

# HPV Vaccine Initiation and Completion in Patients with HIV at the University of Utah Infectious Disease Clinic



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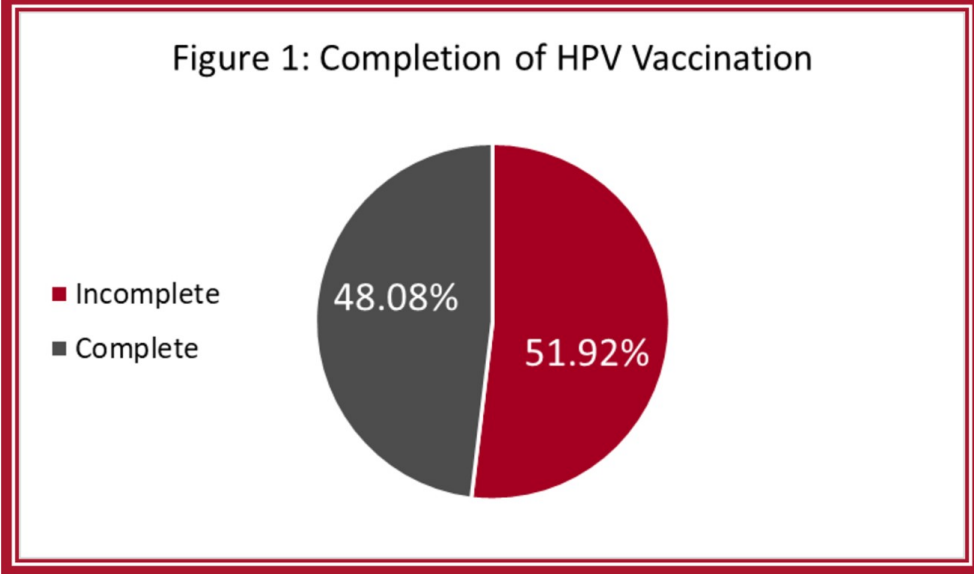
**Ryan White, HIV/AIDS Activist**  
 The Ryan White HIV/AIDS Program is the largest federally-funded care and treatment service program for people living with HIV.<sup>2</sup>  
 Photo courtesy of The IndyStar

## Introduction

- Human Immunodeficiency Virus (HIV) is a viral disease that causes individuals to become immunocompromised and more susceptible to infectious diseases<sup>1</sup>
- Immunocompromised patients are highly susceptible to Human Papillomavirus (HPV) infections resulting in genital and oral cancers<sup>1</sup>
- Since 1988, the University of Utah Infectious Disease Clinic is the largest provider of HIV care in the Mountain West<sup>2</sup>
- Previously, the HPV vaccination rates of patients at the clinic were unknown
- The purpose of our study was to assess the HPV vaccination rates of patients aged 18-26 with HIV

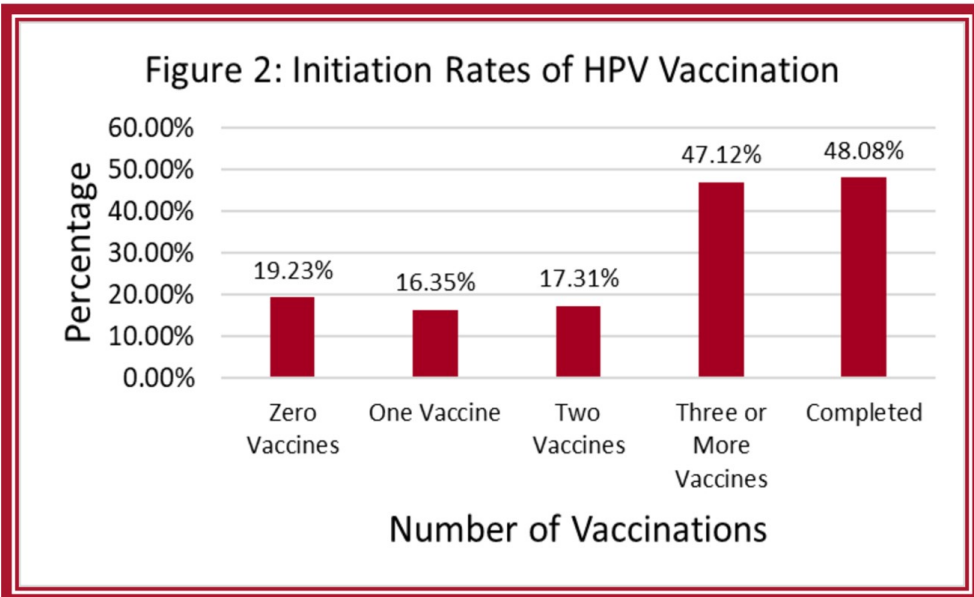
## Methods

- A cross-sectional chart analysis was performed to determine HPV vaccination rates at the University of Utah Infectious Disease Clinic
- Data was analyzed from February to March of 2023 using Microsoft Excel version 2302 to determine percentages and create graphs
- Data was relayed to providers at the University of Utah Infectious disease clinic via patient chart reminders
- **Inclusion Criteria:** age 18-26 years old, enrolled at the University of Utah Infectious Disease Clinic, confirmed HIV diagnosis
- **Exclusion Criteria:** patients younger than 18 years of age or older than 26 years of age, those not enrolled at the University of Utah Infectious Disease Clinic, those without a confirmed HIV diagnosis
- **Primary Outcome:** Percentage of patients who have completed the HPV vaccination series
- **Secondary Outcome:** Percentage of patients with zero, one, two, and three or more vaccinations received



## Results

- Our analysis included 104 patients
- The primary outcome revealed that 48.08% of patients with HIV at the University of Utah Infectious Disease Clinic have completed the HPV series
- The secondary outcome showed that
  - 80.77% started the HPV series
  - 19.23% received zero vaccines
  - 16.35% received one vaccine
  - 17.31% received two vaccines
  - 47.12% received three or more vaccines



## Discussion & Conclusions

In conclusion, less than 50% of patients with HIV at the University of Utah Infectious Disease clinic have been fully vaccinated against HPV as of March 2023. **Strengths and limitations of this research are:**

- **Strengths:** Timely completion of study allowed for early intervention
- **Limitations:** Not all vaccinations studied patient population were received at the clinic and therefore data may be inaccurate, data was taken at a single moment and does not assess for vaccines given afterwards

The CDC studied HPV completion rates in adolescents aged 13-17 and found a completion rate of 54.2%<sup>3</sup>. The HIV population is at higher risk for complications from HPV infection than those studied by the CDC but the vaccination completion rate at the clinic is lower. The reasons for decreased vaccination rates in the HIV population is not completely understood but could be due to limited education on the HPV vaccination<sup>4</sup>

There is room for improvement to increase vaccination completion rates at the University of Utah Infectious Disease clinic by implementing quality improvement measures

Vaccines Received	Zero	One	Two	Three or More	Total Patients (n=104)
Male (n=94)	20.21%	17.02%	15.96%	46.81%	90.38%
Female (n=7)	14.29%	14.29%	14.29%	57.14%	6.73%
Transgender FtM (n=1)	-	-	-	100.00%	0.96%
Transgender MtF (n=2)	-	-	100.00%	-	1.92%
Ages 18-20 (n=12)	16.67%	16.67%	16.67%	50.00%	11.54%
Ages 21-23 (n=28)	25.00%	14.29%	21.43%	39.29%	26.92%
Ages 24-26 (n=64)	17.19%	17.19%	15.63%	50.00%	61.54%

FtM is Female to Male; MtF is Male to Female

## References

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4. Dempsey AF, Pyrznowoski J, Lockhart S, et al. Effect of a Health Care Professional Communication Training Intervention on Adolescent Human Papillomavirus Vaccination. JAMA Pediatr. 2018;172(5):e180016. doi:10.1001/jamapediatrics.2018.0016