

National Poison Data System

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Health and Wellness for all Arizonans

Objectives

- AAPCC website
- National Poison Data System
 - ✓ Screenshots
 - ✓ Functionality
- Discuss access and uses



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AAPCC Website



American Association of
Poison Control Centers



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National Poison Data System

8 minutes
All AAPCC member poison centers upload data to NPDS every 8 minutes providing a near real-time snapshot of poison call conditions nationwide.

NPDS has more than six million exposure case records and product specific data about more than 200,000 products going back to 1973. NPDS can track poison exposure outbreaks across the country and in some situations can identify donor foods for systematically applying analytic algorithms or by using a methodological national search paradigm to analyze exposure call volume and clinical affect trends. These methods can be refined for all common poisons and toxic environmental concerns, as well as a wide variety of non-toxic substances ranging from food or drug contamination to biological viruses agents. The intent of these ongoing biosurveillance activities is to include and focus on areas of public health significance.

Case data are continually uploaded to NPDS from all AAPCC member poison centers currently every eight minutes, providing a near real-time snapshot of poisoning conditions nationwide.

All AAPCC member poison centers use electronic health record collection systems with standardized exposure data elements and reporting requirements. Existing central AAPCC member centers data elements and reporting requirements. Existing central AAPCC member centers data elements and reporting requirements. Existing central AAPCC member centers data elements and reporting requirements.



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Annual Reports

Journal of Toxicology (2014), 35, 4102–4207
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informa
healthcare

NPDS REPORT 2013

2013 Annual Report of the American Association of Poison Control Centers' National Poison Data System (NPDS): 31st Annual Report

JAMES B. MOWRY, DANIEL A. SPYKER, LOUIS R. CANTILENA JR, NAYA McMILLAN, MARSHA FORD

- 1999 – 2003



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Annual Reports



POISON DATA

National Poison Data System

Annual Reports

- 2013 Annual Report
- 2013 Annual Report - Data Snapshot
- 2012 Annual Report
- 2012 Annual Report - Data Snapshot
- 2011 Annual Report
- 2010 Annual Report
- 2009 Annual Report
- 2008 Annual Report
- 2007 Annual Report - Revised
- 2006 Annual Report
- 2005 Annual Report
- 2004 Annual Report
- 2003 Annual Report
- 2002 Annual Report
- 2001 Annual Report



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AAPCC

NPDS data may be used to answer any number of questions concerning use/and or exposure to potentially toxic substances.

NPDS has been instrumental in the identification and/or tracking of health risks associated with:

- "Bath salts" (such as methyline, MDPV and 2C-1)
- E-cigarette devices and liquid nicotine
- Energy Drinks
- MDMA (3,4-methylenedioxy-methamphetamine), commonly referred to as molly or ecstasy
- Prescription painkillers
- Synthetic marijuana



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NPDS Data Products via AAPCC

- 1. Individual Case Listing Deliverables**
 - Custom queries
 - Retrospective or prospective data on a one-time, quarterly, monthly, weekly basis or any interval
- 2. Surveillance Definitions**
 - Early identification of hazardous exposures to particular products or potential public health threats.
 - Customized definitions based on:
 - Volume - cases based on specific parameters
 - Cases - related to a particular exposure
 - Clinical Effects/Outcomes - specific clinical effects/outcomes of interest
 - Generates an alert triggered by parameters specified in the definition.
 - Reports delivered quarterly, monthly, weekly, daily or other interval



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NPDS Data Products via AAPCC

- 3. Custom Tables**
 - Tables published in the NPDS Annual Report can be customized by timeframe, age, geographical region, and AAPCC generic code (i.e., code that represents a broad group of related products used to identify the substance involved).
 - submit a table shell that AAPCC would then populate with NPDS data.
- 4. Case Narratives – upon request and PCC approval** Not in NPDS
 - Case narratives are de-identified free text notes that may provide additional details regarding the case in various formats (e.g., pdf, text).
- 5. Fatality Abstracts**
 - De-identified fatality abstract that provides additional detail when available (e.g. details of an autopsy).
 - Fatality abstracts are contained within NPDS.

Caller's state, zip code (3 or 5 digit), area code or AAPCC member poison center handling the case). This may be requested in conjunction with any of the products listed above.



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Poisindex®

Poisindex® (Micromedex® Healthcare Series Greenwood Village, CO: Truven Health Analytics Inc.),

- Software database used by poison center staff to code calls.
- unique product code in Poisindex® for >400,000 chemical and household products
- Approximately 1,000 AAPCC generic codes
- Specialists in Poison Information (SPIs) attempt to identify the exact substance involved in the exposure down to the brand name or manufacturer
- Can add products to the database for outbreaks or emerging infectious or chemical problems
- Cases can be identified by querying the database on Poisindex® product or AAPCC generic codes.



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NPDS Data Dictionary

Data Element	Definition
Age	Actual age value
Age Unit	Age unit of patient (days, months, years) which may also include categories (e.g., <5 years, teen, 20s, unknown)
Animal Type	Type of animal when species is other than human
Call Type	Specifies if information or exposure call
Caller Site	Site of caller at the time of the initial call
Case ID	A unique identifier for each case
Chronicity	Chronicity of exposure (e.g., acute, acute-on-chronic, chronic)
Clinical Effect	Reported signs, symptoms and clinical findings
Clinical Effect Duration	Time to resolution of all related clinical effects
Exposure Duration	Duration of exposure
Exposure Site	Location of the patient at the time the exposure occurred
Final Health Care Facility	The type of healthcare facility where the patient was ultimately managed when more than one facility was involved in the patient's care, for those requiring medical care
Gender	Gender of patient
Generic Code	AAPCC specific code that represents a broad group of related products used to identify the substance involved
Initial Health Care Facility	If caller site is a health care facility, the specific location type of the initial facility type
Level of HCF (health care facility) Care	The highest level of healthcare facility involved in the management of the exposure
Management Site	Site where patient was managed
Medical Outcome	Medical outcome of patient following exposure based upon all available information
Number of Products	Number of products reported for each case
Pregnancy Duration	If patient is pregnant, the number of gestation weeks reported



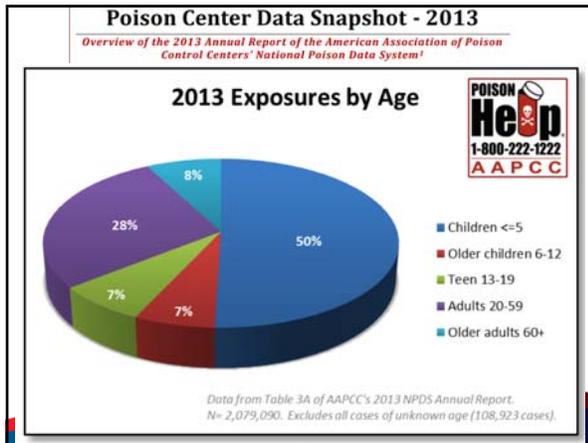
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NPDS Data Dictionary

Data Element	Definition
Product Code	Code specific to the exact substance of the product involved in the call
Reason	The underlying reason, purpose, or intent for which the exposure occurred (e.g., unintentional, intentional, adverse reaction, or other)
Route	Route(s) of exposure
Scenario Category, Scenario ID	A description of the events that led to the reported exposure (e.g., access to product, dosing/therapeutic error)
Species	Species of the patient
Start Date	The start date and time of the initial call to the regional poison center
State	The state from with the initial call was made
Substance Certainty	Confidence in the substance quantity recorded (e.g., exact, estimate, maximum possible)
Substance Formulation	The formulation for each substance
Substance Quantity	Amount for each substance involved in an exposure case
Substance Quantity Unit	Quantity unit associated with substance quantity reported (e.g., teaspoonful, milligrams, milliliters, tablets)
Substance Sequence Number	Priority or rank of each substance by relative contribution to the patient's clinical condition
Therapy	Therapies that were recommended and/or performed in relation to the exposure reported
Weight	Weight of patient in kilograms or pounds
Year	Year in which the initial call to the regional poison center was received



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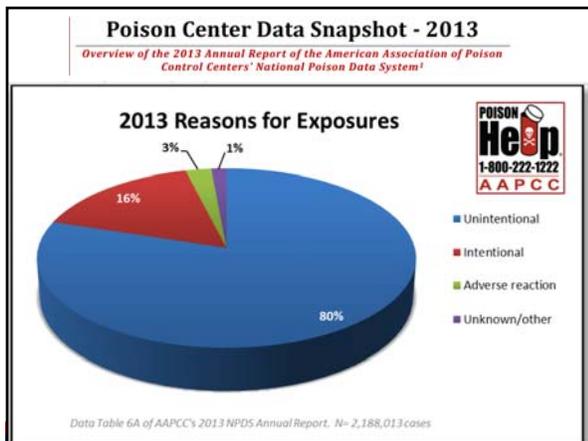
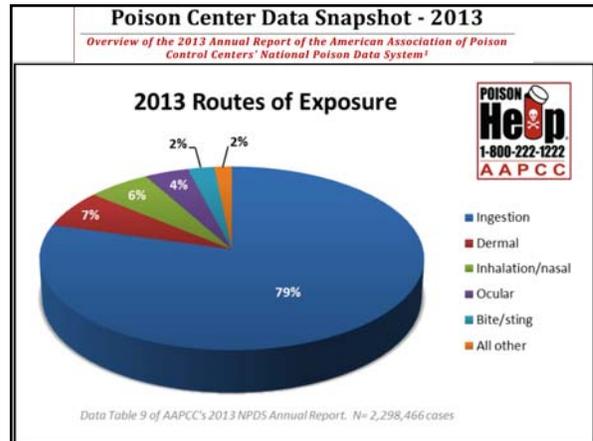
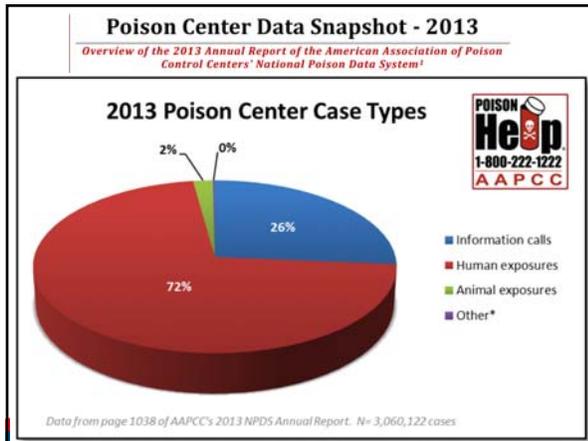
Poison Center Data Snapshot - 2013

Overview of the 2013 Annual Report of the American Association of Poison Control Centers' National Poison Data System¹

Top 5 Human Exposure Substance Categories By Age Group, 2013

	All human exposures*	Young children (<6 yrs)** (n= 1,019,297)	Older children (6-12 yrs)** (n= 127,569)	Teens (13-19 yrs)** (n= 122,557)	Adults (>19 yrs)** (n= 581,432)
Analgesics	11.54%	14.52%	8.78%	18.35%	9.55%
Cosmetics and Personal Care Products	7.74%	10.75%	7.11%	7.24%	7.87%
Household Cleaning Substances	7.60%	9.55%	6.64%	5.57%	6.15%
Sedatives, Hypnotics, and Antipsychotics	5.73%	7.20%	5.43%	5.56%	5.73%
Antidepressants	4.20%	6.45%	5.21%	5.17%	5.71%

* Based on total case mentions, table 22. ** Based on single substance exposures, table 27. Single substance exposures account for 89% of all human exposure cases. All data from AAPCC's 2013 NPDS Annual Report.



Arizona Poison and Drug Information Center

1-800-222-1222 • Free • Confidential • 24 hours a day • 7 days a week

POISON CENTER WARNS CONSUMERS ABOUT MEDICATION MISUSE

The team at the Arizona Poison and Drug Information Center used National Poison Prevention Week as a launching pad for an information campaign warning Arizona consumers about the incidence of poisonings and the likelihood of missing common medications such as Tylenol.

Arizona Poison and Drug Information Center

1-800-222-1222

There for every call, big and small!

Banner Health

Save the number. Just in case. 800.222.1222

Banner Good Samaritan Poison & Drug Information Center

Arizona Department of Health Services

National Poison Data System

Poison center personnel include medical toxicologists, clinical toxicologists and specialists in poison information.

User Name:
 Password:

Since 1953, poison centers have been making a positive contribution to public health in the United States.

The goal of poison centers is to reduce morbidity and mortality due to poisoning. It is clear that poison centers accomplish this goal while simultaneously decreasing the cost of health care.

If you have a poisoning emergency, call 911.

If the victim has collapsed or is not breathing, call 911.

POISON HELP
1-800-222-1222

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Build Version: 2.0.0

AZ - Banner Poison Control Center (Phoenix)

National Poison Data System

Welcome: Kenneth Komatsu | Reports | Toxicsurveillance | Anomaly Monitor

National Poison Data System

The American Association of Poison Control Centers (AAPCC) has launched a nationwide number for access to the US poison control centers. The number, 1-800-222-1222, is routed to the local poison center serving the caller, based on the area code and exchange of the caller. The number is functional 24-hours a day in the 50 states, the District of Columbia, the US Virgin Islands, and Puerto Rico.

While there is no charge imposed for the use of the 1-800-222-1222 number on product labels, there are important guidelines governing its use. It is important that companies comply with these guidelines to optimize emergency response recommendations and treatments.

On This Day In Toxicology History
 This day is reserved for your discovery.
 Warning

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NPDS Menu

1. Reports
 - Add case based definition
 - Add volume based definition
 - Search
3. Anomaly Monitor
 - Search

Arizona Department of Health Services

National Poison Data System

Anomaly Monitor - Search

Owner: 003 - AZ - Banner Poison Control Center (Phoenix)

Definition Type: Definition ID: Anomaly ID:

Status:

Start Date Time: 3/19/2015 End Date Time: 3/20/2015

Calendar for March 2015:

Su	Mo	Tu	We	Th	Fr	Sa
22	23	24	25	26	27	28
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

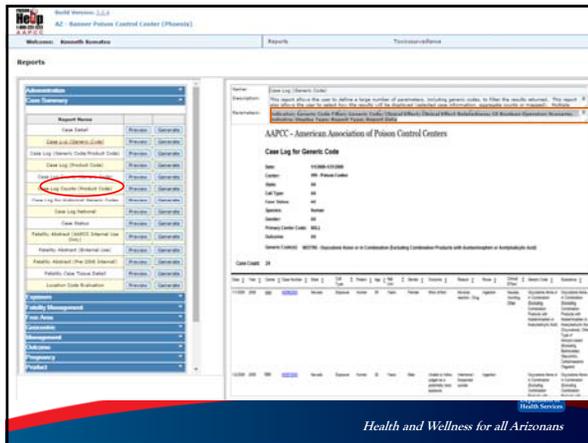
Today: March 19, 2015

National Poison Data System

Anomaly Monitor - Search

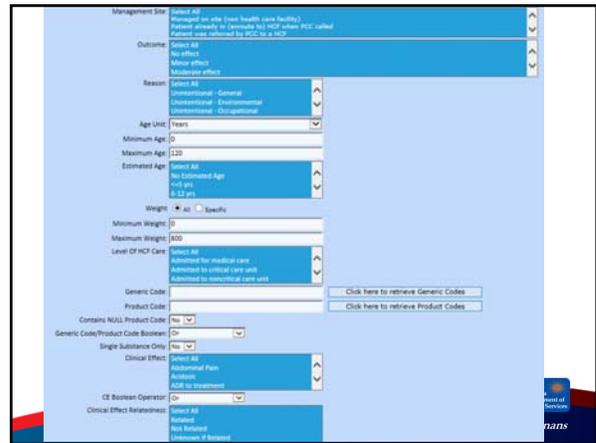
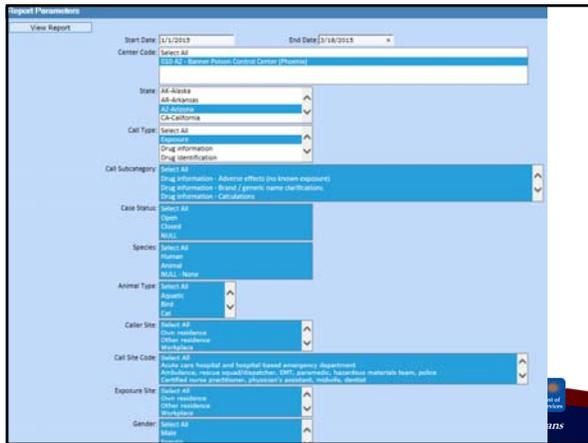
Case Based Assessment

Case No.	Anomaly ID	Description	Onset Date	Detected Date/Time	Reason	State	Fax Code	National	Anomaly Status	Action	Actions
1	28824	Animal Exposure Call Volume	3/12/2015	3/19/2015 11:53:58 AM	AZ - Banner P...			No	Incomplete	Analyze	Case Detail
2	28824	Animal Exposure Call Volume	3/17/2015	3/19/2015 11:58:08 AM	AZ - Banner P...			No	Incomplete	Analyze	Case Detail



Differences Between Reports

<p>Case Log Generic Code</p> <p>Start Date; End Date; Center Code; State; Call Type; Call Subcategory; Species; Animal Type; Case Status; Gender; Outcome; Reason; Therapy; Therapy Recommendation; Therapy Boolean Operator; Caller Site; Call Site Code; Route; Route Boolean Operator; Exposure Site; Management Site; Single Substance Only; Scenario Boolean Operator; Age Unit; Minimum Age; Maximum Age; Estimated Age; Minimum Weight; Maximum Weight; Level Of HCF Care; Generic Code Indicator; Generic Code Filter; Generic Code; Clinical Effect; Clinical Effect Relatedness; CE Boolean Operator; Scenario; Industry; Display Type; Report Type; Report Data</p>	<p>Case Log Generic Code/Product Code</p> <p>Start Date; End Date; Center Code; State; Call Type; Call Subcategory; Species; Animal Type; Case Status; Gender; Outcome; Reason; Therapy; Therapy Recommendation; Therapy Boolean Operator; Caller Site; Call Site Code; Route; Route Boolean Operator; Exposure Site; Contains NULL Product Code; Management Site; Single Substance Only; Scenario Boolean Operator; Age Unit; Minimum Age; Maximum Age; Estimated Age; Minimum Weight; Maximum Weight; Level Of HCF Care; Generic Code; Clinical Effect; Clinical Effect Relatedness; CE Boolean Operator; Product Code; Generic Code/Product Code Boolean Operator; Industry; Display Type; Report Type; Report Data</p>
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Report Type

Therapy Boolean Operator: Recommended

Route Boolean Operator: Aspiration (with ingestion)

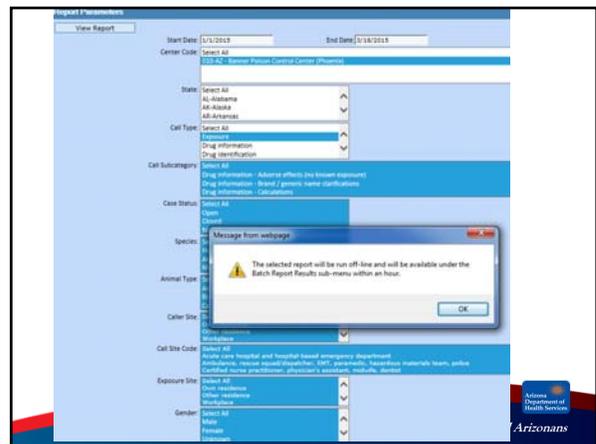
Scenario Boolean Operator: Animal spread in fact

Report Type: Case Listing

Display Type: Offline Report

Report Date: Age Link

- Aggregate Counts per Day
- Aggregate Counts per Month
- Aggregate Counts per Year
- Bar Graph
- Counts by Center per Day
- Counts by Center per Year
- Line Graph
- US State Map
- Clinical Effect Listing (Relational)
- Demographics Listing (Relational)
- Route Listing (Relational)
- Scenario Listing (Relational)
- Substance Listing (Relational)
- Therapy Listing (Relational)
- Demographics Listing (Traditional 5 Tab Format)
- Clinical Effects Listing (Traditional 5 Tab Format)
- Therapy Listing (Traditional 5 Tab Format)
- Route Listing (Traditional 5 Tab Format)
- Scenario Listing (Traditional 5 Tab Format)
- Therapy Listing (Traditional 5 Tab Format)
- Traditional 1 Tab Format
- 6 Relational Table Format



Build Version: 3.0.4
 AZ - Banner Poison Control Center (Phoenix)

Welcome: Kenneth Komatsu Reports Toxicosurveillance

Following definition has been saved successfully.

Def ID	Def Type	Owner	Description	Comment	Status	Region
1303	Case Based	AZ - Banner Poison Control Center (Phoenix)	Intentional suicide		Active	AZ - Banner P

Go

State: Arizona Zip Code: Call Type Category: Animal Type: National: No Coconstr: No Single Alert: Yes Action: [Edit] [Subscriber]

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Build Version: 3.0.4
 AZ - Banner Poison Control Center (Phoenix)

Welcome: Kenneth Komatsu Reports Toxicosurveillance Anomaly Monitor

Toxicosurveillance - Subscribers

ID	Owner	Definition Type	National	Region	State	Location	Description	Comment	Status
1303	AZ - Banner Poison Control Center (Phoenix)	Case Based	No	AZ - Banner Poison Control Center (Phoenix)	Arizona		Intentional suicide		Active

Internal Subscribers: Aaron Skolnik, Alvin Beckage, Ann-Marie Krueger, Augustin Kibila, Barbara Britt, Becky Hilder, Belinda Zawyers, Bianca Salda, Dan Thula, Daniel Brooks

External Subscribers: Email Address

Save Cancel

Build Version: 3.0.4
 AZ - Banner Poison Control Center (Phoenix)

Welcome: Kenneth Komatsu Reports Toxicosurveillance Anomaly Monitor

Toxicosurveillance - Add Definition

Definition Name: [Text Field]

Type: [Dropdown]

Status: [Radio Buttons]

Regional Settings: [Form Fields]

Definition Information: [Form Fields]

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 Health and Wellness for all Arizonans

Definition Information: [Form Fields]

Email List: [Form Fields]

Subscribers: [Form Fields]

Definition Subscribers: [Form Fields]

Save Cancel

Build Version: 3.0.4
 Banner Poison Control Center (Phoenix)

Welcome: Kenneth Komatsu Reports Toxicosurveillance

Toxicosurveillance - Search

Definition Type: [Form Fields]

Regional Center: [Form Fields]

Zip Code: [Form Fields]

Call Type Category: [Form Fields]

Animal Type: [Form Fields]

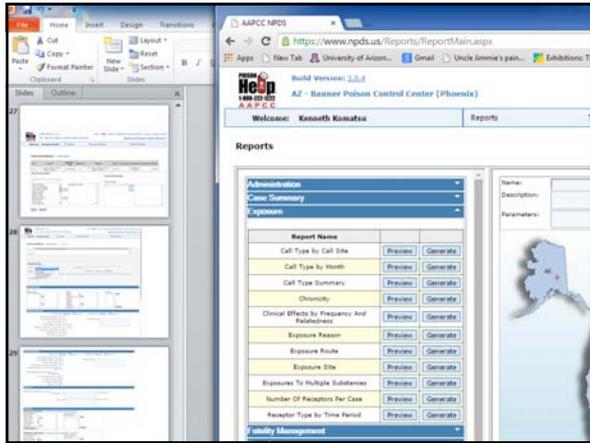
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Search: [Form Fields]

Def ID	Def Type	Owner	Description	Comment	Status	Region	State
1303	Case Based	AZ - Banner Poison Control Center (Phoenix)	Intentional suicide		Active	AZ - Banner P	Arizona

Go

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Suggested Uses of NPDS

- NPDS information can also be used to identify potential public health threats through real-time public health surveillance. NPDS surveillance has been used to track information related to:
 - Ebola
 - Electronic Cigarettes
 - Gulf Deep Water Horizon Oil Spill
 - Health effects related to Hurricanes Katrina and Sandy
 - Intentional arsenic poisoning in coffee
 - Laundry pod exposures
 - Melamine in dog food
 - Radiation exposure after the Fukushima earthquake and tsunami
 - Salmonella in peanut butter
 - Selenium toxicity associated with ingestion of a health food product
 - Injury patterns; associated rates of illness and death; analyze safety data before deaths and injuries occur;
- Monitor or demonstrate product safety;
- Conduct post market surveillance of newly approved or newly marketed products;
- Satisfy regulatory reporting requirements; and
- Support new drug applications using data from similar products.

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Questions

- Local health access?
- Surveillance definitions of interest?

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Descriptive Statistics for 2010 Combined Datasets




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State	# of Calls	% of Total Calls	Call Center	# Calls in 2010	Percent
Arizona	74,324	97.34	Banner	48,648	63.7
California	383	0.50	UA	27,688	36.3
Nevada	201	0.26	Total	76,336	100.0
Texas	196	0.26			
New Mexico	140	0.18			
Utah	113	0.15			
Washington	72	0.09			
Colorado	68	0.09			
Florida	63	0.08			
N. Carolina	53	0.07			
No State Indicated = 24					

State	Call Center	# of Calls	% of Total Calls
Arizona	Banner	47,512	62.24
Arizona	UA	26,789	35.09
California	Banner	191	0.25
California	UA	192	0.25
Nevada	Banner	159	0.21
Nevada	UA	42	0.06
Texas	Banner	92	0.12
Texas	UA	104	0.14
New Mexico	Banner	52	0.07
New Mexico	UA	88	0.12

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AZ County	# of Calls	% of Calls	Population in 2010	Calls per 1,000 Pop
Maricopa	39639	61.42	3,942,169	10.06
Pima	13020	20.17	980,263	13.28
Yavapai	1925	2.98	211,033	9.12
Mohave	1575	2.44	200,186	7.87
Coconino	1346	2.09	134,420	10.01
Pinal	1165	1.81	375,770	3.10
Navajo	1102	1.71	107,449	10.26
Yuma	1066	1.65	195,750	5.45
Gila	784	1.21	53,597	14.63
Graham	548	0.85	37,220	14.72
Apache	453	0.70	71,518	6.33
Santa Cruz	279	0.43	47,420	5.88
La Paz	187	0.29	20,489	9.13
Greenlee	115	0.18	8,437	13.63

Notes:

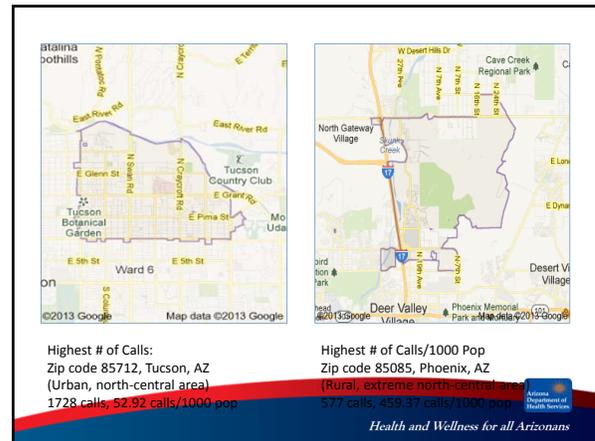
- 1) No calls from Cochise County in 2010, pop = 131,346
- 2) 11,848 calls within AZ did not have County information
- 3) Number of calls in each county calculated from zip codes
- 4) AZ population in 2010 ~ 6,392,000

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Zip-Code	City in AZ	# of Calls in 2010	Pop in 2000	Calls per 1000 Pop	Sorted "# of Calls in 2010"
85712	Tucson	1728	32,656	52.92	
85006	Phoenix	953	31,616	30.14	
85037	Phoenix	922	33,150	27.81	
85234	Gilbert	902	36,972	24.40	
Zip-Code	City in AZ	# of Calls in 2010	Pop in 2000	Calls per 1000 Pop	Sorted "# Calls per 1000 Population"
85085	Phoenix	265	577	459.27	
86437	Valentine	14	36	388.89	
85379	Surprise	418	1153	362.53	
85926	Fort Apache	12	111	108.11	
85086	Phoenix	560	8655	64.70	

Note: No Zip code indicated for 3,641 calls

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Month	# of Calls in 2010	Percent
August	7384	9.67
July	7230	9.47
September	7214	9.45
June	7114	9.32
October	6839	8.96
May	6655	8.72
April	6389	8.37
March	5968	7.82
January	5514	7.22
November	5427	7.21
December	5427	7.11
February	5097	6.68

(placeholder for bar chart: "# of Calls" versus "Month, Jan thru Dec")

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Age Group	# of Calls	Percent
5 years & younger	28415	37.22
20 – 49 years	24584	32.20
6 – 19 years	9850	12.90
50 – 64 yrs.	5845	7.66
Unknown	4058	5.32
65 years & older	3584	4.70

Day of Week	# of Calls	Percent
Monday	11120	14.57
Wednesday	11015	14.43
Tuesday	10950	14.34
Saturday	10884	14.26
Friday	10877	14.25
Thursday	10819	14.17
Sunday	10671	13.98

Gender	# of Calls	Percent
Female	38146	49.97
Male	34434	45.11
Unknown	3489	4.57
Pregnant	262	0.34
Other	5	0.01

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