

Using Michigan's IIS to Monitor Zoster Administration Patterns

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Presentation Overview

- Michigan Care Improvement Registry (MCIR) Background
- Timeline of Zoster Vaccines and Recommendations
- Zoster Vaccine Administration Patterns
 - Zoster Dose Reporting
 - Recipient Age at Administration
 - Shingrix Series
- Key Takeaways

MCIR Background

- Started in 1998, lifespan registry since 2006
- Vaccination record submission for adults 20 years and older is strongly encouraged but is not required
 - Adult vaccination data reporting has been increasing in quality and quantity, most notably since the H1N1 pandemic of 2009 and the implementation of HL7 messaging in 2012
 - Most frequent reporters of adult dose to the MCIR, by MCIR facility type, are family practices, pharmacies and internal medicine practices
- As of June 22, 2019, there are **2,408,015 child** (≤ 18) and **7,764,613 adult** (>18) **Michigan** residents in the MCIR

Timeline: Zoster Vaccines

2006

- Zostavax licensed by FDA for adults 60+

2008

- ACIP recommended Zostavax for adults 60+

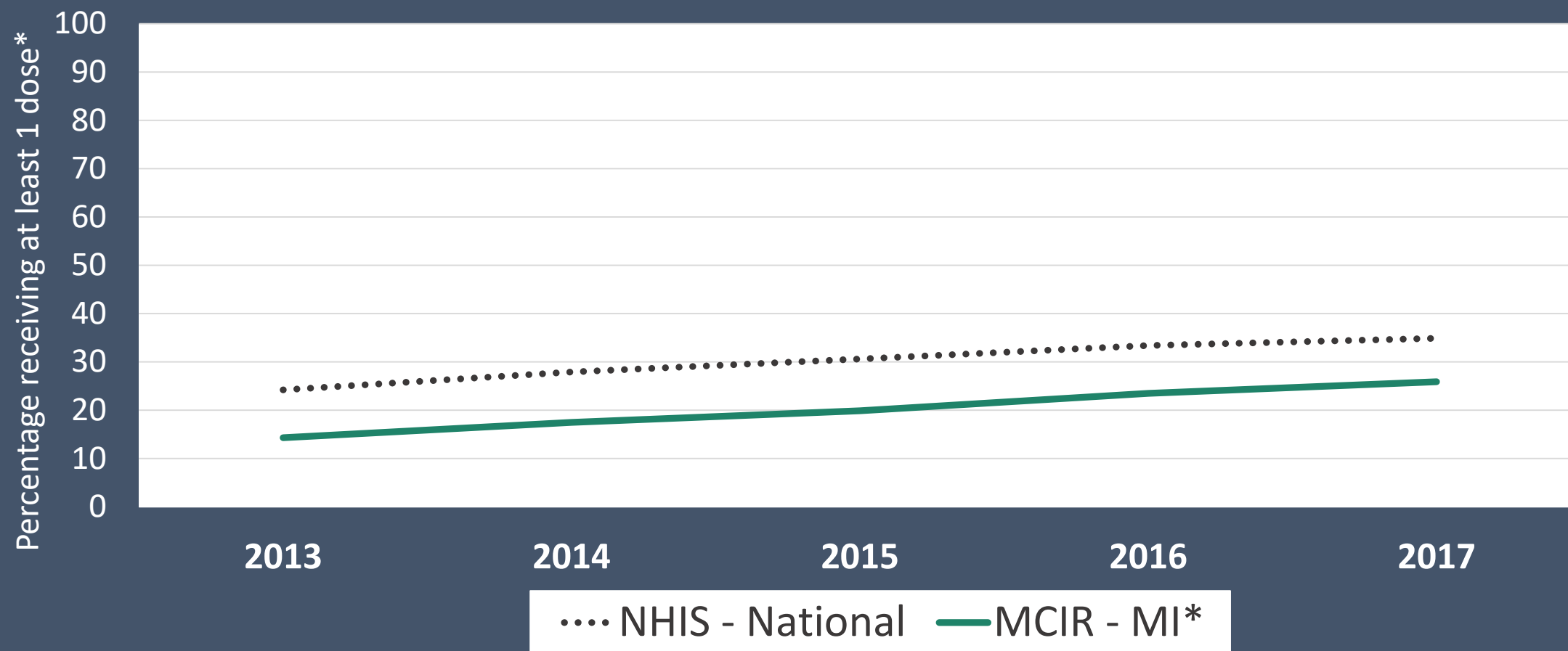
2011

- FDA licensed Zostavax for adults 50+

**2011 &
2013**

- ACIP considered (but did not recommend) Zostavax for adults 50+

Estimated proportion of adults 60+ who ever received a herpes zoster vaccination— National Health Interview Survey (NHIS), US and MCIR, Michigan, 2013-2017



*Denominator based on Census estimates; CYQ4 estimates for 1+ Zostavax vaccine.

Adult data reporting to the MCIR is strongly encouraged but is not required.

Timeline: Zoster Vaccines

**October
2017**

- Shingrix licensed by FDA for adults 50+
- Rare ACIP preferential recommendation for Shingrix

**January
2018**

- CDC released new zoster recommendations

**April
2018**

- Manufacturer reported Shingrix shortages

Timeline: Zoster Vaccines- Shingrix Shortage

**July
2018**

- Manufacturer implemented order limits for providers, distributors, and wholesalers that order from the manufacturer directly

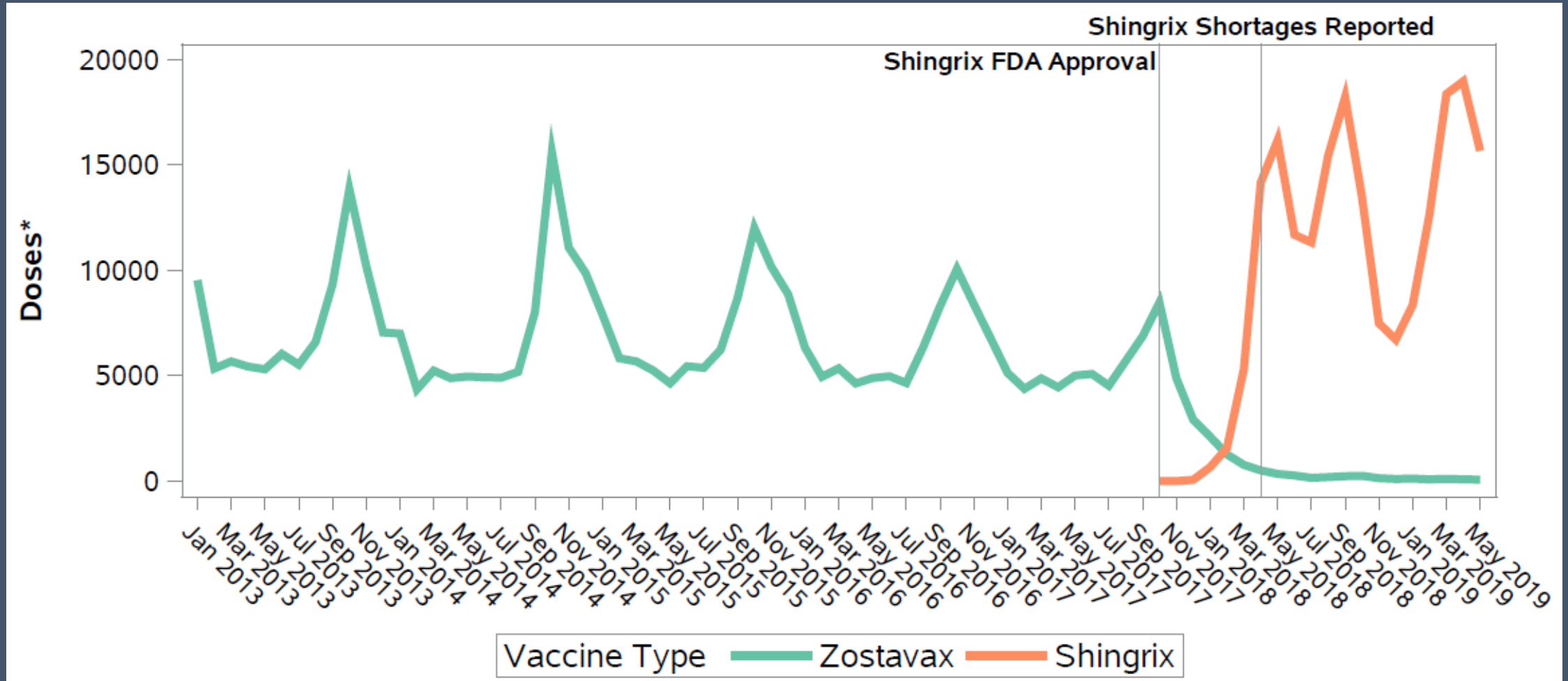
**August
2018**

- CDC released clinical guidance
- *Shingrix is the preferred shingles vaccine*

**September
2018**

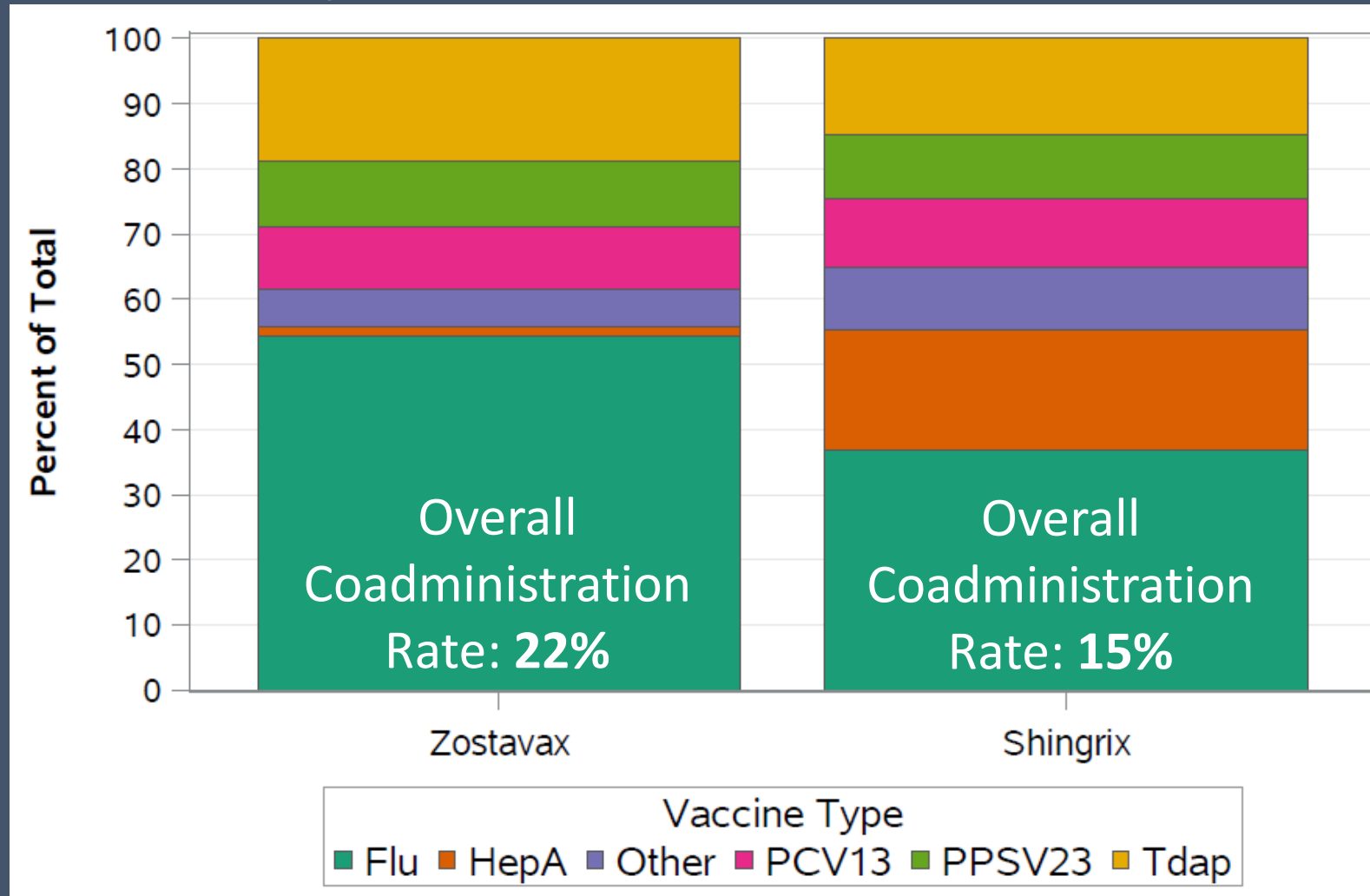
- *Give first consideration to patients due for their second dose of Shingrix*

Zoster doses administered and reported for adults 50+ by vaccine type, month and year, *MCIR, Michigan, January 2013 - May 2019*

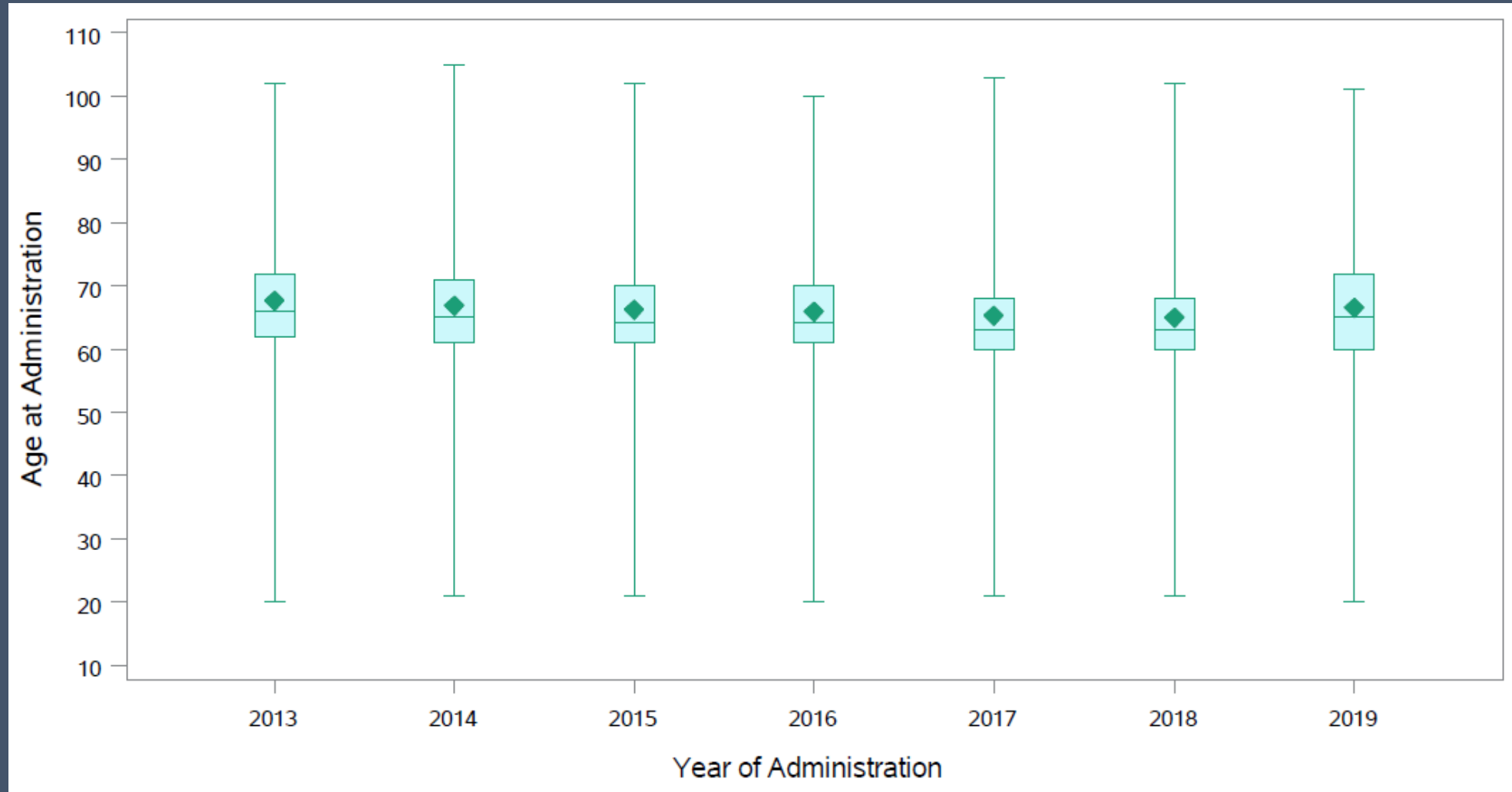


*Includes first recorded dose of Zostavax and/or Shingrix recorded in the MCIR

Zoster dose coadministrations reported by select vaccine type, *MCIR, Michigan, May 2006 - May 2019*

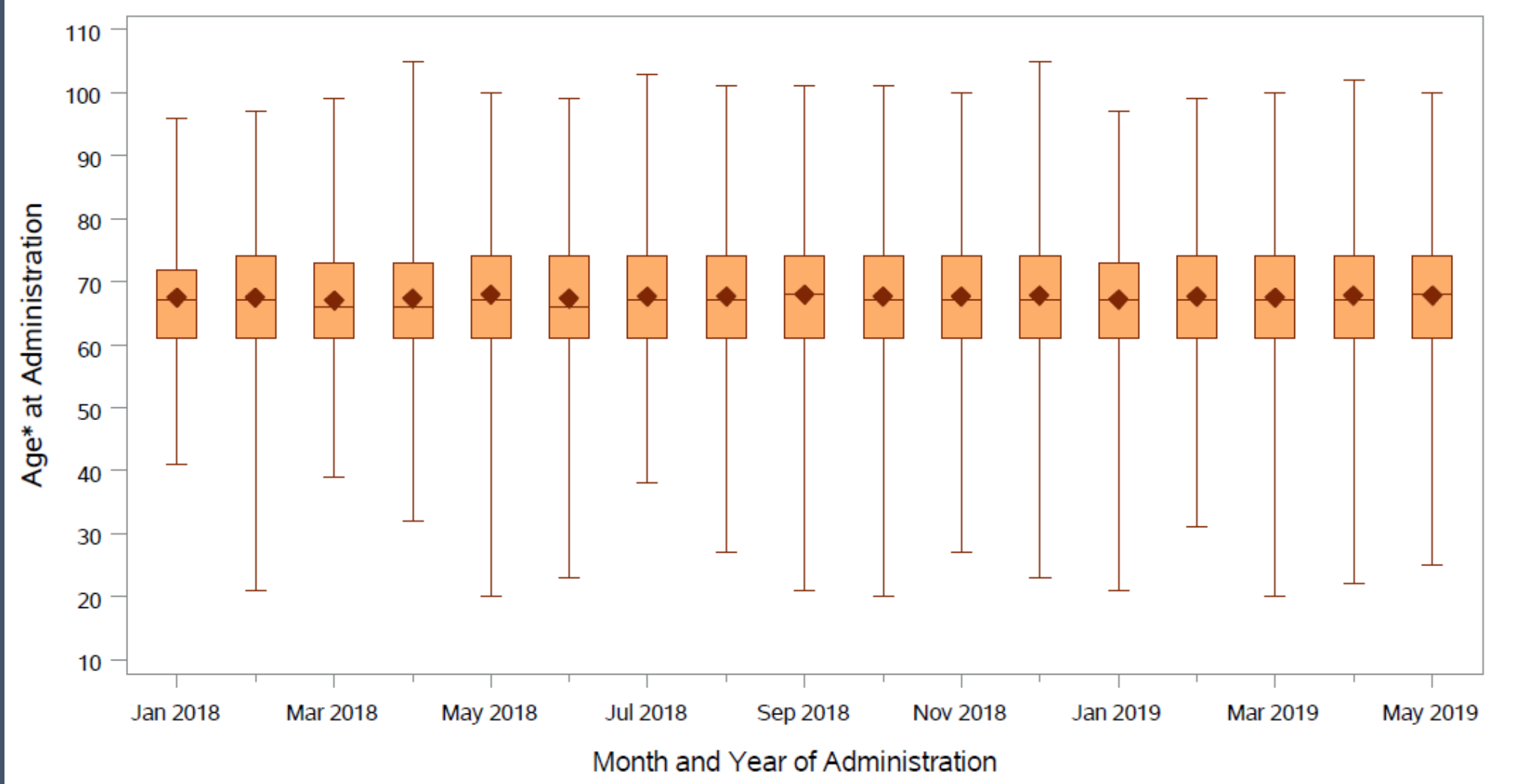


Distribution of age at administration for Zostavax doses by year, MCIR, Michigan, 2013-2019



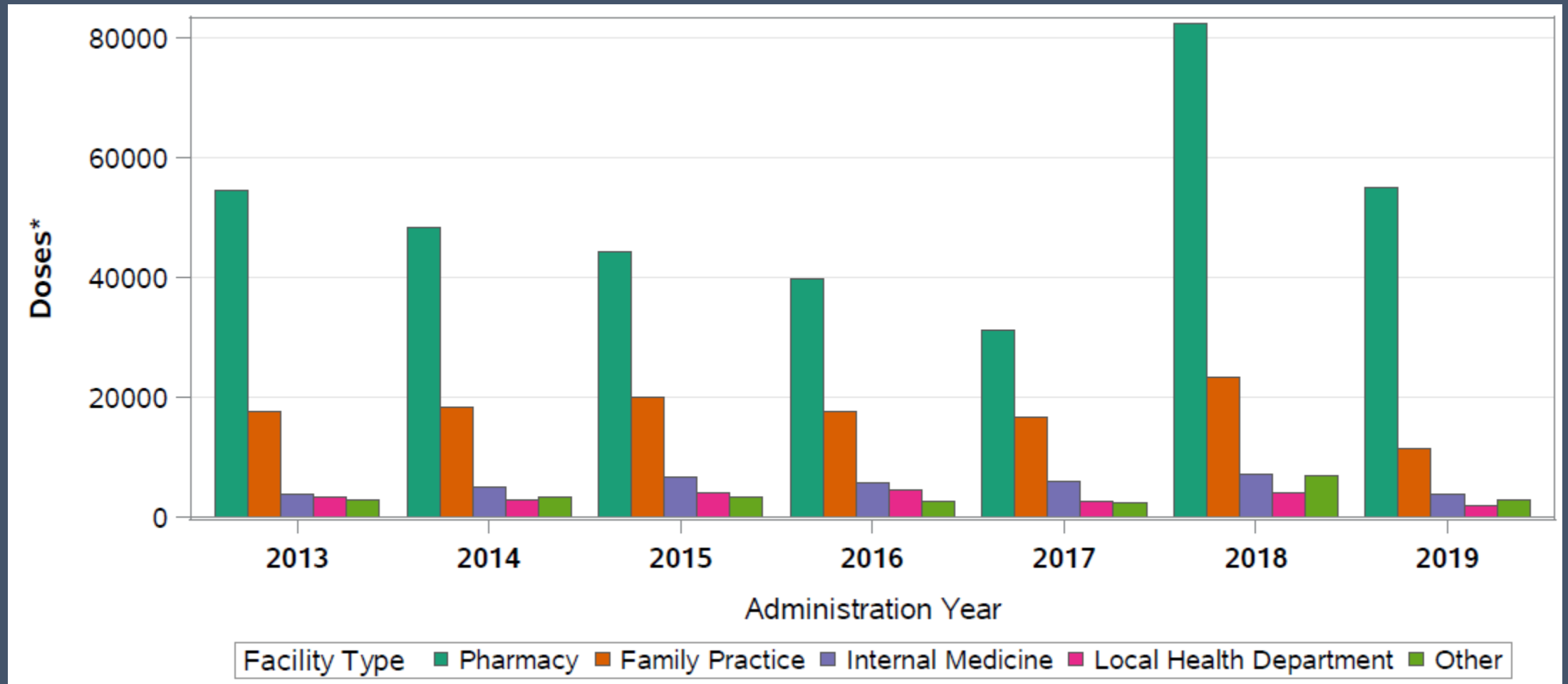
*Age at administration of first dose of Zostavax recorded in the MCIR

Distribution of age at administration for Shingrix doses by month, *MCIR, Michigan, January 2018- May 2019*



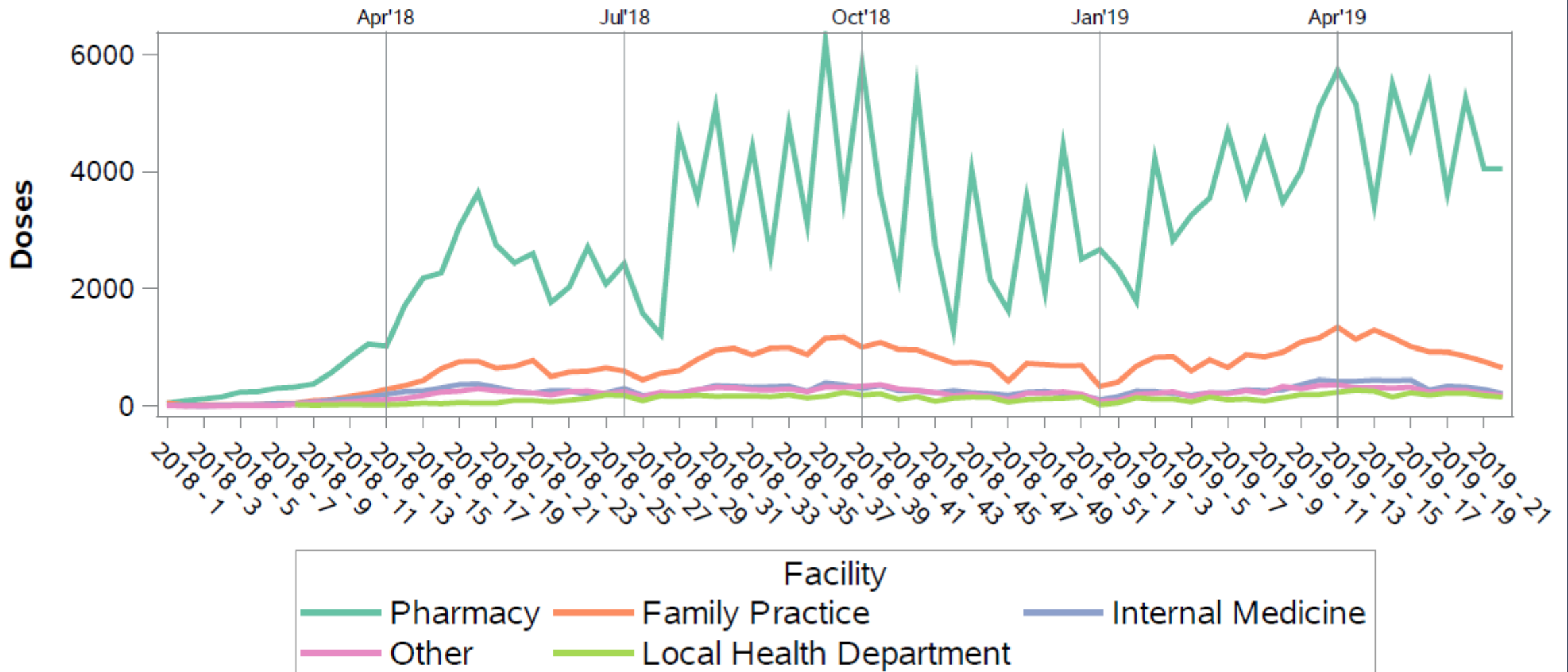
*Age at administration of first dose of Shingrix recorded in the MCIR

Zoster doses administered and reported for adults 50+ by facility type and year, MCIR, Michigan, 2013 – 2019 (January-May)

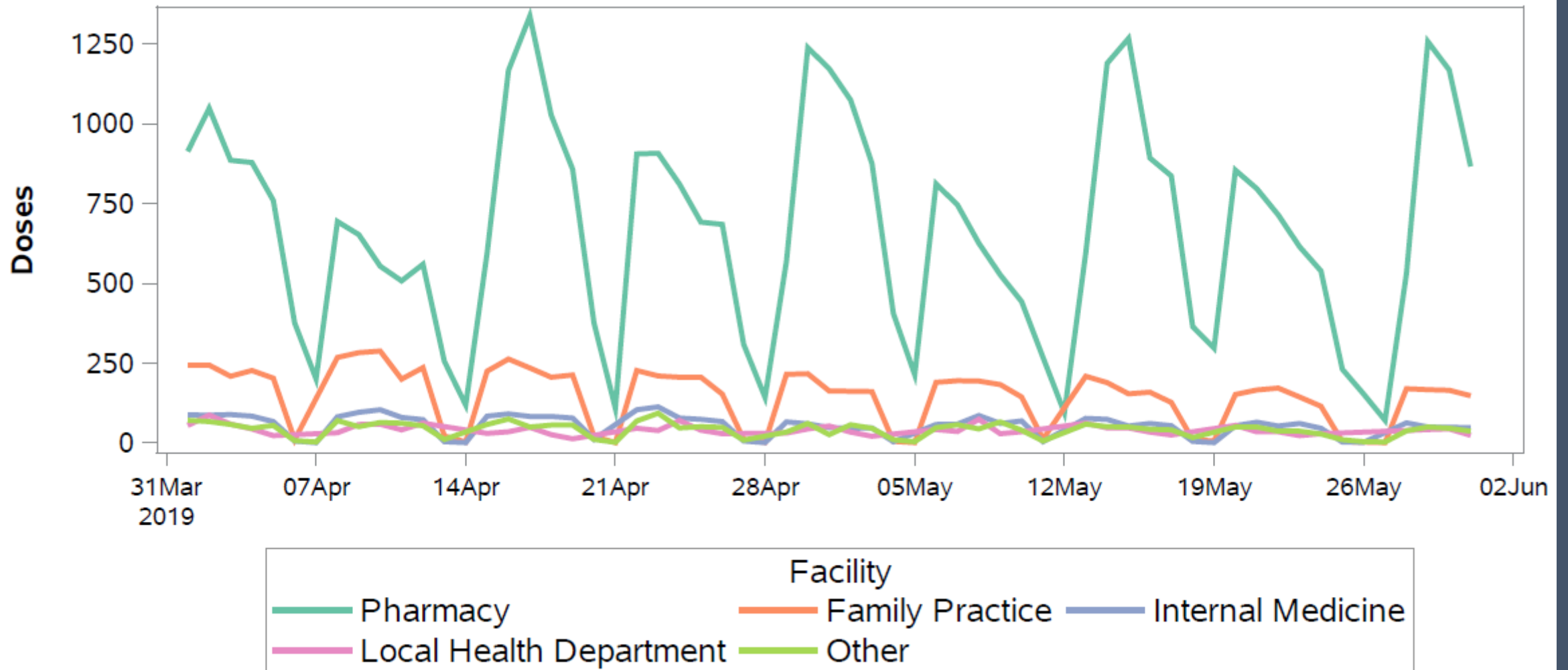


*Includes first recorded dose of Zostavax and/or Shingrix recorded in the MCIR

Shingrix doses administered and reported by facility type and week, *MCIR, Michigan, January 2018 - May 2019*



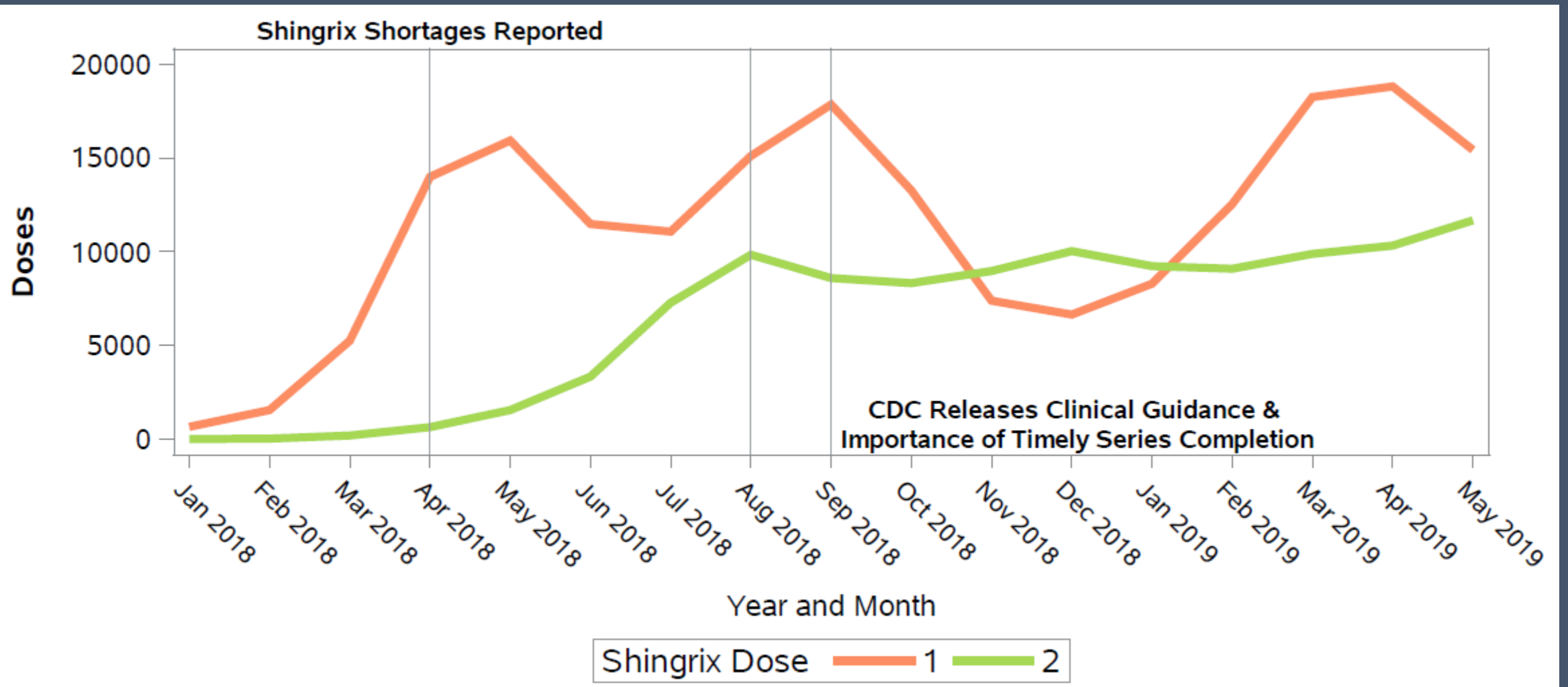
Shingrix doses administered and reported by
facility type and day, *Michigan, MCIR,*
April 1, 2019 - May 31, 2019



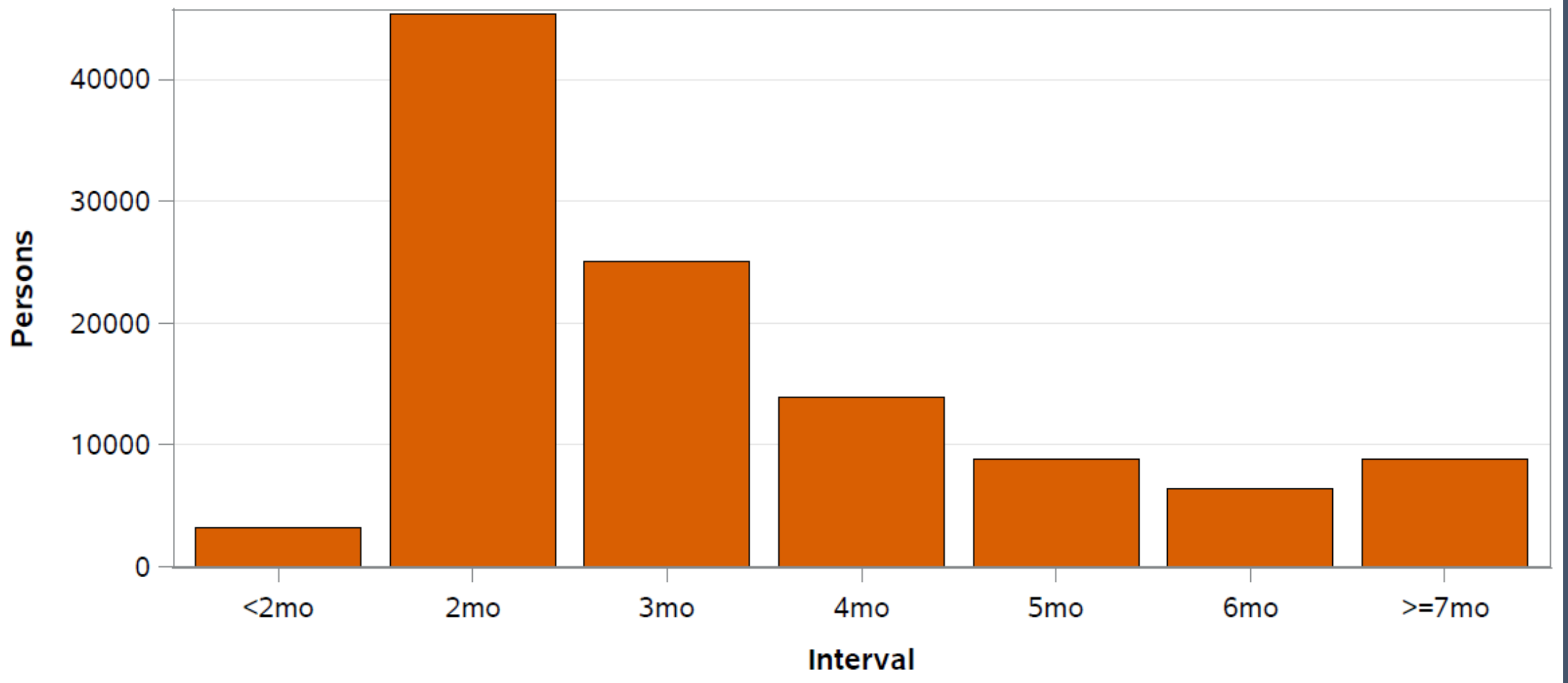
Shingrix Series Completion, *Adults ≥ 50 years, MCIR, Michigan, October 20, 2017 – May 31, 2019*

- Over **195,000 adults** 50+ years have had at least one Shingrix dose reported to the MCIR
 - 71% have had at least one dose reported by a pharmacy location
- According to the MCIR, **57%** of those who have initiated the series have completed the 2-dose series
 - 69% of those individuals completed the series entirely at pharmacy locations
- **57%** of Shingrix recipients were female
- **38%** of Shingrix recipients also have a Zostavax dose in the MCIR

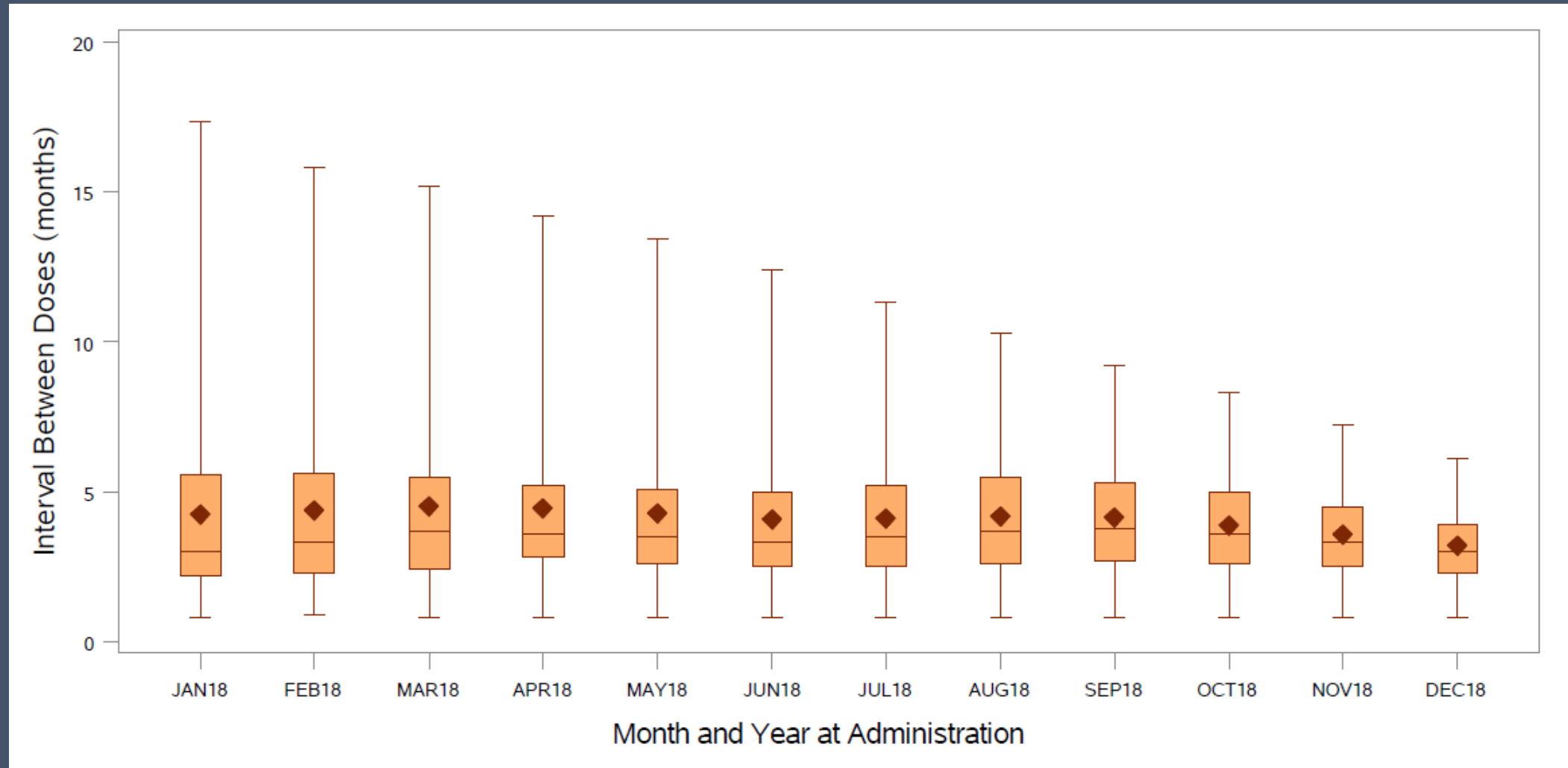
Shingrix doses administered and reported for adults 50+ by first and second dose and month, MCIR, Michigan, January 2015 - May 2019



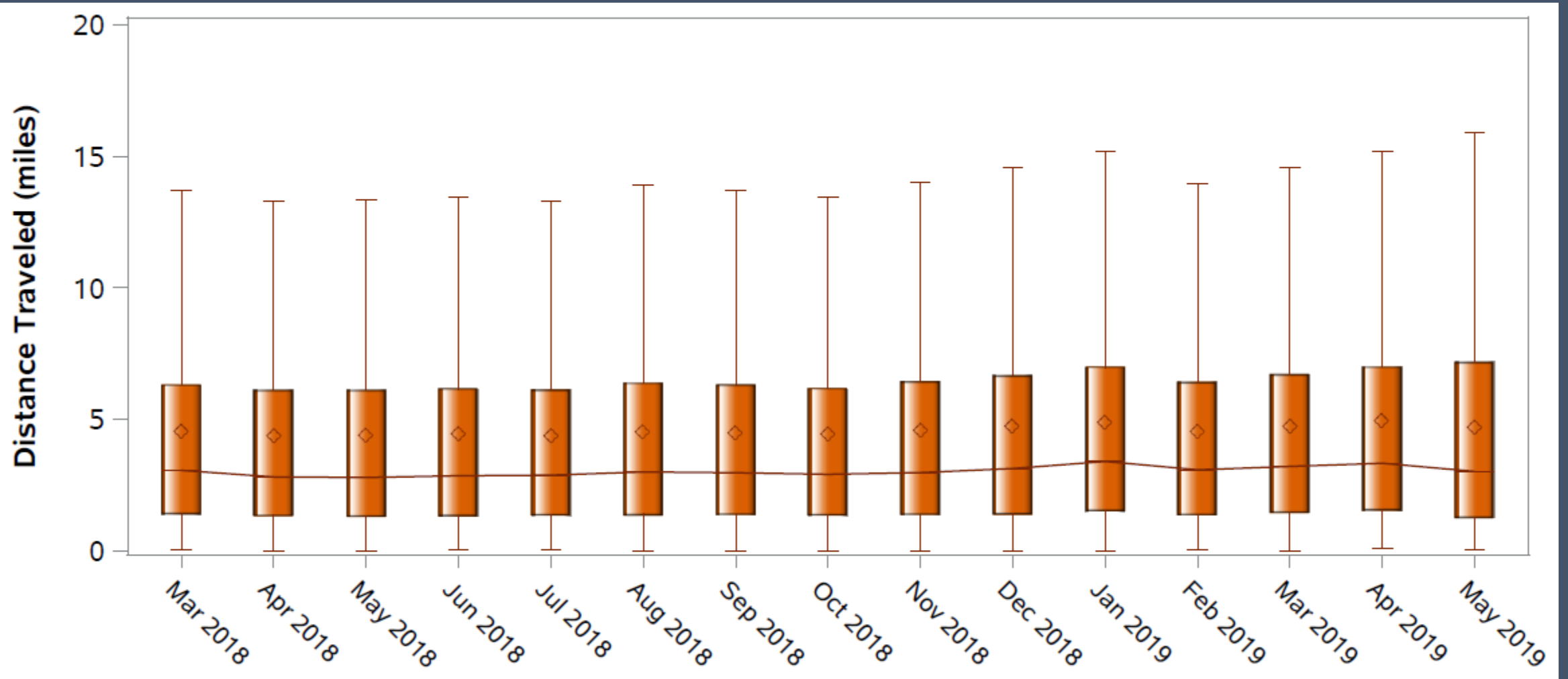
Intervals between Shingrix doses, *MCIR*, *Michigan, October 20, 2017 – June 8, 2019*



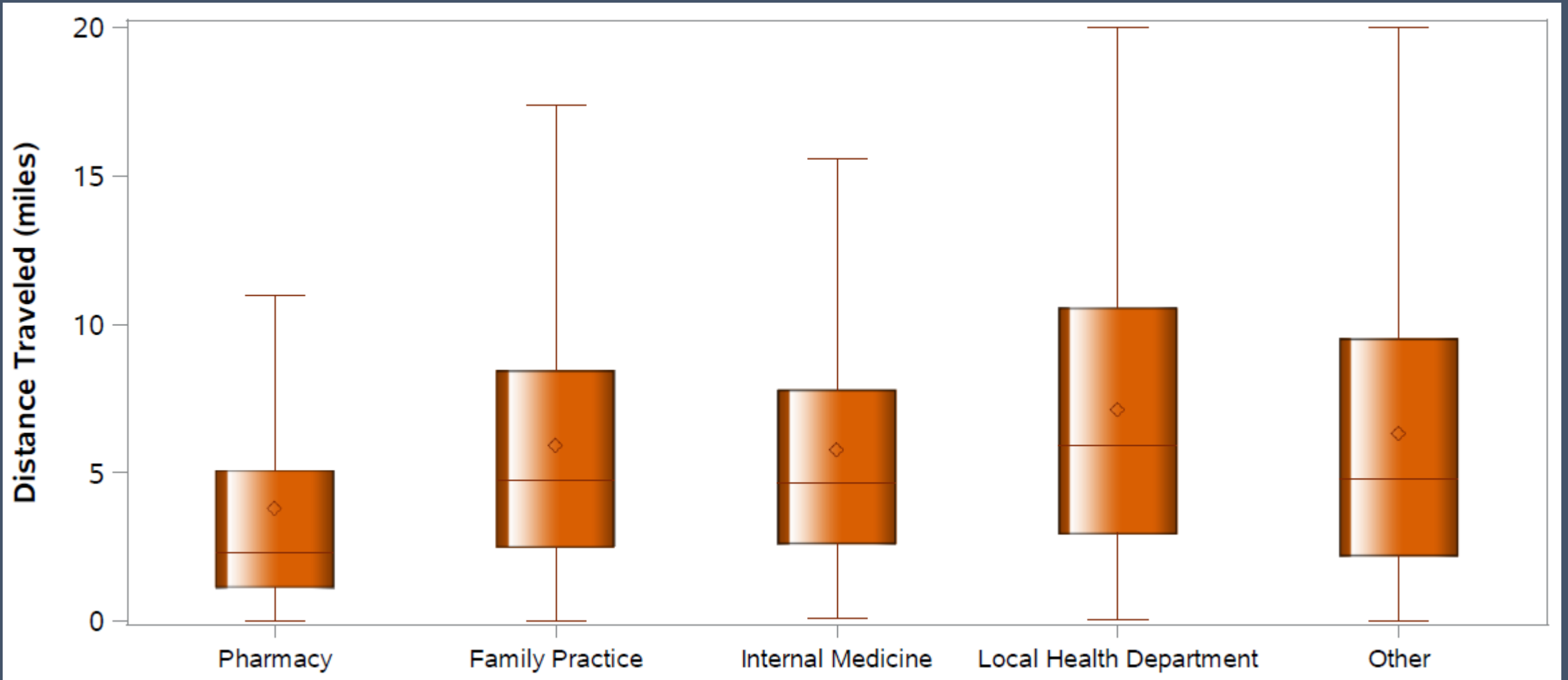
Distribution of intervals between Shingrix doses by month, *MCIR, Michigan, January – December 2018*



Distribution of distance traveled for first Shingrix dose by month, *MCIR, Michigan*, March 1, 2018 – May 31, 2019



Distribution of distance traveled for first Shingrix dose by facility type, *MCIR, Michigan, January 1, 2018 – May 31, 2019*



Key Takeaways

- *Pharmacies* continue to be the top reporters of Zoster vaccines
- Shingrix dose reporting patterns have been *variable* since its introduction
- Shingrix age at administration, interval between doses and distance traveled have remained fairly *stable* over the past year and a half
- *Over half* of Michigan residents that have initiated the Shingrix series have completed the series in the recommended timeframe
- *Established* adult reporting to the MCIR has allowed for better tracking of Shingrix uptake and administration patterns