

Managing Patient IIS Status: The Benefits of Mass Patient Inactivation

Heidi Gurov, RN, BSc, BSN, CMSRN
Nurse Consultant
Wyoming Department of Health Immunization Unit

2025 American Immunization Registry Association National Meeting



Wyoming
Department
of Health



PUBLIC
HEALTH
DIVISION



IMMUNIZATION
UNIT

Setting the scene - Wyoming

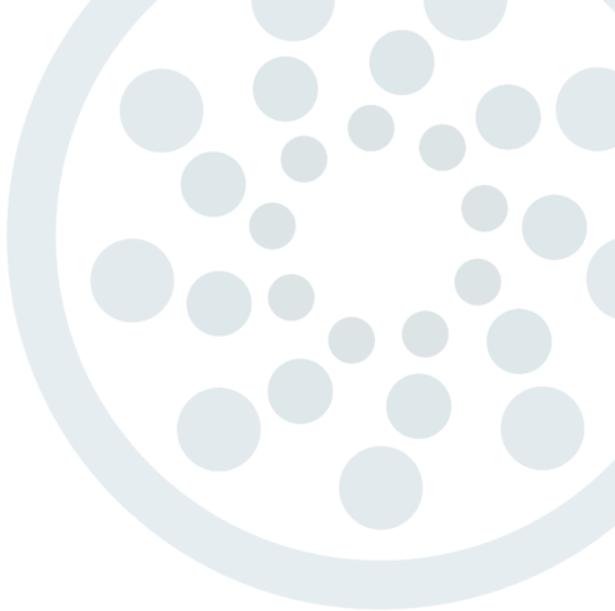
Least populated U.S. state with
587,618 people (US Census Bureau estimate
7/1/2024)

97,088.7 square miles & 9th largest
state by area (US Census Bureau)

6 people per square mile

1.22 million cattle (Wyoming Livestock Roundup
2/7/2025)

2 escalators



Wyoming Immunization Registry (WyIR)

- Opt-out registry with mandatory reporting
 - All vaccines administered in Wyoming must be reported across the lifespan
 - Permanent database
- Utilized for:
 - Annual coverage rate estimates
 - Reminder/recall projects
 - Immunization quality improvement activities

Wyoming Immunization Registry (WyIR)

- Denominator management is a challenge
 - May 2024 active patient denominator was 741,436
 - Factors:
 - Fluid population & dynamic employment industries
 - Duplicate patient records
 - Lack of patient status management

Patient active/inactive status (PAIS) management

- Three patient statuses: Active, Inactive, and Deceased
- Status is set at three levels: Organization, County, and Jurisdiction
- Typically it is the responsibility of end-users at the facility level to manage PAIS
 - Process is discussed during Immunization Quality Improvement for Providers (IQIP) site visits for Vaccines for Children (VFC) enrolled providers
 - Technical assistance is provided on:
 - Changing and managing status
 - Manage Patient Population module
 - Individual demographics page for a patient
 - Strategies such as collaborating with those who process record requests

Patient active/inactive status (PAIS) management

- Relying on end-users of the WyIR is not enough to maintain accurate patient denominators
 - PAIS management may be an unknown process to those not enrolled in the VFC program
 - Pharmacies
 - Veterans Administration (VA)
 - Hospitals
 - End-users cannot change county and jurisdiction status unless the address is out of state
- Many providers report competing time demands and staffing capacity as hurdles to PAIS management activities

Messy denominator problems

- Wyoming Cancer Program HPV reminder recall postcard project
 - >65,000 postcards mailed to parents of adolescents
 - Over 20,000 postcards returned
- Inaccurate coverage rate estimation
 - Example:
 - 1 Tdap coverage in 13-17 year olds was 77% in May 2024

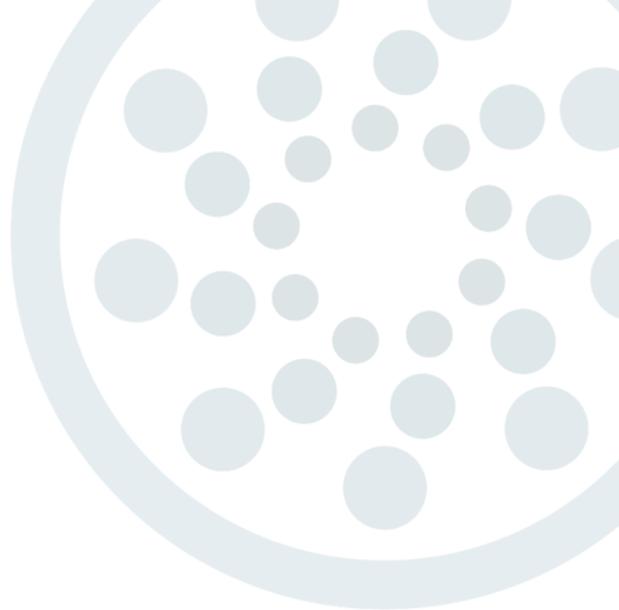


Mass patient inactivation project

- In May 2024 a script request was submitted to Wyoming's IIS vendor to update the patient status to inactive under the following criteria:
 - ≤18 years who
 - Have had no vaccination reported to their record in the WyIR in 8 or more years; or
 - Have had no vaccination reported to their record at all
 - >18 years who
 - Have had no vaccination reported to their record in the WyIR in 5 or more years; or
 - Have had no vaccination reported to their record at all
- Mass inactivation last performed in September 2018

Mass patient inactivation project

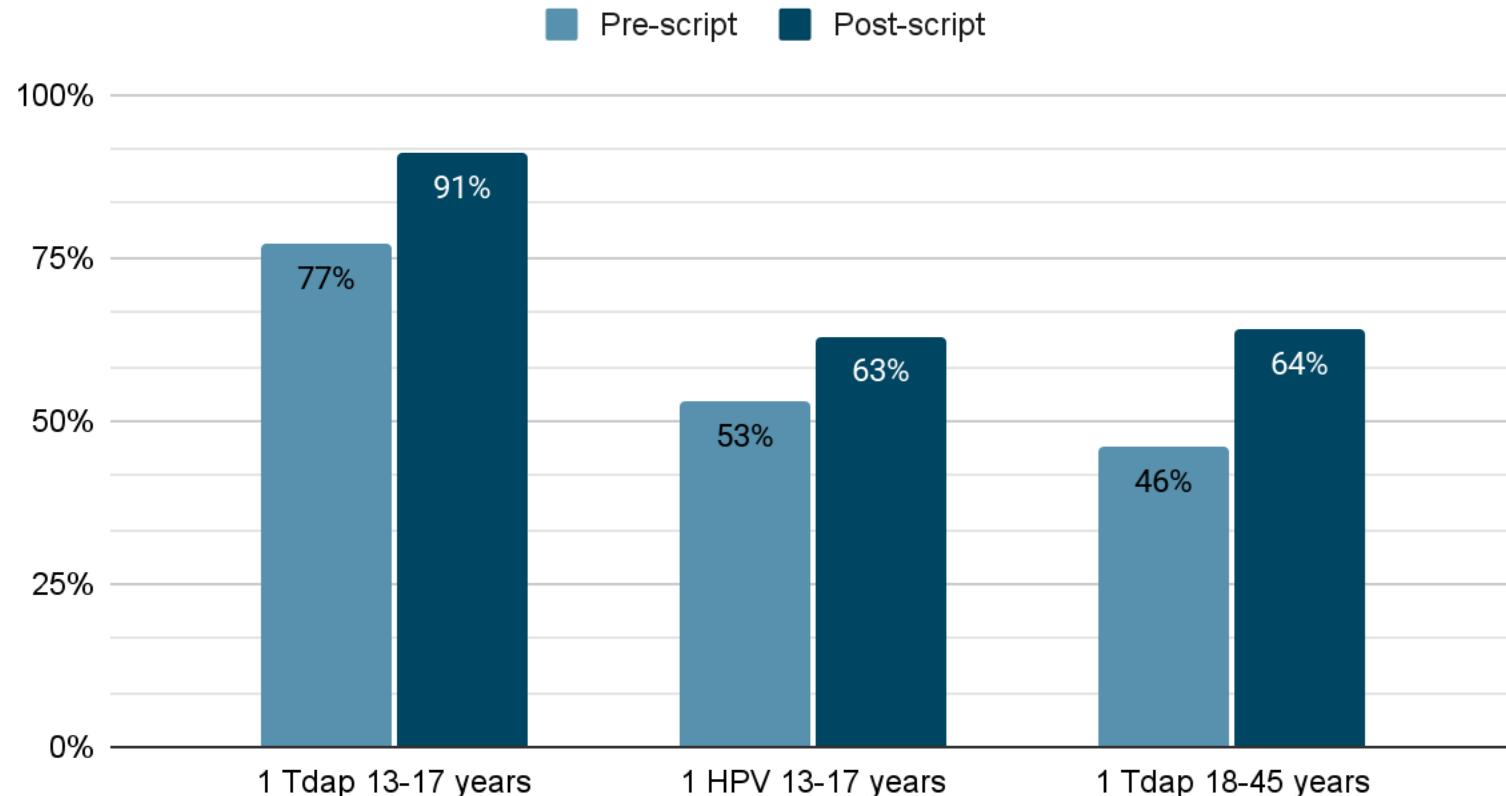
- Patient status prior to inactivation:
 - Active: 741,436
 - Deceased: 10,233*
 - Inactive: 265,994
- Patient status after inactivation in May 2024:
 - Active: 300,500
 - Deceased: 11,298*
 - Inactive: 566,494
- * WyIR staff review death records from vital statistics to manually manage deceased status



Coverage rate estimation methodology

- Coverage Rate Report Module utilized
 - Built-in module within IIS platform
 - Calculates estimates based on active patients
 - For provider level, patient must have status of Active for that specific provider
 - For county and state level, patient must have status of Active and address must fall within specified county (county estimates) or Wyoming (state estimates)

Coverage rate estimates impact: statewide



Coverage rate estimates impact: provider-level

- 13-17 year olds 1 dose of Tdap and HPV
- Provider A - large county public health department
 - Pre-script:
 - Denominator: 2125
 - Tdap 73% and HPV 46%
 - Post-script:
 - Denominator: 1827
 - Tdap 85% and HPV 54%
- Clinic reported reminder recall was more successful, as less time was spent trying to recall patients that had moved

Coverage rate estimates impact: provider-level

- 13-17 year olds 1 dose of Tdap and HPV
- Provider B - large pediatric provider
 - Pre-script:
 - Denominator: 1401
 - Tdap 87% and HPV 73%
 - Post-script:
 - Denominator: 1332
 - Tdap 92% and HPV 77%
- Clinic reported this brought coverage estimates more in line with their vaccine ordering numbers, active patients in EHR, perception of vaccines given, and provided a boost in staff motivation and morale

Coverage rate estimates impact: provider-level

- 13-17 year olds 1 dose of Tdap and HPV
- Provider C - medium-sized family practice clinic with no PAIS management ever performed
 - Pre-script:
 - Denominator: 648
 - Tdap 68% and HPV 20%
 - Post-script:
 - Denominator: 490
 - Tdap 90% and HPV 27%
- Clinic staff was able to further review patient lists as number became more manageable and staff reported feeling more motivated for QI strategies as they had more accurate data to work from

Ongoing

- Script request performed in November 2024
 - Results of November's inactivation (Data from 1/21/2025)
 - Active: 493,253
 - Deceased: 12,881
 - Inactive: 535,072
 - Impacts between May and November 2024 inactivation scripts that increased denominator
 - VA historical vaccination “data dump”
 - IZ Gateway data from other states on same IIS platform
 - Seasonal uptick in vaccination in fall & winter months
- Scheduled inactivation script for May 2025
- Project evaluating and comparing WyIR and census data



Conclusion

- Performing the mass inactivation script:
 - Brought denominators more in line with census population data
 - Ensured greater accuracy of coverage rate estimates at the state, county, and provider level
 - Important for:
 - Identifying pockets of low vaccination coverage
 - IQIP and other quality improvement activities
 - Monitoring immunization program effectiveness
 - Improves overall data quality in the WyIR



Thank you!

Heidi Gurov, RN, BSc, BSN, CMSRN
Nurse Consultant
Wyoming Department of Health
Immunization Unit
heidi.gurov@wyo.gov
307-777-8981

