Epi/Lab/Poison Control Preparedness Workshop & Tabletop

March 19, 2015

Black Canyon Conference Center, 9440 N 25th Ave, Phoenix, AZ 85021

Arizona Department of Health Services

Health and Wellness for All Arizonans

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Agenda

ADHS Bureau of Public Health Emergency Preparedness

Epi/Lab/Poison Control Preparedness Workshop & Tabletop

March 19, 2015

Black Canyon Conference Center
9440 N 25th Ave, Phoenix, AZ 85021

8:00am– 9:00am	**Registration networking session – continental breakfast provided**	
9:00am – 9:15am	**Welcome and Introductions,** Teresa Ehnert, BPHEP Bureau Chief, ADHS	
9:15am – 10:15am	**Poison Control Center – Resources for Public Health Emergencies** Daniel Brooks, MD, Good Samaritan Regional Poison Center Keith Boesen, PharmD, Arizona Poison and Drug Information Center	
10:15am – 10:45am	**Epidemiology Coordinating with Poison Control – Strategies and Resources** Joli Weiss, Ph.D., ADHS Office of Infectious Disease Services PHEP Manager, and Presentation by Maricopa County Epidemiology	
10:45am – 11:00am	**Break**	
11:00am – 11:45am	**Lab Coordinating with Poison Control – Lessons Learned from a HAZMAT Response** Jason Mihalic, State Lab Chemistry Office Chief	
11:45am – 12:30pm	**Working Lunch (lunch provided)** Capability Overview, Antonio Hernandez, Section Chief, BPHEP, ADHS	
12:30pm – 1:30pm	**Session A** *Information Sharing for Preparedness* Epi /Poison Control—ADHS EPI Team • NPDS (National Poison Data System)	**Session B** 1. ***Lab Disaster Tool Box***—Joseph Manfrida, Ph.D., Lab Chief of Biosafety, Biosecurity and Responsible Official 2. ***Getting Samples to the State Laboratory: The Basics of Packaging and Shipping Clinical Samples for Chemical Testing***—Susan Runcorn, State Lab Chemical Emergency Response Manager
1:30pm – 3:00pm	**EPI/Lab/Poison Control Panel Discussion & Tabletop Exercise** • Module 1: Novel Chemical Agent • Module 2: Bio-disease Outbreak	
3:00pm – 3:30pm	**Wrap Up/Closing Remarks,** Teresa Ehnert, BPHEP Bureau Chief, ADHS	

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Workshop Overview

Name	Epidemiology, Poison Control, State Laboratory Preparedness Workshop and Tabletop
Date	March 19, 2015
Scope	The Workshop includes participation from public health, healthcare system and emergency management stakeholders.
Threats/Hazards	• Module 1: Novel Chemical Agent • Module 2: Bio-disease Outbreak
PHEP/HPP Capabilities	PHEP Capability 4: Emergency Public Information and Warning PHEP Capability 12: Laboratory Testing PHEP Capability 13: Surveillance and Epidemiological Investigation PHEP/HPP Capability 6: Information Sharing PHEP/HPP Capability 10: Medical Surge PHEP/HPP Capability 14: Responder Safety and Health
Scenario	MODULE 1: A vacuum truck collides into and explodes at a water treatment facility creating an unknown and unstable chemical substance. Persons exposed present with breathing problems, red eyes and skin rashes. MODULE 2: An outbreak of unusually severe respiratory illness is identified. Surveillance in surrounding areas is increased, and rumors of new suspected clusters of cases begin to be identified.
Sponsor	Arizona Department of Health Services • Hospital Preparedness Program (HPP) • Public Health Emergency Program (PHEP)
Points of Contact	Jennifer Cunico, Deputy Bureau Chief Bureau of Public Health Emergency Preparedness Arizona Department of Health Services jennifer.Cunico@azdhs.gov Antonio Hernandez, Section Chief Bureau of Public Health Emergency Preparedness Arizona Department of Health Services antonio.hernandez@azdhs.gov

General Information

The workshop is designed to explore issues related to surveillance, reporting and recovery activities with the State Poison Control Centers, Epidemiology and Arizona State Laboratory. It will also discuss information sharing (call data, investigations, response, and technical support for toxicology) that focuses on the inter-relationship between public health, poison control, and the lab.

WORKSHOP OBJECTIVES & CAPABILITIES

OBJECTIVE	PHEP/HPP CAPABILITIES
1) Identify key partners to integrate into communications pathways and methods for reaching these partners during a disaster.	Information Sharing **(PHEP/HPP – C6)**
2) Evaluate the ability of the public health and healthcare system to support medical surge operations.	Medical Surge **(PHEP/HPP – C10)**
3) Evaluate process for monitoring and supporting responder safety and health actions.	Responder Safety and Health **(PHEP/HPP – C14)**
4) Identify approaches to integrating systems for public information and communication among healthcare facilities, public health departments, emergency management agencies, and other responding organizations.	Emergency Public Information & Warning **(PHEP – C4)**
5) Educate stakeholders on the State Laboratory's ability to conduct rapid and conventional detection, characterization, confirmatory testing, data reporting, investigative support, and laboratory networking to address actual or potential exposure to all-hazards.	Laboratory Testing **(PHEP – C12)**
6) Educate stakeholders on public health surveillance and epidemiological investigation and capabilities in response to incidents of public health significance.	Public Health Surveillance & Epidemiological Investigation **(PHEP – C13)**

Table1. Workshop Objectives and Associated Capabilities

Presentations

POISON CONTROL CENTER (PCC)

RESOURCES FOR PUBLIC HEALTH EMERGENCIES

NOTES:

EPIDEMIOLOGY COORDINATING WITH POISON CONTROL

STRATEGIES AND RESOURCES

NOTES:

LAB COORDINATING WITH POISON CONTROL

LESSONS LEARNED FROM A HAZMAT RESPONSE

NOTES:

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Working Lunch – Capabilities and Functions

The workshop covers the expected outcomes for the event and are aligned with the Healthcare Preparedness Capabilities contained in the Office of the Assistant Secretary for Preparedness and Response Guidance of January 2012; as well as the Public Health Preparedness Capabilities of March 2011 of the Office of Public Health Preparedness and Response of the Centers for Disease Control and Prevention (CDC).

OBJECTIVE	PHEP/HPP CAPABILITY	FUNCTION(S)
1. Identify key partners to integrate into communications pathways and methods for reaching these partners during a disaster.	☐ **PHEP C6**: Information Sharing	☐ F1: Identify stakeholders to be incorporated into the information flow
	☐ **HPP C6**: Information Sharing	☐ F1: Provide healthcare situational awareness that contributes to the common operating picture
2. Evaluate the ability of the public health and healthcare system to support medical surge operations.	☐ **PHEP C10**: Medical Surge	☐ F3: Support medical surge operations
	☐ **HPP C10**: Medical Surge	☐ F2: Provide assistance to healthcare organizations with access to additional PPE for healthcare workers during response
3. Evaluate process for monitoring and supporting responder safety and health actions.	☐ **PHEP C14**: Responder Safety and Health	☐ F4: Monitor responder safety and health actions
	☐ **HPP C14**: Responder Safety and Health	☐ F2: Provide assistance to healthcare organizations with access to additional PPE for healthcare workers during response

OBJECTIVE	PHEP/HPP CAPABILITY	FUNCTION(S)
4. Identify approaches to integrating systems for public information and communication among healthcare facilities, public health departments, emergency management agencies, and other responding organizations.	☐ **PHEP C4**: Emergency Public Information & Warning	☐ F2: Determine a need for a joint public information system ☐ F5: Issue public information, alerts, warnings, and notifications
5. Educate stakeholders on the State Laboratory's ability to conduct rapid and conventional detection, characterization, confirmatory testing, data reporting, investigative support, and laboratory networking to address actual or potential exposure to all-hazards.	☐ **PHEP C12**: Laboratory Testing	☐ F1: Manage laboratory activities ☐ F2: Perform sample management ☐ F3: Conduct testing and analysis for routine and surge capacity ☐ F4: Support public health investigations
6. Educate stakeholders on public health surveillance and epidemiological investigation and capabilities in response to incidents of public health significance.	☐ **PHEP C13**: Public Health Surveillance and Epidemiological Investigation	☐ F1: Conduct public health surveillance and detection ☐ F2: Conduct public health and epidemiological investigations ☐ F3: Recommend, monitor and analyze mitigation actions and Function ☐ F4: Improve public health surveillance and epidemiological investigation systems

Breakout— Session A

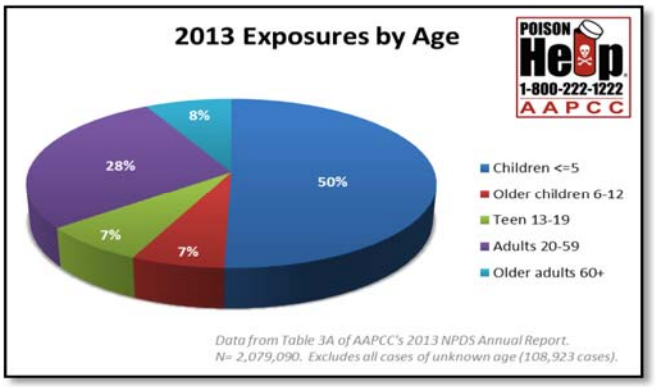
INFORMATION SHARING FOR PREPAREDNESS EPI/POISON CONTROL

Poison Center Data Snapshot - 2013

Overview of the 2013 Annual Report of the American Association of Poison Control Centers' National Poison Data System[1]

Poisoning is the leading cause of injury-related death in the U.S.[2] In 2013, there were 57 poison centers serving 320 million people nationwide. Poison centers managed 3.1 million cases, 2.2 million of which were about people coming into contact with dangerous or potentially dangerous substances ("exposures").

The American Association of Poison Control Centers (AAPCC) maintains the National Poison Data System (NPDS). Developed in 1983, NPDS contains more than 60 million poison exposures managed over the telephone by U.S. poison centers. NPDS is the only comprehensive, near real-time poisoning surveillance database in the U.S.



WHO?

Who calls the poison center?
Poison centers take calls from and manage cases about people of all ages and offer service in 150 languages. In 2013 just under half of exposure cases managed by poison centers involved children younger than six, but as in previous years the more serious cases occurred in adolescents and adults.

When someone calls the poison center, who answers the phone? Poison center cases are managed by *experts* – doctors, nurses, and pharmacists who have extensive medical training in poison prevention and treatment.

WHAT?

About what kinds of things do people call the poison center? In 2013, almost half of poison exposures involved medications, or pharmaceuticals.[3] Other exposures were to household or automotive products, plants, mushrooms, pesticides, animal bites and stings, and many other things (nonpharmaceuticals).

Top 5 Human Exposure Substance Categories By Age Group, 2013

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

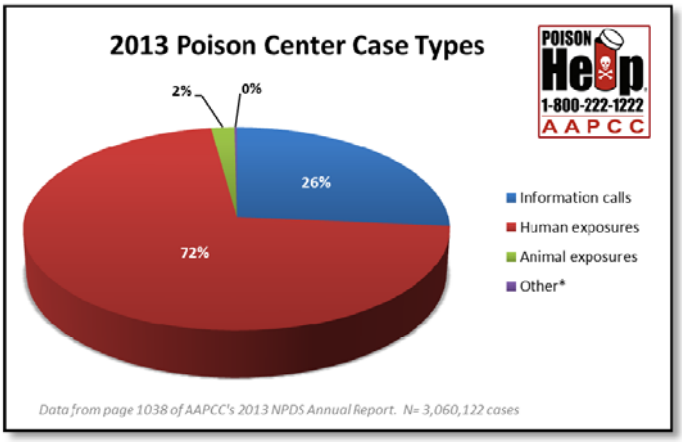
** Based on total case mentions, table 22. ** Based on single substance exposures, table 22. Single substance exposures account for 89% of all human exposure cases. All data from AAPCC's 2013 NPDS Annual Report.*

WHEN?

When do people call the poison center? Experts answer calls to the poison center 24 hours a day, 7 days a week, every day of the year. In 2013, on average poison centers managed a new case every 10 seconds! Similar to other years, in 2013 higher call volumes were observed in the warmer months.

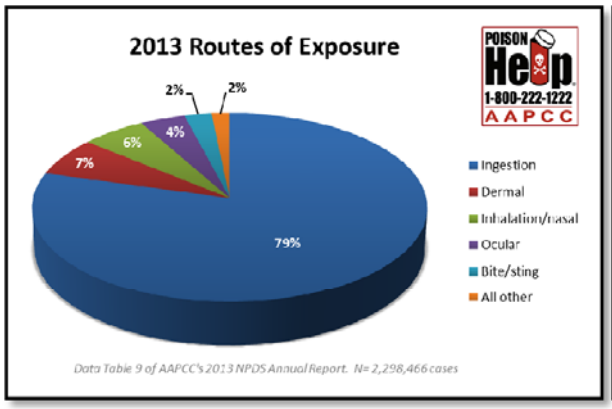
WHERE?

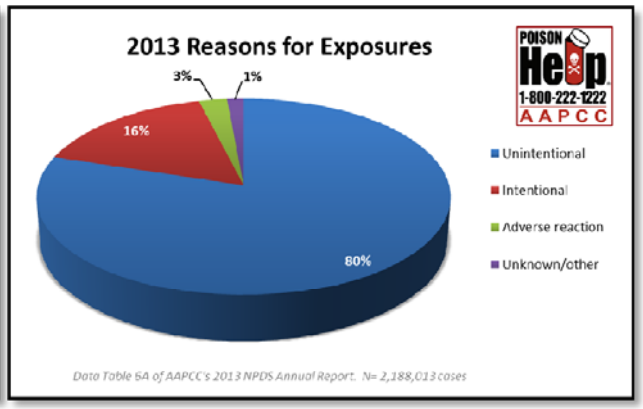
Where do the most poison exposures occur? In 2013, 93% of human exposures occurred at a residence, but they can also occur in the workplace, schools, healthcare facilities, and others. About 70% of the 2.2 million poison emergency cases reported to poison centers were treated at home, saving millions of dollars in medical expenses. In fact, poison centers save Americans more than $1.8 billion every year in medical costs and lost productivity![4]



WHY?

Why do people call the poison center? People call the poison center when they think they may have been exposed to something poisonous. People also call the poison center for information about medications, pesticide use, workplace chemicals, bites and stings, and many more topics. In 2013, almost 80% of poison exposures involved people who swallowed a drug or potential poison. However, people were also exposed through the lungs, skin, eyes, and in other ways. Most poison exposures were unintentional (80%). Poison centers also received calls about other types of poisonings: medication side effects, substance abuse, malicious poisonings, and suicide attempts.





To locate your local poison center call 1(800) 222-1222 or visit http://www.aapcc.org/centers/. Interested in more detailed poison center data? Visit http://www.aapcc.org/data-system/.

[1] Mowry JB, Spyker DA, Cantilen LR Jr, McMillan N, Ford M. 2013 Annual Report of the American Association of Poison Control Centers' National Poison Data System (NPDS): 31st Annual Report. Clin Toxicol (Phila). 2014 Dec;52(10):1032-283. http://bit.ly/1yHFSoW

[2] Warner M, Chen LH, Makuc DM, Anderson RN, Miniño AM. Drug poisoning deaths in the United States, 1980-2008. NCHS Data Brief. 2011 Dec;(81):1-8.

[3] From Table 22 – 52% of single-substance exposures involved nonpharmaceuticals and 48% involved pharmaceuticals. Single-substance exposures comprise 89% of all human exposures.

[4] The Lewin Group, Inc. Final Report on the Value of the Poison Center System. 2012. http://bit.ly/1ANfdnt

Breakout—Session B

STATE LABORATORY INCIDENT RESPONSE TOOLKIT

MICROBIOLOGY & CHEMISTRY

The Microbiology and Chemistry departments of the Arizona State Laboratory have a number of programs available to assist with response to public health threats. In this break out session, representatives from both the Microbiology and Chemistry divisions of the State Lab will describe programs they have in place to respond to a variety of incidents and how members of the public health community may gain access to them.

At the conclusion of the breakout session, attendees will be able to:

- Identify the programs available at the State Lab for dealing with public health incidents
- Contact the State Lab program most suited to providing the assistance they need
- Follow the protocols needed to send materials to the lab
- Be able to contact staff at the State Lab to arrange for future training sessions

NOTES:

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Information, Forms, and Tools for the Arizona State Public Health Laboratory Microbiology Division

Internet Links to Guidance Documents:

Guide to Laboratory Services:

http://www.azdhs.gov/lab/documents/microbiology/lab-guide.pdf

ADHS/DPS/ADEM Suspicious Substance Guidelines:

http://www.azdhs.gov/phs/emergency-preparedness/documents/response-plans/adhs-suspicious-substance-guidelines.pdf

Internet Links to Submission Forms:

Clinical Microbiology Submission form:

http://www.azdhs.gov/lab/documents/microbiology/clinical-microbiology-submission-form.pdf

Food Microbiology Submission form:

http://www.azdhs.gov/lab/documents/microbiology/food-analysis-form.pdf

Water Microbiology Submission form:

http://www.azdhs.gov/lab/documents/microbiology/water-microbiological-sample-submission-form.pdf

Shipper's Declaration of Dangerous Goods:

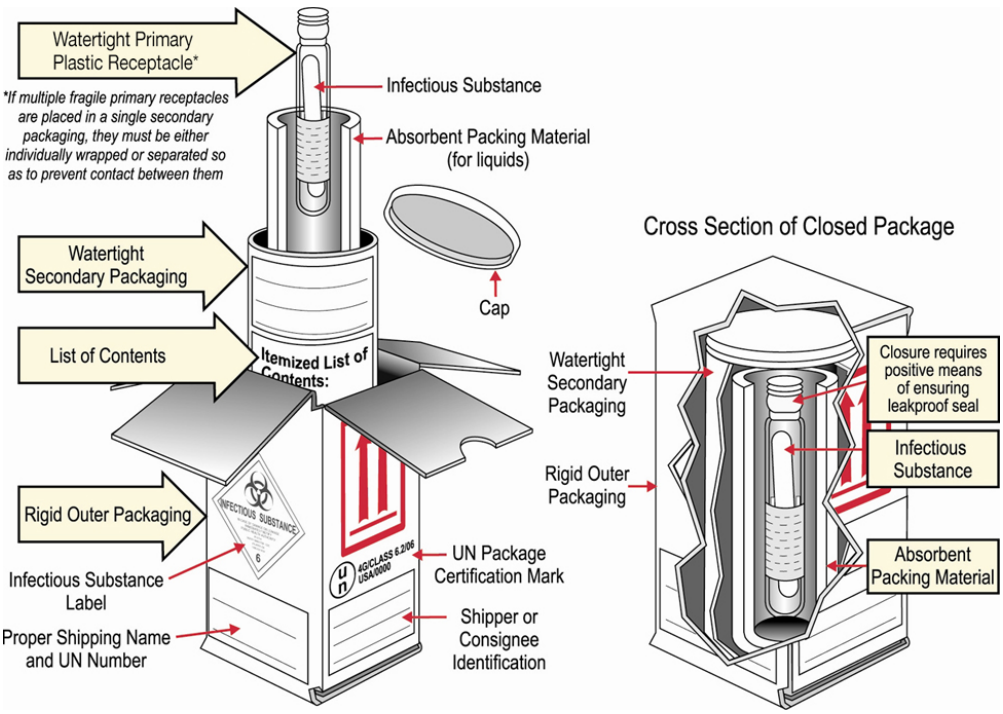
http://www.azdhs.gov/lab/documents/dangerous-goods-declaration-form.pdf

Telephone numbers:

Bio-emergency Response:	(602) 364-0999
Bio-emergency Afterhours:	(480) 303-1676
Virology and Serology:	(602) 542-0968
Bacteriology and Tuberculosis:	(602) 542-6131
Environmental Microbiology:	(602) 542-6130
Shipping and Receiving:	(602) 542-1190

Information, Forms, and Tools for the Arizona State Public Health Laboratory Microbiology Division

Division 6.2 Category A Packaging Diagram:



Category A infectious substances are those agents known to be capable of causing permanent disability or life threating disease in otherwise healthy humans or animals. They must be accompanied by a Declaration of Dangerous Goods form and must be labeled in accordance with DOT and IATA regulations by an individual certified to do so. Certification can be obtained through a variety of means, please contact Joseph Manfrida or Heather Matthies for additional information.

Contact Information

Joseph P. Manfrida, PhD, Lab Chief of Biosafety, Biosecurity and Responsible Official

(602) 364-2359, joseph.manfrida@azdhs.gov

Heather Matthies, MS, Laboratory Technical Trainer

(602) 542-6175, heather.matthies@azdhs.gov

CHEMISTRY—GETTING SAMPLES TO THE STATE LABORATORY

THE BASICS OF PACKAGING AND SHIPPING CLINICAL SAMPLES FOR CHEMICAL TESTING

BUREAU OF STATE LABORATORY SERVICES
250 N. 17th Avenue Phoenix, Arizona 85007
Chemistry Office: 602.542.1188 On-Call: 480.303.1676
Jason Mihalic, CT Coordinator

March 04, 2015

Hello First Receiver,

The Arizona Department of Health Services (ADHS) Laboratory Chemical Emergency Response (CT) Section has a responsibility from the CDC for training hospital personnel in the packaging and shipment of clinical samples from patients exposed to possible chemical agents. We are a CLIA certified laboratory providing the following testing free of charge. As the Chemistry Laboratory Response Network (LRN-C) facility for Arizona we are able to test for exposure to the following agents in blood or urine specimens:

- Cyanide
- Tetramine
- Organophosphate Nerve Agents
- Metabolic Toxins
- Pb, Hg, and Cd in Blood
- Be, Cd, Ba, Tl, Pb, U, and As in Urine
- Volatile Organic Compounds
- Ricin (Ricinine)
- Abrin (Abrine)
- Tetranitromethane (HNPAA)
- Lewisite

The ADHS CT section works closely with the Centers for Disease Control and Prevention (CDC) Laboratory Response Network and can facilitate sample shipment to the CDC for additional analytical testing.

Please call the ADHS CT program if you have any questions about the material. We can be reached at:

Susan Runcorn
Chemical Emergency Response Manager
Susan.Runcorn@azdhs.gov
Cell: (602)722-4503, Desk: (602)364-1656

You may find the following URLs useful:

Fillable Chemical Clinical Sample Submission Forms and Chemistry Guide to Laboratory Services
http://www.azdhs.gov/lab/chemistry/index.htm

Laboratory Response Network
http://www.bt.cdc.gov/lrn/

Arizona State Laboratory Services
http://www.azdhs.gov/lab/

ADHS Specimen-Collection Protocol for a Chemical-Exposure Event

For detailed instructions see ADHS's *Shipping Instructions for Specimens Collected from People Who May Have Been Exposed to Chemical-Terrorism Agents.*

Collect blood and urine samples for each person involved in the chemical-exposure event.

Note: For children, collect only urine samples unless otherwise directed by ADHS.

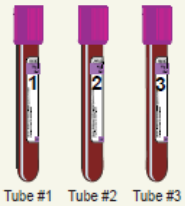
Blood-Sample Collection

For each person, collect blood in glass or plastic tubes in the following order: 1st: collect specimens in three (3) EDTA (purple-top) 4 mL or larger plastic or glass tubes; 2nd: collect another specimen in one (1) gray- or green-top tube. Collect the specimens by following the steps below:

1 Collect a minimum of 12 mL of blood in three (3) 4 mL or larger glass or plastic tubes. If using 3 mL tubes, use four tubes.

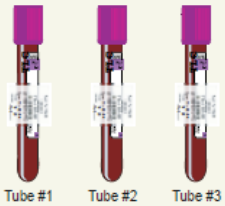
Do not use gel separators.

2 Mix contents of tubes by inverting them 5 or 6 times.



Label tubes in order of collection. #1, #2, #3

3 Place bar-coded labels on each tube, so that when the tubes are upright, the barcode looks like a ladder.



Store samples at 1°C to 10°C.
Do not freeze.

4 After collecting samples in the purple-top tubes, collect one (1) sample in a gray- or green-top tube (gray-top tube shown). Allow the tube to fill to its stated capacity.

Do not use gel separators.

5 Mix contents of the tube by inverting it 5 or 6 times.

6 Place bar-coded labels on the tube, so that when the tube is upright, the barcode looks like a ladder.

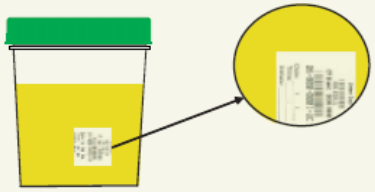
Store samples at 1°C to 10°C.
Do not freeze.

Urine-Sample Collection

For each person, collect 25 mL- 50 mL of urine in a screw-cap urine cup.

Label the urine cup with the appropriate bar-coded label as shown. Indicate on the cup how the sample was collected if the method was other than "clean catch" (i.e., catheterization).

Freeze samples (optimally at -70°C).



Place bar-coded labels on all cups so that when the cup is upright, the barcode looks like a ladder.

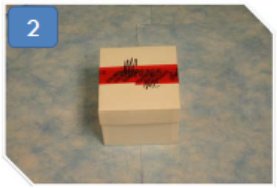
ADHS 1/2010

Arizona Department of Health Services

Instructions for Shipping Blood Specimens to Arizona Department of Health Services after a Chemical Exposure Event

Guidance in Accordance with Packaging Instructions International Air Transport Authority (IATA) 650 Biological Substance Category B

Place purple- and green-top tubes by patient number into gridded-type box lined with absorbent pad. If using an alternative packaging method, pack all tubes from the same patient together while preventing tube-to-tube contact.



Seal gridded box or alternative secondary container with one continuous piece of evidence tape. The individual making the seal must initial half on the evidence tape and half on the box or packaging.

Wrap gridded box in an absorbent pad and tape to seal.

Seal gridded wrapped box or alternative container inside a Saf-T-Pak clear inner, leak-proof polybag (or equivalent).

Place the sealed Saf-T-Pak inner leak-proof polybag (or equivalent) inside a white Tyvek outer envelope (or equivalent).

Note: If primary receptacles do not meet the internal pressure requirement of 95 kPa, use compliant secondary packaging materials.

Seal the opening of this envelope with a continuous piece of evidence tape. Write initials half on the evidence tape and half on the envelope.

Use polystyrene foam insulated, corrugated fiberboard shipper to ship boxes to ADHS. Place absorbent material in the bottom of the shipper.

Place refrigerator packs in a single layer on top of the absorbent material.

Note: Blood tubes are to be shipped cold and not frozen.

Place the packaged specimens in the shipper. Use absorbent material or cushioning material to minimize shifting while box is in transit. Place additional refrigerator packs on top of samples.

Place the blood shipping manifest in a sealable plastic bag and put on top of the sample boxes inside the shipper. Keep your chain-of-custody documents for your files. Place lid on shipper.

Secure the shipper lid with filamentous shipping tape. Place your return address in the upper left-hand corner of the shipper top and put the ADHS Laboratory receiving address in the center.

Add the UN 3373 label and the words "Biological Substance Category B" on the front of the shipper. UN 3373 is the code identifying the shipper's contents as "Biological Substance, Category B."

Send shipper via FedEx or transport directly via courier, police or other delivery to:

Arizona Department of Health Services
Chemical Emergency Response
Attn: Jason Mihalic
250 N. 17th Ave
Phoenix, AZ 85007

For questions concerning this process or to request packaging and shipping materials, please contact:

Arizona Department of Health Services
Chemical Emergency Response
Attn: Jason Mihalic
250 N. 17th Ave
Phoenix, AZ 85007

Office: (602) 542-6120
After Hours: (480) 303-1676

LRN LABORATORY RESPONSE NETWORK

CDC CENTERS FOR DISEASE CONTROL AND PREVENTION

Arizona Department of Health Services

Instructions for Shipping Urine Specimens to Arizona Department of Health Services after a Chemical Exposure Event

Guidance in Accordance with Packaging Instructions International Air Transport Authority (IATA) 650 Biological Substance Category B

Use a gridded box or individually wrapped cups sealed with evidence tape to separate urine cups. Place absorbent material in the bottom of the box and insert the cups.

Use one continuous piece of evidence tape to seal the gridded box or Sat-T-Pak inner leak-proof polybag (or equivalent) containing wrapped urine cup(s). The individual making the seal must initial half on the evidence tape and half on the box or bag.

Wrap gridded box in an absorbent pad and tape to seal. Seal gridded wrapped box or alternative container inside a Sat-T-Pak clear inner, leak-proof polybag (or equivalent).

Place the sealed Sat-T-Pak inner leak-proof polybag (or equivalent) inside a white Tyvek outer envelope (or equivalent).

Note: If primary receptacles do not meet the internal pressure requirement of 95 kPa, use compliant secondary packaging materials.

Seal the opening of this envelope with a continuous piece of evidence tape. Write initials half on the evidence tape and half on the envelope.

Use polystyrene foam insulated, corrugated fiberboard shipper to ship boxes to ADHS. Place absorbent material in the bottom of the shipper.

Place a layer of dry ice in the bottom of the shipper on top of the absorbent material. **DO NOT** use large chunks or flakes of dry ice.

Note: Urine cups are to be frozen.

Place the packaged specimens in the shipper. Use absorbent material or cushioning material to minimize shifting while box is in transit. Place additional dry ice on top of samples.

Place the urine shipping manifest in a sealable plastic bag and put on top of the sample boxes inside the shipper. Keep your chain-of-custody documents for your files. Place lid on shipper.

Secure the shipper lid with filamentous shipping tape. Place your return address in the upper left-hand corner of the shipper top and put the ADHS Laboratory receiving address in the center.

Add the UN 3373 label and the words "Biological Substance Category B" on the front of the shipper. UN 3373 is the code identifying the shipper's contents as "Biological Substance, Category B."

Place a Class 9/UN 1845 label on front of shipper. This label for dry ice ***MUST*** indicate the weight of dry ice (in kg) within shipper and the proper name (dry ice or solid carbon dioxide).

Send shipper via FedEx or transport directly via courier, police or other delivery to:

Arizona Department of Health Services
Chemical Emergency Response
Attn: Jason Mihalic
250 N. 17th Ave
Phoenix, AZ 85007

For questions concerning this process or to request packaging and shipping materials, please contact:

Arizona Department of Health Services
Chemical Emergency Response
Attn: Jason Mihalic
250 N. 17th Ave
Phoenix, AZ 85007

Office: (602) 542-6120
After Hours: (480) 303-1676

LRN LABORATORY RESPONSE NETWORK

CDC CENTERS FOR DISEASE CONTROL AND PREVENTION

Arizona Department of Health Services

BUREAU OF STATE LABORATORY SERVICES
250 N. 17th Avenue Phoenix, Arizona 85007
Chemistry Office: 602-542-1188 FAX: 602-364-0281
Victor Waddell, Ph.D., Bureau Chief

Clinical Sample Submission Form

For Department Use Only – ADHS Sample Number

SUBMITTER PLEASE FILL IN BLUE SECTIONS, DARK BLUE SECTIONS MUST BE COMPLETE

The sample matrix and test request MUST be the same for all samples listed with this form. Use another sample submission form for samples of different matrices or test requests. For multiple samples of the same matrix, submitting agency, and test request a Clinical Sample Continuation Form may be used. Clinical specimens submitted to the ADHS Laboratory will be maintained under chain-of-custody. Use separate sample log sheets for blood and urine specimens. Blood specimens should arrive on cold or frozen gel packs and be stored at 5 ± 3 °C; do not freeze. Urine specimens should arrive frozen, preferably on dry ice, and be stored at ≤ -20 °C.

Patient Information			**Submitting Agency Information**			
Last Name:	**First Name:**	**M.I.:**	**Agency Name:**			Agency ID Code:
DOB (MM/DD/YYYY):	**Age:**	**Sex: M F T**	Street Address:			
Patient ID:			City:	State:	Zip Code:	County:
Race: White ___ African American ___ Asian ___ American Indian/Alaska Native ___			**Contact Name:**			**Phone:**
Ethnicity: Hispanic yes ___ no ___			Ordering Provider/Physician:			

Laboratory Testing — **Collection Date and Time:** — **Sample Matrix: Blood ____ Urine ____ Other _____**

Urine Metals Testing:
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ Cadmium
- ☐ Lead
- ☐ Thallium
- ☐ Uranium
- ☐ All of the above

Blood Metals Testing:
- ☐ Cadmium
- ☐ Lead
- ☐ Mercury
- ☐ All of the above

Metabolic Toxins:
- ☐ Monochloroacetate (MCA)
- ☐ Monofluoroacetate (MFA)
- ☐ All of the above

OP Nerve Agent Testing:
- ☐ GB-Acid (sarin metabolite)
- ☐ GD-Acid (soman metabolite)
- ☐ GF-Acid (cyclohexylsarin metabolite)
- ☐ rVX-Acid (Russian VX metabolite)
- ☐ VX-Acid (VX metabolite)
- ☐ All of the above

Volatile Organic Compounds:
- ☐ 1,2-dichloroethane
- ☐ Benzene
- ☐ Carbon tetrachloride
- ☐ Chloroform
- ☐ Ethylbenzene
- ☐ m- and p-xylene
- ☐ o-xylene
- ☐ Styrene
- ☐ Tetrachloroethylene
- ☐ Toluene
- ☐ All of the above

Other Organic Testing:
- ☐ CVAA (2-chlorovinylarsonic acid/Lewisite metabolite)
- ☐ Cyanide
- ☐ HNPAA (Tetranitromethane metabolite)
- ☐ Tetramine
- ☐ Abrine (Abrin biomarker)
- ☐ Ricinine (Ricin biomarker)

Other Testing Requested:

Disposal/Transfer Date and Signature:

Total Number of Patient Specimens Submitted:	**Receiving Temperature (°C):**
***Sample Packaging/Container Integrity:** **Acceptable _____ Unacceptable _____**	Number of Blanks Submitted: Blood _____ Urine _____ Other _____
Comments:	

*If sample container or packaging is unacceptable take pictures of the affected area and make a note detailing the issue on the sample submission form.

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Rev 8/2013

Arizona Department of Health Services

BUREAU OF STATE LABORATORY SERVICES
250 N. 17th Avenue Phoenix, Arizona 85007
Chemistry Office: 602-542-1188 FAX: 602-364-0281
Victor Waddell, Ph.D., Bureau Chief

Clinical Sample Continuation Form

For Department Use Only

SUBMITTER PLEASE FILL IN BLUE SECTIONS, DARK BLUE SECTIONS MUST BE COMPLETE

Last Name	First Name	MI	Date of Birth (MM/DD/YYYY)	Age	Sex	Patient ID	Race/ Ethnicity	Collection Date and Time	Total # Patient Specimens	Total Sample Volume	ADHS Sample Number	Disposal/ Transfer Date and Initials

Chain of Custody

Relinquished by: (Signature) (Print Name)	Date / Time	Received by: (Signature) (Print Name)	Date / Time

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Panel Discussion & Tabletop Exercise

Session Structure

This session will include two modules, each with a unique scenario:

- Module 1: Novel Chemical Agent
- Module 2: Bio-disease Outbreak

Each scenario begins with an update that summarizes key events. After the updates, a panel of subject matter experts will answer a list of questions then the audience will participate in a tabletop exercise. At the end of the exercise there will be a hotwash and closing remarks.

Tabletop Guidelines

- This tabletop is designed to be held in an open, low-stress, no-fault environment. Varying viewpoints are expected.
- Participants should respond to the scenario using knowledge of current plans and capabilities, as well as insights derived from training and professional experience.
- Decisions are not precedent setting and may not reflect an organization's final position on a given issue. This event is an opportunity to discuss and present multiple options and possible solutions.
- Issue identification is not as valuable as suggestions and recommended actions that could improve protective measures, information coordination, and response/recovery efforts. Problem-solving should be the focus of discussions and feedback

Assumptions and Artificialities

Participants should accept that assumptions and artificialities are inherent in any hypothetical response, and should not allow these considerations to negatively impact their participation.

During the discussions, the following apply:

- The forum is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be evaluated.

The scenario is plausible, and events occur as they are presented.

Exercise Evaluation

Evaluators will record discussions based on questions targeting exercise objectives and capabilities. Additionally players will be asked to complete an online participant feedback survey. These documents coupled with facilitator observations and notes will be used to evaluate the exercise and compile and After Action Report (AAR).

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Module 1 — Panel Discussion

Novel Chemical Agent

Module 1 Scenario — Unknown Unstable Chemical Release

A vacuum truck exploded into flames around 6:30 a.m. at a waste water plant. A white liquid, first believed to be sewage, quickly spread and crystallized, becoming combustible. Explosions spread the fire to surrounding containers, sending billowing black smoke into the sky and forcing the State Highway Patrol to shut down the highway nearest the facility. Hazmat teams from county and local fire departments responded to the scene. A large plume of smoke from the fire had already expanded into residential, farmland and light industrial business areas.

Fire officials said they were dealing with a 300 to 400 foot radius of white substance, identified as organic peroxide. When the material dries, it crystallizes and catches fire, forcing firefighters to retreat. They also had to let the fire burn itself off, because officials were very concerned about the water going into the nearby river. According to fire officials,

> "As this liquid began to dry out, the companies on scene noticed that it was very unstable and reactive, and as they stepped on it or tried to move their engine, it would spontaneously ignite under the tires of the engine or their boots."

A mandatory evacuation was ordered for all residents within a mile of the plant, and a "shelter in place" was ordered for residents within two to three miles of the location. The evacuation

distance was later reduced to 0.5 miles. A Red Cross shelter location was also opened to residents.

Officials said 37 people were treated at local hospitals. No burn injuries were reported, but two drivers on the vacuum truck, three firefighters, hospital medical staff and a few nearby residents were washed down or treated for complaints such as breathing problems, red eyes and skin rashes.

A private contractor will be in charge of the cleanup, under the supervision of county health officials and the federal Environmental Protection Agency.

MODULE 1 — KEY ISSUES

1. The initial explosion created a large plume of smoke that potentially exposed nearby residents to an unknown hazardous material.
2. There is a risk of runoff into a nearby river.
3. There is a risk of contaminated food items in nearby agricultural farmland.
4. The chemical agent is highly combustible and unknown causing a PPE concern for first responders and first receivers.
5. The unknown chemical agent will require laboratory testing.
6. 37 patients presented to local hospitals.
7. There is a potential for misinformation regarding the cause of the explosion and the resulting unknown agent. The public will need to be reassured and properly informed.

MODULE 1 — PANEL DISCUSSION QUESTIONS

1. What role will each agency (State laboratory, poison control, epidemiology and environmental health) play during this type of incident?

2. How will the state laboratory collaborate with responding agencies and local public health to safely obtain and test an unknown substance under these circumstances?

3. What are the considerations for Poison Control Centers? What strategies will they utilize to respond effectively to public inquiries regarding the incident?

4. How would Environmental Health respond to the exposure of farmland as well as potential runoff in the river? What would be their goals for the first 12 hours of this incident? How will they collaborate with the above agencies to achieve those goals?

5. 37 patients presenting to local hospitals will create a medical surge situation for both the hospitals and public health agencies. Is there a current plan in place at the state lab to deal with sudden increases in sample testing?

NOTES:

Module 1: Tabletop Group Discussion Questions

NOVEL CHEMICAL AGENT

Capability #12: Laboratory Testing (PHEP C12)—Support public health investigations.

1. Describe how analytic investigation support is established and maintained among other health investigation partners (e.g. first responders, epidemiologist, and laboratories).
2. Describe how investigative consultation and technical assistance is requested. How is information shared among other healthcare investigation community partners regarding sampling collection, management and safety? What are key gaps?

Capability #13: Public Health Surveillance and Epidemiological Investigation (PHEP C13)—Recommend, monitor and analyze mitigation actions and functions.

3. Describe how mitigation monitoring and analysis is typically established in this scenario (if applicable). How are recommended mitigation activities developed and shared?
4. Describe how health-related data and statistics from programs within the jurisdictional public health agency are used to support recommendations regarding populations at-risk for adverse outcomes during an emergency incident. How readily available is access to health-related data for at-risk populations? Is the data commonly used in preparedness planning among your healthcare coalition partners?

Capability #14: Responder Safety and Health (PHEP C14, HPP C14)—Monitor responder safety and health actions.

5. Describe how you support partner agencies to implement risk-communication strategies that communicate risk to responders. What is the process to participate in surveillance activities to monitor levels of environmental exposure, environmental effects on the responders and incident related injuries?
6. What is the process to request PPE from local/state incident management?

Capability #6: Information Sharing (PHEP C6, HPP C6)—Provide healthcare situational awareness that contributes to the common operating picture.

7. Briefly describe information sharing resources your agency provides.
8. List the stakeholders that normally receiving your information resources. How are stakeholders incorporated into the information flow? What (if any) gaps exist?

NOTES:

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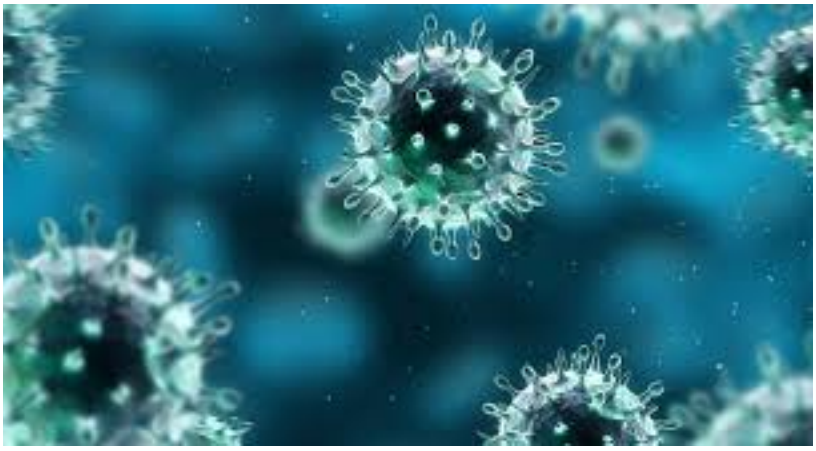
Module 2 — Panel Discussion

BIO-DISEASE OUTBREAK



MODULE 2 SCENARIO — PANDEMIC INFLUENZA

LATE DECEMBER 2014

An outbreak of unusually severe respiratory illness is identified in a small village in southern Vietnam. At least 45 cases are suspected, affecting all age groups; 10 have died, and 28 patients are hospitalized in critical condition. Surveillance in surrounding areas is increased, and rumors of new suspected clusters of cases begin to be identified throughout the province. Viral cultures collected from several of the initial patients are positive for type "A" influenza virus. The isolates are sent to the World Health Organization (WHO) Collaborating Center for Surveillance Epidemiology and Control of Influenza at the Centers for Disease Control and Prevention (CDC) in Atlanta, for further characterization. CDC determines that the isolates are type A H5N1, with genetic changes suggesting a mutation of the existing H5N1 virus isolated in humans that is allowing person to person transmission.

Local and State health departments are communicating with hospitals and other healthcare agencies and disseminating information about flu surveillance, testing, and treatment. People throughout the United States are requesting prescriptions for Tamiflu from their doctors. Hospitals and medical clinics have not reported an increase in upper respiratory illness at this time.

EARLY JANUARY 2015

By early January, human cases of the new strain of H5N1 have been reported in Hong Kong, Singapore, South Korea, China, and Japan. Although cases are reported in all age groups, young adults appear to be the most severely affected, and case-fatality rates in Asia approach 25%. Public unease grows because the new vaccine is not yet available and supplies of antiviral drugs are severely limited.

Besides proper hygiene and limited social distancing, the local health departments do not recommend any major social disruptions at this time. Labs are backed up due to the high volume of samples from hospitals and doctors' offices.

The public begins to question what they should be doing to prevent getting this flu strain. Widespread rumors of holistic and alternative remedies, including potentially dangerous and untested black market drugs, have begun to circulate on social media networks. Customs and Border Protection officials have seized over 50 shipments of counterfeit bird flu medications. Hospitals and clinics have reported numerous cases of possible adverse reactions from the non-FDA approved medications.

MODULE 2 — KEY ISSUES

1. This outbreak has occurred during the peak seasonal influenza months.

2. While the virus has been identified as H5N1, it appears to be a novel strain with sustained human to human transmission.

3. Early reporting of the initial outbreak has caused public fears to fester and increase over several weeks, creating misinformation and confusion.

4. Counterfeit medications and ill-advised home remedies may be making people sick.

MODULE 2 — PANEL DISCUSSION QUESTIONS

1. What role will each agency (State laboratory, poison control, epidemiology and environmental health) play during this type of incident?
2. How will state epidemiologists determine when routine surveillance strategies transition into those in response to a major incident. What are the differences?
3. How would Epidemiology and the State laboratory collaborate with healthcare facilities and public health agencies to help differentiate the seasonal influenza cases from the avian influenza cases?
4. What are the considerations for Poison Control Centers? What strategies will they utilize to respond effectively to public and healthcare inquiries regarding black market “remedies”?

NOTES:

Module 2: Tabletop Group Discussion Questions

PANDEMIC INFLUENZA

Capability #6: Information Sharing (PHEP C6, HPP C6)—Identify stakeholders to be incorporated into information flow.

1. Describe how you exchange information and situational awareness data among federal, state, local levels of government and the private sector in this scenario.
2. What are essential elements of incident specific healthcare information that is timely, relevant, and actionable to incident management during this response?

Capability #10: Medical Surge (PHEP C10, HPP C10)—Assist healthcare organizations with surge capacity and capability.

3. Describe coordination with support service providers such as laboratories, epidemiologist and poison control. What is the process to provide coordination among these entities during medical surge operations/incident management?

Capability #4: Emergency Public Information and Warning (PHEP C4, HPP C4)—Determine the need for a joint public information system.

4. Describe how your organization participates with other Joint Information Centers/Systems in order to combine information sharing abilities and coordinate messages.

NOTES:

Acronyms

Acronym	Term
AAR	After Action Report
ADHS	Arizona Department of Health Services
CDC	Centers for Disease Control and Prevention
DEMA	Division of Emergency and Military Affairs
DOT	Department of Transportation
DPS	Department of Public Safety
EM	Emergency Management
EMS	Emergency Medical Services
EOC	Emergency Operations Center
FDA	Food and Drug Administration
HPP	Hospital Preparedness Program
IATA	International Air Transport Association
IC	Incident Command
NPDS	National Poison Data System
PCC	Poison Control Center
PHEP	Public Health Emergency Preparedness
PPE	Personal Protective Equipment
WHO	World Health Organization

Resource Links

Arizona Department of Health Services—Bureau of Public Health Emergency Preparedness Conference Presentations	http://1.usa.gov/1zVg6KR
Arizona State Laboratory Services	http://www.azdhs.gov/lab/
Fillable Chemical Clinical Sample Submission Forms and Chemistry Guide to Laboratory Services	http://www.azdhs.gov/lab/chemistry/index.htm
Laboratory Response Network	http://www.bt.cdc.gov/lrn/
National Poison Data System	http://www.aapcc.org/data-system/
Poison Center Data Snapshot — 2013	https://aapcc.s3.amazonaws.com/pdfs/annual_reports/2013_AR_Data_Snapshot_FINAL.pdf

Presenters and Contributors

KEITH BOESEN, PharmD – Managing Director of the Arizona Poison and Drug Information Center-Tucson

Dr.Boesen is the Managing Director of the Arizona Poison and Drug Information Center-Tucson, overseeing operations and personnel. He began as an intern at the Arizona Poison and Drug Information Center during his pharmacy education at The University of Arizona, and became a full-time employee of the center in 2002. He holds a PharmD degree from the college and became the director of the center in 2009. Dr. Boesen completed advanced training to become a certified specialist in poison information and is currently training for the additional designation of diplomate of the American Board of Applied Toxicology. Dr. Boesen has written chapters for toxicology references and assisted with articles published in various medical journals. He was involved with the clinical trials for new rattlesnake and scorpion antivenoms, as well as with various research projects with pharmacy students ranging from rattlesnake venom variability to symptoms associated with new designer drugs.

DANIEL BROOKS, MD – Medical Director of the Banner Poison and Drug Information Center

Dr. Brooks is Co-Medical Director of the Banner Poison and Drug Information Center, Attending Physician Banner Good Samaritan Department of Medical Toxicology and is Clinical Associate Professor Department of Medicine University of Arizona College of Medicine – Phoenix. A graduate of University of Stony Brook, Dr. Daniel Brooks completed his residency at University of Pittsburgh Medical Center. He is a board certified physician in Toxicology and Emergency Medicine and specializes in the treatment of adverse drug effects, poisoning, envenomations, workplace exposures and withdrawal. Dr. Brooks has published extensively in scholarly journals and actively participates in peer reviews for numerous professional periodicals and book chapters

TERESA EHNERT, MS, MD – Bureau Chief, Arizona Department of Health Services, Public Health Emergency Preparedness

Teresa was born in Fargo, North Dakota and relocated to Arizona in 2005. Teresa has a Master Degree in Management from the University of Mary, Fargo, ND. Prior to her role at the Department of Health Services, Teresa was a Chief Master Sergeant in the Air Force completing a career of almost 27 years.

Teresa joined the Department of Health Services in August of 2005. Her primary responsibility as Bureau Chief of Public Health Emergency Preparedness is to direct the overall planning, development, implementation, coordination, response and evaluation of the programs for Public Health Emergency Preparedness. Teresa is responsible for facilitating the coordination of state planning and regional committees on preparedness activities with emergency response partners. She facilitates programs designed to enhance planning and response to public health emergencies. Teresa also provides oversight and leadership for two public health preparedness grants exceeding $20 million dollars.

ANTONIO HERNANDEZ, BS – Section Chief, Partner Integration, Arizona Department of Health Services

Antonio Hernandez, currently serves as the Partner Integration Chief for the Bureau of Public Health Emergency Preparedness at the Arizona Department of Health Services. His program addresses Public Health emergency preparedness plans, training and exercises that support capability development statewide. He also serves as the current Chair for the Arizona State Citizen Corps Council and sits on the Governors Council for Homeland Security Senior Advisory addressing key strategic initiatives to foster preparedness collaboration across disciplines, the private sector, non-profit organizations, faith-based, community, and all levels of government, including local, State, Tribal and Federal. As former Co-Chairman of the Arizona Public Health Association Indigenous Health Section, and member of the national planning workgroup developed preparedness planning guidance for the Emergency System for Advanced Registration of Volunteer Health Professionals and plan educational conferences and trainings on community resiliency and preparedness planning. Antonio is a graduate of Grand Canyon University with a degree in Human Biology.

JOSEPH MANFRIDA, Ph.D. – Lab Chief of Biosafety, Biosecurity and Responsible Official

Joe Manfrida has worked with the State of Arizona Public Health Laboratory as their Laboratory Chief of Biosafety and Biosecurity and Responsible Official since February 2013. He has been an integral part of the State Lab's ongoing clinical lab outreach program as well as assisting with the deployment and development of their Select Agent and Laboratory Response Network programs. Joseph is recently completed a three year term on the Technical Advisory Panel of the American Industrial Hygiene Association's Laboratory Accreditation Program, LLC. He holds a B.S. in Biology from the University of Texas and a Ph.D. in Microbiology from Arizona State University. Joseph is a member of both the American Society for Quality and the American Society for Microbiology.

JASON MIHALIC, BS, – ADHS State Lab Chemistry Office Chief

Jason Mihalic has a Bachelor's in Chemistry from New Mexico State University and has worked at ADHS for the past 15 years in both Lab and Epidemiology. He is currently the Chemistry Office Chief of the ADHS Laboratory and has worked in Preparedness as the PHEP CT Coordinator for the past 10 years.

SUSAN RUNCORN, MS, – ADHS Chemical Emergency Response Manager

Susan is currently the CT Manager for the ADHS Laboratory where she has been working for over four years. She has been a chemist for over ten years, and received her Master's degree in Chemistry from Arizona State University.

DR. JOLI WEISS, Ph.D. – Infectious Disease Preparedness Epidemiology Program Manager, Arizona Department of Health Services

Dr. Joli Weiss is the Infectious Disease Preparedness Epidemiology Program Manager for the Arizona Department of Health Services (ADHS). She currently oversees the Foodborne/Waterborne Disease Program, the Vector/Zoonotic Disease Program as well as epidemiology preparedness activities. She also served as the foodborne disease and outbreak epidemiologist at ADHS for four years where she conducted food-and water-borne disease surveillance and ensured coordination of outbreak investigations, among other activities. Joli received her PhD in Epidemiology and Community Health as well as her master's and bachelor's degrees from the University at Buffalo.