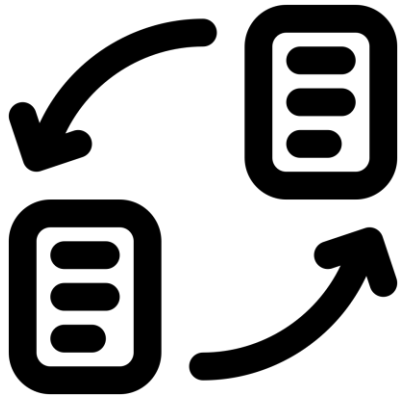
Impact of Data Exchange Partners on Michigan Immunization Data Quality

Hannah Peng, MPH

AIRA National Meeting

April 29, 2025

Background



- Immunization data exchange between IIS
  - IZ Gateway
  - Flat file exchange
- MCIR has data sharing agreements with other IIS since 2019

Objectives:

1) Characterize data exchanges with MCIR
2) Assess impact on coverage among those with non-MI doses

Methods

- Population: Persons in MCIR with ≥1 immunization dose reported by a data exchange partner
- Time period: 2019 – October 2024
- Outcomes:
  - Description of individuals and their partner-reported doses
  - Assessment of impact on flu and COVID coverage rates
    - 6+ months of age
    - Percent with 1+ dose, by season
    - With vs without partner-reported doses

Results

834,124 doses for 167,675 people

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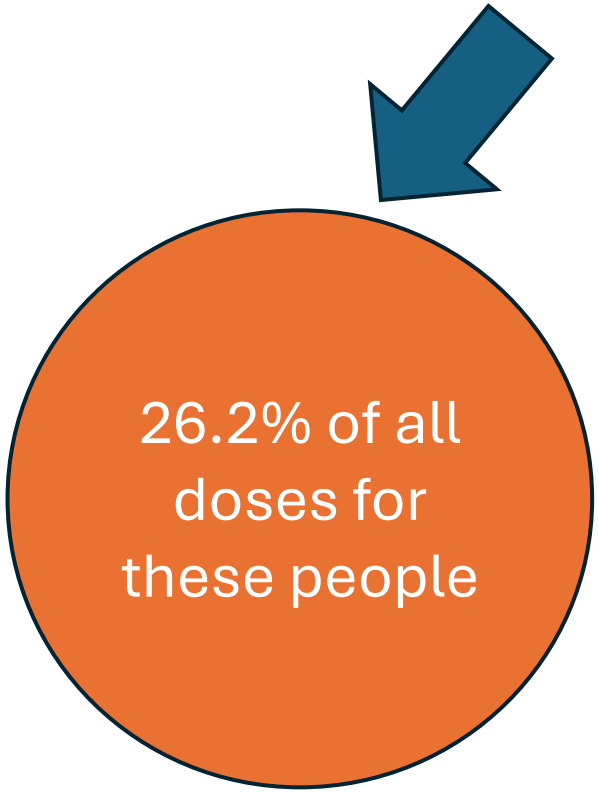
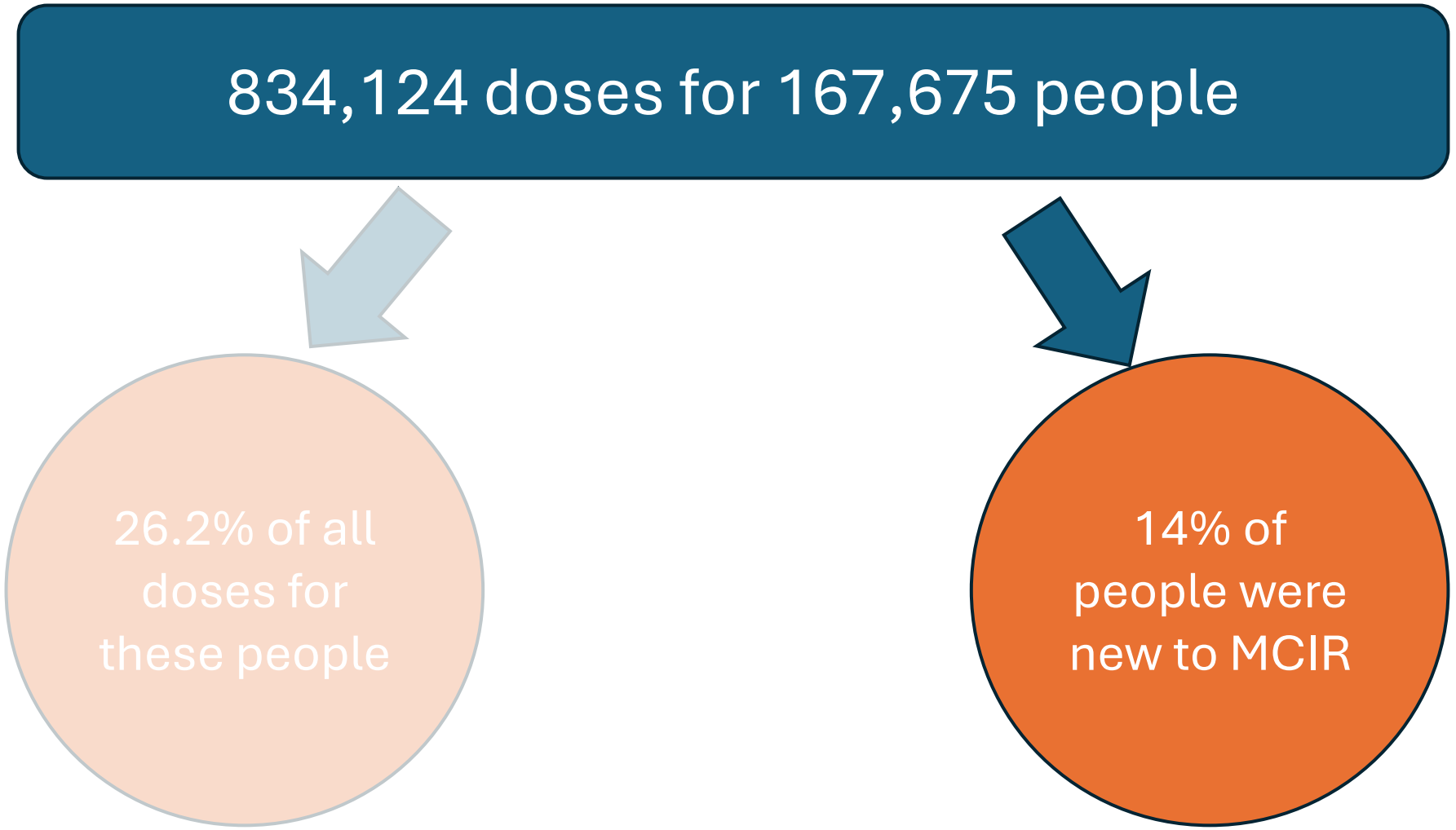


Results


834,124 doses for 167,675 people
26.2% of all doses for these people
14% of people were new to MCIR

Demographics of People with Partner Doses
(n=167,675)

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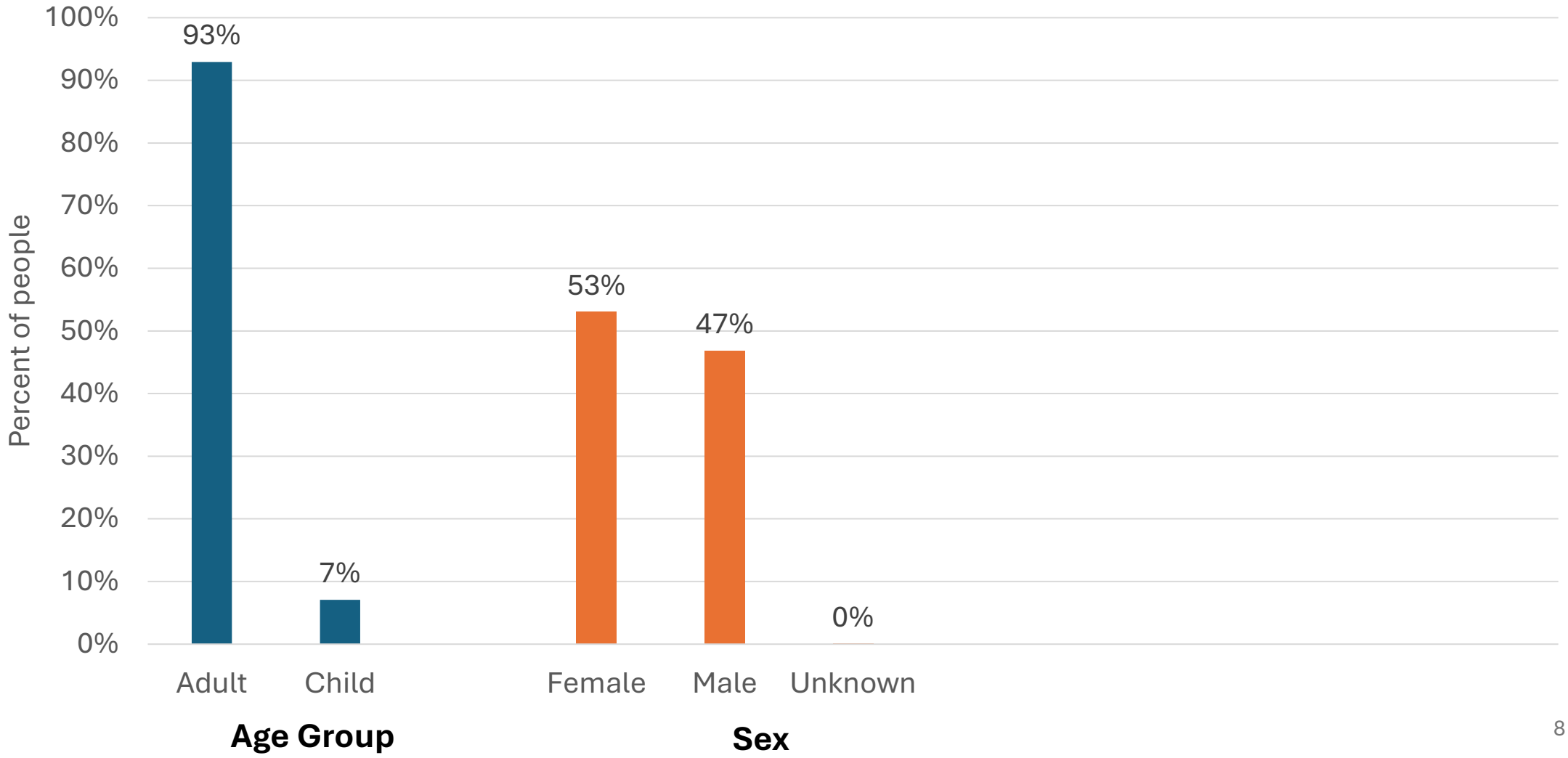

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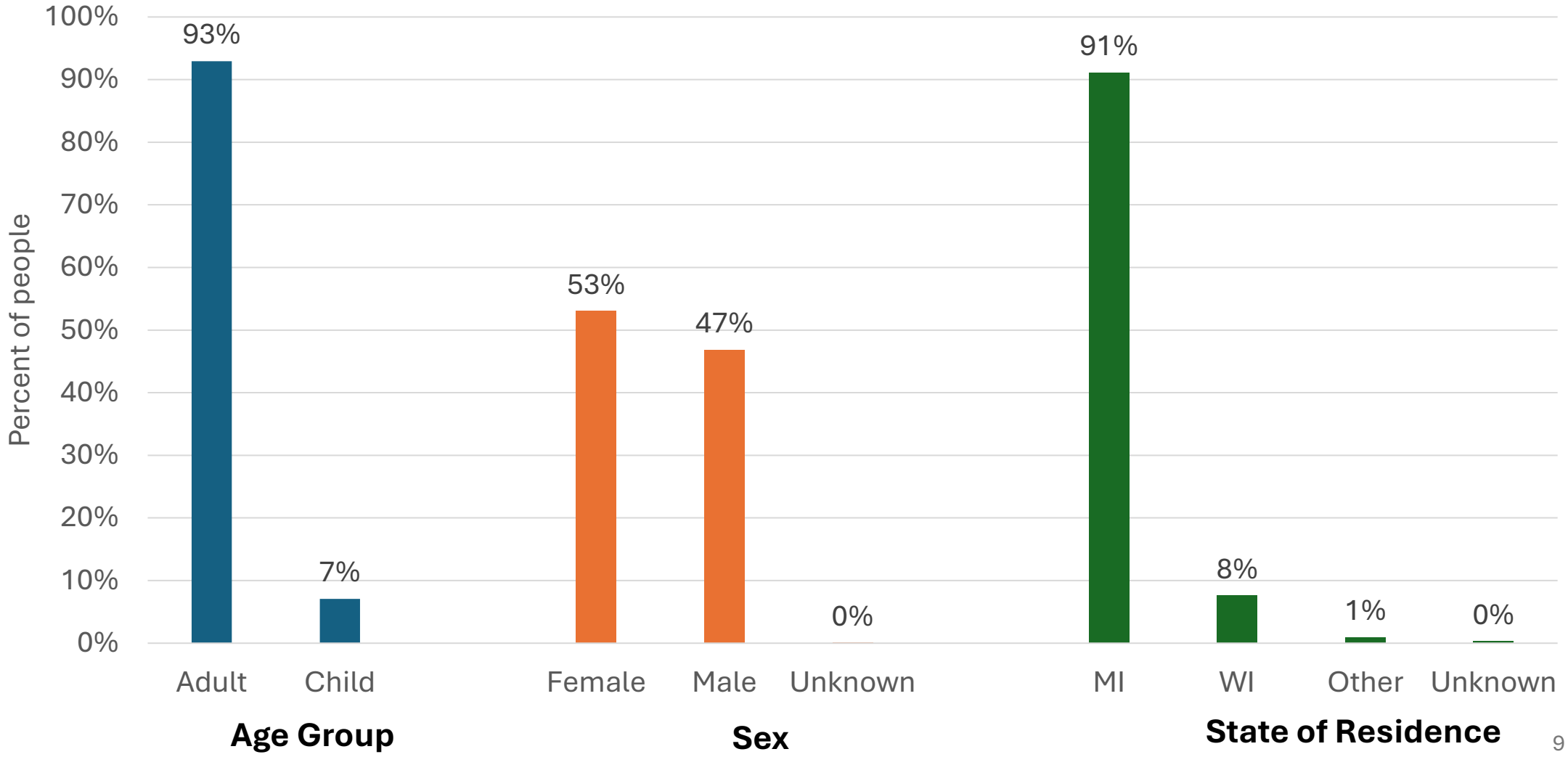
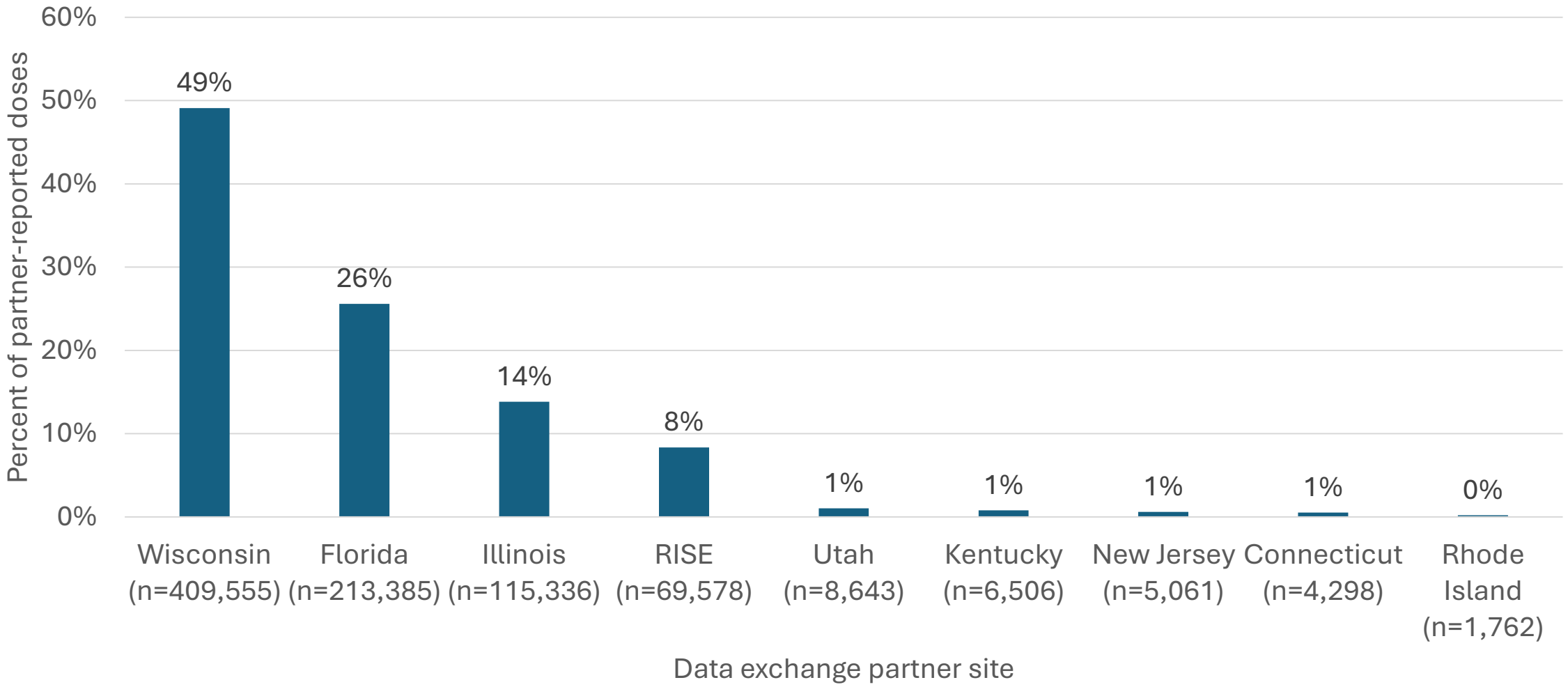


Percent of Partner-Submitted Doses by Site
(n=834,134)



Percent of Partner-Submitted Doses by Year
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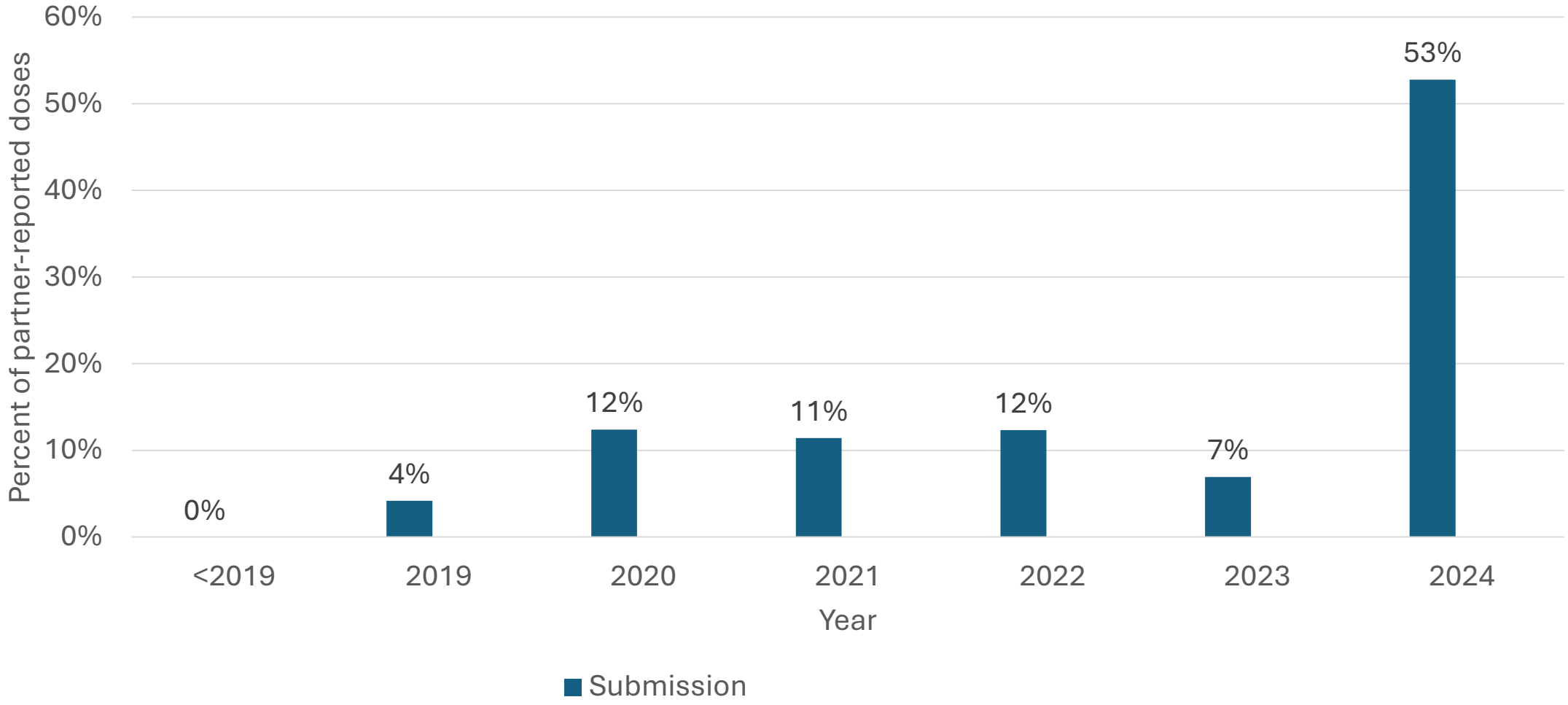

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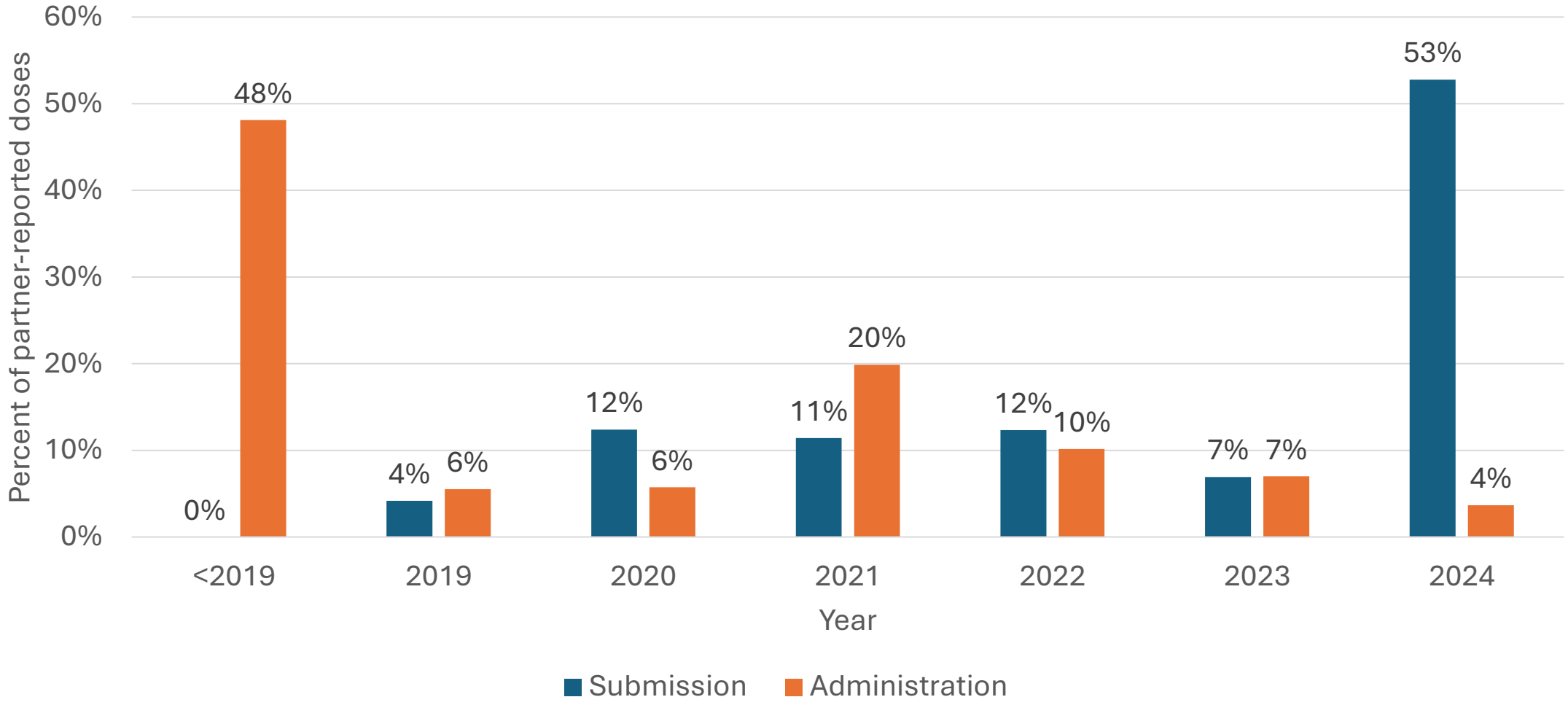
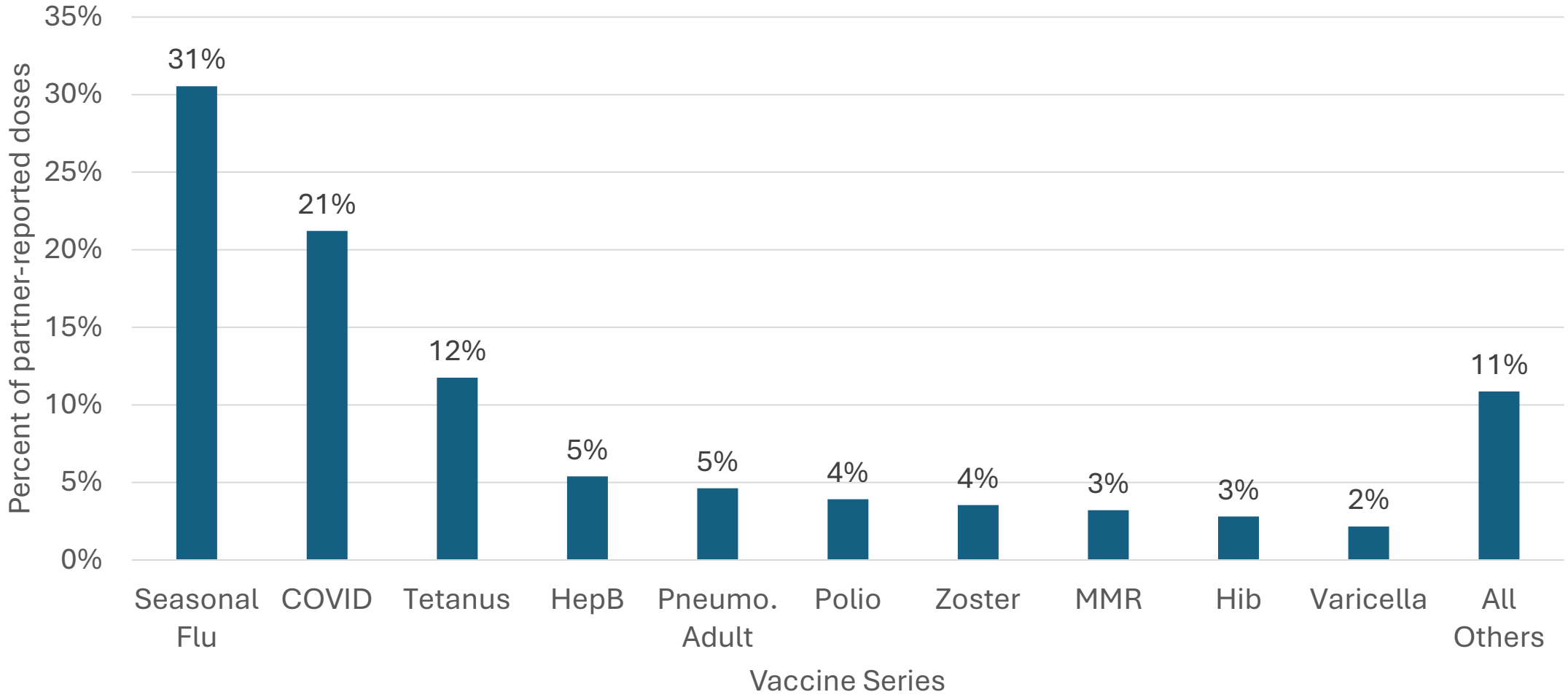
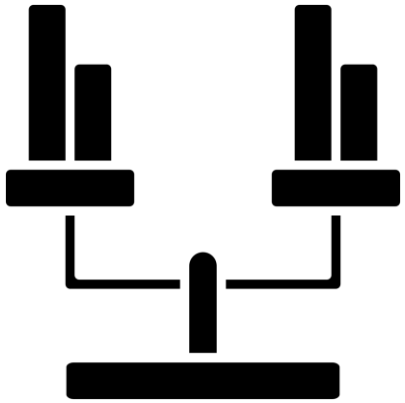


Percent of Partner-Submitted Doses by Vaccine
(n=834,134)

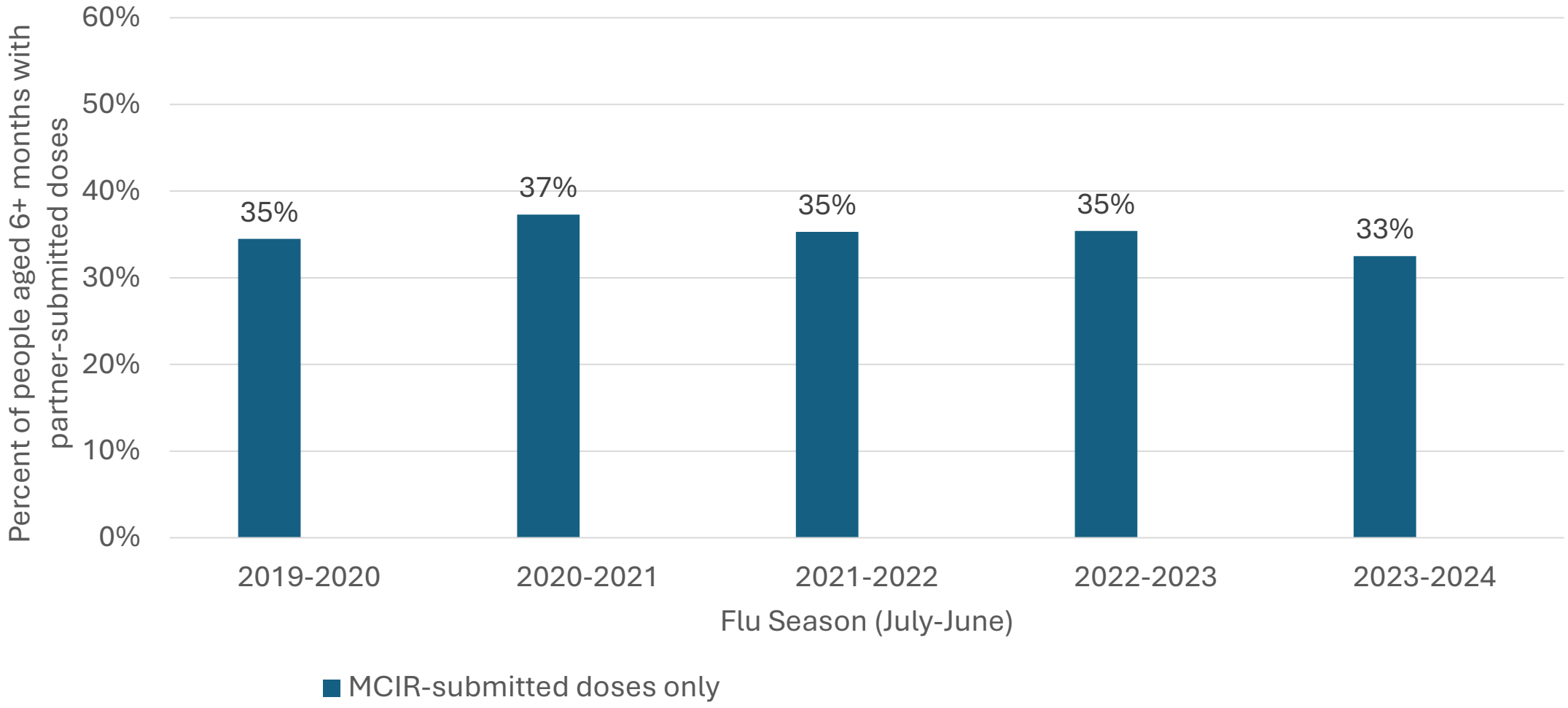


Coverage Impact

- Calculated coverage for people with partner-reported doses aged 6+ months
  - Including only their doses reported by MCIR providers
  - Including ALL doses (reported by MCIR and data exchange partners)
- Flu, COVID
  - 1+ dose per season
- Compared coverage



Percent of People with 1+ Flu Dose by Season
(n=164,976)



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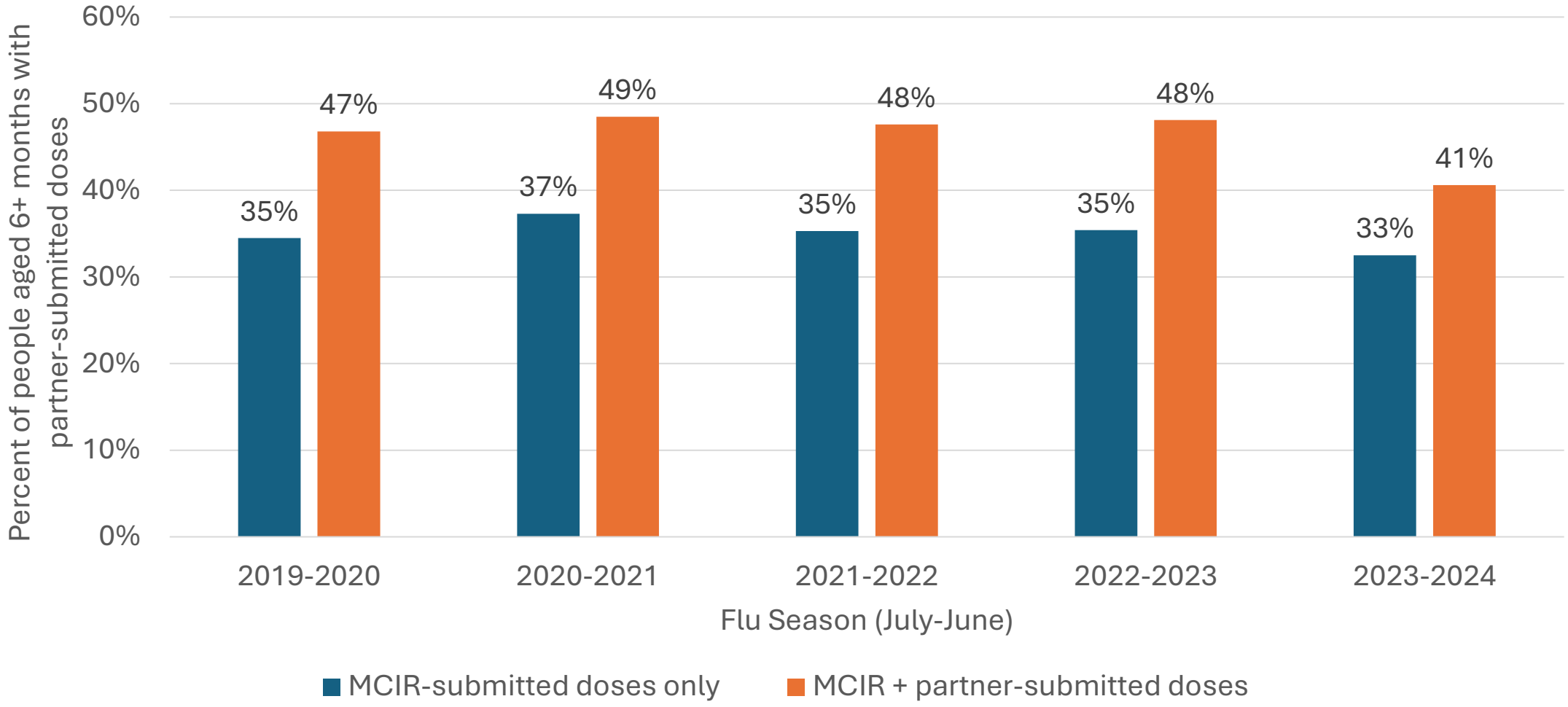
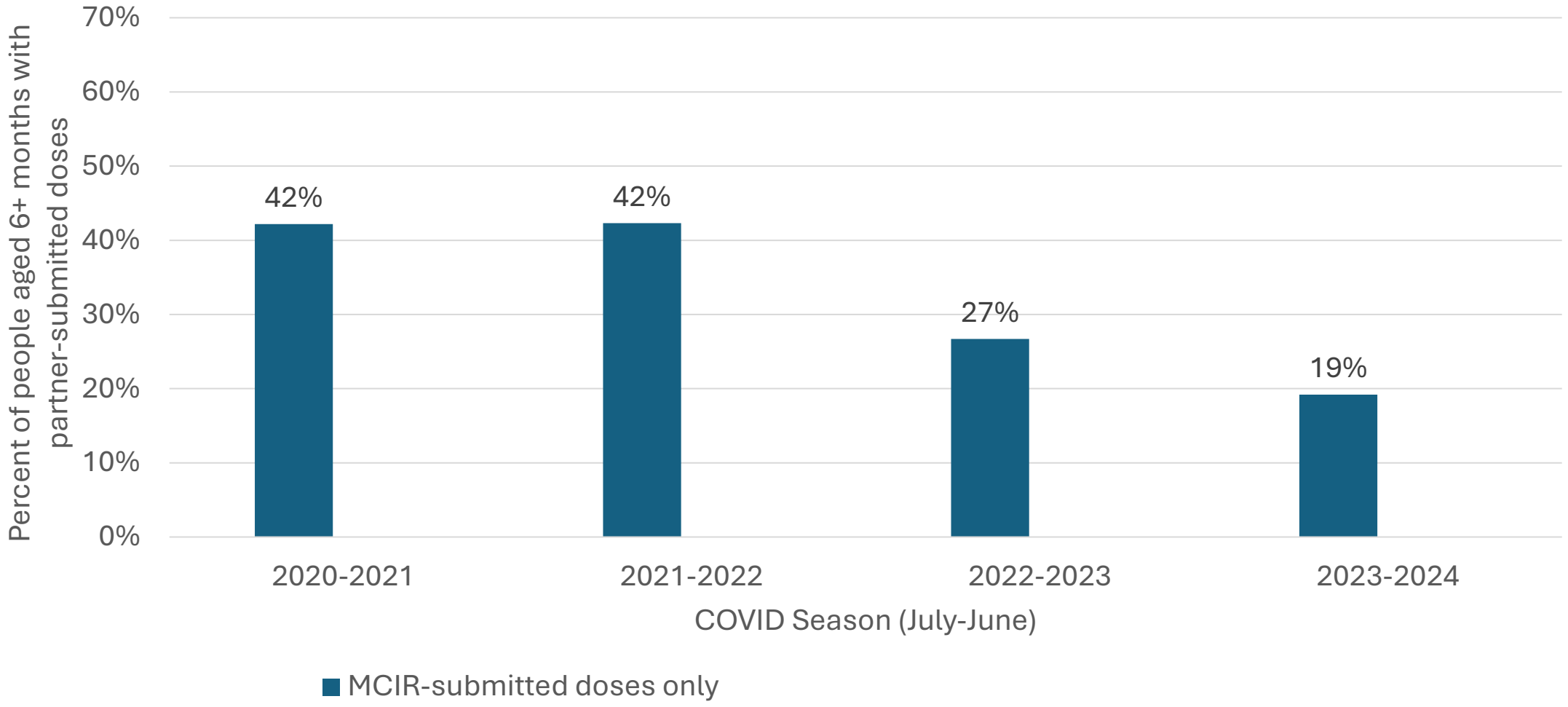


Percent of People with 1+ COVID Dose by Season

(n=165,679)



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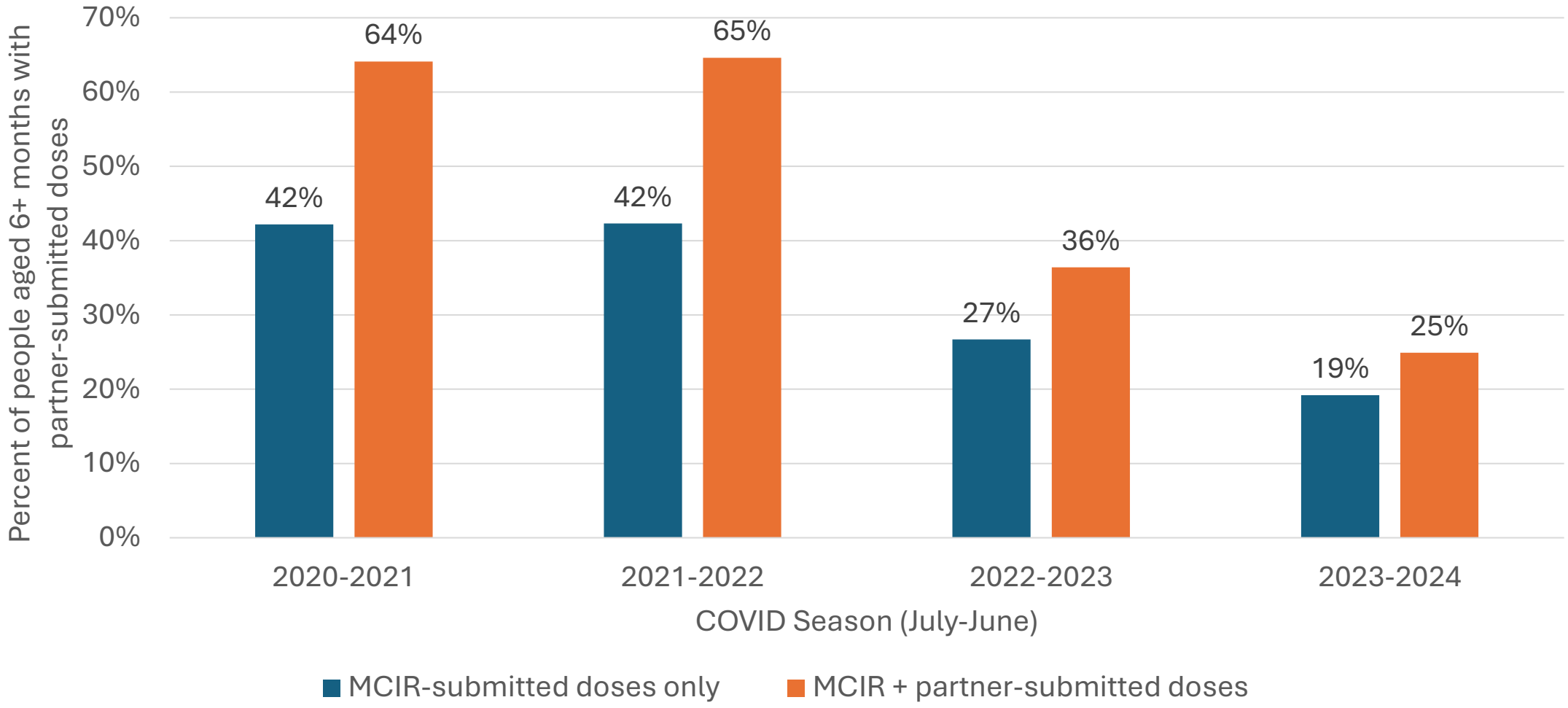
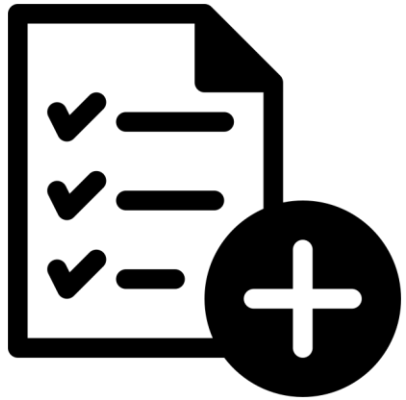


Discussion

- Mostly for adults and seasonal/recurring vaccines
- Increased Flu and COVID coverage rates
- Improved completeness of MCIR for:

Individuals

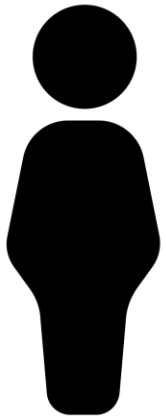


Immunization Histories

Public Health Implications

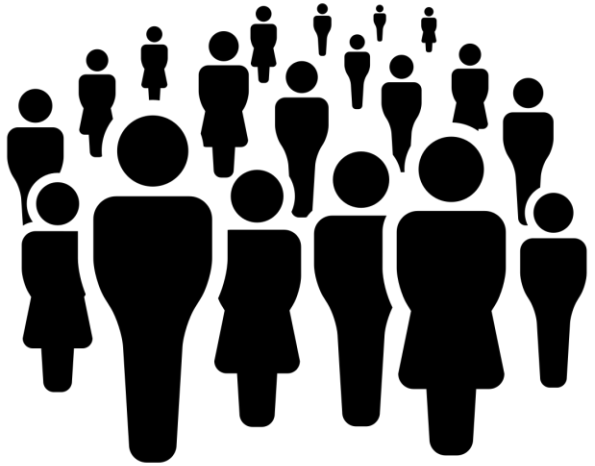
Individual

- Improve eligibility assessment
- Reduce over-vaccination



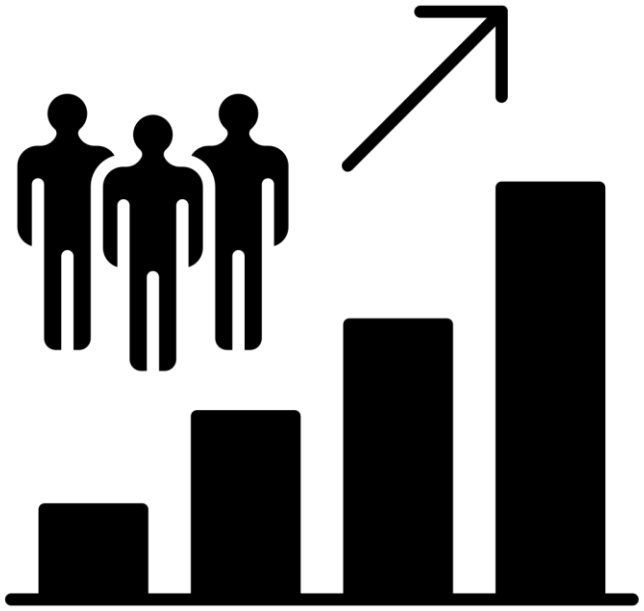
Population

- Better inform interventions
- Support surveillance efforts

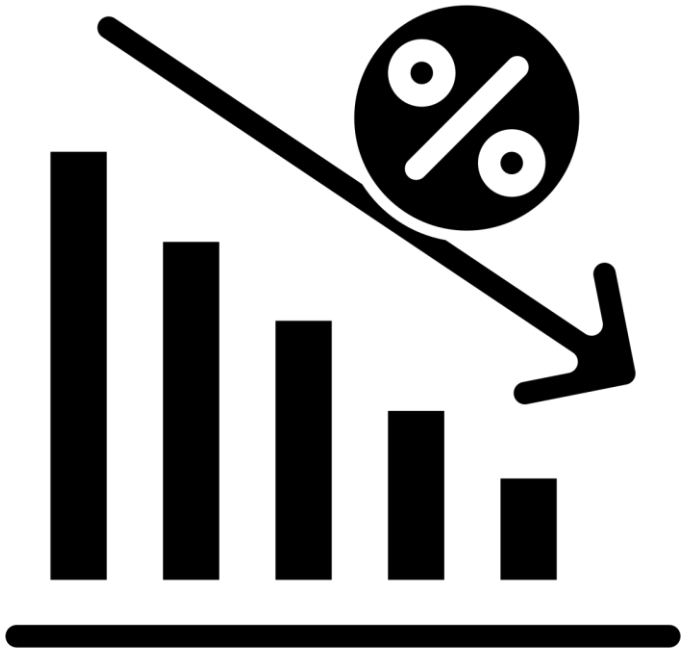


Potential Limitations

- Denominator inflation
  - Potential duplicates
  - Non-Michigan residents

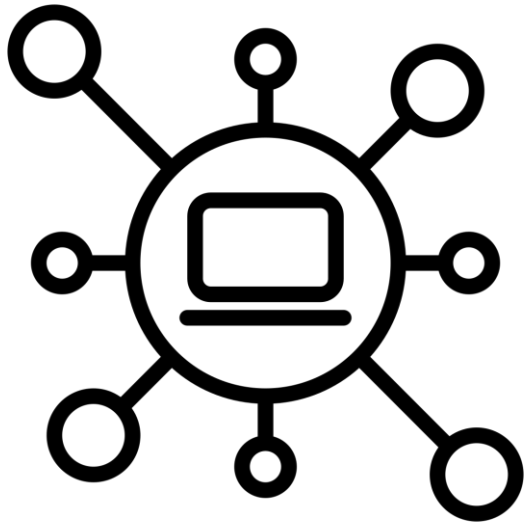


- Decreased coverage rates

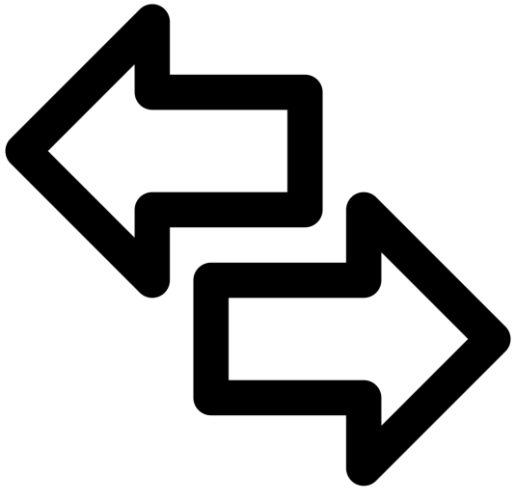


Future Directions

- Add data exchange partners



- Use bidirectional exchange



Acknowledgements

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CHEAR

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Statistician Lead

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