

Children's Mercy Kansas City

## SHARE @ Children's Mercy

---

Research Days

GME Research Days 2023

---

May 8th, 12:30 PM - 12:45 PM

### Influencing Influenza Immunization: QI Project in a Pediatric Resident Continuity Clinic

Brittany Moore

*Children's Mercy Hospital*

Let us know how access to this publication benefits you

Follow this and additional works at: <https://scholarlyexchange.childrensmercy.org/researchdays>



Part of the [Higher Education and Teaching Commons](#), [Medical Education Commons](#), [Pediatrics Commons](#), and the [Science and Mathematics Education Commons](#)

---

Moore, Brittany, "Influencing Influenza Immunization: QI Project in a Pediatric Resident Continuity Clinic" (2023). *Research Days*. 10.

[https://scholarlyexchange.childrensmercy.org/researchdays/GME\\_Research\\_Days\\_2023/ResearchDay1/10](https://scholarlyexchange.childrensmercy.org/researchdays/GME_Research_Days_2023/ResearchDay1/10)

This Oral Presentation is brought to you for free and open access by the Conferences and Events at SHARE @ Children's Mercy. It has been accepted for inclusion in Research Days by an authorized administrator of SHARE @ Children's Mercy. For more information, please contact [hlsteel@cmh.edu](mailto:hlsteel@cmh.edu).

# Influencing Influenza Immunization

Brittany Moore, MD

Pediatric Resident, PGY-3

Research Days May 8, 2023

# Disclosures

- No disclosures

# Outline

- Background
- Aim Statement
- Methods
- Results
- Conclusions
- Future Directions

# Background

- Influenza can lead to significant illness, hospitalization, and death in children.
- Children can also serve as vectors in spreading disease to at-risk adults.
- Vaccination of children is an effective way to prevent illness and the spread of influenza.
  - Yearly influenza vaccination is recommended for all children aged greater than 6 months, by the US Advisory Committee on Immunization Practices and the American Academy of Pediatrics

# Background

- 58.6% of children aged 6 months to 17 years per the CDC were reported to have vaccination coverage against influenza in the 2021-2022 influenza season.
- 38.6% of children aged 6 months and older enrolled in Children's Mercy ROYAL clinic were reported to have vaccination coverage against influenza in the 2021-2022 season.

# Background

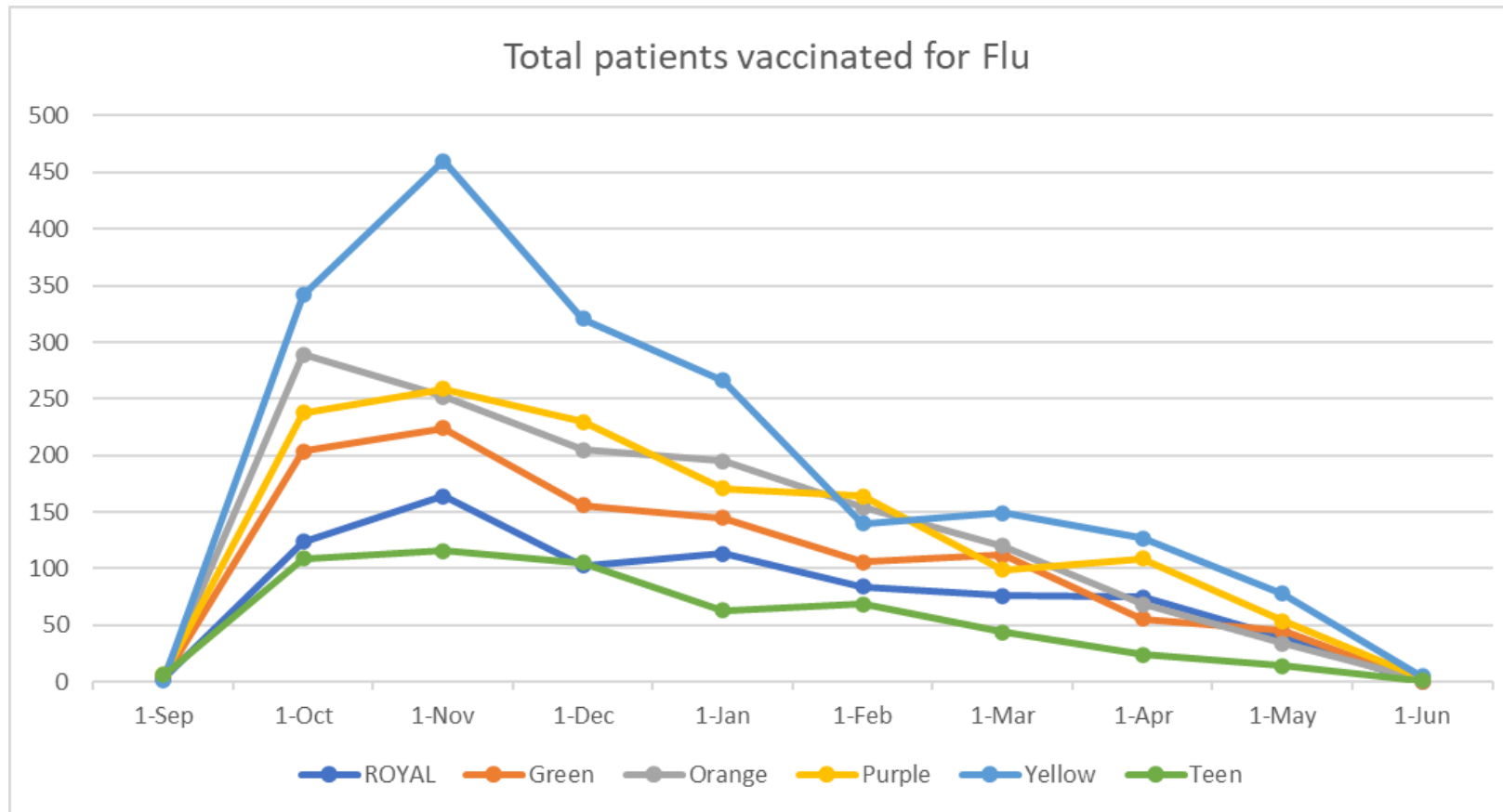
- Health Belief Model has been one of the most widely used theories in understanding health and illness behaviors
  - Perceived susceptibility
    - beliefs regarding vulnerability to infection
  - Perceived severity
    - beliefs regarding the negative effects of contracting the infection
  - Perceived benefits
    - individual's beliefs about being vaccinated
  - Perceived barriers
    - the belief that being vaccinated is restricted due to psychosocial, physical or financial factors
  - Self-efficacy to engage in a behavior
  - Cues to action
    - information, people and events that guide an individual to be vaccinated

# AIM Statement

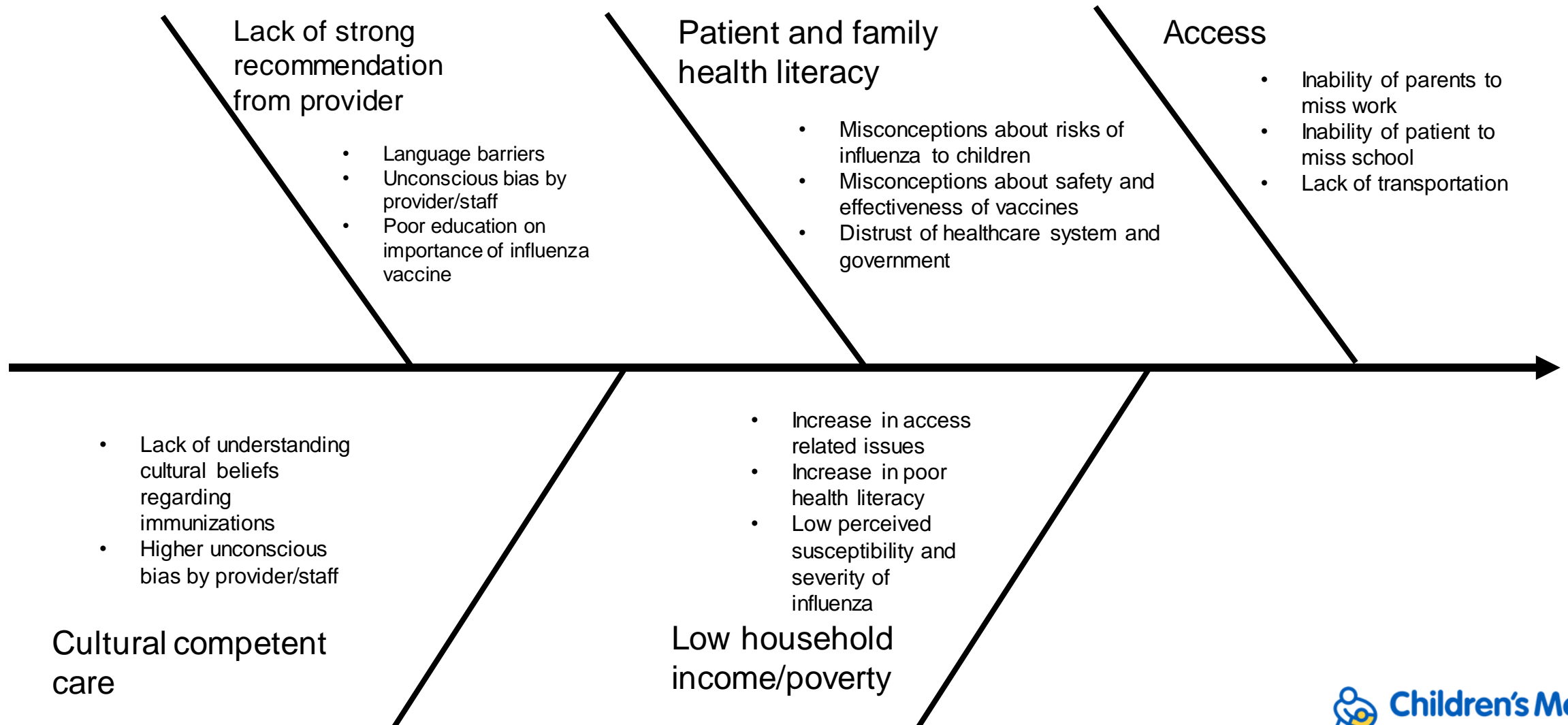
- Increase the percentage of patients aged 6 months and older currently enrolled in ROYAL clinic receiving at least one influenza vaccine from 38.6% to 55% by January 1, 2023



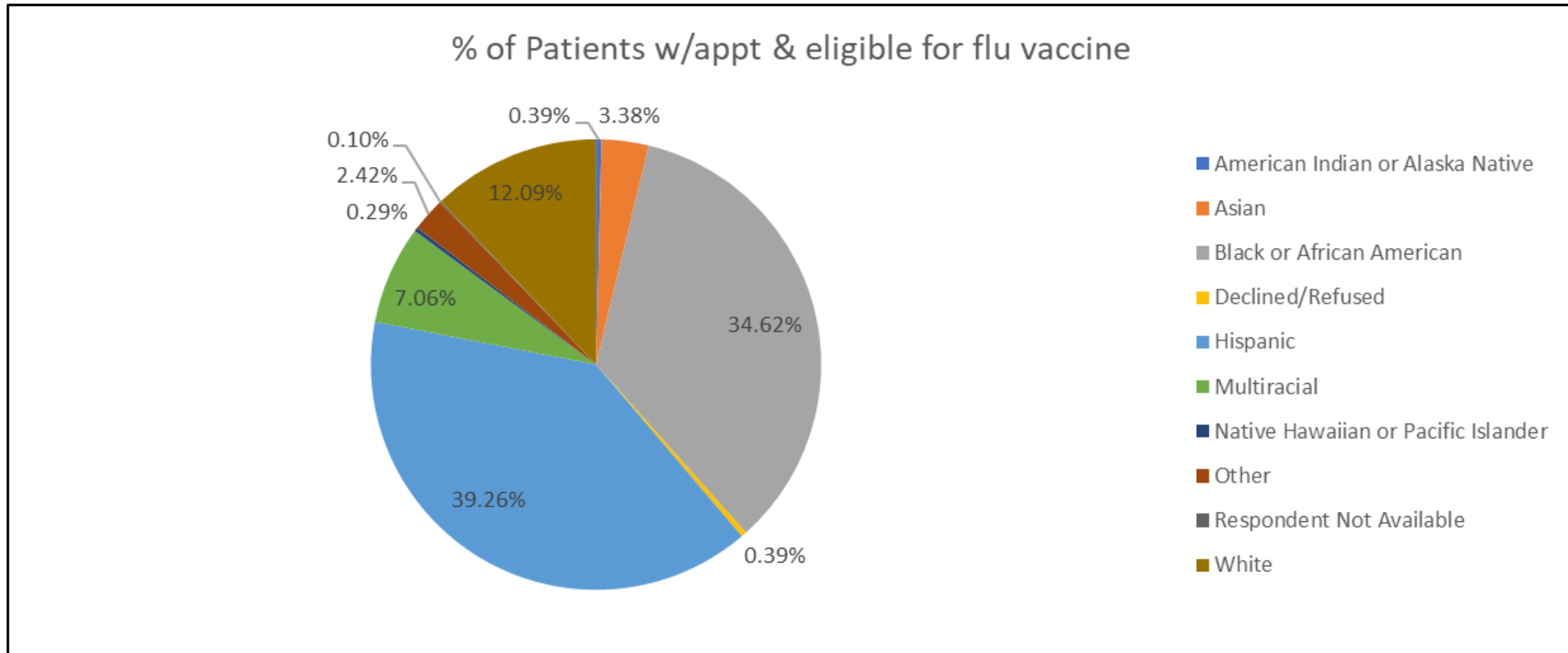
# Influenza Immunization Rates AY 21-22



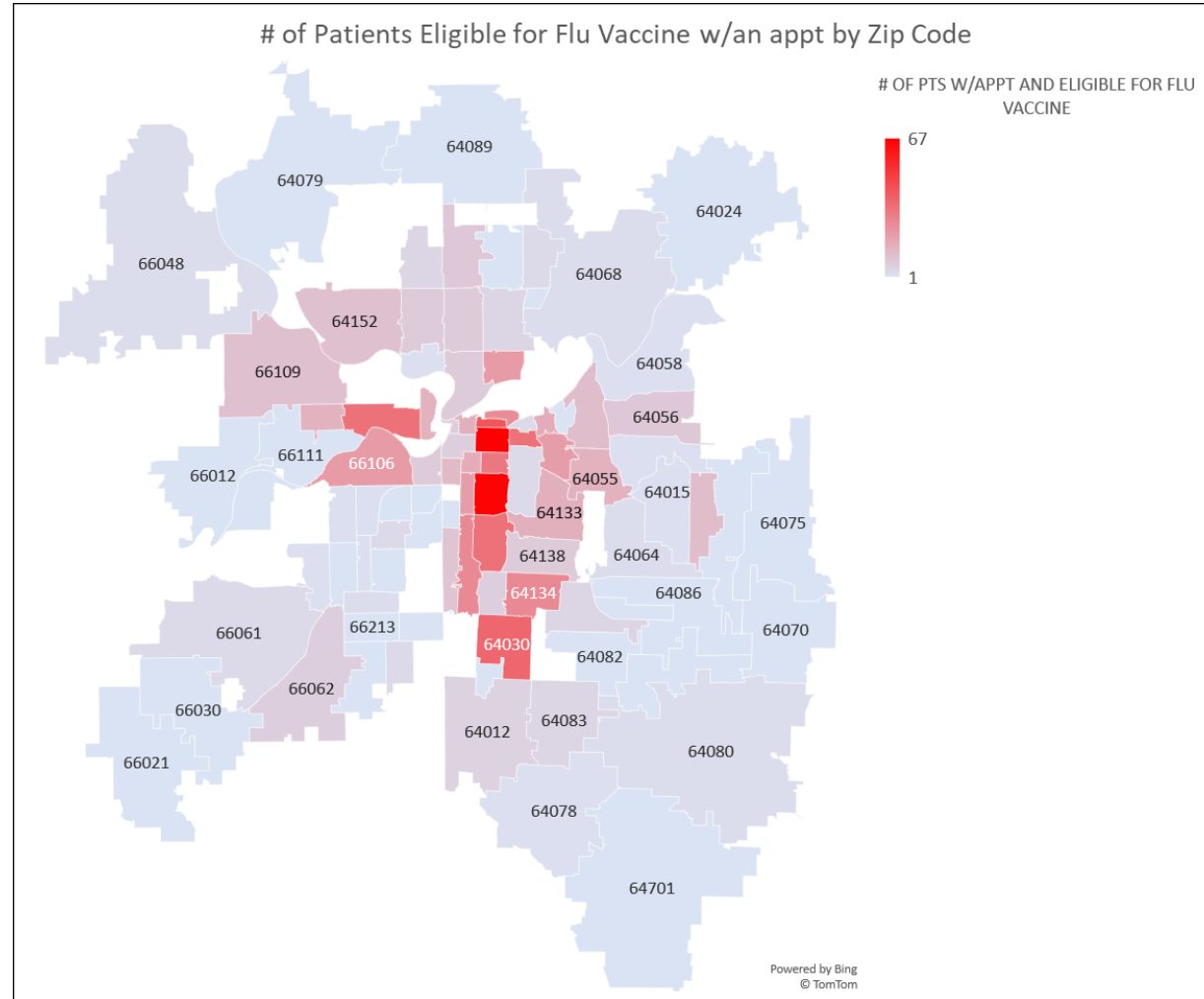
# Fishbone



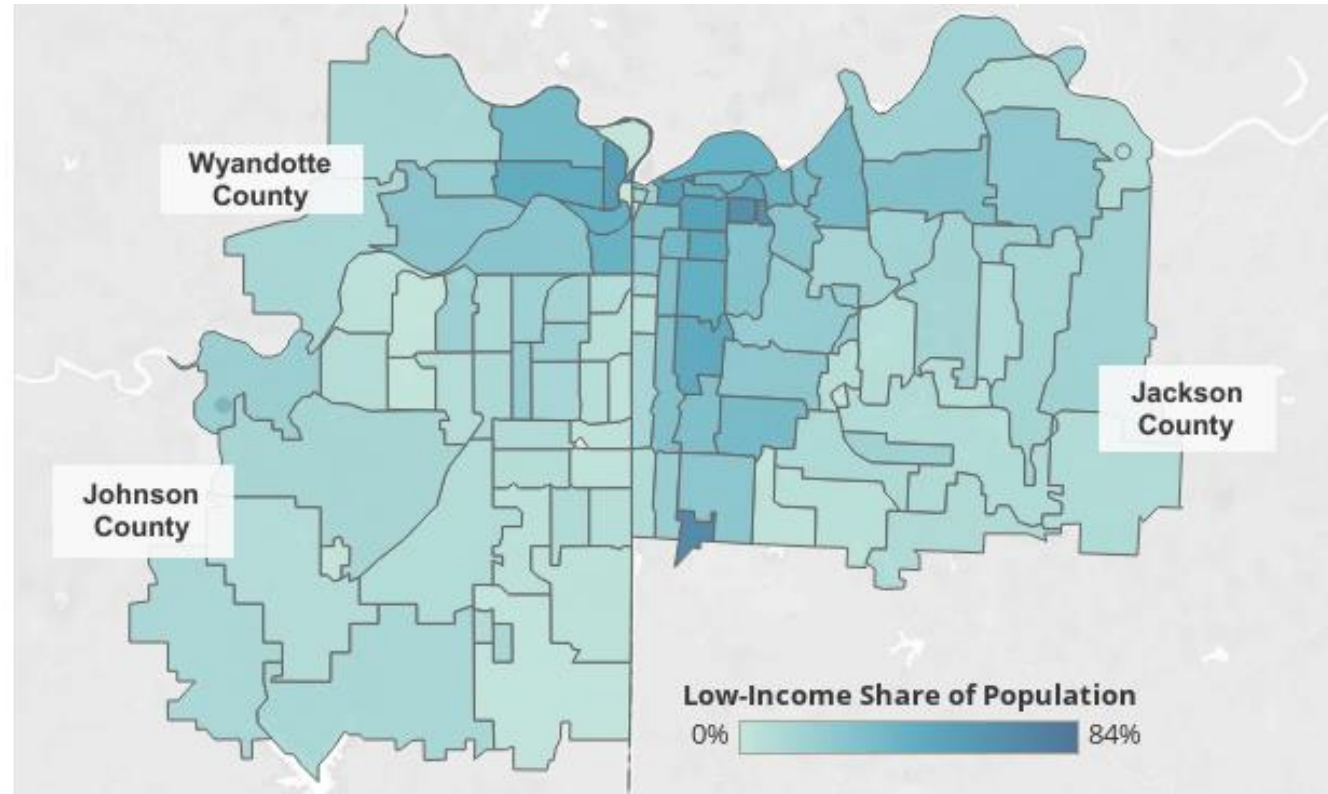
# Patient Demographics



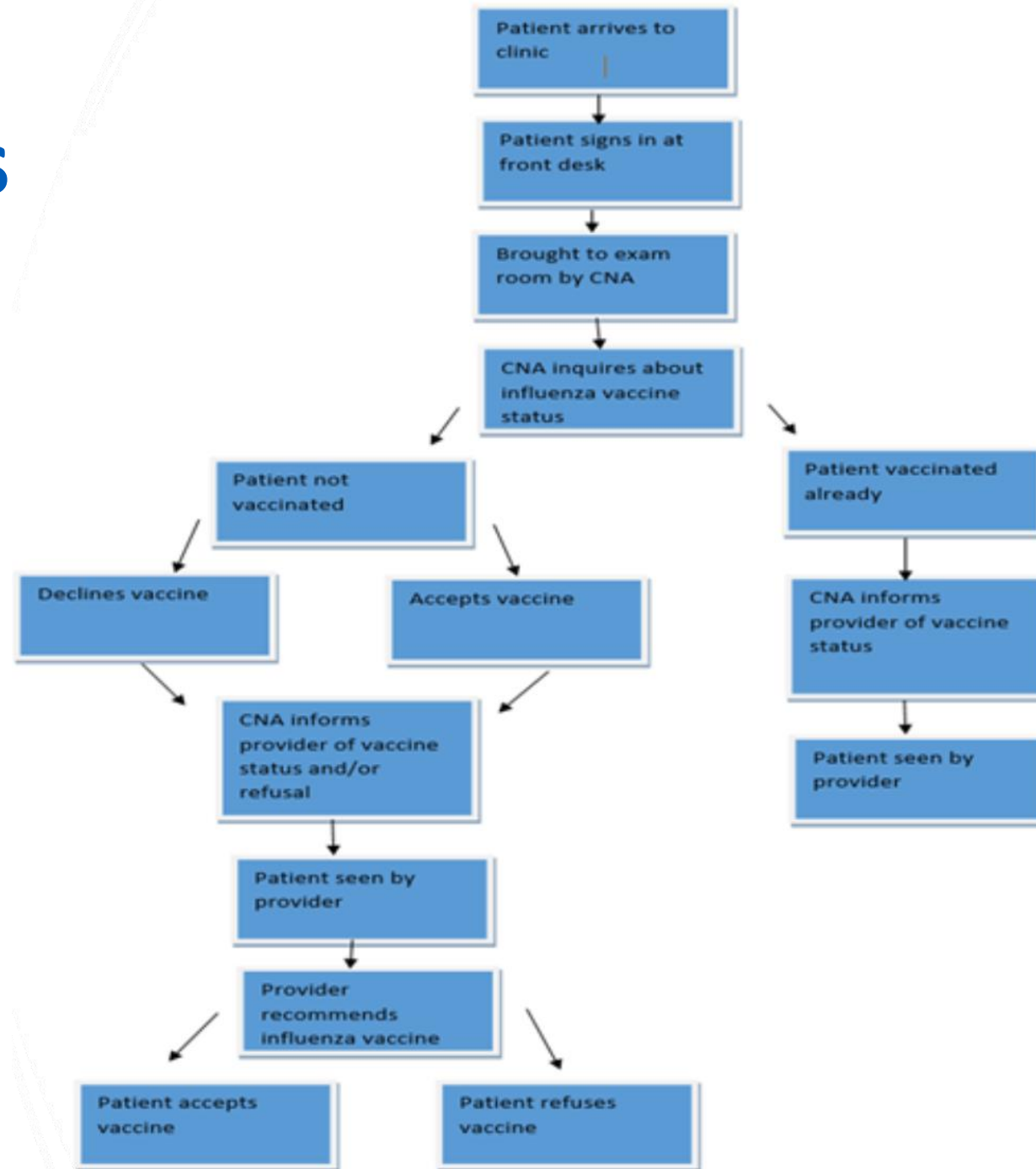
# Patient Demographics



# Poverty Demographics: KC Metro



# Methods



# Methods: Breakpoints in Process

- Patient/family unable to present to clinic due to poor access
- CNA and/or nurse don't inquire about flu vaccine status
- Resident does not inquire about flu vaccine status
- Resident/provider does not effectively relay importance of the vaccine

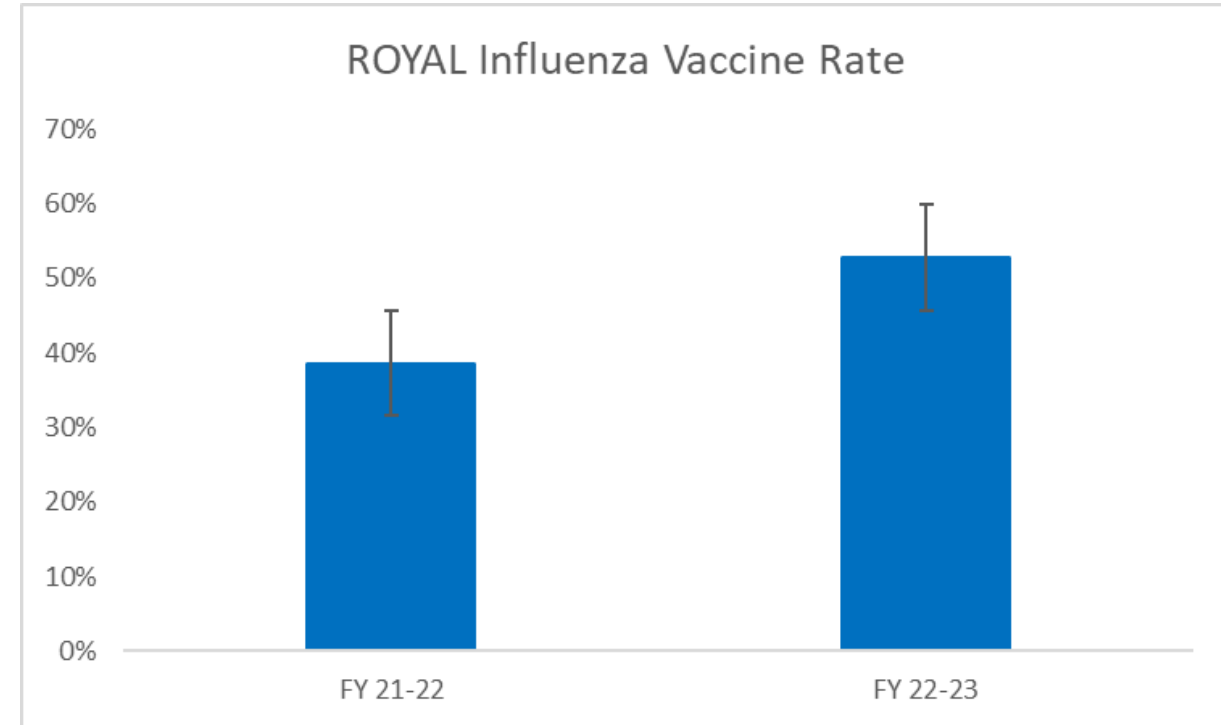
# Methods: Areas to Target

- Standardize nurses to inform provider of patient's vaccination status
  - Nurses within the ROYAL clinic have 1-2 residents
  - Nurses and Pediatric residents review the patient panel for the day including which vaccines patient may need
- Pediatric Residents were tasked with providing strong recommendation to have patient receive the influenza vaccine
  - Residents were already required to perform an online module prior to the influenza season that provides education on influenza and the vaccine



# Results

- In 2021-2022 there were 1013 patients who presented to ROYAL clinic during Oct-Dec 2021
  - 391 (39%) patients who presented to their clinic visit received their influenza vaccine between Oct-Dec 2021
- In 2022-2023 there were 1034 patients who present to ROYAL clinic during Oct-Dec 2022
  - 545 (53%) patients who presented to their clinic visit received their influenza vaccine between Oct-Dec 2022



# Conclusion

- Appreciable increase in the percentage of patients receiving the influenza vaccine with...
  - Increased emphasis from pediatric resident physicians detailing the benefits with families
  - Standardization of communication between nurses and residents about patient's vaccination needs
- Influenza vaccine hesitancy is due to a multitude of reasons including but not limited to public misinformation, access to healthcare, and low risk perception
  - Prior studies assessing the influenza vaccine hesitancy have utilized the health belief model to obtain a better understanding for low influenza vaccination rates

# Future Directions

- Use of the health belief model within this clinic could further highlight future areas of focus on the influenza vaccine rate and the COVID-19 vaccine rate
- The process map and fishbone causal analysis created in this study highlights several areas where future PDSA cycles can be performed to continue influencing the influenza vaccine rates within this special patient population
  - Improving access
  - Documenting refusal reasons to better understand the hesitancy and how that can relate to patient/family cultural background
  - Continued improvement in continuity
  - Continued improvement in resident, nursing, and patient/family education

# References

1. Anandappa M, Adjei Boakye E, Li W, et al.. Racial disparities in vaccination for seasonal influenza in early childhood. *Public Health*. 2018;158:1–8
2. Brewer NT, Chapman GB, Gibbons FX, Gerrard M, McCaul KD, Weinstein ND. Meta-analysis of the relationship between risk perception and health behavior: the example of vaccination. *Health Psychol*. 2007 Mar;26(2):136-45. doi: 10.1037/0278-6133.26.2.136. PMID: 17385964.
3. Capps R, Ruiz Soto AG “Health Insurance Coverage of Immigrants and Latinos in the Kansas City Metro Area,” *Migration Information Source*, November, 2019, [www.migrationpolicy.org/research/health-insurance-immigrants-latinos-kansas-city](http://www.migrationpolicy.org/research/health-insurance-immigrants-latinos-kansas-city).
4. Center for Disease Control and Prevention. Flu Vaccination Coverage, United States, 2021–22 Influenza Season. Available at <https://www.cdc.gov/flu/fluvaxview/coverage-2022estimates.htm>. Last reviewed October 18, 2022.
5. Donnelly LF, Wood M, Chantra J, Loh L, Burkart B, Lee GM. Factors Influencing Health Equity of Influenza Vaccination in Pediatric Patients. *Pediatr Qual Saf*. 2022 Mar 30;7(2):e543. doi: 10.1097/pq9.0000000000000543. PMID: 35369420; PMCID: PMC8970079.
6. Imburgia TM, Hendrix KS, Donahue KL, et al.. Predictors of influenza vaccination in the U.S. among children 9–13years of age. *Vaccine*. 2017;35:2338–2342.
7. Malosh RE, Martin ET, Ortiz JR, Monto AS. The risk of lower respiratory tract infection following influenza virus infection: A systematic and narrative review. *Vaccine*. 2018 Jan 2;36(1):141-147. doi: 10.1016/j.vaccine.2017.11.018. Epub 2017 Nov 20. PMID: 29157959; PMCID: PMC5736984.
8. Prevention of Influenza. Recommendations for influenza immunization of children, 2007-2008. *Pediatrics*. 2008;121:e1016–1031
9. Ventola CL. Immunization in the United States: recommendations, barriers, and measures to improve compliance: part 1: childhood vaccinations. *P T*. 2016;41:426–436.
10. Wong LP, Alias H, Wong PF, Lee HY, AbuBakar S. The use of the health belief model to assess predictors of intent to receive the COVID-19 vaccine and willingness to pay. *Hum Vaccin Immunother*. 2020 Sep 1;16(9):2204-2214. doi: 10.1080/21645515.2020.1790279. Epub 2020 Jul 30. PMID: 32730103; PMCID: PMC7553708.

# Acknowledgements

- Dr. Abiye Okah
- Dr. Kirsten Weltmer
- Candace Ramos
- Guadalupe Lopez Salazar
- Alyssa Eddy
- Dr. Jeremy Beyer
- Dr. Shelby Chesbro
- Jennifer Oakley

