



**On-farm health screening needs of immigrant dairy workers in the Texas Panhandle and South Plains**

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# LEARNING OBJECTIVES



*By the end of this presentation, the audience will be able to:*

- Recognize sociodemographic and occupational characteristics of dairy workers in the Texas Panhandle and South Plains.
- Review on-farm health risk screening needs of dairy workers in the Texas Panhandle and South Plains.
- Interpret findings for evidence-based practice (EBP) planning for improving health and well-being of dairy workers by addressing known barriers to health when organizing on-farm health risk screenings.

## ***Reported needs***

*Diabetes type 2, hypertension, musculoskeletal (MS) pain, dental hygiene problems, undiagnosed/untreated mental health disorders, social isolation*

# **Systemic barriers to health service access**

- **Cost, lack of health insurance**
- **Communication, culture, literacy**
- **Conflicting work schedules (*dawn-to-dusk*)**
- **Lack of childcare**
- **Limited knowledge of health center locations**
- **Lack of specialty services in rural regions**
- **Transient lifestyles**
- **Fear of law and immigration enforcement**



# U.S. Dairy Industry



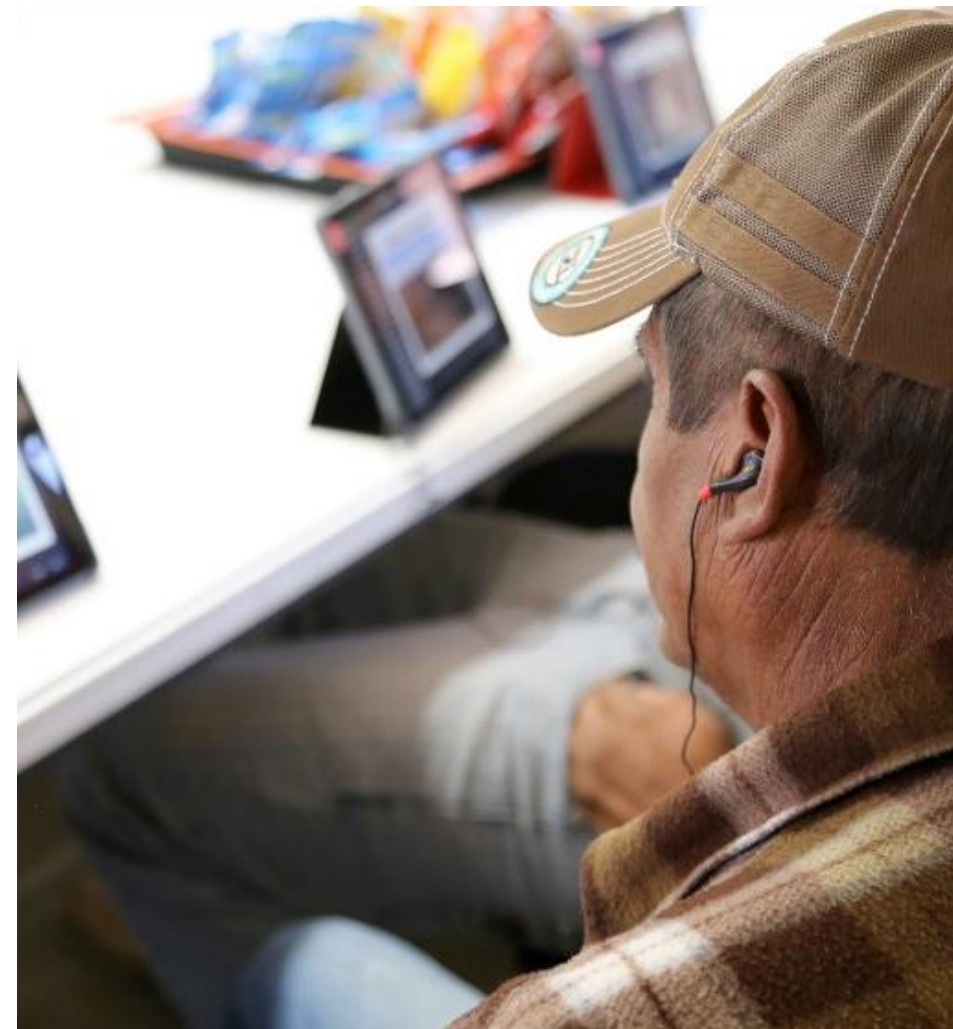
- **Non-seasonal** (*365 days a year, 7 days a week, 24-hours a day*)
- **Integrated system with inherent hazards** (*injury prone*)
- **99% family owned & operated**
- **High dependency on foreign labor** (*increase in H2A, TN visas*)

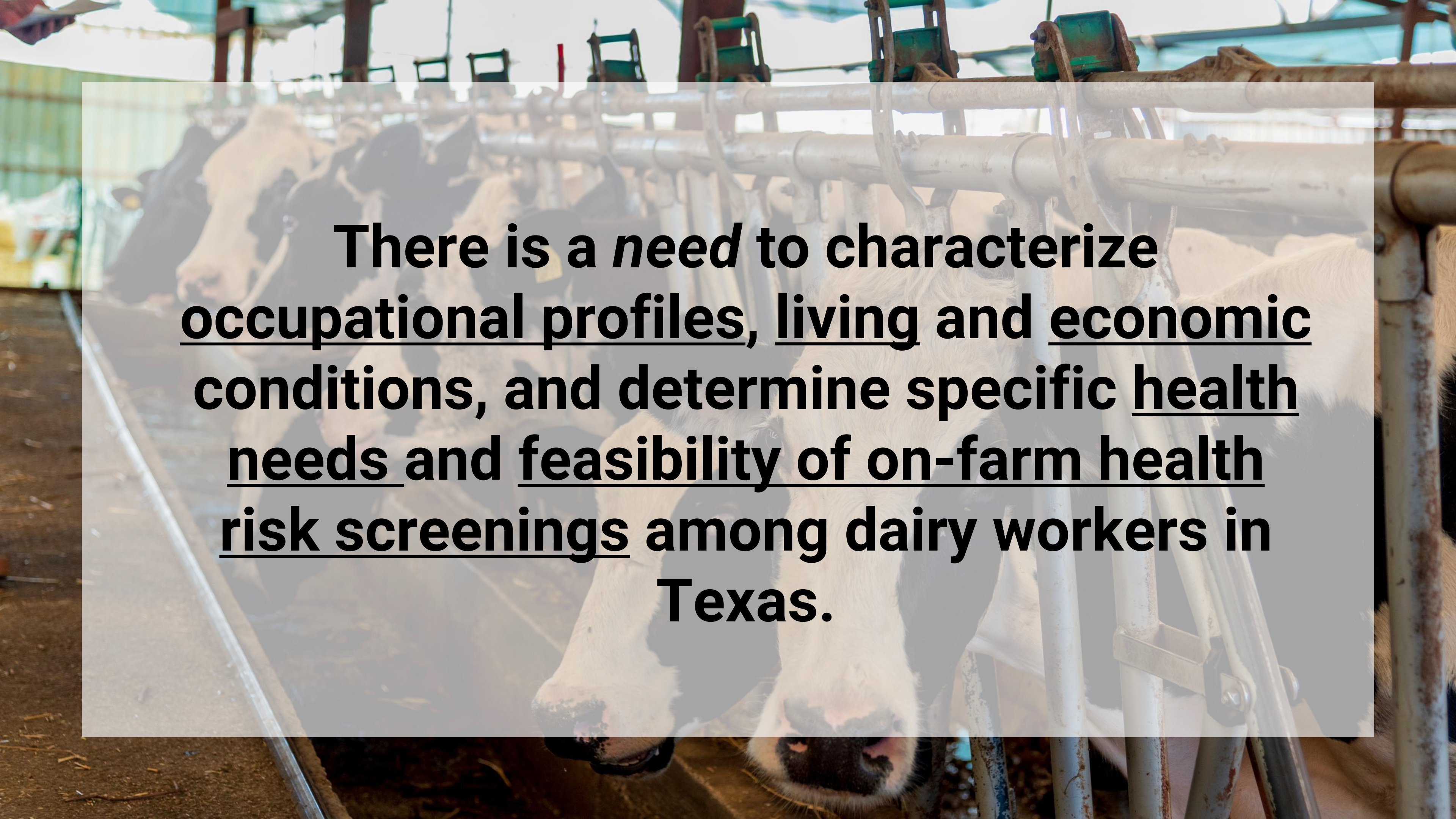
## Dairy Workers

- **Immigrant**
- **Hispanic**
- **Male**
- **30 -35 years of age**



- **Limited English-proficiency**
- **Limited literacy**
- **Living below poverty level**





**There is a *need* to characterize occupational profiles, living and economic conditions, and determine specific health needs and feasibility of on-farm health risk screenings among dairy workers in Texas.**



# Study approach

**300 dairy farm workers surveyed** ( $\geq 18$  years of age and employed on dairy)  
**Representing 22 large-herd farms in the Panhandle**

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**20 sociodemographic questions**

**13 health care needs assessment questions**

*Adopted by NAWS and NIOSH Well-Being*

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# Data collection

- English and Spanish research personnel
- Qualtrics Mobile Survey Software (*offline feature*)
- 15-minute survey, \$10 Walmart gift card
- April 2020 - July 2021



## Sociodemographic characteristics

- Immigrant, Hispanic (88.8%) males (83.0%)
- 5 days to 44 years in the United States
- 34.4 (SD 9.9; Range 18 - 79)
- Elementary/middle school education (39.8%)
- Spanish (87.3%), K'iche' (2.0%)

## Occupational profile

- Milkers (22.0%), 7.2 (SD 8.5; Range 0 -56) years of dairy experience
- 6.0 (SD 0.4; Range 3-7) days a week
- 9.9 (SD 1.5; Range 6-13) hours a day
- Paid sick time (31.7%)



## Living conditions

- Married (59.1%), 2.7 (SD 1.4) children
- Renting (32.7%), employer housing (10.7%)
- Co-workers (28.3%), multigenerational (12.0%)
  - Household residents 4.4 (Range 1 -12)

## Economic status

- Hourly rate: \$13.40 (SD \$2.8) USD
  - Range \$8.10 - \$30.00
- Individual annual income < \$39,999 (80.0%)

## Self-reported health needs assessment

- "Very good" (38.5%), "Good" (33.8%)
- Non-smokers (83.6%)
- 5.8 (Range 1 - 35) alcoholic drinks per week
- 6.9 (Range 3 -12) hours of sleep
- Health insurance (55.7%), PCP (24.0%)
- **Attend on-farm screening (93.8%)**



**Rank top five health care services by importance: 1 being "most important" and 5 being "least important" if offered on the farm for free:**

*(a) Workplace interventions, (b) nutritional & physical fitness support, (c) preventative care, (d) mental health, (e) laboratory & diagnostic care*

**Table 4.** Top five specific health care services ranked by importance: 1 being “most important” and 5 being “least important” among dairy farm workers in the Texas Panhandle-South Plains region ( $n = 300$ ).

Service Category	Top 5 Specific Services (Mean Rank)
<i>Preventative Care</i>	<p>All</p> <ul style="list-style-type: none"> <li>(1) Vision (2.1)</li> <li>(2) Dental (2.4)</li> <li>(3) Cardiovascular exam (2.7)</li> <li>(4) Chronic disease management (2.7)</li> <li>(5) Vaccinations (2.9)</li> </ul>
<i>Males</i>	<i>Females</i>
<ul style="list-style-type: none"> <li>1. Vision (2.1)</li> <li>2. Dental (2.4)</li> <li>3. Cardiovascular exam (2.7)</li> <li>4. Chronic disease management (2.8)</li> <li>5. Vaccinations (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>(1) Vision (1.8)</li> <li>(2) Mammogram (2.2)</li> <li>(3) Dental (2.3)</li> <li>(4) Pap smear (2.4)</li> <li>(5) Chronic disease management (2.5)</li> </ul>
<i>Laboratory &amp; Diagnostic Care</i>	<ul style="list-style-type: none"> <li>(1) Blood pressure check (1.9)</li> <li>(2) Blood glucose check (2.11)</li> <li>(3) Cholesterol check (2.8)</li> <li>(4) Tuberculosis test (3.1)</li> <li>(5) HIV/AIDS status screening (3.6)</li> </ul>
<i>Nutritional &amp; Physical Fitness Support</i>	<ul style="list-style-type: none"> <li>(1) Nutrition classes (1.9)</li> <li>(2) Weight management (2.7)</li> <li>(3) Healthy cooking classes (2.7)</li> <li>(4) Gym membership (2.7)</li> <li>(5) Workout equipment at work (3.1)</li> </ul>
<i>Mental Health Care</i>	<ul style="list-style-type: none"> <li>(1) Anxiety treatment (2.4)</li> <li>(2) Depression treatment (2.7)</li> <li>(3) Stress management (2.6)</li> <li>(4) Controlling anger/emotions therapy (3.0)</li> <li>(5) Substance abuse therapy (3.8)</li> </ul>
<i>Workplace Interventions</i>	<ul style="list-style-type: none"> <li>(1) Workplace health &amp; safety training (1.6)</li> <li>(2) Workplace hazard control (2.2)</li> <li>(3) Job stress management (2.9)</li> <li>(4) Workplace violence and bullying prevention (3.0)</li> <li>(5) Workplace visiting health care nurses (3.3)</li> </ul>

## Health information resources

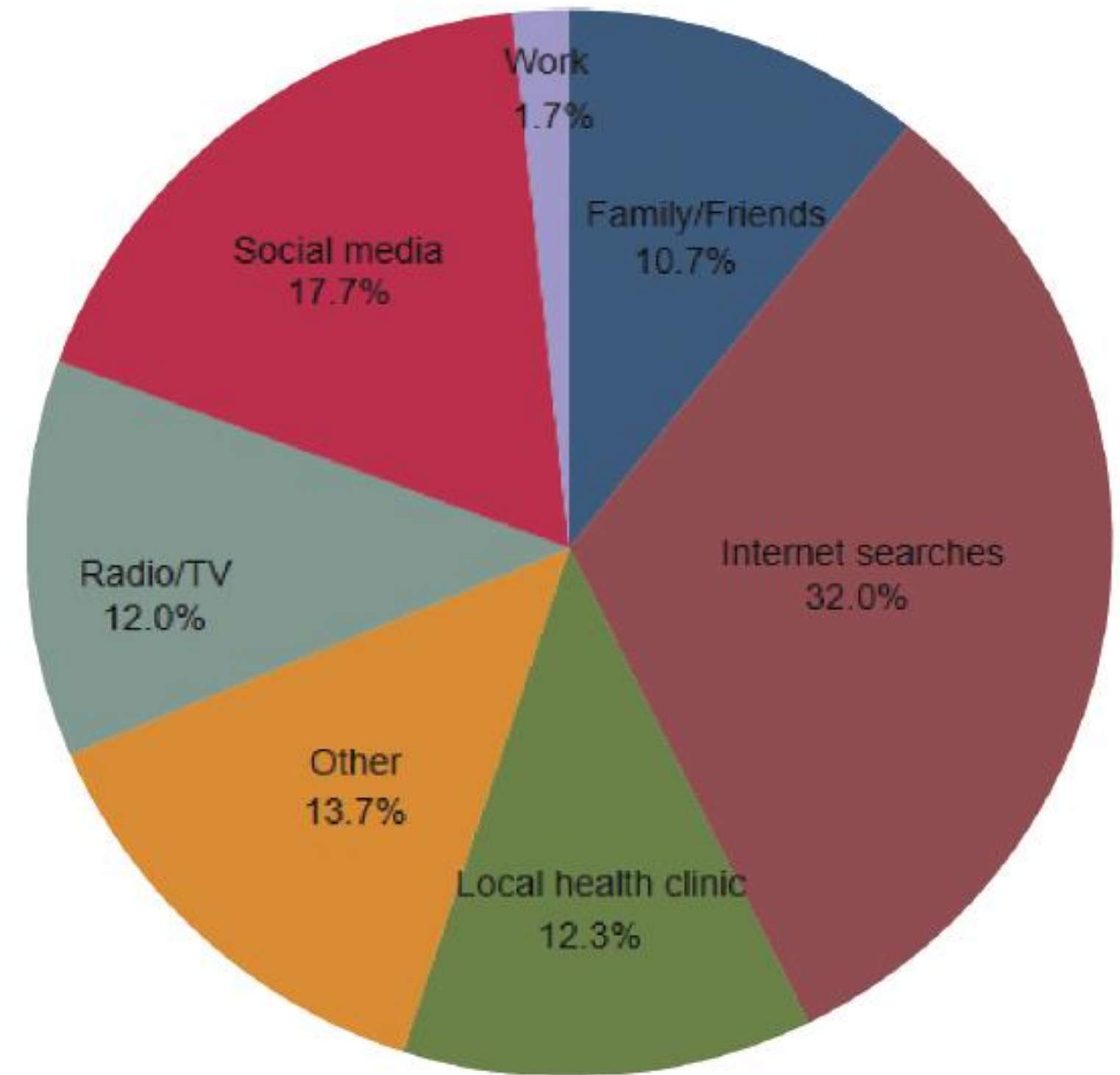
- Obtaining health information from internet searches (32.0%) and social media (17.7%)

## On-site health screenings

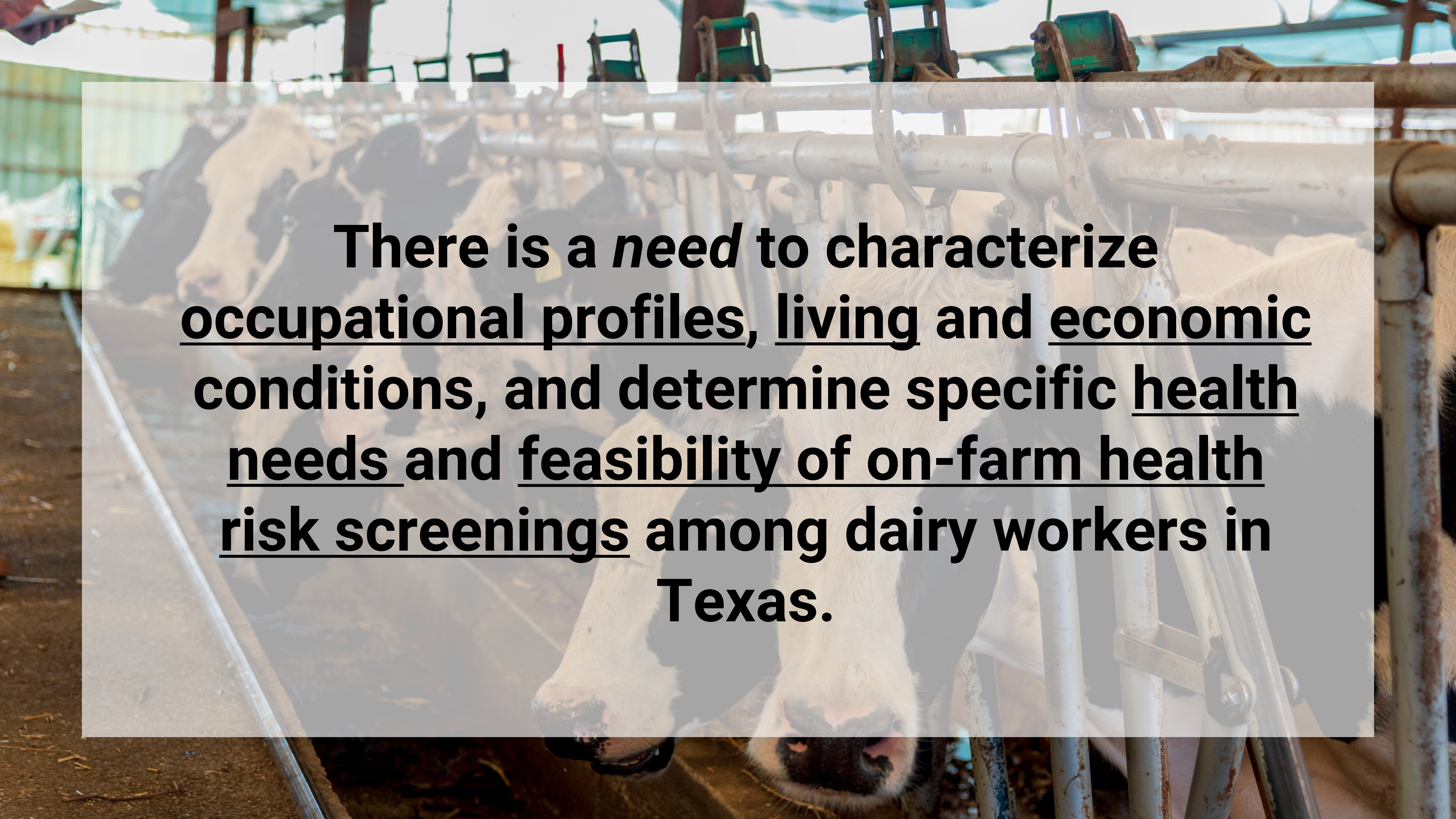
- 90.0% attend with families
- 93.0% continue working for current farm employer

## COVID-19 and vaccines

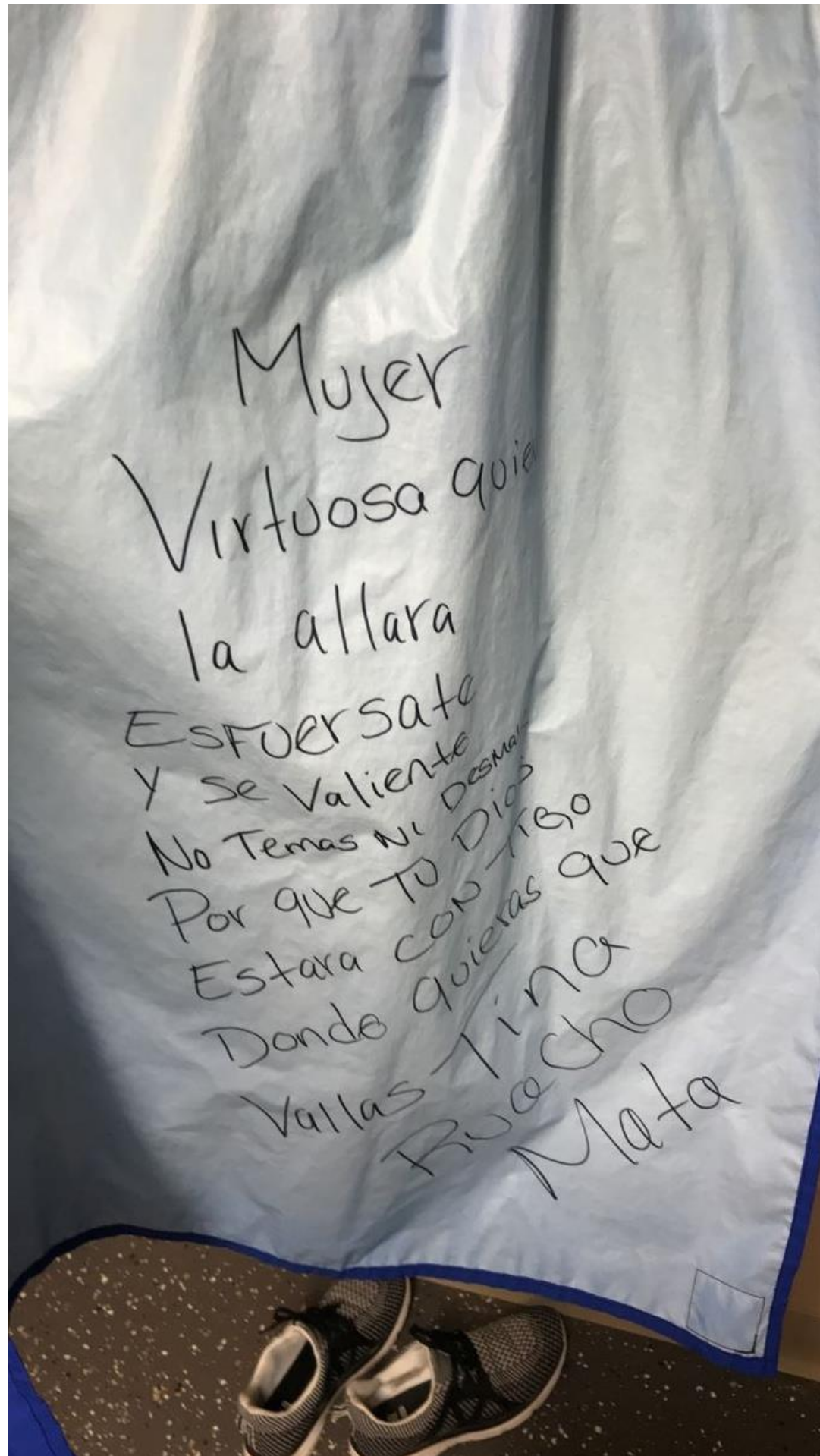
- 95.7% how to prevent transmission
- 86.4% interested in COVID-19 vaccine



**Figure 1.** Diverse sources of health information among immigrant dairy farm workers in the Texas Panhandle-South Plains region ( $n = 300$ ).



**There is a *need* to characterize occupational profiles, living and economic conditions, and determine specific health needs and feasibility of on-farm health risk screenings among dairy workers in Texas.**



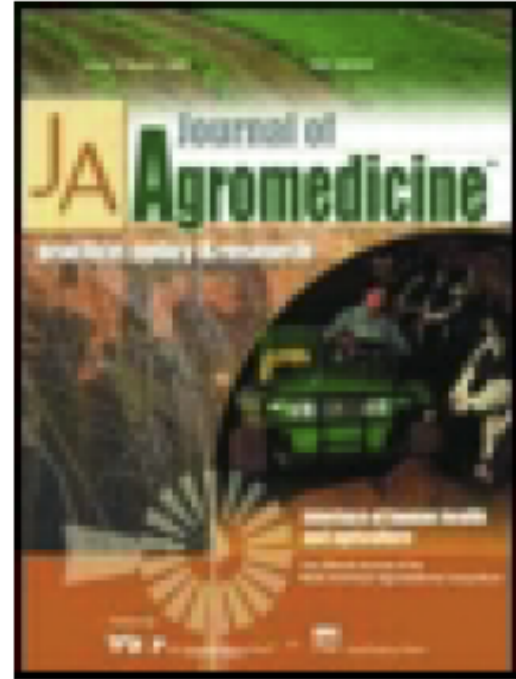
# What did we find?

- Immigration status is a social determinant of health rooted in public health, economic, and political inequities.
- Demographics consistent with previous studies, except for Guatemalan (K'iche' speaking) representation
- New hiring trend of H2A visa workers
- Recruitment strategy for employers: on-farm health screenings (93.0% *reason to stay*)
- Perceived health better than Texans
- Close to poverty threshold for 2020 (\$31,417 for a family of five)
- Insurance coverage 55.7% vs 92.% (US) in 2019

# What about on-farm screenings?



- *93.8% would attend - interest & need*
- **On-site health screenings can overcome historical barriers to health:**
  - Family-based medicine
  - Involve local public health, CBO, academic institutions (leverage grants), industry
  - Include point-of-care testing for diabetes, hypertension, CVD, kidney function, MS
  - Mental health screenings
  - Linguistically, culturally, literacy appropriate
  - Intentional in referring abnormal results
  - Provide health education
- *Dismantling systemic barriers should be paramount to organization of screenings*



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**To access this article:**





## Outreach

[Visión general](#)

[Enfermedades Infecciosas en el Trabajo](#)



### [¿Que son las enfermedades infecciosas?](#)

Las enfermedades infecciosas son causadas por gérmenes como bacteria, virus, hongos, y parásitos que afectan la salud de las personas. Estas enfermedades pueden transmitirse de persona a persona directamente (cuando estas cerca de una persona enferma) o indirectamente (cuando tocas algo que tiene gérmenes). Hay algunas enfermedades en animales que afectan también a los humanos. Por eso los humanos también pueden llegarse a enfermar si tienen contacto con animales enfermos.



### [¿Qué es la Influenza?](#)

La influenza (o mejor conocida como la gripe) es una enfermedad respiratoria contagiosa causada por el virus de la influenza que afecta la nariz, la garganta, y los pulmones. Hay dos tipos de influenza; la tipo A y la tipo B.



### [¿Qué es tétanos?](#)

El tétanos es una infección causada por una bacteria. Esta bacteria invade el cuerpo y produce un veneno que provoca dolorosas contracciones musculares.



### [¿Qué es Tuberculosis \(TB\)?](#)

La tuberculosis (TB) es causada por una bacteria llamada Mycobacterium tuberculosis. Esta bacteria usualmente ataca los pulmones, pero también puede atacar cualquier otra parte del cuerpo como los riñones, la columna vertebral o el cerebro. No toda la gente infectada con la bacteria de la TB se enferma o tienen síntomas. Existen dos tipos de TB: la tuberculosis latente (la cual puede vivir en su cuerpo sin que usted se sienta enfermo) y la tuberculosis activa, la cual puede ser letal.



### [¿Qué es la Hepatitis A \(VHA\)?](#)

La hepatitis es la inflamación del hígado, la cual afecta su funcionamiento normal.



### [¿Qué es la Hepatitis B \(VHB\)?](#)

La hepatitis B (VHB) es otro virus que puede causar inflamación del hígado.



### [¿Qué es la viruela del mono?](#)

La viruela del mono es una enfermedad infecciosa poco común causada por el virus de la viruela símica. La viruela del mono no está relacionada con la varicela, es parte de la misma familia de virus que la viruela. Los síntomas de la viruela del mono son muy similares a los de la viruela normal, pero más leves. La viruela del mono es muy raramente fatal.



### [¿Qué es el Coronavirus COVID-19?](#)

El COVID-19 comúnmente causa síntomas respiratorios que son muy parecidos a la gripa o neumonía. COVID-19 puede atacar más a tus pulmones y sistema respiratorio.

# SWCOEH Outreach Program

 UTHealth<sup>®</sup> Houston  
School of Public Health

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Southwest Center for  
Occupational and  
Environmental Health



Bailey  
Castro  
Deaf Smith  
Hale  
Hidalgo  
Lubbock  
Parmer  
Willacy  
Cameron  
Dallam  
El Paso  
Hartley  
Lamb  
Moore  
Starr

variants, and vaccines continues to evolve. For updated information, check other trusted sources like the CDC.

### Bailey County Resources

#### COVID-19 TESTING AND FLU AND COVID-19 VACCINE SITES SITIOS PARA LA PRUEBA Y LA VACUNA DE COVID-19

COVID- 19 Testing Sites maps | Mapa para los sitios de prueba para COVID-19  
[epstrong.org/testing.php#map](http://epstrong.org/testing.php#map)

Covid-19 Vaccine And Flu Locator Map - Mapa Para Encontrar Locación De Vacunas Para Covid-19 Y Gripa [vaccines.gov/search](http://vaccines.gov/search)

COVID-19 Hotline | COVID-19 línea directa: (915) 212-6843  
\*Over 240 Languages Spoken | Mas de 240 idiomas disponibles

**K & K Pharmacy** (806) 392-1300  
1411 W American BLVD, Muleshoe, TX 79347

**Roosevelt General Hospital** (575) 356- 3445  
42121 US-70, Portales, NM 88130

**United Pharmacy** (806) 272-3169  
104 W 9th St, Muleshoe, TX 79347

**Walmart** (575) 359-3420  
1604 E Spruce ST, Portales, NM 88130

**Walmart** (575) 769-2261  
3728 N Prince ST, Clovis, NM 88101

#### FUNERAL ASSISTANCE – ASISTENCIA FUNERARIA

Covid-19 Funeral Assistance - FEMA  
844-684-6333 Call to apply

#### LEGAL AND OTHER ASSISTANCE

**Bailey County Indigent Health Care**  
708 South ST, Muleshoe, TX 79347  
(806) 272-4524

**Catholic Charities Immigration and Legal Services - serves Bailey County**  
1421 W Mockingbird LN, Dallas, TX 75247  
(469) 801-8179  
<http://www.ccdallas.org>

**Legal Aid of North West Texas (LANWT) Serves Bailey County**  
305 W 7thh ST, Plainview, TX 79072  
(800) 955- 8491  
(806) 293-8491  
<http://www.lanwt.org>

#### WIFI SERVICES- INTERNET GRATUITO

Map of free WIFI in Texas  
<https://trla.maps.arcgis.com/apps/instant/nearby/index.html?appid=a9d55f725956422dbc810ae9d40f7a78>

Spanish version of the map  
<https://trla.maps.arcgis.com/apps/instant/nearby/index.html?appid=10e7d0cd23f7488aba9b3f5b21272024&locale=es>

#### HOUSE EXPENSES | GASTOS DEL HOGAR

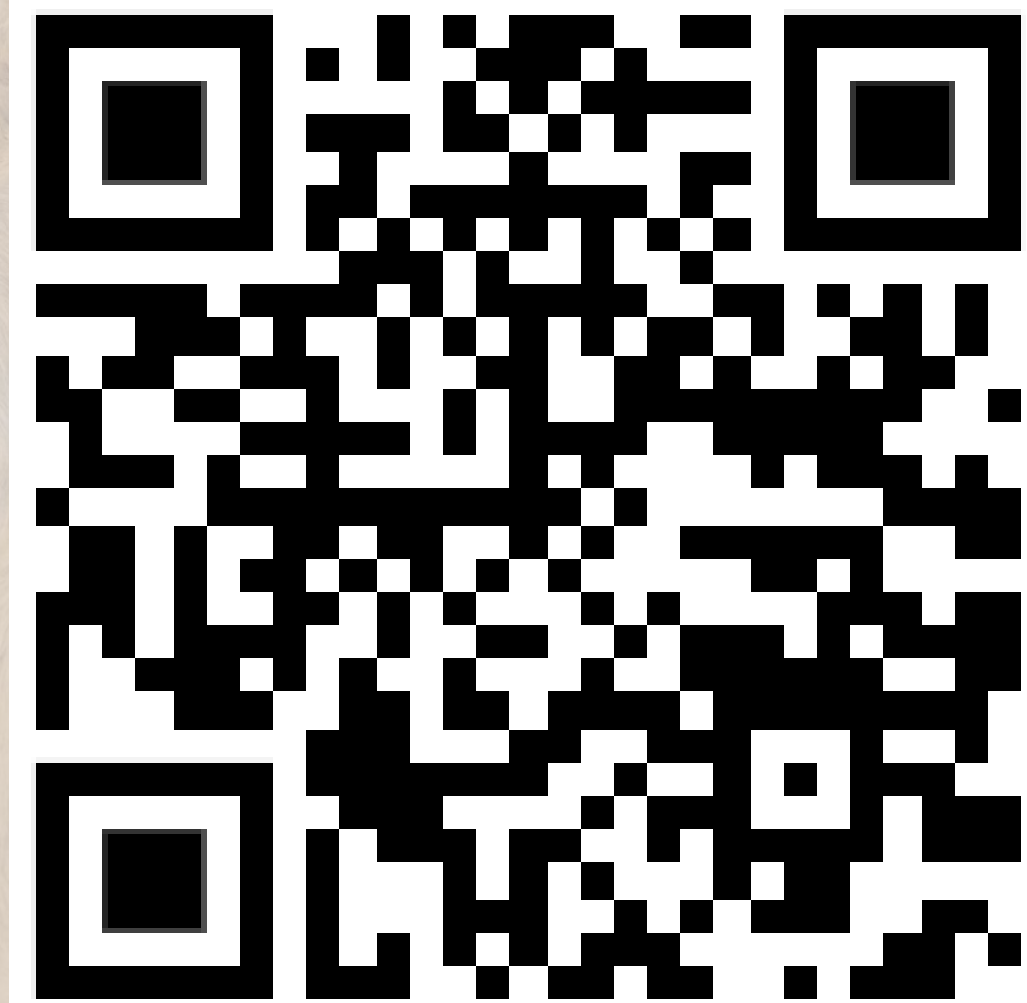
**South Plains Community Action Association, Inc.**  
804 W. American BLVD, Muleshoe, TX, 79347  
(806) 272-7537  
[www.spcaa.org](http://www.spcaa.org) (link is external)

**Texas Department of Housing and Community Affairs**  
1-800-525-0657  
<http://tdhca.state.tx.us/>

# TEPHI Rural Counties Resource Lists

**TEPHI**

TEXAS EPIDEMIC PUBLIC HEALTH INSTITUTE



A photograph of a man and a woman at a construction site. The man, on the left, has a grey beard and mustache, wears a grey baseball cap and a high-visibility yellow safety vest over a blue shirt. The woman, on the right, has dark hair with sunglasses perched on top, wears a blue button-down shirt, and has her arm around the man's shoulder. They are both smiling. The background shows a blurred construction site with wooden framing and a bright sky.

# Gracias Thank You

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