US FAST-TRACK CITIES

2025 SUMMIT

September 15-17, 2025
New Orleans

Patient Access to EHRs: Broad Assessment and Review of Local Trends

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September 15th, 2025

IAPAC INTERNATIONAL ASSOCIATION OF PROVIDERS OF AIDS CARE

FAST-TRACK CITIES INSTITUTE

NACCHO National Association of County & City Health Officials
The National Connection for Local Public Health

AIDS United

NMAC Ending the HIV Epidemic

Patient Portals

- **A secure, web-based application or website that provides patients with access to their information and enable communications with providers**
  - Access to review lab results, medication lists, visit summaries, upcoming appointments and historic schedule, immunization history, etc
  - Communication with healthcare providers via secure system

Purposes

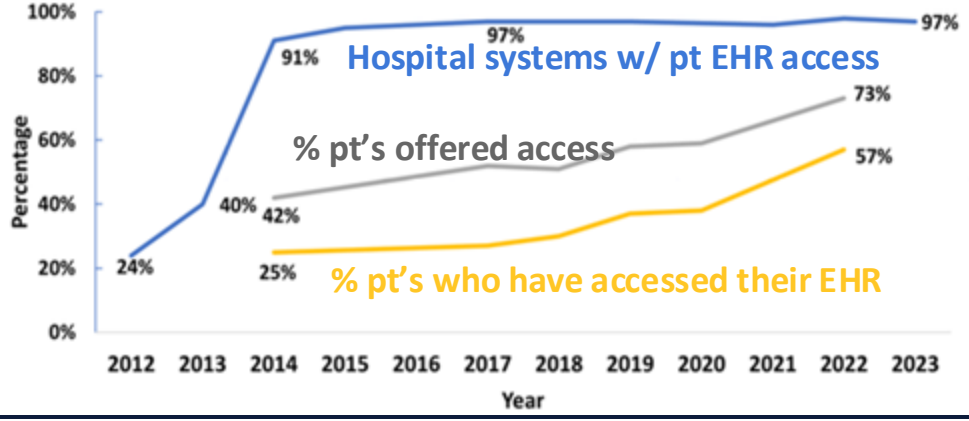
- **Enhance patient engagement and patient-centered care**
- **Improve communications between patients and their providers**
- **Promotion of management of chronic diseases**
  - More active role in their care and making more informed decisions outside the healthcare setting
- **Facilitate health service management (eg. billing), data collection, efficiency, etc**

Timeline

- **2002 – Epic Systems creates MyChart**
- **2009/2014 - HITECH Acts Passed**
  Federal Incentives for "meaningful" EHR usage, which eventually became penalties for not providing meaningful access
- **2016 - 21st Century Cures Act Passed**
  Specified the requirement for real-time access to results most clinical documentation
- **2020's - EPIC Systems makes significant expansion** into mobile apps, automated systems

Significant adoption

Figure 6. Access to patient electronic health information. Blue line: Hospital capability to enable patient electronic access to health information. Sources: NEHRS (National Electronic Health Record Survey), AHA (American Hospital Association) IT Supplement, and HINTS (Health Information National Trends Survey) Surveys. Blue line: Hospital capability to enable patient electronic access to health information, grey line: Individuals offered a patient portal by a provider or insurer, yellow line: Individuals offered and accessed a patient portal.



JOURNAL OF MEDICAL INTERNET RESEARCH — Barker et al

Original Paper

The Evolution of Health Information Technology for Enhanced Patient-Centric Care in the United States: Data-Driven Descriptive Study

Wesley Barker*, MS; Wei Chang*, MPH; Jordan Everson*, MPP, PhD; Meghan Gabriel*, PhD; Vaishali Patel*, MPH, PhD; Chelsea Richwine*, PhD; Catherine Strawley*, MPH

Disparities Seen

- **Multiple studies indicate there is a gap in both being offered access and actually using access**
- **Some have found underwhelming representation** from older adults, Black/Hispanic groups, limited English proficiency, lowest income quintiles, rural residents, low digital/health literacy.

Disparities in Enrollment and Use of an Electronic Patient Portal

Mita Sanghavi Goel, MD MPH[1], Tiffany L. Brown, MPH[1], Adam Williams, BS[1], Romana Hasnain-Wynia, PhD[2], Jason A. Thompson, BA[1], and David W. Baker, MD MPH[1]

[1]Division of General Internal Medicine, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA; [2]Center for Healthcare Equity, Institute for Healthcare Studies, Feinberg School of Medicine, Northwestern University, Chicago, USA.

Table 3. Adjusted Analyses for Enrollment and Use of Patient Portal (n=6647)

	My Chart Enrollment, OR	My Chart Use: Advice, OR	My Chart Use: Refills, OR
Race/Ethnicity			
White	1.00	1.00	1.00
Black	0.43 (0.37–0.50)*	1.03 (0.81–1.31)	1.08 (0.85–1.37)
Latino	0.65 (0.49–0.87)*	1.10 (0.74–1.64)	1.05 (0.70–1.57)
Asian	0.70 (0.48–1.03)	0.68 (0.41–1.11)	1.01 (0.60–1.71)
Age			
18–34	1.00	1.00	1.00
35–49	0.98 (0.84–1.15)	1.39 (1.15–1.69)*	1.37 (1.09–1.71)*
50–64	0.99 (0.84–1.16)	1.73 (1.41–2.12)*	1.90 (1.52–2.37)*
65+	0.79 (0.65–0.97)*	1.59 (1.23–2.07)*	1.50 (1.15–1.97)*
Gender			
Male	1.00	1.00	1.00
Female	1.13 (0.99–1.28)	1.39 (1.18–1.66)*	1.01 (0.85–1.19)

Analyses adjusted for education and income and clustered by physician, random effects

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Effects

- Most data suggestive of a positive impact
- More objective subjects tend to show more significance
- **Do we see such effects in HIV care?**

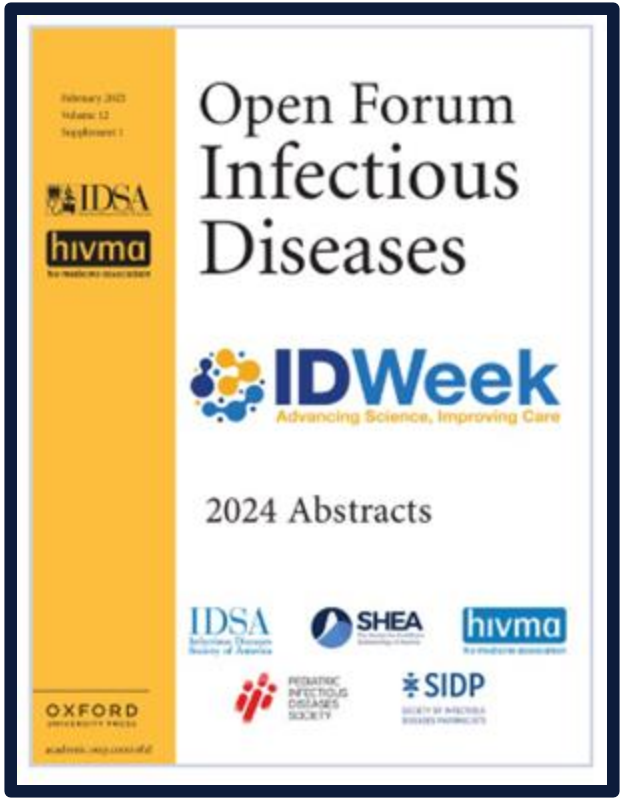
Electronic Patient Portal Access, Retention in Care, and Viral Suppression Among People Living With HIV in Southeastern United States: Observational Study

Cassandra Oliver Schember[1], MPH, PhD; Sarah E Scott[2], MD; Cathy A Jenkins[3], MS; Peter F Rebeiro[1,3,4], MHS, PhD; Megan Turner[4], MA; Sally S Furukawa[4], BSc; Carmen Bofill[4], MPH; Zhou Yan[5], BSc; Gretchen P Jackson[6], MD, PhD; April C Pettit[1,4], MPH, MD

Table 2. Adjusted prevalence ratios for the association of patient portal account existence and HIV outcomes of retention in care and viral suppression. All models adjusted for variables included in the table as well as the year of cohort entry.

Characteristic	Retention in care model, aPR[a] (95% CI)	Viral suppression model, aPR (95% CI)
Account status (variable lagged by 1 year)		
No account	REF[b]	REF
Account exists	1.13 (1.10-1.17)*	1.18 (1.14-1.22)*

More data suggestive of positive impact



JOURNAL ARTICLE

P-1413. Association of Electronic Patient Portal Use and HIV Viral Suppression and Retention in Care among People Living with HIV at an Urban Academic Medical Center

Daniela Zimmer, MPH, MSW , Neda Laiteerapong, MD, MS , Raj Shetty, n/a , Jessica Ridgway, MD Author Notes

Open Forum Infectious Diseases, Volume 12, Issue Supplement_1, February 2025, ofae631.1588, https://doi.org/10.1093/ofid/ofae631.1588
Published: 29 January 2025

Methods. We collected electronic health record data for PLWH who attended an HIV care visit at an urban academic medical center over 2 years, including demographics, laboratory results, medical encounters, and MyChart status. We compared the demographic characteristics of PLWH with and without an active MyChart account using chi-square. We used logistic regression to assess if MyChart status was associated with outcomes of viral suppression (< 200 copies/mL), retention in care (using the six-month gap definition, i.e., PLWH who attended an HIV care appointment in the prior 6 months are retained), and CD4 count >200 cells/mm^3, after controlling for age, race, and sex.

Results. Among 785 PLWH, the mean age was 47 years (SD=14.9), 70% were male, and 83% were Black/African-American. Black PLWH were significantly less likely than White PLWH to have an active MyChart account (83.6% (543/649) vs. 95.8% (91/95), p< 0.01). PLWH with an active MyChart had increased odds of HIV viral suppression (Odds Ratio [OR]: 2.02, 95% CI [1.3 - 3.7]); retention in care (OR: 2.2 95% CI [1.4 -3.4]); and CD4 >200 (OR: 3.3, 95% CI [1.8 to 6.0].

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Methods

Questions

- **Do patients who have activated MyChart have better odds of being virally suppressed, CD4 >200, or retained in care?**
- **Do these odds improve if there is evidence of "engagement"?**

Methods

- **Retrospective Cohort Analysis**
  - **Exposure**: MyChart Activation or MyChart "engagement"
  - **Surrogate for engagement** = Did they check CD4 or VL at least once?
- **Additionally, a cross-sectional analysis**: Who is using MyChart?
- Used Statista w/ assistance from statistician assistance to assess odd's ratios between variables

Outcomes

- **Viral suppression**
  - VL <200
- **CD4 > 200**
- **Retained in care**

- 2 visits within 15 months & ≥ 3mo apart

(*Above HRSA definition of 1yr)

Project designed and completed during my ID fellowship at LSU - New Orleans (2023 - 2025). Data obtained in record review of patients from the HIV Outpatient Program (**HOP**) Clinic. Patients are routinely provided sign-up codes for MyChart

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Population

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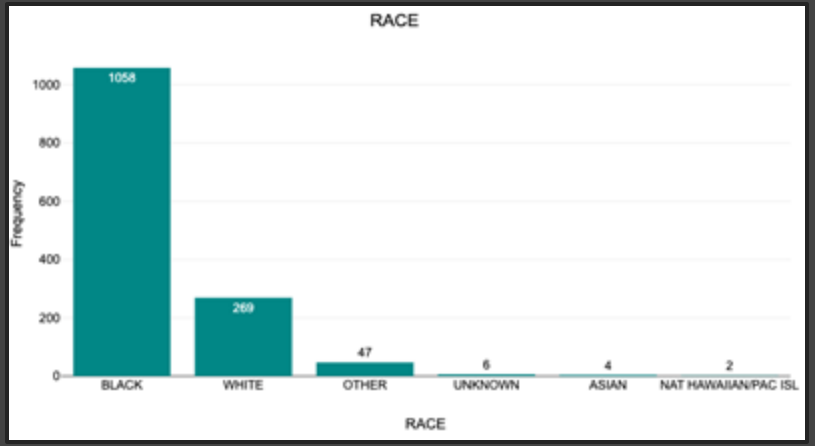
- **All unique patient over 15-month period: Jan 2024 through Mar 2025 (1,428 patients)**
- 42 removed without VL (-1), CD4 (-11), or both labs (-30) on record **= 1,386 patients**

- **945** male (68.2%)
- **441** female (31.8%)

- **Age range:** 18 - 86
- **Mean age**: 51.9 (Std Deviation 13.25)
  - **Aged 18 - 44** = 434 (**31.3%**)
  - **Aged 45 - 64** = 703 (**50.7%**)
  - **Aged 65+** = 249 (**18%**)

- ~52% below the Federal Poverty Level
- ~97% considered low income or "near poverty"

- **1,058** identified as Black (76.3%)
- **269** White (19.4%)
- **4** Asian (0.3%)
- **2** Hawaiian/Pacific Islander **2** (0.14%)
- **47** Other (3.4%); **6** Unknown (0.4%)



Results

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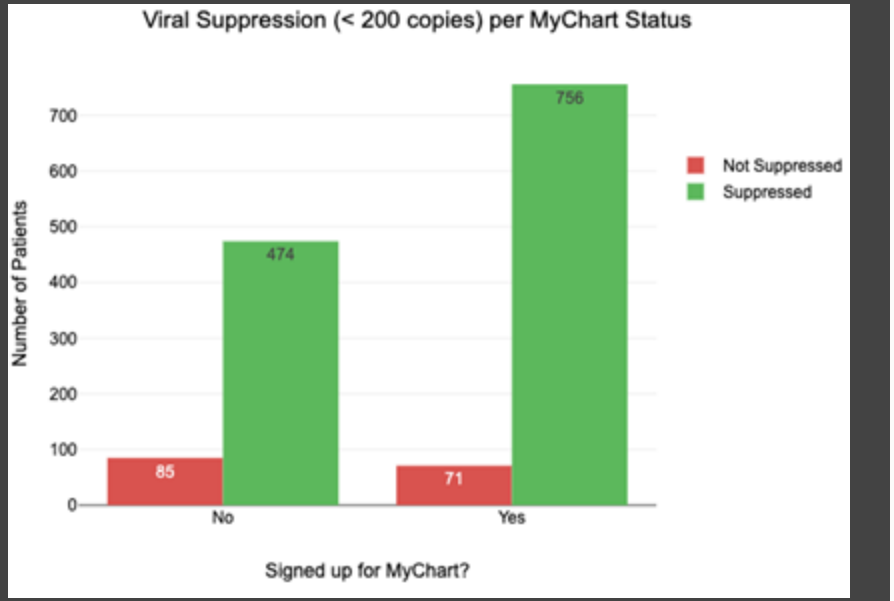
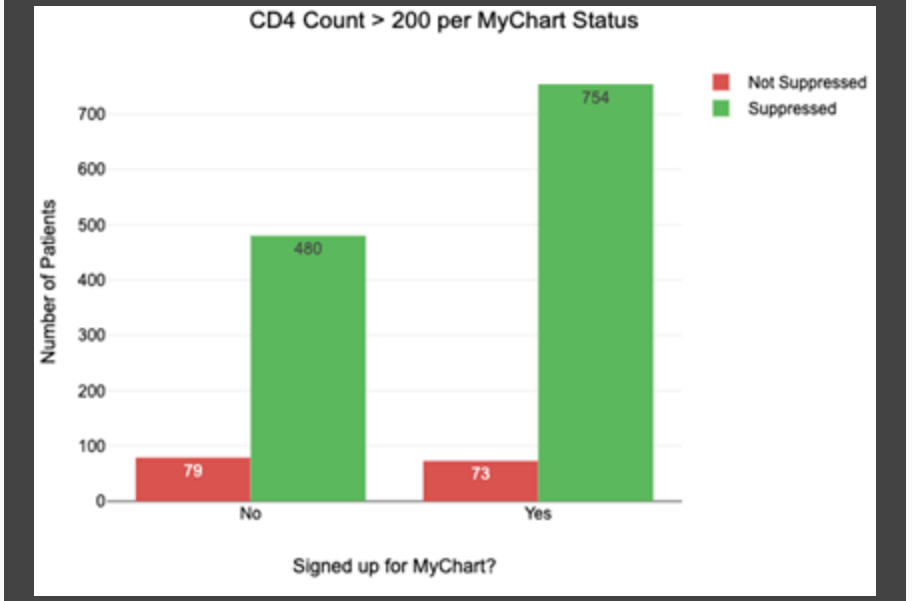
- MyChart sign-up was significantly associated with higher odds of being virally suppressed
- **Odds Ratio = 1.91** ($p < 0.001$)

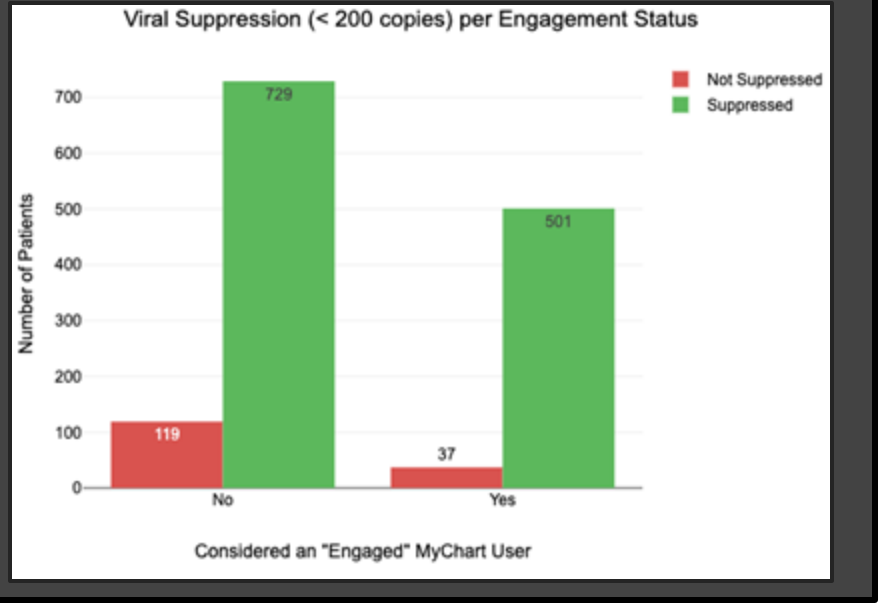


- MyChart sign-up was significantly associated with higher odds of having a CD4 count > 200
- **Odds Ratio = 1.7** ($p = 0.002$)

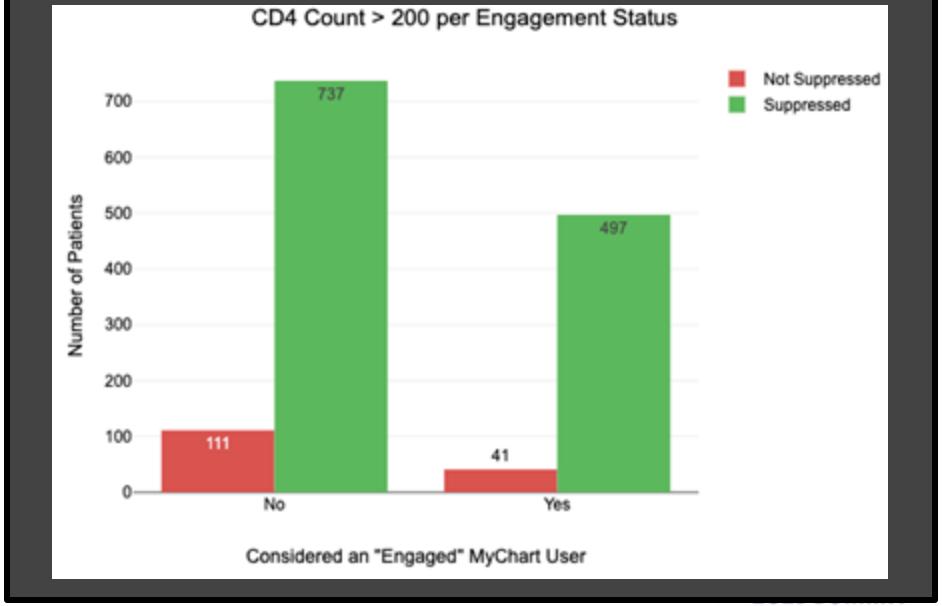


Results

- Checking CD4 or VL at least once was significantly associated w/ higher odds of being virally suppressed
- **Odds Ratio = 2.21** ($p < 0.001$)



- Checking CD4 or VL at least once was significantly associated w/ having CD4 >200
- **Odds Ratio = 1.83** ($p = 0.001$)



Results

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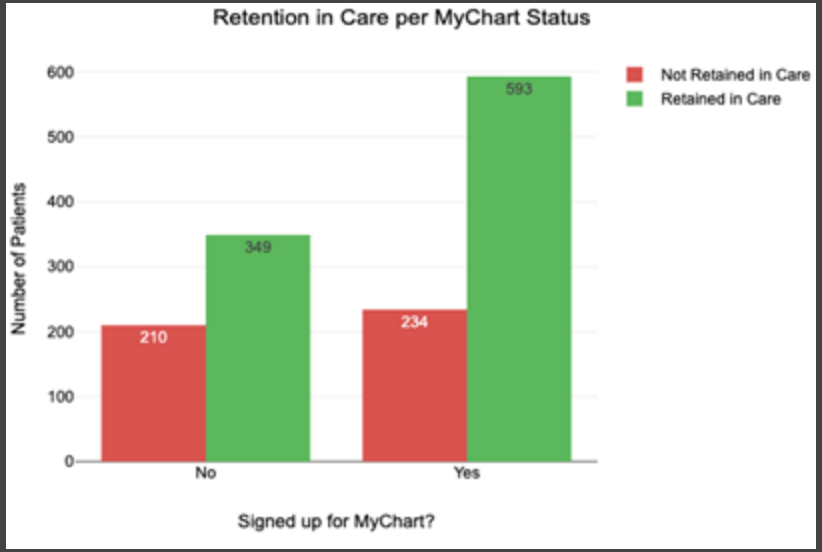
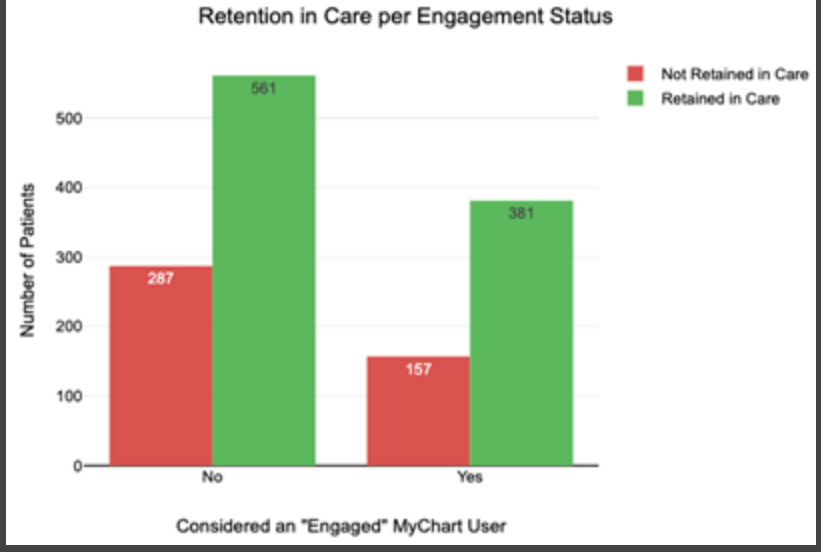
- MyChart sign-up was significantly associated with higher odds of being considered “retained in care” under a 15-month definition
- **Odds Ratio = 1.52** ($p < 0.001$)



- Checking CD4 or VL at least once (“engagment”) did not show a significant relationship with being retained in care
- **Odds Ratio = 1.24 (p = 0.069)**



Results: Disparities

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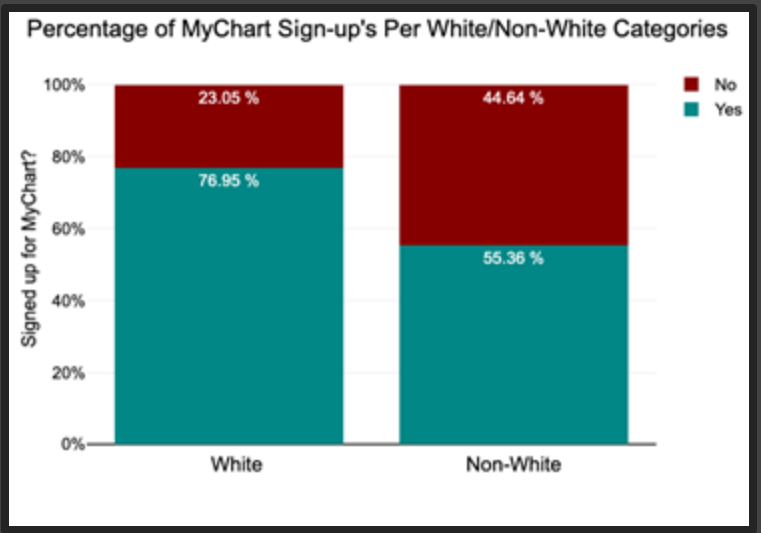
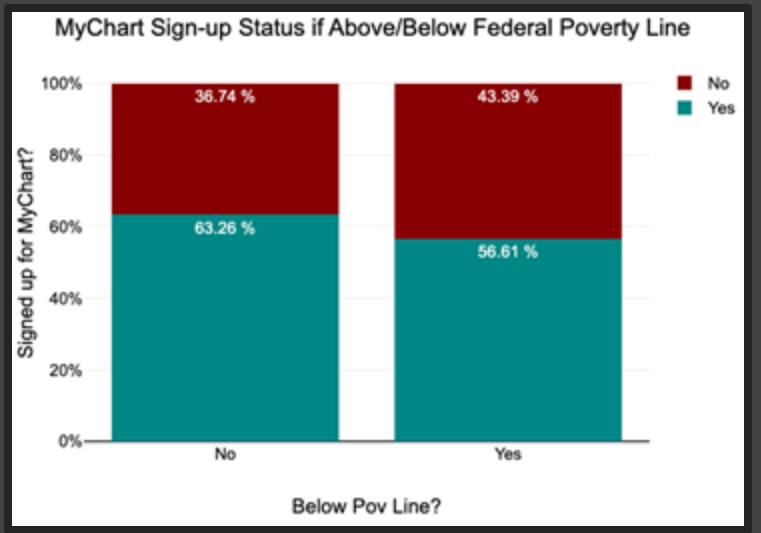
- Being listed as non-White was significantly associated w/ lower odds of being signed up for MyChart.
- **Odds Ratio = 0.37 (p < 0.001)**



- Being listed as below the poverty line was significantly associated w/ lower odds of being signed up for MyChart.
- (**Odds Ratio = 0.76** (p = 0.012))



Also found significant skew toward younger patients and male sex

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Conclusions

In our selected population, patients who have signed up for MyChart have greater odds of being virally suppressed, maintaining CD4 >200, and retention in care

Those who show evidence of actually using MyChart have greater odds of the same (except for retention in care metric)

Some groups are underrepresented when compared to others, especially non-white and lower income individuals

Discussion

There seems to be an association between patient access to EHR systems and improvement in outcomes in HIV care

The suggestion that patient access to critical information leads to improved outcomes is plausible. However, causality is not established & confounding risk is significant.

Examples include differences in health literacy, digital literacy, access to the internet, access to a smartphone, language barriers, differences in provider practices, insurance status, etc.

There is need and opportunity for prospective or interventional data collection moving forward Ethically obtaining such data will present challenges

Thank you very much for the opportunity to present our research! September 15-17, 2025

Title:
Patient Access to EHRs: Broad Assessment and Review of Local Trends

Presenter: John Phillips, MD
Email: JohnGPhillips@gmail.com
Preceptor: Lauren Richey, MD

References

- Schember, C. O., Scott, S. E., Jenkins, C. A., Rebeiro, P. F., Turner, M., Furukawa, S. S., Bofill, C., Yan, Z., Jackson, G. P., & Pettit, A. C. (2022). Electronic Patient Portal Access, Retention in Care, and Viral Suppression Among People Living With HIV in Southeastern United States: Observational Study. JMIR Medical Informatics, 10(7), e34712. https://doi.org/10.2196/34712
- Osborn, C. Y., Mayberry, L. S., Mulvaney, S. A., & Hess, R. (2010). Patient Web Portals to Improve Diabetes Outcomes: A Systematic Review. Current Diabetes Reports, 10(6), 422–435. https://doi.org/10.1007/s11892-010-0151-1
- Lyles, C. R., Nelson, E. C., Frampton, S., Dykes, P. C., Cemballi, A. G., & Sarkar, U. (2020). Using Electronic Health Record Portals to Improve Patient Engagement: Research Priorities and Best Practices. Annals of Internal Medicine, 172(11 Suppl), S123–S129. https://doi.org/10.7326/M19-0876
- Irizarry, T., DeVito Dabbs, A., & Curran, C. R. (2015). Patient Portals and Patient Engagement: A State of the Science Review. Journal of Medical Internet Research, 17(6), e148. https://doi.org/10.2196/jmir.4255
- Huang, J., Chen, Y., Landis, (2019). Difference Between Users and Nonusers of a Patient Portal in Health Behaviors and Outcomes: Retrospective Cohort Study. Journal of Medical Internet Research, 21(10), e13146. https://doi.org/10.2196/13146
- Han, H. R., Gleason, K. T., Sun, C. A., Miller, H. N., Kang, S. J., Chow, S., Anderson, R., Nagy, P., & Bauer, T. (2019). Using Patient Portals to Improve Patient Outcomes: Systematic Review. JMIR Human Factors, 6(4), e15038. https://doi.org/10.2196/15038
- Goldzweig, C. L., Orshansky, G., Paige, N. M., Towfigh, A. A., Haggstrom, D. A., Miake-Lye, I., Beroes, J. M., & Shekelle, P. G. (2013). Electronic patient portals: Evidence on health outcomes, satisfaction, efficiency, and attitudes: A systematic review. Annals of Internal Medicine, 159(10), 677–687. https://doi.org/10.7326/0003-4819-159-10-201311190-00006
- Chu, D., Lessard, D., Laymouna, M. A., Engler, K., Schuster, T., Ma, Y., Kronfli, N., Routy, J.-P., Hijal, T., Lacombe, K., Sheehan, N., Rougier, H., & Lebouché, B. (2022). Understanding the Risks and Benefits of a Patient Portal Configured for HIV Care: Patient and Healthcare Professional Perspectives. Journal of Personalized Medicine, 12(2), 314. https://doi.org/10.3390/jpm12020314
- Carini, E., Villani, L., Pezzullo, A. M., Gentili, A., Barbara, A., Ricciardi, W., & Boccia, S. (2021). The Impact of Digital Patient Portals on Health Outcomes, System Efficiency, and Patient Attitudes: Updated Systematic Literature Review. Journal of Medical Internet Research, 23(9), e26189. https://doi.org/10.2196/26189
- Alturkistani, A., Qavi, A., Anyanwu, P.E., Greenfield (2020). Patient Portal Functionalities and Patient Outcomes Among Patients With Diabetes: Systematic Review. Journal of Medical Internet Research, 22(9), e18976. https://doi.org/10.2196/18976
- Ammenwerth, E., Schnell-Inderst, P., & Hoerbst, A. (2012). The Impact of Electronic Patient Portals on Patient Care: A Systematic Review of Controlled Trials. Journal of Medical Internet Research, 14(6), e162. https://doi.org/10.2196/jmir.2238
- Vanderhout S, Taneja S, Kalia K, Tang T, Wodchis WP. Uptake and user characteristics of MyChart within a Canadian community hospital with a diverse patient population: A comparative study. PLOS Digital Health. 2025;4(5):e0000852. doi:10.1371/journal.pdig.0000852
- Pew Research Center. (2024, July). Mobile technology and home broadband fact sheet. Pew Research Center. Survey conducted Feb 1–Jun 10, 2024. Retrieved from Pew Research Center website.

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