

Exploratory Analysis Subgroup/AZ BioSense Opioid Workgroup

January 23, 2020



ARIZONA DEPARTMENT
OF HEALTH SERVICES

Health and Wellness for all Arizonans

Agenda

- Welcome and Attendance
- Emergent Conditions
 - Novel Corona Virus [\(2019-nCoV\) in Wuhan, China](#)
 - NSSP Updates
- ESSENCE Concepts
 - New myESSENCE Dashboard Library
 - Examples of Table builder for ADHS Syndromic Surveillance and CDC's OD2A_Data Submission Template_Rapid_ED
- Discussion
- Upcoming Meetings

Emergent Conditions

- Novel Corona Virus [\(2019-nCoV\) in Wuhan, China](#)

Emergent Conditions

NSSP Updates

- NSSP CoP monthly call 01/21/2019
 - Future NSSP CoP calls
- Slack Channel
- CSTE call coming
- CCDD category updates coming

Emergent Conditions

NSSP Updates



Loren Rodgers

Adding to what [@Aaron Kite-Powell](#) mentioned above: here is a brief outline of some initial exploration we're doing for query development related to 2019-nCoV:

- We are working on improving the existing "travel history" CCDD category (as Aaron described above). The intent is for this to be used in conjunction with broad symptom-based queries (i.e., respiratory syndrome, fever syndrome, ILI CCDD category) in case it is helpful for case finding.
- We are developing a coronavirus CCDD category, which will be inclusive of all viruses within the Coronaviridae family, including codes for "coronavirus-unspecified." This can be used to supplement case finding, as well as supporting analytic exploration.
- We are exploring developing a location-specific travel query to specifically look for travel from locations with known 2019-nCoV circulation. This is not intended to be a CCDD category, as it could need to rapidly evolve, if this query has utility.

Slack Channel NSSP Updates

- healthsurveillance.slack.com
- Join thread
 - **#novel_coronavirus**
 - <https://app.slack.com/client/THFGZ8BCL/CSZF7KBUY>

Health Surveill...

Krystal S. Collier

Jump to...

Threads

Apps

Starred

onboarding

Channels

essence-users-group

everyone

novel_coronavirus

overdose-surveillance

r-users-group

syndrome-definitions

vape-assoc-illness-query

research

random

one-health

+ Add a channel

Direct Messages

Slackbot

Krystal S. Collier (you)

Aaron Kite-Powell

Alana Vivolo-Kantor

#novel_coronavirus

41 | 0 | Add a topic

Yesterday

Very nice work, thanks Natasha!

David Atrubin 11:52 AM
was added to #novel_coronavirus by Aaron Kite-Powell, along with 9 others.

Aaron Kite-Powell 12:01 PM
For those of you using NSSP-ESSENCE, we wanted to let you know that the Foreign Travel CC and DD Category is going to be updated to improve handling of certain negations. For instance, currently you'll see mention of "no travel" or "denies travel". We are trying to fix as much of that as possible to reduce the noise in this category. Many thanks to Zach Stein for working on this. (edited)

Hayleigh McCall 12:06 PM
was added to #novel_coronavirus by Aaron Kite-Powell, along with Michael Sheppard. Also, Stephanie Neal joined.

1

More actions

Loren Rodgers 2:53 PM
Adding to what [@Aaron Kite-Powell](#) mentioned above: here is a brief outline of some initial exploration we're doing for query development related to 2019-nCoV:

- We are working on improving the existing "travel history" CCDD category (as Aaron described above). The intent is for this to be used in conjunction with broad symptom-based queries (i.e., respiratory syndrome, fever syndrome, ILI CCDD category) in case it is helpful for case finding.
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Today

Aaron Kite-Powell 6:58 AM
For those of you using NSSP-ESSENCE, Natasha's myESSENCE dashboard, shared in the myESSENCE library, is a really good starting point for this work.

Tiffany Nicole Tsukuda (CA) 8:46 AM
was added to #novel_coronavirus by Aaron Kite-Powell, along with 2 others.

Message #novel_coronavirus

Aa @

Emergent Conditions

Slack Updates

 **Natasha Close (WA)**

FYI, I added an 2019-nCoV dashboard to the NSSP ESSENCE myESSENCE library. It's the one called "coronavirus". It uses a query for nCoV (syndrome = fever or resp AND mention of Chino or Wuhan in CCHx, Triage Notes, Clinical Impression, or Travel History) to put together a weekly timeseries, data details, and map of all visits. It also includes a timeseries for visits with diagnosis of Coronavirus. I shared it as a managed tab as this is very new and things are evolving, but you are welcome to download a make a copy for your own tweaking.

ESSENCE Concepts

- New myESSENCE Dashboard Library
- Examples of Table builder for ADHS Syndromic Surveillance and CDC's OD2A_Data Submission Template_ Rapid_ED

myESSENCE Dashboard Library

- Library can be used to upload and download dashboards from other users
- Think of it as a template library of dashboards

myESSENCE Dashboard Library

- Natasha Close has shared a dashboard called **Coronavirus**

Download Coronavirus Dashboard

- Go to myESSENCE
- Click on Library
- Check box next to Coronavirus Dashboard
- Click Download

Download Coronavirus Dashboard

- Go to myESSENCE
- Click on Library
- Check box next to Coronavirus Dashboard
- Click Download



ESSENCE - NSSP

myESSENCE

Logout Krystal

Bookmark Name

Bookmark Page

1

- Home
- Alert List
- myAlerts
- myESSENCE
- Event List
- Overview Portal
- Query Portal
- Stat Table
- Map Portal
- Bookmarks
- Query Manager
- Data Quality
- Report Manager
- More

- myESSENCE Overview
- Home
- Arboviral Syndromic Surveillance
- AZ HRI 2017
- June Heat Wave
- Zika_Chik_Dengue Dashboard
- WNV/SLE Queries
- Arboviral Syndromic Surveillance
- Arboviral Syndromic Surveillance1
- Maricopa dashb

Search Open New Share Copy Edit Delete Hide Group Order Library

2

☐	Tab Title	Tab Description	Personal Note	Shared With	Shared By	Managed By	Hidden
☐	Home	No description					
☐	Arboviral Syndromic Surveillance	No description	1		Kara Tarter	Kara Tarter	
☐	AZ HRI 2017	No description			Matthew Roach	Matthew Roach	
☐	June Heat Wave	No description			Matthew Roach	Matthew Roach	
☐	Zika_Chik_Dengue Dashboard	No description					
☐	WNV/SLE Queries	No description					
☐	Arboviral Syndromic Surveillance	No description					
☐	Arboviral Syndromic Surveillance1	No description					
☐	Maricopa dashboard with tables	No description					
☐	Arizona / Region 9 ILI	No description					
☐	End of World Dashboard	No description					
☐	Workshop Test	Workshop Test to provide feedback for query.	1				
☐	Yuma Vaping Test						
☐	Lung Injury Response/Vaping		1				
☐	Flu						
☐	HRI Workshop						
☐	Flu Workshop 2		1				
☐	ILI_Cochise County	This is an example dashboard to help you fin...	1				
☐	E-Scooter Test						
☐	Cochise Opioid training		1				
☐	STD Test						
☐	ILI DS Workshop	This is a test dashboard for the ILI use case fo...	1				



ESSENCE - NSSP
myESSENCE

Bookmark Name Bookmark Page

- Home
- Alert List
- myAlerts
- myESSENCE
- Event List
- Overview Portal
- Query Portal
- Stat Table
- Map Portal
- Bookmarks
- Query Manager
- Data Quality
- Report Manager
- More

- myESSENCE Tab Library
- Home
- Arboviral Syndromic Surveillance
- AZ HRI 2017
- June Heat Wave
- Zika_Chik_Dengue Dashboard
- WNV/SLE Queries
- Arboviral Syndromic Surveillance
- Arboviral Syndromic Surveillance1
- Maricopa das

Search Open New Copy Edit Delete Hide Group Order Library Help

Search Upload Download Delete Edit Close

☐	Tab Title	Tab Description	Uploaded By	Uploaded Date	Managed	Geography Cleared
☐	Measles	Monitor measles and measles-like visits, diag...	Kacey Potis, Washington State Department of Health	11/22/2019	✓	✓
☐	Visits of Interest	Data details of records with "visit of Interest" ...	Natasha Close, Washington State Department of Health	12/03/2019		✓
☐	ILI	Primary dashboard to monitor influenza-like i...	Natasha Close, Washington State Department of Health	12/03/2019	✓	✓
☐	CRI	Trends in CRI, CRI+homeless, Storm, CO, MVC...	Natasha Close, Washington State Department of Health	12/03/2019		✓
☐	County and AZ Comparison	For Arizona users with access to their local jur...	Sara Chronister, Maricopa County Department of Public Health	12/05/2019	✓	
☐	ILI Dashboard	Tennessee ILI Monitoring (by MMWR week, w...	Caleb Wiedeman, Tennessee Department of Health	12/05/2019		
☐	EVALI (Pulmonary & Vaping)	Monitor visits associated with severe lung inj...	Kacey Potis, Washington State Department of Health	12/09/2019	✓	✓
☐	QualityPM2.5		Eunice Santos , UDOH	01/09/2020		
☒	Coronavirus	Developed to identify and monitor patients t...	Natasha Close, Washington State Department of Health	01/21/2020	✓	

Download Coronavirus Dashboard

- Go back to myESSENCE
- Type “Coro” in the search box
- Check box next to Coronavirus
- Click Open
- Review the dashboard
- Look for things like Data Details table



ESSENCE - NSSP
myESSENCE

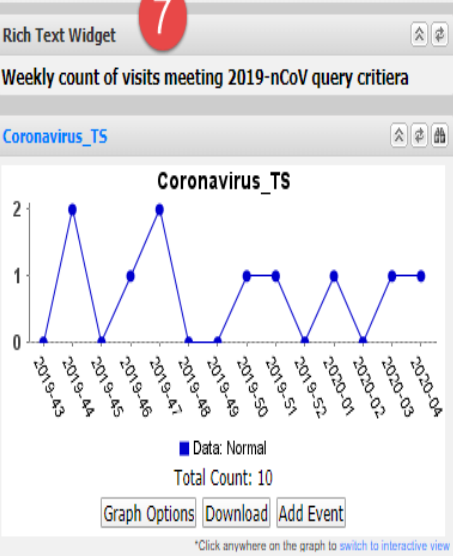
Bookmark Name | Bookmark Page

coro | Open | New | Share | Copy | Edit | Delete | Hide | Group | Order | Library | Help

☐	Tab Title	Tab Description	Personal Note	Shared With	Shared By	Managed By	Hidden
☒	Coronavirus	Developed to identify and monitor patients t...		1	Natasha Close	Natasha Close	



ESSENCE - NSSP
myESSENCE



Rich Text Widget

2019-nCoV Query Criteria:

Searches for visits with: 1. Syndrome/CCDD Category of resp, fever, ILI CCDD v1, or CDC Pneumonia CCDD v1 AND 2. mention of China or Wuhan in Chief Complaint Updates, Triage Notes, Clinical Impression, or Travel History.

Definition Updated 1/22/20

Created by WA State Department of Health and CDC National Syndromic Surveillance Program

Rich Text Widget

Visit details from the past 7 days meeting 2019-nCoV query criteria

Visit_Details (There are no additional records)

Data Details

Date	TriageNotesOrigClinicalImpression
	nonePresents to ED w/ c/o shortness of breath, cough and fever since Tuesday. Patient reports traveling home from China on Wednesday, and was seen at Urgent Care Friday w/o resolve. Patient co

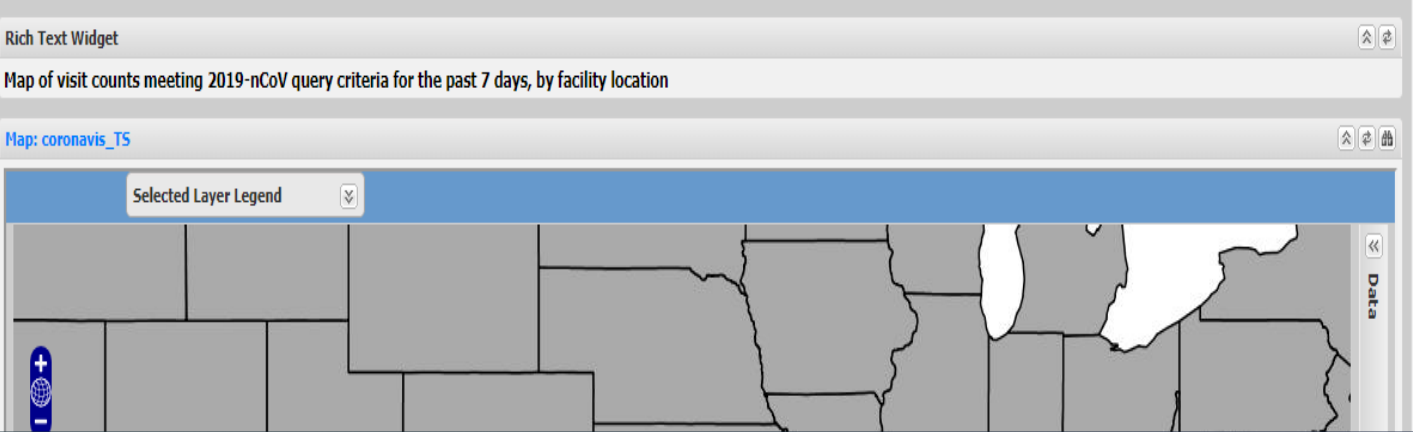
Rich Text Widget

Weekly count of visits with diagnosis of coronavirus (B34.2, B97.2, or diagnosis description including coronavirus)

Definition created 1/21/20

coronavirus_dg

Loading...



Download Coronavirus Dashboard

- Fields of Interest
 - CC
 - DD
 - Triage Notes
 - Travel History
 - Clinical Impression

AZ BioSense Opioid Workgroup

- Examples of Table builder for ADHS Syndromic Surveillance and CDC's OD2A_Data Submission Template_Rapid_ED

How to Query in ESSENCE

Example

- Using Chrome, Edge, or Firefox web browsers follow this link:
https://essence.syndromicsurveillance.org/nssp_essence/servlet/DataQueryWizardServlet
- (2) Select “Query Portal” on main screen
- (3) Select “Facility Location (Full Details)” Datasource field
- (4) Depending on the Tier selected, select the following in the “Time resolution” field, select “monthly”
- (5) Make sure “no detection” is selected in Detector field
- (6) Keep “no percent query” in as Percent Query field
- (7) Add in the time frame you are querying in the start date field. For example, “Dec 2019”

How to Query in ESSENCE

Example

Query Wizard

Datasource:	Time Resolution:	Detector:	As Percent Query:	Start Date:	End Date:
Facility Location (Full Details) ▼	Monthly ▼	No Detection ▼	No Percentage Query ▼	December ▼	December ▼
				2019 ▼	2019 ▼

How to Query in ESSENCE

Example

- (8) From Available Query Fields, click on “Site” (on the left), highlight the state/jurisdiction, move the state over from “available” to the “selected” box by pressing the arrow, and then press select. The selected site should appear on the right section of the window: Selected Query Fields

How to Query in ESSENCE

Example

Query Wizard

Datasource: Facility Location (Full Details) | Time Resolution: Monthly | Detector: No Detection | As Percent Query: No Percentage Query | Start Date: December 2019 | End Date: December 2019

Available Query Fields

- Facility Location (Full Details)
- MyFilters
- Geography System
 - Hospital HHS Region
 - Hospital State
 - Hospital Region
 - Hospital
- Site**
- Patient Location
- Medical Grouping System
 - ChiefComplaintSubSyndromes
 - Syndrome
 - ChiefComplaints
- Triage Notes Orig

Site

Select Help

Search String: Apply Clear Tip

Site List:

Available	Selected
Alabama	Arizona
Alaska	
Arkansas	
Colorado-North Central Region (CO_NCR)	
Connecticut	
Delaware	
District of Columbia	
El Dorado County, CA	
Florida	

Select Help

Selected Query Fields

- Geography System
 - Hospital
- Site**
 - Arizona
- Medical Grouping System
 - ESSENCESyndromes

MyFilter: Create

Table Builder | Time Series | Data Details | Text Analysis | Graph Builder | Overview | Adv Qry | Explain Qry | Reset

How to Query in ESSENCE

Example

- (9) Click on “Facility Type” (on the left), highlight Emergency Care, and press select.

How to Query in ESSENCE

Example

Query Wizard

Datasource: Facility Location (Full Details) | Time Resolution: Monthly | Detector: No Detection | As Percent Query: No Percentage Query | Start Date: December 2019 | End Date: December 2019

Available Query Fields | **Facility Type** | **Selected Query Fields**

Available Query Fields:

- SubSyndrome Free Text
- Chief Complaint Orig Free Text
- Chief Complaint Combo Free Text
- Admit Reason Code
- Admit Reason Combo
- Discharge Diagnosis Combo Free Text
- Facility Type**
- Clinical Impression
- Chief Complaint History
- Discharge Diagnosis History
- Discharge Disposition History
- Patient Class History
- Patient Class History Free Text
- Calculated Patient Class History
- Calculated Patient Class History Free Text

Facility Type:

Select values for Facility Type:

- Emergency Care
- Urgent Care
- Inpatient practice setting
- Medical Specialty
- Primary Care
- Other

Selected Query Fields:

- Geography System**
Hospital
- Site**
Arizona
- Medical Grouping System**
ESSENCE Syndromes
- Facility Type**
Emergency Care

Buttons: Table Builder | Time Series | Data Details | Text Analysis | Graph Builder | Overview | Adv Qry | Explain Qry | Reset

MyFilter: [] Create

How to Query in ESSENCE

Example

- (10)Click on “Has Been Emergency” (on the left), select “yes” and press select.

How to Query in ESSENCE

Example

Query Wizard

Datasource: Facility Location (Full Details) | Time Resolution: Monthly | Detector: No Detection | As Percent Query: No Percentage Query | Start Date: December 2019 | End Date: December 2019

Available Query Fields

- Clinical Impression
- Chief Complaint History
- Discharge Diagnosis History
- Discharge Disposition History
- Patient Class History
- Patient Class History Free Text
- Calculated Patient Class History
- Calculated Patient Class History Free
- Trigger Event History
- Has Been Emergency**
- Has Been Inpatient
- Has Been Outpatient
- Zipcode - Predominant Race
- Zipcode - Race White Percentage
- Zipcode - Race Black or African Ame

Has Been Emergency

Select values for Has Been Emergency:

- No
- Yes**

Selected Query Fields

- Geography System**
Hospital
- Site**
Arizona
- Medical Grouping System**
ESSENCE Syndromes
- Facility Type**
Emergency Care
- Has Been Emergency**
Yes

Table Builder | Time Series | Data Details | Text Analysis | Graph Builder | Overview | Adv Qry | Explain Qry | Reset

MyFilter: Create

How to Query in ESSENCE

Example

- To find the denominator, follow steps 11 and 12 (DO NOT ENTER IN THE ESSENCE CODE FOR OUR SYNDROME DEFINITION).
- (11) To find denominator for age group by sex, click on “Table Builder” – select “Month” for the column and both “Sex” AND “NCHS Age Group” for the row, click on the arrow to move “Sex” and “NCHS Age Group” over to the selected row fields, then click create table.

How to Query in ESSENCE

Example

Selected Column Field: Month

Available Fields:

- Hospital
- Site
- Patient Location
- Syndrome
- MedicalSubGrouping
- Age Group
- CDC ILI Reporting Age Group
- Ten Year Age Group
- Distribute Age Group
- Race
- Ethnicity
- Patient Class
- Calculated Patient Class
- Disposition Category
- Discharge Diagnosis Available
- Discharge Diagnosis Informative
- Chief Complaint Available
- Chief Complaint Informative
- Time Interval
- Diagnosis Type
- CC and DD Category
- Facility Type
- Patient Class History
- Calculated Patient Class History
- Has Been Emergency
- Has Been Inpatient
- Has Been Outpatient
- C_Death
- Hospital

Selected Row Fields:

- Sex
- NCHS Age Group

--> <--

Up Down

Create Table Download to Excel

Sex	NCHS Age Group	Month
data (44 cells)		

How to Query in ESSENCE

Example

- (12) To find denominator for county, navigate back to the query portal by clicking the + sign next to “configuration options” in the top left. Next, select all of the counties for your site/jurisdiction using “Patient Location” (on the left, below “site”). Use the “Ctrl” key to select all at once. Then click the arrow to move them over to the selected box.

How to Query in ESSENCE

Example

Query Wizard

Datasource: Facility Location (Full Details) Time Resolution: Monthly Detector: No Detection As Percent Query: No Percentage Query Start Date: December 2019 End Date: December 2019

Available Query Fields

- Facility Location (Full Details)
- MyFilters
- Geography System
- Hospital HHS Region
- Hospital State
- Hospital Region
- Hospital
- Site
- Patient Location
- Medical Grouping System
- ChiefComplaintSubSyndromes
- Syndrome
- ChiefComplaints
- Triage Notes Orig

Patient Location

Search String: az Apply Clear Tip

Patient Location List:

Available	Selected
IL_Tazewell	AZ_Apache
MI_Kalamazoo	AZ_Cochise
MS_Yazoo	AZ_Coonino
PR_Juana D+az	AZ_Gila
TX_Brazoria	AZ_Graham
TX_Brazos	AZ_Greenlee
VA_Tazewell	AZ_La Paz
	AZ_Maricopa
	AZ_Mohave

Selected Query Fields

- Geography System: Hospital
- Site: Arizona
- Patient Location: AZ_Apache, AZ_Cochise, AZ_Coonino, AZ_Gila, AZ_Graham, AZ_Greenlee, AZ_La Paz, AZ_Maricopa, AZ_Mohave, AZ_Navajo, AZ_Pima, AZ_Pinal, AZ_Santa Cruz, AZ_Yavapai, AZ_Yuma
- Medical Grouping System: ESSENCESyndromes
- Facility Type: Emergency Care
- Has Been Emergency: Yes

MyFilter: Create

Table Configuration Options

Table Builder Time Series Data Details Text Analysis Graph Builder Overview Adv Qry Explain Qry Reset

How to Query in ESSENCE

Example

- Then click on “Table Builder” – select “Month” for the column and “Patient Location” for the row, then create table. b. Please note: you MUST have valid zip code for each patient record. NSSP uses zip code to determine “patient location.” They do not use “patient county” to determine “patient location.”

How to Query in ESSENCE

Example

Selected Column Field: Month

Available Fields:

- Hospital
- Site
- Syndrome
- MedicalSubGrouping
- Age Group
- CDC ILI Reporting Age Group
- NCHS Age Group
- Ten Year Age Group
- Distribute Age Group
- Sex
- Race
- Ethnicity
- Patient Class
- Calculated Patient Class
- Disposition Category
- Discharge Diagnosis Available
- Discharge Diagnosis Informative
- Chief Complaint Available
- Chief Complaint Informative
- Time Interval
- Diagnosis Type
- CC and DD Category
- Facility Type
- Patient Class History
- Calculated Patient Class History
- Has Been Emergency
- Has Been Inpatient
- Has Been Outpatient
- C_Death
- Hospital

Selected Row Fields:

- Patient Location

--> <--

Up Down

Create Table Download to Excel

Month
Patient Location

data (15 cells)

How to Query in ESSENCE

Example

- **To find the numerator, please follow one of these next two steps:**
- Click on CC and DD category then select “CDC All Drug v1” for all drug, “CDC Opioid Overdose v2” for opioid, “CDC Heroin Overdose v4” for heroin, and “CDC Stimulants v3” for stimulants. Do not select these at the same time - you must do one at a time.
-
- (13) Follow the same steps as above for sex by age group, and county to get the numerator for each syndrome definition. These steps must be repeated for each syndrome definition. For example,
 - a. After doing #12 above, select table builder and add month to the column and sex by age group to the row.
-
- - b. Then select all of the counties in that site/jurisdiction using Patient Location, select table builder and add week/month to the column and patient location to the row.

Discussion

- Do you want to incorporate tables ADHS uses to report to CDC included in the ADHS dashboard that is shared with you?
- Do you want to include a timeseries graph comparison to state aggregate data?
- Do you want to include a timeseries graph comparison to PHEP Region aggregate data?

Homework

- What questions do you have about current projects?
- What ideas do you have for future projects?
- What ESSENCE questions or issues have you come across?
- **What other resources can we work on putting together?**

Upcoming AZ Syndromic Meetings

Exploratory
Analysis Subgroup/
AZ BioSense
Opioid Workgroup

Thursday,
February 27
from 1:00 –
2:00

Exploratory
Analysis Subgroup/
AZ BioSense
Opioid Workgroup

Thursday,
March 26 from
1:00 – 2:00

THANK YOU

syndromicsurveillance@azdhs.gov | 602-542-6002

azhealth.gov

 @azdhs

 facebook.com/azdhs



ARIZONA DEPARTMENT
OF HEALTH SERVICES

Health and Wellness for all Arizonans