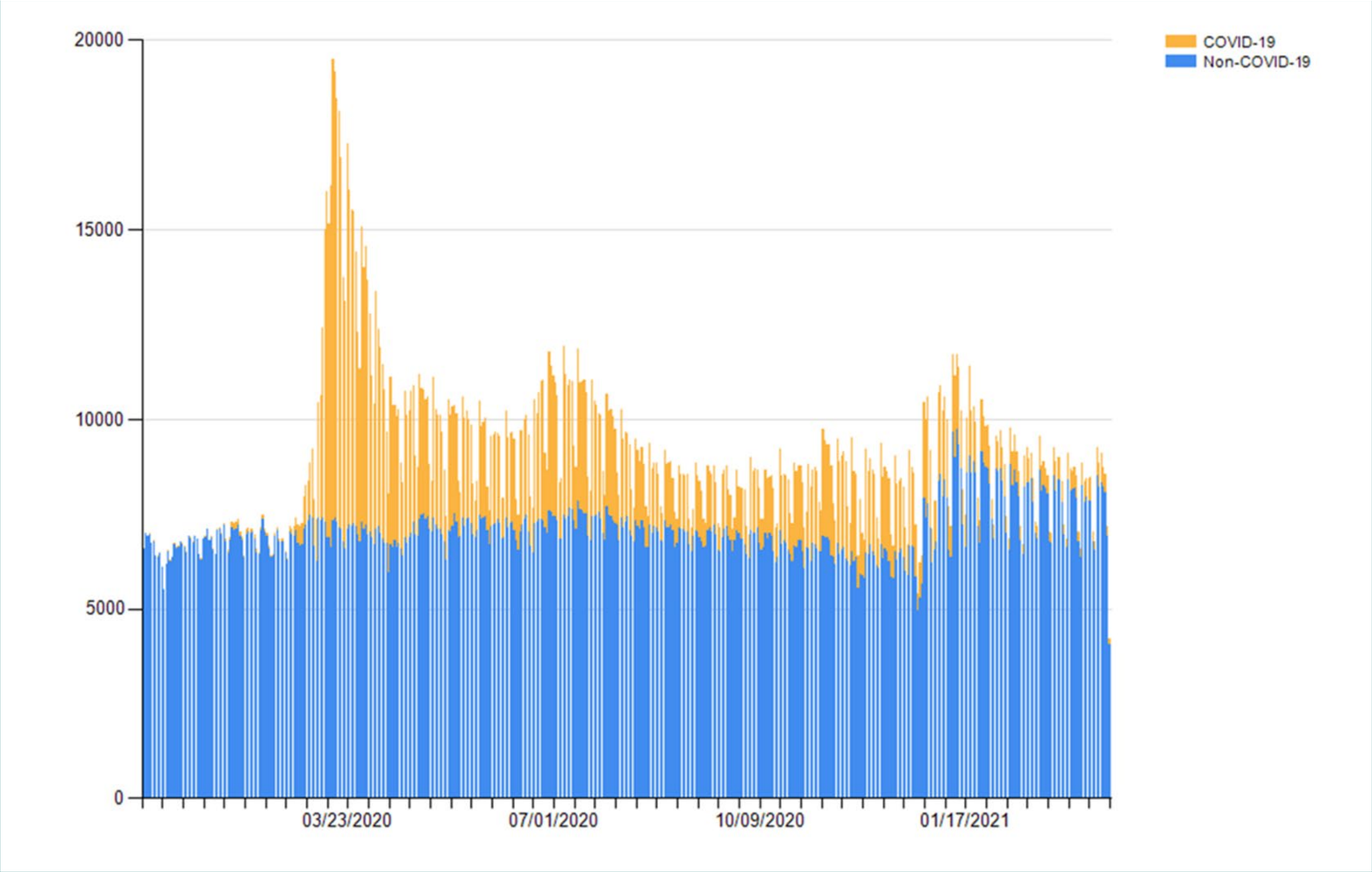
# National Poison Data System (NPDS)




Every 8 minutes cases from each poison center uploaded to a central database

A national picture of case volumes for poison center and the pandemic [graph to the right]

- Peak Volume
- Poison Center Case Volumes

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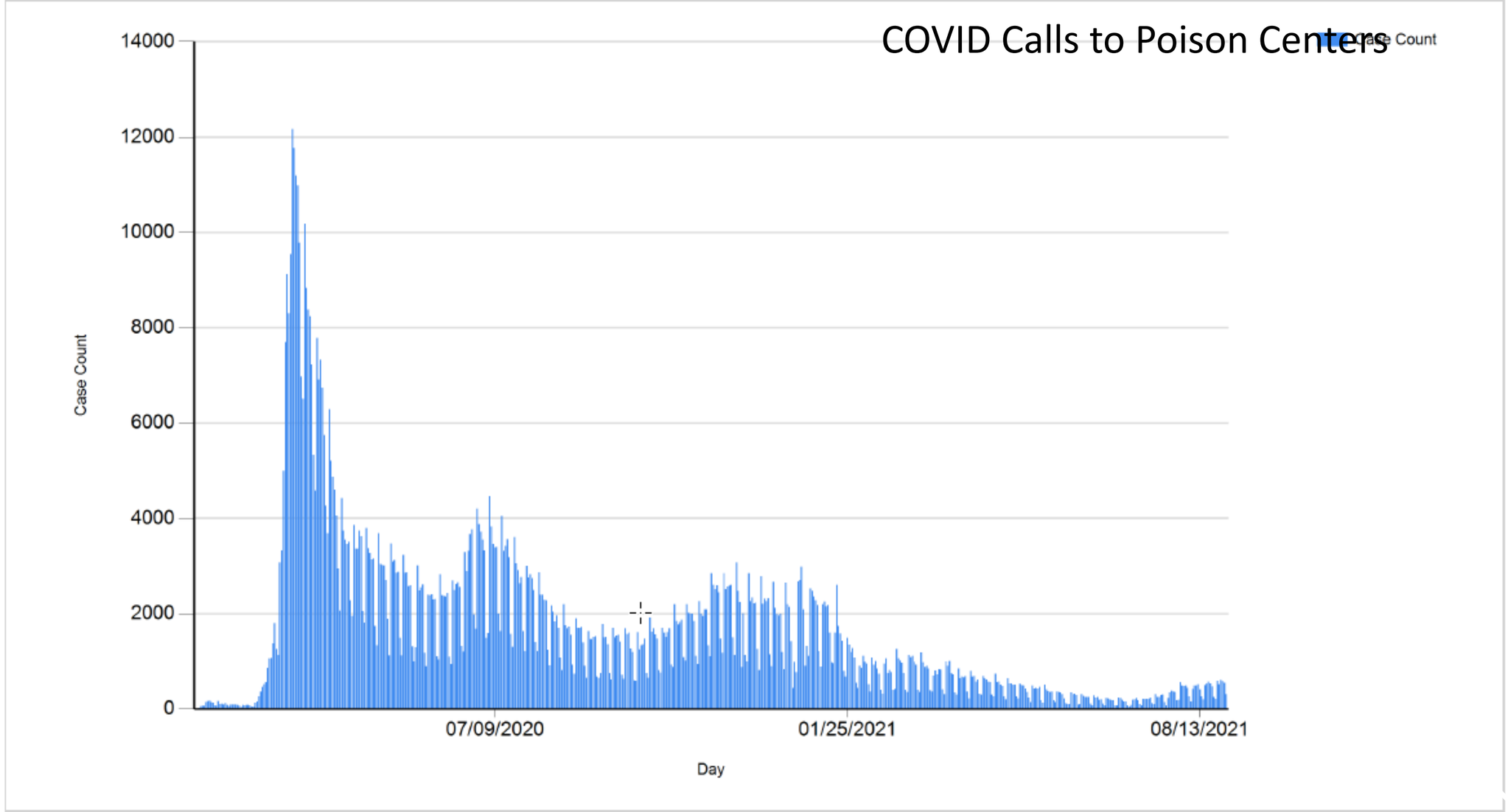
# National Poison Data System (NPDS)




Closed cases from 1/21/2020 thru 08/28/2021

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# Toxicologic Trends during the Pandemic

- Hand Sanitizers
- Cleaners & Disinfectants
- Byproducts of Hypochlorite Bleach
  Chloramine and Chlorine
- Isopropyl Alcohol
- Soaps
- Mouthwashes
- Colloidal silver (immune supplement)
- Vitamin D
- Zinc
- Melatonin
- Antivirals
- Hydroxychloroquine/Chloroquine
- Ivermectin

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# Toxicologic Trends: Publications

Morbidity and Mortality Weekly Report

## Cleaning and Disinfectant Chemical Exposures and Temporal Associations with COVID-19 — National Poison Data System, United States, January 1, 2020–March 31, 2020

Arthur Chang, MD[1]; Amy H. Schnall, MPH[1]; Royal Law, PhD[2]; Alvin C. Bronstein, MD[3]; Jeanna M. Marraffa, PharmD[4]; Henry A. Spiller, MS[5]; Hannah L. Hays, MD[5]; Alexandra R. Funk, PharmD[5]; Maria Mercurio-Zappala, MS[6]; Diane P. Calello, MD[7]; Alfred Aleguas, PharmD[8]; Douglas J. Borys, PharmD[9]; Tegan Boehmer, PhD[1]; Erik Svendsen, PhD[1]

Morbidity and Mortality Weekly Report

## Serious Adverse Health Events, Including Death, Associated with Ingesting Alcohol-Based Hand Sanitizers Containing Methanol — Arizona and New Mexico, May–June 2020

Luke Yip, MD[1]; Danae Bixler, MD[1]; Daniel E. Brooks, MD[2]; Kevin R. Clarke, MD[1]; S. Deblina Datta, MD[1]; Steven Dudley Jr., PharmD[3]; Kenneth K. Komatsu[4]; Jennifer N. Lind, PharmD[1]; Annaliese Mayette, PhD[5]; Michael Melgar, MD[1]; Talia Pindyck, MD[1]; Kristine M. Schmit, MD[1]; Steven A. Seifert, MD[6]; Farshad Mazda Shirazi, MD, PhD[3]; Susan C. Smolinske, PharmD[7]; Brandon J. Warrick, MD[6]; Arthur Chang, MD[1]

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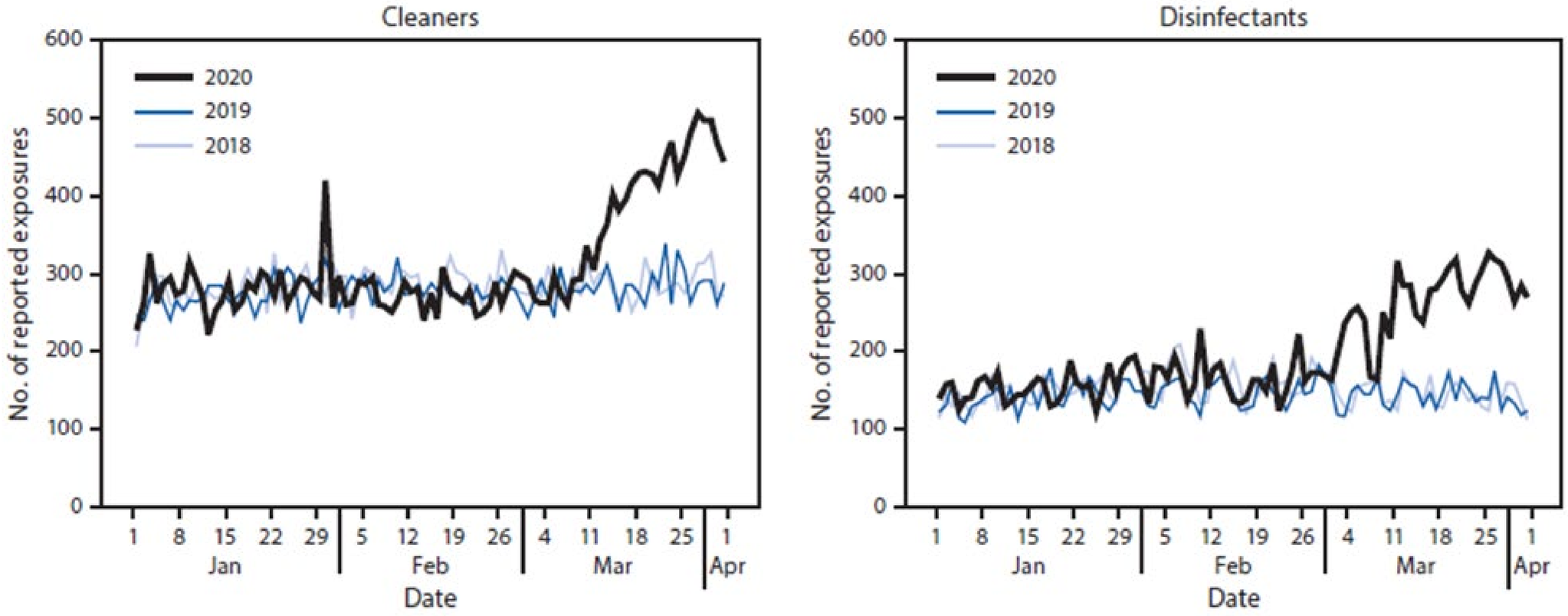
# Toxicologic Trends: Publications

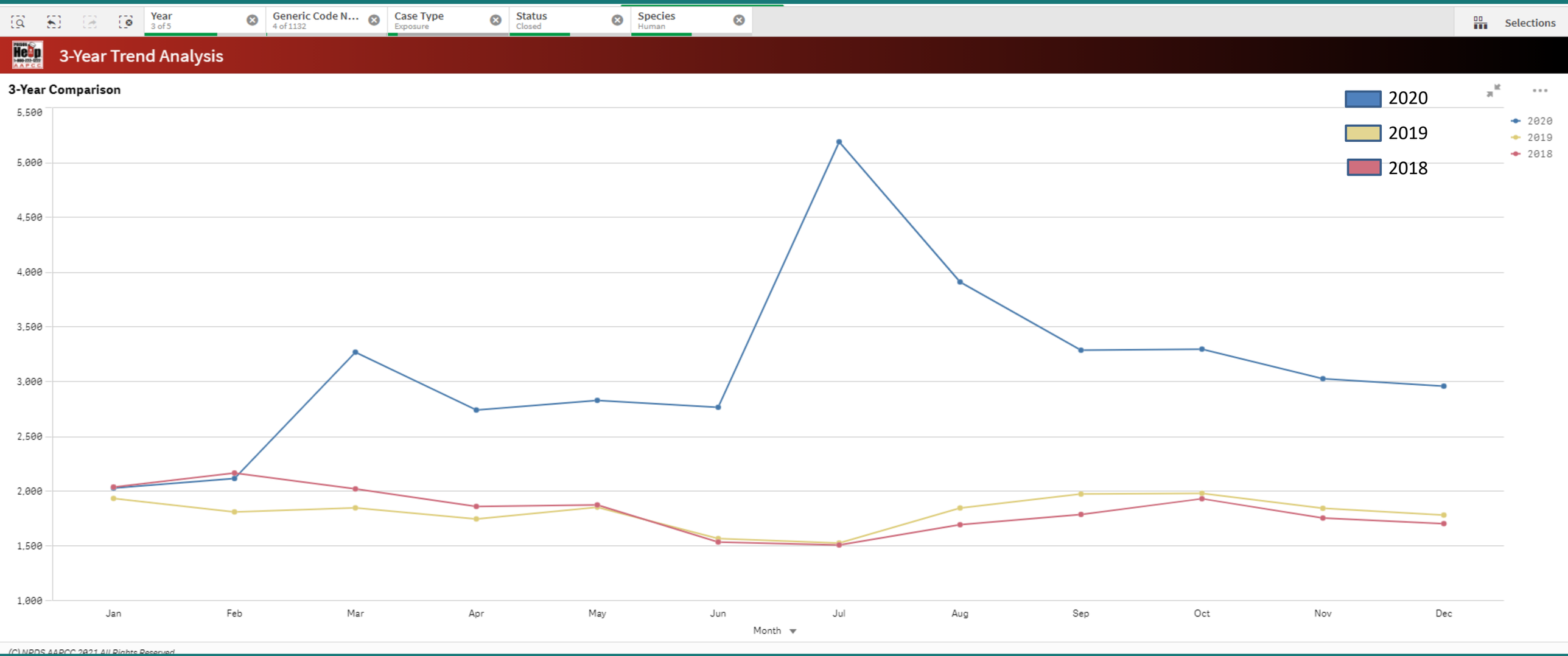
FIGURE. Number of daily exposures to cleaners and disinfectants reported to U.S. poison centers — United States, January–March 2018, 2019, and 2020*,†




* Excluding February 29, 2020.

† Increase in exposures to cleaners on January 29, 2020, came from an unintentional exposure to a cleaning agent within a school.

# Hand Sanitizers Exposures: Ethanol, Isopropanol, Non-Alcohol, & Unknown

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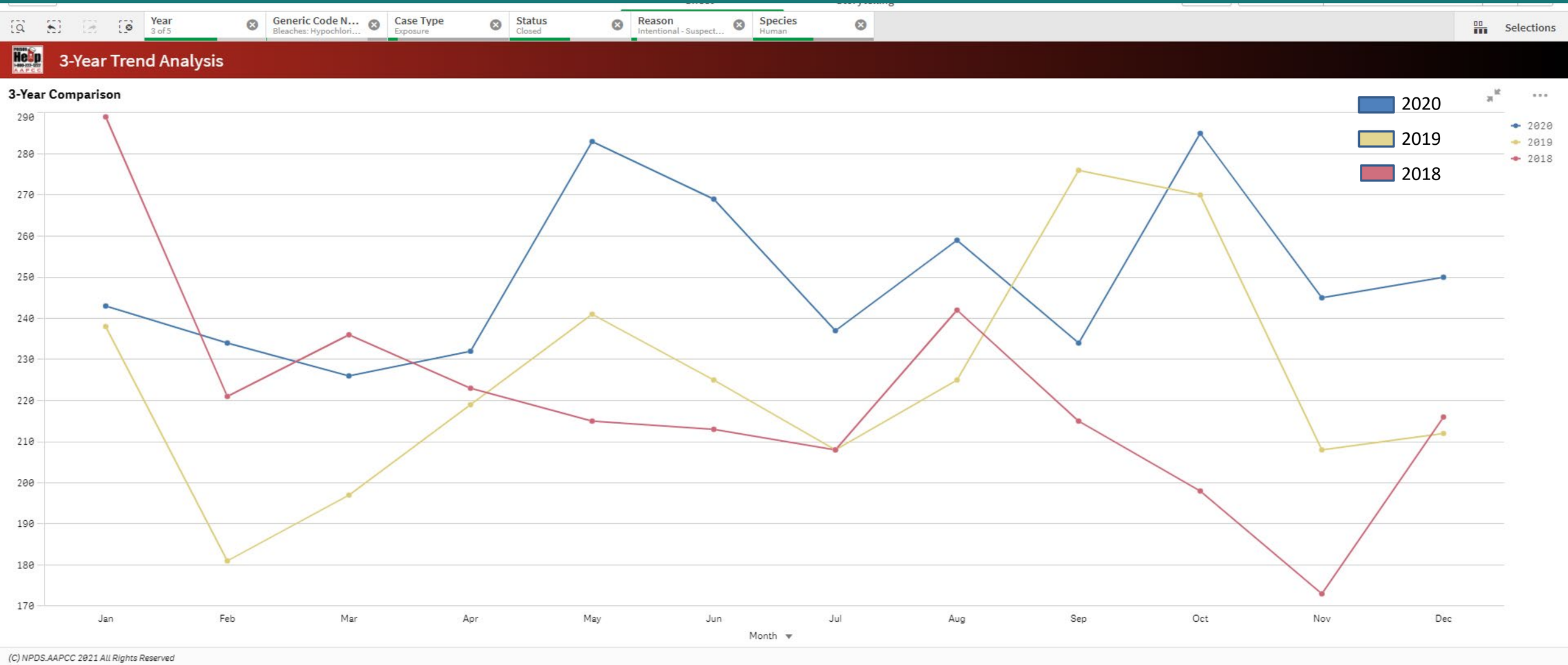
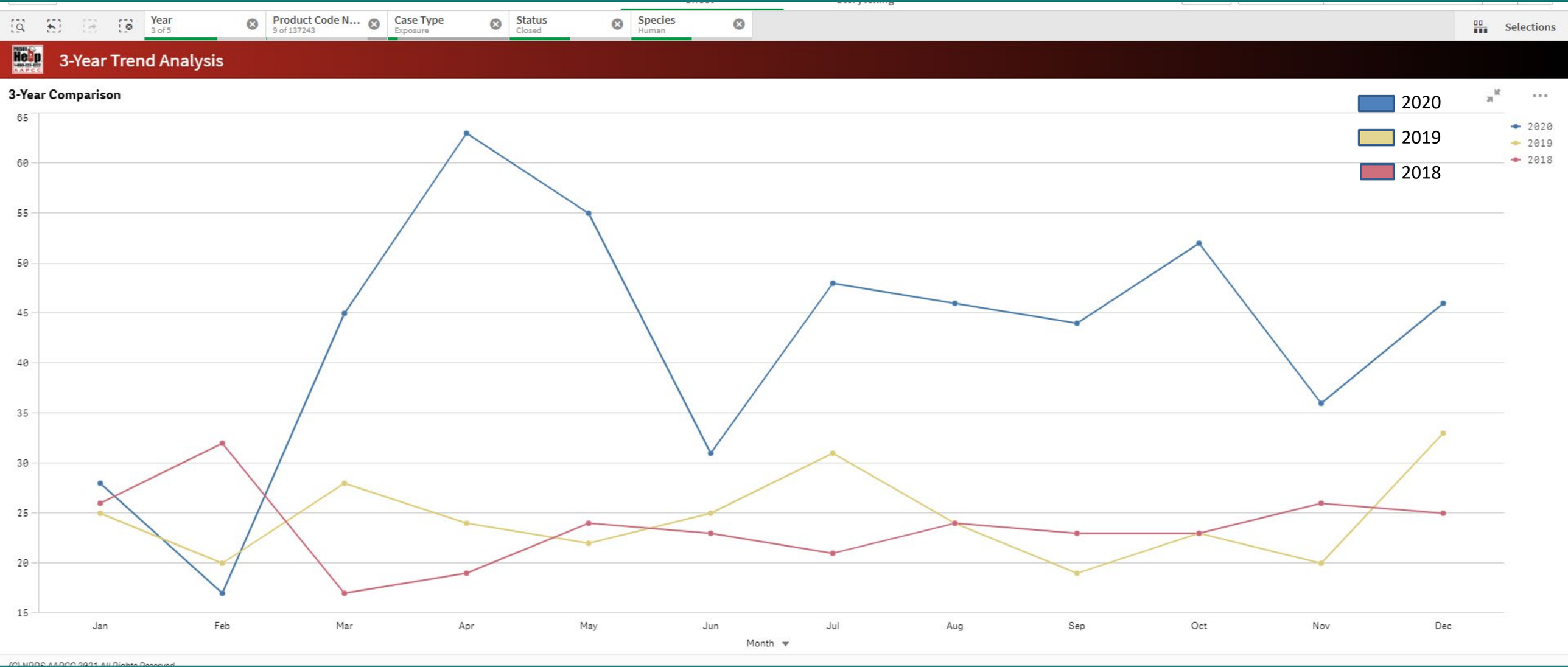
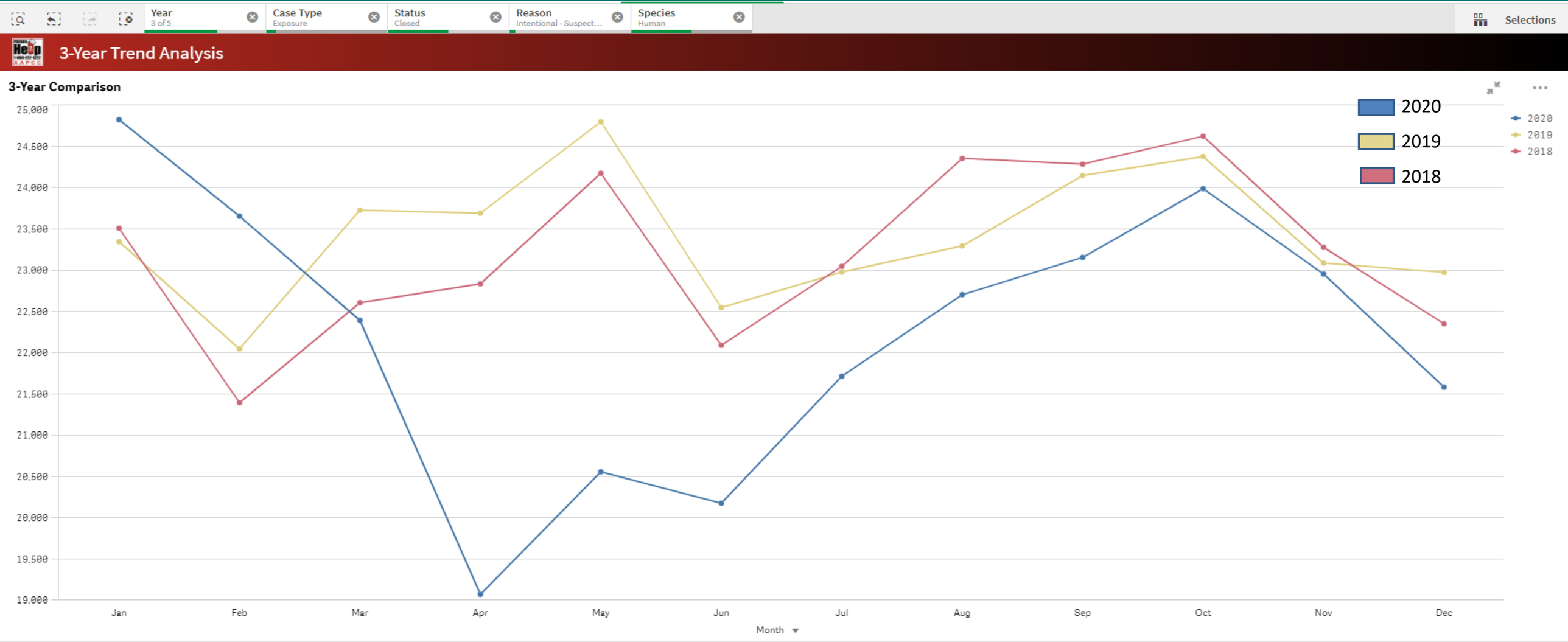
# Household Bleach Exposures: Hypochlorite



# Hydroxychloroquine Exposures



# All Ages: Suicide Attempts

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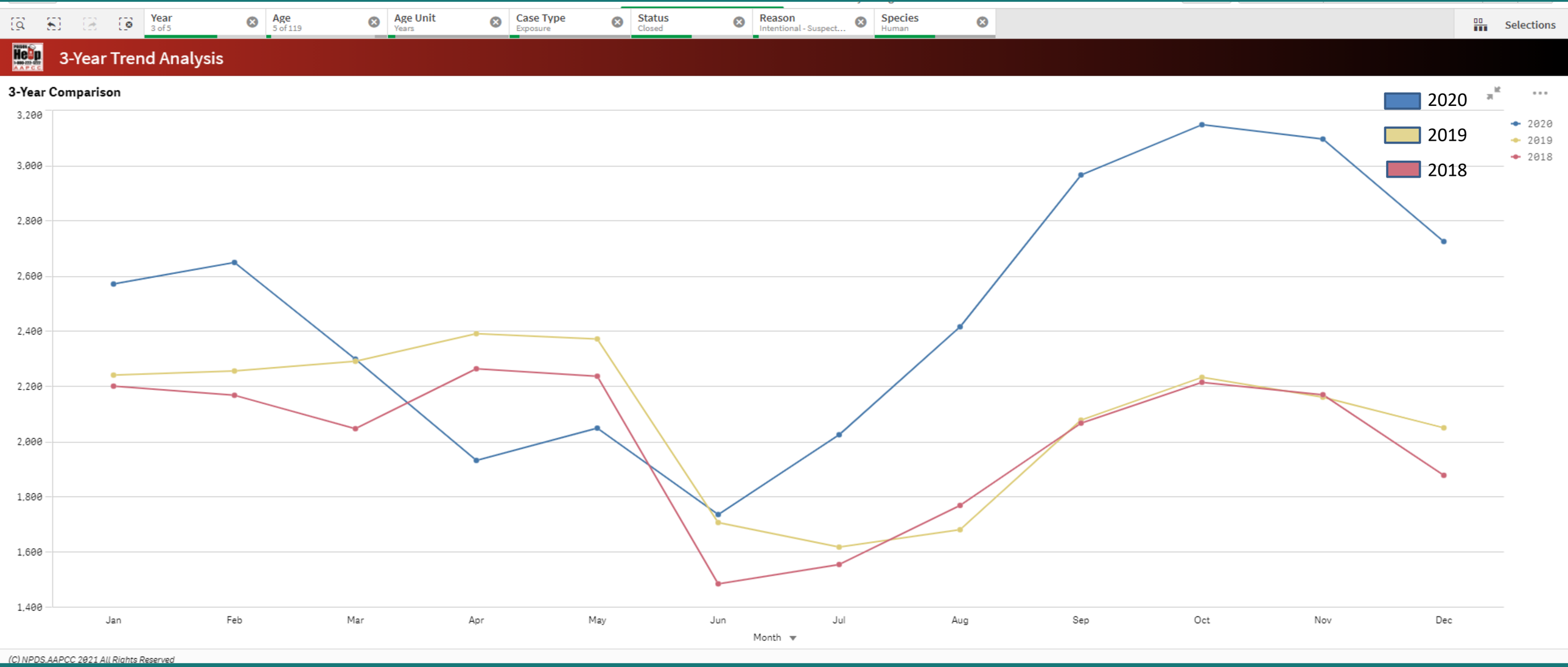
# Age 10-14 years: Suicide Attempts



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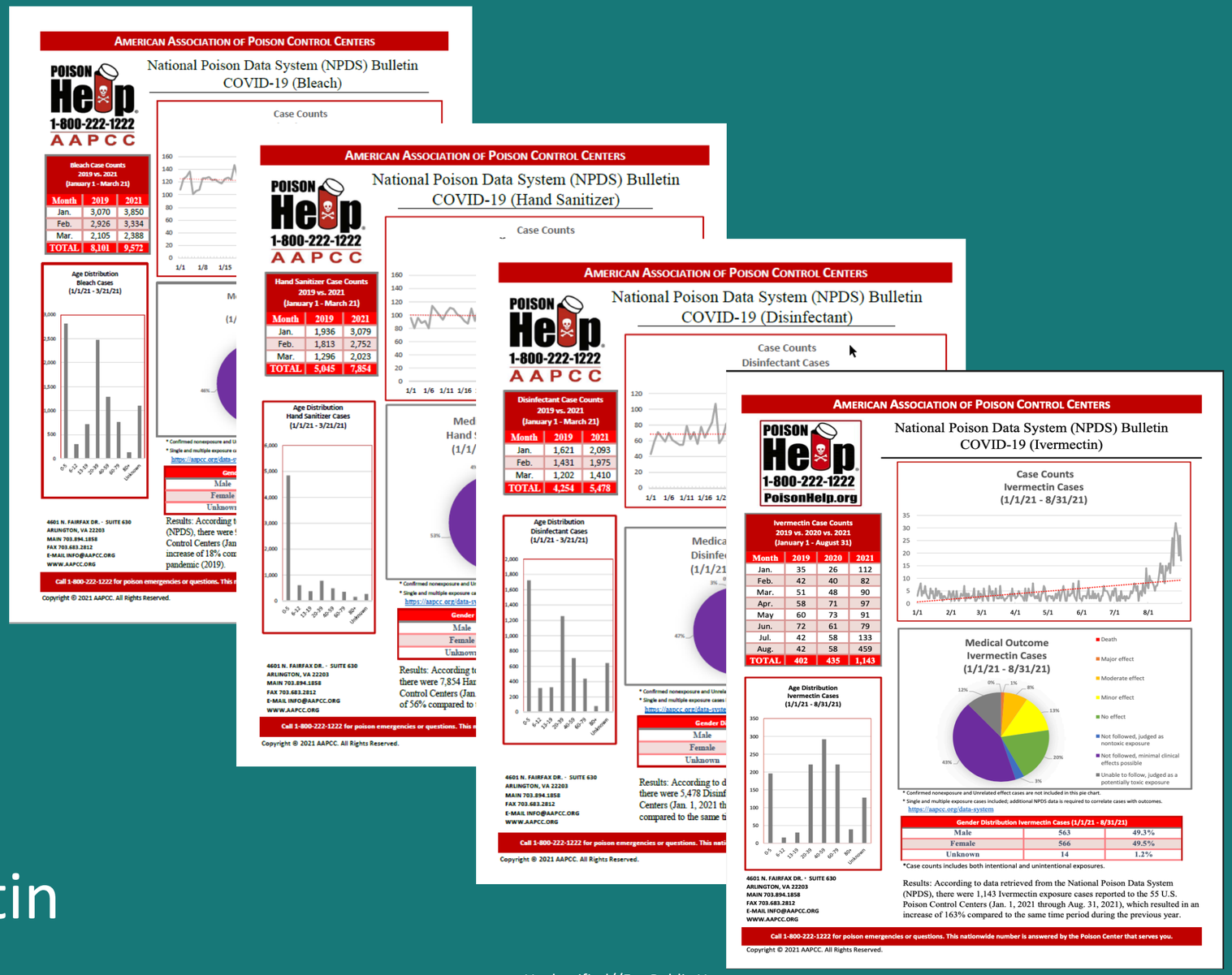
# Pandemic Trends: Public Information



AMERICAN ASSOCIATION OF POISON CONTROL CENTERS

National Poison Data System (NPDS) Bulletin
COVID-19 (Bleach)

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Bleach Case Counts 2019 vs. 2021 (January 1 - March 21)

| Month | 2019 | 2021 |
|---|---|---|
| Jan. | 3,070 | 3,850 |
| Feb. | 2,926 | 3,334 |
| Mar. | 2,105 | 2,388 |
| TOTAL | 8,101 | 9,572 |

Case Counts

Age Distribution Bleach Cases (1/1/21 - 3/21/21)

4601 N. FAIRFAX DR. · SUITE 630
ARLINGTON, VA 22203
MAIN 703.894.1858
FAX 703.683.2812
E-MAIL INFO@AAPCC.ORG
WWW.AAPCC.ORG

Call 1-800-222-1222 for poison emergencies or questions. This n

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National Poison Data System (NPDS) Bulletin
COVID-19 (Hand Sanitizer)

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Hand Sanitizer Case Counts 2019 vs. 2021 (January 1 - March 21)

| Month | 2019 | 2021 |
|---|---|---|
| Jan. | 1,936 | 3,079 |
| Feb. | 1,813 | 2,752 |
| Mar. | 1,296 | 2,023 |
| TOTAL | 5,045 | 7,854 |

Case Counts

Age Distribution Hand Sanitizer Cases (1/1/21 - 3/21/21)

| Gender |
|---|
| Male |
| Female |
| Unknown |

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National Poison Data System (NPDS) Bulletin
COVID-19 (Disinfectant)

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Disinfectant Case Counts 2019 vs. 2021 (January 1 - March 21)

| Month | 2019 | 2021 |
|---|---|---|
| Jan. | 1,621 | 2,093 |
| Feb. | 1,431 | 1,975 |
| Mar. | 1,202 | 1,410 |
| TOTAL | 4,254 | 5,478 |

Case Counts Disinfectant Cases

Age Distribution Disinfectant Cases (1/1/21 - 3/21/21)

| Gender |
|---|
| Male |
| Female |
| Unknown |

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National Poison Data System (NPDS) Bulletin
COVID-19 (Ivermectin)

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Ivermectin Case Counts 2019 vs. 2020 vs. 2021 (January 1 - August 31)

| Month | 2019 | 2020 | 2021 |
|---|---|---|---|
| Jan. | 35 | 26 | 112 |
| Feb. | 42 | 40 | 82 |
| Mar. | 51 | 48 | 90 |
| Apr. | 58 | 71 | 97 |
| May | 60 | 73 | 91 |
| Jun. | 72 | 61 | 79 |
| Jul. | 42 | 58 | 133 |
| Aug. | 42 | 58 | 459 |
| TOTAL | 402 | 435 | 1,143 |

Case Counts Ivermectin Cases (1/1/21 - 8/31/21)

Medical Outcome Ivermectin Cases (1/1/21 - 8/31/21)

Death
Major effect
Moderate effect
Minor effect
No effect
Not followed, judged as nontoxic exposure
Not followed, minimal clinical effects possible
Unable to follow, judged as a potentially toxic exposure

* Confirmed nonexposure and Unrelated effect cases are not included in this pie chart.
* Single and multiple exposure cases included; additional NPDS data is required to correlate cases with outcomes.
https://aapcc.org/data-system

Age Distribution Ivermectin Cases (1/1/21 - 8/31/21)

| Gender Distribution Ivermectin Cases (1/1/21 - 8/31/21) | | |
|---|---|---|
| Male | 563 | 49.3% |
| Female | 566 | 49.5% |
| Unknown | 14 | 1.2% |

*Case counts includes both intentional and unintentional exposures.

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Results: According to data retrieved from the National Poison Data System (NPDS), there were 1,143 Ivermectin exposure cases reported to the 55 U.S. Poison Control Centers (Jan. 1, 2021 through Aug. 31, 2021), which resulted in an increase of 163% compared to the same time period during the previous year.

Call 1-800-222-1222 for poison emergencies or questions. This nationwide number is answered by the Poison Center that serves you.

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NPDS Bulletin

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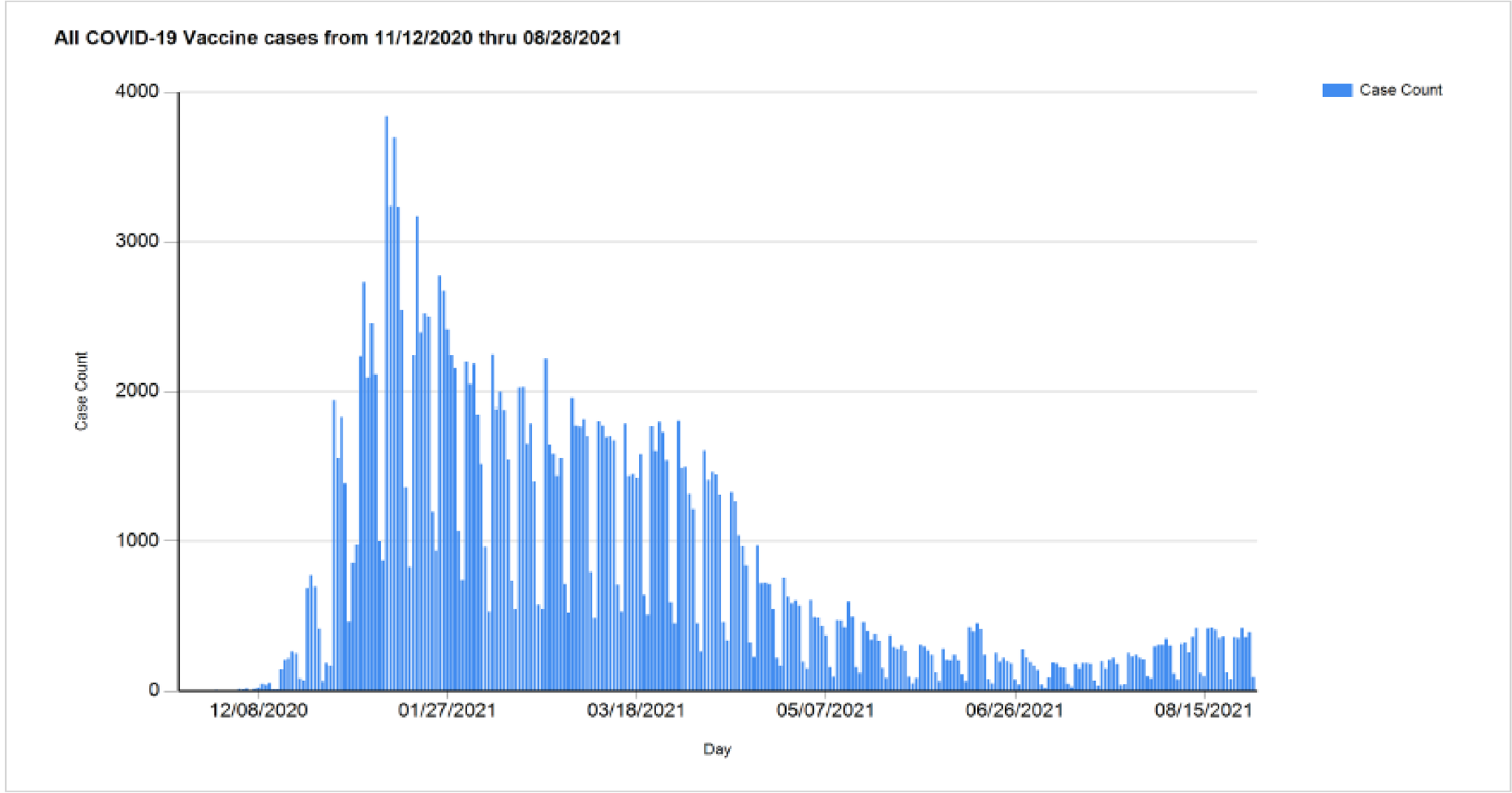
# Poison Center Role: Vaccine



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# Poison Center Role: Vaccine

## Information

- Fact-based vaccine information and preventative safety messaging and education

## Coding

- Case coding: Clinical effects, vaccine product identification, and adverse events

## Reporting

- Vaccine safety reporting to NPDS, VAERS and manufacturers


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# Poison Center Role: Alternative Education

- Many poison centers offered rotations for residents and students who were removed from clinical settings.
- National groups collaborate on virtual weekly COVID-19 education series.
- Individual poison centers switched public education Programs from live to virtual.

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# The Value of Poison Centers During the Pandemic Response and Beyond

| Response | Information Sharing | Education | Surveillance |
| --- | --- | --- | --- |
| 24/7/365 Medical Experts | Rapid Distribution to the Public | Timely and Credible | Data Capture and Analysis |

American Association of Poison Control Centers

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# Thank you
# &
# Special Acknowledgements

**The 55 US Poison Centers**

Managing and Medical Directors

Specialists in Poison Information

Poison Information Providers

Educators

**American Association of Poison Control Center**

The Entire Central Office Team

# Contact ASPR TRACIE

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