Digital Health Equity in Primary Care: A Critical Review of Socioeconomic Barriers to Chronic Disease Management

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Tables.docx	Figures and Tables	15.9 KB	Page 27
.PRISMA_2020_checklist.docx	Supplementary Material for Review and Publication	34.6 KB	Page 29
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Digital Health Equity in Primary Care:
A Critical Review of Socioeconomic Barriers to Chronic Disease Management

Abstract

Aim: Integrating digital health into chronic disease management improves access and engagement, but benefits remain uneven. Structural barriers hinder digital uptake among socioeconomically disadvantaged older adults in primary care, reinforcing inequities. This review examines how unequal access impacts health outcomes.

Design: Critical review of original empirical studies.

Keywords: digital health, health equity, chronic disease, older adults, socioeconomically disadvantaged populations, primary care, thematic analysis

Methods: A structured analysis was conducted using PubMed and CINAHL to identify original studies published between 2019 and 2024. Search terms were designed to capture research at the intersection of digital health, chronic disease, ageing, and social disadvantage in primary care. Studies were screened using PRISMA guidelines. Inclusion criteria focused on adults aged 65 and over from disadvantaged backgrounds living with chronic conditions. Seven studies were selected for thematic analysis.

Results: The thematic analysis of seven studies revealed key factors shaping digital health outcomes: digital literacy, usability, mobile health, community-based interventions, low-cost tools, governance, and equity. Interventions demonstrated greater effectiveness when culturally tailored, accessible, and supported by training. Nonetheless, structural barriers, including affordability, digital exclusion, and ineffective data governance, constrain impact, indicating that digital inequity is profoundly ingrained within the broader social determinants of health.

Conclusion: Equitable digital health implementation necessitates more than mere access; it requires inclusive design, comprehensive professional training, and substantive policy reform. The role of nurses and primary care providers is pivotal in evaluating digital capacity and promoting equitable care delivery. This review offers evidence-based recommendations for equity-focused strategies to enable digital innovations to benefit, rather than exclude, socioeconomically disadvantaged older adults.

Implications for the profession and/or patient care: Nurses and primary care clinicians play a key role in assessing digital capacity and tailoring care. Equity-centred strategies including training, accessible tools, and culturally safe communication are needed to address digital disparities.

Impact:

• Problem addressed: Uneven distribution of digital health benefits among older adults with chronic conditions.

• Main findings: Barriers to equity include digital literacy, usability, affordability, and governance. Culturally adapted, low-cost, community-based interventions show promise.

• Who and where impacted: Findings apply to socioeconomically disadvantaged older adults in primary care settings globally.

Reporting Method: This review followed the PRISMA 2020 guidelines for systematic reviews of qualitative and quantitative evidence.

No Patient or Public Contribution: This study did not include patient or public involvement in its design, conduct, or reporting.

What does this paper contribute to the wider global clinical community?

- This review highlights how digital health innovations can inadvertently reinforce inequities in chronic disease care if structural barriers such as affordability, literacy, and trust are not addressed.

- It provides actionable insights for nurses and primary care professionals to deliver person-centred, equity-oriented digital health interventions in disadvantaged ageing populations.
- Findings contribute to global policy and clinical strategies by framing digital health access as a social determinant of health, not just a technological issue.

Introduction

In an era of rapid digital transformation, the inequities stemming from the social determinants of health indicate that access to, as well as the benefits derived from, digital innovations are inconsistently allocated. Although telehealth, mobile health applications, and patient portals have substantially advanced chronic disease management by strengthening access, continuity, and patient engagement, these resources remain inaccessible to many. As described by Bertolazzi et al. (2024), identify older adults from socioeconomically disadvantaged backgrounds as among the most systematically excluded populations within the digital health landscape. These individuals frequently encounter intersecting barriers such as limited digital literacy, inadequate internet connectivity, and financial hardships. As healthcare systems increasingly adopt digital solutions, there is growing apprehension that these innovations, instead of bridging gaps in care, may inadvertently reinforce long-standing health inequities. This literature critique within the broader discourse on health equity examines the ethical imperative to prevent digital innovations from deepening existing disparities. It asks: How do healthcare outcomes differ for socioeconomically disadvantaged chronic disease patients with and without access to digital health tools in primary care?

The seriousness of this issue is increasingly visible in countries like Australia, where a digital divide persists across geographic, economic, and demographic lines. According to Thomas et al. (2023), older adults, low-income earners, and rural residents are the least digitally included. This exclusion limits access to telehealth, reduces self-management capacity, and hinders engagement with chronic disease monitoring, further compounding health risks for already vulnerable populations (Cheng et al., 2020; Ghose et al., 2021). Despite the increasing prominence of digital health in national policies, including the Australian Digital Health Agency (2023), significant gaps remain in empirical research by critically exploring how these interventions function. A significant portion of the existing literature concentrates on general populations, frequently employing standardised models, failing to consider the distinct intersection of ageing, social disadvantage, and chronic disease burden. This review examines the gap by synthesising research on structural barriers to digital health access and the effectiveness of targeted interventions. Examples include community-based digital literacy programs (Lu et al., 2024) and training initiatives for older adults with low digital confidence (Soederberg Miller et al., 2024). By synthesising recurring themes, this analysis generates evidence-informed insights to guide nursing practice, shape inclusive digital health policy, and develop equitable care models for marginalised populations. Consequently, it renders a timely and critical contribution to the discourse on digital health equity by advancing efforts to promote that healthcare innovation is effective but also accessible, ethical, and socially just.

The Review

Over the past decade, the proliferation of digital health tools, including telehealth, mobile apps, and online patient portals, has transformed chronic disease management. These innovations have improved care coordination, monitoring, and patient engagement, particularly in high-resource settings. However, their benefits remain unevenly distributed, especially among older adults experiencing socioeconomic disadvantage. Existing evidence consistently identifies intersecting barriers, such as digital literacy, usability, internet access, and affordability, as key determinants of digital exclusion for this population. While numerous studies have examined the effectiveness of digital health interventions, the majority focus on general or high-income populations, often neglecting the compounding effects of ageing, poverty, and chronic illness. Prior reviews have typically adopted a broad lens or assessed the utility of digital tools without critically engaging with the social and structural conditions that influence digital access and outcomes. Few have synthesised data specifically on how these factors affect older adults from marginalised backgrounds living with chronic conditions. Furthermore, current evidence is fragmented, lacking a cohesive understanding of which interventions are effective for whom and under what circumstances.

This critical review addresses that gap by thematically analysing recent empirical studies published between 2019 and 2024. It focuses on how digital health access (or lack thereof) influences chronic disease outcomes among socioeconomically disadvantaged older adults in primary care. In doing so, the review contributes timely and practical insights into the ethical and structural dimensions of digital health equity. The topic is of urgent relevance to nursing and primary care. Nurses are uniquely positioned to assess digital capacity, deliver inclusive interventions, and advocate for equitable system design. As health systems increasingly rely on digital platforms, understanding and addressing barriers to engagement is not only a technological challenge but a professional and ethical responsibility. By examining how social determinants shape digital exclusion, this review contributes to equity-focused nursing practice and supports the development of inclusive, culturally safe, and person-centred digital care models.

Aim: The aim of this review was to examine how digital health access influences chronic disease outcomes in socioeconomically disadvantaged older adults in primary care settings.

Methods

Design: Critical literature review with thematic synthesis.

Search Methods

A structured literature review examined how digital health access influences healthcare outcomes among socioeconomically disadvantaged older adults with chronic conditions. Two health science databases PubMed and CINAHL were systematically searched for original studies published between 1 January 2019 and 31 December 2024. As outlined in Table 1, a comprehensive search strategy was developed using Medical Subject Headings (MeSH) and Boolean operators to maximise precision and breadth. The following search string was applied.

Table 1

Search Strategies

Search Strategies	Details
PubMed and CINAHL using MeSH and Boolean Terms	“digital OR tech* OR virtual OR e-health” AND “health OR health*” AND “chronic OR prolonged OR ongoing OR long* OR persisten*” AND “disease OR condition* OR disorder OR ailment” AND “social disadvantage OR low income OR poverty OR underprivileged OR vulnerabl*” AND “primary care OR primary healthcare OR family medi* OR general pract* OR commu* health”

Eligibility criteria were established a priori to ensure methodological rigour. Eligibility criteria encompassed original research published in English focusing on digital health access among adults aged 65 and older from socioeconomically disadvantaged backgrounds, primarily focusing on chronic conditions in primary care settings. As presented in Table 2, exclusion criteria comprised systematic reviews, meta-analyses, non-English publications, and duplicate records. Exclusion criteria served to uphold the methodological integrity of the review by ensuring that only original, relevant, and non-duplicative research-based studies were included. This process minimised bias, maintained analytical focus, and supported the credibility of the findings.

Table 2

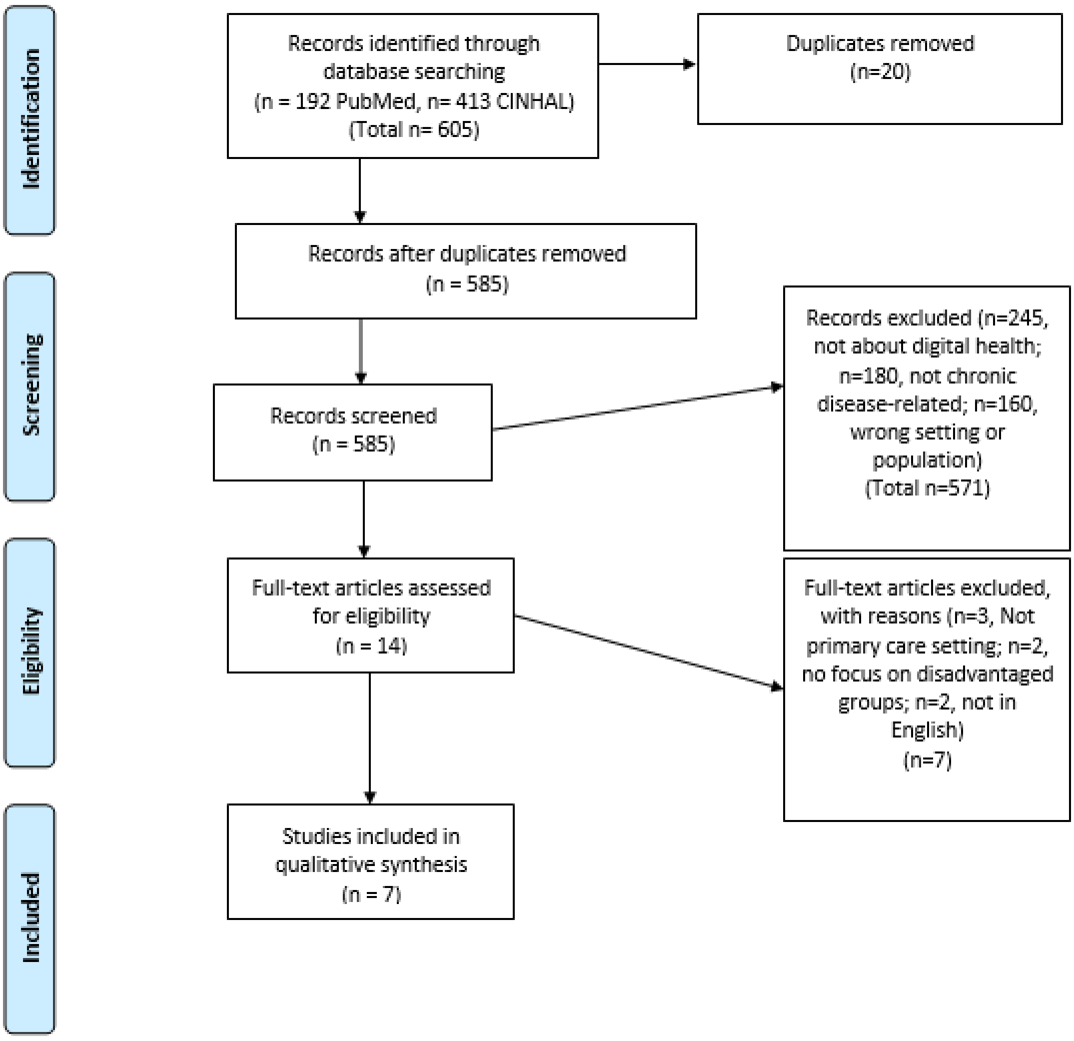
Eligibility Criteria

Eligibility Criteria	Inclusion Criteria	Exclusion Criteria
Language	Studies published in English	Non-English studies
Population	Adults aged 65 years and older	Participants underage 65
Study Type	Original research articles	Systematic reviews, meta-analyses, opinion pieces, and editorials
Focus	Studies addressing digital health and chronic disease in socially disadvantaged populations	Studies not focused on disadvantaged populations or digital health
Duplicates	–	Duplicates excluded

Screening was conducted in three stages: title screening, abstract review, and full-text assessment. As illustrated in Figure 1, the process followed the PRISMA flow diagram (Karaferye, 2018), enhancing transparency and reproducibility. Seven studies from 2019 to 2024 met the inclusion criteria and formed the basis of the final analysis.

Figure 1

PRISMA Flow Diagram



Methods of Analysis

A thematic analysis was conducted to systematically synthesise findings across the included studies and identify patterns relevant to digital health equity. This method was selected for its capacity to generate conceptually rich interpretations from diverse sources of empirical data. Each study was thoroughly examined, with key findings analysed inductively and organised into preliminary categories. Finally, repeated concepts were identified, categorised, and themes relevant to digital health equity were developed. By identifying cross-cutting themes, this approach facilitated a deeper understanding of the evidence and offered a robust, transparent method for deriving meaningful insights from a heterogeneous body of research. This method aligns with the review's aim to examine how digital health access influences outcomes in disadvantaged older populations.

Search Outcome

Conceptual Mapping

To facilitate a coherent presentation of findings, themes were categorised according to their frequency and relevance across the included studies. Each theme regarding study context, sample characteristics, and reported outcomes is subsequently outlined. The thematic synthesis of the selected literature revealed seven interrelated themes recurrent across the included studies: digital literacy, usability, mobile health, community-based interventions, governance, low-cost tools, and equity (Figure 2).

Thematic analysis was applied to systematically extract, categorise, and synthesise recurring concepts across various study designs, facilitating the development of overarching themes reflecting digital health equity's complex, multi-dimensional nature. This analytical approach enabled a conceptually coherent mapping of findings, contributing to a broader understanding of how digital exclusion is entrenched within structural determinants of health. Across the studies conducted by Soederberg Miller et al. (2024), Lu et al. (2024), and Almond et al. (2019), digital interventions were consistently associated with enhanced user engagement when older adults were provided with targeted digital literacy training and had access to user-centred platforms. Notably, Soederberg

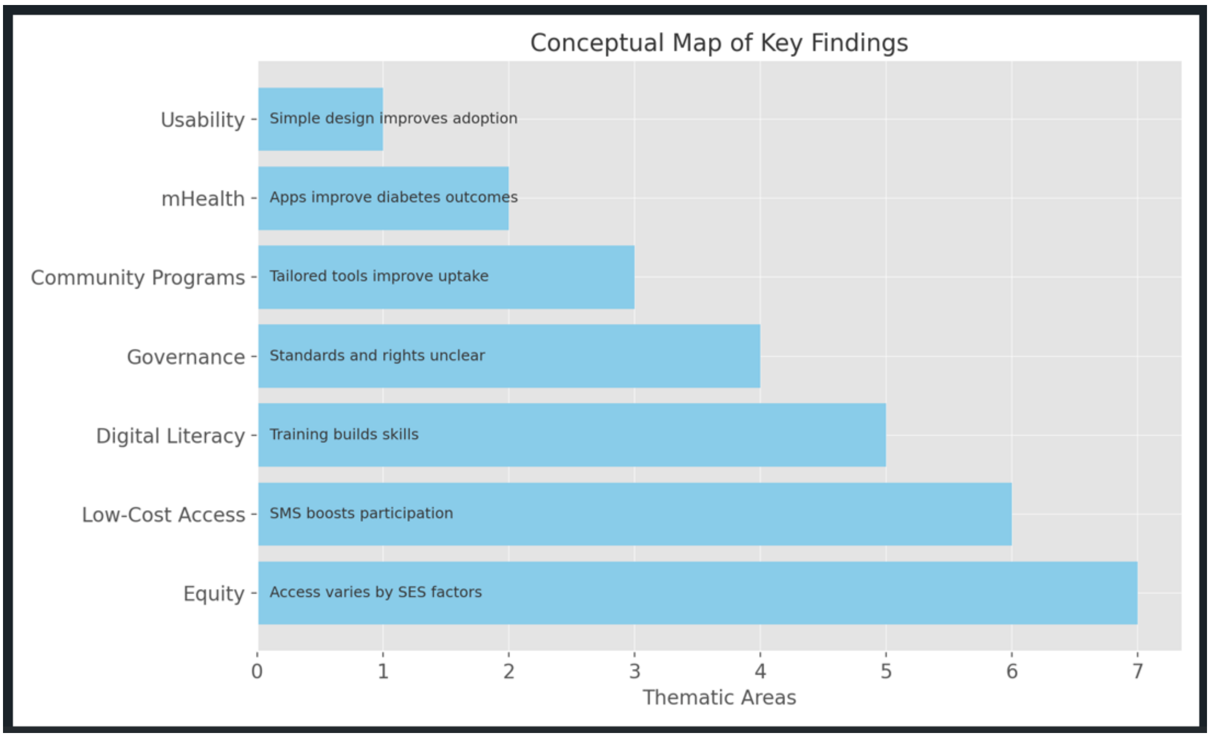
Miller et al. (2024) was the only study to evaluate digital confidence using pre- and post-intervention measures. Usability was identified as a complementary factor, with studies indicating that intuitive and culturally responsive digital interfaces were positively correlated with participation, particularly among linguistically diverse and socioeconomically disadvantaged populations. However, while Ghose et al. (2021) reported clinically measurable improvements in diabetes outcomes (e.g., HbA1c levels) through mobile health applications, Sturgiss et al. (2024) offered a more cautious perspective. They contended that although SMS messaging is practical and accessible, its limited interactivity reduces its effectiveness in improving health outcomes. This contrast illustrates that while digital tools may be effective in some contexts, their impact is not universally achieved and is shaped by the design, delivery, and user environment.

Furthermore, community-based interventions featured prominently across the reviewed literature, consistently demonstrating the value of locally embedded, culturally responsive approaches in promoting digital health equity. Wang et al. (2024) highlight socio-demographic disparities, including age, income, geography, and cultural background as critical determinants of digital exclusion. This finding was echoed across all studies, reinforcing the systemic nature of these inequities. Finally, Main et al. (2024) and Lu et al. (2024) identified critical challenges, including the absence of cohesive evaluation standards, transparent data protocols, and policy coherence as key obstacles to implementation and scale. These governance gaps diminished program credibility and scalability and exacerbated existing inequities.

As per Figure 2, the conceptual mapping illustrates that equity, low-cost tools, and digital literacy were the most frequently referenced themes across the reviewed literature, while usability and mobile health appeared less consistently.

Figure 2

Conceptual Map of the Key Findings



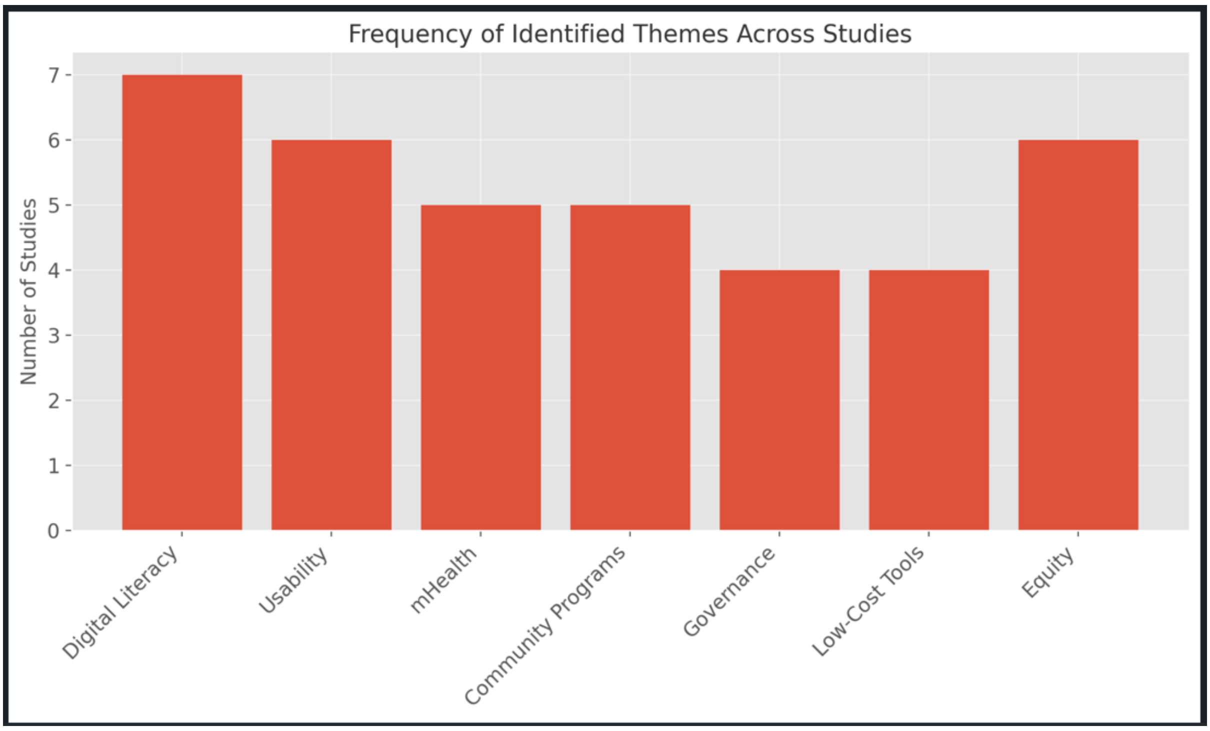
Scholarly Interpretation

As illustrated in Figure 3, the convergence of findings across the reviewed literature provides compelling evidence that a complex interplay of structural, technological, and social factors shapes digital health inequities among socioeconomically disadvantaged older adults. A recurring theme across the studies is the interdependence between usability and digital literacy. Digital tools with user-friendly interfaces were associated with higher levels of engagement; however, this outcome was often contingent on the provision of targeted training, as demonstrated in the studies by

Soederberg Miller et al. (2024) and Almond et al. (2019). Further evidence from the included studies indicates that digital health interventions implemented within community-based contexts were associated with improved engagement. This emphasises the relevance of cultural tailoring and active stakeholder engagement, such as partnering with community leaders and local service providers to adapt interventions to the needs and preferences of older adults (Lu et al., 2024; Wang et al., 2024). These findings reveal a significant association between the effectiveness of digital health initiatives and key factors, namely, alignment with the lived experiences and preferences of target populations, and active community engagement in the design and delivery of these initiatives.

Figure 3

Scholarly Interpretation



In contrast, while SMS messaging has been widely adopted in resource-limited settings, Sturgiss et al. (2024) and Main et al. (2024) noted that such low-cost solutions often lack the interactivity and adaptability necessary to sustain engagement or facilitate personalised care. Crucially, the consistent identification of equity-related barriers such as income instability, digital literacy gaps, geographic isolation, and linguistic barriers, were consistently cited as predictors of digital exclusion across the studies. These findings reinforce that digital health disparities are not isolated artefacts of poor technology design but symptoms of enduring systemic disadvantage. Addressing these disparities requires multilevel strategies extending beyond access and consider affordability, cultural appropriateness, and relational trust.

Additionally, governance challenges further compounded inequities. Main et al. (2024) highlight the absence of cohesive evaluation standards, transparent data protocols, and policy coherence as key obstacles to implementation and scale. Collectively, the reviewed literature provides a nuanced and robust foundation for understanding the conditions under which digital health interventions may advance or exacerbate health inequities. These insights underscore the imperative for strategic, equity-focused digital health planning that engages marginalised communities, supports inclusive design, and embeds ethical and policy considerations from the outset.

Discussion

Interpretations

The project results indicated that digital health tools offer significant potential to enhance chronic disease management among socioeconomically disadvantaged older adults. The most consistently reported themes across the literature were digital literacy, usability, and equity, followed closely by mobile health use, community-based interventions, and low-cost tools. Soederberg Miller et al. (2024) demonstrate that digital literacy training improves confidence and digital engagement, while Almond et al. (2019) found that simple, intuitive design promoted uptake. Zhang et al. (2023) reinforce these findings, reporting that tailored support significantly enhanced older adults' engagement with remote monitoring platforms. A recurring theme was the importance of usability and cultural relevance, suggesting that access alone is insufficient; digital tools must be designed to align with users’ social, cultural, and technological contexts. This is consistent with Catapan et al. (2025), who identifies trust, relevance, and simplicity as key enablers for marginalised users. Although mobile health application was linked to improved self-monitoring outcomes (Ghose et al., 2021), these benefits remained conditional. Where digital literacy or affordability were unaddressed, the impact proved limited. Several studies highlighted SMS-based tools as accessible alternatives for those with limited internet access (Sturgiss et al., 2024), though the health outcome evidence varied. For example, unlike Ghose et al. (2021), who reported HbA1c improvements, other studies observed no measurable health changes, highlighting variability in digital tool efficacy depending on context.

Overall, the findings affirm that digital health equity requires more than technological provision; it demands contextualised, targeted implementation. The mixed results across studies suggest that trust in providers, support networks, or age-related cognitive decline may influence engagement, warranting further investigation.

Implications for Practice

This review demonstrates that equitable implementation of digital health tools requires a shift in practice, not solely increased access. Nurses and primary care clinicians are key in assessing digital capacity during routine care and must adapt interventions to individual needs. Embedding digital inclusion in routine care and professional development is essential. This includes training in digital literacy, equity-centred care planning, and interdisciplinary collaboration. In alignment with the Australian Digital Health Agency (2023), policies must prioritise accessibility, capability-building, and culturally responsive delivery models. These skills bridge capability gaps and foster trust and patient-centred care (Papavasiliou et al., 2020). Aligning interventions with the Social Determinants of Health (SDOH) framework enables clinicians to contextualise digital exclusion and address structural barriers more effectively. Low-cost tools such as SMS messaging and simplified mobile health applications should be normalised within clinical workflows, particularly in under-resourced or rural areas. Finally, Main et al. (2024) highlight that robust data governance and evaluation frameworks must underpin equity-focused digital implementation to ensure quality, safety, and long-term impact.

Implications for Theory and Methods

The analysis reinforces the relevance of SDOH, intersectionality, and person-centred care frameworks in guiding digital health research. These theoretical lenses help elucidate how overlapping disadvantages, such as age, low income, and rurality, compound digital exclusion. The findings extend the evidence base by demonstrating that access to technology alone does not equate to equity; factors such as trust, capability, and responsiveness are equally critical (Emma, 2024). From a methodological perspective, the review highlights the limitations of relying on secondary data and heterogeneous outcome measures, which constrained synthesis and comparison. Future research should prioritise mixed-methods and longitudinal studies in real-world settings to strengthen the evidence base. Community-based participatory research approaches are important to ensure that interventions are relevant, ethical, and informed by lived experience. Policy and leadership must also evolve to embed digital equity within health strategies, supported by standardised outcome measures, ethical data governance, and inclusive implementation frameworks. These efforts are essential to operationalise digital health equity on a systemic scale.

Limitations of the Project

Several limitations impacted the scope and generalisability of this project. The database search was restricted to English-language studies from PubMed and CINAHL, potentially excluding valuable insights from grey or non-English literature. Furthermore, the predominance of exploratory or small-scale studies limited the ability to draw robust conclusions about causality or long-term outcomes. Methodological inconsistencies across studies, including varied outcome measures and study designs, also complicated direct comparisons. In addition, technical challenges encountered with digital tools during the initial stages of the review necessitated additional support, underscoring the critical importance of technical preparedness in digital research. Finally, the review focused exclusively on adults aged 65 and over, which, while appropriate to the scope, limits the applicability of findings to younger disadvantaged populations who may experience similar barriers.

Contribution of the Project

This project advances the discussion on digital health equity by critically synthesising evidence on the structural determinants and facilitators shaping digital tool adoption among socioeconomically disadvantaged older adults. The findings demonstrate that realising digital health equity necessitates systemic reform across clinical practice, policy development, and technological design (Badr et al., 2024). Inclusive strategies must incorporate digital literacy assessments, culturally responsive communication, low-cost tools such as SMS reminders, and co-designed interventions tailored to marginalised populations. This review contributes actionable insights for nurses, primary care practitioners, community health organisations, and digital health developers. Embedding digital inclusion within routine clinical practice and professional development is essential for advancing equitable healthcare. This can be achieved through targeted training in digital health literacy, equity-focused care planning, and interdisciplinary collaboration, all of which contribute to improved access and health outcomes for marginalised populations. Furthermore, the review advocates for leadership accountability and national policy reform, stressing standardised evaluation, ethical data governance, and sustained investment in implementation science. By centring underserved voices, this analysis advances the evidence for user-centred, equity-focused digital health design and supports future interventions grounded in fairness and person-centred care (Evans, 2023).

Conclusion and Implication for Future Work

This review addresses how healthcare outcomes differ for socioeconomically disadvantaged older adults with and without access to digital health tools in primary care. The findings clearly illustrate that digital exclusion, driven by low digital literacy, affordability barriers, poor usability, and systemic inequities, negatively undermines chronic disease outcomes and engagement with care. Through a rigorous thematic synthesis of original research, this study reinforces the importance of applying social determinants of health frameworks and co-design methodologies in creating equitable healthcare solutions.

To strengthen this analysis, future research should prioritise rigorous mixed-methods and community-engaged study designs that critically evaluate digital health interventions' long-term effectiveness and contextual appropriateness. Further studies are needed to evaluate how digital tools can be sustainably integrated into diverse healthcare settings without reinforcing existing health disparities (Khan et al., 2025). Ultimately, the review provides a compelling argument for reimagining digital health not just as a technological solution, but as a platform for delivering just, inclusive, and responsive care to those most at risk of being left behind.

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Figures

Figure 1

PRISMA Flow Diagram

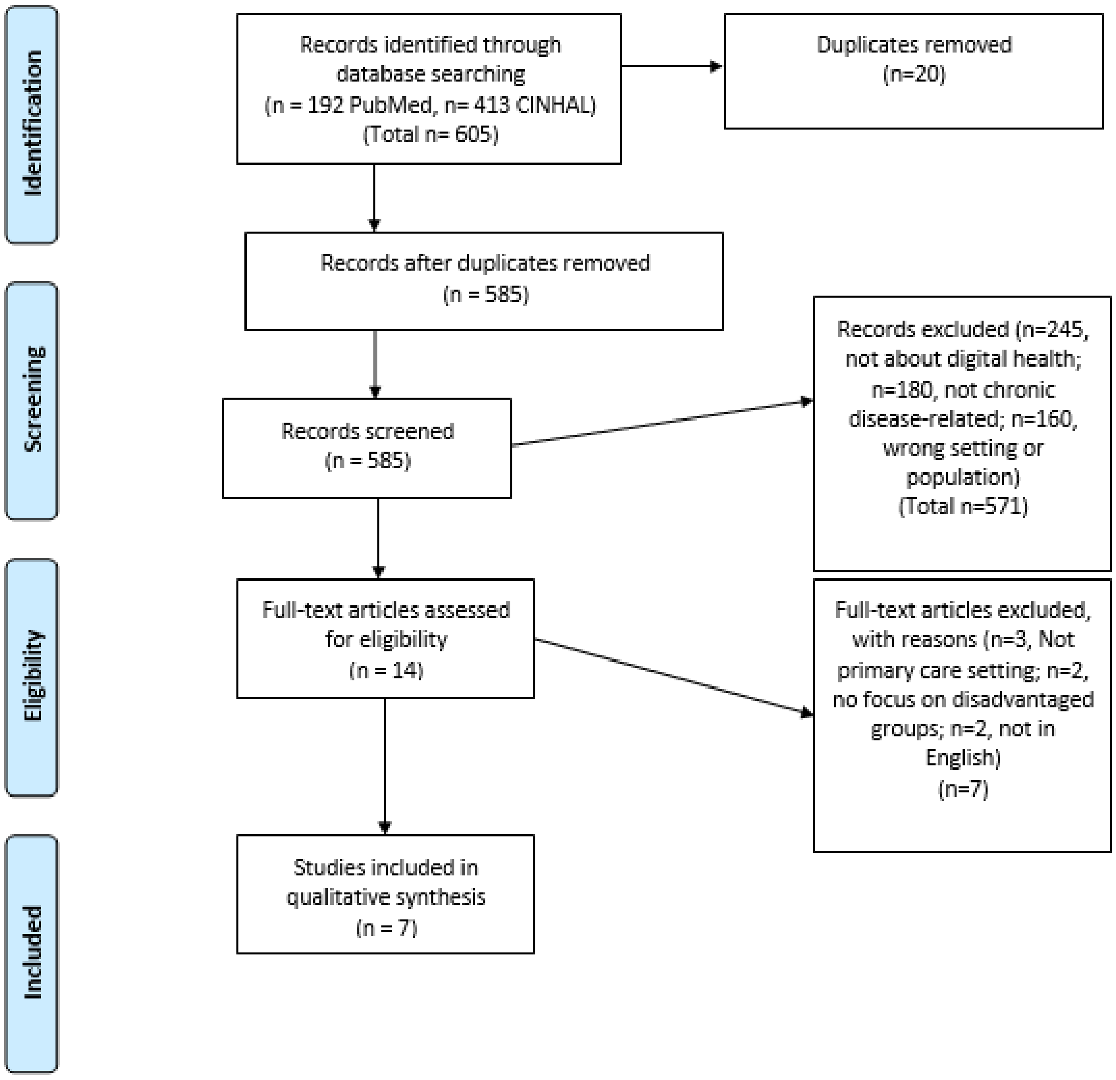


Figure 2

Conceptual Map of the Key Findings

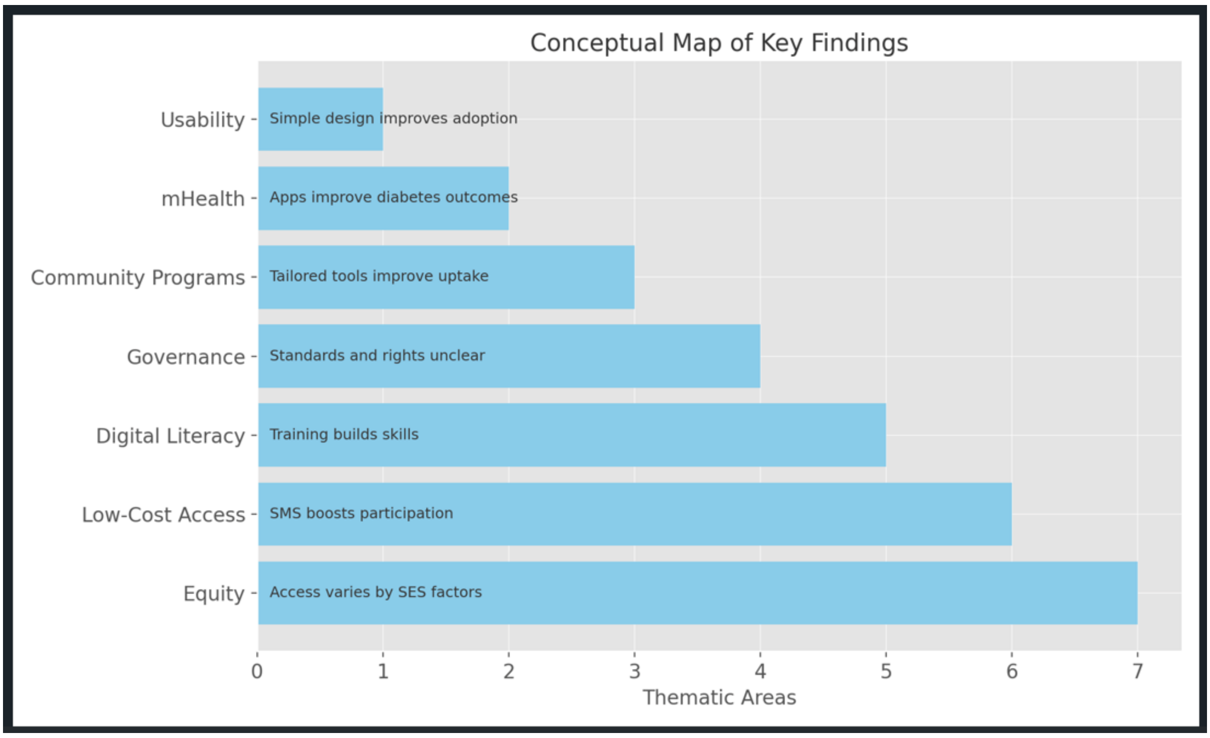
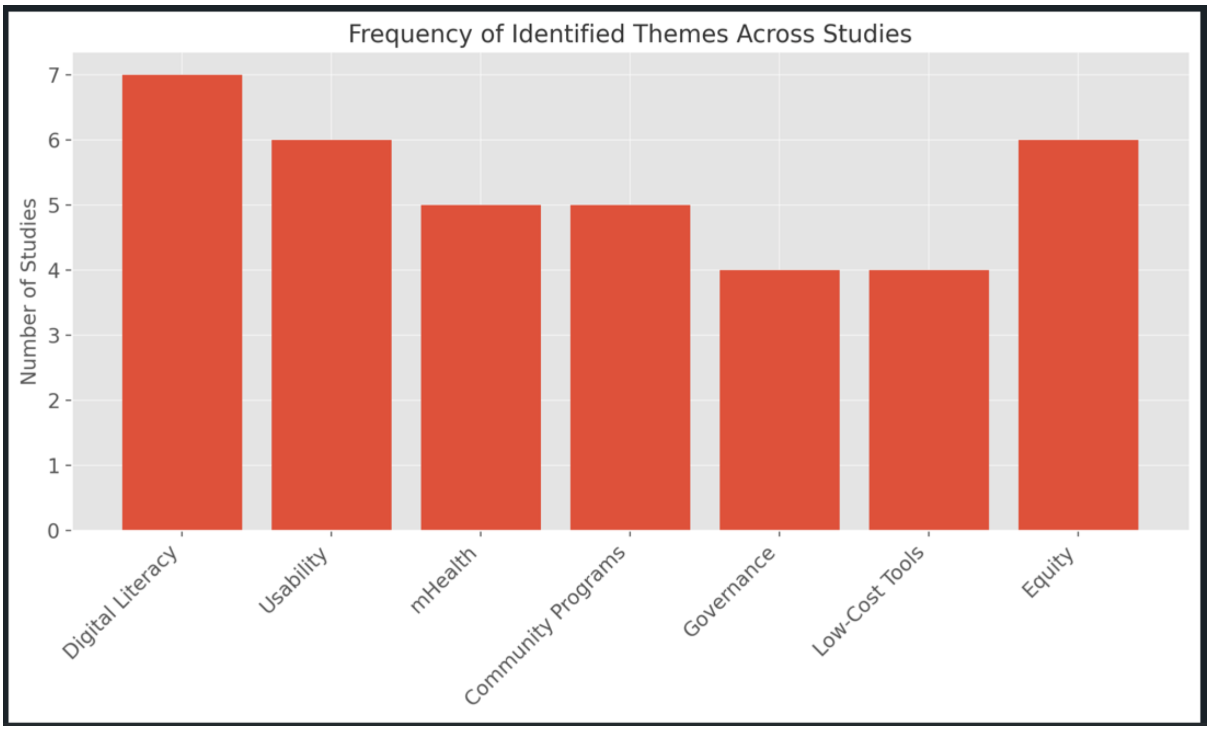


Figure 3

Scholarly Interpretation



Tables

Table 1

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PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	
Study characteristics	17	Cite each included study and present its characteristics.	
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	
	23b	Discuss any limitations of the evidence included in the review.	
	23c	Discuss any limitations of the review processes used.	
	23d	Discuss implications of the results for practice, policy, and future research.	
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	
Competing interests	26	Declare any competing interests of review authors.	
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

PRISMA 2020 Checklist

Abstract Prisma 2020

Section and Topic	Item #	Checklist item	Reported (Yes/No)
TITLE			
Title	1	Identify the report as a systematic review.	Yes
BACKGROUND			
Objectives	2	Provide an explicit statement of the main objective(s) or question(s) the review addresses.	Yes
METHODS			
Eligibility criteria	3	Specify the inclusion and exclusion criteria for the review.	Yes
Information sources	4	Specify the information sources (e.g. databases, registers) used to identify studies and the date when each was last searched.	Yes
Risk of bias	5	Specify the methods used to assess risk of bias in the included studies.	No
Synthesis of results	6	Specify the methods used to present and synthesise results.	Yes
RESULTS			
Included studies	7	Give the total number of included studies and participants and summarise relevant characteristics of studies.	Yes
Synthesis of results	8	Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval. If comparing groups, indicate the direction of the effect (i.e. which group is favoured).	Yes
DISCUSSION			
Limitations of evidence	9	Provide a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision).	Yes
Interpretation	10	Provide a general interpretation of the results and important implications.	Yes
OTHER			
Funding	11	Specify the primary source of funding for the review.	Yes
Registration	12	Provide the register name and registration number.	NA

Title Page

- **Title:** Digital Health Equity in Primary Care: A Critical Review of Socioeconomic Barriers to Chronic Disease Management

- **Running Title**: Digital Health Equity for Older Adults

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- **CRediT Author Contributions** : Beatrice Gill-Chevallier. Conceptualization, Methodology, Formal Analysis, Investigation, Writing- Original Draft, Writing- Review & Editing, Supervision, Funding Acquisition, Data Curation, Validation.

- **Conflict of Interest Statement:** The author declares no conflict of interest

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- **Nagoya Protocol Compliance Statement**: This review is based solely on previously published literature and did not involve the collection or use of genetic resources, biological specimens, or fieldwork. Therefore, the Nagoya Protocol is not applicable, and no fieldwork permissions or permits were required.