Using Michigan’s IIS to Monitor Zoster Administration Patterns

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AIRA National Meeting, August 13, 2019
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+

https://www.cdc.gov/mmwr/volumes/67/wr/mm6703a5.htm
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

https://www.cdc.gov/mmwr/volumes/67/wr/mm6703a5.htm
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

Overall Coadministration Rate: 22%

Overall Coadministration Rate: 15%

Vaccine Type
- Flu
- HepA
- Other
- PCV13
- PPSV23
- Tdap
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