



Why U.S. Patients Declined Hospital-at-Home during the COVID-19 Public Health Emergency: An Exploratory Mixed Methods Study

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Abstract

To understand why US patients refused participation in hospital-at-home (H@H) during the coronavirus disease 2019 Public Health Emergency, eligible adult patients seen at 2 Mayo Clinic sites, Mayo Clinic Health System—Northwest Wisconsin region (NWWI) and Mayo Clinic Florida (MCF), from August 2021 through March 2022, were invited to participate in a convergent-parallel study. Quantitative associations between H@H participation status and patient baseline data at hospital admission were investigated. H@H patients were more likely to have a Mayo Clinic patient portal at baseline (*P*-value: .014), indicating a familiarity with telehealth. Patients who refused were more likely to be from NWWI (*P*-value < .001) and have a higher Epic Deterioration Index score (*P*-value: .004). The groups also had different quarters (in terms of fiscal calendar) of admission (*P*-value: .040). Analyzing qualitative interviews (*n* = 13) about refusal reasons, 2 themes portraying the quantitative associations emerged: lack of clarity about H@H and perceived domestic challenges. To improve access to H@H and increase patient recruitment, improved education about the dynamics of H@H, for both hospital staff and patients, and inclusive strategies for navigating domestic barriers and diagnostic challenges are needed.

Keywords

hospital-at-home, remote care, home hospitalization, patient preferences

Introduction

With hospital closures on the rise in rural parts of the United States and more than 70% of all adult hospital beds in the country occupied, programs like hospital-at-home (H@H) offer improved access to care for patients who might otherwise face treatment delays.^{1,2} Since its first trials in the 1980s in the United States, the H@H model has demonstrated noninferior and, sometimes, improved outcomes for patients suffering an acute episode compared to brick-and-mortar care.^{3,4} Yet, to receive H@H, patients must integrate monitoring, supply and medication delivery, and emergency visits at home in their daily routines.⁵

Receiving hospital-level care at home may require considerable attention, energy, and engagement from recipients and be more burdensome for certain populations.⁶ This mode of care delivery may be beyond the capacity of some patients and their caregivers due to various social, economic, and

technical factors.⁷ These and other related factors have been associated with poor patient outcomes and worsening compliance with treatment plans for remote patients.⁸ With remote care offerings more widely adopted than ever

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before during the coronavirus disease 2019 (COVID-19) Public Health Emergency (PHE), studying patient experiences is critical to identifying those who would clinically benefit most from H@H and understanding barriers to their participation.⁸

Despite its potential, the preferences and perceptions of patients who opt not to receive hospital-level care at home remain poorly understood.⁶ A more robust understanding of patient preferences can help to inform the development of more inclusive H@H programs and, thereby, increase access to care in the digital age.⁹ Most importantly, understanding why patients decline participation in hybrid care models, like H@H, is critical to addressing the impact of participation bias in studies evaluating patient experiences with hybrid care programs.¹⁰

To date, no research has specifically examined why patients refuse participation in H@H. In this exploratory study, we used a mixed methods approach to lay the groundwork for future hypothesis development, conducting qualitative interviews with patients designed to understand their decision-making process when they decided to remain in a brick-and-mortar hospital after being offered H@H (refusers). Using demographic and patient records data from electronic health records (EHRs), we also quantitatively investigated variables associated with the decision to refuse participation in H@H.

Methods

Study Design: Using a prospective convergent-parallel mixed methods approach, we conducted an exploratory quantitative analysis of associations between patient baseline variables at admission and an independent variable, H@H participation status. Simultaneously, we conducted exploratory interviews with refusers (Figure 1).

Findings from quantitative and qualitative analyses were compared and interpreted. Verbal informed consent was obtained from all patients for their information to be published in this article.

Participants and Setting: From August 2021 through March 2022, patients who were admitted to the hospital at Mayo Clinic Health System–Northwest Wisconsin (NWWI) region or at Mayo Clinic Florida (MCF) were eligible after screening for Mayo Clinic’s H@H program, Advanced Care at Home (ACH) (Table 1). Referrals to the program (n=911) traditionally came from the emergency (15%), internal medicine (55%), and family medicine (15%) departments, with a small percentage of patients admitted from cardiology (10%) or surgery (5%). Among refusers, research coordinators recruited hospitalized patients for semi-structured interviews within 36 hours (hr) of hospital admission to minimize recall bias.

Quantitative Data Collection: Baseline data, including race, language, age, and sex, for all patients screened as eligible for H@H were aggregated to assess variables associated with refusal. Other baseline data extracted from EHRs included site

location, residential distance to Mayo Clinic, Mayo Clinic primary care provider status, patient portal use status, clinical classification software (CCS) category group, Elixhauser Comorbidity Score (ECS), Epic Deterioration Index (EDI) score category, and fiscal year (FY) quarter and year of admission (Table 2). ECS and EDI score data quantified the risk of adverse outcomes and decompensation, respectively, with the latter score generated by a proprietary model which transforms inpatient vital signs and laboratory results into a predictive score for adverse events and mortality.¹¹ For example, when the EDI model calculates a score between 60 and 100, clinicians are alerted that an acute care patient is at high risk for adverse events and requires careful monitoring and/or an intervention. Although a score > 60 triggered a more intensive review for appropriate clinical stability for the ACH program, no patient was excluded from participation in ACH based on the EDI score alone. Together, these variables provide a multidimensional perspective of an individual patient’s diagnostic severity.

Qualitative Data Collection and Analysis: Refusers were recruited in-hospital for Zoom interviews averaging 25 min long, conducted in patient rooms after admission using iPads by researchers unaffiliated with ACH. Given the paucity of information available about patient decision-making regarding H@H, we deemed semi-structured qualitative interview formats appropriate for exploratory analysis. The interview guide, consisting of 6 questions, was developed based on previous H@H studies along with the expertise of clinicians (MJM, MPP).^{12,13}

Six guiding questions that assessed influences on patient decision-making for H@H refusal were posed to individual participants, with follow-up probing questions modulated by patient responses (Supplemental Material Table S1). Using NVivo (QSR International, release 1.3, 2020), interviews transcribed verbatim were analyzed through the lens of grounded theory, an inductive approach to theme development appropriate to examining the novel experiences of patients during the PHE.¹⁴ A representative sample of transcripts (n=3) was coded to consensus via an open coding process by the 2 investigators who conducted the interviews (NP and SJZ). Codes were merged into themes reviewed by all investigators to reach consensus. Quotes were lightly edited for grammatical clarity.

Results were interpreted via a narrative contiguous approach, with quantitative results reported before qualitative.¹⁵

Statistical Analyses: We used a convergent-parallel design for our mixed-methods approach.¹⁶ Statistical analyses were performed using SAS 9.3 (SAS Institute). The sample was dichotomized by H@H participation status: enrolled or refused. To assess baseline variation between H@H participation status, exploratory analyses comparing race, sex, distance from site, Mayo Clinic primary care provider status, patient portal status, and FY quarter and year were performed using the Chi-square test (significance level: 0.05). Evaluating nonrandom associations between proportions, Fischer’s exact test (significance level: 0.05) was used to compare language (English, Other/Unknown) and EDI

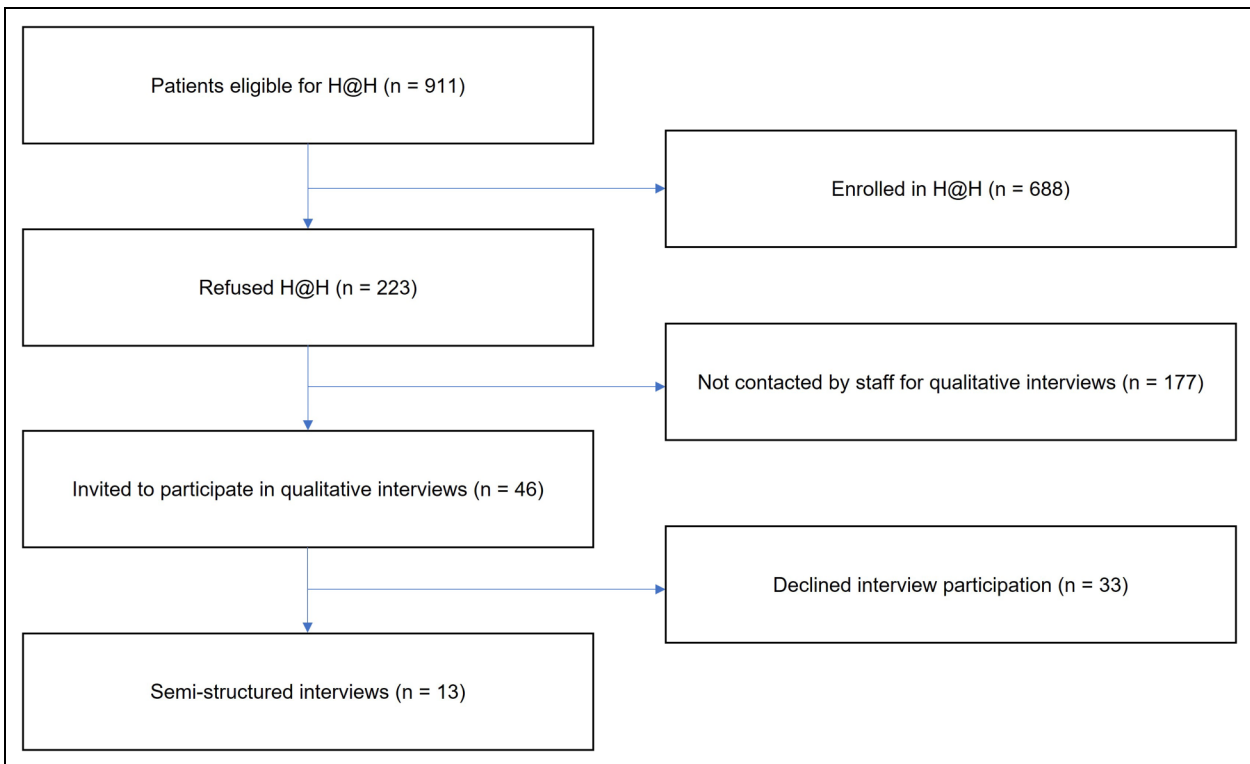


Figure 1. Flowchart of patients in qualitative interview cohort.

Table 1. Mayo Clinic H@H Screening Criteria.

Screening Criteria	
Inclusion Criteria	Exclusion Criteria
Clinically stable	Uncontrolled mental illness
Geography (within 30 miles of hospital)	IV pain medication needs
Social determinants (including but not limited to a residence with electricity, water, heat/AC, a refrigerator, and a bathroom)	Requiring 24/7 assistance with ADLs
Reimbursement eligibility	Unstable arrhythmia
Age 18 and older (determined by payer guidelines)	Requiring telemetry monitoring
Acute exacerbation requiring inpatient-level care	

Abbreviations: H@H, hospital-at-home; ADL, activities of daily living; IV, intravenous.

(low, medium, high, unknown). Mean values for ECS and age were compared using the Kruskal-Wallis Test (significance level: 0.05). Qualitative findings from individual interviews were related to quantitative findings, elucidating reasons for H@H refusal.

Results

Patient Characteristics and Refusal Reasons: Of the 911 patients screened as eligible for H@H (Table 2), 223 refused participation,

the majority of whom were from NWWI (55.2%). Of the 688 enrollees, 55.0% were male, and a majority were hospitalized for either COVID-19 (18.1%) or other infectious diseases (21.1%). Congestive heart failure (CHF) patients composed the largest group of refusers (19.4%), followed by those with infectious diseases (18.5%), septicemia (15.2%), and COVID-19 (14.7%). These generally reflect proportions of acute illness categories among those offered ACH. No eligible patients hospitalized for hematologic, men's/women's health, wound care/dermatologic, neuromuscular/musculoskeletal, or toxicology diagnoses refused H@H. Patients who refused H@H were more likely to have the following characteristics: NWWI site (P -value < .001), an EDI score > 60 (P -value: .004), and Q2 2021 admission (P -value: .040). Patients who enrolled in H@H, however, were more likely to have a Mayo Clinic primary care provider (P -value: .012) and use a patient portal prior to hospital admission (P -value: .014). A patient portal is the online platform application patients can use to communicate with health care providers, pay bills, see test results, and schedule visits, among other features.

Semi-structured Qualitative Interviews: Of the 223 refusers, 46 were recruited for interviews and 13 (10 from NWWI; 3 from MCF) participated in interviews (28.3% response rate). Two themes driving patient refusal emerged: a lack of clarity about H@H and domestic challenges to at-home care (Figure 2).

Lack of Clarity About H@H

Refusers were generally not aware of what H@H care would look like or what changes had occurred in telehealth in recent

Table 2. Baseline Characteristics of ACH Patients.

	ACH patient (N = 688)	ACH refusers (N = 223)	Total (N = 911)	P-value
Site, n (%)				<.0001 ¹
NWWI	248 (36.0%)	123 (55.2%)	371 (40.7%)	
MCF	440 (64.0%)	100 (44.8%)	540 (59.3%)	
Race, n (%)				.3575 ¹
White	626 (91.0%)	207 (92.8%)	833 (91.4%)	
Black/African American	32 (4.7%)	11 (4.9%)	43 (4.7%)	
Other/Unknown	30 (4.4%)	5 (2.2%)	35 (3.8%)	
Language, n (%)				.0442 ²
English	684 (99.4%)	218 (97.8%)	902 (99.0%)	
Other/Unknown	4 (0.6%)	5 (2.2%)	9 (1.0%)	
Sex, n (%)				.1384 ¹
Female	309 (45.0%)	113 (50.7%)	422 (46.4%)	
Male	378 (55.0%)	110 (49.3%)	488 (53.6%)	
Missing	1	0	1	
Distance to Mayo (at admit to ACH), n (%)				.2176 ¹
<2 miles	168 (24.4%)	60 (26.9%)	228 (25.0%)	
2 to <5 miles	43 (6.3%)	16 (7.2%)	59 (6.5%)	
5 to <10 miles	179 (26.0%)	47 (21.1%)	226 (24.8%)	
10 to <15 miles	62 (9.0%)	18 (8.1%)	80 (8.8%)	
15 to <20 miles	159 (23.1%)	65 (29.1%)	224 (24.6%)	
20 + miles	77 (11.2%)	17 (7.6%)	94 (10.3%)	
Patient paneled at admit to ACH (yes/no), n (%)				.0121 ¹
No	300 (43.6%)	76 (34.1%)	376 (41.3%)	
Yes	388 (56.4%)	147 (65.9%)	535 (58.7%)	
Portal status on date of ACH admission (yes/no), n (%)				.0142 ¹
No	124 (18.0%)	57 (25.6%)	181 (19.9%)	
Yes	564 (82.0%)	166 (74.4%)	730 (80.1%)	
CCS Category Group, n (%)				
Hematologic	2 (0.3%)	0 (0.0%)	2 (0.2%)	
Non-CHF Cardiovascular	12 (1.8%)	1 (0.5%)	13 (1.5%)	
CHF	81 (12.1%)	41 (19.4%)	122 (13.9%)	
Infectious Disease	141 (21.1%)	39 (18.5%)	180 (20.5%)	
Septicemia	88 (13.2%)	32 (15.2%)	120 (13.7%)	
Gastrointestinal	48 (7.2%)	17 (8.1%)	65 (7.4%)	
Endocrinologic Disorders	16 (2.4%)	5 (2.4%)	21 (2.4%)	
Renal Disorders	25 (3.7%)	8 (3.8%)	33 (3.8%)	
Oncologic Disorders	16 (2.4%)	1 (0.5%)	17 (1.9%)	
Mens/women's Health	8 (1.2%)	0 (0.0%)	8 (0.9%)	
Miscellaneous	5 (0.7%)	1 (0.5%)	6 (0.7%)	
Wound Care/Dermatologic	5 (0.7%)	0 (0.0%)	5 (0.6%)	
Neuromuscular/MSK Disorders	17 (2.5%)	0 (0.0%)	17 (1.9%)	
Pulmonary Disorders	35 (5.2%)	19 (9.0%)	54 (6.1%)	
Device/Surgical Complication	47 (7.0%)	16 (7.6%)	63 (7.2%)	
Toxicology	1 (0.1%)	0 (0.0%)	1 (0.1%)	
COVID-19	121 (18.1%)	31 (14.7%)	152 (17.3%)	
Missing	20	12	32	
Age (at index date)				.0784 ³
Mean (SD)	70.6 (15.11)	73.0 (12.39)	71.2 (14.52)	
Median	72	74	73	
IQR	63.0, 81.0	68.0, 81.0	65.0, 81.0	
Range	18.0, 121.0	19.0, 99.0	18.0, 121.0	
Elixhauser Comorbidity Score (ECS)				.1090 ³
Mean (SD)	7.0 (3.72)	7.4 (3.73)	7.1 (3.73)	
Median	7	7	7	
IQR	4.0, 9.0	4.0, 10.0	4.0, 10.0	
Range	0.0, 19.0	0.0, 19.0	0.0, 19.0	
Epic Deterioration Index (EDI) category (closest to ACH admission), n (%)				.0043 ²

(continued)

Table 2. (continued)

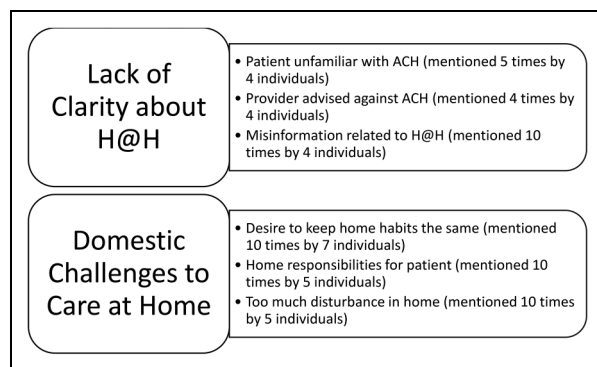
	ACH patient (N = 688)	ACH refusers (N = 223)	Total (N = 911)	P-value
Low (0-29.9)	354 (51.5%)	88 (39.5%)	442 (48.5%)	
Medium (30-59.9)	312 (45.3%)	121 (54.3%)	433 (47.5%)	
High (60-100)	3 (0.4%)	3 (1.3%)	6 (0.7%)	
Unknown	19 (2.8%)	11 (4.9%)	30 (3.3%)	
Quarter, n (%)				.0400 ¹
2021 Q2	94 (13.7%)	43 (19.3%)	137 (15.0%)	
2021 Q3	149 (21.7%)	42 (18.8%)	191 (21.0%)	
2021 Q4	159 (23.1%)	36 (16.1%)	195 (21.4%)	
2022 Q1	144 (20.9%)	58 (26.0%)	202 (22.2%)	
2022 Q2	142 (20.6%)	44 (19.7%)	186 (20.4%)	

Abbreviations: NWWI, Northwest Wisconsin region; CCS, clinical classification software; CHF, congestive heart failure; ACH, advanced care at home; MSK, musculoskeletal; COVID-19, coronavirus disease 2019.

¹Chi-Square P-value.

²Fisher Exact P-value.

³Kruskal-Wallis P-value.

**Figure 2.** Qualitative interview coding chart.

years. One patient explicitly conflated H@H with home health, noting that the severity of their condition influenced their refusal:

Everybody prefers to go home, but knowing how sick I was and how weak I am, I don't know if I would. Plus, home healthcare, to be honest, would need to be there 24 hours, day and night ... Previously, I was in the hospital with a lung clot, all stemming from this GvHD, and that would've been sufficient because I was mobile. I was able to shower with some assistance. That would've been okay. I would've probably said, "Yeah, we could have some home healthcare to come by, maybe a couple of times a day, check on my blood pressure, temperatures, see how I'm feeling, [and check] my oxygen levels."

Though H@H offers services at home identical in scope and quality to those delivered in brick-and-mortar settings, some patients were generally uneasy about participating in what they perceived as an additional program beyond hospital admission.¹⁷ One patient reflected that he would rather be

home, but felt his recovery would be less complicated if he remained in-hospital:

I would rather be home for sure ... when the doctor said I could probably go home in a couple of days without [H@H], I said, "Well, I would prefer to not get involved if it's only going to take me a couple of days."

Many patients and family members were concerned that H@H cannot help quickly enough compared to being in the hospital, regardless of residential distance, as illustrated in the first quote above. Thus, more clarity regarding expectations for timeliness of care is critical. One patient recommended that hospitals engage in educational outreach about H@H for target populations, such as at senior community centers.

The scope of responsibilities of patients in H@H was unclear, as noted by 1 patient confident in his ability to self-administer an IV but unsure about the sterility of his home environment during the PHE:

[With H@H,] I could have been at home watching my own TV, sitting in my own chair. I know I'm capable of figuring out how to flush my line and run an IV, but do I want to introduce any other infections?

This lack of awareness about what H@H entails not only affected patients but was also widespread among providers. One patient noted the staff explaining H@H did not offer many details. Multiple patients noted that staff opposed to H@H enrollment were primarily physicians who were also unaware of details about H@H. In 4 interviews (30.8%), investigators recorded multiple instances in which they needed to correct misinformation patients had received about H@H from providers during admission. Several patients reported that, although the H@H team had reached out and indicated that they were a candidate for H@H, the

brick-and-mortar hospital physician and other staff did not offer it as an option. Among admitting providers who did discuss H@H with the patient, some advised against participation in H@H for reasons ambiguous to patients.

Domestic Challenges to Care at Home

Patients expressed concern regarding the perceived intrusiveness of H@H in daily home life. Several patients, after consultation with medical professionals, preferred a short stay in the hospital and episodic follow-ups back in the clinic setting, as opposed to regular and consistent acute care visits in the home with therapy and other home health services:

Because of the seriousness of the situation and because I still have some infection they're working through ... I couldn't get out of bed to go to the bathroom. It's just been an ordeal. My husband would've never been able to get me out of bed by himself. They had two to three people in here to help me get up and get on the potty by the bed, so it just needed to be here rather than at home ... if everything falls in place, I'll be going from the hospital to a short-term rehab closer to my home.

This theme of home challenges encapsulates the most consistent barrier patients identified to H@H care, 1 amplified by diagnostic severity. For patients in NWWI, the site hosting the majority of refusers, broadband internet problems were cited as a concern for H@H. Non-site-specific home challenges ranged from a desire to keep home habits the same to problems for managing home and family while trying to recover in the home, the latter of which was more prevalent for women. Several needed to take care of their spouses or other family members while recovering, as illustrated below:

I think I'd prefer the hospital because I won't have to be trying to get up and prepare food. I don't know what they do when they do the home hospital approach as far as food and stuff like that because I'm real weak. I wouldn't have been able to properly take care of myself, I don't think. Especially with my husband being there, I couldn't take care of him and myself. He's on a lot of mental medication—real heavy mental medication. He has issues with his legs—walking and stuff like that. He doesn't do much driving, so I have to take him to most of his doctor visits.

Others mentioned they would have preferred to be in their beds at home with H@H, but only if they did not already have sick dependents at home. This, again, fell along gendered lines where women preferred being in the hospital themselves or preferred their husbands to be hospitalized. Without that respite, female refusers would have felt too stressed by the additional responsibilities:

Right or wrong, my perception obviously at this point is that [H@H] would just add to my stress.

Some felt uncomfortable disrupting the status quo in their home for fear it may make the space worse for them as they recover from the acute illness. Others felt like disturbance at home would make it more stressful. For 1 patient with pets at home, they felt their animals would pose a challenge for supply delivery and visits at home:

I was like, "Well, [H@H] could disrupt my house, and my wife she's embarrassed about the front porch." We've got four cats and then one dog, so there's dirt and fur, even though she just was vacuuming when I talked to her yesterday. She seemed like she was concerned about having people over, and then that disrupts what's going on in the house ... I could have isolated myself upstairs. There's a doorway there. I could've kept all the cats and dogs out of there. Would it have been a sterile environment? No, probably not. I don't know if that would've been an issue or not.

Two patients who declined H@H mentioned their home environment was less well equipped with technologies that facilitate telehealth, suggesting patient comfort with telehealth may play a role in H@H enrollment.

Discussion

In qualitative interviews with a sample of hospitalized patients deemed eligible for H@H during the PHE, the main reasons for declining participation include a lack of clarity about the program and a range of domestic challenges at home. Consistent with the lack of clarity regarding H@H was the concern by patients about the timeliness of care delivery at home, a concern particularly expressed by patients in rural Wisconsin. Furthermore, the majority of refusers were female, a finding qualitatively illustrated by multiple female interviewees noting that at-home care would elevate their stress levels or complicate their domestic roles, thereby negatively impacting their recovery, an inequity previously identified.¹⁸ Relevant to domestic challenges was the qualitative finding corroborated by quantitative data that Mayo Clinic patients who use a patient portal were more likely to choose H@H (*P*-value: .014).¹⁹ This finding seemed to hint at familiarity and comfort with telehealth impacting choice of H@H.

We found that declining H@H was associated with the rural NWWI site. Interviewed patients who reported that a physician told them to decline H@H were all from NWWI. It is likely that these patients interacted with staff who were less knowledgeable about H@H or, perhaps, there is less institutional buy-in at NWWI.²⁰ Using this research as an exploratory guide, future multisite investigations should consider using site-specific mixed methods designs to analyze and interpret data.

Regardless of the site, Mayo Clinic providers who are not H@H staff are informed about ACH and patient eligibility criteria through a range of channels: Direct communications, informative lectures, and internal news campaigns. Despite this outreach, the majority of participants in H@H were admitted by emergency medicine, internal, and family

medicine providers, suggesting that our findings may not be generalizable beyond these specialties. Since the primary method of informing patients about H@H was via verbal communication with providers, increased use of alternative mediums, such as printed pamphlets or posters, might be necessary to disseminate information about H@H. Further investigation is needed in future research on how to best relay accurate and complete knowledge about H@H to patients so they can make more fully informed decisions.

Refusers expressed a lack of confidence in the program on the part of physicians, a factor noted as influencing their hesitancy toward the program.²¹ This may be due to physicians' experience of additional burdens during the PHE or their own lack of involvement in or negative experiences with telehealth, rendering their perception of H@H identical to telehealth they had experienced.²² Another explanation may be that the physician was trying to use other information about the patient's home situation to evaluate their perceptions of risk for the patient. For example, 1 patient described their physician recommending care in the hospital because they felt like the patient would have a greater risk of infection from COVID-19 at home.

Those with higher diagnostic severity, evidenced by higher EDI, were more likely to decline H@H. Qualitative findings illustrated this relationship, namely that patients with more severe health conditions were more likely to perceive inpatient-level care at home as more burdensome than residing in a hospital.²³

Finally, there were quarterly differences in patient H@H declines, with the highest percentage of declines in the first quarter of H@H and again in Q1 of 2022. The unevenness between refusals and enrollments in the first quarter H@H existed is expected, given the lack of awareness in early H@H implementation, but the reasons for the drop in Q1 of 2022 are unclear.²⁴

Future implementation science studies should consider these early-stage findings associated with the acceptability of the H@H model, its adoption by patients, and its appropriateness for different patient cohorts.²⁵

Limitations

This study is limited in its qualitative sample size, which is smaller than other relevant H@H cohorts studied in the literature.^{13,26} In the future, we suggest a larger window of time since refusal for soliciting patients for interviews, even at the risk of increasing recall bias. Furthermore, it may be more beneficial to train staff to do semi-structured interviews to more successfully solicit data "on the spot" without having to coordinate with a remote researcher and to record patient reasons for nonparticipation in qualitative interviews. Additionally, the findings of this study may not be generalizable beyond the PHE, due to its impact on patient lifestyles and decision-making.^{20,27} Patient concerns regarding sterility of home environments may be downstream from current events, and, as such, not play a role in decision-making outside of emergency timelines.

During this study, Mayo Clinic offered the H@H program only in Wisconsin and Florida, limiting patient recruitment to these 2 sites. It may also be that geographies beyond urban Jacksonville and rural Wisconsin have their own unique transportation or urban design challenges that must be identified. Currently, there is no research examining reasons for refusal specific to US rural populations.⁵ Though an exploratory study, we may have underestimated the burden of inequities related to inpatient-level care at home because of which refusers were willing to interview; more marginalized patients may have declined sharing their experiences. Given that most participants were White and English-speaking, our findings may not generalize well to minority patients or those who do not speak English.²⁸

An additional limitation was the lack of specialty admission data recorded for H@H refusals. The system utilized for this program did not record admitting department data for this cohort. Alternatively, differences in degree rather than kind were considered regarding patient health, as EDI and ECS scores were included in this analysis to quantify health status acuity and complexity, respectively. Future research should investigate patient choices stratified by provider specialty to understand social determinants of health more robustly.^{29,30}

Conclusion

Patients who declined H@H cited a lack of clarity about the program as well as domestic challenges as reasons for their refusal. Although H@H patients generally do not perceive H@H as identical to brick-and-mortar services, physician hesitation to recommend H@H was identified as a barrier, in addition to confusion about supply and service delivery, and these concerns may be particularly high in rural geographies. Perceived domestic challenges included the disruption of their recovery and a lack of confidence in having the assistance needed to recover, identified through interviews and corroborated by quantitative associations between participation status and diagnostic severity in acute care. Women particularly cited an inability to perform domestic roles while receiving care at home as a challenge. Investigating why patients refuse H@H offers necessary insights into participation bias in studies evaluating patient experiences in hybrid care.⁹ Additional research in this area is urgently needed to make H@H accessible and desirable to diverse populations.³¹

Ethical Approval

Ethical approval for this publication was obtained from Mayo Clinic Institutional Review Board #20-010753. All procedures in this study were conducted in accordance with Mayo Clinic Institutional Review Board #20-010753's approved protocols.

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Supplemental Material

Supplemental material for this article is available online.

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