

Vaccination Response to Chicago Shelter Measles Outbreak

Alexander Sloboda, MD, MPH

Medical Director, Immunizations and Emergency Preparedness, CDPH

Brian Borah, MD, MA

Medical Director, Vaccine-Preventable Diseases Surveillance, CDPH



X Measles Outbreak at New Arrivals Shelter

- Another hardship for a group that has already been through so much.
 - **Under-vaccinated** population in recent years.
 - Living in very congregate settings.
 - Exposed to measles in Chicago
 - DID NOT bring measles with them.

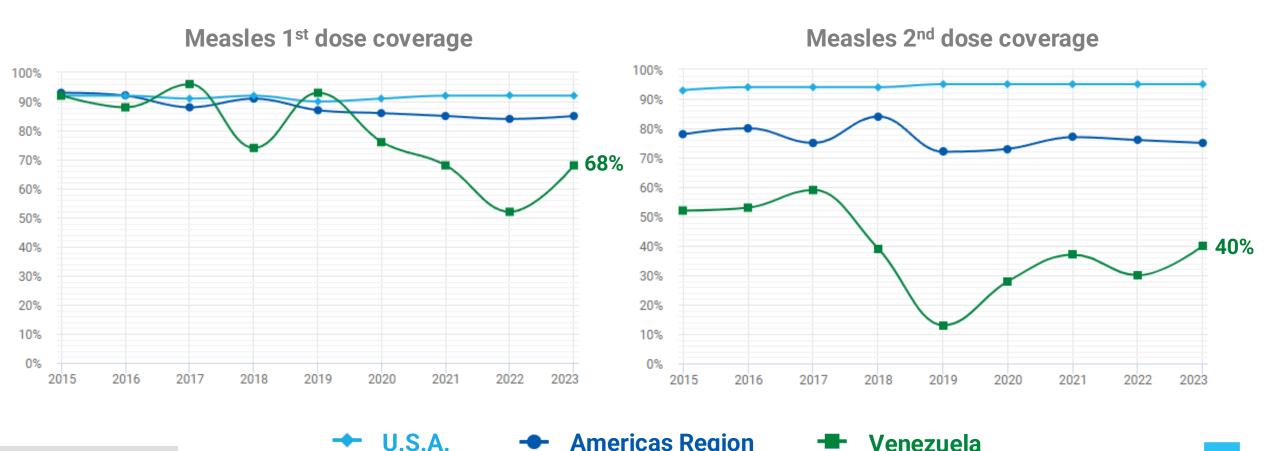


Volunteers with the Zakat Foundation serve food to asylum-seekers in the basement of St. Bartholomew Catholic Church in the Portage Park neighborhood Tuesday. Months after the city and Archdiocese of Chicago began talks about opening a shelter at the shuttered school, residents have moved in. | Tyler Pasciak LaRiviere/Sun-Times





Measles vaccine coverage in Venezuela has declined since 2017.







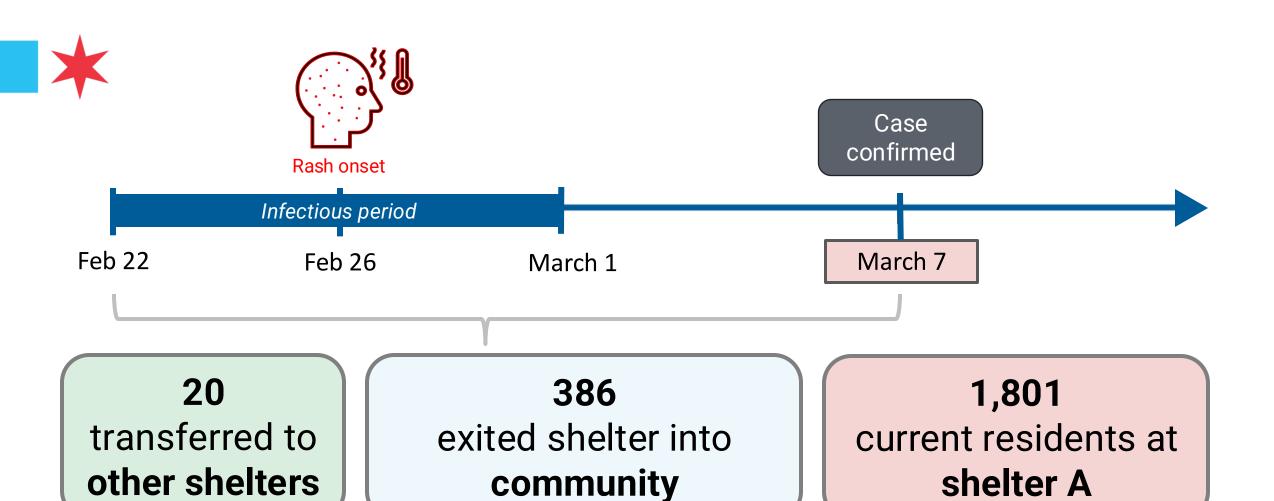
Prior to Outbreak, Pathways to Vaccination Were Slow.



- No pre-entry vax requirement.
- Low uptake on clinic visits.
- Acute issues often prioritized.



First Measles Case in New Arrivals Shelter and Response





CDPH responded quickly with a multiple interventions.

- Quarantine & isolation
- Case investigation & contact tracing
- Healthcare coordination
- Active screening and testing
- Vaccination



Shelter A



CDPH responded quickly with a multiple interventions.

- Quarantine & isolation
- Case investigation & contact tracing
- Healthcare coordination
- Active screening and testing
- Vaccination

Shelter A

Other shelters

Community



Education & outreach

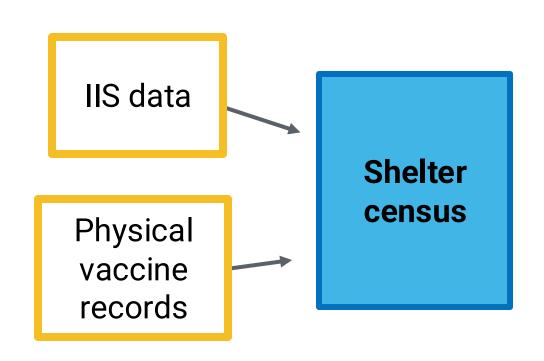
Vax verification





Education & outreach

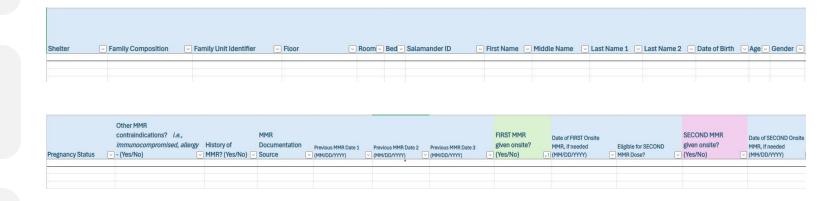
Vax verification





Education & outreach

Vax verification





Education & outreach

Vax verification

Vaccination

Evaluating Foreign Vaccine Card

- Sarampión measles only
- SR measles, rubella
- SRP measles, mumps, rubella (MMR)
- Antisarampionosa measles only
- Bivalente viral measles, rubella
- Trivalente viral measles, mumps, rubella
- Doble viral measles, rubella
- Triple viral measles, mumps, rubella



Education & outreach

Vax verification





Education & outreach

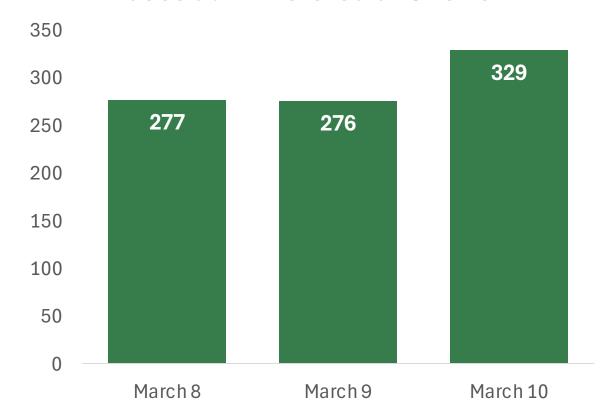
Vax verification

- 1 dose MMR 93% effective
 - 2 doses MMR 97% effective
- Measles Outbreak MMR Vaccination
 - Infants aged 6–11 months:
 - 1 dose, "Zero-Dose"
 - Still need to complete routine 2 doses of MMR vaccines once 12 months.
 - Children aged 12 months or older:
 - 2-dose series at least 4 weeks apart.
 "Accelerated 2nd dose"



Almost 900 doses administered over three days.

Doses administered at Shelter A







Rapid mass vaccination reduced likelihood of a very large outbreak.

Mass Vaccination Start Date	Probability outbreak 1-9 cases	Probability outbreak 10-49 cases	Probability outbreak 50-99 cases	Probability outbreak ≥100 cases
No vaccines	7%			69%
March 8	15%	40%	21%	1%
March 15	10%	23%	28%	15%



New Arrivals Vaccination Response Next Steps



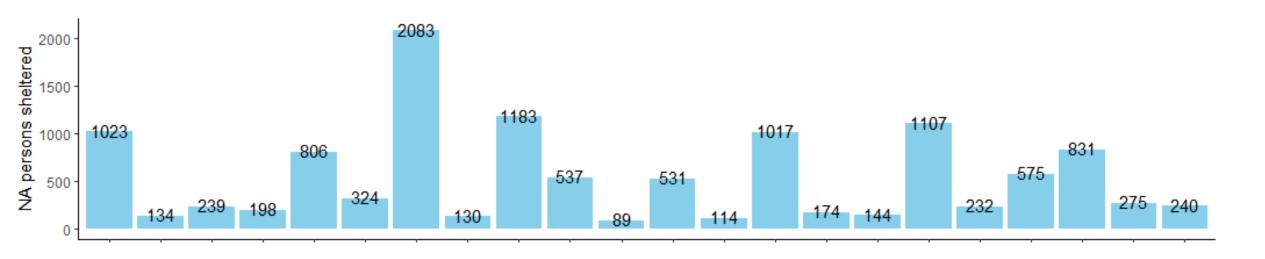
Shelter size

Shelter type

Children

Pregnancies

Vaccine coverage





Shelter size

Shelter type

Children

Pregnancies

Vaccine coverage

Previous Shelter A resident

Congregate



VS.

Hotel-style





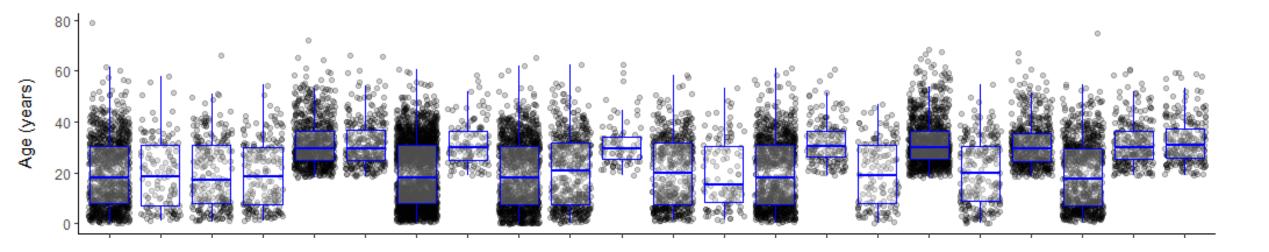
Shelter size

Shelter type

Children

Pregnancies

Vaccine coverage





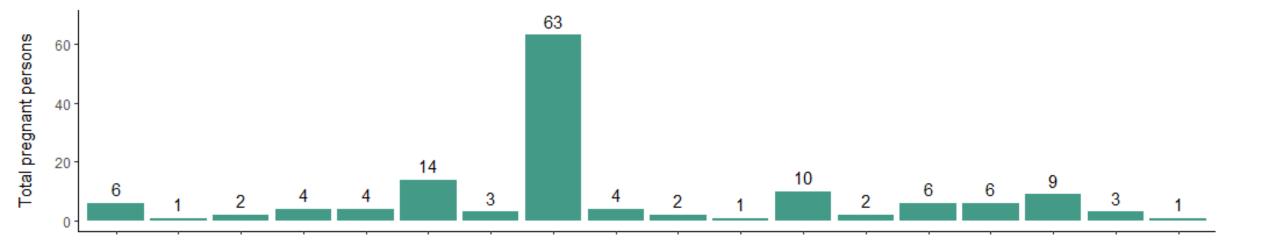
Shelter size

Shelter type

Children

Pregnancies

Vaccine coverage





Shelter size

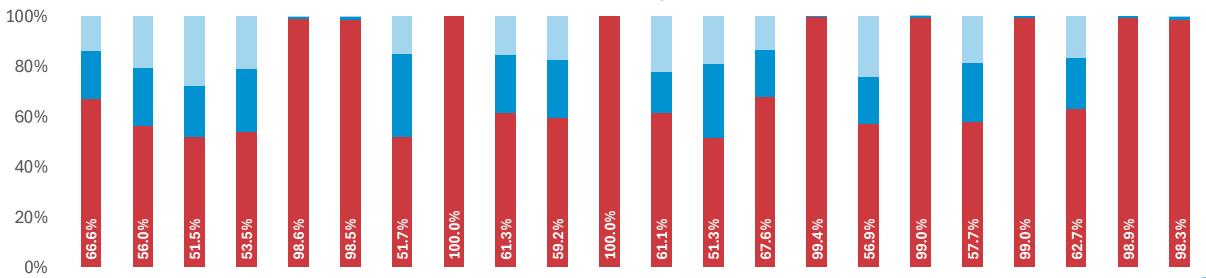
Shelter type

Children

Pregnancies

Vaccine coverage







Shelter size

Shelter type

Children

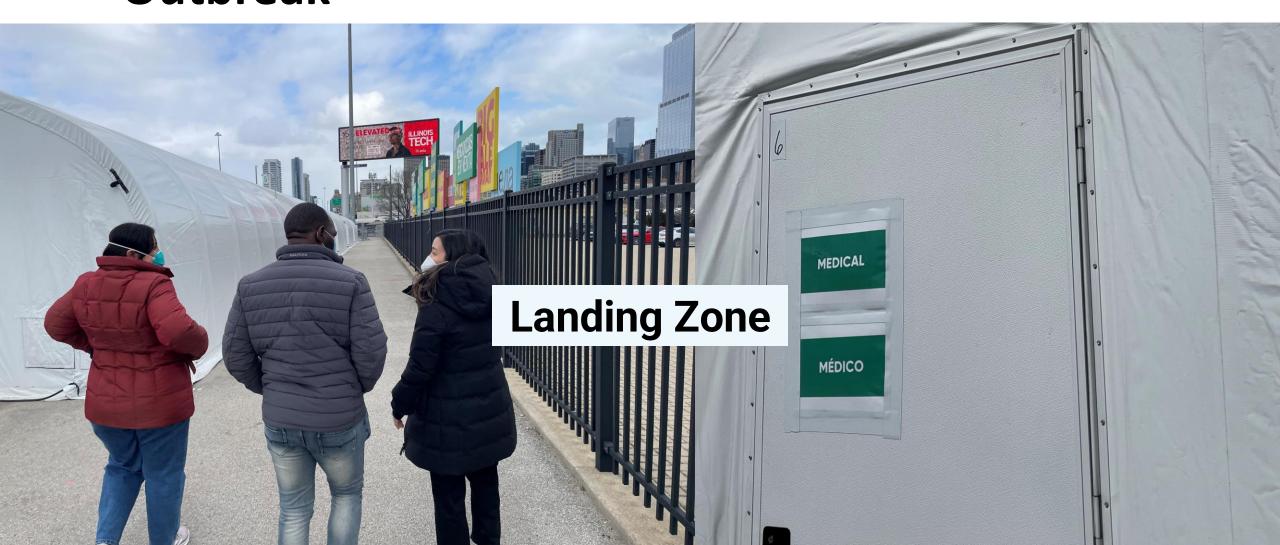
Pregnancies

Vaccine coverage

Tier 1 Shelters	Tier 2 Shelters	Tier 3 Shelters
Everyone is considered exposed to measles	 Majority unexposed Contains at least 1 person with confirmed exposure to measles 	No resident is considered exposed to measles Low risk of new cases



Continued to Receive New Arrivals During Outbreak



Landing Zone

- MMR and Varicella prior to shelter placement.
 - Still continuing now.
 - City Requirement.
- Brief health screening questionnaire.
 - Including screening for rashes.
- CCH getting new arrivals directly to Belmont Cragin:
 - Comprehensive Medical Evaluation.
 - Other routine vaccines.

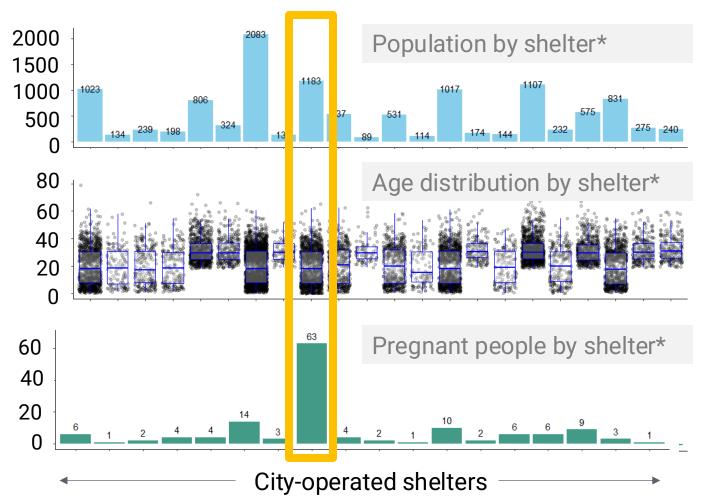




Second New Arrivals Shelter with Case



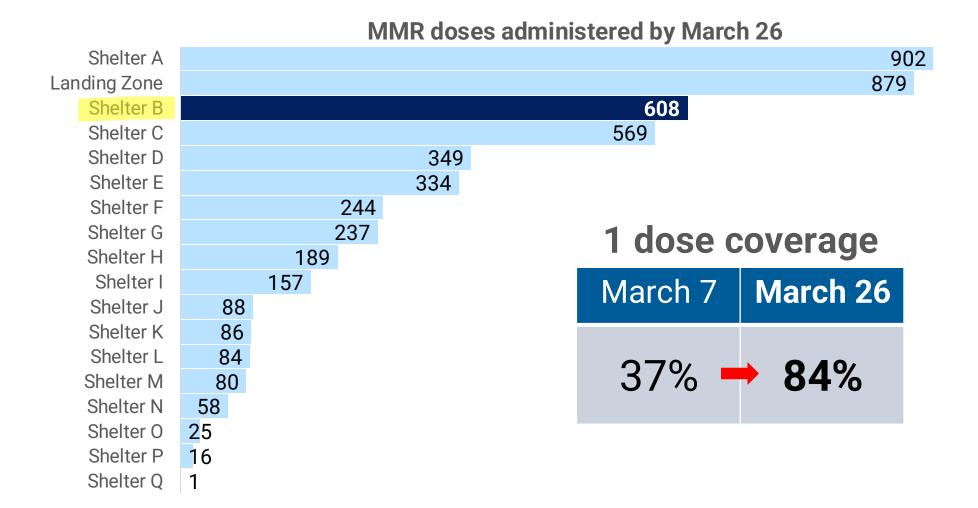
X On March 26, measles identified in Shelter B.



- **Adult woman**
- Measles vaccine in 2014
- Former Shelter A resident
- **Transferred on March 11**
- Rash onset March 22

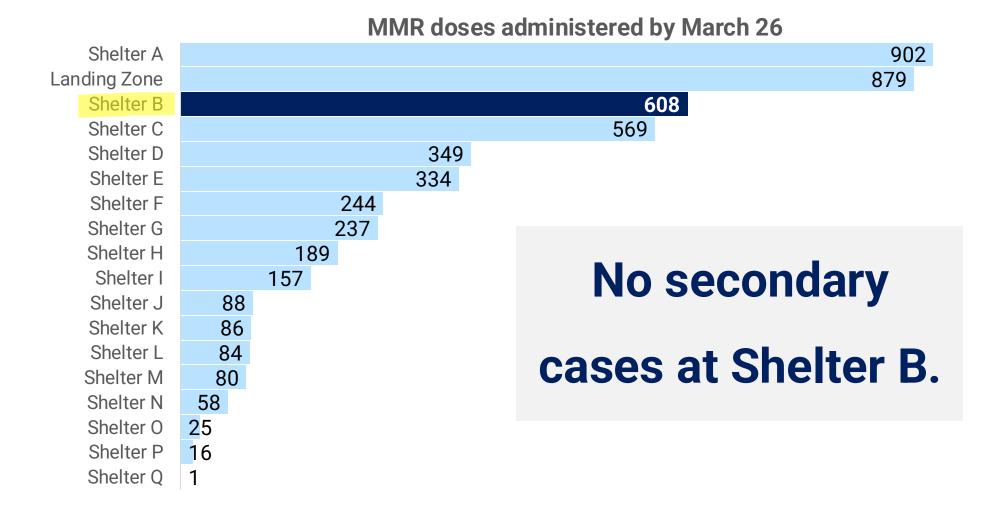


X Our vaccine strategy was put to the test.





Vaccination + Less Congregate = No Secondary Cases





Nearing the Outbreak Finish Line



We prioritized 2nd doses, especially at Shelter

Intense & prolonged exposure to virus can increase risk of vaccine failure.

Why Do We Need 2 Doses? > Two doses of the MMR vaccine helps to give your body the best protection possible from measles. Children must also have two documented doses of MMR vaccine to go back to childcare centers. School-aged children must have two documented doses of MMR vaccine to be in school in Illinois. Is it Safe to Have 2 Doses? Yes! It is safe to be given two doses of the MMR vaccine 28 days apart. And receiving a second dose of the MMR vaccine does not mean you have to restart quarantine! Be Mindful! Children have to wait 21 days after their second documented dose to go back to schools and childcare centers daycares.



Total Varicella and Measles Containing Doses Administered Since November 27, 2023

Total Varicella Containing Doses Administered Since November 27, 2023

Select a Vaccine Type **Total Measles Containing Doses Administered** Since March 8, 2024

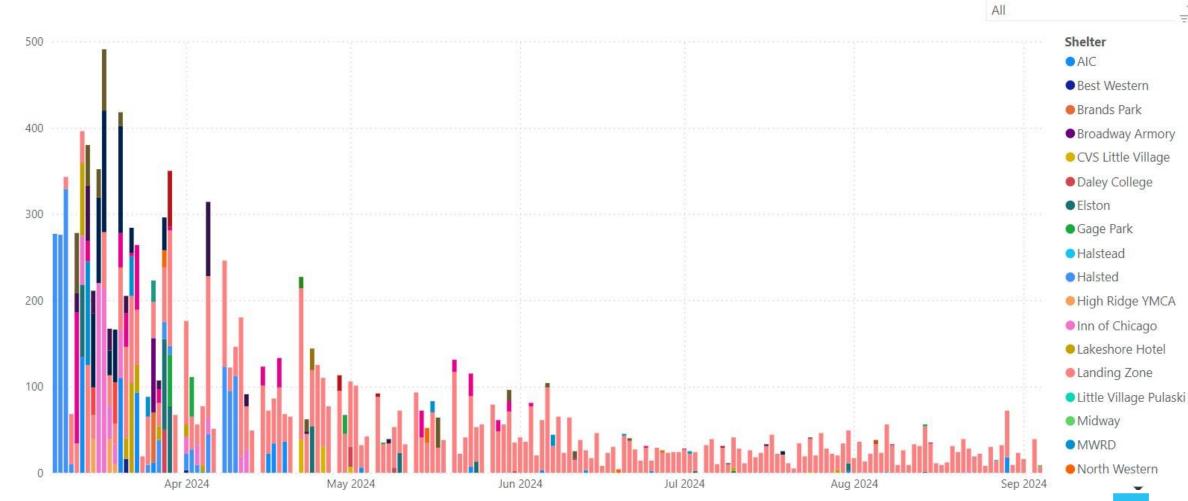
Measles-Containing

18,323

5,016

13,307

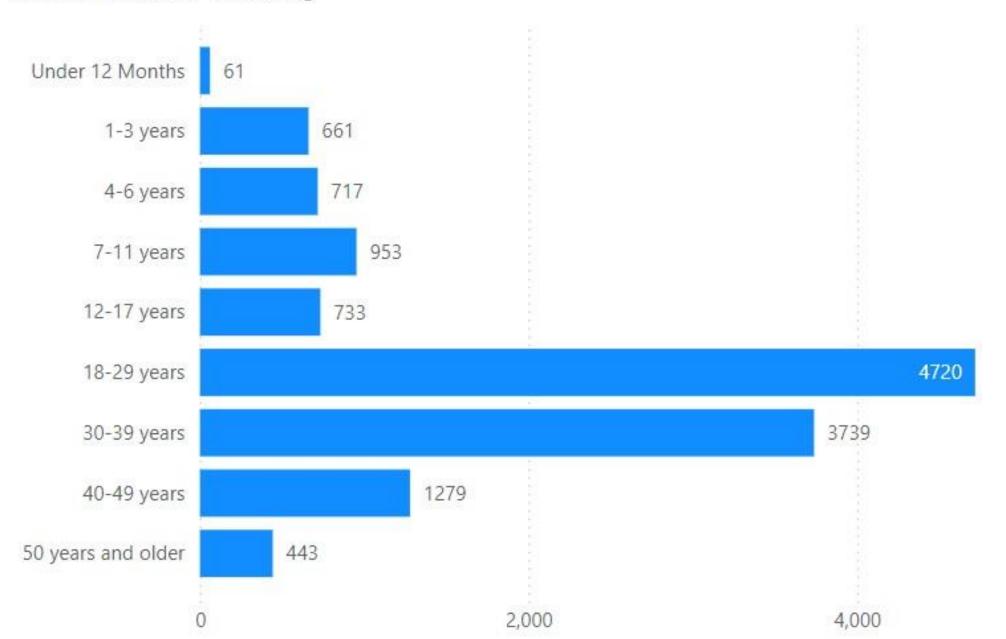
Select a Shelter



Doses Administered by Age Group and Vaccine

Vaccine • Measles-Containing

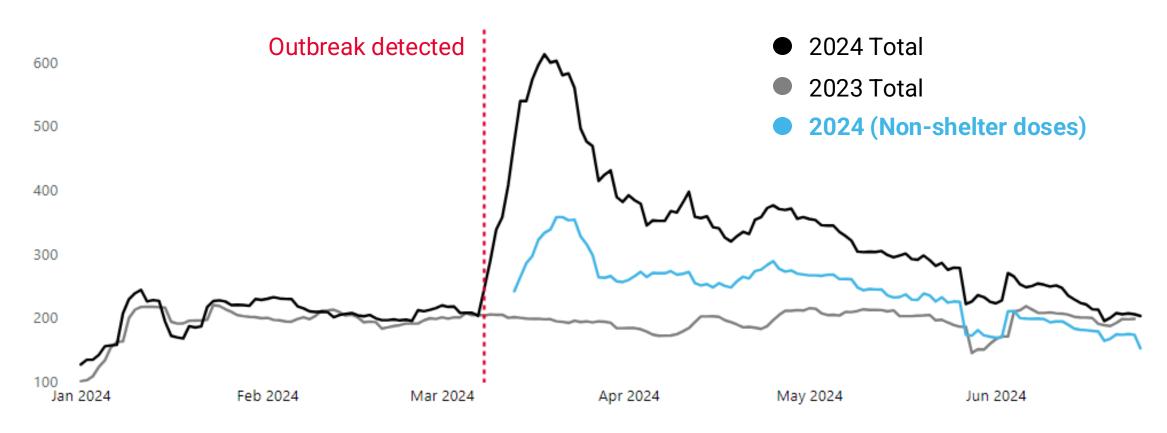






X Our community messaging was heard.

7-Day Rolling Averages of MMR Doses Administered





What Did We Learn?



Education Outreach is Essential and a Team Effort

- CHWs, Promotores, and CBOs.
- Volunteers, PH staff, and Nurse Educators.
- Individual outreach and tracking made the difference.
- Fluent Spanish speakers and culturally competent outreach crucial.
- Very resource and human intensive.
- Mobile verification





Preliminary Shelter Resident Focus Group Summaries:

- Impressed by CDPH and partners going around bed to bed to speak with them about vaccine education.
- Residents said the team vaccinating made it very comfortable for them and their children.
- Initially, residents said they were **hesitant to trust staff and CDPH** because they were getting different information each time.
 - As time went on, they felt better about sharing their symptoms with shelter staff and trusting the information CDPH was saying about the MMR vaccine and why quarantine had to happen.
- Felt respected throughout the process.
- Appreciated how serious CDPH takes any disease outbreak. Response in their home country would have been very different.



Preliminary Shelter Resident Focus Group Summaries:

- Many residents did not appreciate the initial announcement late Thursday night on March 7.
 - Some thought it caused unnecessary alarm and chaos.
 - During this initial announcement, some thought they were going to be deported, and some other residents packed up to leave that night saying they would rather be on the street than be in quarantine.
- Didn't understand why they had to get **vaccinated again** if they had been vaccinated in Venezuela, but they didn't have proof of it available.
 - Eventually understood why later.
- Some shared they waited until the last minute to be vaccinated due to their hesitancy with vaccines, especially after the covid vaccine.
 - After seeing other residents and even staff being vaccinated, they felt it was safe.
- A lot of challenges concerning quarantine...



X Vaccination Challenges:

- Another difficult situation on top of difficult situations for New Arrivals.
- Recording matching/Unique identification.
- Quarantine is difficult.
- Vaccine verification and census tracking is very labor and time intensive.



CHICAGO SUN*TIMES



X Lessons: Mass Vaccination System

- Rapid mass vaccination prevented a much larger outbreak.
 - Extensive outreach and education for engagement.
 - Meticulous documentation system and verification.





Lessons: Partnerships

- Not possible without existing and new partnerships
- Built on previous New Arrivals and Varicella efforts
- Collaboration and Coordination





X Lessons: Prevention and Infrastructure

- Prevention is key
 - Political/leadership buy-in
 - Continue momentum & infrastructure
 - Landing Zone
 - Requirements work and sometimes required





- FUNDING NEEDS:
 - Adult Vaccine/Operations
 - Outbreaks
 - Asylum Seekers
 and Undocumented people
 - Uninsured people





Lessons: Vaccines Really Work!!!





Thanks to all our MMR Vaccination partners!











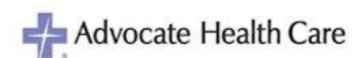




















Thank you!



Chicago.gov/Health



HealthyChicago@cityofchicago.org



@ChicagoPublicHealth



@ChiPublicHealth