

Health Information at Your Fingertips: Social Determinants of Health Associated with Patient Portal Use

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Background

- Offering patients electronic access to their diagnostic tests and imaging results can improve long-term health outcomes.
- However, patient portals are not universally accessible, and few studies have evaluated the barriers to accessing portal health information.
- The purpose of this study was to explore patient characteristics associated with portal access.

Methods

- Data from the 2022 National Cancer Institute's Health Information National Trends Survey (HINTS 6) was used.
- Adult patients (age ≥ 18) who responded to the survey question about patient portal access were included.
- Portal utilization rate was determined through an intensive descriptive analysis.
- A multivariate logistic regression analysis with jack-knife weighting of variables was performed with SPSS software to determine which patient characteristics associated with portal access and usage.

Results

- 5958 patients were included (mean age = 55.6; 60.4% female; 70.6% White, 18.2% Black; 17.7% Hispanic), weighted n = 245,721,106.
- 61.3% of all respondents reported accessing portals an average of 3-5 times over the last 12 months, and 43.8% of all respondents used multiple portals.
- 90.5% of those with portal access reported using portals to view test results, while other commonly utilized functions included viewing clinical notes (70.9%), downloading personal health information (31.9%), and sending personal health information to third parties (19.3%).
- 38.7% of respondents indicated no portal use in the previous 12 months.
- Patients with a college education (t = 3.64; 95% CI: 0.254, 0.882), living in urban regions (t = 2.43, 95% CI: 0.098, 1.041), and those offered access to patient portals by their healthcare providers (t = 7.60; 95% CI: 1.504, 2.586), were most strongly associated with portal usage of all factors evaluated in this study.

Table 1: Multivariate regression and jackknife weighted analysis for factors associated with portal use and access

Factors Influencing Portal Use	Unweighted Multivariable analysis OR (95% CI)	p-value	Jackknife Weighted Multivariable analysis t (95% CI)	p-value
Age, n=5882 (98.7%)				
18-40				
41-64	0.764 (0.619, 0.943)	0.012	-0.13 (-0.428, 0.376)	0.897
65+	0.359 (0.287, 0.450)	<0.001	-1.18 (-0.694, 0.180)	0.244
Birth Gender, n=5703 (95.7%)				
Female				
Male	0.715 (0.612, 0.835)	<0.001	-1.92 (-0.660, 0.015)	0.061
Race, n=5503 (92.4%)				
White				
Black	0.782 (0.638, 0.957)	0.017	-0.55 (-0.691, 0.392)	0.581
Other	1.033 (0.744, 1.434)	0.848	1.30 (-0.272, 1.260)	0.201
Rural or Urban Living, n=5958 (100%)				
Non-metro				
Metro	-	-	2.43 (0.098, 1.041)	0.019
Education, n=5707 (95.8%)				
Below College Level				
College Graduate or Higher	2.025 (1.724, 2.380)	<0.001	3.64 (0.254, 0.882)	0.001
HCP Offered Access, n=5921 (99.4%)				
No or Don't Know				
Yes	17.612 (14.602, 21.242)	<0.001	7.60 (1.504, 2.586)	<0.001

Variables Entered in Multivariate Regression Analysis: Age, Birth Gender, Education, Household Income, Marital Status, Race, Hispanic Ethnicity, HCP Offered Portal Access, Confident Filling Medical Forms, Medical Conditions (Cancer, Diabetes, HT, Heart Condition, Lung Condition, Depression), Health Insurance, SDOH (Food Access, Transportation Access, Housing Security).
Additional variables in jackknife weighted analysis: Rural Living, Internet Connection, Quality of Care, HCP Encouraged Portal Use

Conclusion and Future Directions

- While a majority of respondents did use patient portals, certain demographic populations face greater difficulty accessing them.
- Future studies should focus on developing approaches that healthcare providers can employ to increase patient portal access for diagnostic test and imaging information.

References

National Cancer Institute. Health Information National Trends Survey. Methodology Reports. Accessed November 28, 2023. <https://hints.cancer.gov/data/methodology-reports.aspx>