


Equity in healthcare access and service coverage for older people: a scoping review of the conceptual literature

Christopher Carroll ,¹ Katie Sworn,¹ Andrew Booth,¹ Aki Tsuchiya,² Michelle Maden,³ Megumi Rosenberg⁴

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¹School of Health and Related Research (SchARR), The University of Sheffield, Sheffield, UK

²Department of Economics, The University of Sheffield, Sheffield, UK

³Institute of Population Health, University of Liverpool, Liverpool, UK

⁴Centre for Health Development, World Health Organization, Kobe, Hyogo, Japan

Correspondence to
Dr Christopher Carroll;
c.carroll@shef.ac.uk

ABSTRACT

There is currently no global review of the conceptual literature on the equity of healthcare coverage (including access) for older people. It is important to understand the factors affecting access to health and social care for this group, so that policy and service actions can be taken to reduce potential inequities.

A scoping review of published and grey literature was conducted with the aim of summarising how health and social care service access and coverage for older people has been conceptualised. PubMed, MEDLINE, PsycINFO, CINAHL, Web of Science, SciELO, LILACS, BIREME and Global Index Medicus were searched. Selection of sources and data charting were conducted independently by two reviewers.

The database searches retrieved 10517 citations; 32 relevant articles were identified for inclusion from a global evidence base. Data were summarised and a meta-framework and model produced listing concepts specific to equitable health and social care service coverage relating to older people. The meta-framework identified the following relevant factors: acceptability, affordability, appropriateness, availability and resources, awareness, capacity for decision-making, need, personal social and cultural circumstances, physical accessibility. This scoping review is relevant to the development and specification of policy for older people. It conceptualises those factors, such as acceptability and affordability, that affect an older person's ability and capacity to access integrated, person-centred health and social care services in a meaningful way. These factors should be taken into account when seeking to determine whether equity in service use or access is being achieved for older people.

INTRODUCTION

A sizeable body of literature addresses equity and health service coverage or access, though there is no universal consensus on definitions of these terms or the optimal perspective to be taken. Authors might variously assume a conceptual or theoretical perspective, might consider specific countries and systems,^{1–5} or employ a policy perspective driven by the principle of universal health coverage (UHC).^{6–8} Principles such as UHC link ideas of access to the performance of healthcare

Significance of the study

What is already known about this subject?

- Age is a known factor predicting inequity of access to healthcare.
- Multiple factors affecting different groups of people, such as age, income, education, location, are known to be relevant in accessing healthcare.
- Individual factors such as literacy, ethnicity, minority status and location, have been explored in empirical and conceptual studies examining older people's access of services

What does this study add?

- To our knowledge, this is the first global review of the conceptual literature on equity of health and social care coverage (including access) for older people.
- It conceptualises exactly those factors that might affect equity of access to integrated and person-centred health and social care services for older people, including the availability and affordability of services, and older people's own capacities, needs and perceptions of what is acceptable.
- It conceptualises the dynamic relationships between the individual older person, available services and social and political infrastructures

How might this impact on clinical practice or future developments?

This review is relevant to the development and specification of policy for older people because:

- It outlines factors that need to be taken into account when seeking to monitor or measure whether equity in service use or access is being achieved for older people in any country or setting, for example, are older people aware of services and their eligibility for certain services; are appropriate services available, do they satisfy their needs in an acceptable manner; can they afford them; can they access them—physically and intellectually (health literacy), etc.
- It highlights how new, more holistic and complex means of collecting data about older people, and their needs, is required if the local nature of inequity is to be understood, so that it can be addressed by policy.

systems.^{9 10} Researchers have also considered this challenge both for whole populations and for particular disadvantaged groups.¹¹ The literature defining health service access

is often limited to using broad terms, such as availability, coverage and provision.³ In its broadest sense, it might be considered to refer to a person's ability, capacity or eligibility to use or potentially use a relevant service. Equity in healthcare has been defined as the 'just distribution of healthcare according to need',⁸ but different definitions of what is 'just' and what constitutes 'need' are possible, and 'distribution' represents a different concept from access.¹² However, reviews of equity find that the term is often not clearly defined, even in policy documents. Instead it is only implied, using concepts and values such as social justice or inclusion, and typically assessed in simple terms for example, by gender, socio-economic factors or place of residence.^{3,13} Although age is frequently considered among potential predictors of access in quantitative analyses (usually defined in terms of actual service use because this is easier to measure),¹³ it is much less common to conceptualise equity in health service use for older people, as a distinct group.

Conceptual content often proves elusive within the literature, especially when factors must be identified from within empirical papers, theoretical discussions or parent theories.¹⁴ Recent reviews of existing frameworks relevant to equity and UHC^{3,15} do include a review of the conceptual literature,¹⁶ but we are not aware of any on the combined challenges of equity, UHC and older people. Yet older people represent a particular, potentially disadvantaged group because of their more extensive and complex healthcare needs, and the challenges they are likely to experience accessing relevant services. It is therefore important to understand those factors that affect access to healthcare for this group so that any given national health system can monitor them, and take appropriate action to reduce potential inequities. This scoping

review of the conceptual (that is, theory-developing/generating) literature therefore explores the potential factors affecting healthcare access and service coverage for older people. Given the diversity of definitions and conceptualisations, we chose not to limit our conceptualisations to particular definitions of equity, need or access, but rather to include any articles that used these terms and concepts, however, defined.

Research question

What are the potential factors affecting equity in healthcare access and service coverage for older people as conceptualised in the literature?

METHODS

We conducted a scoping review using the five-stage framework outlined by Arksey and O'Malley¹⁷: (1) identifying the research question, (2) identifying relevant studies, (3) reviewing and selecting relevant studies for the final review, (4) charting the data or key information from the studies under review and (5) summarising and reporting the results. The protocol is available.¹⁸

Inclusion criteria

To be included in the review, studies were required to satisfy the following criteria (table 1). In minor revisions to the original protocol, to ensure manageable but meaningful quantities of literature for exploring relevant concepts, publications had to focus exclusively on older people, rather than merely including older people alongside other groups and, aligned with an approach proposed elsewhere,^{19,20} were restricted to the conceptually richer papers (that developed frameworks, models of

Table 1 Inclusion and exclusion criteria

Inclusion criteria		Further details	Exclusion criteria
Population	Older people	The study must focus on older people, aged 50 years or more	No reference to age or older people, or age only referenced as a subgroup
Intervention	Equity	Must use one of the following terms: equity, inequity, equality or inequality, disparity, or mention differentials in relation to the outcome	No reference to any of the included terms or their concepts in relation to the outcome
Comparator	All age groups among older people aged ≥ 50 years	Within older people as a group (intersectionality)	People aged <50 years
Outcome	Service coverage or healthcare needs	Must refer to access to, use of, need of and eligibility for healthcare and services, following the WHO definition of healthcare, or resource utilisation.	Only mentions health, health status or health outcomes, for example, mortality, life expectancy, well-being, quality of life
Perspective	Demand or Supply	Users or providers (health system, structures, resources)	Not applicable because all perspectives were considered
Study design	Conceptualisations	Reviews and theoretical papers (non-empirical research), reviewing or developing theories, models, frameworks or conceptualisations (and which are described as such), including the generation or further development of a framework or model as a result of a qualitative (thematic) analysis of empirical data	Studies conducting statistical primary or secondary data analysis (of factors influencing/predicting disparity in service coverage or use) that do not generate or develop a theory or framework
Date, language	No restrictions		None

theories, with relationships between themes, rather than just a list of themes; in other words that had greater potential to provide ‘in-depth insights into the phenomenon of interest, allowing the researcher to better interpret the meaning and context of findings’.¹⁹

Information sources and search strategies

We searched nine databases for relevant published and unpublished literature, without limits of publication type, date or language, from inception to May and June 2020: PubMed, MEDLINE (Ovid), PsycINFO (Ovid), CINAHL (Ovid), Web of Science, SciELO, LILACS, BIREME, Global Index Medicus. Searches combined thesaurus and free-text terms for models/frameworks/theories, older people, equity/disparity and need or coverage/utilisation/access (strategies are available in online supplemental files 1 and 2). In July 2020, citation searches (Google Scholar and Social Science Citation Index) and related-studies’ searches (PubMed and CoCites database) were performed on all included studies. Reference checking of all included studies was also conducted and experts in the project team consulted for any additional, relevant papers that might have been missed by the extensive searches. In doing so, we were able to take advantage of the opportunity to collaborate with Japanese researchers conducting a search of Japanese bibliographic databases (Ichushi-web and CiNii Articles) in order to expand coverage of the literature—that is, including a language that is often not included in literature reviews—especially considering the potential knowledge/evidence that could be obtained from/about Japan, the most aged society in the world with one of the highest levels of population health. This comprehensive, multifaceted search was undertaken because identifying conceptual papers using conventional search techniques can often prove challenging.

Study selection, extraction and appraisal

Two reviewers (CC and KS) conducted independent study screening of 10% of all titles and abstracts (538/5379) to ensure consistent interpretation and application of the inclusion criteria (data not available). Each reviewer then screened 50% of the remaining titles and abstracts (approximately 2400 each). In case of doubts over inclusion, the article was subsequently considered at full text. Following the search for related studies, text-mining techniques were employed to manage the large numbers and identify the potentially most relevant articles.²¹ Full texts of all potential includes from these processes were independently screened by both reviewers (CC and KS). In the event of disagreements, a third project team member was available to make the final decision (AB), but this did not prove necessary.

Data items and data charting process

Two reviewers (KS and CC) developed, piloted (and revised, with the addition of fields such as care setting) a data extraction form based on independent extraction

by two reviewers (CC and KS) of the the first three available studies.^{22–24} The following data were then extracted from all studies: study first author; publication date; language; country of study; setting (type of health service, for example, home care); population; definitions of the key concepts of equity, need, access and coverage; each theory or framework’s listed domains and definitions, if provided, of factors affecting access to services, and equity of service coverage. All data charting was conducted independently by two reviewers (KS and CC) with inconsistencies resolved by discussion. Consultation with a third reviewer was not necessary (AB). Scoping reviews do not typically undertake quality assessment and this was not required in this instance (there is currently no published tool for appraising conceptual studies).^{25 26}

Summarising and reporting the results

This process involved identifying and grouping similar concepts from across studies. The factors identified as being important in older people’s equitable access of health and social care in each study were extracted and listed, and their definitions recorded. Using these definitions, similar factors for example, costs of medications and availability of public insurance, were then grouped under higher-order concepts that reflected these factors, for example, affordability. These higher-order concepts were not based on any a priori framework, but were defined based-on the factors they contained. This summary of findings represented a new conceptual meta-framework. The relationships between these higher-order concepts were then explored; this led to the development of an emerging conceptual model. This process, initiated by the lead reviewers (CC and KS), involved consultation and discussion with all authors: reviewers and experts in equity, older people, and healthcare and social care services (AB, AT, MM and MR).

RESULTS

Details of the study selection process are presented in [figure 1](#). The search of databases retrieved 6636 potentially relevant records. After deduplication, 5073 papers were excluded at title and abstract stage, and a further 281 papers were excluded at the full text stage. The principal reasons for exclusion of these papers were: the focus was not older people alone; the focus was not equity; the outcome was not access, use or need for health services or service coverage, but an individual health outcome; the study was a statistical analysis. Twenty-five studies were identified from the original database searches.

The complementary citation and related-studies searches retrieved an additional four relevant articles.^{27–30} One additional article³¹ was identified following reference tracking. Finally, a related review of the Japanese literature, applying the same methods and approaches but also including empirical quantitative literature, conducted by colleagues at Osaka University, identified two additional,

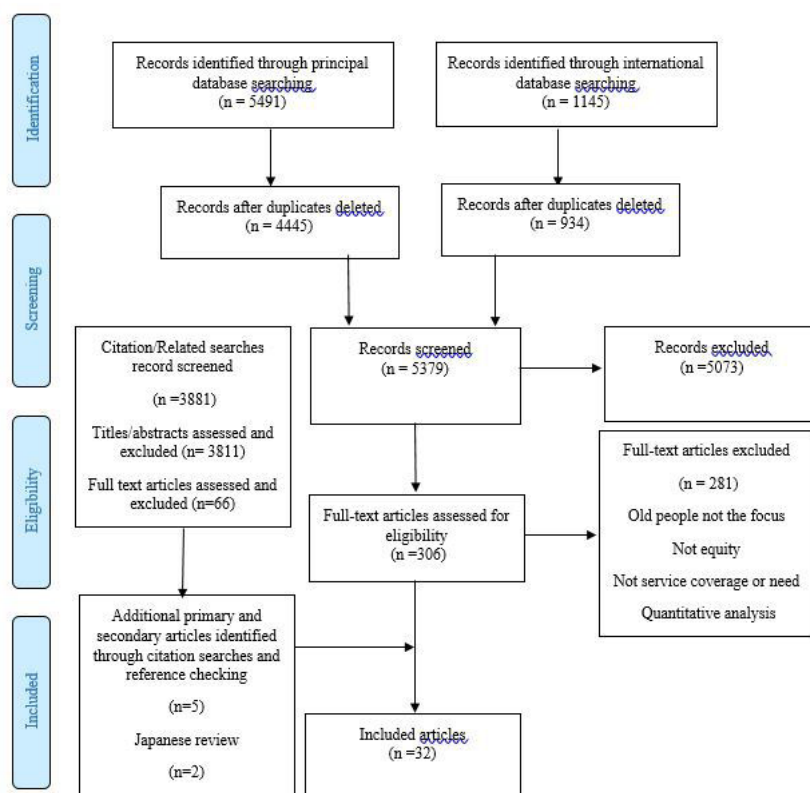


Figure 1 PRISMA flow diagram.

relevant articles.^{32 33} The final number of included studies was 32.

Included studies

Details of the characteristics of each of the 32 included articles are summarised in [table 2](#). All studies either generated new models from research or developed existing models, frameworks or theories, and used those conceptualisations to organise and interpret findings from primary or secondary research. Eleven articles were reviews or purely conceptual papers; 15 studies were qualitative primary research studies; three studies applied a form of data modelling; two studies used concept mapping, and one study used participatory action research, that is, a type of research that specifically seeks to bring about change through the participation and actions of key stakeholders.

The largest group of studies by country were conducted in and concerned with populations of older people in the USA (n=14), followed by Australia (n=3) and China (n=3). Two studies were conducted in Japan.^{32 33} One study was conducted in, and concerned older people in, each of the following: Canada, Chile, Hong Kong, Poland, Portugal, the Netherlands, Singapore and Sweden. One study was conducted from an international and one study from a European perspective. Thirty studies were published in English, one in Japanese,³³ and one in Spanish.³⁴ Seventeen studies considered access to or need for all types of healthcare services (n=17); nine focused on various types of long-term care services, including in the home or community (n=9). In addition, two focused on primary

care,^{23 35} two on dental care^{24 29} and one each on mental health services³⁶ and rehabilitation services.³⁷

Sixteen studies considered older people generally (aged 50 years or older), while the other 16 studies considered access relating to specific groups of older people, and the implications for equity: racial, ethnic or immigrant minorities (n=7), sexual minorities (n=2), those with particular disabilities or chronic conditions (n=6), and those designated specifically as ‘underserved’ (n=1). Studies most frequently assumed a joint perspective of both demand (patients’ perspective and needs) and supply (service perspective) (n=16), with fewer studies focusing on demand (n=11) or supply (n=5) alone.

It should be noted that the searches captured relevant literature up to 2020; 27 out of 32 articles (84%) were published in 2015 or later, which reflects the growing interest in older populations, and specific groups within those populations. This sample of 32 studies derives from 14 different countries from North and South America, Europe, Asia and Australia, as well as covering multiple healthcare settings experienced by older people, from acute secondary care to long-term care in the community.

Authors typically developed or based their model or conceptual framework on a variety of existing theories, models or frameworks, which differed in terms of their focus (equity, diversity or rights; access, use or provision; ageing or behaviour) and academic origin. The most commonly used, adapted or augmented pre-existing models for organising concepts were the

Table 2 Study characteristics

Author year	Methodology and methods	Language	Country/region	Care setting	Population details	Model or conceptual framework used	Conceptualisation and perspective (demand and/or supply)
Bradley, 2002 ²²	Qualitative: Focus groups	English	USA	Long-term care (nursing home and home care)	Older adults aged 50–85 years	Andersen model of health service use (1995)	Conceptualisation from findings organised by a prespecified model (DEMAND and SUPPLY)
Caceres, 2016 ³⁹	Review of the conceptual literature	English	USA	All services	LGB older people (aged 50 years or older)	Model of successful ageing in lesbian, gay and bisexual older people	A novel model (DEMAND and SUPPLY)
Chui, 2020 ⁴¹	Qualitative: interviews	English	Hong Kong	Long-term care	Nepalese older adults in Hong Kong (n=30)	A Culturally-inclusive Age-friendly Cities framework	A novel conceptual framework (SUPPLY)
Condelius, 2015 ²⁷	Qualitative interviews	English	Sweden	Nursing homes	Relatives of older people who had died in the care setting (n=14)	Andersen model of health service use (1995)	Conceptualisation from findings organised by a prespecified model (DEMAND)
Cox, 2017 ⁶³	Review (book chapter)	English	USA	Community/home care services	Older (aged 50 years or older) people living with HIV	Andersen model of health service use (1995)	Conceptualisation from review findings organised by a prespecified model (SUPPLY)
Cunill-Grau, 2018 ³⁴	Review: Exploratory-descriptive study using secondary and primary quantitative data	Spanish	Chile	Long term care and day centres	Managers and users of two elderly care services	Novel framework of valuation of rights in social services	Conceptualisation from findings organised by a prespecified framework (DEMAND and SUPPLY)
Doetsch, 2017 ²³	Qualitative: Interviews	English	Portugal	Primary and secondary care	Policy-makers, healthcare providers, older people (n=13)	Conceptual framework on healthcare access by Levesque <i>et al</i> ¹⁶	Conceptualisation from findings organised by a prespecified framework (DEMAND and SUPPLY)
Estrada, 2018 ²⁴	Qualitative: Focus Groups	English	USA	Dental services	Racial/ethnic minority adults aged 50 years and older (n=194)	Ecological model: Factors that influence disparities in access to care and quality of healthcare services, based on Purnell <i>et al</i> (2016)	Conceptualisation from findings organised by a prespecified framework (DEMAND and SUPPLY)
Guo, 2006 ⁴³	Participatory Action Research	English	USA	All services	Older adults, plus health and social care providers and community leaders (n=529)	New framework based on social justice and equity	A novel conceptual framework (DEMAND and SUPPLY)

Continued

Table 2 Continued

Author year	Methodology and methods	Language	Country/region	Care setting	Population details	Model or conceptual framework used	Conceptualisation and perspective (demand and/or supply)
Halkitis, 2015 ⁴²	Review: Conceptual paper to advance a novel framework	English	USA	All services	Ageing Gay men	New conceptual model drawing on three theoretical frameworks: the social-ecological model of health (Bronfenbrenner, 1986), the theory of syndemic production (Singer, 2009), and the behavioural model of health service utilisation (Andersen, 1968).	A novel conceptual framework (DEMAND and SUPPLY)
Heislbeitz, 2008 ⁶⁴	Review (book chapter)	English	Europe	All services	Older adults, aged 65 years and older	Target Efficiency of Care model has its focus on the match between the need, supply and equity of care at aggregated client group levels.	Conceptualisation from review findings organised by a prespecified model (SUPPLY)
Kurpas, 2018 ⁵¹	Qualitative: Focus groups	English	Poland	All services	Frail and robust older adults, healthcare professionals, social care workers, family caregivers (n=44)	Conceptual framework on healthcare access by Levesque <i>et al</i> ¹⁶	Conceptualisation from findings organised by a prespecified framework (DEMAND and SUPPLY)
Liu, 2016 ³¹	Mixed method-structural equation model	English	China	All services	Older adults, aged 60 years and older	Outcome-based health equity framework based on Social Justice theory (Rawls, 1971), which is devoted to achieving equality for the underclass group and prioritising vulnerable groups in distributing medical benefits and resources	A novel conceptual framework (DEMAND and SUPPLY)
Long, 2016 ³⁵	Qualitative: interviews	English	China	Primary care	Older adults, 55 years or older (n=24) and primary care providers (n=24)	New conceptual, relational model of health-seeking behaviour of elders	A novel conceptual model (DEMAND and SUPPLY)
Martin, 2016 ⁴⁴	Qualitative: interviews (PhD thesis)	English	USA	All services	Managers and other self-identified, key stakeholders within organisations serving older adults (n=25)	New concept map detailing how to increase trust and rapport with older people, including organisational strategies to better serve diverse elders	A novel conceptual model (SUPPLY)

Continued

Table 2 Continued

Author year	Methodology and methods	Language	Country/region	Care setting	Population details	Model or conceptual framework used	Conceptualisation and perspective (demand and/or supply)
Masui, 2019 ³²	Review of the literature	English	Japan	Long term care	Older adults, aged 65 years and older	Conceptual framework on long-term care service	Conceptualisation from findings organised by a prespecified model (DEMAND and SUPPLY)
Michael, 2016 ⁶⁵	Qualitative: Mixed methods	English	Australia	All services	Service providers (n=NR) for culturally and linguistically diverse, LGBTI and Indigenous Australians older people, and people with dementia	New model: Diversity Conceptual Model for aged care with a focus on diversity characteristics that may be creating benefits and disadvantages for a consumer to participate in their healthcare	A novel conceptual model (DEMAND and SUPPLY)
McMaughan, 2020 ³⁴	Review of the equity literature	English	Australia	All services	Older adults, aged 65 years and older	Conceptual framework for socioeconomic status and healthcare access driving healthy ageing	A novel conceptual framework (DEMAND)
Murata, 2011 ³³	Review: short report	Japanese	Japan	All services	Contents including older adults	Conceptual framework of socioeconomic status and healthcare access	Conceptualisation from findings organised by prespecified model (DEMAND and SUPPLY)
Najem, 2018 ³⁷	Review and case studies	English	Canada	Rehabilitation services	Older adults, aged 65 years and older	Montreal referral framework	Conceptualisation from empirical case study findings organised by prespecified framework (DEMAND)
Northridge, 2015 ²⁹	Modelling	English	USA	Dental care	'Underserved' older adults, aged 50 years and older	New conceptual map	A novel conceptual model (DEMAND)
Ogrin, 2020 ⁶⁶	Qualitative: Interviews	English	Australia	Home care	Older adults, average age 76 years (range 71–85 years) (n=15)	A realist framework of five diversity principles: awareness of unconscious bias and prejudice; promotion of inclusion; access and equity; appropriate engagement; intersectionality	A novel conceptual framework (SUPPLY)
Reddy, 2019 ³⁶	Qualitative: Interviews	English	USA	Mental health services	Chronically ill older patients receiving rurally-based mental healthcare (n=15)	PPenchansky and Thomas's theory of access (1981), modified by Saurman (2016)	Conceptualisation from empirical findings organised by prespecified framework (DEMAND)

Continued

Table 2 Continued

Author year	Methodology and methods	Language	Country/region	Care setting	Population details	Model or conceptual framework used	Conceptualisation and perspective (demand and/or supply)
Sommerfeld, 2019 ⁴⁵	Concept Mapping (CM); participatory mixed-method approach	English	USA	All services	American Indian elders (n=65) and professional stakeholder participants (n=50)	Thematic cluster map of factors perceived to affect American Indian elder healthcare.	A novel model (DEMAND and SUPPLY)
Suurmond, 2016 ³⁰	Qualitative: Interviews	English	The Netherlands	Home care	Turkish, Moroccan Surinamese and ethnic Dutch elderly (n=50)	Conceptual framework on healthcare access by Levesque <i>et al</i> . ¹⁶	Conceptualisation from empirical findings organised by prespecified framework (DEMAND)
Tan, 2019 ⁴⁰	Qualitative: Interviews	English	Singapore	All services	Hypertensive patients of various ethnic backgrounds aged 55 years or older (n=20)	Social Model of Health (Dahlgren and Whitehead, 1993)	Conceptualisation from empirical findings organised by prespecified model (DEMAND and SUPPLY)
Tang, 2017 ⁴⁸	Quantitative: Spatial modelling	English	China	All services	Elderly (65 years and above)	Key factors affecting healthcare access	A novel model (DEMAND)
Tesch-Römer, 2017 ⁵⁷	Review of the conceptual literature	English	Inter-national	All services	Adults ageing with disabilities and care needs	Rowe and Kahn's model of Successful Ageing 2.0	Conceptualisation from empirical findings using a prespecified model (DEMAND and SUPPLY)
Travers, 2020 ⁶⁸	Qualitative: Interviews; secondary data analysis of existing qualitative data.	English	USA	Long Term Services and Supports (LTSS)	464 older adults, average 81 years old: nursing homes (n=158), assisted living (n=156), and home and community-based services (n=156)	Andersen's expanded behavioural model of health service (1995)	Conceptualisation from empirical findings using a prespecified model (DEMAND)
Weech-Maldonado, 2014 ⁴⁹	Review (book chapter)	English	USA	All services	Minority elders	Andersen's behavioural model of health service use (1995)	Conceptualisation from review findings using a prespecified model (DEMAND)
Willging, 2018 ⁴⁶	Protocol for a mixed-method study guided by CM (concept mapping)	English	USA	All services	American Indian Elder	Socio-Ecological Model, calling attention to determinants of health literacy, access, and utilisation at five levels: individual; social support; organisational; community; and policy	An augmented model (DEMAND and SUPPLY)

Continued

Table 2 Continued

Author year	Methodology and methods	Language	Country/region	Care setting	Population details	Model or conceptual framework used	Conceptualisation and perspective (demand and/or supply)
Woodward, 2019 ⁵⁰	Qualitative study: interviews	English	USA	All services	Black, rural-dwelling, older adult VA patients (n=12), living with hepatitis C virus (HCV), from Veterans' Administration medical clinics in the Southern part of the USA, mean age=61 years	The Health Equity Implementation Framework. This explains factors relevant to implementation and disparities in healthcare.	A new conceptual framework (DEMAND)

Andersen Behavioural Model of Healthcare Access (n=6)³⁸ and the Levesque model of healthcare access (n=3).¹⁶ The Andersen model conceptualises access in terms of a population's characteristics: their predisposing factors (attitudes, beliefs, sociodemographics); need factors (objective and subjective needs) and enabling factors (resources enabling access to and use of healthcare services).³⁸ The Levesque conceptual framework constructs a path from healthcare needs, through healthcare seeking, to healthcare reaching and utilisation, and ultimately, the health consequences of this use or non-use.¹⁶ The framework captures the dimension of access and then the dimension of the services user's ability to access as a set of further characteristics. Both are generic population models. Table 3 lists the models or frameworks identified in included articles and provides a basic summary of how access to healthcare and service coverage have been approached conceptually, though few focus on equity. Models were generally concerned with either access or equity or rights. The remaining models drew on broad conceptual frameworks relating to behaviour, care or successful ageing.

Definitions of key terms, or explanations of key terms, where they were provided, are detailed in online supplemental file 3. For example, a paper might provide definitions of more than one relevant term²⁷: equity: 'access to care ... granted primarily according to need and not to other factors such as income or availability of resources'; access: 'access to care is best evaluated by the actual use of services'; need: 'A person's need refers to the severity of illness and is the factor most directly responsible for use'. However, despite a focus on equity of health service coverage or access by older people, or the healthcare needs of older people, few papers explicitly defined all such terms in this way. The majority provided no such detail or only very broad definitions. More typically, the meaning of these terms was assumed implicitly within the papers, that is, the term was used but no definition was given. This observation may reflect their focus on processes that enable/constrain receipt of healthcare rather than on whether patterns of receipt are equitable.

The higher-order concepts identified for our meta-framework were: acceptability, affordability, appropriateness, availability and resources, awareness, capacity to make decisions, need, personal economic, social and cultural circumstances influencing access, and physical accessibility. These concepts emerged from the concepts identified within the data, linked to the findings of each study, and are described below, with reference to some nuances in the data:

- Acceptability—The data highlighted the effect of negative patient perceptions of inclusivity, discrimination, trust, respect and cultural knowledge and awareness among providers. For example, a perception of the lack of engagement from services in a review of health disparities for lesbian, gay and bisexual older people.³⁹

Table 3 List of models in included studies and conceptual focus

Included models (labels in articles)	Article
Equity or rights	
Culturally inclusive needs	Chui, 2020 ⁴¹
Rights within social services	Cunill-Grau, 2018 ³⁴
Empowering the community to reduce health disparities	Guo, 2006 ⁴³
Health equity	Liu, 2016 ³¹
Health disparities	Martin, 2016 ⁴⁴
Equity in eligibility criteria for inpatient rehabilitation	Najem, 2018 ³⁷
Diversity and participation in services	Ogrin, 2020 ⁶⁶
Oral health equity	Northridge, 2015 ²⁹
Socioeconomic status and social and physical environments	Tan, 2019 ⁴⁰
Health equity implementation	Woodward, 2019 ⁵⁰
Access	
Healthcare access	Doetsch, 2017 ²³
Disparities in access to care and quality of healthcare services	Estrada, 2018 ²⁴
Access to healthcare	Kurpas, 2018 ⁵¹ (Levesque's 2013 framework)
Socioeconomic status and healthcare access driving healthy aging	McMaughan, 2020 ²⁸
Valuation of the effects of health disparities on medical care access	Murata, 2011 ³³
Access to mental health services	Reddy, 2019 ³⁶
Healthcare access	Sommerfeld, 2019 ⁴⁵
Access to home care services	Suurmond, 2016 ³⁰
Spatial access to healthcare	Tang, 2017 ⁴⁸
Determinants of literacy, access and utilisation	Willging, 2018 ⁴⁶
Other models identified	
Behavioural model of health service use	Bradley 2002 ²²
Successful ageing	Caceres, 2016 ³⁹
Behavioural model of health service use	Condelius, 2015 ²⁷
Community services use	Cox, 2017 ⁶³
Health and healthcare utilisation	Halkitis, 2015 ⁴²
Social and ethical evaluation of the efficiency of the long-term care	Heislbetz, 2008 ⁶⁴
Health-seeking behaviour	Long, 2016 ³⁵
Socioecological model	Masui, 2019 ³²
Diversity for care	Michael, 2016 ⁶⁵
Successful ageing	Tesch-Römer, 2017 ⁶⁷ Travers, 2020 ⁶⁸
Behavioural model of health service use	Weech-Maldonado, 2014 ⁴⁹

- ▶ **Affordability**—Patients' real or perceived ability to pay for care or services. Affordability included individual financial resources in different health contexts^{23 40}

and the affordability and supports of insurance cover or services.

- ▶ **Appropriateness**—Providers' engagement with patients to identify appropriate services, and how to supply services that satisfy patients' needs in an appropriate way. Appropriateness is a characteristic of person-centred care. It is determined by cultural knowledge, racial or other bias or discrimination, attitudes to inclusivity and overall quality of care. Chui *et al*⁴¹ undertook an analysis of relatives of older people who had died in a care setting to identify the presence of: structural barriers (cultural inclusivity); knowledge barriers (public education and participation) and attitudinal barriers (public education and intercultural exchange); all of which affected the provision of appropriate care services.
- ▶ **Availability and resources**—Providers' ability to make available timely and adequate services or resources. The data highlighted the impact of availability at multiple levels. For example macrolevel factors: healthcare providers' availability and capacity⁴²; local or community capacity⁴³ and service level resources.^{32 44 45} This concept included review evidence on the requirement for resources in long-term care in a Japanese context.³² Indeed, an aspect of 'availability and resources' that affects older people differently from younger age groups is that they have a need for services (ie, social care/long term care) that fall outside of the scope of typical 'healthcare services'. This is a fundamental element of integrated care.
- ▶ **Awareness**—Patients' awareness of the existence of relevant services and financial support (eg, knowledge of insurance options and eligibility for using these services).⁴⁶ Patients should be able to identify that some form of care services exist, can be reached, and can have an impact on the health of the individual.³⁶ From a service perspective, awareness includes the provision of service information to eligible individuals.
- ▶ **Capacity to make decisions**—Patients' ability to understand their care needs and the services required (health literacy), and their ability to make decisions and to act. Data showed this could reflect a lack of knowledge for certain topics such as oral health or the capacity to make decisions might be compromised by personal limitations beyond service knowledge, such as limited capacity for lifestyle modification.⁴⁰ Providers may have limited ability themselves to understand the education and care needs, and the services required by older people.
- ▶ **Need**—Patients' real or perceived need for healthcare services based on their age, multimorbidities, chronicity or complexity of care needs, and cultural or family expectations, which might in turn affect candidacy.⁴⁷ Issues relating to need might include preventative care such as screening services to enable identification of needs²⁸; and providers' ability to anticipate and identify patient and population care needs, including through screening and monitoring.

- ▶ Personal economic, social and cultural circumstances influencing access—A patient's personal circumstances or social context that might shape their choice or ability to access services. Data emphasised the diverse characteristics that could affect the service needs of older people, such as age, sex, marital status, education, race/ethnicity, and occupation.²² Circumstances also included the context of familial support, which can shape elders' perceptions of healthcare.
- ▶ Physical accessibility—Patients' ability to access services due to requirements relating to mobility and transportation. The proximity of services was important.^{24 34 36 40 45 48–50} From a provider perspective, this entails the provision of relevant services that are easily usable, requiring an appropriate transport infrastructure (even in more economically developed settings, such as the USA).⁴³

The summary of concepts, and the grouping of included studies by common elements, is presented in [table 4](#). The sources of the individual concepts are listed in the first column, that is, the included studies. Individual concepts identified by, or presented in, included studies are reported in the second column, and then grouped within a higher-order concept in the third column. These higher-order concepts correspond in part to some of the themes of the Levesque model of healthcare access (eg, Acceptability, Affordability),¹⁶ reflecting common terminology, but often masking a different definition of the term. Where study-specific concepts were positioned in relation to the higher-order concepts was determined by how each paper had defined that concept. So, for example, one study defines its concept of 'approachability' in terms of 'awareness of services',⁵¹ and so this appears under Awareness in our meta-framework, rather than 'approachability'. Awareness does not appear in the Levesque model.¹⁶

An emerging conceptual model

The relationships between the higher-order concepts are represented by the conceptual model presented in [figure 2](#). Clear relationships and overlaps can be observed between concepts, for example, the availability and expectation of family support for an older person shapes their need for and relationship with services; the resources available at policy level to provide local services can affect availability and accessibility of such services.

[Figure 2](#) shows an emerging model for further consideration beyond the scope of this review, based on the summary of findings ([table 4](#)). Although the summary identified demand and supply requirements or needs for some but not all concepts, this model attempts to locate each concept within personal, service and wider societal spheres: person-centred, integrated care is at the heart of the model. The model maps different levels: from the individual experience; to an individual's interaction with health and social care services, and then to the broader infrastructure or policy levels at which decisions about service coverage or funding are made. Arrows

in the model demonstrate the interlinkage of factors relating to access and the perception of access for the individual, services and wider infrastructure. Evidence suggests service level decisions are ideally shaped through an understanding about the individual, that is, person-centred care. These factors could function as barriers if not considered by services. Affordability of services is determined by a combination of individual means and the cost of the health-related systems in place. Physical accessibility is shaped by the individuals' personal physical ability in combination with service availability and accessibility.

DISCUSSION

This review has identified potential factors affecting equity in healthcare access and service coverage for older people as conceptualised in the literature, falling under the concepts of acceptability, affordability, appropriateness, availability and resources, awareness, capacity to make decisions, need, personal economic, social and cultural circumstances influencing access, and physical accessibility. This review also presents a novel conceptual framework and model relating to integrated health and social care access to be developed with specific reference to older people. While multiple access models and frameworks have been developed for populations generally,^{16 38} and then adapted to certain populations, such as certain vulnerable groups (excluding older people),⁵² this is the first framework to our knowledge to target older people specifically. The Levesque framework often applies different definitions and perspectives, not specific to older people, and the Andersen model of access is high level and discusses factors affecting populations in general terms.³⁸ Certain factors therefore achieve greater prominence in our framework and model than in these generic access frameworks as a result of the prevalence of multimorbidity, complex care needs and capacity and accessibility concerns among older people as a group—and within groups of older people. This framework is also generated from literature exploring the concept of equity in relation to ageing populations' access to and use of long-term health and social care services and facilities; other frameworks only consider primary or secondary care.

Results from this scoping review suggest healthcare service access for older people is constructed between individuals and services/infrastructure. It is not simply a case of either the provision of top-down resources or the prominence of personal characteristics at the individual level.⁵³ The availability, appropriateness and affordability of resources, in combination with service communication and competency, can facilitate or hinder access based on an understanding of personal (such as needs) and interactional factors. While this dynamic is not new,^{9 38} the diversity of personal or demographic characteristics or circumstances affecting older people is both unique and substantial. Multimorbidity, that is, the presence of

Table 4 Summary of concepts from included studies

Author, year	Concepts identified	Summarised, higher-order concepts
Bradley, 2002 ²²	Psychosocial factors: Attitudes of staff	Acceptability Demand: Patients' perceptions of inclusivity, discrimination, trust, respect, and cultural knowledge and awareness among providers, and the quality of care provided, that might affect their willingness to access or use services
Caceres, 2016 ³⁹	Perceptions of absence of inclusivity	
Condellius, 2015 ²⁷	Quality of care	
Cox, 2017 ⁶³	Negative attitudes/stigma	
Cunill-Grau, 2018 ³⁴	Preferences based on religion	
Doetsch, 2017 ²³	Approachability: lack of engagement with elderly; excessive hospital length of stays; increased efficiency and quality in primary care	
Estrada, 2018 ²⁴	Perceptions of respectful treatment	
Halkitis 2015	Civic engagement to improve health; Social engagement via community organisations that facilitate access to healthcare	
Kurpas, 2018 ⁵¹	Acceptability (cultural and social)	
Liu, 2016 ³¹	Being treated equitably in the process of receiving healthcare	
Martin, 2016 ⁴⁴	Trust and rapport essential for enabling diverse patients to access services	
Michael, 2016 ⁶⁵	Acceptance of social and cultural identities and encouragement of a broader collaboration in services and community organisations	
Northridge, 2015 ²⁹	Discrimination limiting accessibility; quality of care	
Reddy, 2019 ³⁶	Acceptability: Patient attitudes about the personal and practice characteristics of a provider or qualities of a healthcare service.	
Sommerfeld, 2019 ⁴⁵	Provider issues and relationships: lack of familiarity with patients and their history; confidentiality concerns	
Suurmond, 2016 ³⁰	Language barriers	
Tan, 2019 ⁴⁰	Perceived acceptability of care: Communication with healthcare professionals; healthcare professionals' attitudes; perceived disagreement and flawed experiences lead to mistrust	
Tesch-Römer, 2017 ⁶⁷	Patient and Provider factors: Interaction and negotiation between caregiver and care receiver	
Weech Maldonado, 2014 ⁴⁹	Perceptions of previous discrimination (do not accept acute care); quality of services	
Woodward, 2019 ⁵⁰	Perceived racial discrimination; lack of trust Requirement for more engagement from service providers to establish needs	
Bradley, 2002 ²²	Affordability, financial resources influenced how long term services were viewed	Affordability Demand: Patients' real or perceived ability to pay for care or services
Cox, 2017 ⁶³	Enabling factors: Lack of funding	
Cunill-Grau, 2018 ³⁴	Affordability and accessibility: presence or absence of public financing	
Cox, 2017 ⁶³	Need factors: funding gaps due to eligibility by age	
Doetsch, 2017 ²³	Affordability (includes pension cuts and broader financial situation)	
Estrada, 2018 ²⁴	Affordability, provider and system level supports for patients, for example, public insurance representatives	
Guo, 2006 ⁴³	Costs of medications	
Kurpas, 2018 ⁵¹	Affordability (financial resources)	
Liu, 2016 ³¹	Needs-equity (reimbursements of healthcare expenditures and care costs)	
Masui, 2019 ³²	Cost per person	
Murata, 2011 ³³	Socioeconomic status (income disparity), health insurance level	
Northridge, 2015 ²⁹	Affordable oral health providers	
Sommerfeld, 2019 ⁴⁵	Difficulties obtaining and using insurance	
Reddy, 2019 ³⁶	Affordability: cost to consumer. Includes payment from multiple funding streams	
Suurmond, 2016 ³⁰	Affordability of service outside of basic provision	
Tan, 2019 ⁴⁰	Socioeconomic status (perceived financial ability);lack of financial means leading to debt or delayed seeking treatment; Health systems financing: Importance of mandatory medical savings and additional subsidies	
Travers, 2020 ⁶⁸	Enabling factors: availability of financial resources, ability to protect against risk	
Weech-Maldonado, 2014 ⁴⁹	Cost related non-adherence to medications	

Continued

Table 4 Continued

Author, year	Concepts identified	Summarised, higher-order concepts
Bradley, 2002 ²²	Care providers have the right technical expertise and interpersonal skill Psychosocial factors: attitudes of staff	Appropriateness Supply: Providers' engagement with patients to identify appropriate services, and how to supply services that satisfy patients' needs in an appropriate way. This is determined by cultural knowledge, racial or other bias or discrimination, attitudes to inclusivity, and overall quality of care. Staff should practice cultural awareness and engagement to provide appropriate services to patients.
Caceres, 2016 ³⁹	Services need to possess inclusive attributes such as access to LGB-friendly services	
Chui, 2020 ⁴¹	Provider factors: structural barriers (cultural inclusivity); knowledge barriers (public education and participation); attitudinal barriers (public education and intercultural exchange)	
Cox, 2017 ⁶³	Lack of cultural competence by staff is a predisposing factor	
Doetsch, 2017 ²³	Appropriateness and Approachability: patient participation, priority setting; hospitals not patient centred but disease centred built: access deficient for elderly with comorbidities Appropriateness of sector/policy to meet needs for example, primary care provision Lack of specific policy response and priority setting at the local level Lack of engagement with elderly; excessive hospital length of stays; increased efficiency and quality in primary care	
Guo, 2006 ⁴³	Educational needs of health professionals on how to work with the broader community	
Estrada, 2017	Patient-centred care; Organisational motivation, resources, staff attributes, climate, and teamwork: for example, Specialised dental services for older people	
Kurpas, 2018 ⁵¹	Appropriateness (the fit between needs and services)	
Liu, 2016 ³¹	Provider awareness that elders draw on their relationships with the medical service system and their families to develop coping strategies	
Masui 2019 ³²	Community participation	
Michael 2016 ⁶⁵	Acceptance of social and cultural identities and encouragement of a broader collaboration in services and community organisations; Emphasis on greater equity at a policy level	
Ogrin 2020 ⁶⁶	Unconscious bias and prejudice; promotion of inclusion - services need to be culturally competent but not divisive; appropriate engagement; Intersectionality; embedding equity and access in policy and practice	
Sommerfeld 2019 ⁴⁵	Provider issues and relationships: lack of familiarity with patients and their history; confidentiality concerns	
Tan 2019 ⁴⁰	Healthcare professionals' attitudes	
Tesch-Römer, 2017 ⁶⁷	Patient and Provider factors: Interaction and negotiation between caregiver and care receiver	
Travers, 2020 ⁶⁸	Psychosocial factors: Attitudes of staff	
Willging, 2018 ⁴⁶	Cultural knowledge of providers, training staff to deliver to diverse communities; Lack of participation in systems/policy-making	
Woodward, 2019 ⁵⁰	Provider factors: Racial biases; lack of appropriate expertise Requirement for more engagement from service providers to establish needs	
Bradley, 2002 ²²	Availability of formal support services	Availability and resources Supply: Providers' ability to make available timely and adequate services or resources
Cox, 2017 ⁶³	Enabling factors: Lack of human resources; inadequate and unresponsive support services; lack of funding; gaps in services due to eligibility by age	
Cunill-Grau, 2018 ³⁴	Affordability: Presence of absence of public financing	
Doetsch, 2017 ²³	Fewer available people to work in the sector Availability and Approachability (includes waiting times, follow-ups, shortage of healthcare staff)	
Estrada, 2018 ²⁴	System-level supports Provider factors: Capacity and performance;	
Guo, 2016 ⁴³	Community's capacity to respond to this population's needs (eg, service capacity limitations); Infrastructure resources limitations	
Halkitis, 2015 ⁴²	Macrolevel factors: healthcare providers availability and capacity	
Martin, 2016 ⁴⁴	Bureaucracy, paperwork, lack of resources	
Masui, 2019 ³²	Financial incentives, local resources	
Northridge, 2015 ²⁹	Availability of affordable oral healthcare providers	
Reddy, 2019 ³⁶	Availability: services exist and meet the volume and needs of the patients to be served; financial viability of service provider	
Sommerfeld 2019	Availability of services: scheduling challenges; opening times	
Suurmond, 2016 ³⁰	Affordability of service outside of basic provision	
Tang, 2017 ⁴⁸	Spatial dimension (medical resource)	

Continued

Table 4 Continued

Author, year	Concepts identified	Summarised, higher-order concepts	
Bradley, 2002 ²²	Content and amount of Information	Awareness Demand: Patients' awareness of the existence of relevant services and financial support, and their eligibility for using these services Supply: Provision of service information to eligible individuals	
Estrada, 2018 ²⁴	Oral healthcare education required		
Guo, 2006 ⁴³	Community awareness of major health problems among elders		
Kurpas, 2018 ⁵¹	Approachability (awareness of services)		
Reddy, 2019 ³⁶	Patients can identify that some form of services exist, can be reached, and have an impact on the health of the individual.		
Suurmond, 2016 ³⁰	Barriers to perceived need: limited expectations regarding availability of or eligibility for the service		
Travers, 2020 ⁶⁸	Content/amount; sources and accessibility of information about services		
Willging, 2018 ⁴⁶	Provision of information about insurance options		
Bradley, 2002 ²²	Psychosocial factors: self-determination		Capacity to make decisions Demand: Patients' ability to understand their needs and the services required (health literacy), and their ability to make decisions and to act Supply: Providers' ability to understand the needs and the services required by older people, and their ability to make decisions and to act, for example, relevant education and resources
Doetsch, 2017 ²³	Approachability: lack of understanding of healthcare services, benefits and GP advice on pharmaceutical usage		
Estrada, 2018 ²⁴	Patient factors: Level of oral health education; Provider factors: education of providers (dental schools, geriatric dentists)		
Guo, 2006 ⁴³	Educational level of older people Provider's education needs		
Kurpas, 2018 ⁵¹	Ability to use services		
Martin, 2016 ⁴⁴	collaboration and efficiency; organisational strategies to better serve diverse elders		
Najem, 2018 ³⁷	Capacity to participate		
Sommerfeld, 2019 ⁴⁵	Provider issues and relationships: limited time seeing healthcare professionals; rushed appointments Health literacy; Health-related self-efficacy: Not knowing where to find healthcare information; Limited knowledge of computers or the Internet to obtain information about insurance		
Suurmond, 2016 ³⁰	Barriers to perceived need: knowledge		
Tan, 2019 ⁴⁰	Individual (perceived physical and mental well-being; capacity for lifestyle modification); Community (community support systems and engagement)		
Tesch-Römer, 2017 ⁶⁷	Care receiver resources and strategy for care recipient to maintain autonomy and well-being		
Travers, 2020 ⁶⁸	Psychosocial factors: knowledge of staff and patients, perceived control		
Willging, 2018 ⁴⁶	Health literacy		
Woodward, 2019 ⁵⁰	Patient factors: Health literacy and education Provider factors: Lack of appropriate expertise		
Bradley, 2002 ²²	Need factors: Degree and duration of disability (perceived and objective); functional health	Need Demand: Patients' real or perceived need for healthcare services based on their age, multimorbidities, chronicity or complexity of care needs, and cultural or family expectations, which might in turn affect candidacy. Screening services enable the identification of needs. Supply: Provider ability to anticipate and identify patient and population needs, including through screening and monitoring.	
Condelius, 2015 ²⁷	Patient factors: Need as perceived by patient and family; Changing needs—consideration of whether a service setting can meet that need, including residential care		
Cox, 2017 ⁶³	Need factors: Multiple comorbidities; complex care needs		
Estrada, 2018 ²⁴	Provider and system level supports include screening and monitoring		
Guo, 2006 ⁴³	Cultural influences and perceptions of ageing; Community awareness of their population's needs—including provider awareness of different types of communities		
Heislbetz, 2008 ⁶⁴	Horizontal target efficiency: Provider factor: Assessments of proportions of people being in need, and those in receipt of a service Vertical target efficiency: Provider factor: Assessments of proportions of people who satisfy priority need, and those in receipt of the relevant service		
Long, 2016 ³⁵	Habitus shaping elders' beliefs and practices regarding health and health needs Habitus shaping elders' perceptions of ageing and their healthcare needs		
Masui, 2019 ³²	Individual health condition		
McMaughan, 2020 ²⁸	More affluent people have access to more preventative care including screening		
Najem, 2018 ³⁷	Prognosis/need: better identification of suitable rehabilitation candidates		
Surmond, 2016	Barriers in perceiving a need for home care: preference for family members to provide care		
Tan, 2019 ⁴⁰	Perceived physical and mental well-being		
Travers, 2020 ⁶⁸	Need factors: Degree and duration of disability; functional health		
Weech Maldonado, 2014 ⁴⁹	Complexity of care required; Minority communities may not accept screening		

Continued

Table 4 Continued

Author, year	Concepts identified	Summarised, higher-order concepts
Bradley, 2002 ²²	Age, sex, marital status, education, race/ethnicity, occupation Psychosocial factors: social environment Available social network and caregiver support	Personal social and cultural circumstances influencing access Demand: A patient's personal circumstances or social context that might shape their choice or ability to access services
Cox, 2017 ⁶³	Predisposing factors: Minority status, sexual orientation	
Cunill-Grau, 2018 ³⁴	Adaptability: Are intervention plans adapted to the user's age, sex, belonging to the original people or being a migrant	
Guo, 2006 ⁴³	Culture influenced health beliefs and behaviours	
Halkitis, 2015 ⁴²	Macro-level factors: Neighbourhood sociodemographic characteristics	
Long, 2016 ³⁵	Habitus shaping elders' interactions with medical services and families regarding care	
McMaughan, 2020 ²⁸	Socioeconomic status (wealth: reduced likelihood of health disparities)	
Masui, 2019 ³²	Age, family circumstances	
Martin, 2016 ⁴⁴	Impact of previous marginalisation in access to services	
Suurmond, 2016 ³⁰	Barriers to perceived need: expectations of family care	
Tan, 2019 ⁴⁰	Socioeconomic status (education; employment) Presence or absence of family support, neighbours and friends; domestic help	
Travers, 2020 ⁶⁸	Enabling factors: Availability of support Psychosocial factors: social norms	
Weech Maldonado 2014 ⁴⁹	Race/ minority status; being born in a country (accept screening services) vs being a migrant	
Cunill-Grau, 2018 ³⁴	Accessibility: preferences based on proximity	
Doetsch, 2017 ²³	Availability (includes mobility, transportation) Hospitals not patient centred but disease centred built: access deficient for elderly with co-morbidities	
Estrada, 2018 ²⁴	Neighbourhood-based locations and providers	
Guo, 2006 ⁴³	Infrastructure resource limitation for transport	
Halkitis, 2015 ⁴²	Meso-level factors: Social context and involvement in community organisations as access points for health services among minority groups	
Kurpas, 2018 ⁵¹	Availability and Accommodation (ability to reach services in a timely fashion); Ability to use services	
Reddy, 2019 ³⁶	Accessibility: proximity in terms of time and distance Accommodation: Clinic operations are organised such that patients can utilise services easily; services are easy and convenient to obtain and use	
Sommerfeld, 2019 ⁴⁵	Accessibility and Transportation barriers	
Tan, 2019 ⁴⁰	Location of services: Walkability and efficient public transport	
Tang, 2017 ⁴⁸	Spatial dimension (congestion and distance)	
Weech Maldonado, 2014 ⁴⁹	Proximity of good-quality services	
Woodward, 2019 ⁵⁰	Patient factors: transportation barriers; rural vs urban location	

two or more chronic conditions⁵⁴ is certainly known to be both more prevalent in elderly populations than other age groups,^{54–57} and also to be increasing.⁵⁸ The combination of mental and physical comorbidities is also known to reduce the likelihood of accessing relevant healthcare,⁵⁷ which therefore has yet further equity implications for this group. Multimorbidity is therefore an element in a number of our factors such as awareness, capacity to make decisions, need, personal economic, social and cultural circumstances influencing access, and physical accessibility. Some factors apply equally to older as to other age groups, such as need and personal economic, social and cultural circumstances,⁵⁹ but worldwide the majority of older people are female, which raises particular issues for healthcare seeking and access.⁶⁰ Multiple vulnerabilities can arise from the complex interaction between the sociopolitical, economic, structural, cultural

and interpersonal circumstances and older people are more exposed to these than other age groups.

What emerges is a lack of a more sophisticated understanding and acknowledgement of the dimensions of difference in older people's experience of services: frameworks can homogenise older people into one group thereby omitting clear differences in healthcare needs within this group, based on factors such as age, comorbidities, minority status, financial and familial resources. Previous recommendations for monitoring equity of UHC suggest a need to apply metrics to subgroups, based on factors such as residence (urban/rural), gender or economic status, and age.⁶¹ This review suggests that older people also cannot simply be treated as a homogeneous subgroup: intersectionality applies; the equity or inequity of a system is determined by multiple factors and the interactions between them. For

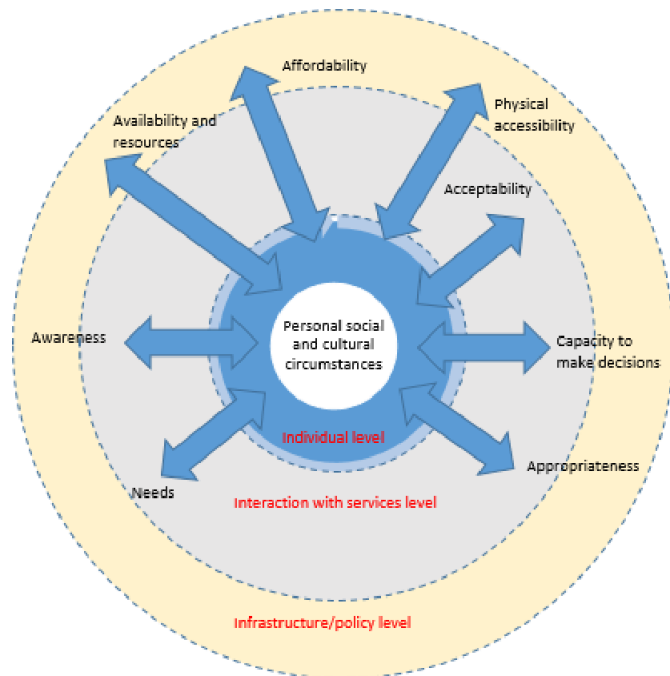


Figure 2 Conceptual model of relationships between summarised higher-order concepts relating to access to health services.

example, our framework and model highlights factors such as discrimination, based on minority status and capacity, and need based on individual physical, cultural and financial circumstances. Factors such as these that might apply to one older person, might not apply to another, with different implications for equity of access. The framework and model presents ideas for targeting older people, an approach which is commensurate with the idea of ‘progressive universalism’⁶² and is in line with current policy movements, such as around the creation of a United Nations Convention on the Rights of Older Persons. When seeking to measure equity in UHC, policy-makers need to take into account metrics that consider not just older people as a group, but subgroups of older people based on personal social, cultural and economic circumstances, for example, those with local health and social care services or available means of accessing them, compared with those who lack such means or must travel further (and this might not be a simple rural/urban division). These metrics need to be developed within indicator frameworks—published frameworks guiding what should be measured—at a national level.

Strengths of the review

A major strength of this scoping review is its comprehensive literature search strategy and robust conduct: the study selection, double-checking of all full text inclusions/exclusions, and data extraction and charting by two experienced reviewers. The summary of findings provides a rich analysis of interacting factors within frameworks, rather than a linear list of relevant frameworks or models. Also, this is a review of the global literature, so its findings may have limited generalisability to individual countries.

Limitations of the review

It is possible that some relevant studies were missed, despite the extensive use of complementary search techniques. And the selection of the primary studies based on the potential richness of their conceptualisation might be considered arbitrary. However, the number of studies supporting each concept suggests that a degree of conceptual saturation has been achieved. The addition of yet more studies is unlikely to add much to the overall findings.

CONCLUSION

This is the first review to the authors’ knowledge to explore the published conceptual literature explicitly on older people, equity and health and social care service coverage, and consider its implications in the current policy context. A key feature of the factors influencing older people’s equitable access to services is the complexity and diversity of the intersection of personal factors surrounding individual identity, healthcare need and socioeconomic circumstances. The access needs of an older person can be highly individual. The United Nations has recently highlighted the specific issues affecting older people with its proposal for a Convention of Human Rights for Older people, and the need for policy that strengthens healthcare and social protection systems, and improves access to care and support, including long-term care. This review’s framework has relevance to the development and specification of policy for older people because it conceptualises exactly those factors that affect equity of access to person-centred, integrated healthcare and social care services for older people.

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ORCID iD

Christopher Carroll <http://orcid.org/0000-0002-6361-6182>

REFERENCES

- Dixon-Woods M, Cavers D, Agarwal S, *et al.* Conducting a critical interpretive synthesis of the literature on access to healthcare by vulnerable groups. *BMC Med Res Methodol* 2006;6:35.
- Braveman PA. Monitoring equity in health and healthcare: a conceptual framework. *J Health Popul Nutr* 2003;21:181–92.
- Paul E, Deville C, Bodson O, *et al.* How is equity approached in universal health coverage? an analysis of global and country policy documents in Benin and Senegal. *Int J Equity Health* 2019;18:195.
- Pearson M. *Allocating public resources for health*. London: Developing Pro-Poor Approaches, 2002.
- Goddard M, Smith P. Equity of access to health care services: theory and evidence from the UK. *Soc Sci Med* 2001;53:1149–62.
- Rodin J, de Ferranti D. Universal health coverage: the third global health transition? *The Lancet* 2012;380:861–2.
- Frenz P, Delgado Becerra I, Villanueva Pabón L, *et al.* [Universal health coverage assessment based on national socioeconomic characterization surveys]. *Rev Med Chil* 2013;141:1095–106.
- Frenz P, Vega J. Universal health coverage with equity: what we know, don't know and need to know. *Background Paper for the Global Symposium on Health Systems Research, 16–19 November 2010 - Montreux, Switzerland: HSR Symposium*. 2010.
- Penchansky R, Thomas JW. The concept of access: definition and relationship to consumer satisfaction. *Med Care* 1981;19:127–40.
- Shengelia B, Murray C, Adams O. Beyond access and utilization: defining and measuring health system coverage. In: Murray C, Evans D, eds. *Health systems performance assessment debates, methods and empiricism*. Geneva: WHO, 2003: 221–34.
- Rodney AM, Hill PS. Achieving equity within universal health coverage: a narrative review of progress and resources for measuring success. *Int J Equity Health* 2014;13:72.
- Culyer AJ, Wagstaff A. Equity and equality in health and health care. *J Health Econ* 1993;12:431–57.
- Salway SM, Payne N, Rimmer M, *et al.* Identifying inequitable healthcare in older people: systematic review of current research practice. *Int J Equity Health* 2017;16:1–10.
- Booth A, Carroll C. Systematic searching for theory to inform systematic reviews: is it feasible? is it desirable? *Health Info Libr J* 2015;32:220–35.
- Roddam H, Rog D, Janssen J, *et al.* Inequalities in access to health and social care among adults with multiple sclerosis: a scoping review of the literature. *Mult Scler Relat Disord* 2019;28:290–304.
- Levesque J-F, Harris MF, Russell G. Patient-Centred access to health care: conceptualising access at the interface of health systems and populations. *Int J Equity Health* 2013;12:18.
- Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol* 2005;8:19–32.
- Carroll C, Booth A, Sworn K. Protocol: Scoping review of equity in the health needs and service coverage of older people. secondary protocol: Scoping review of equity in the health needs and service coverage of older people 2020.
- Ames H, Glenton C, Lewin S. Purposive sampling in a qualitative evidence synthesis: a worked example from a synthesis on parental perceptions of vaccination communication. *BMC Med Res Methodol* 2019;19:26.
- Maden M. *Incorporating considerations of socio-economic health inequalities in evidence synthesis*. Liverpool, 2019.
- Shemilt I, Simon A, Hollands GJ, *et al.* Pinpointing needles in giant haystacks: use of text mining to reduce impractical screening workload in extremely large scoping reviews. *Res Synth Methods* 2014;5:31–49.
- Bradley EH, McGraw SA, Curry L, *et al.* Expanding the Andersen model: the role of psychosocial factors in long-term care use. *Health Serv Res* 2002;37:1221–42.
- Doetsch J, Pilot E, Santana P, *et al.* Potential barriers in healthcare access of the elderly population influenced by the economic crisis and the troika agreement: a qualitative case study in Lisbon, Portugal. *Int J Equity Health* 2017;16:1–17.
- Estrada I, Kunzel C, Schrimshaw EV, *et al.* "Seniors only want respect": designing an oral health program for older adults. *Spec Care Dentist* 2018;38:3–12.
- Pham MT, Rajić A, Greig JD, *et al.* A scoping review of scoping reviews: advancing the approach and enhancing the consistency. *Res Synth Methods* 2014;5:371–85.
- Peterson J, Pearce PF, Ferguson LA, *et al.* Understanding scoping reviews: definition, purpose, and process. *J Am Assoc Nurse Pract* 2017;29:12–16.
- Condelius A, Andersson M. Exploring access to care among older people in the last phase of life using the behavioural model of health services use: a qualitative study from the perspective of the next of kin of older persons who had died in a nursing home. *BMC Geriatr* 2015;15:138.
- McMaughan DJ, Olorunfoba O, Smith ML. Socioeconomic status and access to healthcare: interrelated drivers for healthy aging. *Front Public Health* 2020;8:231.
- Northridge ME, Metcalf SS, Birenz SS, *et al.* The impact of Medicaid expansion on oral health equity for older adults: a systems perspective. *J Calif Dent Assoc* 2015;43:369–77.
- Suurmond J, Rosenmöller DL, El Mesbahi H, *et al.* Barriers in access to home care services among ethnic minority and Dutch elderly—a qualitative study. *Int J Nurs Stud* 2016;54:23–35.
- Liu X, Wong H. The reform of the medical welfare system and health equity for the elderly in China: a study in Zhejiang. *J. Chin. Sociol.* 2016;3:6.
- Masui H, Otaga M, Yoko M. Current issues in long-term care policy and research: toward the promotion of evidence-based policy. *J Nat Inst Public Health* 2019;68:34–44.
- Murata C, Kondo K. Medical access and health inequalities. *Japan Public Health Magazine* 2011;58:463–7.
- Cunill-Grau N, Leyton C. Una nueva mirada al enfoque de derechos. Aportes al debate a partir de Los servicios de cuidado para personas mayores en Chile. *Revista latinoamericana de derecho social* 2018;27:23–57.
- Long Y, Li LW. "How Would We Deserve Better?" Rural-Urban Dichotomy in Health Seeking for the Chronically Ill Elderly in China. *Qual Health Res* 2016;26:1689–704.
- Reddy R, Welch D, Lima I, *et al.* Identifying hearing care access barriers among older Pacific island people in New Zealand: a qualitative study. *BMJ Open* 2019;9:6.
- Najem J, Lam Wai Shun P, Laliberté M, *et al.* Assessing rehabilitation eligibility of older patients: an ethical analysis of the impact of bias. *Kennedy Inst Ethics J* 2018;28:49–84.
- Andersen RM. Revisiting the behavioral model and access to medical care: does it matter? *J Health Soc Behav* 1995;36:1–10.
- Caceres BA, Frank MO. Successful ageing in lesbian, gay and bisexual older people: a concept analysis. *Int J Older People Nurs* 2016;11:184–93.
- Tan ST, Quek RYC, Haldane V, *et al.* The social determinants of chronic disease management: perspectives of elderly patients with hypertension from low socio-economic background in Singapore. *Int J Equity Health* 2019;18:14.
- CH-k C, Arat G, Chan K. Growing old as a member of an ethnic minority in Hong Kong: implications for an inclusive long-term care policy framework. *J Applied Gerontol* 2020;39:463–71.
- Halkitis PN, Kapadia F, Ompad DC, *et al.* Moving toward a holistic conceptual framework for understanding healthy aging among gay men. *J Homosex* 2015;62:571–87.
- Guo G, Phillips L. Key informants' perceptions of health care for elders at the U.S.-Mexico border. *Public Health Nurs* 2006;23:224–33.
- Martin JL. *Organizational strategies for addressing disparities among marginalized older adults*. 76. Dissertation Abstracts International Section A: Humanities and Social Sciences, 2016.
- Sommerfeld DH, Jaramillo ET, Lujan E. Health care access and utilization for American Indian elders: a Concept-Mapping study. *J Gerontol Series B, Psychol Sci Soc Sci* 2019.
- Willging CE, Sommerfeld DH, Jaramillo ET, *et al.* "Improving Native American elder access to and use of health care through effective health system navigation". *BMC Health Serv Res* 2018;18:464.
- Mackenzie M, Conway E, Hastings A, *et al.* Is 'Candidacy' a Useful Concept for Understanding Journeys through Public Services? A Critical Interpretive Literature Synthesis. *Soc Policy Adm* 2013;47:806–25.



- 48 Tang J-H, Chiu Y-H, Chiang P-H, *et al.* A flow-based statistical model integrating spatial and nonspatial dimensions to measure healthcare access. *Health Place* 2017;47:126–38.
- 49 Weech-Maldonado R, Pradhan R, Powell MP. *Medicare and health care utilization. Handbook of minority aging.* New York, NY, US: Springer Publishing Co, 2014: 539–56.
- 50 Woodward EN, Matthieu MM, Uchendu US, *et al.* The health equity implementation framework: proposal and preliminary study of hepatitis C virus treatment. *Implement Sci* 2019;14:26.
- 51 Kurpas D, Gwyther H, Szwamel K, *et al.* Patient-Centred access to health care: a framework analysis of the care interface for frail older adults. *BMC Geriatr* 2018;18:1–17.
- 52 Richard L, Furler J, Densley K, *et al.* Equity of access to primary healthcare for vulnerable populations: the impact international online survey of innovations. *Int J Equity Health* 2016;15:64.
- 53 Greenhalgh T, Robert G, Macfarlane F, *et al.* Diffusion of innovations in service organizations: systematic review and recommendations. *Milbank Q* 2004;82:581–629.
- 54 Guisado-Clavero M, Roso-Llorach A, López-Jimenez T, *et al.* Multimorbidity patterns in the elderly: a prospective cohort study with cluster analysis. *BMC Geriatr* 2018;18:16.
- 55 Gontijo Guerra S, Berbiche D, Vasiliadis H-M. Measuring multimorbidity in older adults: comparing different data sources. *BMC Geriatr* 2019;19:166.
- 56 Zhang R, Lu Y, Shi L, *et al.* Prevalence and patterns of multimorbidity among the elderly in China: a cross-sectional study using national survey data. *BMJ Open* 2019;9:e024268.
- 57 Garg R, Shen C, Sambamoorthi N, *et al.* Type of multimorbidity and propensity to seek care among elderly Medicare. *J Health Dispar Res Pract* 2017;10:34–51.
- 58 Kingston A, Robinson L, Booth H, *et al.* Projections of multimorbidity in the older population in England to 2035: estimates from the population ageing and care simulation (PACSim) model. *Age Ageing* 2018;47:374–80.
- 59 Wilson SL, Kratzke C, Hoxmeier J. Predictors of access to healthcare: what matters to rural Appalachians? *Glob J Health Sci* 2012;4:23–35.
- 60 UN iLibrary. *World Population Ageing 2017 - Highlights (ST/ESA/SER.A/397).* Department of Economic and Social Affairs, Population Division, 2018.
- 61 Hosseinpoor AR, Bergen N, Koller T, *et al.* Equity-oriented monitoring in the context of universal health coverage. *PLoS Med* 2014;11:e1001727.
- 62 Gwatkin DR, Ergo A. Universal health coverage: friend or foe of health equity? *Lancet* 2011;377:2160–1.
- 63 Cox LE, Brennan-Ing M, Medical B-IM. Medical, social and supportive services for older adults with HIV. *Interdiscip Top Gerontol Geriatr* 2017;42:204–21.
- 64 Heislitz C, *et al.* The target efficiency of care-Models and analyses. Care-related quality of life in old age: Concepts, models, and empirical findings. In: Harley D, Teaser P, eds. *Handbook of LGBT elders an interdisciplinary approach to principles, practices and policies.* New York: Springer Science and Business Media, 2008: 234–54.
- 65 Michael J. Diversity conceptual model for aged care: person-centred and difference-oriented and connective with a focus on benefit, disadvantage and equity. *Australas J Ageing* 2016;35:210–5.
- 66 Ogrin R, Meyer C, Appannah A, *et al.* The inter-relationship of diversity principles for the enhanced participation of older people in their care: a qualitative study. *Int J Equity Health* 2020;19:1–13.
- 67 Tesch-Römer C, Wahl H-W. Toward a more comprehensive concept of successful aging: disability and care needs. *J Gerontol B Psychol Sci Soc Sci* 2017;72:310–8.
- 68 Travers JL, Hirschman KB, Naylor MD. Adapting Andersen's expanded behavioral model of health services use to include older adults receiving long-term services and supports. *BMC Geriatr* 2020;20:16.