



TEXAS
Health and Human
Services

**Texas Department of State
Health Services**

Office of
Border
Public Health

Oficina de
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Enhanced Respiratory Illness Surveillance Along the West Texas-Mexico Border

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Texas Department of State Health Services

Public Health Region 9/10

Office of
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Project Objectives

- To maintain year-round Influenza and Influenza-Like Illness (ILI) surveillance activities along the West Texas-Mexico Border areas to:
 - Augment existing ILI surveillance systems in Texas and Federally.
 - Ensure characterization of influenza and other ILIs among border communities and migrant, mobile, or foreign-born populations.
 - Identify and monitor groups at higher risk for severe disease or death.
 - Detect unusual expression of influenza outside of the expected season or novel influenza strains.
 - Contribute to the efforts in public health preparedness, planning, and intervention.

Project Relevance

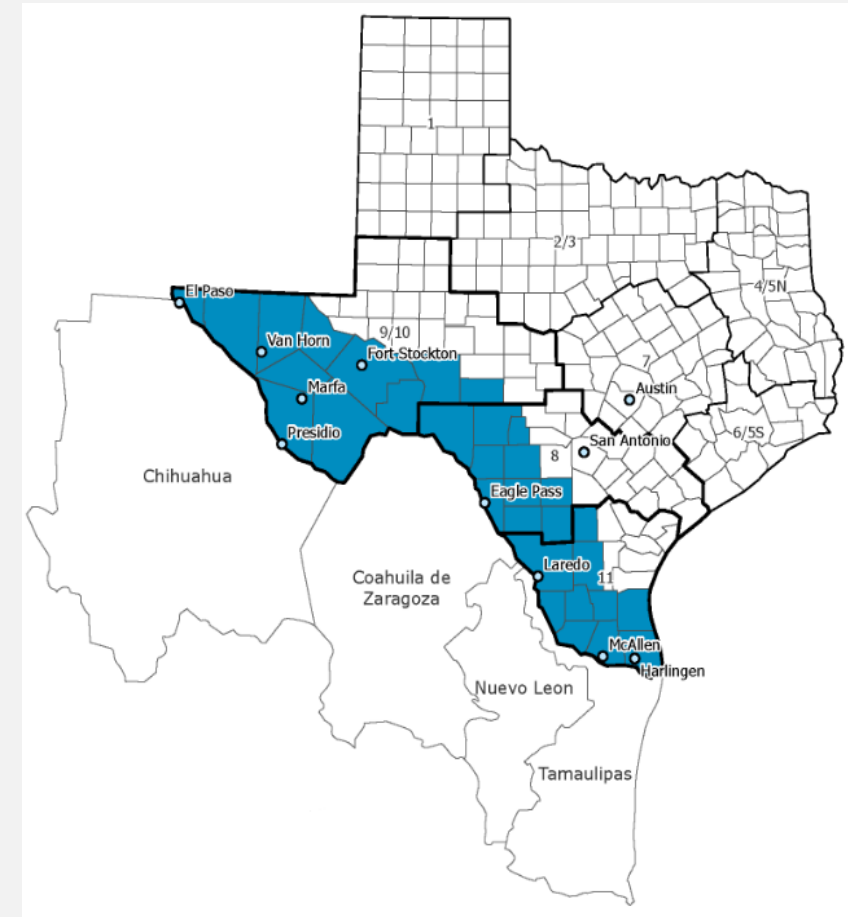
Addresses the goals for Border Infectious Disease Surveillance (BIDS) set by the Division of Global Migration Health and the Border Health Commission to:

- Improve surveillance of diseases of binational importance
- Assist in the development of strategies for the control of infectious diseases in the border region.
- Application of the *Operational Protocol for Binational Communication and Coordination on Disease Notifications and Outbreaks* for infectious disease preparedness and response



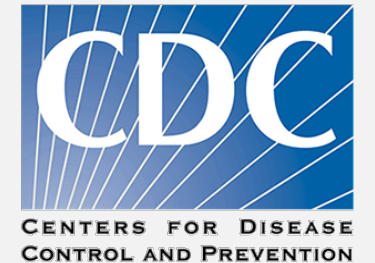
The West Texas-Mexico Border Region

- Two sets of international sister cities
 - El Paso, TX & Juarez, MX
 - Presidio, TX & Ojinaga, MX
- Two Binational Work Groups
 - Presidio-Ojinaga Border Health Commission
 - Paso del Norte Border Health Commission
- Border Epidemiology Surveillance Team (BEST)
 - Texas, New Mexico, Mexico, Fort Bliss, El Paso Port Health Station, and Ysleta del Sur Pueblo (Tigua Tribe)
- Multi-Agency and multi-disciplinary partners

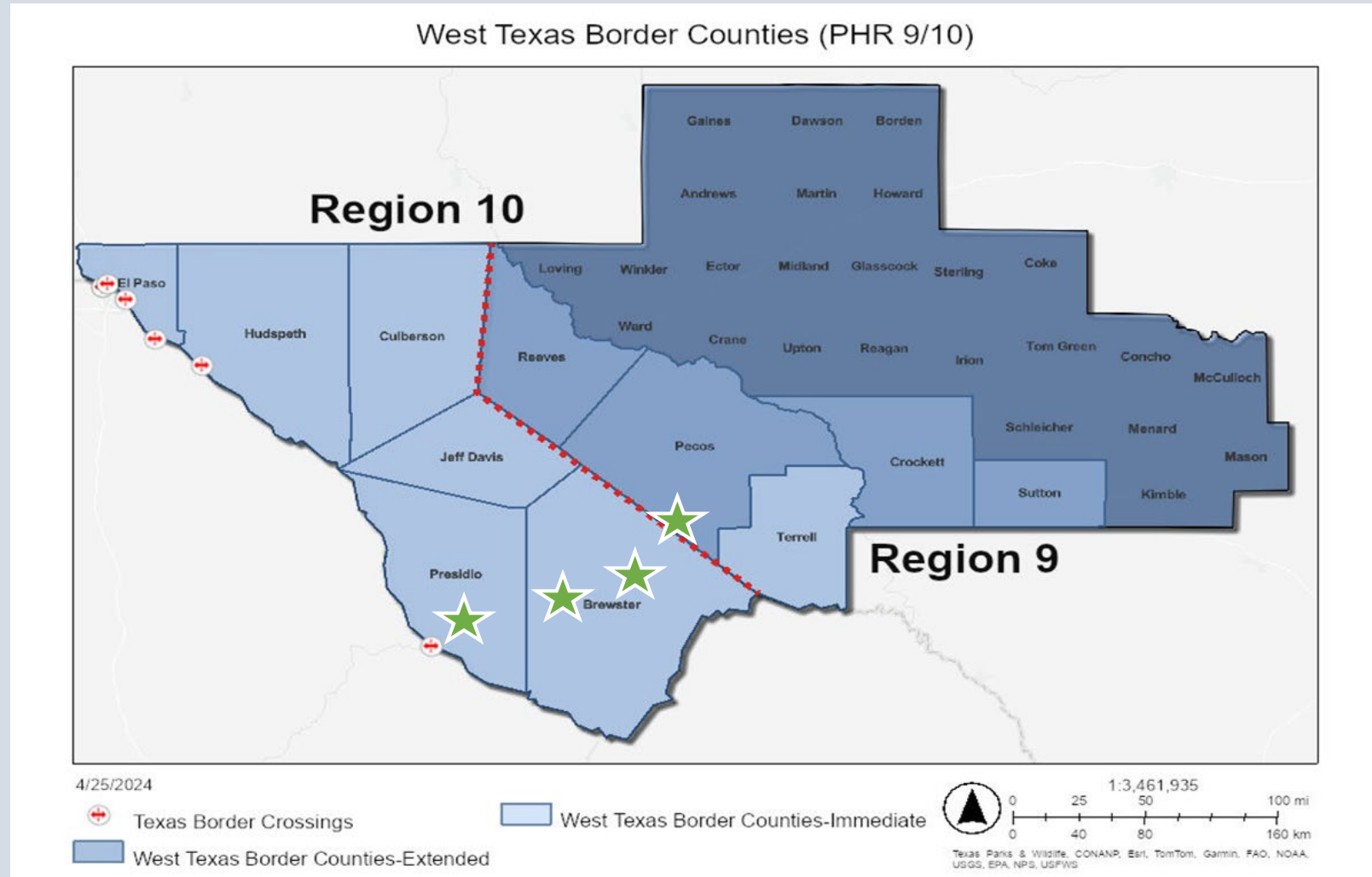


Involved Parties

- Texas Department of State Health Services Public Health Region 9/10
 - Office of Border Public Health - BIDS Epidemiologist
- Naval Health Research Center
 - Operational Infectious Diseases Border Biosurveillance (NHRC-OID) Team
- Preventative Care Health Services
- Cactus Health Services, Inc.



Current Sentinel Sites



Enhanced Respiratory Illness Surveillance Project



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Project Beginnings

- PHR 9/10 began with Influenza-Like Illness surveillance and sample collection in 2019 with a clinic in Ojinaga, MX and the El Paso Department of Public Health's Laboratory which is part of the Texas Laboratory Response Network.
- We later joined the Naval Health Research Center's Operational Infectious Diseases Border Biosurveillance (NHRC-OID) initiative to conduct biosurveillance among U.S.-Mexico Border populations through CDC-BIDS funds.



Current Project Elements

ILI Electronic Reporting

Patient Screening

Sample Collection

Sample Pick Up

Sample Packaging and Shipment

Laboratory Testing

Data Reporting

Data Analysis and Use



ILI Electronic Reporting

- Each Sentinel site receives a weekly ILI count survey for the previous week.
- Also asks for count of samples that are ready for pick up.
- Data will be uploaded into ILINet in the near future.

Q2. *Please select your clinic site from the drop down options.

- Marfa

Q3. Please select the Monday of the reporting week for which you wish to report for.
2024-06-03

Q4. *Please enter the patient count of each category listed below.

(If no counts are available, please enter "0")

<i>Total Patient Count seen at your site for any reason during the selected reporting week.</i>	51
<i>ILI Age 0-4</i>	0
<i>ILI Age 5-24</i>	0
<i>ILI Age 25-49</i>	2
<i>ILI Age 50-64</i>	0
<i>ILI Age 65+</i>	0

Q10. *Do you have specimens ready for pickup?

- No



Case Definitions & Patient Screening

FRI

- Febrile Respiratory Illness
- Fever $\geq 100.5^{\circ}\text{F}$
- Cough or Sore throat

ILI

- Influenza-Like Illness
- Acute Respiratory Infection with:
 - Measured fever of $\geq 38^{\circ}\text{C}$ & Cough &/or sore throat
 - Onset within the last 10 days

CLI

- COVID-Like Illness
- Acute Respiratory Infection with:
 - Measured fever of $\geq 38^{\circ}\text{C}$ with two of any of the following symptoms:
 - Chills, cough, sore throat, shortness of breath, headache, difficulty breathing, myalgia, congestion, fatigue, rhinorrhea
 - Or Cough with shortness of breath
 - Or recent loss of taste &/or smell
 - Or Clinical evidence of pneumonia
- Onset within the last 5 days

SARI

- Severe Acute Respiratory Illness
- Acute Respiratory Illness with:
 - History of fever $\geq 38^{\circ}\text{C}$ & cough
 - Requires Hospitalization
- Onset within the last 10 days



H5N1 Special Surveillance

Clinical Criteria

Signs and symptoms consistent with acute upper or lower respiratory tract infection **OR** complications of acute respiratory illness without an identified cause

Minimum Symptom Requirements

- Influenza-like-illness (ILI) symptoms (fever plus a cough or sore throat) **OR** conjunctivitis.

May also present with gastrointestinal symptoms such as diarrhea.

AND

Epidemiologic Criteria

Animal Exposures

Close contact (within 6 feet for a combined total of 15 minutes or more) with animals confirmed to be infected with avian influenza A(H5N1)

OR Close contact with ill appearing animals such as birds or cows, their waste, their unpasteurized milk, saliva, or other body fluids

OR Direct contact with surfaces contaminated with the waste or products (e.g., unpasteurized (raw) milk or saliva) from cattle presumed to be infected with avian influenza A(H5N1).

OR

Food Exposures

The individual has consumed unpasteurized milk from an animal confirmed/presumed to be infected with avian influenza A(H5N1).

OR

Human Exposures

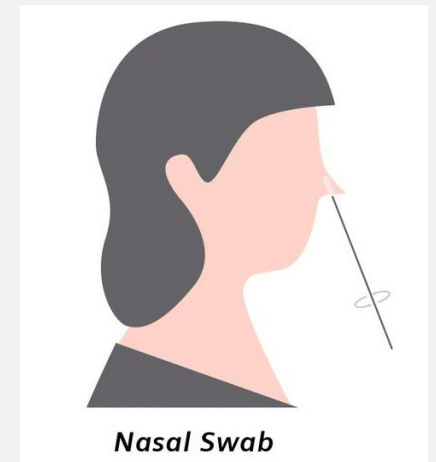
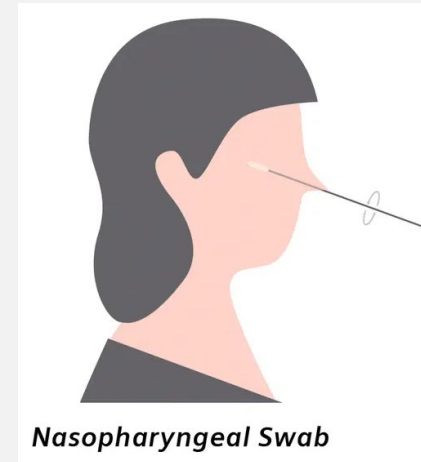
Close contact with confirmed case of avian influenza A(H5N1) without the use of respiratory and eye protection

OR Close contact with a Person Under Investigation (PUI) with testing pending without the use of respiratory and eye protection.

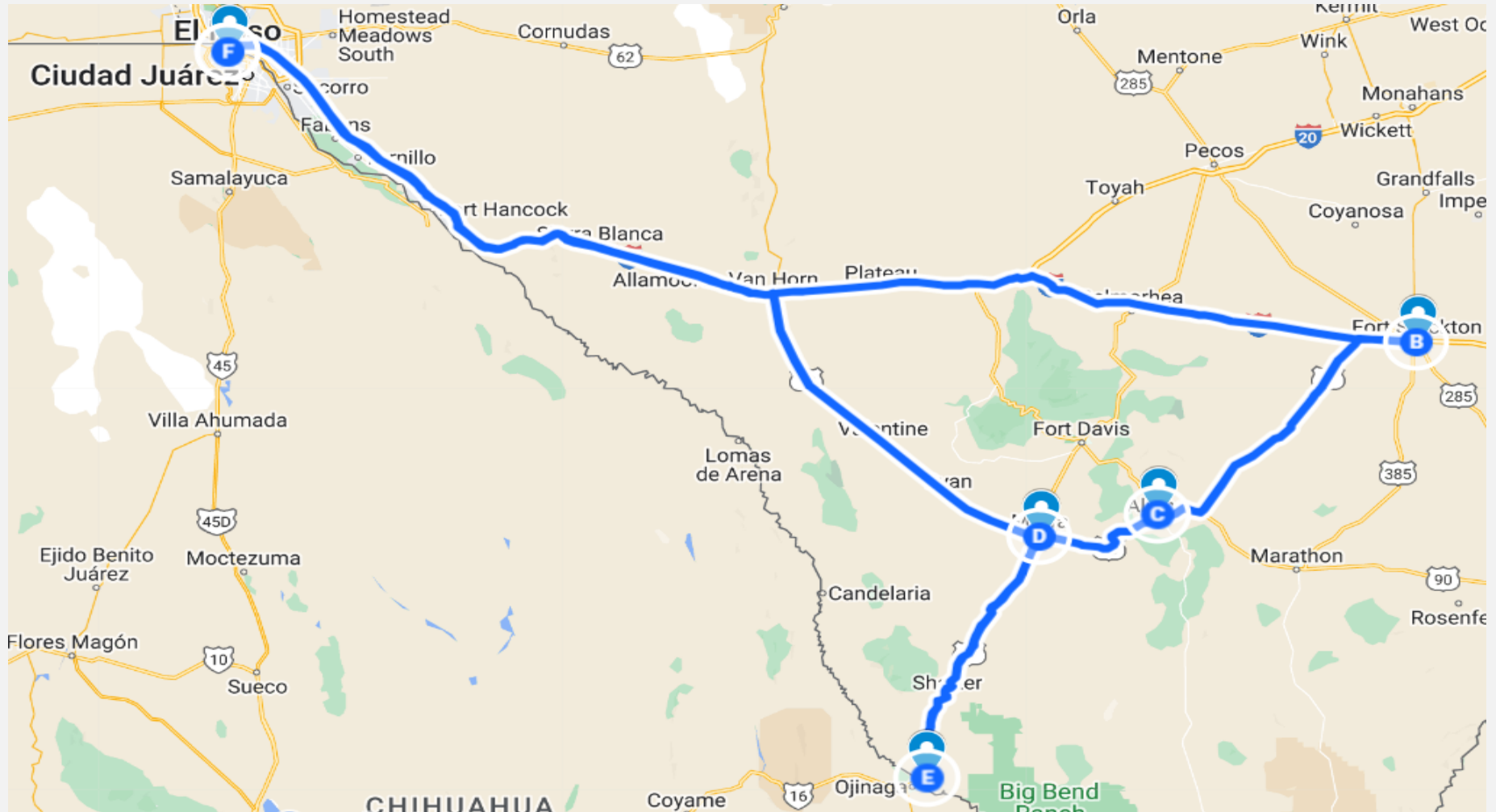
***Exposures should be within 10 days of symptom onset**

Sample Collection & Storage

- Nasal or NP swab
- Patient must not have already been treated with an antibiotic or an antiviral.
- Sample placed in a Universal Transport Media tube and stored at -80°C to -20°C.
- Samples and Case Report forms do not have patient identifiers and instead use an anonymous labeling system.



Sample Pick Up & Shipping



Sample Laboratory Testing

- Samples are received in San Diego by the NHRC-OID Team and processed.
- Tested via a multi-plex PCR respiratory panel or are rejected and discarded.



OPERATIONAL INFECTIOUS DISEASES TEST MENU

Laboratory Director: LCDR Paul Graf, PhD
CAP # 6928701
CLIP # DOD9215201

RESPIRATORY PANEL	
VIRUSES	BACTERIA
<ul style="list-style-type: none"> ➤ Adenovirus ➤ Coronavirus <ul style="list-style-type: none"> • HKU1, NL63, 229E, OC43, SARS CoV-2 ➤ Human Bocavirus ➤ Human Metapneumovirus ➤ Human Rhinovirus/Enterovirus ➤ Influenza A <ul style="list-style-type: none"> • A/H3, A/H1 ➤ Influenza B ➤ Parainfluenza virus <ul style="list-style-type: none"> • PIV 1, 2, 3, 4 ➤ Respiratory Syncytial Virus <ul style="list-style-type: none"> • RSV A, RSV B 	<ul style="list-style-type: none"> ➤ <i>Chlamydomphila pneumoniae</i> ➤ <i>Mycoplasma pneumoniae</i>

Results

**Operational Infectious Diseases
Naval Health Research Center**

Director: LCDR Paul Graf, PhD, D(ABMM)
 Lab Manager: Anne Fraser, MLS(ASCP)^{CM}, CLS
anne.c.fraser@health.mil
 Lab Supervisor: Roger Pan, MB(ASCP)^{CM}
roger.w.pan.ctr@health.mil

McClelland Rd and Patterson Rd
 San Diego, CA 92152

CAP#: 6928701 Phone: 619.553.9967
 CLIP#: DOD9215201

Report ID: **38**
 Study: **FRI Bo.**
 Site: **Presidio County Medical Clinic**
 Requesting Clinician or Designee:

The NxTag Respiratory Pathogen Panel (RPP) + SARS-CoV-2 assay was used to generate these results. The laboratory is certified under the Clinical Laboratory Improvement Program (CLIP) and College of American Pathologists (CAP) as qualified to perform high complexity clinical laboratory testing. The assay is approved by the CAP and results may be used for clinical purposes. □

□ The NxTAG RPP + SARS-CoV-2 assay is only for use under the Food and Drug Administration's Emergency Use Authorization. □

□ The NxTAG RPP + SARS-CoV-2 is a multiplex molecular assay for respiratory virus and bacteria detection. The following organism types and subtypes are identified using the NxTAG RPP + SARS-CoV-2: □

-Viral targets: adenovirus, human bocavirus, coronavirus (229E, HKU1, NL63, OC43, and SARS-CoV-2), influenza virus A (H1 and H3), influenza B, hMPV, parainfluenza virus (1, 2, 3, and 4), RSV A, RSV B, and rhinovirus/enterovirus. □

-Bacterial targets: Chlamydia pneumoniae and Mycoplasma pneumoniae. □

□ A result of "Not Detected" or "Negative" indicates that the targeted pathogens were not found to be present above the assay limit of detection.

Specimen : 269687 | Secondary : PR051 | NHRC ID : 971149 | Collection Date : 2024-01-16 | Source : NS

Influenza B Detected

Specimen : 269688 | Secondary : PR052 | NHRC ID : 971150 | Collection Date : 2024-01-16 | Source : NS

No Pathogens Detected

Specimen : 269689 | Secondary : PR053 | NHRC ID : 971151 | Collection Date : 2024-01-16 | Source : NS

Influenza B Detected

Specimen : 269690 | Secondary : PR054 | NHRC ID : 971152 | Collection Date : 2024-01-17 | Source : NS

Influenza B Detected

Specimen : 269691 | Secondary : PR055 | NHRC ID : 971153 | Collection Date : 2024-01-18 | Source : NS

SARS-CoV-2 Detected

Specimen : 269692 | Secondary : PR056 | NHRC ID : 971154 | Collection Date : 2024-01-23 | Source : NS

No Pathogens Detected

Supervisor's Signature: LA CLAUDE CAILIN SH
 EA:1523190764

Digitally signed by LA CLAUDE CAILIN SH
 DN: cn=LA CLAUDE CAILIN SH, o=NA, ou=NA, email=la.cailin@hrc.navy.mil, date=2024.01.15 10:05:52 -0800

Date: 2/15/2024

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**NHRC CDC BIDS BIOSURVEILLANCE
Weekly Report**

24 December 2023 - 13 January 2024

Week 52, 2023 - Week 2, 2024

Lab Test Results

Identification	Site	Pathogens Detected
BRD13049	Presidio	Influenza A, Influenza A/H1
SAR58025	Alpine	Influenza A, Influenza A/H1
SAR58026	Alpine	Influenza A, Influenza A/H1
SAR58027	Alpine	SARS-CoV-2

1 October 2023 - Present

Fiscal Year to Date Summary

	Presidio		Alpine		Marfa		Combined	
	Samples	Positivity	Samples	Positivity	Samples	Positivity	Samples	Positivity
Total Samples Tested	17	70.59	27	40.74	10	40.00	54	50.00
Total Samples Positive	12	-	11	-	4	-	27	-
SARS-CoV-2	2	11.76	5	18.52	2	20.00	9	16.67
Rhinovirus/Enterovirus	5	29.41	2	7.41	2	20.00	9	16.67
Influenza A	4	23.53	2	7.41	1	10.00	7	12.96
H1	4	23.53	2	7.41	0	0.00	6	11.11
H3	0	0.00	0	0.00	0	0.00	0	0.00
Influenza B	0	0.00	0	0.00	0	0.00	0	0.00
Bocavirus	0	0.00	0	0.00	0	0.00	0	0.00
Coronavirus	0	0.00	0	0.00	0	0.00	0	0.00
OC43	0	0.00	0	0.00	0	0.00	0	0.00
229E	0	0.00	0	0.00	0	0.00	0	0.00
HKU1	0	0.00	0	0.00	0	0.00	0	0.00
NL63	0	0.00	0	0.00	0	0.00	0	0.00
Parainfluenza virus	0	0.00	0	0.00	0	0.00	0	0.00
PIV-1	0	0.00	0	0.00	0	0.00	0	0.00
PIV-2	0	0.00	0	0.00	0	0.00	0	0.00
PIV-3	0	0.00	0	0.00	0	0.00	0	0.00
PIV-4	0	0.00	0	0.00	0	0.00	0	0.00
Respiratory Syncytial Virus	1	5.88	2	7.41	0	0.00	3	5.56
RSV A	1	5.88	1	3.70	0	0.00	2	3.70
RSV B	0	0.00	1	3.70	0	0.00	1	1.85
Human Metapneumovirus	0	0.00	0	0.00	0	0.00	0	0.00
Adenovirus	0	0.00	0	0.00	0	0.00	0	0.00
Chlamydia pneumoniae	0	0.00	0	0.00	0	0.00	0	0.00
Mycoplasma pneumoniae	0	0.00	0	0.00	0	0.00	0	0.00
Negative	5	29.41	16	59.26	6	60.00	27	50.00

Abbreviations:

RSV (respiratory syncytial virus)
 hMPV (human metapneumovirus)
 RUO (research use only)

Sites:

Presidio (Presidio County Medical Clinic)
 Alpine (Alpine Family Health Services)
 Marfa (Marfa Community Health Clinic)

Note:

"/" indicates "and/or"
 "," indicates "and" (coinfection)



Texas Department of State Health Services

Data



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Data Storage & Analysis



BIDS-NHRC

Respiratory Illness Surveillance



Case Report Form Data

Sections



Texas Department of State Health Services

Sentinel Site Patient Data

Survey | Workflows | Distributions | Data & Analysis | Results | Reports

Data Table

Last Record Collected: 02/09/2024 12:28 PM MST

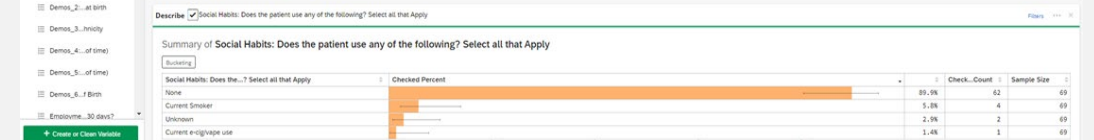
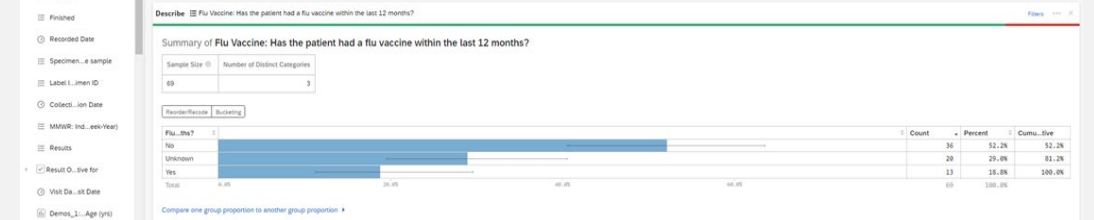
Collection Date - Sample Collection Date	MMWR - Indicate the MMWR week in relation to the collection date. (Week-Year)	Label ID - Specimen ID	Specimen Site - Select the Sentinel Site for the sample	Result - Results	Result Organization - Select the organization(s) the sample was positive for	Flu Positive	In house rapid tests - Did the patient test positive for any of the following during the visit?	Border County	Demos - Patient Demographics - City of Residence (100% at time)	Demos - Patient Demographics - City of Residence (100% at time)
2024-02-13	6-24	BRD13059	Presidio County Medical Clinic	Pending Results			Influenza B	Unknown	Unknown	Unknown
2024-02-07	5-24	BRD13058	Presidio County Medical Clinic	Pending Results			Influenza B	Unknown	Unknown	Unknown
2024-02-06	5-24	BRD13057	Presidio County Medical Clinic	Pending Results			Influenza B Patient was not tested for COVID-19	Unknown	Unknown	Unknown
2024-02-08	6-24	SAP30044	Alpine Family Health Services	Pending Results			Patient was negative for all tests	Jeff Davis	Fort Davis	Unknown
2024-01-30	4-2024	SAP30043	Mundy Community Health Center	Positive	Human		Patient was negative for	Jeff Davis	Fort Davis	Unknown

Workspaces | Add Filter

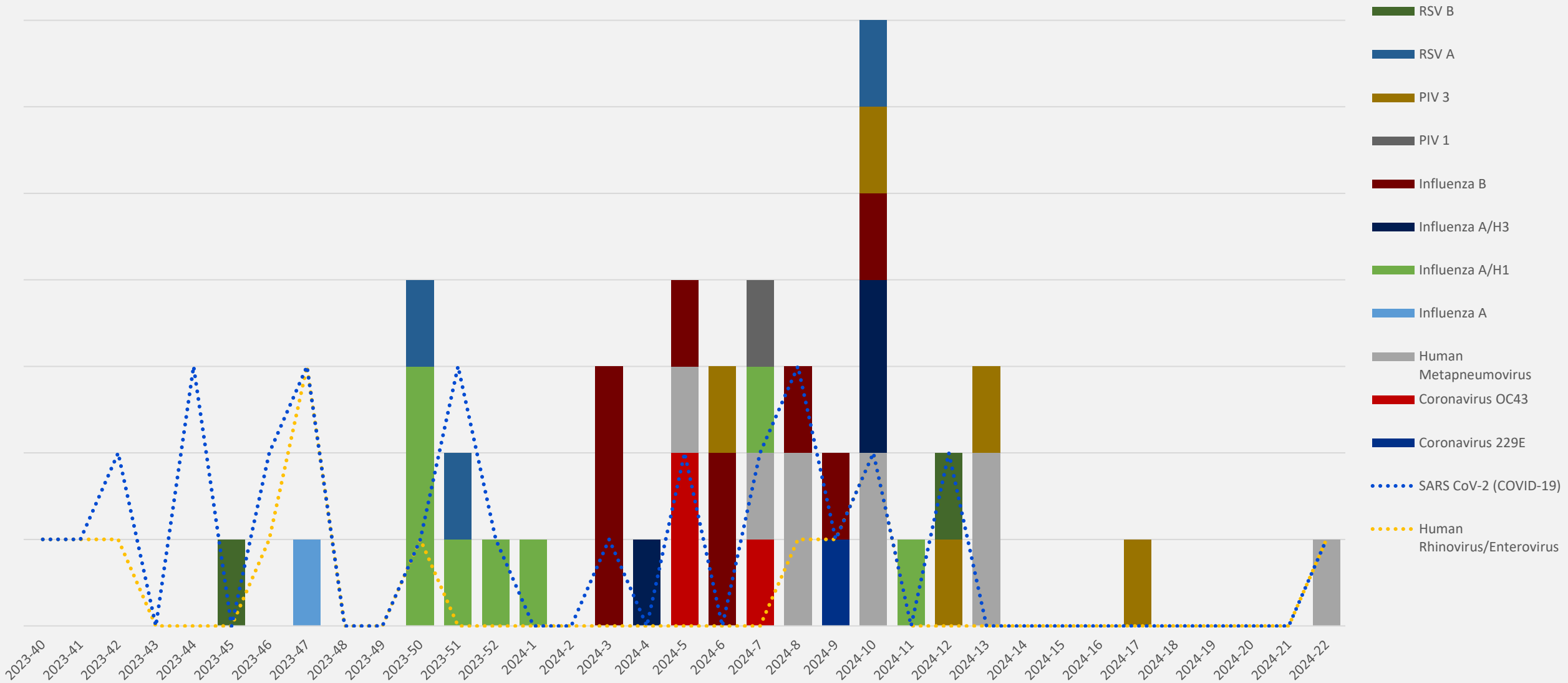
Demographics: Race/Ethnicity

	Yes	No	Unknown	Total
Hispanic	5	26	10	41
Hispanic/African American	1	0	1	2
Native American	1	0	0	1
Unknown	0	0	3	3
White/Non-Hispanic	6	8	6	20
Total	13	34	20	69

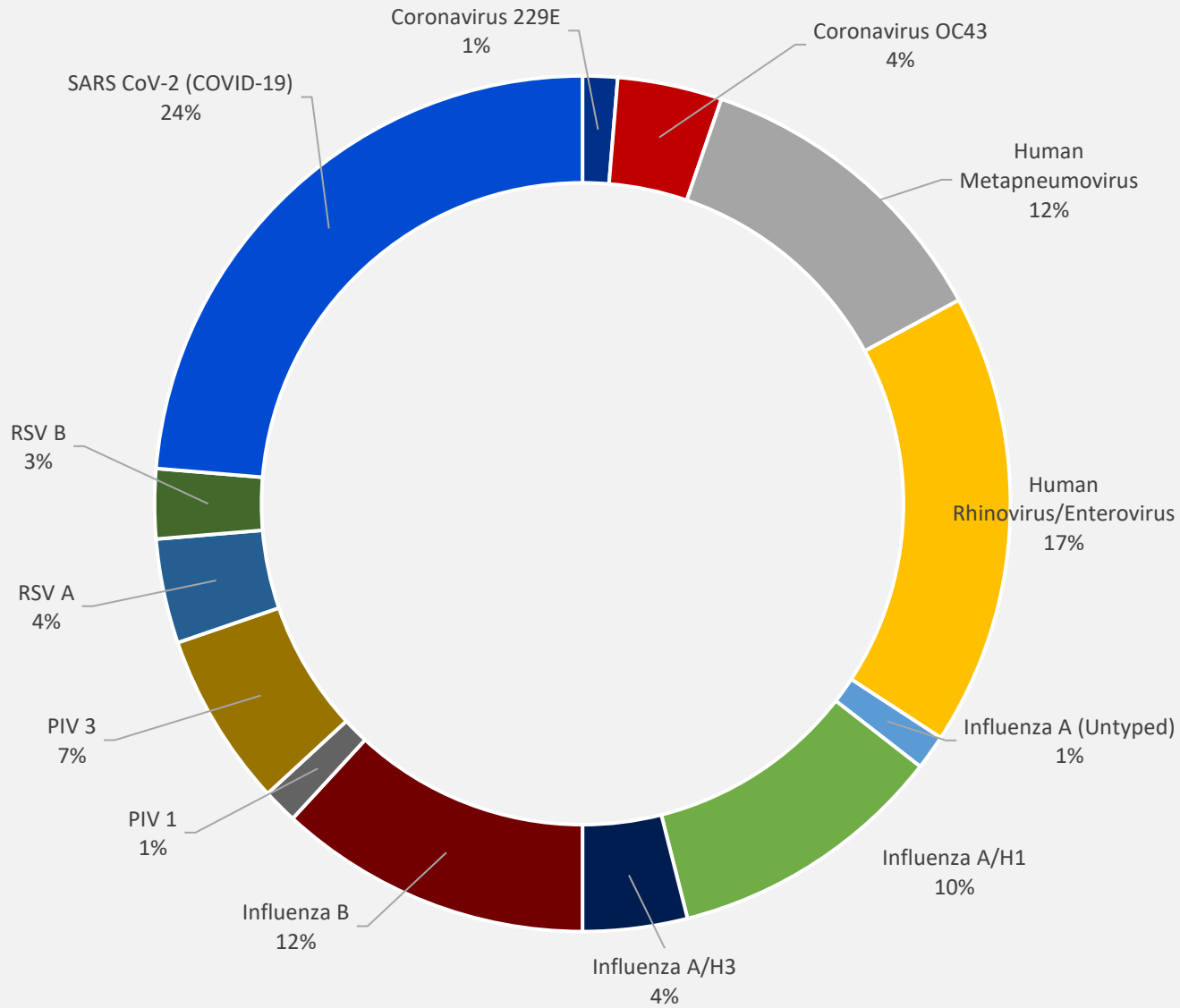
How do I interpret this table?
Show pairwise comparison



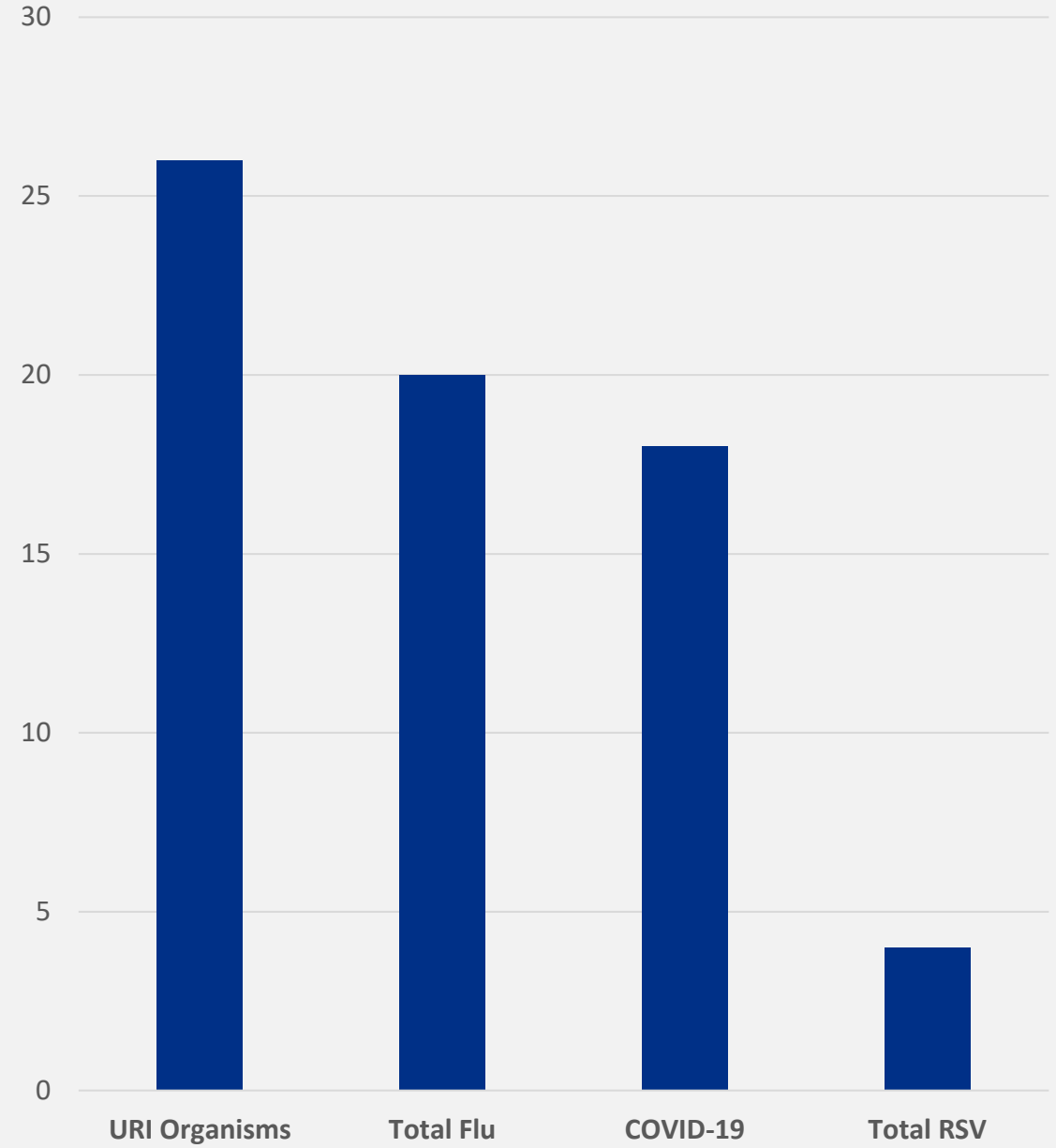
Respiratory Panel Data – 2023-2024 Flu Season



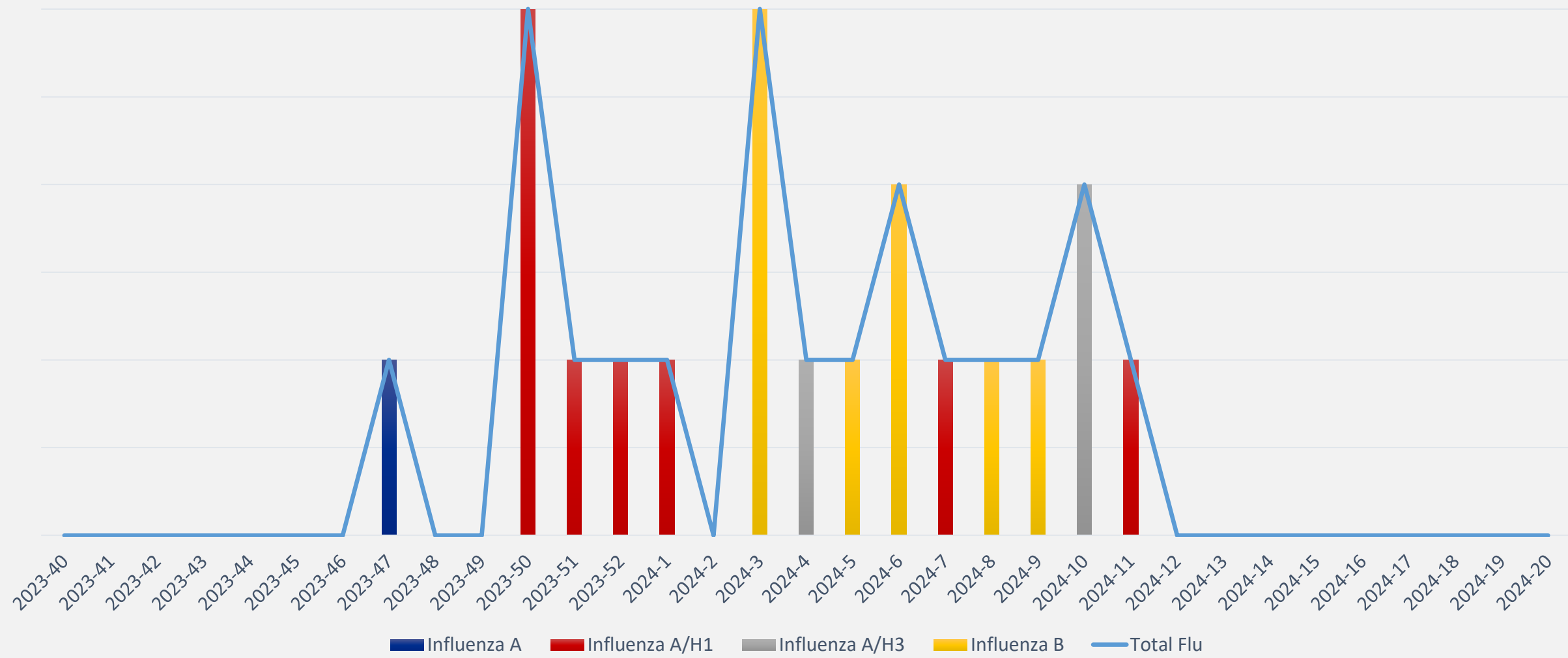
Identified Organisms



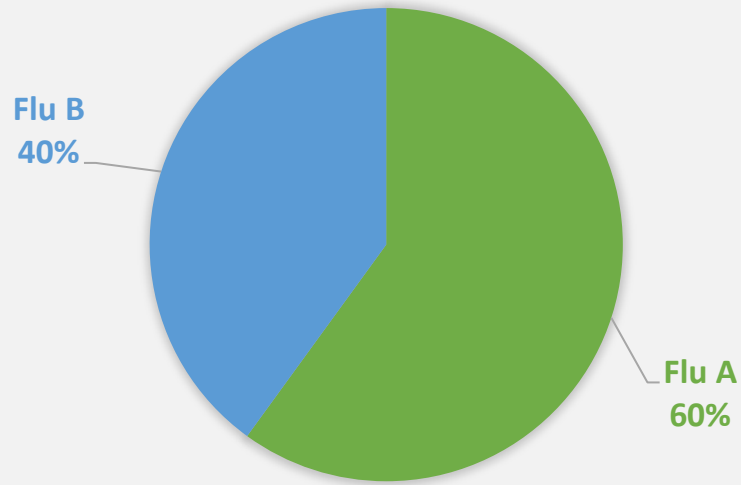
Major Respiratory Illness Categories



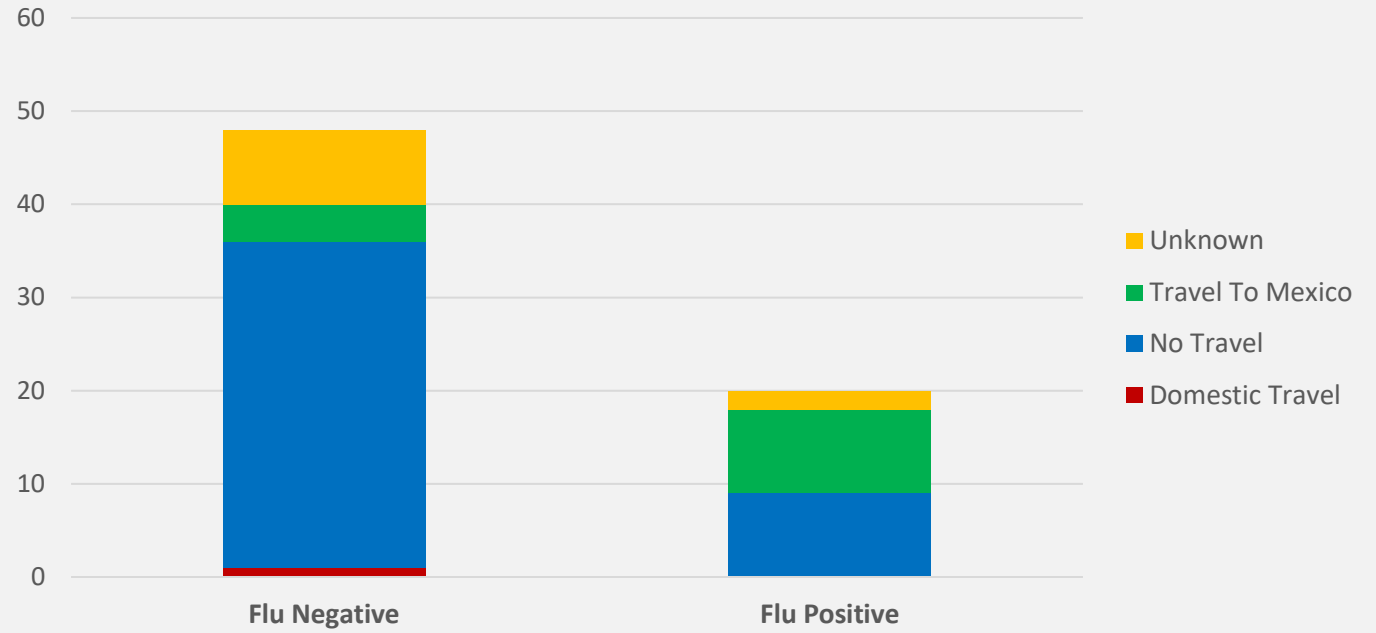
Flu Positives – 2023-2024 Flu Season



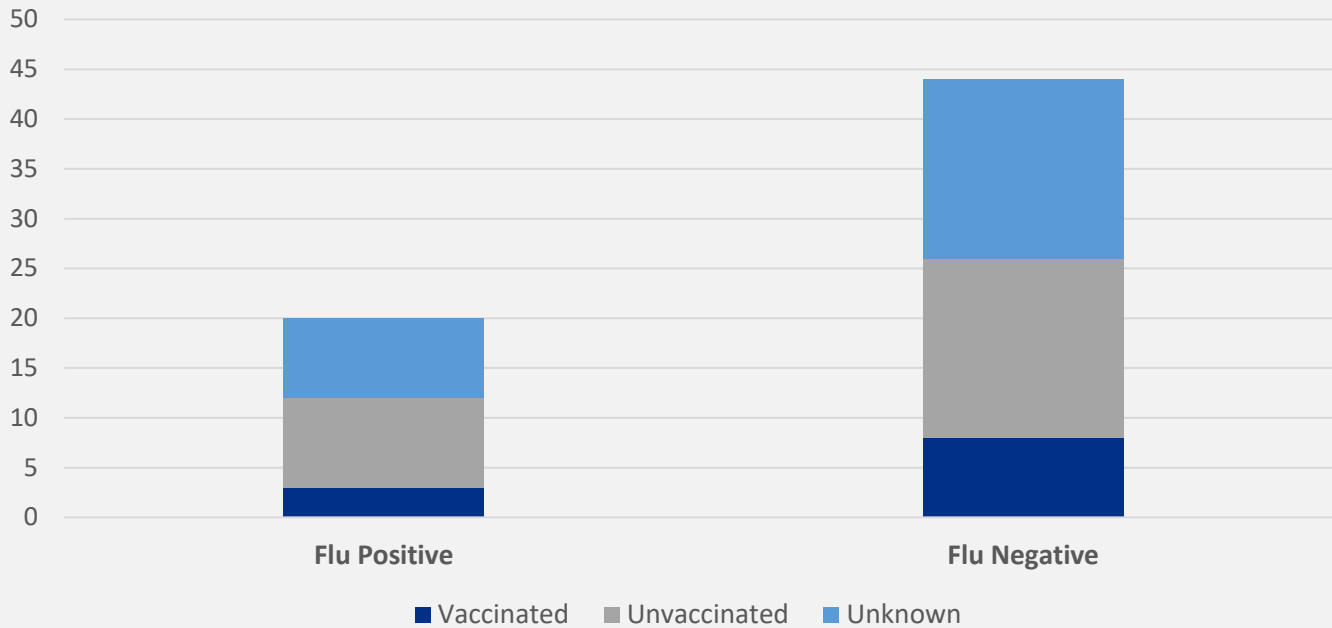
FLU A VS FLU B



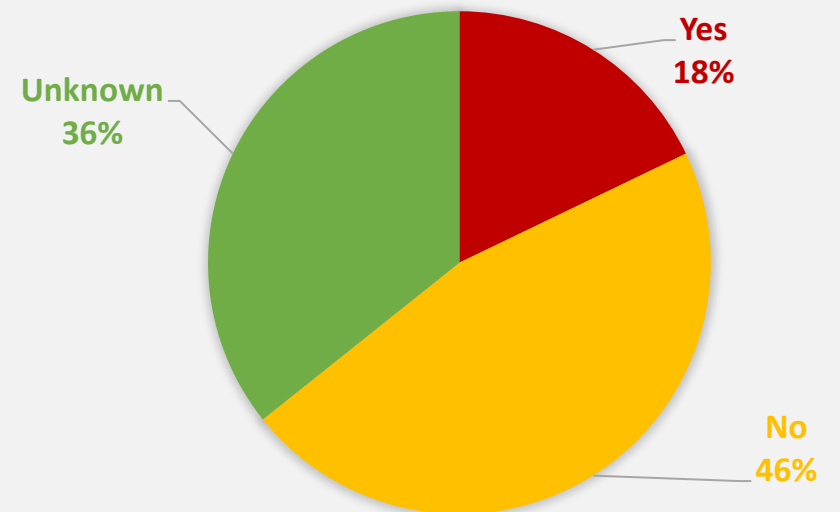
Flu Test Results vs Travel History



Influenza Results vs Vaccination Status

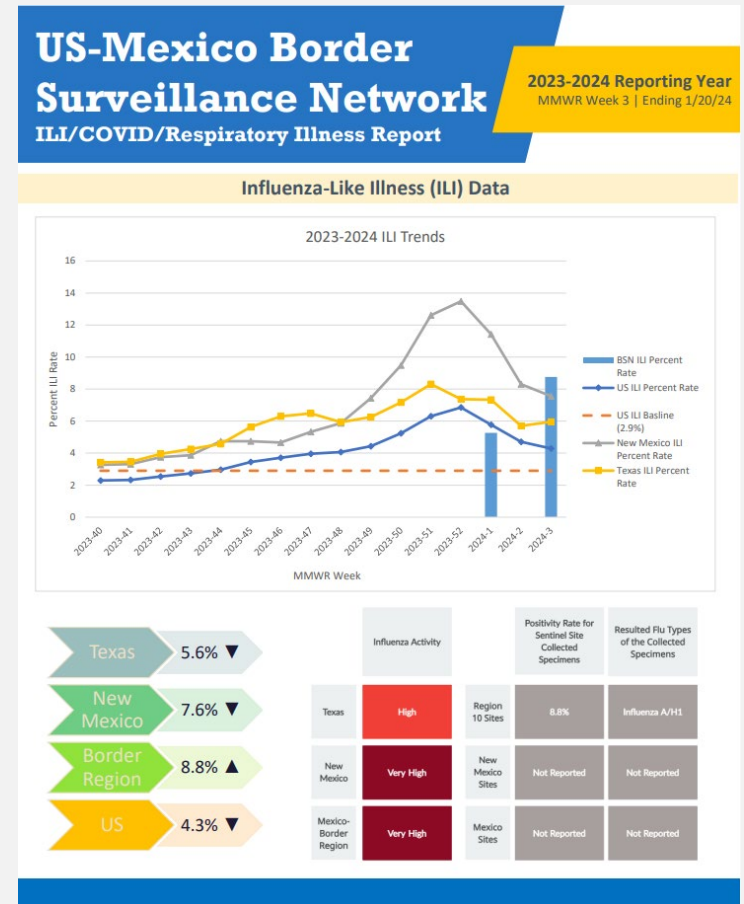


INFLUENZA VACCINATION RATES



Border Influenza Surveillance Network Report

- A respiratory illnesses data report for counties along the West Texas-Mexico Border.
- Distributed to local, regional, state, and federal programs and other non-Texas BIDS partners.
- Other data comes from ESSENCE Syndromic Surveillance, Texas DSHS dashboards, ILINet, and FluView



Future Direction

Expansion Regionally and in Texas



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Next Steps

- Ojinaga, Mexico clinics invitation into the project.
 - Orientation and Training scheduled for August 2024
 - All CDC import permits have been acquired
 - NHRC is working on translation of documents.
- Discussions are being held with the local health authority in El Paso, TX.
- Future Expansion regionally
 - Culberson & Hudspeth County
- Invitation to the Ysleta del Sur Pueblo to participate in the project as well.
- Potential state expansion into PHRs 8 & 11

Resources

- Torres, D. (2020) - BIDS/NHRC Collaboration for Enhanced Virologic, COVID-like Illness (CLI), and Severe Acute Respiratory Infection (SARI) Surveillance Protocol.
- Torres, D. (2020) Enhanced Influenza-Like Illness (ILI) / COVID-Like Illness (CLI) Surveillance Protocol adaptation for Texas Department of State Health Services Public Health Region 9/10 to include specimens from Ojinaga, Chihuahua, Mexico.
- United States-Mexico Binational Technical Work Group. (2015) Operational Protocol for U.S.-Mexico Binational Communication and Coordination on Disease Notifications and Outbreaks.
- U.S. Department of Health and Human Services (HHS) and the Secretariat of Health of Mexico. (2012) Technical Guidelines for United States—Mexico Coordination on Public Health Events of Mutual Interest.

Thank you!
¡Gracias!

obph@dshs.texas.gov

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