Poster ID:

Routine vaccination coverage among vulnerable adolescent transgender population in a large tertiary care center in the US

Teaghen Buscemi-Kimmins BS[1], Karen Teelin MD, MSED[2], Nicole Mozo RN, MS[3], Jana Shaw MD, MPH, MS[4]

[1]*Norton College of Medicine, SUNY Upstate Medical University, Syracuse, NY, USA,* [2]*Department of Pediatrics, Section of Adolescent Medicine, Upstate Golisano Children's Hospital, SUNY Upstate Medical University, Syracuse, NY, USA* [3]

[4] *Department of Pediatrics, Division of Infectious Diseases, Upstate Golisano Children's Hospital, SUNY Upstate Medical University, Syracuse, NY, USA*

Background

- Health disparities have been well-described in transgender individuals, due in part to lack of access to care as well as lack of provider training in supporting this population. However, a central component of preventive care, vaccination, has not previously been described in the adolescent transgender population, and vaccines are not currently routinely offered in consultation clinics providing gender affirming hormone therapy.

Objectives

- To assess coverage for all recommended vaccines among adolescents referred for gender affirming care.

Methods

- Design: Retrospective chart review of all active patients referred to a large tertiary care adolescent consultation clinic for transgender care between January 1st, 2013 and December 31st, 2022.
- Setting: A specialty adolescent medicine consultation clinic at central New York's only academic medical center, serving patients within a 22-county catchment area
- Data collection: De-identified data including age, gender identity, sex assigned at birth, race and ethnicity, and several other clinical descriptive factors were collected from the Electronic Medical Record (EMR). Vaccination histories for meningococcal conjugate (MenACWY), meningitis B (MenB), human papillomavirus (HPV), COVID-19, and tetanus, diptheria, and pertussis (Tdap) were collected via New York State Immunization Information System (NYSIIS). For those without vaccination histories available via NYSIIS, vaccination status was verified by the PCP office.
- Data Analysis: Patient vaccination status was determined based on CDC vaccination schedule. Vaccination coverage percentages and 95% confidence intervals (CI) were described and compared to age-matched adolescents living in New York State using CDC National Immunization Survey-Teen. COVID-19 comparison data were ascertained from the NYS Department of Health.

Results

- There were a total of 421 transgender patients. Of these, 6 (1.4%) were excluded either vaccination record was not available (n=4) or did not have gender dysphoria (n=2). Of the remaining 415 patients, 203 (48.9%) were between the ages of 13 and 17 years old and included in the analysis. (Table 1).
- Among included patients, the mean age was 15.6±1.3 (SD) years, 138 (68.0%) identified as male, 40 (19.7%) as female, 17 (8.4%) as another gender identity, and 8 (3.9%) as nonbinary, respectively (Table 1). Patients attended a median of 3±4.04 (SD) clinic appointments and resided in 16 counties (Figure 1).

Results (cont.)

- Compared to the general NYS adolescent population, transgender patients had similar vaccination coverage for MenACWY and Tdap vaccines. Transgender adolescents had higher rates of HPV dose 1 (85.71% (80.13, 90.22) versus 73.2% (65.8,79.5)) and dose 2 coverage (75.37% (68.85, 81.13) versus 57.9% (49.5,65.8)), lower rates of HPV dose 3 coverage (6.90% (3.82, 11.30) v 39.7% (33.8, 45.9)), and similar rates for up-to-date coverage (Figure 2).

Table 1: Demographic and other characteristics

	Frequency (%)
Sex assigned at Birth	
Male	41 (20.2%)
Female	162 (79.8%)
Gender Identity	
Male	138 (68.0%)
Female	40 (19.7%)
Nonbinary	8 (3.9%)
Other	17 (8.4%)
Race and ethnicity	
Non-Hispanic Black	6 (3.0%)
Non-Hispanic White	174 (85.7%)
Hispanic	8 (3.9%)
Other or multiple	15 (7.4%)
Insurance	
Private Only	99 (48.8%)
Any Medicaid	94 (46.3%)
Other	10 (4.9%)
Uninsured	0 (0%)
Hormone Therapy	
Yes	111 (54.7%)
No	92 (45.3%)

Figure 1: County of residence of patients

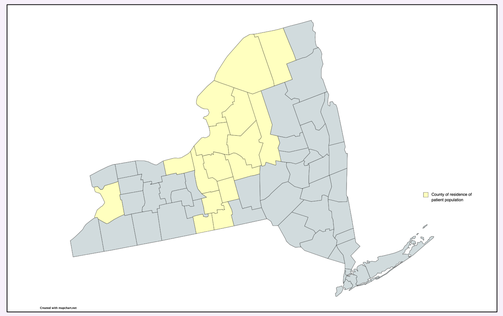
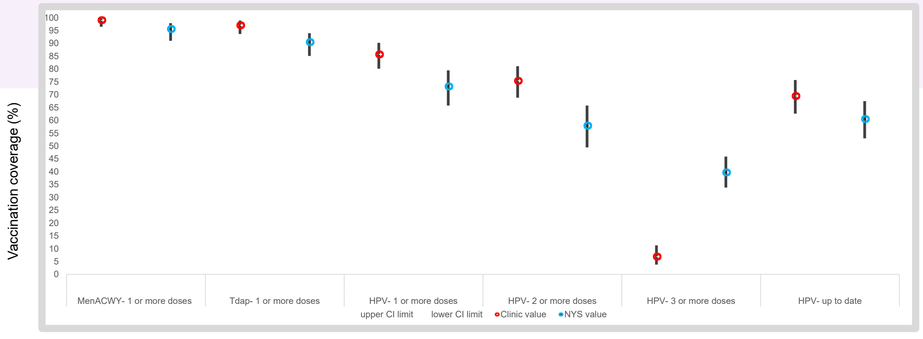


Figure 2: MenACWY, Tdap, and HPV Vaccination coverage among adolescents 13-17 years old



*** Men B vaccination coverage among patients 13-17 years old was 17/73% (CI: 12.74, 23.70) having at least 1 dose and 5.91% (CI: 3.10, 10.10) having 2 doses. CDC Data for Men B coverage is not available.**

Figure 3: COVID-19 vaccination primary series coverage among adolescents 13-17 years old**

	Transgender patients, % (CI)	General population, %
Onondaga County		
12 to 17 years old	83.81 (75.35, 90.28)	68.50
18 to 25 years old	84.72 (74.31, 92.12)	76.00
Central NY*		
12 to 17 years old	78.40 (71.26, 84.47)	64.40
18 to 25 years old	85.37 (77.86, 91.09)	64.50

* Central NY consists of the following counties: Cayuga, Cortland, Madison, Onondaga, Oswego
** Covid primary series includes 2 doses of Pfizer or Moderna or 1 dose of Johnson & Johnson, 95 CI information not available for general population.

Conclusions

- Our findings suggest that transgender adolescents with established care in a gender affirming clinic have similar or higher rates of vaccination coverage for all recommended vaccines compared to the general adolescent population.
- These results stress the importance of health care access and a gender affirming support system as means of mitigating health disparities such as vaccination in the transgender community.

Next steps

- Future efforts should focus on assessing rates of vaccination coverage of transgender individuals who do not have access to gender affirming care.
- Additional efforts should emphasize assessing vaccination coverage in transgender women, since our patient population is largely transgender male.

References

- Azucar D, Slay L, Valerio DG, Kipke MD. Barriers to COVID-19 Vaccine Uptake in the LGBTQIA Community. *Am J Public Health*. 2022;112(3). doi:10.2105/AJPH.2021.306599
- Allen-Leigh B, Rivera-Rivera L, Yunes-Díaz E, et al. Uptake of the HPV vaccine among people with and without HIV, cisgender and transgender women and men who have sex with men and with women at two sexual health clinics in Mexico City. *Hum Vaccin Immunother*. 2020;16(4). doi:10.1080/21645515.2019.1675456
- Padilla ME, Frietze GA, Aguirre M, et al. Understanding influenza immunization uptake rates among the Hispanic LGBTQIA community. *Journal of the American Pharmacists Association*. 2019;59(4). doi:10.1016/j.japh.2019.02.007
- Bednarczyk RA, Whitehead JL, Stephenson R. Moving beyond sex: Assessing the impact of gender identity on human papillomavirus vaccine recommendations and uptake among a national sample of rural-residing LGBT young adults. *Papillomavirus Research*. 2017;3. doi:10.1016/j.pvr.2017.04.002
- Halkitis PN, Valera P, Loschiavo CE, et al. Human Papillomavirus Vaccination and Infection in Young Sexual Minority Men: The P18 Cohort Study. *AIDS Patient Care STDS*. 2019;33(4). doi:10.1089/apc.2018.0276
- McNaghten AD, Brewer NT, Hung MC, et al. COVID-19 Vaccination Coverage and Vaccine Confidence by Sexual Orientation and Gender Identity — United States, August 29–October 30, 2021. *MMWR Recommendations and Reports*. 2022;71(5). doi:10.15585/mmwr.mm7105a3
- Zubizarreta D, Beccia AL, Trinh MH, Reynolds CA, Reisner SL, Charlton BM. Human papillomavirus vaccination disparities among U.S. college students: An intersectional Multilevel Analysis of Individual Heterogeneity and Discriminatory Accuracy (MAIHDA). *Soc Sci Med*. 2022;301. doi:10.1016/j.socscimed.2022.114871
- Recommended Child and Adolescent Immunization Schedule. *Centers for Disease Control and Prevention*. Published online 2022.
- National Center for Immunization and Respiratory Diseases. National Immunization Survey-Teen: TeenVax View. Centers for Disease Control and Prevention.
- New York State Department of Health. Demographic Breakdown of COVID-19 Vaccinations. NYS Deparment of Health COVID-19.

- Contact information: Teaghen Buscemi-Kimmins, BuscemiT@upstate.edu