



Measles: Surveillance, Prevention, and Response Strategy

Southern Nevada District Board of Health Meeting

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Agenda

1. Evolving measles outbreak
2. Disease Surveillance and Control
 - a) Preparedness
 - b) Response
3. Public Health and Preventive Care Division
 - a) Preparedness
 - b) Response

Evolving measles outbreak (as of 3/18/25)

1. Texas – 279 cases; New Mexico – 38 cases
2. TX and NM is one serotype
 - MeVA assay and standard measles assay
3. Two deaths
4. Underestimation of case counts (diagnosed vs ill)

Disease Surveillance & Control - Preparedness

1. Surveillance activities:
 - ESSENCE
 - Standard disease reporting / surveillance
 - Active monitoring of potential contacts
2. Baseline evaluation:
 - Analysis of vaccine coverage
3. Community engagement:
 - Public health advisory
 - CCSD coordination
 - Infection control at facilities

MMR Vaccine Coverage in Kindergarten Students for CCSD, Charter, and Private Elementary Schools, Academic Year 2023-2024

Vaccine Coverage Percentage* (Average %)	Number of Elementary Schools^	Percentage of all Elementary Schools	Number of Kindergarten Students Vaccinated*	Number of Kindergarten Students Enrolled
>95% (97.4%)	102	32.6%	5920	6081
90-95% (92.3%)	121	38.6%	7905	8567
80-89% (86.6%)	77	24.6%	4519	5212
<80% (69.8%)	13	4.2%	418	599
Total (91.7%)	313	100%	18762	20459

*Vaccinate students are children who have received 2 doses of the MMR or MMRV vaccine at least 28 days apart.

^Does not include schools with K enrollment <20.

Source: Nevada Division of Public and Behavioral Health (DPBH), REDCap School Immunization Survey.

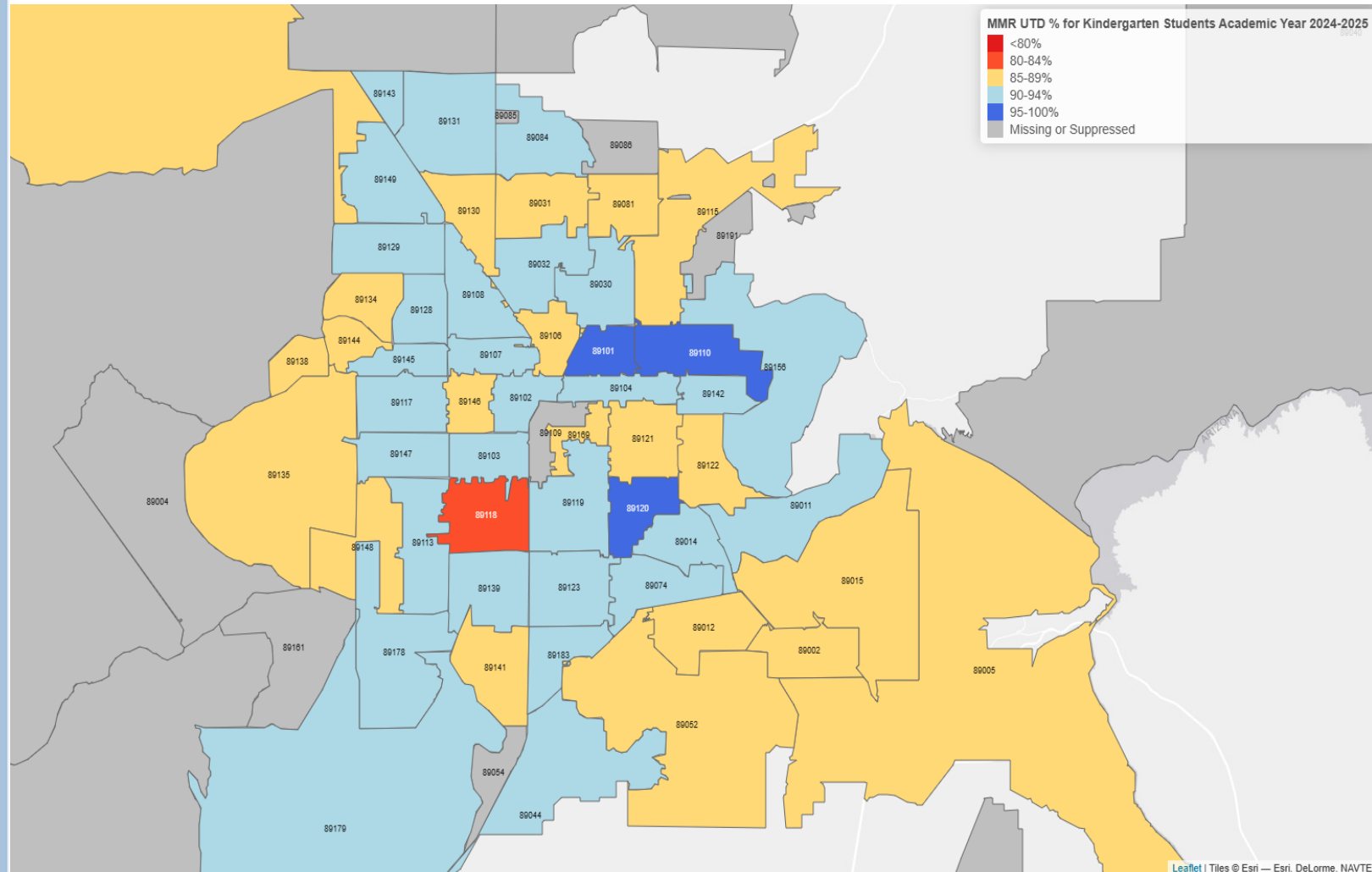
MMR Vaccine Coverage in Kindergarten Students for CCSD, Charter, and Private Elementary Schools, Academic Years 2022 - 2025

Academic Year	Vaccine Coverage Percentage*	Number of Elementary Schools^
2022 – 2023	92.7%	306
2023 – 2024	91.7%	313
2024 - 2025	90.8%	313

*Vaccinated students are children who have received 2 doses of the MMR or MMRV vaccine at least 28 days apart.

^Does not include schools with K enrollment <20.

MMR vaccine coverage in kindergarten children for CCSD by zip code, 2024-2025

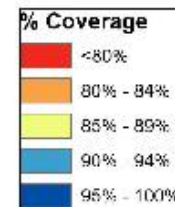
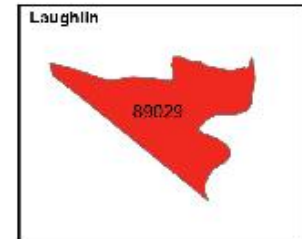
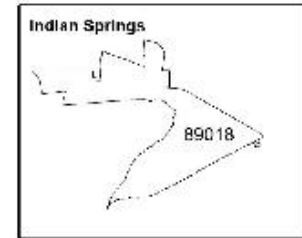
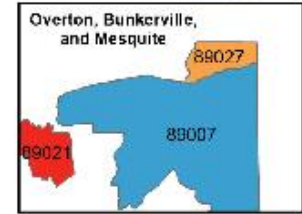
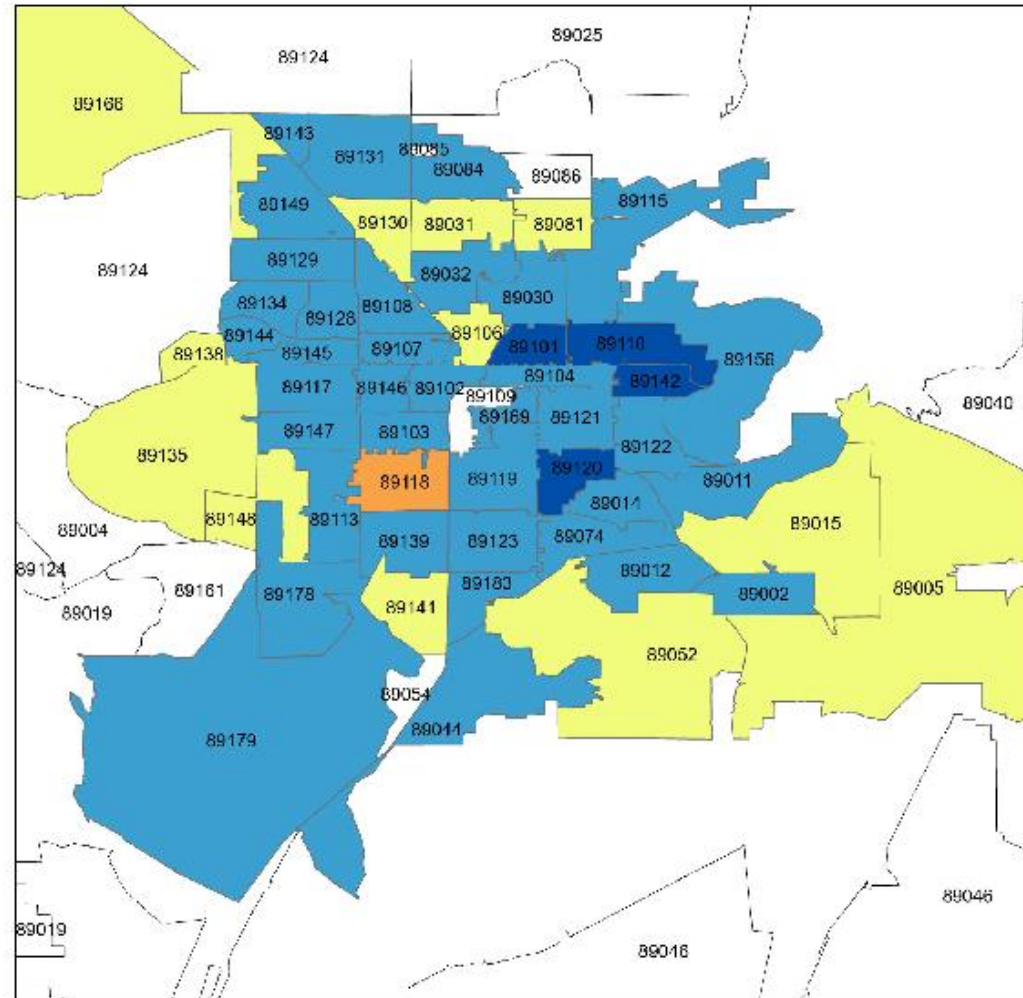


*Grey zip codes represent locations with no reported data or locations where data was suppressed due to small numbers of students.

Source: Nevada Division of Public and Behavioral Health (DPBH), REDCap School Immunization Survey.

MMR vaccine coverage in kindergarten children for CCSD by zip code, Academic Year 2024-2025

MMR UTD % for Kindergarten Students Academic Year 2024-2025



*White zip codes represent locations with no reported data or locations where data was suppressed due to small numbers of students

Source: Nevada Division of Public and Behavioral Health (DPBH), REDCap School Immunization Survey.



Disease Surveillance & Control - Response

Possible Measles

- Investigation verifies measles case is highly suspected.
- Confirming diagnosis
- Active monitoring of contacts exposed to measles from other jurisdictions

Determine Exposures

- Determine exposure locations and contacts
- Forecasting (epiEngage)

Recommended Mitigation Strategies

- Coordinate post-exposure prophylaxis (PPC / OPHP)
- Coordinate public notification with OOC
- Identify need for isolation and quarantine

Disease Surveillance & Control - Forecasting



epiENGAGE Measles Outbreak Simulator

Model Inputs

School Enrollment

500

Students Initially Infected

1

Vaccination Rate (%)

Enter value or select from Lookup.

85

OR

School/District Lookup ▾

School Outbreak Projections

Projections assume no interventions and no breakthrough infections among vaccinated students, and they do not account for infections among non-students in the surrounding community.

Active measles control measures could lead to substantially smaller and shorter outbreaks than these projections suggest.

Chance of exceeding 20 new infections

58%

Likely outbreak size if exceeds 20 new infections

47 - 71 total cases

This graph shows 20 plausible school outbreak curves.



Source: <https://epiengage-measles.tacc.utexas.edu/>

Public Health and Preventive Care - Preparedness

1. Immunization Clinics
 - Decatur, East Las Vegas, Henderson, Mesquite
2. Immunization Project Team
 - CCSD Family Resource Center, Child Care Centers,
 - Community Outreach: REACH, Homeless Pop-Ups
3. National Infant Immunization Week (April 21)
4. Back-to-School Vaccination Efforts

Public Health and Preventive Care - Response

1. Surge Capacity
 - Project Immunization Team
 - Cross-train staff for immunizations
 - Increase Pop-Ups (e.g., school sites)
 - Medical Reserve Corp
2. MMR Vaccine Supply
 - VFC, 317, Private
3. Prioritization of Populations (e.g., zero doses, children, post-exposure)

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- SNHD Immunization Team

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QUESTIONS?



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