SOUTH DAKOTA DEPARTMENT OF HEALTH

Vaccine Outlook

Immunize SD Conference

April 29, 2025

Objectives

- Understand the changing trend among persons being vaccinated
- Learn about vaccine beliefs among South Dakotans

Vaccination

- Helps the body learn how to defend itself from disease without the dangers of full-blown infection

- Allows easier tracking of vaccine-induced immunity rather than natural immunity, especially when infection can be asymptomatic

- One of the top 10 greatest public health achievements during 1900-1999

Vaccination Benefits

- Currently prevents 2 to 3 million deaths per year worldwide

- A further 1.5 million deaths could be avoided if global vaccination coverage improved

- US children who received routine vaccinations during 1994-2023 will prevent:
  - 508 million cases of illness
  - 32 million hospitalizations
  - 1.1 million deaths
  - Economic impact savings:
    - Direct: $540 billion
    - Societal: $2.7 trillion

Vaccine Hesitancy

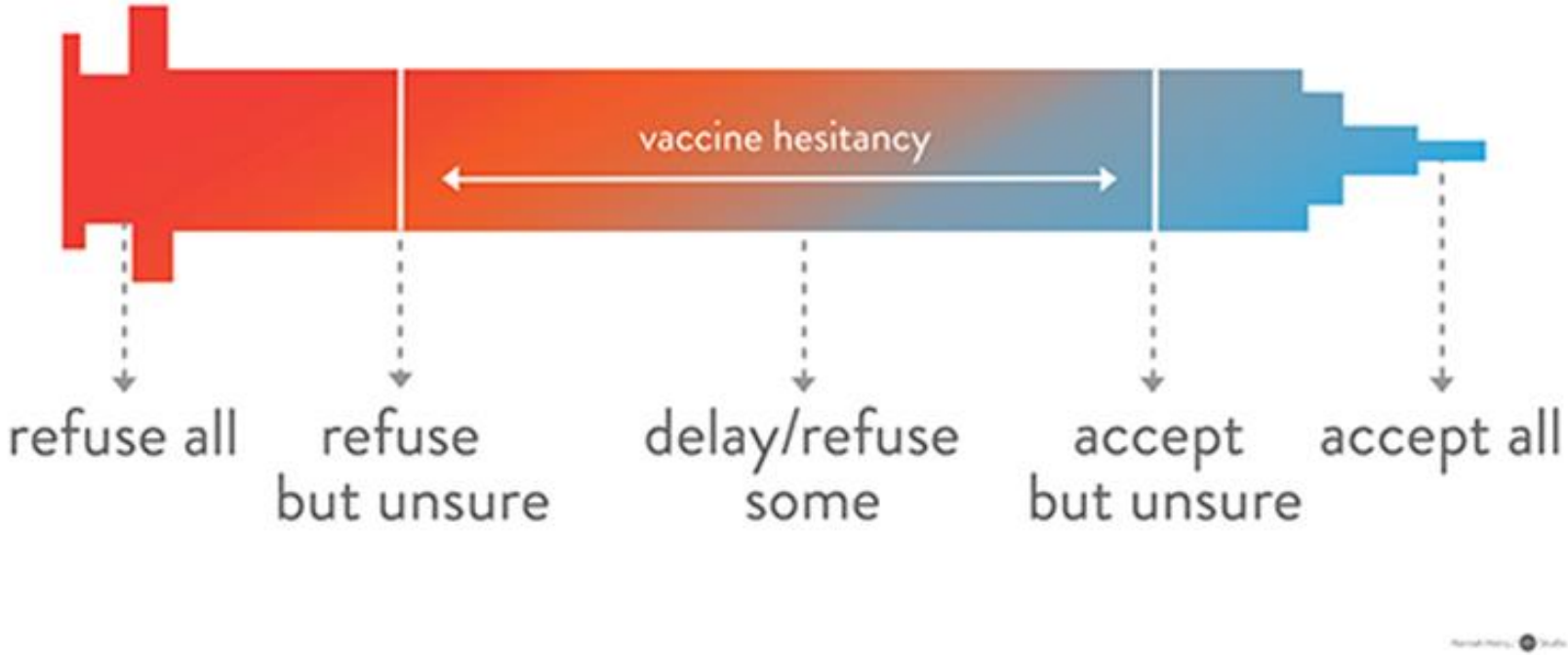
- Reluctance or refusal to have oneself or one's child(ren) vaccinated against an infectious disease(s) – *Oxford Dictionary*.

- World Health Organization (WHO) identified vaccine hesitancy as a growing challenge in in the August 2015 issue of *Vaccine*
  - Named one of the top 10 threat to global health in 2019

- The problem is complex

- 3 important factors:
  - **Complacency**: low perceived risk and/or worry about getting the disease
  - **Convenience**: availability, affordability, geographical accessibility, and messaging
  - **Confidence**: belief that vaccines work, are safe, and are part of a trustworthy medical system

Continuum of Vaccine Acceptance



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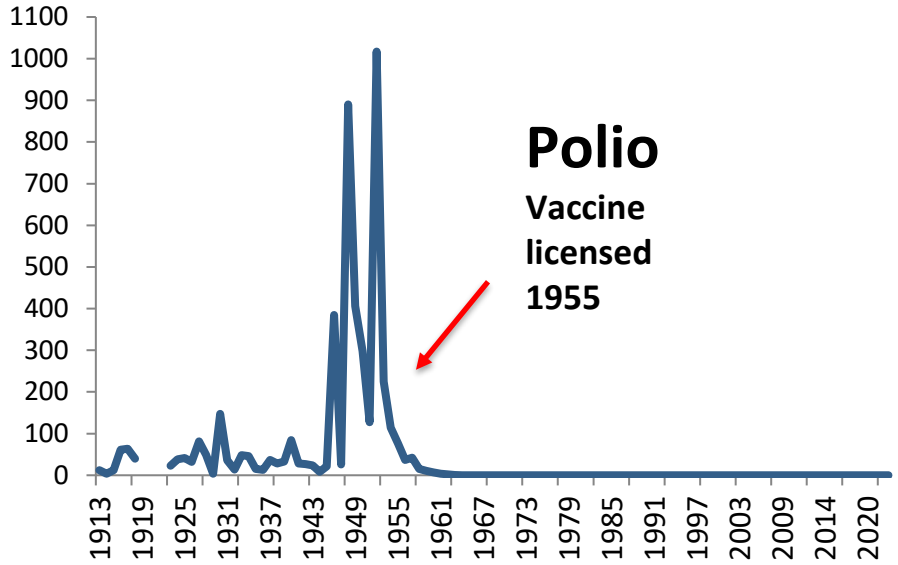
https://www.mahb.org/predictors-of-covid-19-vaccine-hesitancy-socio-demographics-co-morbidity-and-past-racial-discrimination/

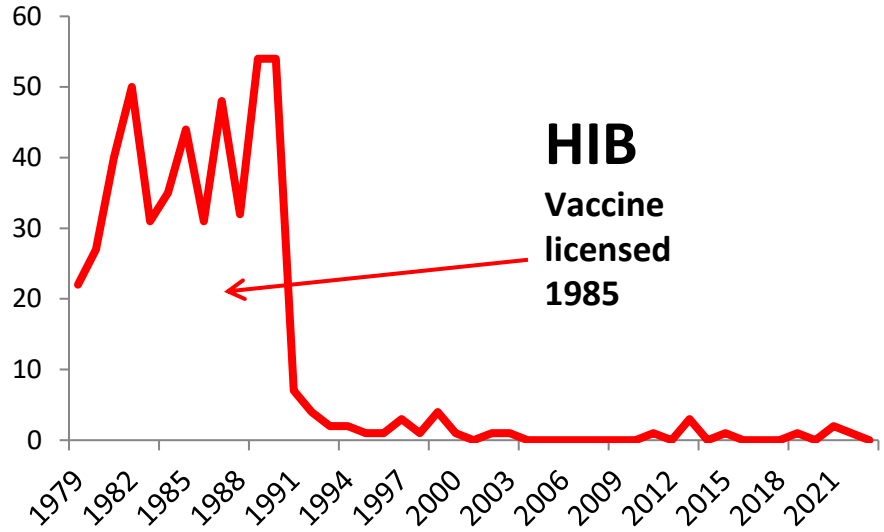
Perceived Risk of the Disease is Reduced (Complacency)

SD Case Count



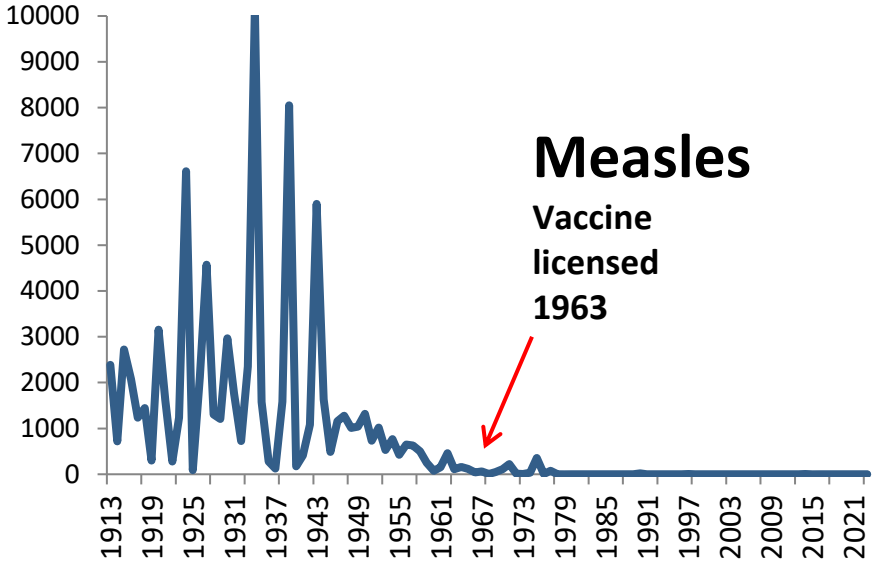
Polio

Vaccine licensed 1955



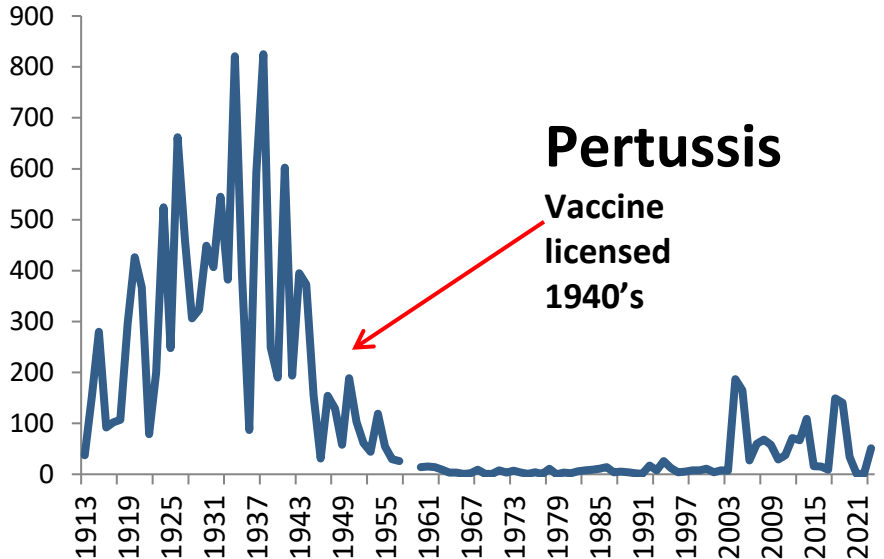
HIB

Vaccine licensed 1985



Measles

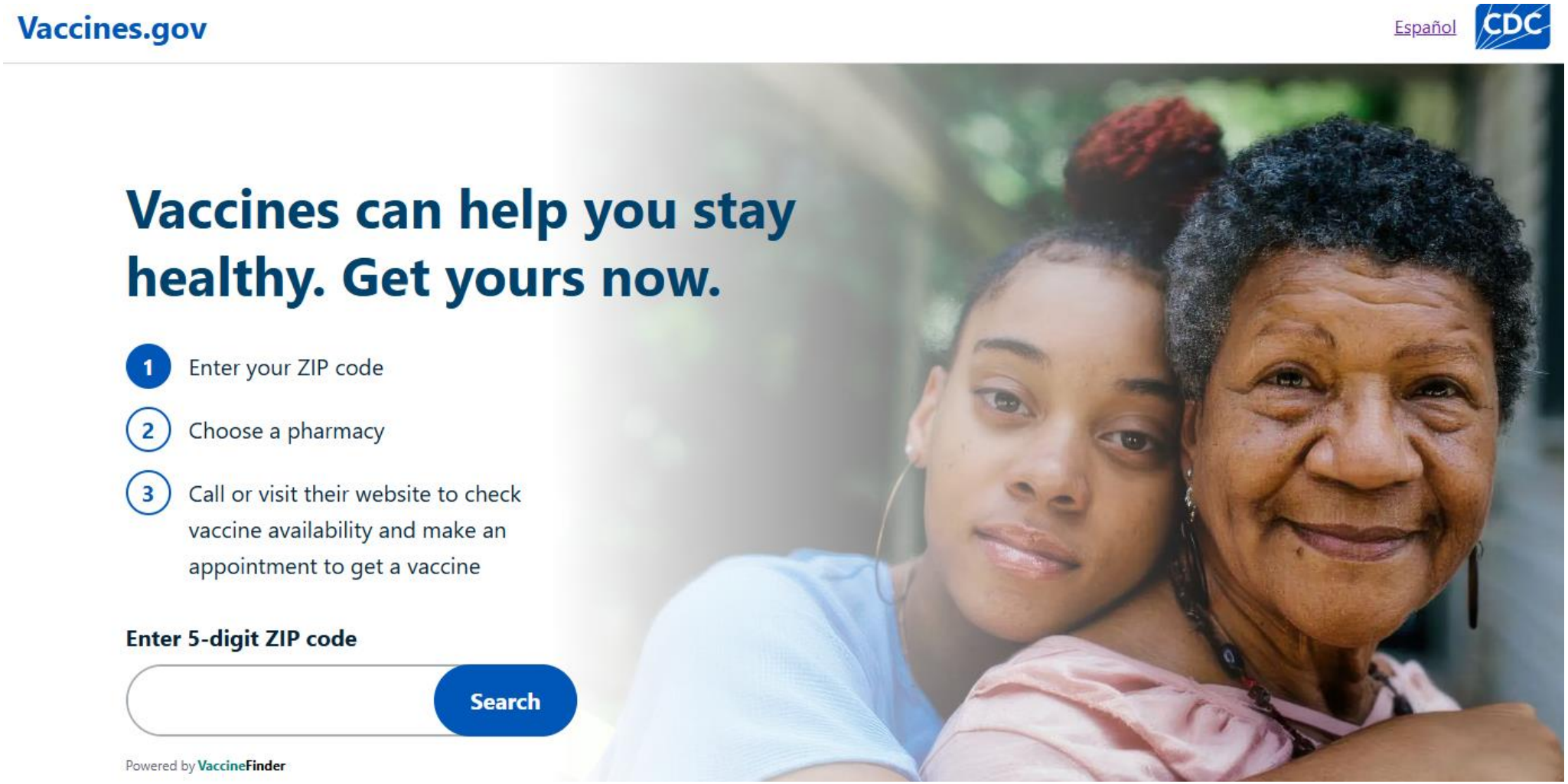
Vaccine licensed 1963



Pertussis

Vaccine licensed 1940's

Finding A Vaccine Made Simpler (Convenience)



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Vaccine Safety Monitoring (Confidence)

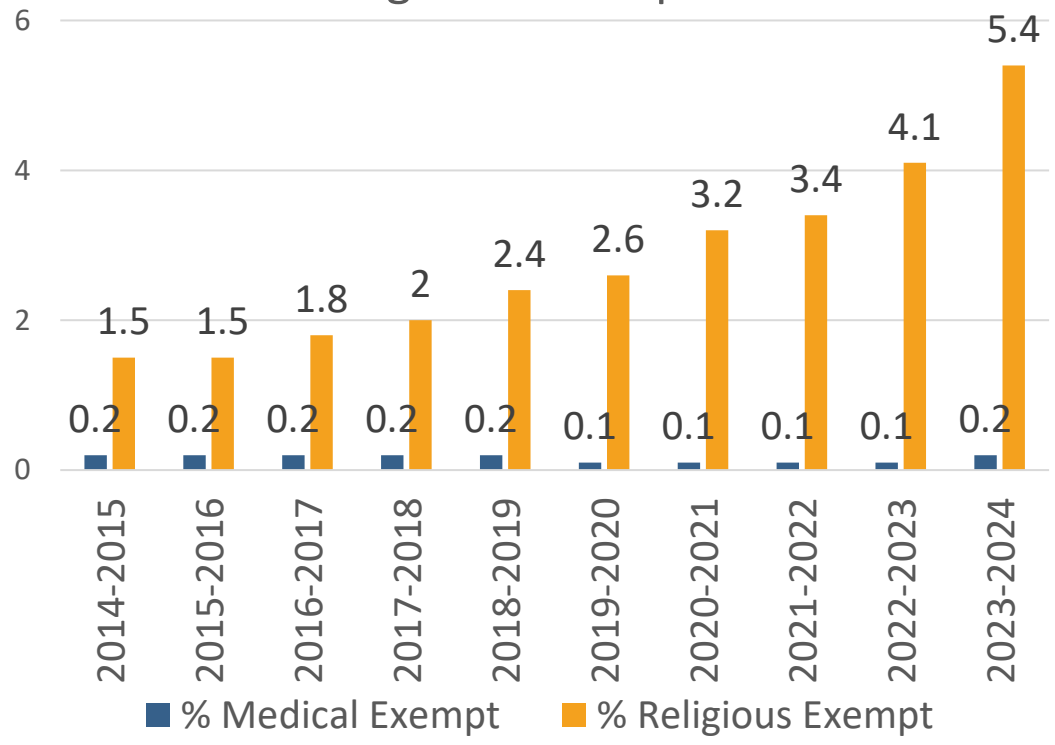
- Vaccine Adverse Event Reporting System (**VAERS**): Accepts and analyzes reports of possible health problems that happen after vaccination
- **V-safe**: Lets individuals share how they feel after getting a COVID-19 or RSV vaccine
- Vaccine Safety Datalink (**VSD**): Monitors the safety of vaccines and conducts studies on adverse events following immunization
- Clinical Immunization Safety Assessment (**CISA**) Project: A network of vaccine safety experts from CDC, research centers, and other partners

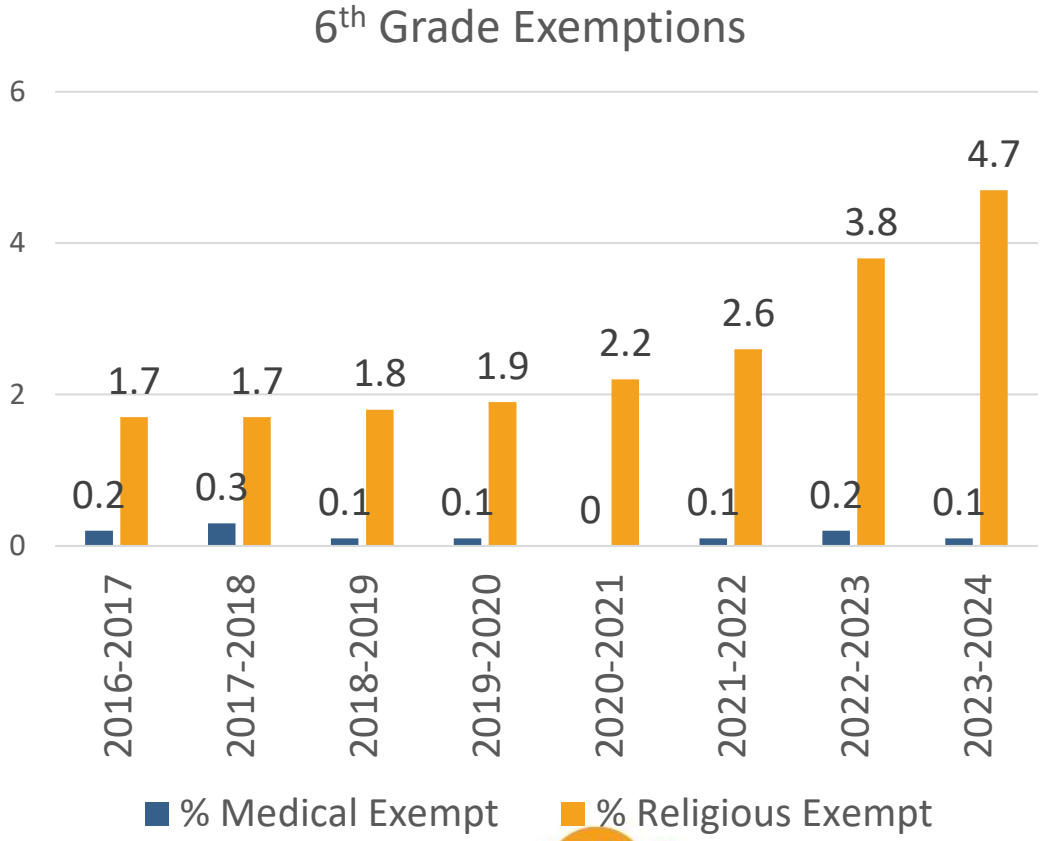
https://www.cdc.gov/vaccine-safety-systems/about/cdc-monitoring-program.html

Kindergarten & 6th Grade Vaccination Exemptions (%), SD, 2015-2024

Any Kindergarten Exemption, US median

- 2014-2015: 1.7%
- 2023-2024: 3.7%





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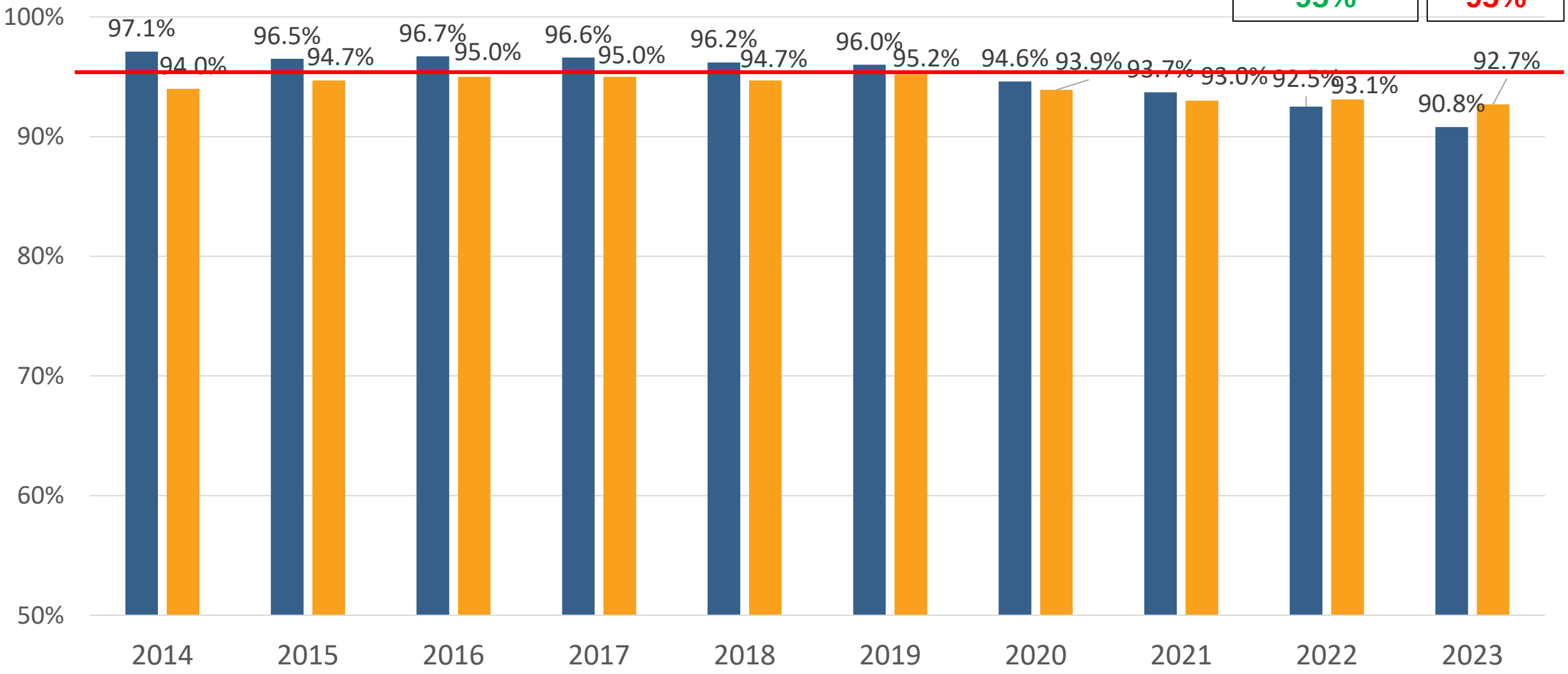
https://doh.sd.gov/health-data-reports/data-dashboards/school-immunization-dashboard/

2-Dose MMR Coverage at Kindergarten Entry, South Dakota and National, School Years 2014-2023

Population Immunity: 95%

HP2030 Goal: 95%



Source: School Vax View, CDC

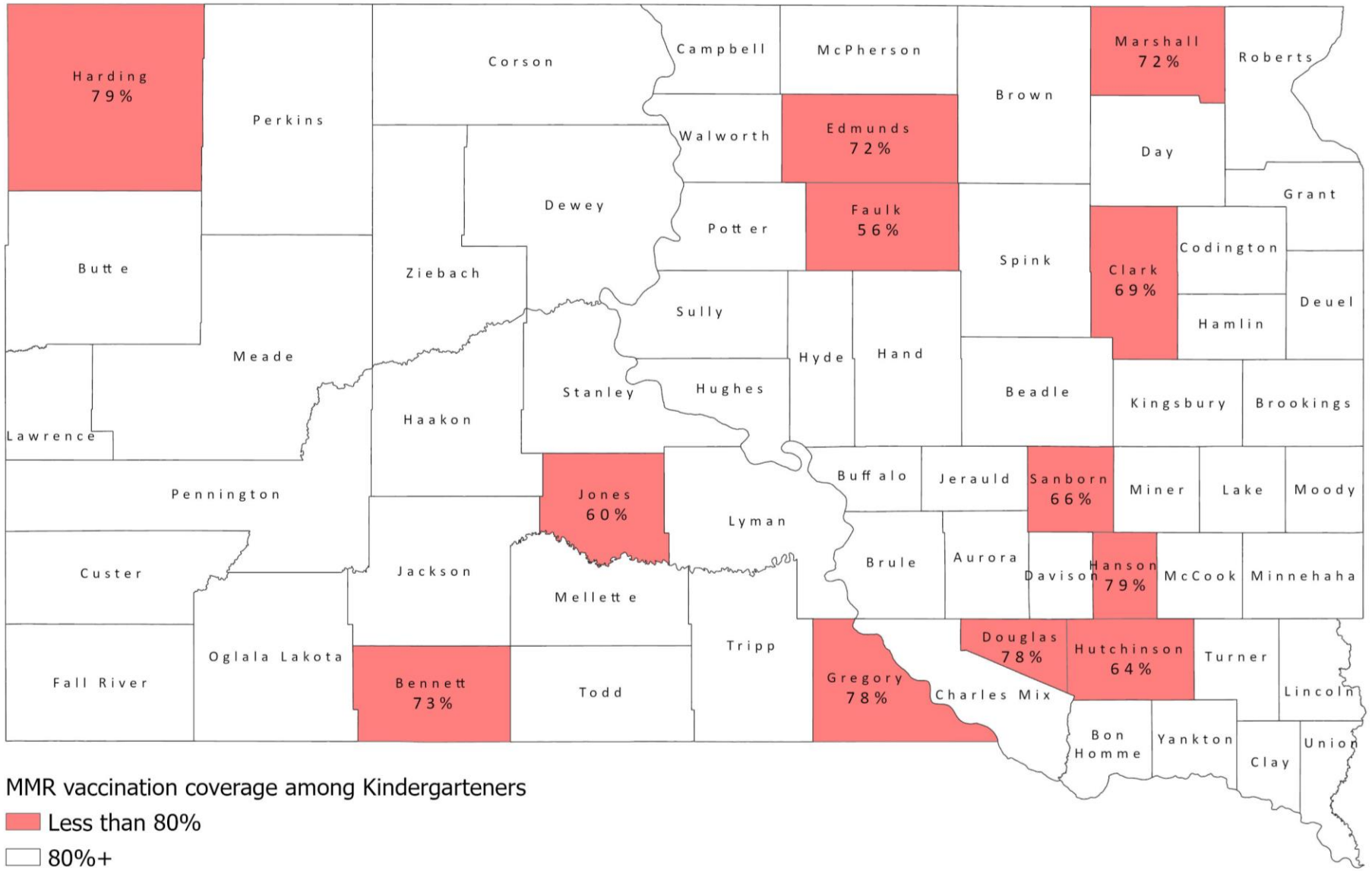
MMR: Measles, Mumps, and Rubella Vaccine

N = 12

SD Counties by MMR Coverage at Kindergarten Entry

Coverage under 80% used to show risk

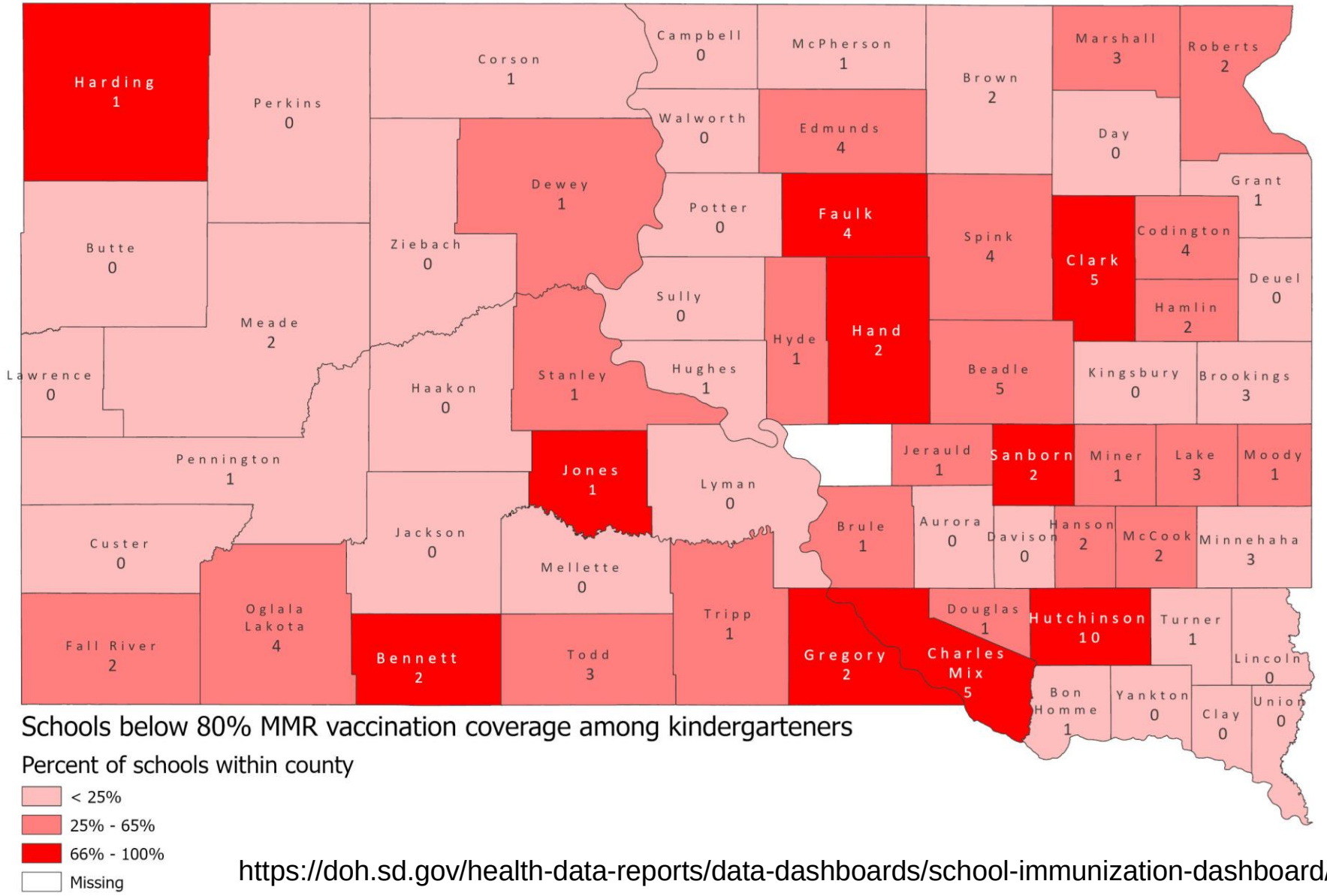
Gaines Co Texas at ~80%



https://doh.sd.gov/health-data-reports/data-dashboards/school-immunization-dashboard/

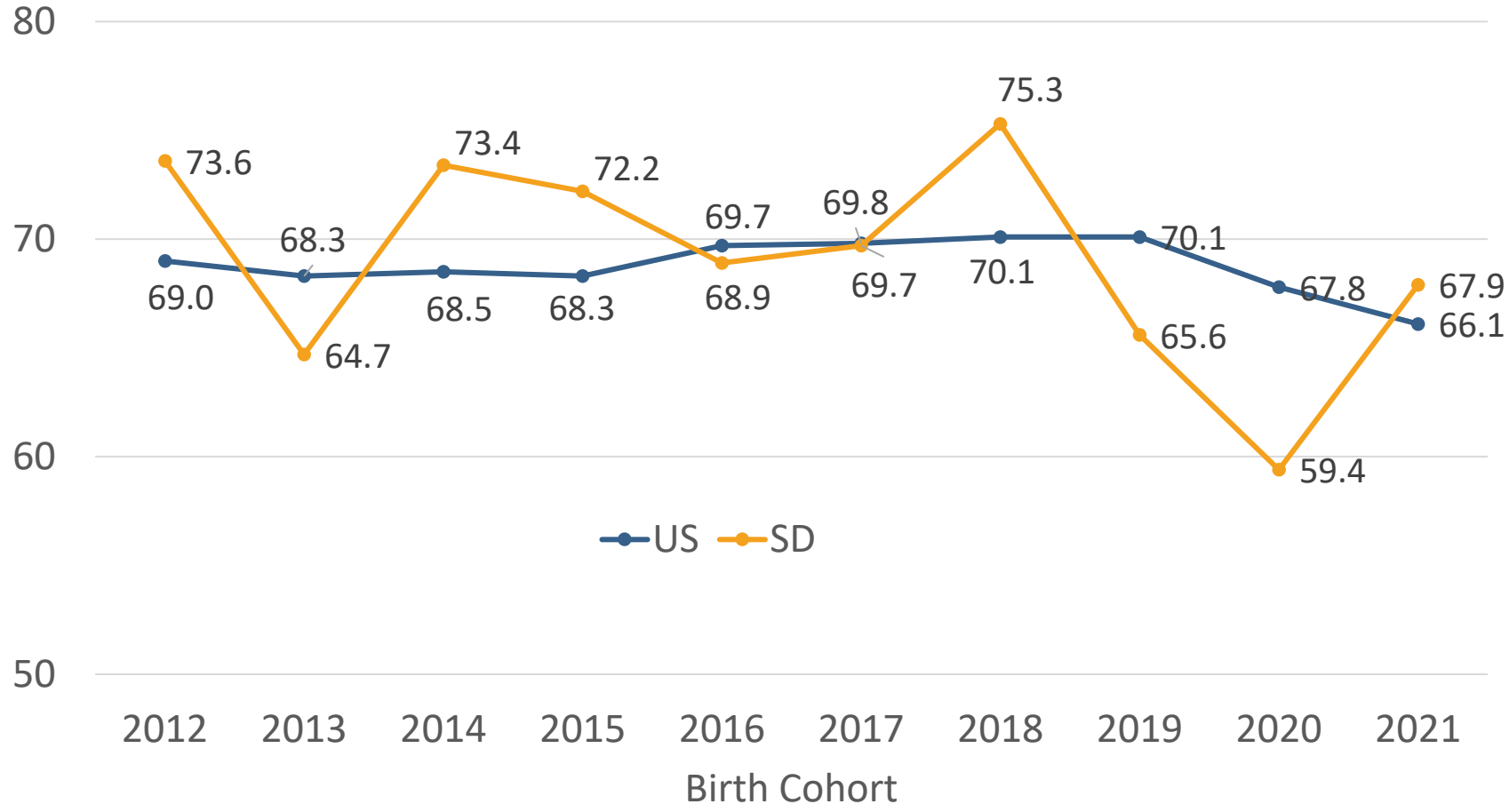
N = 10

SD Counties by Percent of Schools Below 80% Kindergarten MMR coverage



https://doh.sd.gov/health-data-reports/data-dashboards/school-immunization-dashboard/

Vaccination Coverage (%) by Age 24 Months for Routine Childhood Vaccines (7 Vaccine Series), US and SD Birth Cohorts



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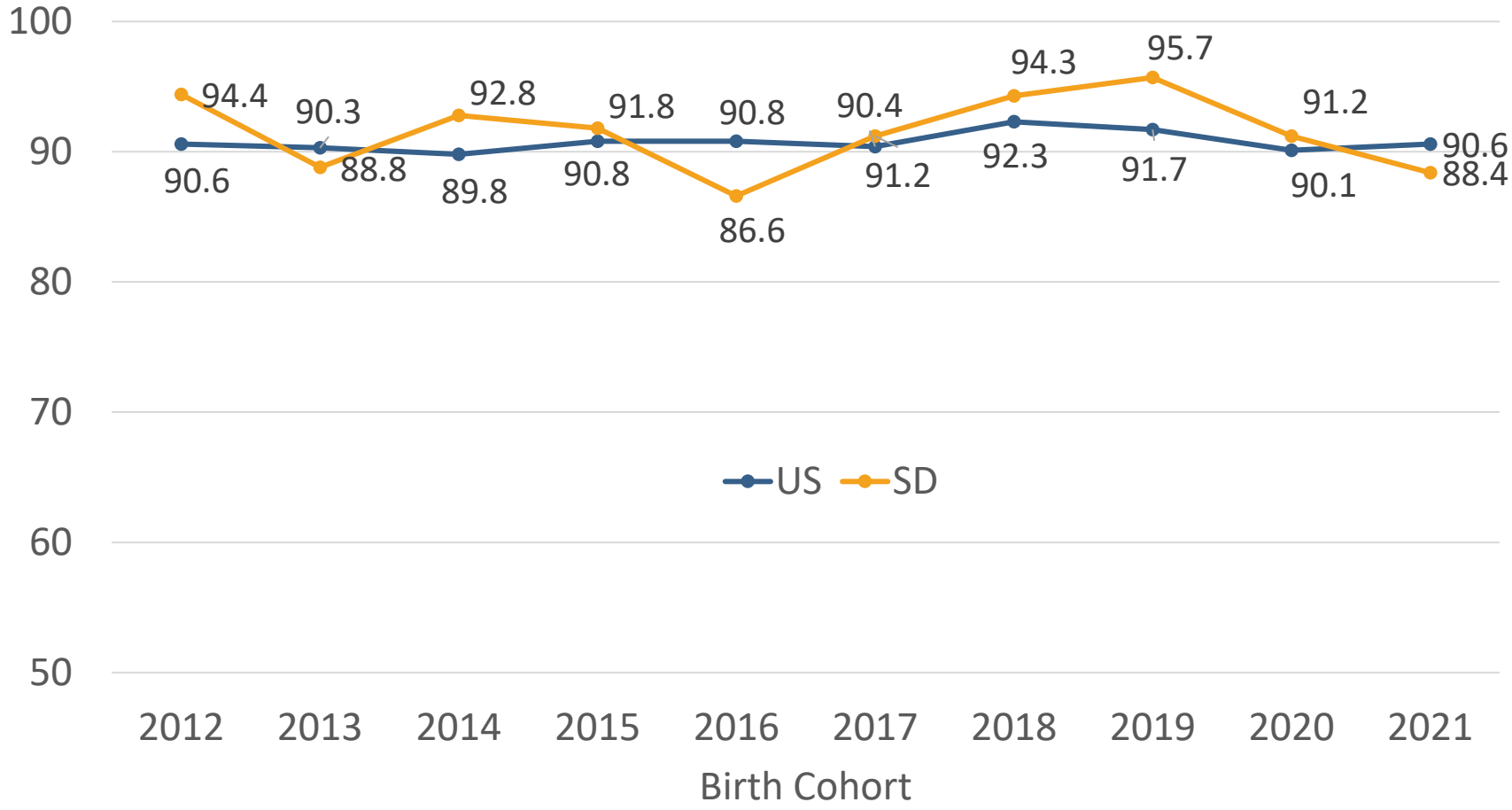
Vaccination Coverage (%) by Age 24 Months for ≥1 Dose MMR, US and SD Birth Cohorts



HP2030 Goal: 90.8%

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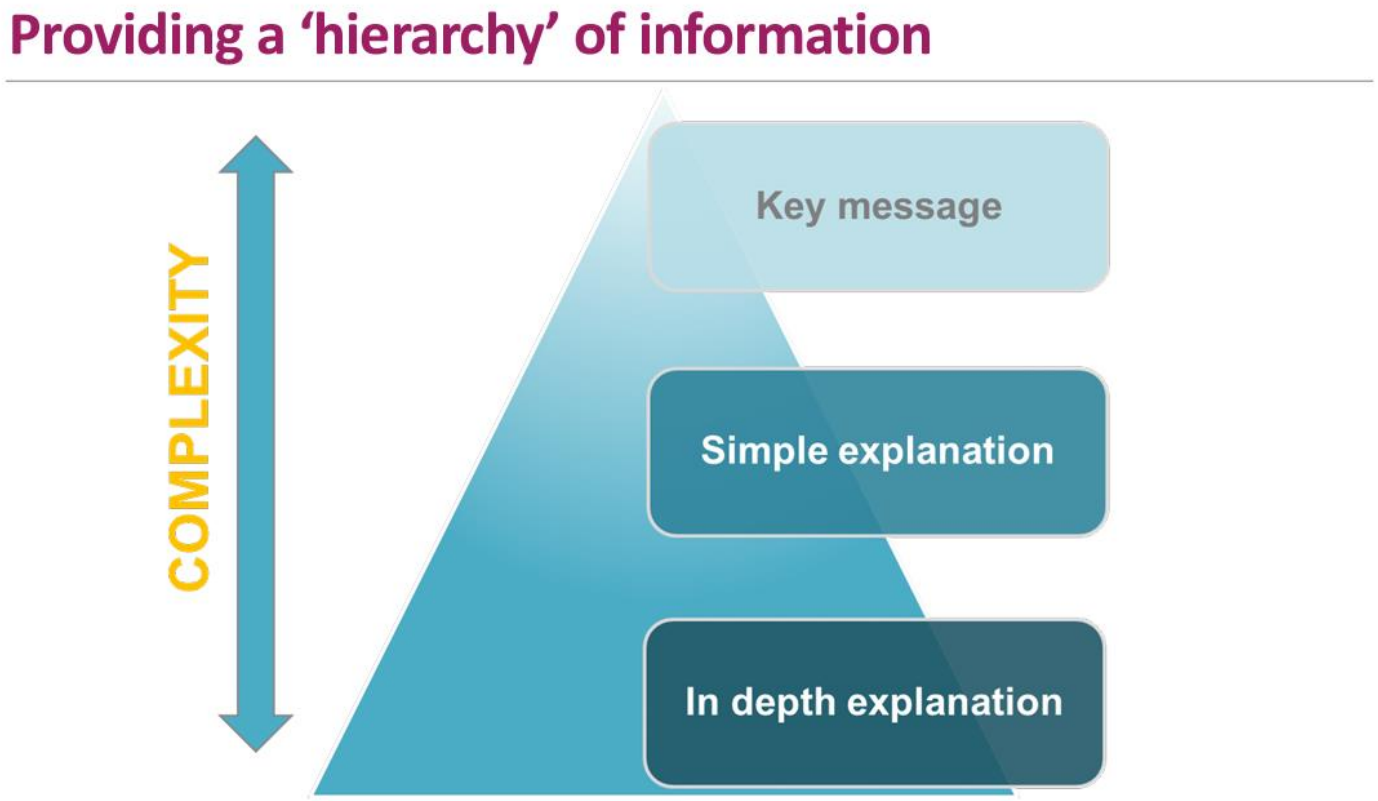
Trusted Voices

- Healthcare workers in the community remain the most trusted advisor and influencer of vaccination decisions



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https://cdn.who.int/media/docs/default-source/epi-win/trusted-voices-epi-win-communications-webinar-08072021.pdf?sfvrsn=5b24ed59_5

Let's RISE is a CDC initiative to provide actionable strategies, resources, and data to support getting all Americans back on-schedule with their routine immunizations to protect everyone from vaccine-preventable disease and disability.

- Identify individuals behind on vaccinations
- Encourage catch-up through reminders, recall, and outreach
- Make strong vaccine recommendations
- Make vaccines easy to access

- Vaccinations during pregnancy

Vaccinate with **Confidence**

Protect communities. Empower families. Stop myths.

- Apply Motivational Interviewing during patient visit

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SD Child Vaccine Survey

- SDSU Population Health Evaluation Center conducted a SD-DOH-funded survey
- June–November 2024
- Demographics
  - 10.3 years, mean age
  - 50.8% male
  - 78.2% White; 14.3% American Indian
  - 90.3% respondents were a parent
- Vaccination status: up-to-date (UTD), not UTD, never vaccinated
- 15 childhood vaccines

Childhood Vaccines

- COVID-19
- DTaP
- HepA
- HepB
- Hib
- HPV
- Influenza
- IPV
- MenACWY
- MMR
- PCV13/15/20
- Rotavirus
- Tdap
- Varicella

Childhood Vaccination Status

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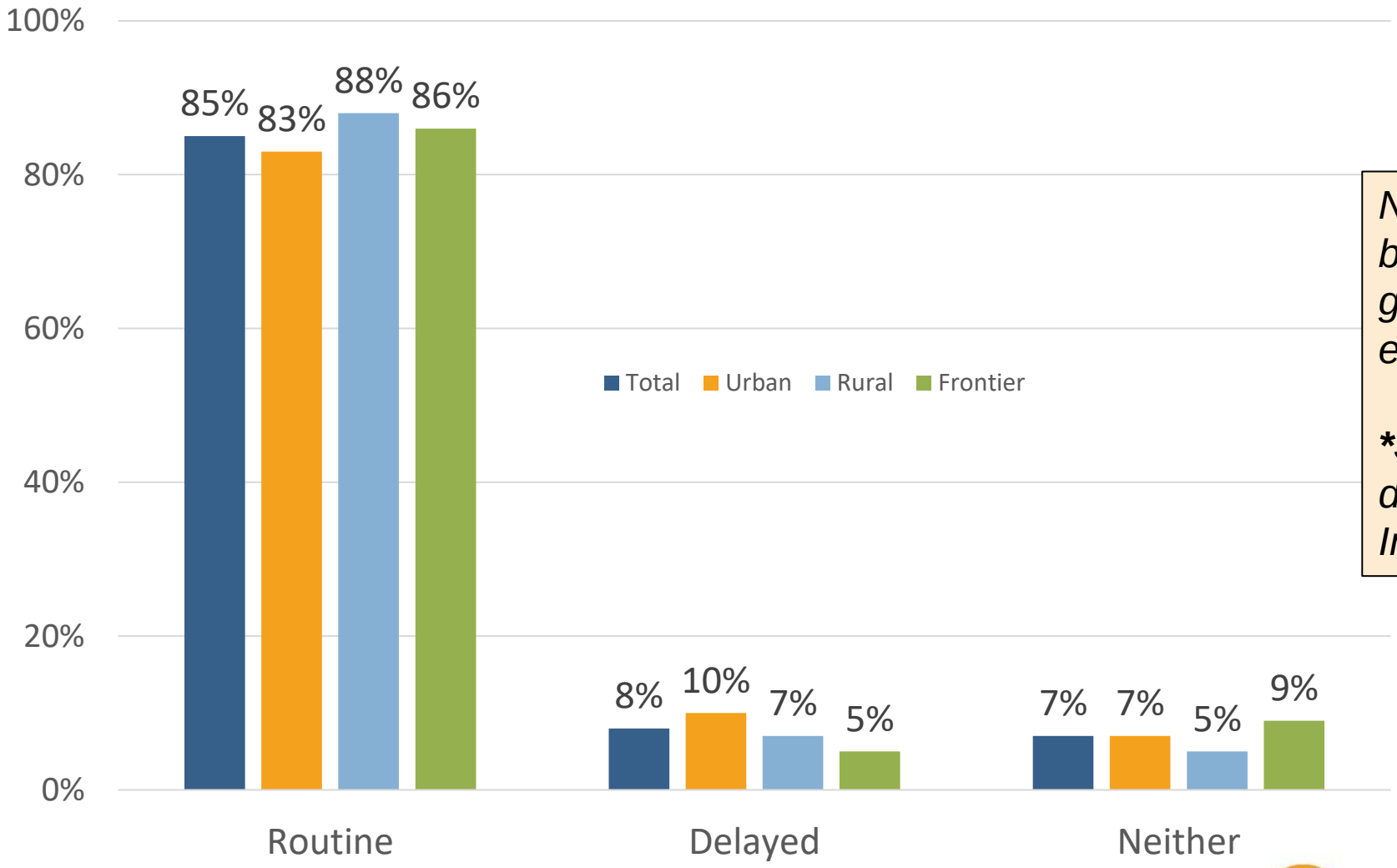
Vaccine Schedule Followed



No significant differences by geography, child age groups, adult age, or education level attained.

***Statistically significant** difference by household Income.*

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Vaccination Status Findings

- UTD vaccination status through age 6 years (0–6Y)
  - Highest: 98% DTaP
  - Lowest: 24% COVID-19

- UTD vaccination status from 7 through 17 years (7–17Y)
  - Highest: 93% Tdap
  - Lowest: 21% COVID-19

- Unsure: 5–15% by vaccine type

UTD Status, 0–6Y

- 98% DTaP
- 88% MMR
- 85% Varicella and HepB
- 82% HiB
- 81% IPV and Rotavirus
- 78% HepA
- 56% Influenza
- 24% COVID-19

UTD Status, 7–17Y

- 93% Tdap
- 65% MenACWY
- 62% HPV
- 50% Influenza
- 21% COVID-19

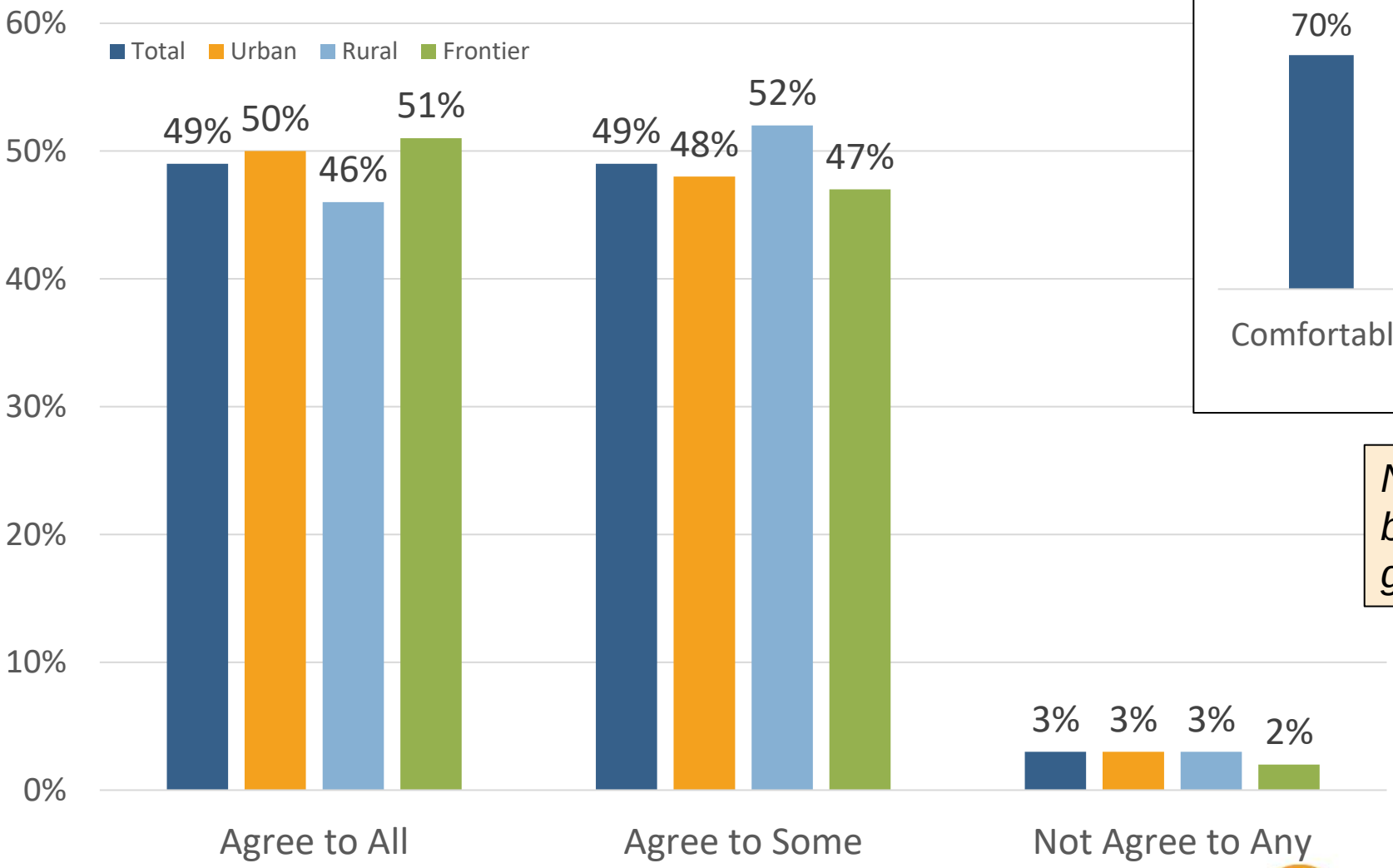
Vaccinators versus Routine Care

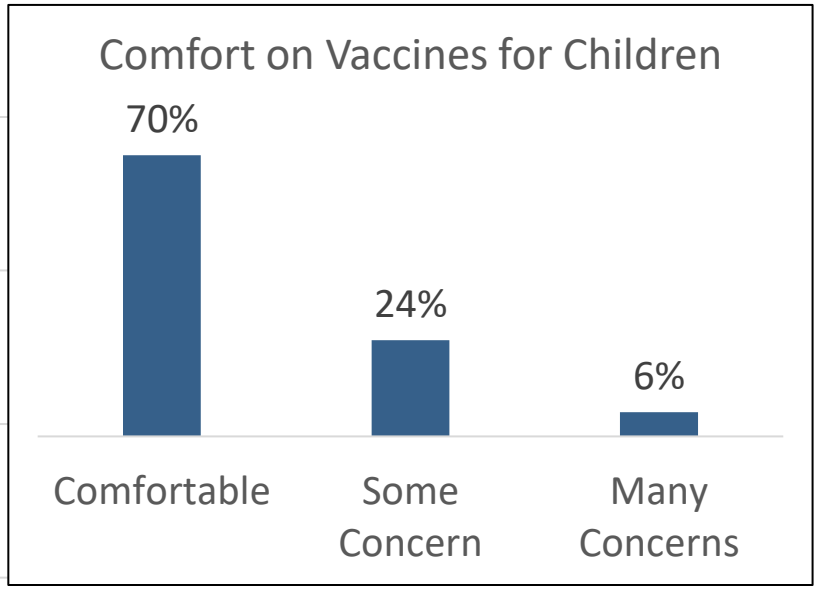
- **Trusted vaccinators**
  - 80% doctor’s office
  - 26% clinic/health center
  - 10% pharmacy/drug store
  - 7% K-12 school
  - 5% hospital
  - **5% community health office**
  - 2% workplace
  - 1% mall

- **Routine preventative care**
  - 96% primary care provider
  - 1% Urgent care center

Beliefs on Vaccination

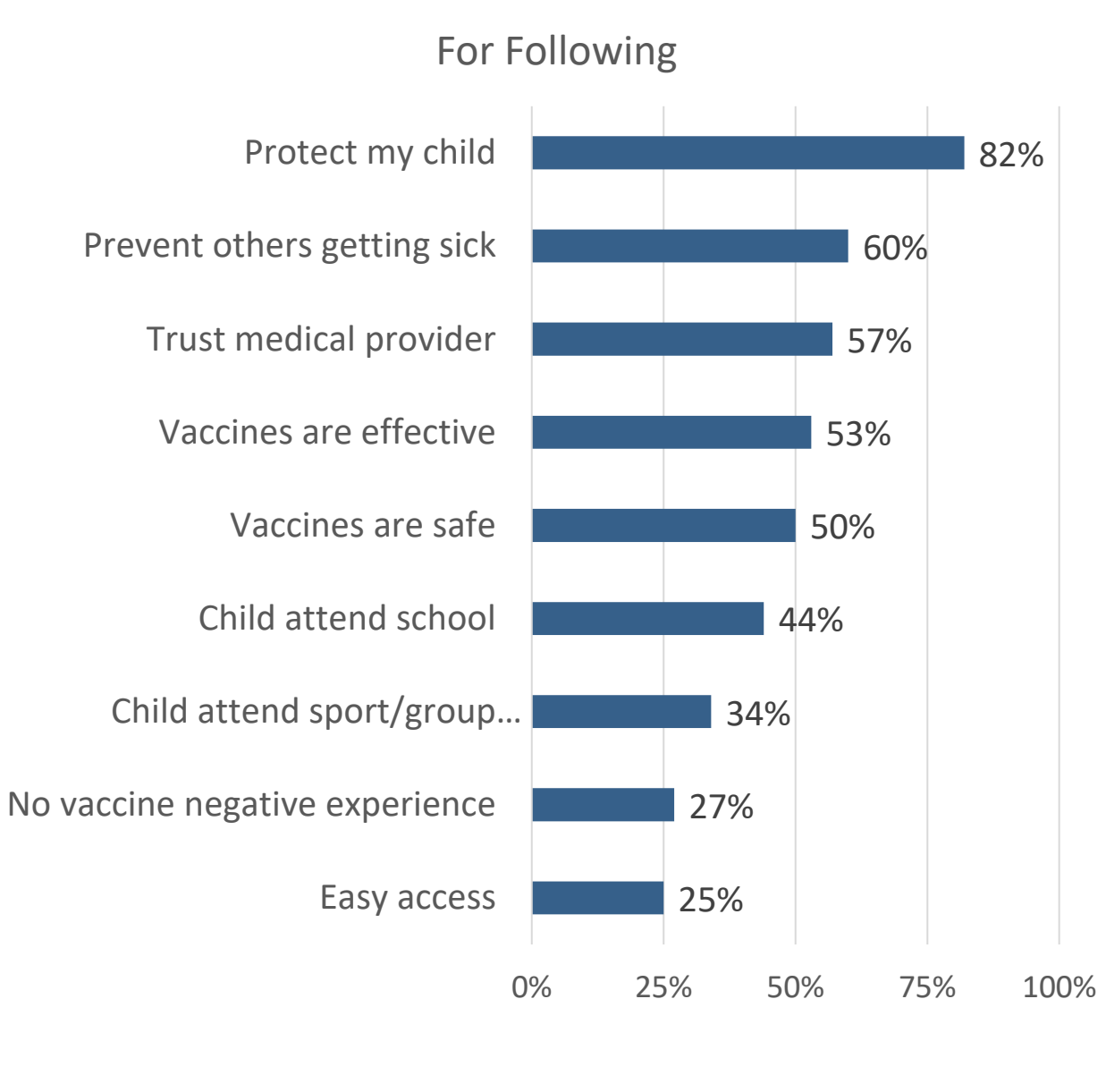
Provider Recommendation for Vaccination

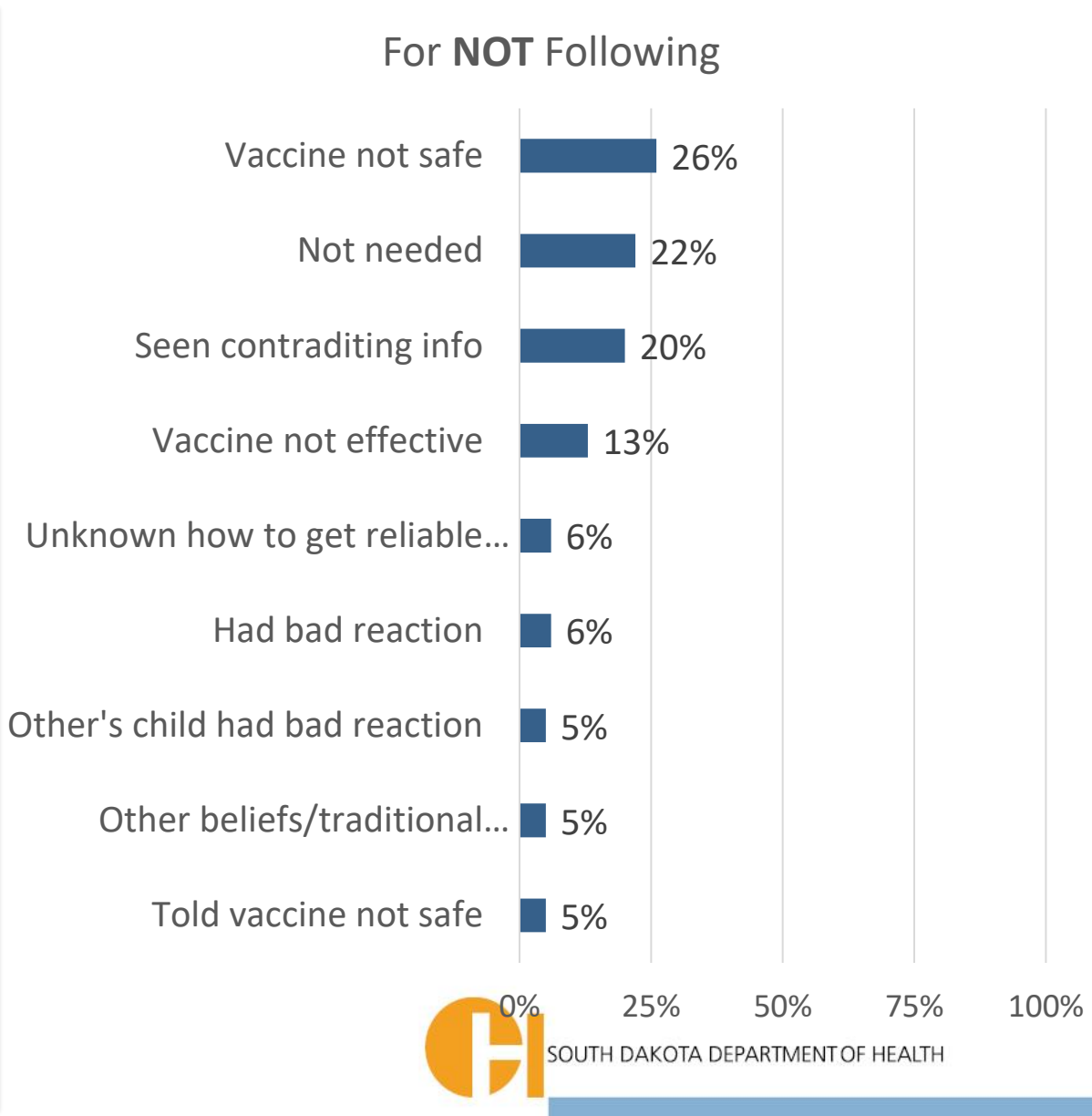




No significant differences by geography or child age groups.

Reasons for or for not following CDC Child Vaccine Schedule





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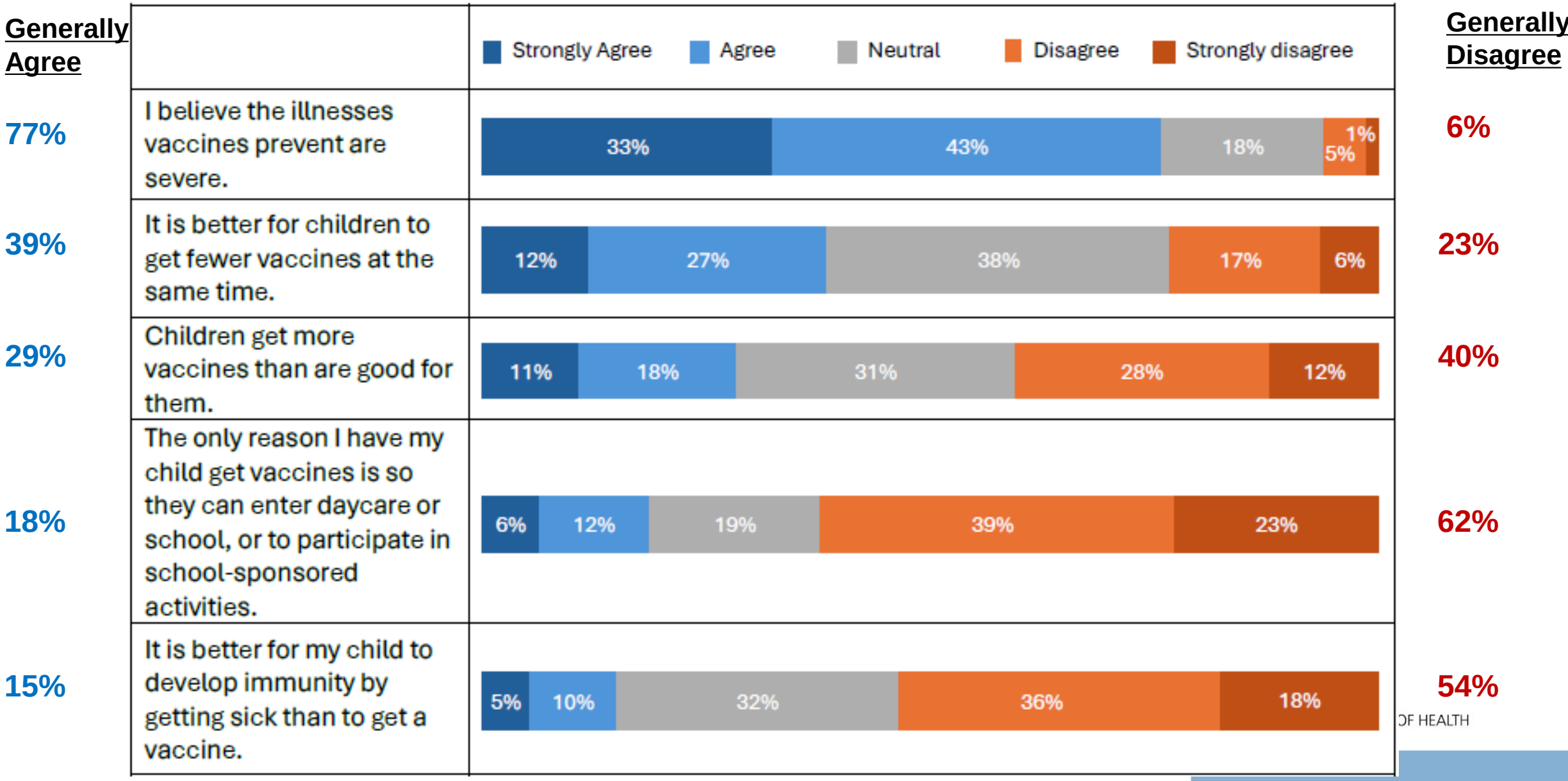
Agreement with Vaccine Beliefs Statements



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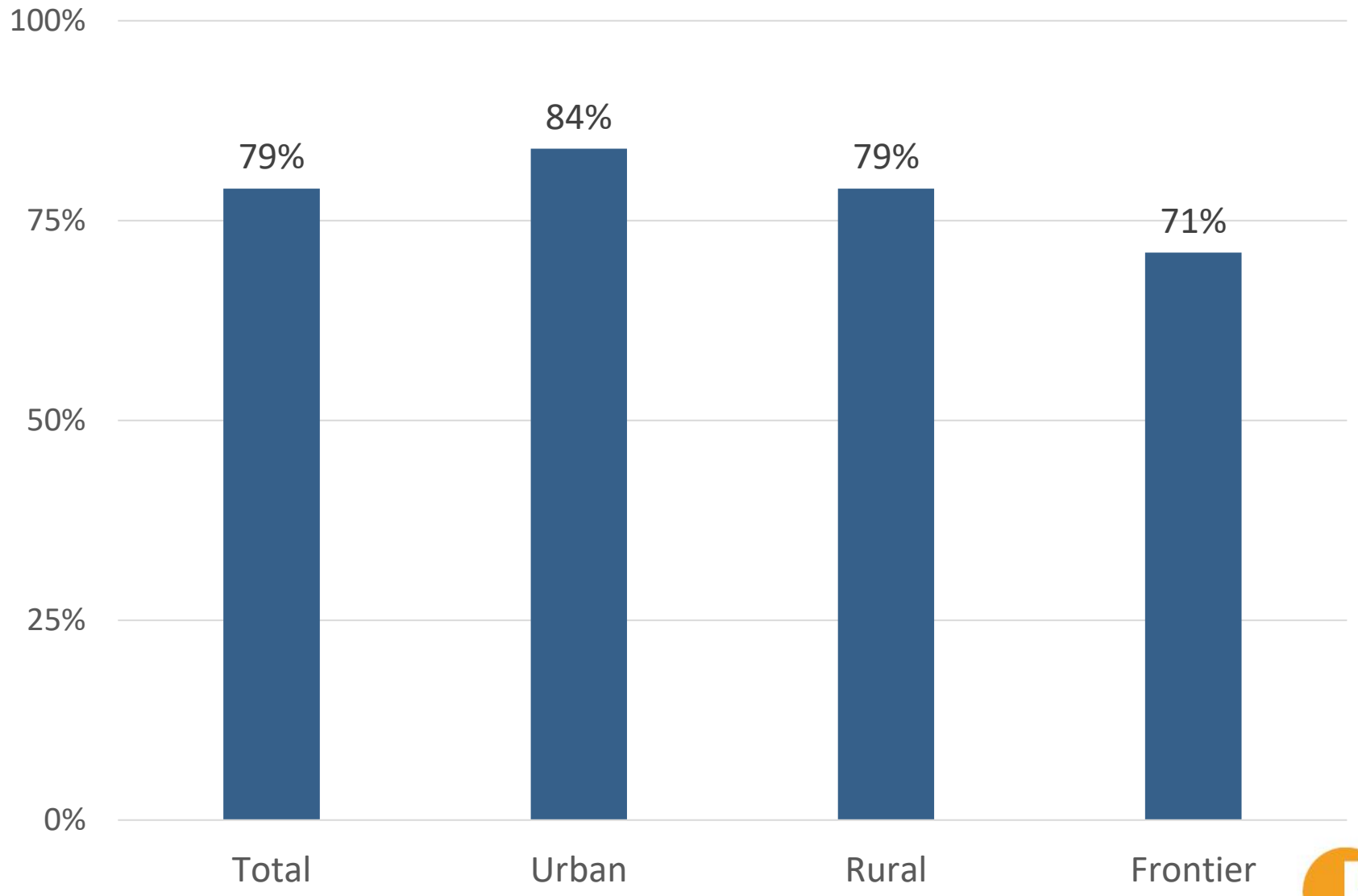
Sources of Information

Discussed Child Vaccines with Healthcare Provider in Past Year*



***Statistically significant**

94% *strongly agree/agree they were able to openly discuss vaccine concerns with their provider*

87% *strongly agree/agree they trust info on vaccines from their provider*

5% excluded since they did not visit a provider during the year

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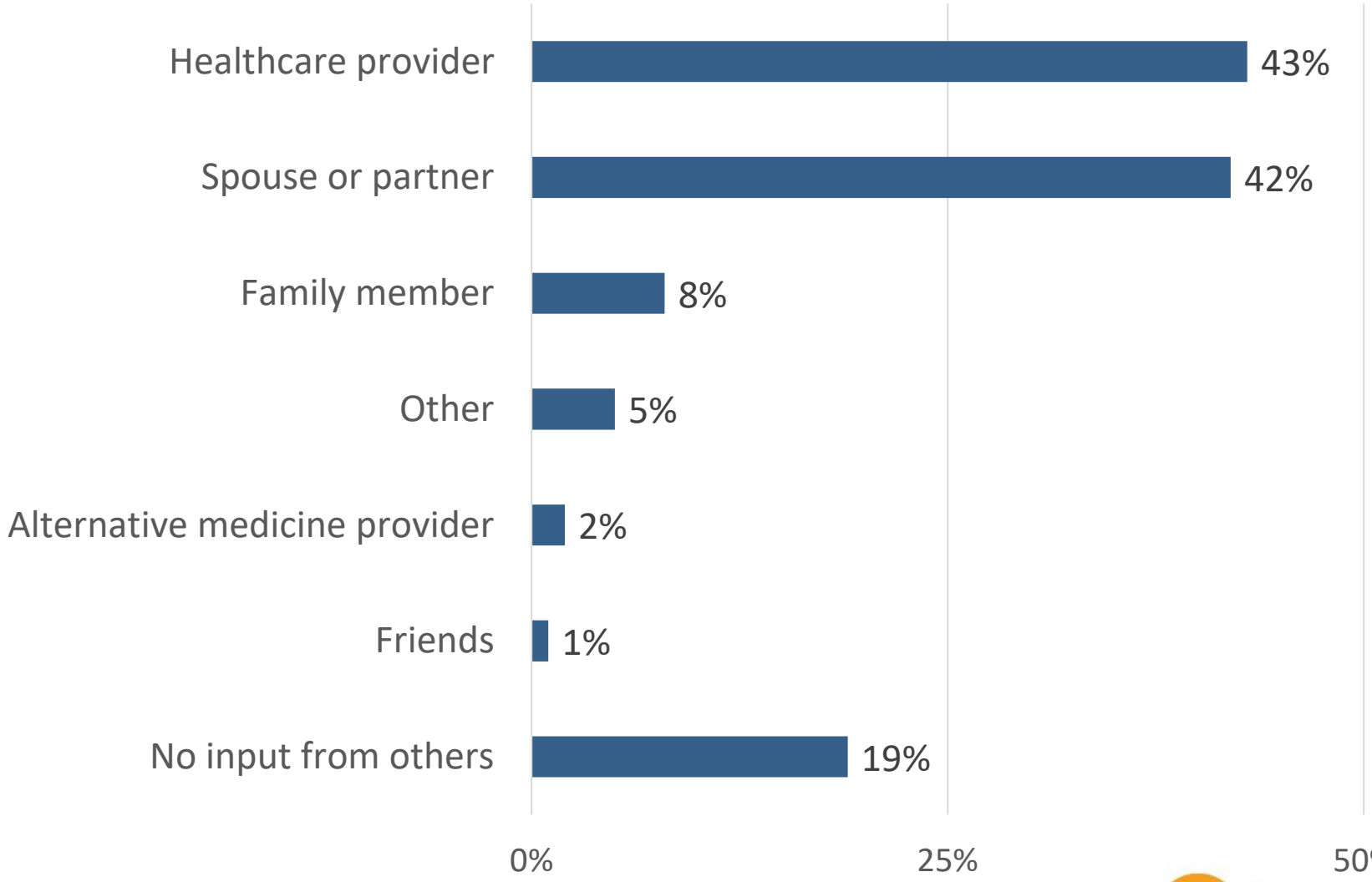
Influential Person in Child Vaccination Decisions



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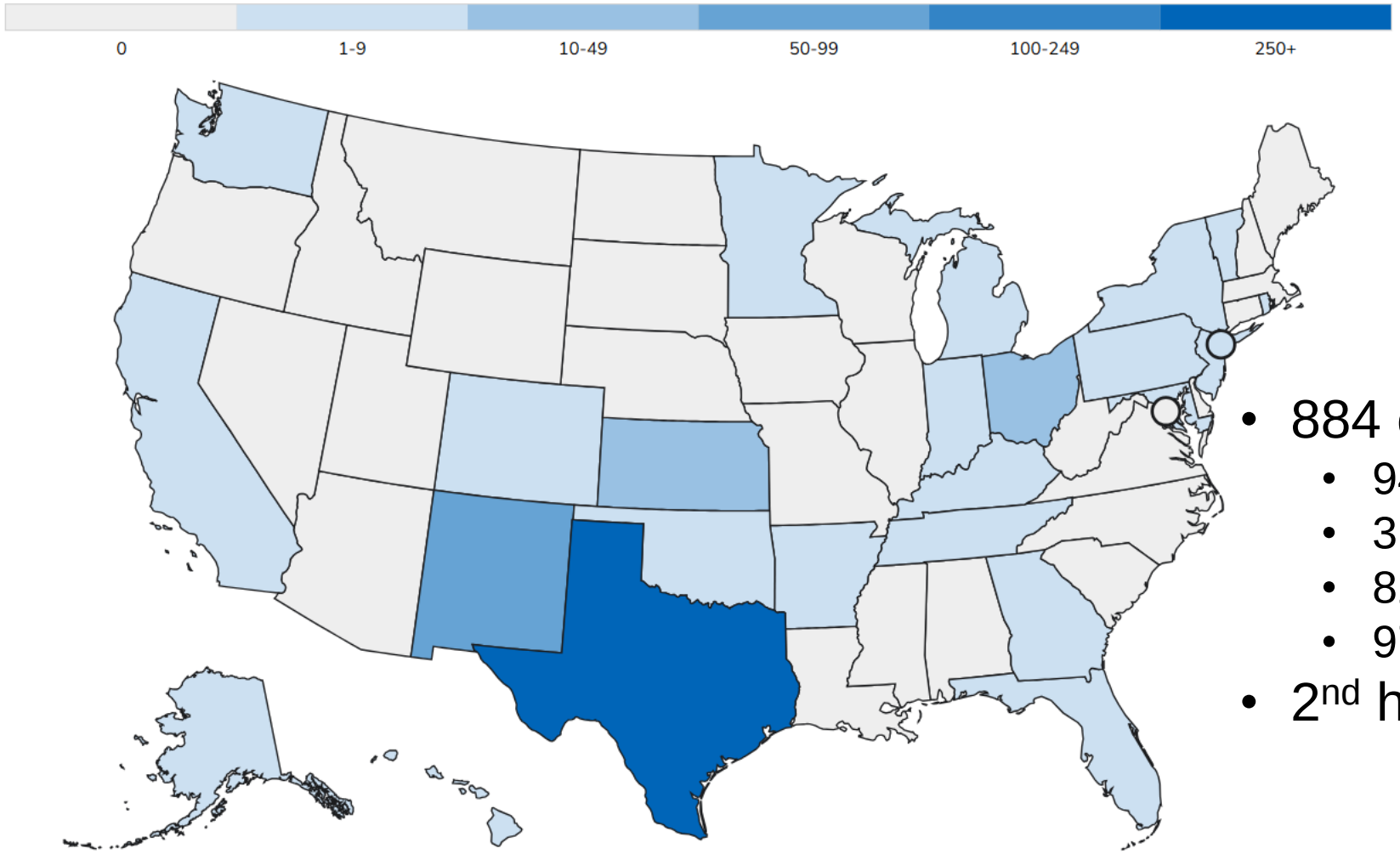
In The News

Current Situation



- 884 cases
  - 94 (11%) hospitalized
  - 3 deaths
  - 82% in TX, NM, OK outbreak
  - 97% unvaccinated/unknown
- 2nd highest count since 2000

As of April 25, 2025

https://www.cdc.gov/measles/data-research/index.html

Summary

- Vaccine hesitancy is complex and exists on a spectrum
- Vaccinations are trending downward for children which puts the population at risk
- Healthcare providers are the most trusted voices
- Measles cases are increasing due to a large US outbreak
- Public health and healthcare should prepare for more cases and exposures as vaccination rates decrease

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