

Patient Portals and Primary Care: What Use of a Portal Could Mean for Your Patients

OCTOBER 2, 2019

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- and more!

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Today's Speakers



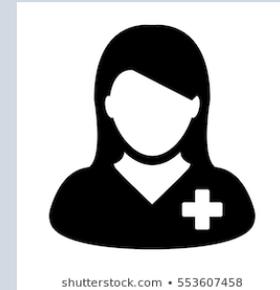
Robert Dribbon,
*Strategy and Innovation,
Merck*



Mary Reed, DrPH,
*Research Scientist,
Kaiser Permanente
Northern California
Division of Research*



Lisa Letourneau, MD,
MPH, FACP,
*Clinical Advisor,
PCPCC*



Rosalin Cox,
Patient Advisor

The CONNECT Study: Caring for Chronic Conditions Through Interactive e-Healthcare Tools

Mary Reed, DrPH

Division of Research

Kaiser Permanente Northern California

Research funded by: Patient Centered Outcomes Research Institute 

No Conflicts of Interest to Declare



Welcome, Mary

MARY REED ▾

[Add a family member](#)

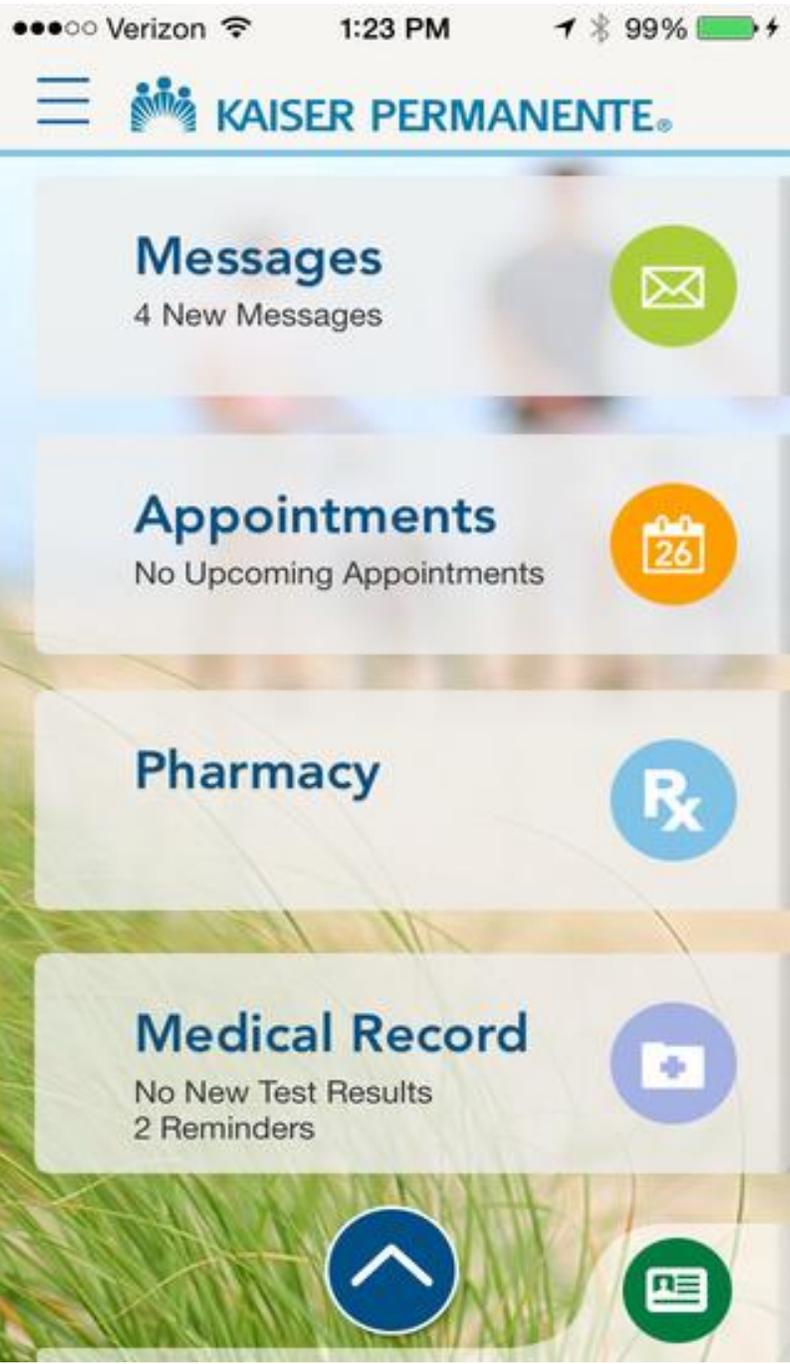


My Health

Welcome Mary

MARY

Add a family member



Mary

Messages

Pharmacy

Coverage & Costs

Health & Wellness



Research Questions

Among patients with chronic conditions:

1. Which patients use the patient portal and which do not? Why or why not?
2. How does using the patient portal affect the patient healthcare experience and outcomes?

Study Methods

Patient Survey - Patient preferences and outcomes: 1824 respondents (70% response rate)

- Kaiser members, age 18+
- Chronic conditions (oversampled 2+ chronic conditions)
- Including both portal users and non portal users
- **Three ways to complete the survey: mail, phone interview, electronic**

Visit utilization and health events: 165,477 patients with diabetes

- Rates of in-person health care use (office visits, emergency room visits, hospital stays)

Portal Use Among Patients With Chronic Conditions

Patient-reported Care Experiences

Mary E. Reed, DrPH,* Jie Huang, PhD,* Andrea Millman, MA,* Ilana Graetz, PhD,†
John Hsu, MD, MBA, MSCE,‡ Richard Brand, PhD,§ Dustin W. Ballard, MD, MBE,||
and Richard Grant, MD, MPH*

Background: Personal health records offer patients access to view their own health information and to manage their care online through secure patient portal tools. Little is known about the patient-reported experience in using health portals to manage chronic conditions.

Objective: In a patient-centered research study, we examined how using portal tools affects patient health care experiences among patients with chronic conditions. We also examined barriers among nonportal users.

Research Design: A cross-sectional patient survey.

Subjects: Patients with a chronic condition in an integrated delivery system offering a patient portal.

Measures: Respondents reported barriers, preferences, and experiences in using the patient portal, and whether using the portal

Conclusion: Patients with chronic conditions using the portal reported convenience, information usefulness, and integration of the patient portal with their health care; these may act as potential pathways improving health.

Key Words: patient experience, technology, patient portal, convenience
(*Med Care* 2019;00: 000–000)

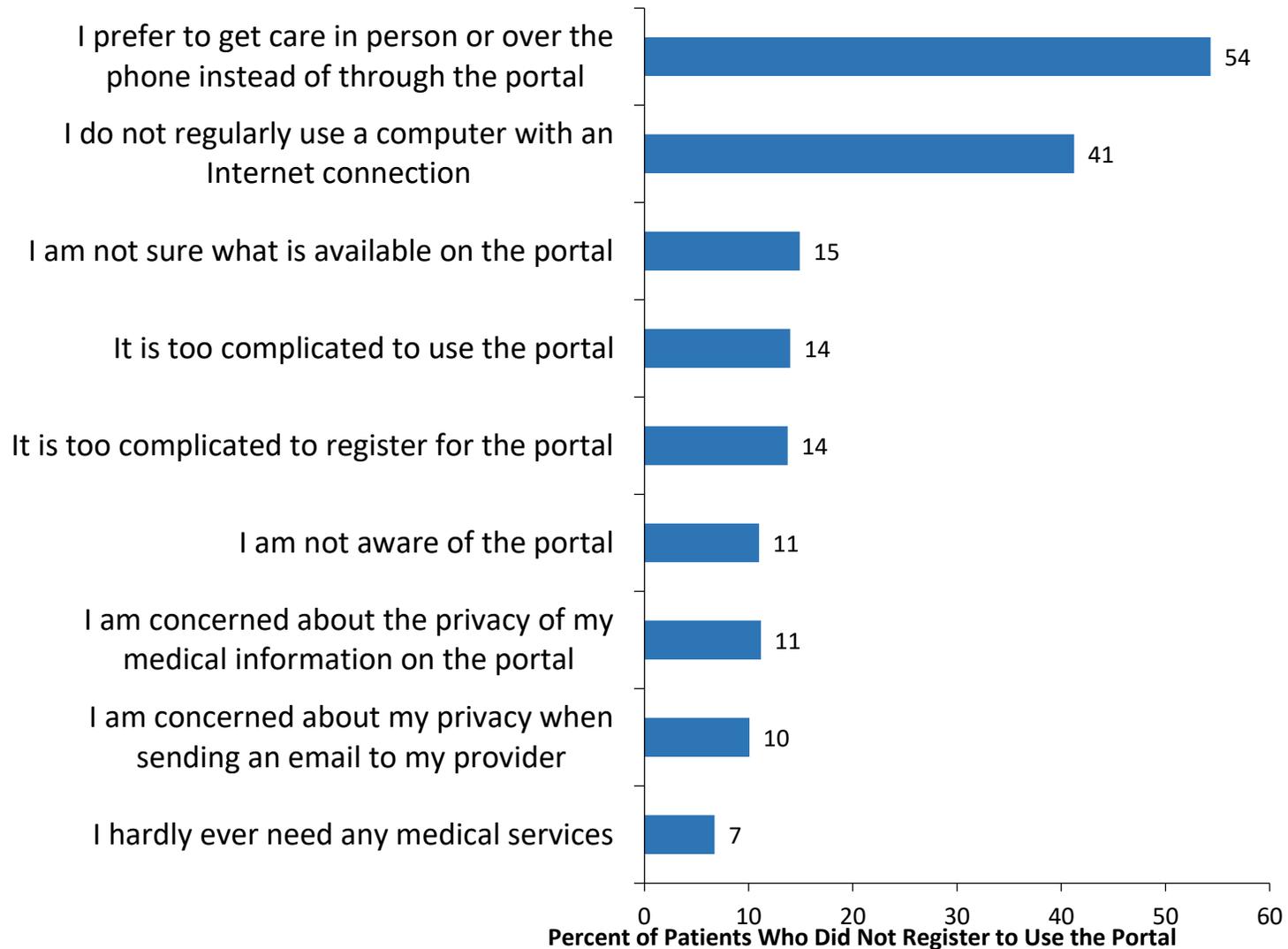
Patient portals offer a patient-facing technology that can facilitate the delivery of high-quality guideline-recommended care to improve patient health.^{1,2} Patient portals, linked to the patient's clinical electronic health record (EHR) offer patients access to their own medical information through a secure website, with potential to manage their health care online at any

Patient portal users: 76%

Characteristics less likely to use the portal:

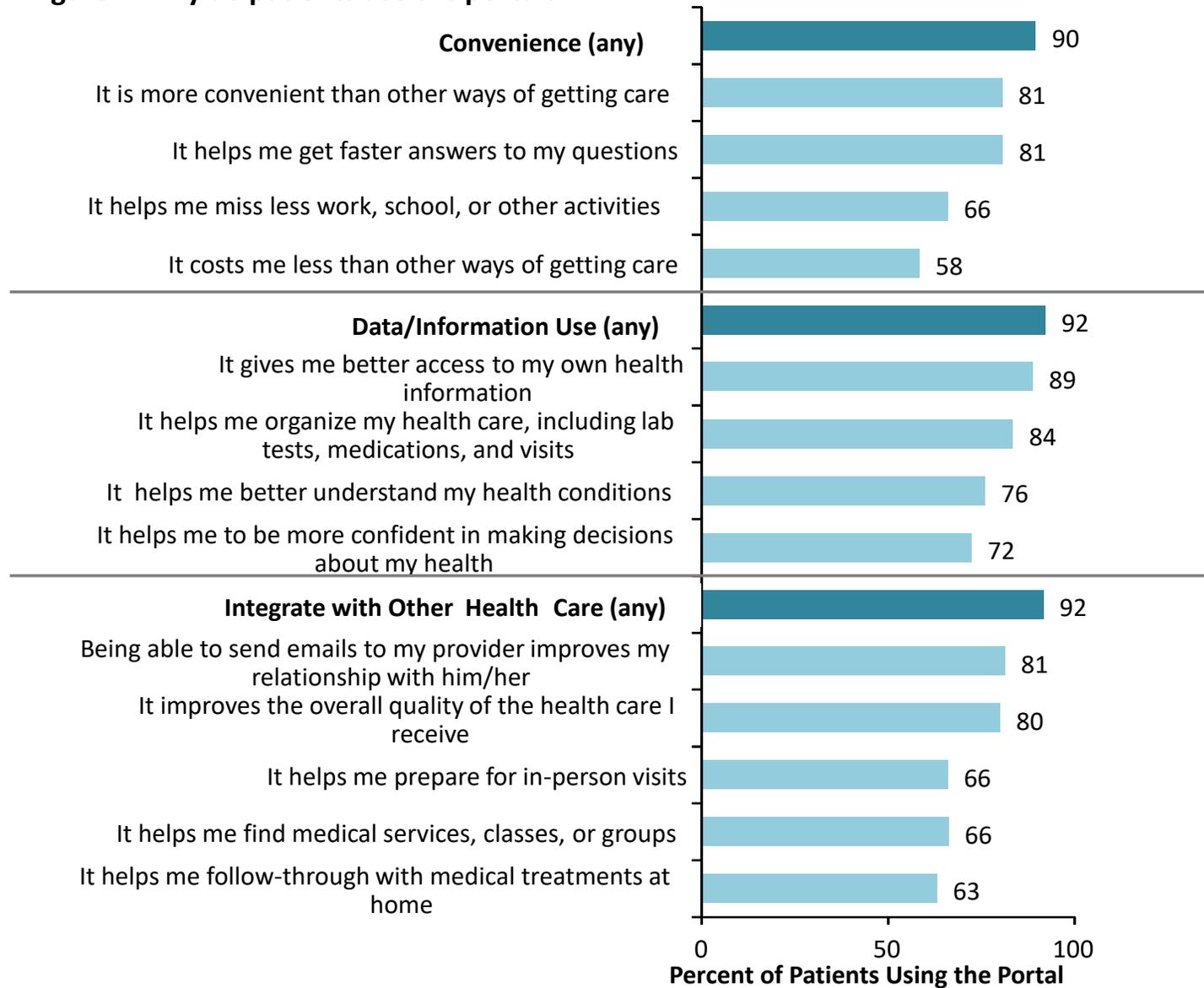
- **Older** (53% age 75+ vs 91% 18-44)
- **Differences by Race** (66% Black, 72% Hispanic, 78% Asian, 81% White)
- **Lower household income** (61% <\$40,000 vs 88% \$40,000+)
- **Lower education** (62% high school vs 85% some college)
- **Not daily internet users** (45% vs 94% daily users)
- **Fewer technology devices** (77% mobile only, 86% computer only, 96% both mobile and computer)

Figure 1. What was important in your decision not to register for the portal?



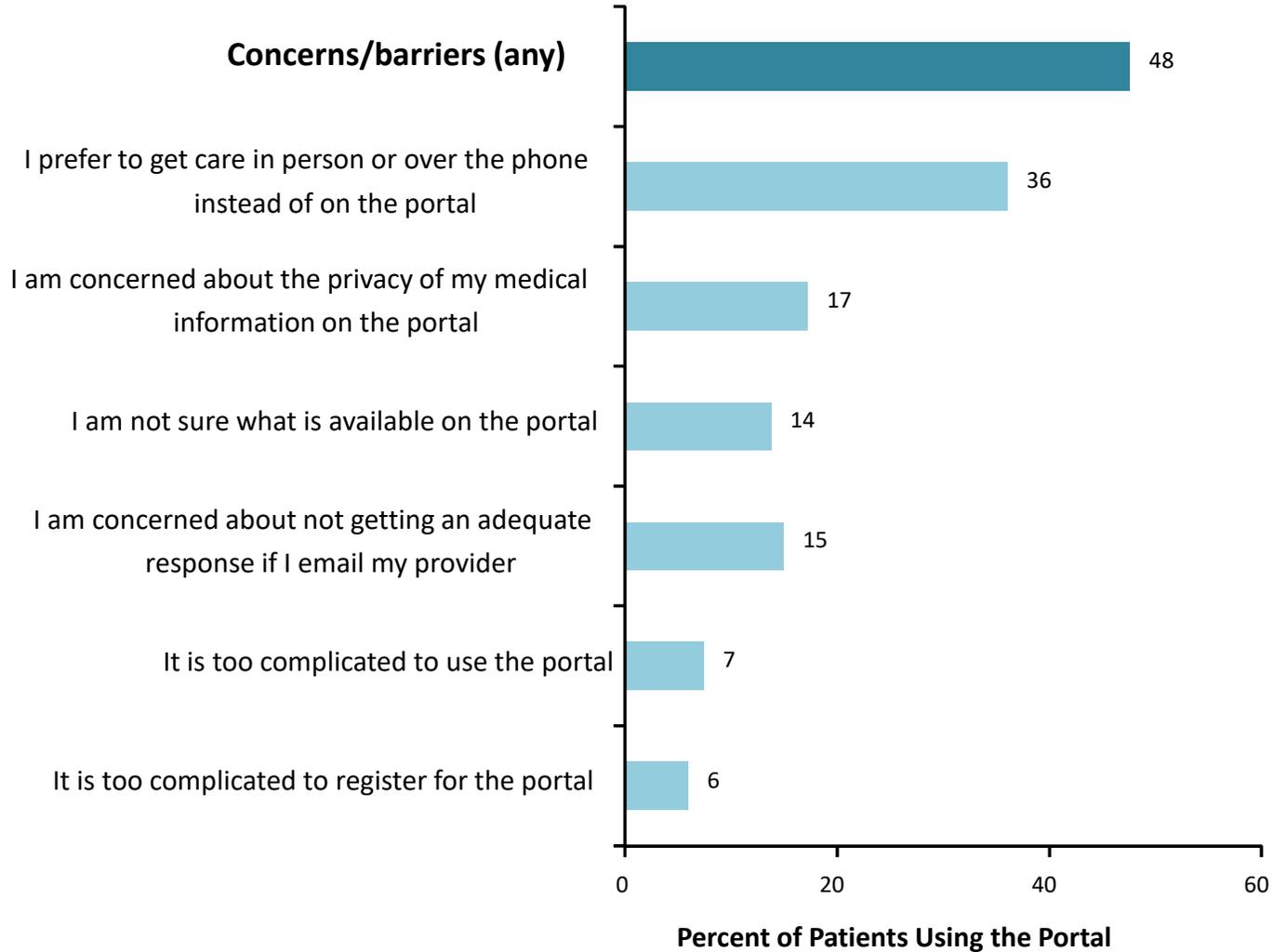
Unadjusted percent among 407 patients who did not register to use the portal from CONNECT survey (adult members with chronic conditions, oversampled 2+ chronic conditions).

Figure 2 Why do patients use the portal?



Unadjusted percent among 1,392 patients using the portal from CONNECT survey (adult members with chronic conditions, oversampled 2+ chronic conditions)

Figure 3. What concerns/barriers do patients have about using the portal?

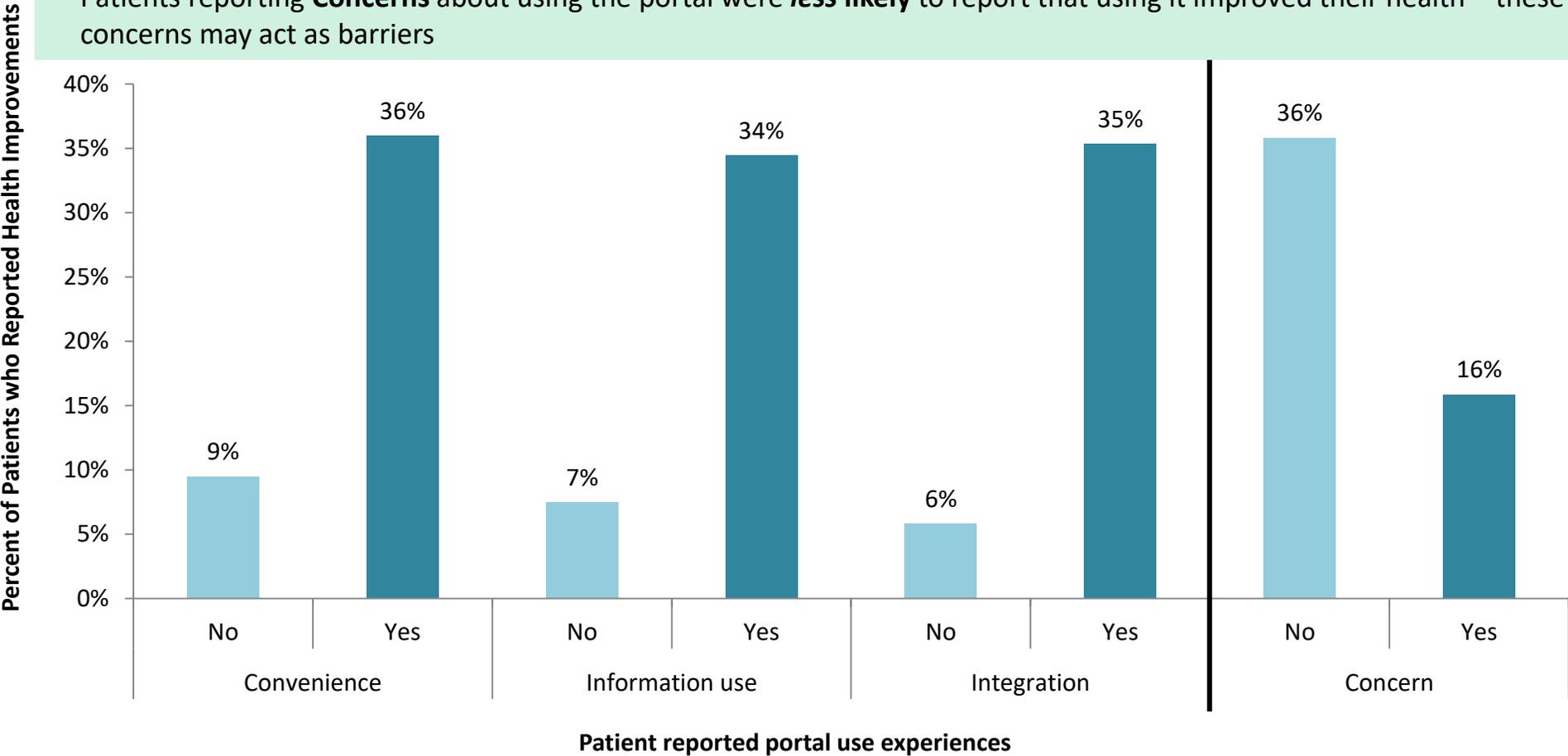


Unadjusted percent among 1,392 patients using the portal from CONNECT survey (adult members with chronic conditions, oversampled 2+ chronic conditions)

31% of Portal Users reported that using the portal had Improved their Overall Health

Figure 4: Are Patient-reported experiences associated with reported health improvements?

- Patients reporting **Convenience, Information use, or Integration** of the portal were *more likely* to report it improved their health – these are likely pathways to health improvement
- Patients reporting **Concerns** about using the portal were *less likely* to report that using it improved their health – these concerns may act as barriers



Reed M, Huang J, Brand R, Ballard DB, Yamin C, Hsu J, Grant R. Communicating through a patient portal: conveniently engaging family care partners. *JAMA Internal Medicine*, 2018 Jan 1;178(1):142-144.

RESEARCH LETTER

Communicating Through a Patient Portal to Engage Family Care Partners

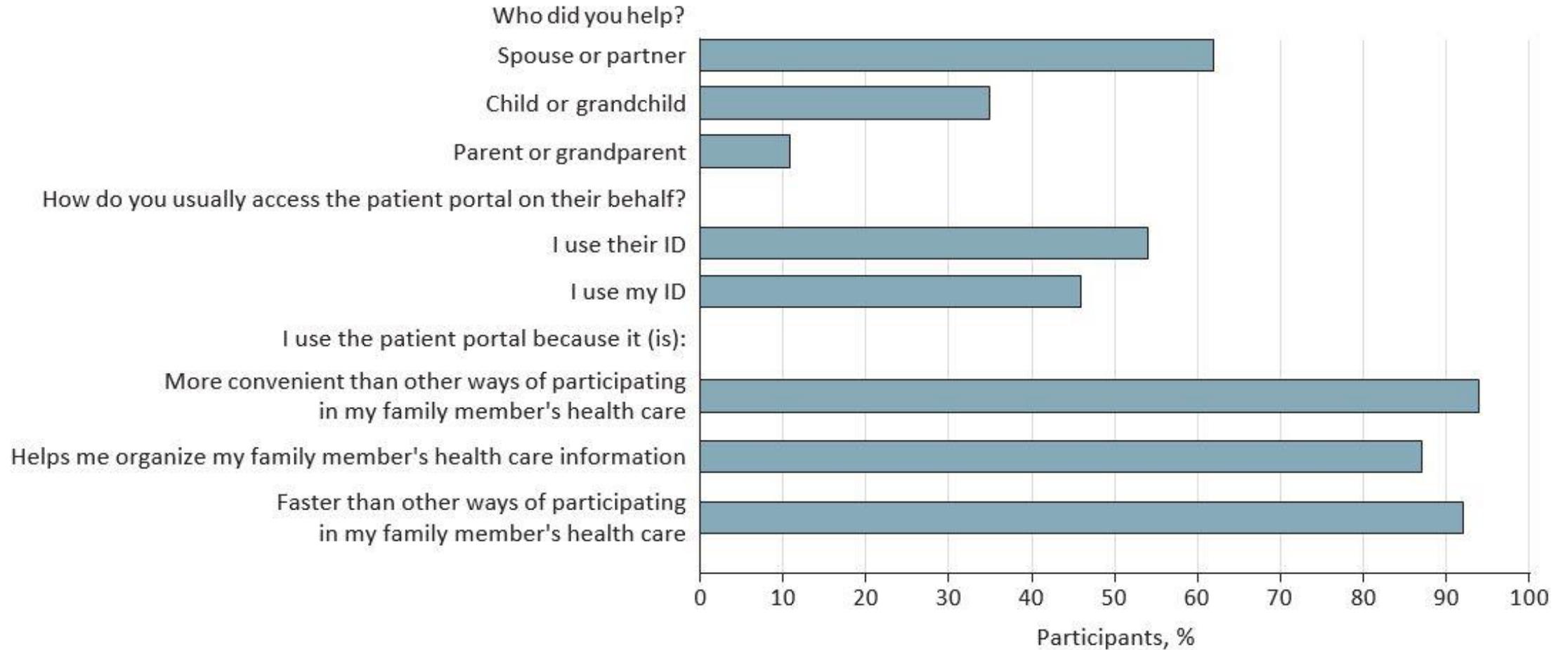
Communicating with caregivers and family care partners and coordinating care at home represent central challenges in managing medical conditions. Over 40 million Americans act as family care partners, including by scheduling and attending visits and communicating with physicians and pharmacies, sometimes across geographic distances.^{1,2} Patient portals can help to manage health information, communication with health care professionals, pharmacy refills, and appointments, but some patients need or prefer to have a family member access the portal on their behalf.³ Despite growing care partner portal use, measurement challenges and limited evidence exist, including published reports of less than 1% of patients formally sharing outpatient portal access.⁴ We examined care partner experiences in using a portal for a family member.

Methods | In a patient-centered research project, patients partnered in designing a survey to examine portal use by care partners. All patients in an integrated delivery system had access to a patient portal. We invited patients to participate in a survey

Table. Characteristics of Patients Using the Patient Portal Based on 1392 Survey Participants^a

Characteristic	% ^b			P Value
	Total (N = 1392)	Using the Portal for Self (n = 1009)	Using the Patient Portal on a Family Member's Behalf (n = 383)	
Age, y				
<45	13.6	11.7	18.7	.005
45-64	43.9	44.0	43.7	
65-74	29.6	30.5	27.0	
≥75	12.9	13.8	10.6	
Sex				
Male	48.3	51.9	38.9	<.001
Female	51.7	48.1	61.1	
Race/ethnicity				
White	61.6	61.7	61.2	.04
Black	8.9	9.9	6.3	
Hispanic	9.2	8.6	10.7	
Asian	13.2	12.0	16.4	
Other	3.7	3.9	3.4	
Unknown	3.3	3.8	2.0	
Education				

Figure 5. Reasons for Using the Patient Portal on a Family Member's Behalf (28% all of portal users)



Among 1392 adults with chronic conditions who use the patient portal for their own health care, 383 report also using the patient portal on a family member's behalf. Fewer than 2% of respondents reported accessing the patient portal for a sibling or a nonfamily member. Through the portal itself, patients could formally set up shared access for care partners who could thereafter use their own care partner login credentials (I use my identification [ID]). Patients also may informally share their own login credentials with care partners (I use their ID).

RESEARCH ARTICLE

Patients with complex chronic conditions: Health care use and clinical events associated with access to a patient portal

Mary E. Reed ¹*, Jie Huang¹, Richard J. Brand¹, Romain Neugebauer¹, Ilana Graetz², John Hsu^{3,4}, Dustin W. Ballard^{1,5}, Richard Grant¹

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Abstract

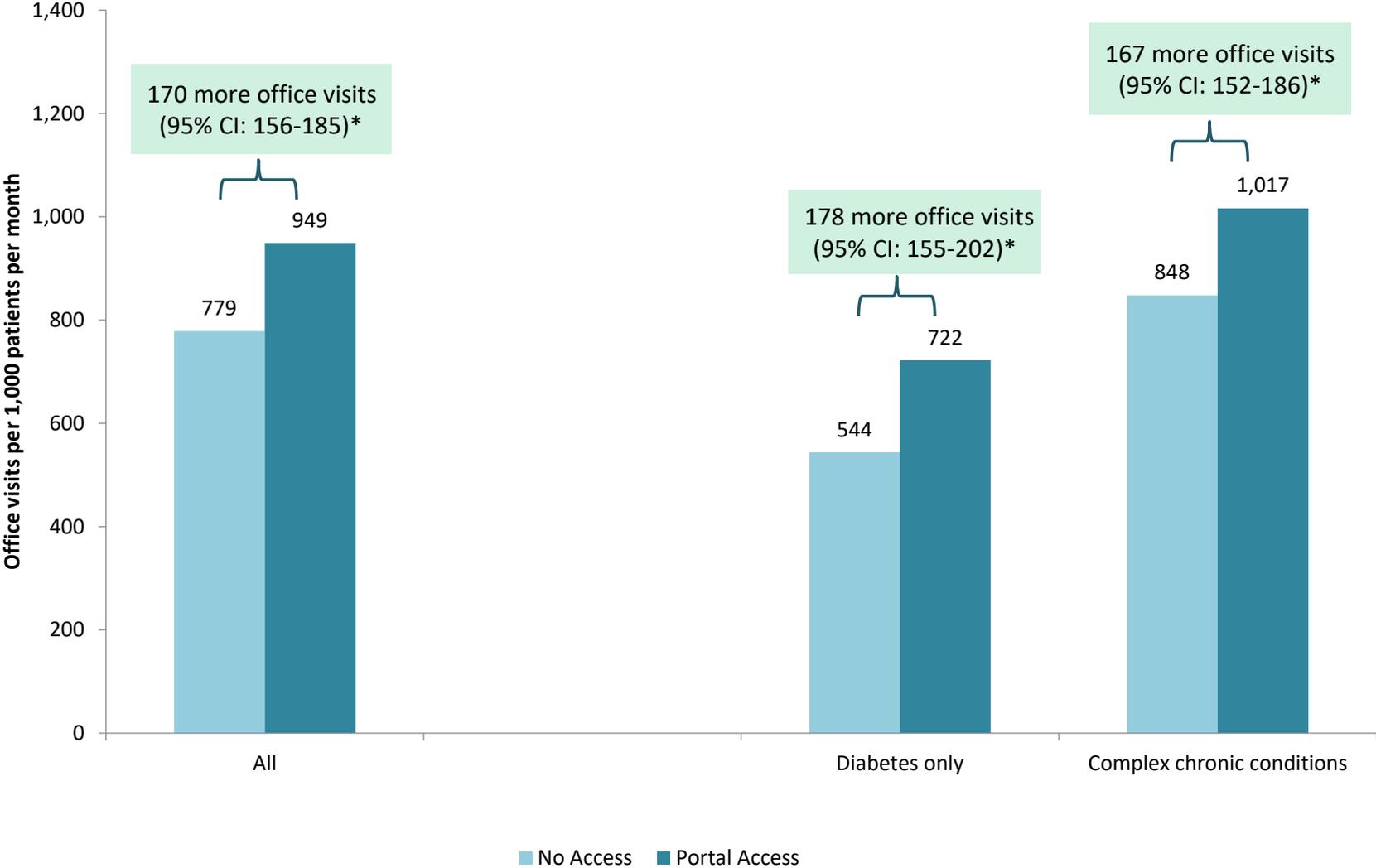
OPEN ACCESS

Citation: Reed ME, Huang J, Brand RJ, Neugebauer R, Graetz I, Hsu J, et al. (2019) Patients with complex chronic conditions: Health care use and clinical events associated with access

Background

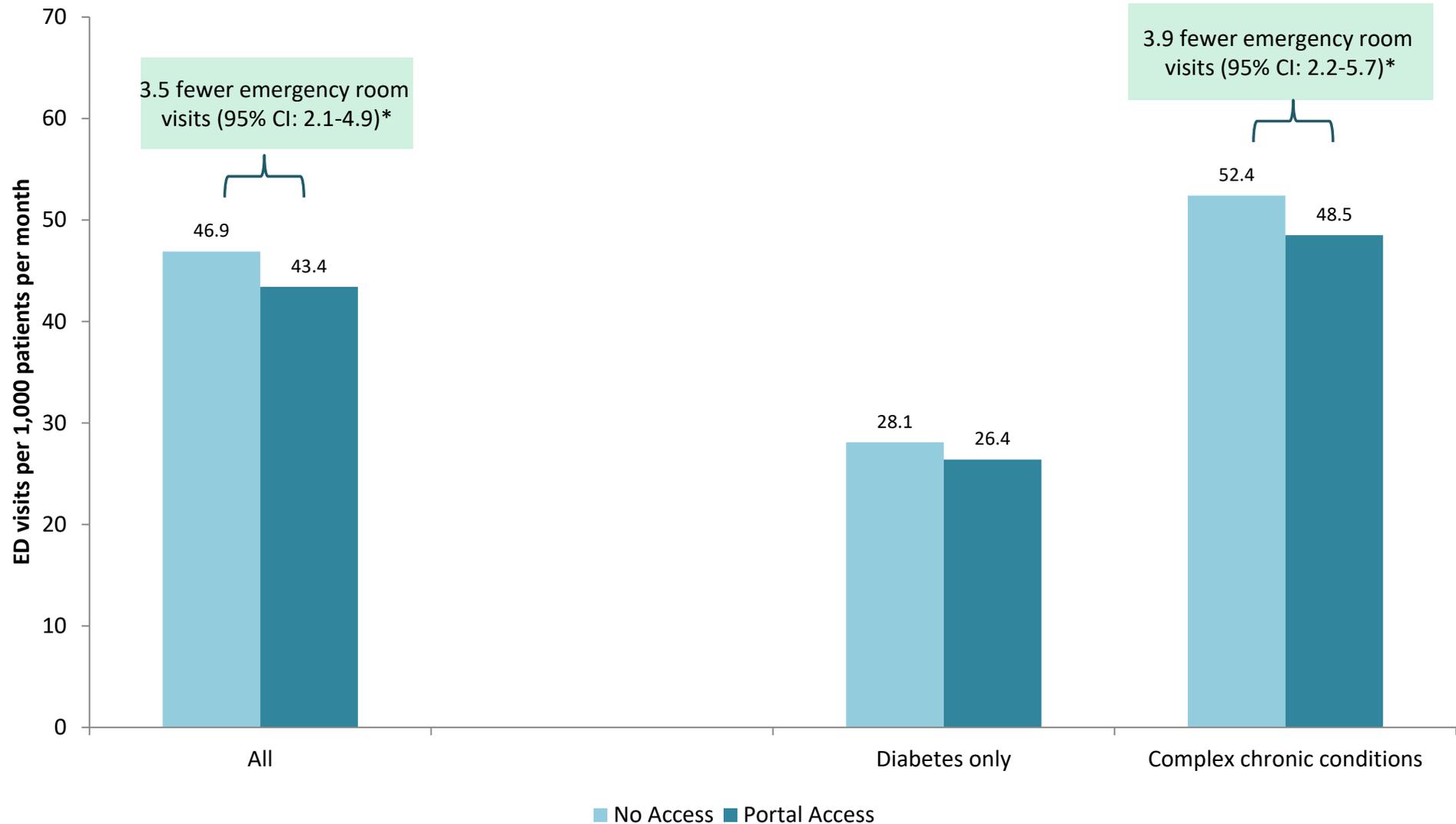
For patients with diabetes, many with multiple complex chronic conditions, using a patient portal can support self-management and coordination of health care services, and may

Figure 6. Difference in office visit use associated with portal access in all patients with diabetes and in patients with complex (multiple) chronic conditions.



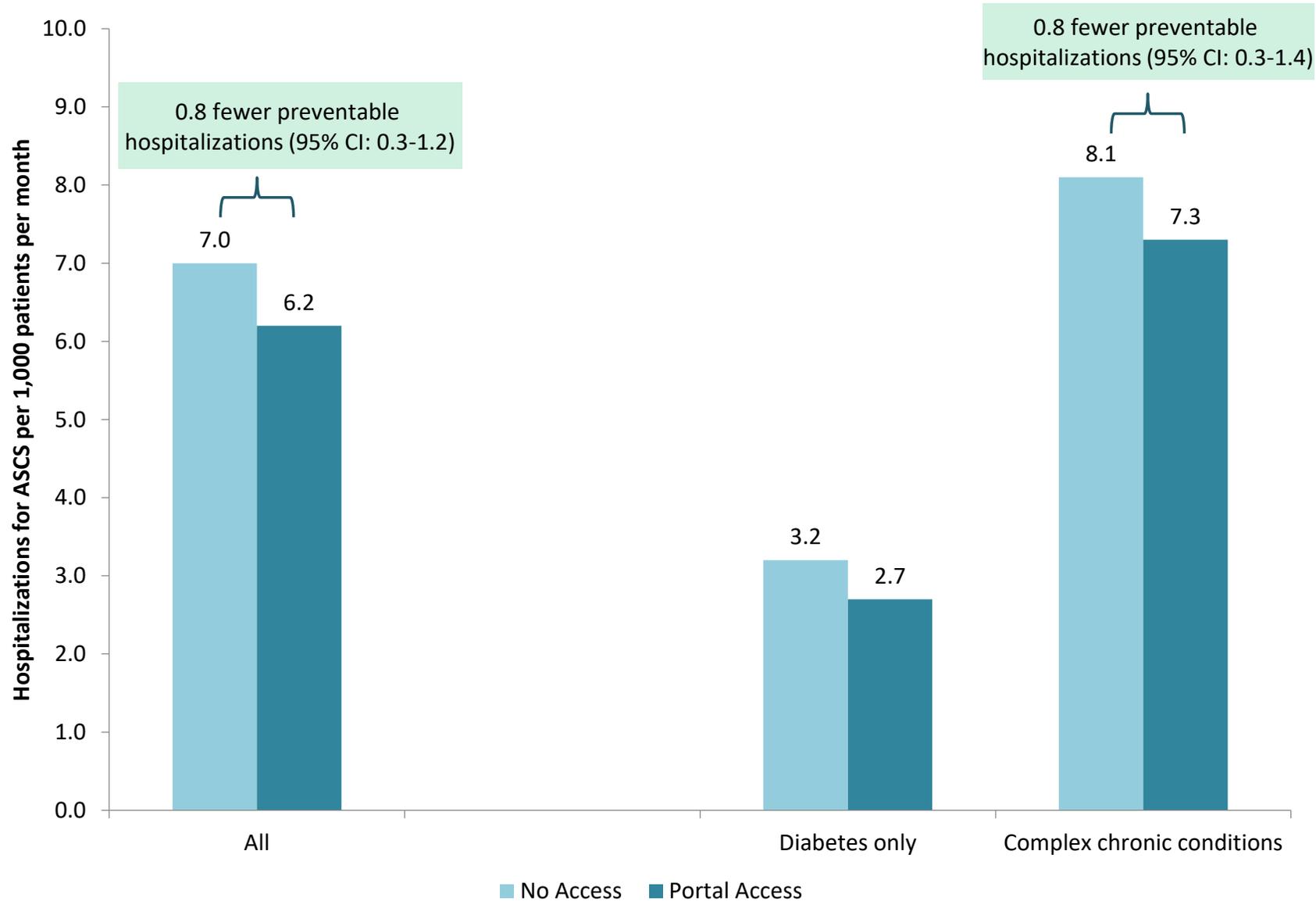
Results based on marginal structural modeling (MSM) with inverse probability weights (IPW) predicted by patient age, gender, race/ethnicity, neighborhood SES, neighborhood internet access, engagement, comorbidity, and office visits, phone visits, ED visits, and hospitalizations in prior 30 days and in prior 2–6 months. Complex chronic conditions defined as diabetes plus one or more other additional conditions among: asthma, coronary artery disease, congestive heart failure, or hypertension. *statistically significant differences ($p < 0.05$) are described with a text box above.

Figure 7. Difference in emergency department visits associated with portal access in all patients with diabetes and in patients with complex (multiple) chronic conditions.



Results based on MSM with IPW predicted by patient age, gender, race/ethnicity, neighborhood SES, neighborhood internet access, engagement, comorbidity, and office visits, phone visits, ED visits, and hospitalizations in prior 30 days and in prior 2–6 months. In patients with diabetes only, the difference in ED visits if using the portal was -1.7 (95% CI: -3.9–0.5). *statistically significant differences ($p < 0.05$) are described with a text box above.

Figure 8. Difference in preventable hospitalizations associated with portal access in all patients with diabetes and in patients with complex (multiple) chronic conditions.



Preventable hospitalizations defined as hospitalization for an ambulatory care sensitive condition. Results based on MSM with IPW predicted by patient age, gender, race/ethnicity, neighborhood SES, neighborhood internet access, engagement, comorbidity, and office visits, phone visits, ED visits, and hospitalizations in prior 30 days and in prior 2–6 months. In patients with diabetes only, the difference in hospitalizations visits if using the portal was -0.5 (95% CI: -1.0–0.1). *statistically significant differences ($p < 0.05$) are described in a text box above.

Conclusions: Patient portals are a patient-centered tool with potential to improve health engagement and outcomes

- Portal **use varies** - patient demographics, technology access, and clinical need
- Patients reported improved health: **convenience, information use, integration** are pathways to health improvement
- When patients with diabetes use the portal:
 - **Greater outpatient engagement** in office visits
 - **Increased timeliness** of treatment
 - **Lower health events** - rate of ED visits and reduced preventive hospitalizations
 - Greater improvements in **patients with complex chronic conditions**

Thanks!

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Discussion

- Are patient portals a good tool for patient engagement? Why or why not?
- What are some of the limitations of patient portals?
- How do you think this study could have been improved upon and what future research do you think is needed?
- Do you think technology creates more barriers or connections between patients and clinicians?
- How important do you think it is for portals to be user-friendly and intuitive versus offering more features?

Questions?

