



H5N1 Focus Groups with Dairy and Poultry Workers Summary Report

National Center for Farmworker Health

May – September 2025

Introduction

As of September 26, 2025, 70 human cases of H5N1 have been reported to the CDC since April 2024.¹ To date, H5N1 has primarily affected dairy workers with direct exposure to infected cows, as well as poultry workers involved in culling chicken flocks infected with H5N1. There is limited information on workers' perspectives on this issue, which we sought to address through these focus groups with dairy workers. These focus groups build on the initial listening session that NCFH staff facilitated with dairy workers from different states and with CDC staff in June 2024² and the focus groups conducted with dairy workers in Colorado, Michigan, and Texas from June to September of 2024.³

Objectives

- To assess dairy and poultry workers' attitudes, knowledge, behavior, and perception on H5N1.
- To assess dairy and poultry workers' knowledge and perception of access to hygienic practices on dairy farms.
- To assess dairy and poultry workers' knowledge and perception of biosecurity practices in dairy farms.

Methods

Participant Eligibility

Inclusion criteria for focus group participants were that they were:

- 1) At least 18 years of age or older
- 2) They must have worked on a dairy or poultry farm for at least one month since March 2024.

Participants received a \$50 gift card as compensation for their time.

Recruitment and Data Collection

The National Center for Farmworker Health (NCFH) staff facilitated two focus group discussions with dairy workers about H5N1 Bird Flu from Doña Ana and Luna Counties, New Mexico (May 2025) and one focus group with poultry workers in Harnett County, North Carolina (September 2025). Focus group participants were selected using snowball sampling, beginning with referrals



from local outreach workers. Participating workers were also allowed to invite workers they knew.

Focus group discussion guides were developed by NCFH staff and reviewed by CDC personnel. Guides were translated into Spanish by NCFH staff. Informed consent was verbally granted before starting the recordings. All focus groups were an hour long, conducted in-person in Spanish, and recorded by a trained facilitator and notetaker from NCFH staff. Staff took notes and debriefed on key findings after each focus group.

Analysis

Thematic analysis was conducted for focus group discussions through Card Sorting. The Card Sorting methodology creates a thematic architecture from the qualitative data. Answers from participants are pulled out and put into individual cards or electronic sticky notes. One trained NCFH staff member then reviewed and sorted responses based on major themes identified in responses, thus creating the thematic architecture, like other thematic analysis methods. Two other trained staff reviewed the thematic architecture developed and discussed modifications as needed.

Key Findings

There was a combined total of 25 participants in three focus group discussions. Each dairy worker focus group consisted of 8-12 dairy workers. The poultry worker focus group discussion had 5 participants. Participants did a variety of duties on dairy and poultry farms, including milking cows, livestock management, raising calves, nursing sick cows, collecting eggs, and taking care of chickens in broiler farms.

Demographics

Participants ranged in age from their early twenties to their late sixties. All participants have a history of work in dairy farms or poultry farms. Some dairy workers have also worked in dairy in Mexico. All dairy worker participants were males from Mexico. All poultry worker participants were from Honduras. Three of them were female, and two were male.

Knowledge of H5N1 Bird Flu

Dairy worker participants' knowledge of H5N1 was dependent on their role on the farm and whether community health workers had visited them. Community health workers' access was dependent on permission granted by farm owners, as well as the time of day. In general,

specific knowledge of H5N1, its symptoms, and methods of protection from transmission was not common among participants. Milk parlor workers were advised by their employer to be aware of a possible infection affecting cows; however, the employer did not specify H5N1, and participants were not told they could also be infected with the virus. One participant noted that the warning was brief and without explanation. Poultry workers were given instructions on modifications to existing protocols to protect poultry from infection. Participants from all focus groups stated that they had not received information from employers on proper ways to protect themselves from H5N1. Participants discussed receiving general health information from community health workers as well as free personal protective equipment (PPE), such as masks and gloves. Participants reported hearing of a possible livestock infection in the area; only one participant reported avian flu cases in Mexico. While all poultry worker participants had said they had heard about H5N1, they all noted that the information provided to them was limited and only in relation to the health of the chickens. They had not been informed of the potential risk of infection with H5N1 themselves and were only told about the risk in the animals.

“Creo que ahí hubo 2 personas en enero, infectadas. Y este es lo que se sabe, ¿no? Ya no supe más, pero creo yo que por eso están estas campañas porque ya se empezó a venir para esta área. Lo que es México, no sé en Estados Unidos, pero en México sí hay casos.”

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“I think that there were 2 people in January, infected. And this is all I know, ¿right? I don't know anymore, but I think that is why these campaigns are being carried out, because it has already started to come to this area. What I know is that in Mexico, I don't know about the United States, but in Mexico, there are cases.”

- New Mexico dairy worker

All participants were asked what the symptoms of H5N1 are, and some participants described common respiratory infection symptoms such as fever, but discussed how the symptoms, due to their similarity with other respiratory infections, are difficult to distinguish between COVID-19, the common cold, H5N1, etc. None of the participants described conjunctivitis as a symptom. Participants later agreed with each other that cases could become severe.

“Pues infecciones respiratorias como todos, algo así.”

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“Well, respiratory infections like all the others, something like that.”

- New Mexico dairy worker

“Es que... casi todo, siempre se confunde con una gripe, como que no sabe uno qué es lo que tenga uno, si la fiebre aviar, COVID o un resfriado normal.”

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“It’s just that... almost everything is always confused with a flu, like, one doesn’t know what you have, if bird flu, COVID, or a normal cold.”
- New Mexico dairy worker

Working Conditions, Personal Protective Equipment, and Biosecurity

Participants were asked if they received gloves, masks, goggles, face shields, head coverings, rubber boots, and fluid-resistant overalls or aprons from their employer. Poultry worker participants stated that their access to PPE depended on the type of work they were doing, with those handling broilers receiving gloves and masks, while those working with eggs only received aprons. Egg collector workers stated that they could get gloves upon request from their employers. Participants from both dairy worker focus groups stated that those working in the milk parlor received one box of gloves per month, with each box containing 50 pairs. Participants noted that while receiving 50 pairs per month was standard, some workers were able to ask for more and received another box, while others were unable to ask for more.

“Si a nosotros nos dan una caja por mes.”

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“Yes, they give us a box per month.”

- New Mexico dairy worker

However, those working outside the milk parlor did not receive the same PPE from their employers. Dairy worker participants stated that all other materials, such as fluid-resistant overalls, boots, sleeves, goggles, and others, must be purchased by the individual. One dairy worker participant noted that a few years ago their employer used to provide boots for new workers; however, this changed, and participants did not discuss a reason.

“Uno tiene que comprar, pues lo que necesitas, porque nomás nos dan guantes. Es todo lo que nos dan. Ya si uno quiere tapabocas o mangas, sombrero, lentes [los compra].”

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“One has to buy what they need, because they only give us gloves. It’s all they give us. So if you want masks or sleeves, a hat, glasses [you buy].”

- New Mexico dairy worker

Dairy worker participants noted that, depending on the job, workers are routinely exposed to cow’s milk, blood, feces, urine, and pus. These participants discussed that those working with sick cows, pregnant cows, and in the milk parlor are the most exposed to cow fluids compared

to other roles. One of these participants described how working with a sick cow leads to exposure to bodily fluids.

“Si [la vaca] tiene algún absceso, se revienta, el pus se puede saltar en la cara, en las manos. Nariz y todo.”

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“If they [the cow] have any abscess, it bursts, pus can jump on the face, on the hands. Nose and everything.”

- New Mexico dairy worker

When discussing the usage of personal protective equipment (PPE), all participants agreed that their health and safety depended on proper usage and access to PPE. Dairy worker participants noted that in the past, a safety monitor enforced use of PPE, but this seems to no longer be the case.

“Era obligatorio los lentes, era obligatorio la de mascarilla. Y el que no lo traía, [le daban] un warning, o se iba. Así era obligatorio. Duró un tiempo.”

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“Goggles were mandatory, masks were mandatory. And whoever didn’t have it, [were given] a warning, or they would have to leave. It was mandatory. It lasted a while.”

- New Mexico dairy worker

Participants from all three groups also described how the usage of certain PPE indoors decreases the safety of their operations; they emphasized the need for PPE to be practical as well as readily available. For example, one of the broiler farm workers described how uncomfortable wearing gloves in the summer is due to the high heat and humidity and the potential risk of infections.

“El respirador es muy difícil, el lente también. A veces tiende a sudar y de lo mismo se empaña, y ya no tienes la visión adecuada, exactamente.”

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“The respirator is very difficult, the goggles as well. Sometimes you tend to sweat and they fog up from that, and then you don’t have adequate vision, exactly.”

- New Mexico dairy worker

“Tengo que quitarme los guantes casi cada corral, casi cada trampada porque pues se me moja el guante.”

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“I have to take off my gloves nearly every round-up,, nearly every 'trampada' [movement of cattle into the milking parlor] because the gloves get wet.”

- New Mexico dairy worker

The conversation continued with one dairy worker participant stating that implementing proper PPE use would be difficult due to challenges in changing work habits. The participant noted that during the pandemic, dairy workers struggled to use PPE consistently, but they became accustomed to it over time.

“Vamos a batallar mucho para imponernos porque estamos mal impuestos a no usarlas. También eso hay que decirlo. Pero sería un proceso para imponerse a hacerlo, así como en la pandemia de primero batallábamos con el cubrebocas, después nos impusimos, pero sí se necesita también poner de nuestra parte para no infectarnos.”

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“We are going to struggle a lot to get used to it because we are unaccustomed to not using them. That needs to be stated. But it would be a process to get used to, just as in the pandemic, first we struggled with the masks, then we got used to them, but yes, it is also necessary to do our part to avoid infection.”

- New Mexico dairy worker

Participants acknowledged the complexity of factors involved in using PPE, including the responsibility of employers to provide PPE and create accommodations for employees to be able to use it properly, and their own personal responsibility to make sure they used PPE. Multiple participants discussed the importance of adequate access to PPE and how employers often overlook this access until it starts to affect production.

“Pues sí, falta mucho, mucho este material para poder combatir esas enfermedades. Pero también depende mucho de nosotros que usemos todo adecuadamente. Es que es toda una cadena. Una cadena, pero ellos son los que tienen que empezar a facilitar las cosas para nosotros, usarlas también. Y sí, pues que haya una regla que tienen que te los voy a dar, pero tienes que usarlos.”

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“Well, yes, there’s a lot of need, a lot of material needed to be able to combat these diseases. But it also depends a lot on us to use everything properly. It’s all a chain. It is a chain, but they are the ones who have to start facilitating things for us to use them. And yes, there should be a rule that they have to give it to you, but you have to use them.”

- New Mexico dairy worker

“Pero es que también eso refleja una falta de interés del trabajo, o sea, desde que se le está contratando se está diciendo mire, un ordeñador tiene que traerse un mandil, tiene que traer sus guantes. Ahora, como dicen, como en otras lecherías, tiene que traer su tapabocas y sus goggles. Es que también ahí tiene que ver mucho la empresa. Ahora cuando tiene interés sobre su trabajador es porque también le preocupa la producción. Se dice, si yo no mantengo contento a mi trabajador, mi producción va a bajar. Mientras mi trabajador esté trabajando a gusto, mi producción va a seguir adelante”

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“But this also reflects a lack of interest from work, that is to say, from the moment one is hired, they are saying, look, a milker has to bring an apron, he has to bring his gloves. Now, as they say, as in other dairies, they have to provide their masks and goggles. The company also has a lot to do as well. Now when they have an interest in their worker is because they are concerned about production. They say, if I don't keep my workers happy, my production will go down. As long as my worker is happy while working, my production will continue.”

- New Mexico dairy worker

The focus group discussion allowed workers to discuss changes they had noticed in their working environment due to H5N1. One dairy worker participant noted that people transporting milk had started wearing boot coverings when traveling to different dairy farms, a change they believed workers should adopt. Another dairy worker participant interjected, saying he believed the milk haulers were reusing the same boot coverings from farm to farm, which gave the appearance of safety and biosecurity but did not actually prevent transmission.

“¿Pero sabes lo que hacían? O sea, reponen el cubre zapatos de una lechería y luego el mismo grupo de cubre zapatos se lo ponen para la otra lechería. También es nomás la apariencia.”

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“But you know what they did? I mean, they replace the shoe covers of one dairy and then the same shoe covers are put on another dairy. It is just for appearances.”

- New Mexico dairy worker

While dairy workers noted biosecurity protocol changes due to bird flu, poultry workers described their ongoing practices since the poultry industry has faced H5N1 outbreaks for decades. Part of the biosecurity protocol poultry workers described was disinfecting their boots with a “liquid” before entering the chicken houses and also disinfecting the tires on their cars before leaving the farm. One poultry worker discussed their personal protective practices

that they had developed on their own, such as disinfecting their work boots and clothes before entering their home. All poultry workers also noted the usage of white powder for disinfecting poultry houses. However, they discussed how they were unsure of how to properly use it due to not receiving any training on proper handling of the substance.

Some dairy worker participants brought up differences between the US and Mexico health and safety requirements and biosecurity on farms. One dairy worker participant noted how regulations were so strictly enforced on farms in Mexico that the farms employed people solely to ensure that biosecurity regulations were followed by other employees. The regulations mentioned by these participants were sanitary regulations, such as the availability of disinfectant, as well as entry point regulations, such as enforced entry restrictions, and use of sanitary mats upon entry to the farm.

“Y tapetes sanitarios allá en donde vivimos nosotros, allá en México. Son bien estrictos donde tienen hasta guardias ahí.”

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“And they use sanitary mats where we live, in Mexico. They are really strict to the point where they even have guards [overseers].”

- New Mexico dairy worker

Participants were asked about their access to hygiene, such as bathrooms and the conditions in which they are kept. Poultry worker participants discussed how access to bathrooms was dependent upon job role, stating that those working with broilers used their homes on the farms for bathrooms while at work, since the employer provided their housing. Those working with eggs had access only to portable restrooms cleaned once every three weeks. Dairy worker participants also described how access to bathrooms depended on the work area; for example, those working outside the milk parlor did not have access to portable restrooms, while those within the milk parlor had access to bathrooms in poor condition. Dairy worker participants noted how bathrooms in the milk parlor rarely had soap for handwashing or toilet paper. One dairy worker participant noted how there is no access to drinking water within their work area, with another adding that it is not potable water.

“Para lavarse las manos, ni hay jabón para lavarse las manos.”

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“To wash your hands, there isn’t even soap to wash hands.

- New Mexico dairy worker

“Simplemente el agua, el agua no se puede tomar ahí. No es potable.”

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“Simply put, the water, you can’t drink the water there. It is not potable.”

- New Mexico dairy worker

This discussion of poor conditions and lack of access to properly stocked hand washing stations was similar to the discussion with the other group of dairy workers. They discussed how their work bathroom was old and dirty. They noted that materials had been provided following an accident, but were not replenished after use.

“Sí, porque sí pasó una vez que con el ácido que a uno se le cayó y fue cuando pusieron unos botecitos de que, para este [ácido], pero ya se acabaron y ya nunca pusieron más.”

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“Yes, because it did happen once with the acid that someone dropped it, and that was when they put some buckets that, for it [acid], but they ran out and they never put any more.”

- New Mexico dairy worker

Healthcare Access

Participants were asked about their general access to healthcare in their community, including potential barriers to care, such as their access to transportation and the cost of care. All three groups noted how transportation was not an issue for them, as they had access to a personal car and they did not live far from hospitals and clinics. Participants in one of the dairy worker focus group discussions noted that whenever an on-the-job accident occurred, the manager or owner would personally take the worker to the hospital.

“No es que, en realidad, pues aquí está muy fácil lo del transporte en realidad. Porque están muy cerca los trabajos, igual las clínicas.”

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“No, it’s, in reality, well, here transportation is really easy in reality. Because jobs are really close, as well as the clinics.”

- New Mexico dairy worker

Insurance was a common barrier discussed in all three focus groups. All participants noted that most of them did not have health insurance coverage. One participant noted that, in the past, their employer had offered to deduct insurance premiums from their paycheck, but the cost was too high for workers, who rejected the change.

“Pues es que una vez quisieron poner eso, pero era mucho el dinero que nos querían quitar a uno de la bolsa. Sí, nos dijeron que para tener uno de esos, pero nos iban a quitar \$300 por cada cheque, pues mucho dinero. Y nadie quiso porque pues es mucho dinero, sí.”

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“Well, one time they wanted to put that [insurance], but it was a lot of money that they wanted to take out of our wallet. Yes, they said that for one to have that, well, it was going to cost \$300 from each check; well, that's a lot of money. And nobody wanted it because it's a lot of money, yes.”

- New Mexico dairy worker

All participants also noted how their fear of medical costs and possible medical debt were a barrier for them in accessing healthcare. One participant discussed being already in medical debt.

“Casi la mayoría de los que estamos aquí no tenemos un seguro médico y obviamente tiene que salir de nuestra bolsa y ahorita debo. Tengo una deuda de \$5,500.”

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“Almost the majority of us that are here do not have health insurance, and obviously, it has to come out of our wallet, and right now, I have a debt. I have a debt of \$5,500.”

- New Mexico dairy worker

Participants then noted that most workers continue to work when sick or injured, as long as it does not affect their ability to complete their duties. Poultry workers described how they often self-medicate with over-the-counter medication when sick to continue working. They mentioned that they would only seek healthcare for a severe illness. All participants noted that each worker's economic situation is different, but most continued working when sick or injured out of necessity.

“En realidad, esa pregunta es medio complicada porque cada persona tenemos diferentes este...digamos como la economía de cada persona. A veces, aunque yo esté enfermo, no me doy el lujo de faltar un día.”

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“In reality, that question is a little complicated because each person has their own...let's say, economic situation of each person. Sometimes, even if I'm sick, I don't have the luxury of missing a day.”

- New Mexico dairy worker

Paid sick leave policies were discussed in all groups. Dairy worker participants described that they had to provide advance notice of leave to find someone to cover their shift, and they were unable to take sick leave without a person to cover their shift. All dairy worker participants agreed that a lack of someone to cover for them was a major reason they continued to work while sick or injured. Similarly, poultry workers mentioned that they rarely could take time off because they did not have anyone to cover their shifts. All of these workers stated that they worked seven days a week. Two of the egg collector workers described a mutual support

strategy they used to have some time off: they alternated taking a Sunday off, with the understanding that one of them would have to cover the other's duties.

“Es que no es porque quiere uno hablar mal de la compañía, pero es que hay veces que está uno tan enfermo, pero siempre sale esa de que no hay quien te cubra. Y yo puedo asegurar, yo me atrevo a asegurar, que aquí más de uno de los que estamos aquí hemos ido a trabajar muy enfermos.”

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“It is not because one wants to speak badly of the company, but there are times when one is so sick, and it’s always brought up that there is no one to cover for you. And I can guarantee you, I dare to guarantee to you, that more than one of us here has gone to work very ill.”

- New Mexico dairy worker

Participants in one of the dairy worker focus groups asked the facilitator about the availability of an H5N1 vaccine and were subsequently asked about their willingness to receive it if it became available. All participants in this group discussed how they were willing to receive the vaccine for H5N1.

“Si. Es necesario [la vacuna contra H5N1] para el trabajo que tenemos.”

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“Yes. It’s [H5N1 vaccine] necessary for the job we have.”

- New Mexico dairy worker

Discussion & Recommendations

These focus group discussions add to the knowledge gained during the focus groups we conducted with dairy workers from Michigan, Colorado, and Texas from June to September of 2024 regarding their knowledge and attitudes about H5N1.³ These findings include how workers are willing and able, with training and workplace accommodations, to use personal protective equipment. Our recommendations now and in the previous report are largely the same. Workers continue to have little knowledge of H5N1 and ways to prevent their exposure to the virus, PPE access is still challenging, paid sick leave is difficult to use even when available, and workers express reluctance to seek healthcare unless necessary due to its high cost.

PPE remains inadequately accessible to workers. Workers expressed nuanced views on PPE use, including the personal responsibility that comes with proper use, while acknowledging that employers also have a role in creating a healthy environment. Health and safety organizations can leverage this sentiment by distributing more PPE better adapted to dairy workers’



environment, such as reusable sleeves and anti-fog glasses. Distributing soap and hand sanitizer to farm owners and workers would help promote better hygiene on farms. Industry associations can help with the issue by providing and promoting functional standard protocols for a hygienic environment and basic biosecurity protocols for farms, as well as training guides and resources for workers.

Access to adequate health care remains limited for workers. Though workers in these focus groups did not discuss transportation as an issue, other barriers were discussed, such as lack of insurance, cost, lack of sick leave, and a lack of people available to cover shifts. Identifying solutions to this issue will require changes in state and local policy and changes in labor management practices on farms.

Disclaimer

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