

University of Dundee

Age-Friendly Ecosystems for Community Participation

Sixsmith, Judith; Menezes, Deborah; Cranwell, Marianne; Chau, Isaac; Smith, Mark; Levy, Susan

DOI:
[10.20933/100001217](https://doi.org/10.20933/100001217)

Publication date:
2021

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Discovery Research Portal](#)

Citation for published version (APA):
Sixsmith, J., Menezes, D., Cranwell, M., Chau, I., Smith, M., Levy, S., Scrutton, P., & Fang, M. L. (2021). *Age-Friendly Ecosystems for Community Participation: A Rapid Realist Review*. University of Dundee.
<https://doi.org/10.20933/100001217>

General rights

Copyright and moral rights for the publications made accessible in Discovery Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from Discovery Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.



Age-Friendly Ecosystems for Community Participation: A Rapid Realist Review

Authors:

Prof Judith Sixsmith¹, Project Lead, Lead for the People, Health and Communities research group and Co-Director of the Institute for Social Science Research (ISSR).

Dr Deborah Menezes, Project Lead Researcher, Researcher.

Ms Marianne Cranwell², Project Researcher, PhD Student.

Mr Isaac Chau¹, Project Researcher, Student.

Prof Mark Smith², Project Co-lead, Co-Director of the Institute for Social Science Research (ISSR)

Dr Susan Levy², Project Co-lead, Senior Lecturer.

Mrs Pat Scrutton, Project Partner, Director of the Intergenerational National Network, Scotland.

Dr Mei Lan Fang¹, Project Co-lead, Lecturer and Senior Research Scholar, STAR Institute, SFU

(School of Health¹ Sciences and the School of Education and Social Work²)

School of Health Sciences
School of Education and Social Work
University of Dundee



**University
of Dundee**

This project expands on the Intergenerational and Age-Friendly Living Ecosystem (AFLE) initiative led by Sixsmith, Fang and Hamilton-Pryde. The AFLE project, funded by the Scottish Universities Insight Institute, highlighted a need for clear definitions, context and guidelines for implementing an ecosystem approach to age-friendly design. In the current study, a Rapid Realist Review (RRR) was conducted to systematically search and synthesise existing knowledge on the application of ecosystem approaches in practice. Key recommendations from the RRR include:

- **Interconnectedness:** working across sectoral boundaries, to promote community participation of older people.
- **Inclusive Place-Making:** making diversity visible and valued amongst older people.
- **Ageism:** challenge ageist narratives at policy, community and individual level.
- **Evaluation of Ecosystem Performance:** develop success indicators for evaluation.

*Sixsmith, J., Fang, M-L. and Hamilton-Pryde, A. (2021) The Intergenerational and Age-Friendly Living Ecosystem (AFLE) final report. 2020. Available from the authors.

Acknowledgements to:

The authors want to thank the consultation participants for their generosity in sharing their ideas about this project, its findings and their own experiences of ecosystems and of older people's community participation.



**University
of Dundee**

CONTENTS

INTRODUCTION	04
METHODS	06
FINDINGS	08
CONSULTATION EVENT	17
RECOMMENDATIONS	22
REFERENCES	24

Navigate through the document using
the links at the top of the following pages.



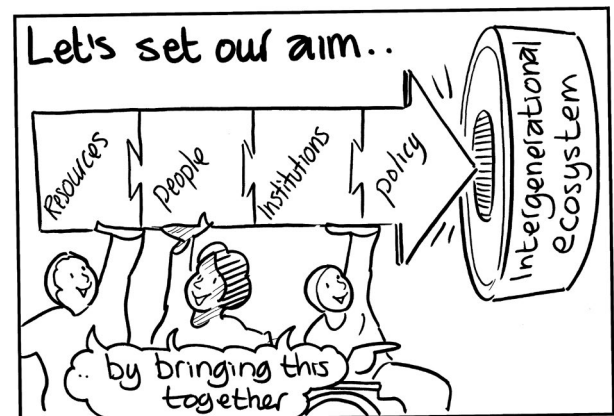
INTRODUCTION

The global shift towards ageing societies is a well-recognised phenomenon, largely due to trends in fertility^{1,p9} and increased longevity due to improved healthcare and sanitary conditions². As of 2019, there were 703 million people aged over 65 years old worldwide, constituting 9% of the world population (1 in 11 people) and projected to double by 2050 to 1.5 billion³, an increase to 1 in 6 people globally. In the UK, of a total population of 66.4 million in 2019, 18.5% are considered as older people (age 65 plus) and it is this population which is growing at the fastest rate compared to other UK population groups⁴. Reflecting the baby boomer generation now reaching older ages, by 2041 it is projected that 19.8 million (1 in 4 people) will be aged 65+, accounting for 26.2% of the total UK population.⁴

This increase in population ageing requires careful consideration of how best to ensure that older people can live well for as long as possible in their own homes and communities. While the majority of people aged 65 and older in the UK are considered as fit and well, health declines as people age meaning that the cost of health and social care will increase. This has prompted a search for effective ways to maintain and improve health and wellbeing as people age. To avoid the generation of old-age specific silos, an intergenerational approach is required which provides opportunities for interaction, engagement and support and which go beyond a focus on the problematization of older people in health and social care terms⁵. As Kaplan, Sanchez and Hoffman⁶ argue, strong intergenerational relationships are not only at the root of healthy and productive aging; they are also an important component of sustainable and liveable societies. This suggests constructing social, physical and technological/digital intergenerational spaces and places that not only accommodate older people, but that

703 million people are aged over 65 worldwide (2019)

By 2041 it is projected that 19.8 million (1 in 4 people) will be aged 65+, 26.2% of the total UK population



To avoid the generation of old-age specific silos, an intergenerational approach is required

welcome them as an integral part of everyday community life. To this end, and to address the need to promote older people’s health, wellbeing and social participation, it is argued that services and interventions need to be community based (rather than entirely health and social care focused), age-friendly, and integrated within community and service-oriented assets, resources, and social and cultural structures⁷.

Building on the age-friendly cities and communities agenda^{8,9} and in line with the United Nations Sustainable Development Goals³ (to ensure good health and wellbeing for all) and ¹¹ (to make cities inclusive, safe, resilient and sustainable),¹⁰ the notion of age-friendly ecosystems has been proposed, to ensure that older people are integrated into the matrix of opportunities afforded in their communities and can benefit from participation in national and international, ageing initiatives for living well in later life¹¹. The current project explores the existing literature to identify how age-friendly ecosystems have developed or emerged, and what supports the effective community participation of older people for improved health and wellbeing.

Consequently, a Realist Review¹² was undertaken to identify the contexts, mechanisms and outcomes of effective community integration of older people in systems (or networks) of interlinked provision. Conducted over a 5 month period, this rapid realist review (RRR) was underpinned by Bronfenbrenner’s^{13,14} notion of socio-ecosystems in which the individual person, their relationships, local communities, and organisations (health and social care, voluntary and community organisations, leisure, retail and private and public businesses) together provide inter-related contexts for ageing in place.



Older people need to be integrated into the matrix of opportunities afforded in their communities .



METHODS

In the current project the Rapid Realist Review^{12, 15}. (RRR) methodology allowed the research team to swiftly identify and synthesise literature relevant to the review question. The RRR involved an academic and grey literature review process together with a stakeholder consultation to ground the literature review findings in policy and practice contexts, ensuring that the work produces useful knowledge for time-sensitive, emergent issues.¹⁵ The review question was: How can age-friendly ecosystems support the community participation of older adults?

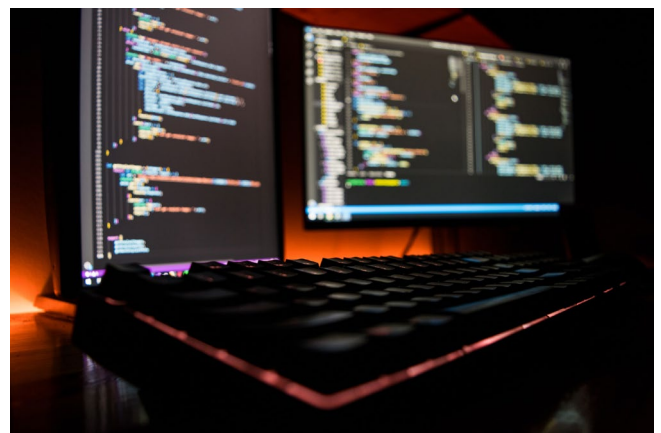
Search Strategy: This was based on 3 key concepts: 'older people', 'ecosystems' and 'community participation'. Search terms were derived from these concepts and modifications were made as necessary using: Index terms, Boolean operators (AND/OR) and truncations (e.g. old*).

Literature sources: 11 databases were searched reflecting gerontological, social science, health and social care knowledge: Ageline, ASSIA, Cinahl+, Google Scholar, Scopus, Social Care Online, PsycINFO, Open grey, Cochrane reviews, Web of Science.

Eligibility Criteria: Inclusion criteria used in the screening and review process were: English language; recency, published in the past 10 years; involve all three concepts (older adults, ecosystem and community participation) as main themes; any study design, opinion of previous literature review. Exclusion criteria were: Non-English language, published prior to 2011, and those that did not include all three key review concepts.

Screening and selection: 2823 records were identified after de-duplication and initially screened by abstract and title, 126 retrieved and a full text screening performed resulting in 14 selected sources (designated * in references section) in the final pool included after full text

Our search strategy was based on 3 key concepts: 'older people', 'ecosystems' and 'community participation'.



review (see PRISMA Flow diagram appendix 2). Secondary blind screening verified search integrity; discrepancies were agreed via discussion.

Data Extraction, Charting and Analysis: A data extraction chart was designed and piloted for this study to capture standard methodological and study characteristics, plus review-specific sections on context, mechanisms and outcomes in line with RRR methodology and our review question. Secondary charting was completed independently to verify the accuracy of the data. Charted data was analysed using descriptive statistics and thematic analysis¹⁶ was used with qualitative data to generate potential themes. These were discussed by the research team to ensure consistency of inferences/interpretation.

Stakeholder event: The final themes were used to develop discussion topics for a virtual stakeholder event. The event began with a presentation of project aims and findings, followed by discussion of the value and potential of the ecosystem approach in policy and practice contexts and examples of existing useful ecosystems.

Toolkit evaluation: A search of publicly available (via google) toolkits of relevance to ecosystems to support older people's community participation was undertaken. Three toolkits were identified and evaluated via the application of questions derived from the RRR findings.

We worked with older people, professionals, practitioners and policy makers in our consultation event



FINDINGS

Between 2012 and 2020 selected studies took place in Brazil,^{17,18} Canada,¹⁹ Iran,²⁰ Ireland,²¹ Korea,²² Netherlands,²³ Portugal,²⁴ UK,²⁵ and the USA.^{26,27,28,29,30} All were peer reviewed articles with one editorial commentary.³⁰

3.1 Context

3.1.1 What is an ecosystem and how does it function?

Drawn from selected sources, ecosystems were variously described in terms of a model, framework or approach^{20,24,27,28} to guide research: The Portland and Multnomah County age-friendly initiatives are useful for exploring the relationship between the World Health Organization's (WHO) age-friendly framework and the application of the ecological perspective to research and action related to a set of age-friendly initiatives co-ordinated by the initiatives' Advisory Council^{28 p130-131} or as intervention: 'The AAL4ALL project has developed a conceptual architecture to support an ecosystem of integrated (collaborative) care and assistance services. The architecture follows a holistic sociotechnical approach, which is reflected in the ecosystem notion'.^{24 p19} In general, the most common definitions of ecosystem were in terms of frameworks or approaches, usually based on Bronfenbrenners' work,^{13,14} or with reference to Lawton and Nahemow's Ecology Theory of Aging.³¹ Ecosystems were defined in terms of the actors, organisations, environments and interconnects between them. Diverse agents were identified as contributors or actors within ecosystems. Older people as stakeholders themselves, health / care service providers and practitioners, community champions, formal and informal carers, as well as those working within private, voluntary, and community sectors. With the exception of one selected source,²⁶ the population group 'older



Diverse agents were identified as contributors or actors within ecosystems which also necessitate the involvement of local and national governments.



people' or 'older adults' were classed as a single homogenous group, who were considered to be disadvantaged primarily by age. A consideration of diversity amongst older people such as by gender or ethnicity was not evident.

Ecosystems were found within the following environments: Virtual ecosystem (e.g. telecentres in Brazil¹⁸) and Local geographically based ecosystem e.g. pandemic initiatives²⁵ and ecosystems which inhabited both virtual and geographical spaces^{17, 21, 23} Domains of interest for supporting the community participation of older people within the selected sources were: Access to care,^{17,18,21,24} digital inclusion,^{18,23,25} counselling,²⁷ and maintaining social and physical independence^{20,22,23,26,27}

In terms of purpose, ecosystems were seen as mechanisms or interventions designed to eliminate age-related siloes,^{19,25,29} transcending disciplinary and sectoral boundaries in order to provide more holistic solutions to complex problems^{17,18,21,23,24,28,29} and to promote collaborative working across professional, academic and experiential (e.g. older people, carers) groups.^{19,25,28,29,30} Some included sources presented ecosystems as a service-oriented system formed around the person. Service provision-based ecosystems were evident in sources that had Government funded provision and healthcare as key focus.^{17,18, 25,28} Digital organisations were seen as key partners for both communication^{21,24,25,29} and organisation of services, as seen in this definition from Baldissera, Camarinha-Matos and Luis:¹⁷ p8 'Elderly Care Ecosystem represents the system that supports the creation, management, and analysis of virtual organizations to attend customer's needs'.

Four sources^{26,28,29,30} took the view that communities can become motivated to engage in different aspects of age-friendliness, and that this engagement in itself enables

Ecosystems were seen as mechanisms or interventions designed to eliminate age-related siloes



different dimensions of the ecosystem to connect and further support the community.

A key defining feature of ecosystems revolved around the notion of interconnectedness, more specifically health connectivity^{17,21,24} and social connectivity,^{18,19,25} along with the interconnectedness of the two, for example, through the social determinants of health^{20,22} Interconnectedness was presented as a means to achieve more holistic and ecological approaches to conceptualizing communities and environments that facilitates well-being for older populations.^{19,25,29,30} The crucial importance of interconnectedness is echoed in Baldissera, et al's ^{17p1} vision that 'collaborative networks for elderly care suggest the integration of services from multiple providers, encouraging collaboration to provide better personalized services'. Sources emphasised interconnectivity between individuals, groups of people, or between services and organizations, either in a theoretical model or an intervention.^{17,21,22,24,26, 27} For example, Aldwin and Igarashi²⁶ suggests that collective efficacy of the community can augment the adaptive capacity of the individual, therefore, it is recommended that initiatives should start focusing on including families, neighbourhood, umbrella support system was envisaged involving a collaborative environment between various entities such as governmental or non-governmental organizations, formal and informal stakeholders, where services can address the unmet needs of stakeholders, better understand an individual's experience, and promote community participation.^{17,21,22,24,27} However, the integration of leisure, commerce and the business communities were not in evidence as part of the general ecosystem solution to improved health and wellbeing of older people via community participation.

Ecosystems emphasise interconnectivity between individuals, groups of people, or between services and organizations



A key defining feature of ecosystems revolved around the notion of interconnectedness

3.2 Ecosystem Mechanisms: What works well and what prevents effective working?

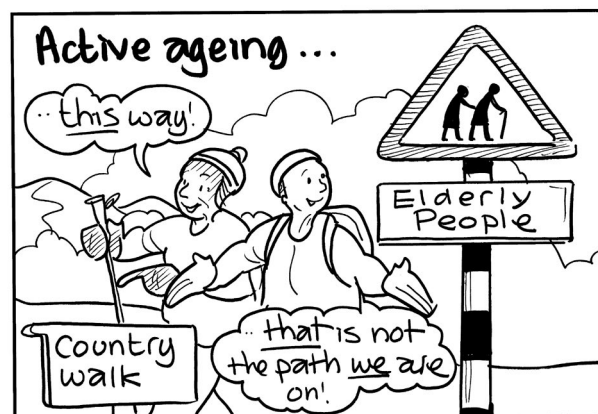
The creation and maintenance of an age friendly ecosystem for the community participation of older people depends on an existing and identified need, authorisation, knowledge, planning, preparation, and design, and virtual and/or place-based resources and attributes.

3.2.1 Existing and Identified need:

There is an existing and identified need to provide support for older people. Needs can arise in relation to a critical event such as the COVID pandemic where Lak et al²⁰ highlight that an ecological approach to promote active ageing is required in which social, (social contact, networks, neighbourliness) civic, financial (affordable housing, services) cultural (events, activities) and spiritual (religious) needs are supported. Bettis et al²⁷ also identify social needs, particularly through family and friends and mental health support through counselling. When considering ecosystem factors associated with successful ageing, Jang²² identifies psychological need for emotional support, and ways to heighten, reinforce and build the self-esteem of older people. Addressing such needs can enhance wellbeing and longevity, although ‘need constellations can differ from person to person.’²⁰

3.2.2 Authorisation, knowledge, planning, preparation, and design:

Forms of authorization required to create and maintain an ecosystem reside at the political, organisational and personal level. Loos et al.²³ discussed the role of political and social movements such as the WHO, AFCC and the UN Sustainable Development Goals in legitimating the notion of ecosystem developments for older people while DeLaTorre and Neal²⁸ identified the importance of governmental



Needs can arise in relation to a critical event such as the COVID pandemic where Lak et al²⁰ highlight that an ecological approach to promote active ageing is required in which social, civic, financial, cultural and spiritual needs are supported.

support and collaboration in this respect. At organisational level, Fulmer et al.²⁹ emphasise certified Age Friendly employers while at a personal level, community champions³⁰ are acknowledged as ‘authoritative’ mechanisms through which ecosystems can be created. According to Baldissera, et al.¹⁷ this involves generating knowledge through scoping out organisations, attending to service compositions, strategies, and solutions, and understanding the care needs of particular populations. Building on knowledge generation, Camarinha-Matos et al.²⁴ highlights conceptualisation of what the ecosystem should be or should include and what supports are needed to create it and keep it functioning. Last, DeLaTorre and Neal²⁸ suggests the development of action plans and associated committees as mechanisms for ecosystem creation.

3.2.3 Virtual and/or place-based resources and attributes:

Authors highlighted the requirement for the availability, accessibility and proximity of place-based resources and attributes, such as open space cleanliness, and safety.^{20,30} Virtual resources were also a major theme that promote community participation across several sources; technology is a major contributor of community participation for example. Camarinha-Matos et al.²⁴ modelled an ambient assisted living framework with the intention of bringing together various care services using a digital system and ICT support infrastructures. Carroll et al.²¹ aimed to unify community healthcare through technological services that is primarily based online. Ferreira et al.¹⁸ p37 ‘illustrate in detail the need of going beyond telecentres to achieve the goal of fostering the digital inclusion of older people in Brazil’. Furthermore, two sources were committed to building upon the World Health Organization’s (WHO) Age-Friendly City initiative using technology and ICT.^{23, 25}

Forms of authorization required to create and maintain an ecosystem reside at the political, organisational and personal level.



Technology is a major contributor of community participation

3.3 Barriers to the success of the ecosystem

At the micro or individual level of analysis, key barriers to ecosystem success were limited knowledge, that hindered older adults in using and accessing potential supports.²⁵ At the meso or interactional/relational level, family and neighbourhood barriers Lak et al^{20 p9} include family's financial problems, a partner with health problems, unrealistic expectations of the person from their friends and families and weak social and economic status of the area: The health and economic environment impacted the way older people accessed the services within their communities. There were three key barriers at the macro or broader organisational level: Political commitment, time and resources and accessibility. Political commitment was lacking at the leadership and policy level.^{29,30} The need to address priority social, community and societal issues was suggested to limit such commitment.³⁰ Time and Resources was mentioned in four sources.^{20,21,28,29} The length of time for policy development and implementation along with the time required for research was seen a challenge in both the creation of and maintenance of the ecosystem. Limited resources to create new community hubs without silo-ing older people was also presented as a barrier,²⁵ and the wider economic situation (at both area and the country level) were seen to play an important role in how far ecosystems can be created and whether they allow for sustainable community participation.²⁰ Finally, accessibility, particularly digital accessibility was identified as a barrier. For example, low level of Internet access in Brazil impedes access to social and civic engagements.¹⁸ Marston et al²⁵ reinforce this point in arguing that access to the digital world alongside limited resources to create new hubs created barriers toward community participation within an ecosystem.

Political commitment is required at leadership and policy level.



3.4 Facilitators of ecosystem success

At a micro or individual level of analysis, three sources mentioned personal motivators as a facilitators of ecosystem success. Ferreira et al.¹⁸ suggest personal motivations included leisure, hobbies, and entertainment while Jang²² argued that older people's perceived control over their health and perceived healthy status enable them to make use of the ecosystem in facilitating their participation within the community. For Lak et al.²⁰ having the capacity of living independently in the community with no and/or little help from others motivates older people to participate fully in the community within an ecological model. Thus, the sources suggest that older people try to 'maintain their health by participating in activities consistent with their objectives, abilities, and opportunities in the community.'²⁰ At the meso or interactional level, three key identified facilitating mechanism were social capital, elimination of system silos, and equity and diversity. In terms of Social Capital,^{20,28} Lak et al.²⁰ concluded that social capital (which includes norms of reciprocity, trust and social interactions and civic participation) were important components that increase active aging in community setting. They suggest that a powerful and supportive social network can enhance the well-being and longevity of older people in society.²⁰ Community champions were also framed as important components of social capital at community level whose involvement and work are essential for the maintenance and advancement of the ecosystem.^{29,30} Elimination of system silos within the ecosystem was another important facilitator of successful ecosystems. According to Fulmer et al.²⁹ 'eliminating silos and ensuring continuity across the care continuum are essential. Coordination of the various sectors, all with the common purpose of creating an age-friendly world, is in our reach.' In terms of equity and diversity, Menec^{19 p111} argues that 'the role of broader age-friendly organizational



Powerful and supportive social networks can enhance the well-being and longevity of older people in society.

coalitions whose focus is not merely on enhancing a specific community should be considered' when seeking to promote community participation for diverse groups of older people.

Finally, at the macro or broader organisational level, three main facilitators of ecosystem were identified: policy and political facilitators, support systems and using guiding frameworks. Policy and political facilitators included political commitments towards ecosystem agendas,²¹ collaborative and holistic approach to service provisions, unifying of digital and non-digital organisations and ensuring a continuity across the care continuum.^{21,22,24,28,29,30} DeLaTorre and Neal²⁸ write that it is important to note the interrelatedness of policies create the connective tissue of neighbourhoods on which social connectivity is built. Support Systems included trained counsellors,²⁷ stakeholder innovation/involvement,²¹ involvement of international and national agencies¹⁹ (WHO, government, regionally organized initiatives) and involvement of academic researchers to assure effective identification of needs but also assessment of outcome.³⁰ Finally, the use of guiding framework to ensure smooth functioning of the ecosystem. Frameworks mentioned were CASE or Ecological System Theory (EST)^{19,30} Additionally, Menec¹⁹ suggested building on an existing model by the WHO, thereby requiring less time and resources at ground level and adaptable to a community's unique social, economic and cultural context.

3.5 Outcomes

While none of the sources presented an evaluation of ecosystems in terms of their outcomes in facilitating the community participation of older people, several 'outcomes' were identified in relation to each of the different definitions of 'ecosystem' (see section 3.1.1 above). As a model, approach or framework, the

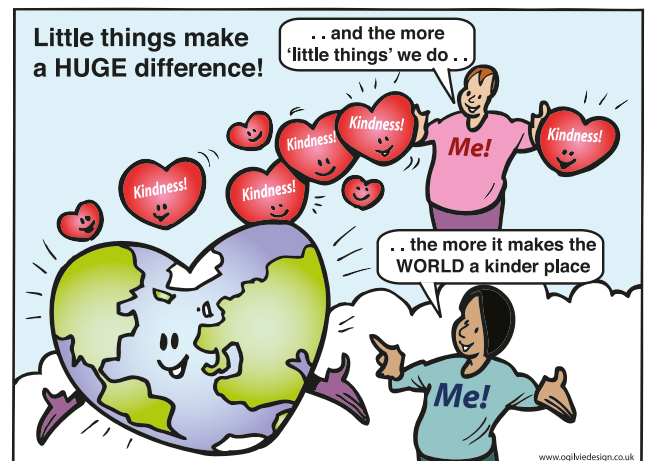
Three main facilitators of ecosystem were identified: policy and political facilitators, support systems and using guiding frameworks



notion of an ecosystems contributed to the development of:

- A community engagement intervention to develop healthy relationships and promote resilience²⁶ as well as facilitate digital engagement. The development of telecentres as one dimension of an ecosystem was useful for improving digital engagement but a broader multidimensional approach involving other ecosystem levels is needed to fully promote digital inclusion.¹⁸
- Active ageing across the life-course.²⁰
- Key factors to assess ‘successful ageing’ among community dwelling older people, organised according to individual, family, and community systems.²²
- Menec¹⁹ found that applying ecological principles enabled communities to become age friendly. DeLaTorre and Neal²⁸ found that ongoing city planning initiatives to ensure that these are age-friendly required more focused macro considerations for age-friendly policy formation. Marston et al.²⁵ found that when an ecological was used to facilitate development of age friendly cities, an increased level of stability in education, support, and employment for older people was evident.
- Politically, to facilitate political commitment and long-term policy planning.^{21,28,29,30}
- At policy level, policy changes encourage the development of social and built environments that facilitate belonging and social engagement across the life course. These are said facilitate development of social capital, thereby impacting community and individual health and wellbeing.^{18,19,20,21,26,28}

Ecosystems contribute to active and successful ageing across the life course



CONSULTATION EVENT

A consultation event on the topic "Supporting Community Participation for Older People: Thinking About Inclusive Togetherness" was held on the 1st of July 2021. The event was attended by 28 participants who represented various community, and health and social care practice stakeholder organisations and policy makers. The event was designed to present our project aims and findings and discuss our review findings in relation to policy and practice issues. Key messages from the event are:

1. There are many grassroots projects, community resilience and initiatives in local communities not documented in academic literature. These have developed even more through responses to need generated by Covid-19. This has opened discussion around issues of equity (access to resources and assets), diversity and inclusion, community responsibility and community-based local democracy. Avoid seeing older people as a homogeneous group and creating places which function across diverse older people and with intergenerational attraction. This requires an emphasis on empowerment, especially highlighting the voices of those who are seldom heard. However, years of disempowerment make change at community level difficult to sustain. and more policy commitment is needed to encourage community empowerment.

2. There is a need to develop more inclusive intersectional and cross-sectional ways of working between professionals, practitioners, and local residents whereby more control and assets are placed in community hands to avoid tokenistic participation.

3. Debate around caring cities and communities would be useful to begin challenging organizational agenda and move towards city and citizen lead perspectives.

A consultation event was held on 'Thinking About Inclusive Togetherness'



Avoid seeing older people as a homogeneous group and creating places which function across diverse older people and with intergenerational attraction



4. Avoid framing all older people as fragile as many are active community participants.

This would avoid development of age siloes and suggests focusing community development on active aging and creating a better society for and with older people to bridge the gap between young and old. There is also a need to counteract the narrative of older people as a drain on finance and make the argument that they are resources and assets in society.

5. Community hubs and people's assemblies (in meaningful numbers) are a way forward but that needs a new community-based narrative which involves communities of interest and regional variations. Political commitment, community commitment and funding is require to forward new initiatives based on new ways of thinking. This requires social movements and networks rather than one-off interventions to counter narratives of older people as a drain on finance.

6. Examples/best practices work in supporting the community participation of older adults: Inclusive coffee morning run by the local church drawing diverse groups together. This works because it is entirely bottom up (e.g older people are helping other older people) and adopt a risk-enabling approach. Citizen-led initiatives can be difficult to start up and sustain.

7. Too many policies segregate people into age groups, rather than beginning from the perspective that we are all individuals with personalities and stories. An example of good practise is the V&A Dundee's (as part of the Dundee International Year of Older People) 'See Me, Hear My Voice' initiative. This is about no longer viewing older people through the lens of demography but seeing faces, hearing their voices, and acknowledging them as people with interests, skills and diverse backgrounds, shifting focus from 'care' to 'community' and 'caring communities'.

8. Solutions need to be local: Smaller communities were felt to be better at creating innovative approaches to older people's community participation. For example, in Kirriemuir, work with the Royal Town Planning Institute has resulted in new traffic calming measures, road crossing, signage and community garden spaces. These benefit the whole community including people of different age groups. However, what works in one area cannot simply be parachuted into another, but we can all learn from each other by sharing stories and experiences. Community champions can help such developments.

6. Ecosystems for older people's community participation: Toolkits and model.

An original aim of the project was to produce a toolkit to be used by communities and organisations in the development and maintenance of an ecosystem for the community participation older people. However, in the process of our review and in our subsequent consultation event we became aware that several useful toolkits were already available. While these toolkits were not directly relevant to ALL aspects concerning building and maintaining ecosystems to enable and encourage the community participation of older people, they offered sufficient overlap. Consequently, we chose to evaluate three relevant free online toolkits which closely mirrored our topic of concern: one on building and maintaining ecosystems and two on enabling the involvement of older people in community, one of which is a toolbox. To evaluate the three toolkits, we created an evaluation tool based on 6 questions developed (see Table 1) on the three key criteria of the review (older people, ecosystems and community participation), and the findings. Key points from our evaluation of the three toolkits are presented below.

Table 1: Toolkit evaluation questions

What is the purpose of this toolkit? What sort of problems is it designed to address?	Would this toolkit work for older people, embracing diversity whilst not excluding other age groups?	How does this toolkit fit with an ecosystem approach? Is it already using an ecosystem, is the interconnectedness of multiple layers evident in other ways?	Does this toolkit support communities or organisations to demonstrate cultural humility or economic appropriateness?	What is missing from this toolkit? What might be useful to expand upon?	What types of organisations or communities might find this toolkit especially useful? Who is this toolkit useful for?
---	--	---	--	---	---

Our conclusions from this evaluation are presented below.

1) CityZen³² (CityZen Ecosystem Toolkit.pdf (multiscreensite.com))

The CityZen toolkit is a collection of 15 maps and instruments that can be used to engage stakeholders, implement and then measure the success of an ecosystem project. Based on a comparative healthcare ecosystem study between the UK and Brazil, the focus is on ‘innovators, cities, academia and industry’ as originators of ecosystems for older people, although the tools here could be applicable to any group of service recipients. The toolkit provides necessary templates to facilitate group discussions and keep a record of each step of ecosystem development. It is difficult to see how this toolkit might work for communities that do not feel empowered, are socially disadvantaged, or have no experience or history of involvement since it is somewhat business focused and written with a relatively complex language structure. Nor is it evident how such an ecosystem might progress beyond the service focus to include other sectors such as leisure, retail or commerce in the ecosystem; to better represent a broad definition of health, care and

wellbeing. Finally, the diversity of older people is not well articulated in this toolkit, instead, older people are treated more as a homogeneous group. The toolkit itself would be most useful to organisations or groups who want to identify pre-existing elements of an existing project from an ecosystem perspective.

2) The Community Toolbox³³ (Toolkits | Community Tool Box (ku.edu))

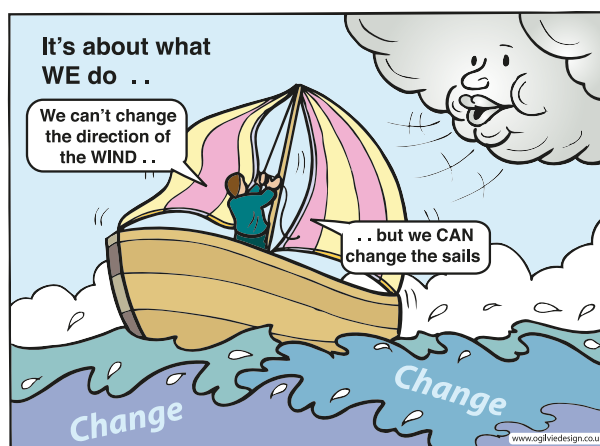
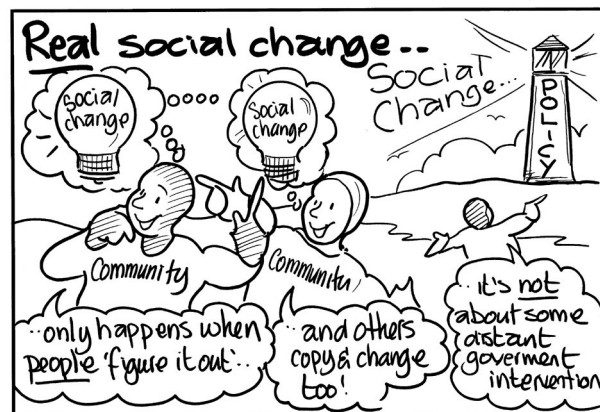
The Community Toolbox (based in the USA) consists of a collection of 16 toolkits which can help to think about, develop and organise activities with the aim of building healthier and connected communities. The focus of each toolkit ranges from ‘Creating and maintaining a coalition or partnership’ and ‘Assessing community needs and resources’ to ‘Developing a framework or model of change’, ‘Developing an Intervention’ and ‘Influencing policy development’. Each of the toolkits outline key tasks, examples, and links to more detailed information and instruction sections. They offer tips and instruments to guide action in communities including community assessment, planning, intervention, evaluation, advocacy and other aspects of community initiatives. The Community Toolbox is available in various

languages (English, Spanish, Arabic, and Farsi) and has been culturally adapted to meet user needs in over 230 countries. Connecting people, ideas, and resources in the communities is its main focus. However, in relation to our review, the tool kits do not engage with older adults specifically though it has elements of representing diversity in the various tips and instruments it offers. Additionally, the interdependence and interconnectedness of different organisations, assets, resources and people which are necessary for ecosystem development is not the focus of this toolbox. Nevertheless, the Community Toolbox is very useful for community groups and organisations who could benefit from learning about and implementing community-building skills, training and teaching community work, developing theories for social change and to generate capacity for community building initiatives, all essential aspects of ecosystem development.

3) Seniors Engagement Toolkit³⁴
(Microsoft Word - CNW_DOCS-#168773-v1-Seniors_Engagement_Toolkit.doc (newwestcity.ca))

Based in Canada, this toolkit provides engagement tools and resources to improve older adults' participation in municipal planning and developmental processes. It ensures that the views of older adults can be addressed and that diverse and changing needs can be responded to. The premise is that seniors are under-represented in municipal planning and developmental processes, and that ageism, life changes, literacy and the use of technology, and age-related changes are not always considered when they are consulted. The underpinning philosophy is that the participation of older adults is linked to an increase in intergenerational relationships within the community level, and an increase in intergenerational activities and interactions

The Community Toolbox is available in various languages and has been culturally adapted to meet user needs in over 230 countries



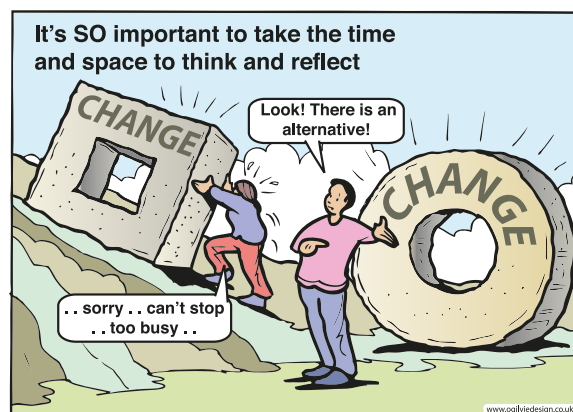
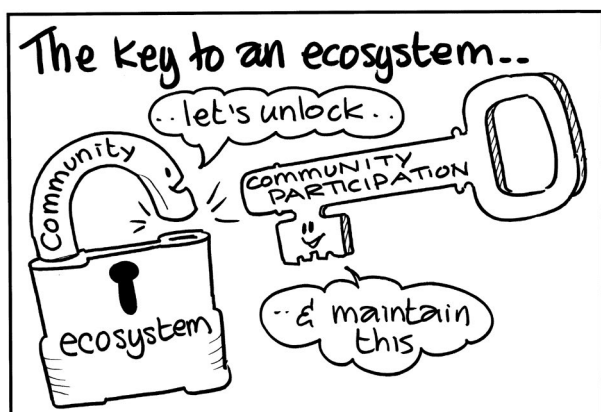
at the individual level. While this toolkit does not specifically use an ecosystem approach, it does focus on a community-based approach and political commitment to promote authentic community engagement via good communication and participation between City Council, staff, and community members to produce better service quality and improved project outcomes. The Seniors Engagement Toolkit promotes cultural humility to improve the inclusion of community expertise, to understand problematic community issues and improve social connectedness and a better sense of well-being at the individual level. The toolkit framework involves three levels of engagement: information, consultation, and active participation. However, it does not address how these relates to each of level of individual, organisational, or community systems. It is only when the toolkit addresses the benefits of older adults' participation, that explanation of how it can be used to impact individual and community level in a positive way is mentioned. This toolkit is useful for educating communities who are aiming to increase older adults' inclusion and engagement where there has been a lack of previous participation. This toolkit is perhaps best aimed at community, political, and organization leaders rather than individual community residents or older adults per se. A need to incorporate cultural sensitivities and an intersectional lens is recommended as an addition to this toolkit if it is to be valuable for the inclusion of diverse older adults.

Seniors are under-represented in municipal planning and developmental processes



RECOMMENDATIONS

- 1. A multi-layered ecosystem approach** is needed to create tailored and interlinked interventions focused on individual, social, and physical components together with policy making processes to properly facilitate healthy, active ageing and promote the development of environments that will lead to increased physical activity and health outcomes.
- 2. Assess community needs of older people** and place these within intersectional and intergenerational perspectives to ensure diverse needs and interests are addressed.
- 3. All ecosystem elements need to interconnect to function harmoniously** together to improve healthy, active aging across diverse people of different ages and within different societal, cultural, and religious contexts. This would require an interplay between environment and individuals in all aspects of community building, including planning, transport, support services, business/commerce and leisure. The role of the virtual environment and digital supports are important to consider here.
- 4. Transcend disciplinary and sectoral boundaries and promoting collaborative working with community organisations and residents.** These could include diverse stakeholders at community level, health and social care practitioners, businesses, the retail and commercial sectors, educators, academics, international and national agencies (e.g. the WHO, national and local government) and local residents to assure effective identification of needs, development of inclusive ecosystems but also assessment of outcome. This will ensure political will and support for community level engagement.
- 5. Ensure that place-making for and with older people is fully considered** as the ecosystem is imagined, created and sustained. At organisational and community levels, attention to the design, functionality and experience of place is key to a thriving ecosystem as seen in the development of community hubs that embrace intergenerational relationships through education, leisure and access to services.
- 6. Focus on equity and diversity.** Not all older people are the same.
- 7. Gain political commitment at leadership and policy level.** This will lead to the necessary investment to allow the creation and maintenance of community-based ecosystems with place-based resources and attributes to support communities sustainably.



8. Develop success indicators for evaluation of ecosystem performance.

9. Social capital including norms of reciprocity and trust and social interactions were important components that affect community participation. Community champions are important components of social capital whose involvement and work is essential for the maintenance and advancement for the ecosystem. The review and the consultation event pointed to older adult champions in communities and local communities as imperative for the success of the ecosystem model particularly to encouraging community participation. Hence more power and resources need to be invested in local champions.

10. Challenge ageist narratives. Whilst ecosystems need to encourage older adults to network, share and connect, key stakeholders have responsibility to eliminate age-related silos, and to utilise the skills, diversity and preferences of older people, as individuals, in their planning and design of services

REFERENCES

1. Office for National Statistics. Living longer - how our population is changing and why it matters [Internet]. 2018, p9 [Accessed 19th Aug 2021]. Available at: <https://backup.ons.gov.uk/wp-content/uploads/sites/3/2018/08/Living-longer-how-our-population-is-changing-and-why-it-matters.pdf>
2. World Health Organisation. Global Health and Aging. [Internet]. 2011 p6. [Accessed 19th Aug 2021]; Available at: https://www.who.int/ageing/publications/global_health.pdf
3. United Nations. World Population Ageing 2019: Highlights. [Internet]. 2019 [Accessed 12th August 2021]. Available at: <https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf>
4. Office for National Statistics. UK Population Estimates. [Internet]. 2021 [Accessed 12th August 2021]. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2020#age-structure-of-the-uk-population>
5. Cushing DF, Vliet W. Intergenerational communities as healthy places for meaningful engagement and interaction. Families, intergenerationality, and peer group relations. *Geographies of children and young people*. 2016;5:1-27.
6. Kaplan M, Sanchez M, Hoffman J. Intergenerational pathways to a sustainable society. Springer International Publishing; 2017.
7. Woolrych R, Sixsmith J, Fisher J, Makita M, Lawthorn R, Murray M. Constructing and negotiating social participation in old age: experiences of older adults living in urban environments in the United Kingdom. *Ageing Soc*. 2021;41(6):1398-420.
8. World Health Organization. Global age-friendly cities: A guide. [Internet]. 2007 [Accessed 20th August 2021]. Available at: https://apps.who.int/iris/bitstream/handle/10665/43755/9789241547307_eng.pdf?sequence=1
9. World Health Organization. The Global Network for Age-Friendly Cities and Communities: Looking Back Over the Last Decade, Looking Forward to the Next. [Internet]. 2018 [Accessed 22nd August 2021]. Available at: [gnafcc-report-2018.pdf](https://www.who.int/gnafcc-report-2018.pdf) (who.int)
10. United Nations. The 17 Goals. [Internet]. No date [Accessed 12th August 2021]. Available at: [THE 17 GOALS | Sustainable Development](https://www.un.org/sustainabledevelopment/) (un.org)
11. Batchelor, M., Fulmer, T. and Berman. Age-Friendly Ecosystems Podcast. [Internet]. 2021 [Accessed 24th August 2021]. Available at: <https://youtu.be/9dEhGsuGdfs> Accessed 23/08/21
12. Pawson R, Greenhalgh T, Harvey G, Walshe K. Realist review-a new method of systematic review designed for complex policy interventions. *Journal of health services research & policy*. 2005;10 (1 suppl):21-34.
13. Bronfenbrenner, U., (1977). Toward an experimental ecology of human development. *American psychologist*, 32(7), p.513-531
14. Bronfenbrenner U. Ecological models of human development. In: 2nd ed. Oxford: Elsevier; 1994.
15. Saul JE, Willis CD, Bitz J, Best A. A time-responsive tool for informing policy making: rapid realist review. *Implement Sci*. 2013;8(1):103.
16. Braun V, Clarke V, Hayfield N, Terry G. Thematic Analysis. In: *Handbook of Research Methods in Health Social Sciences*. Singapore: Springer Singapore; 2019. p. 843-60.
17. * Baldissera TA, Camarinha-Matos LM. SCoPE: Service Composition and Personalization Environment. *Appl Sci (Basel)*. 2018;8(11):2297. <https://doi.org/10.3390/app8112297>
18. * Ferreira SM, Sayago S, Blat J. Going beyond telecenters to foster the digital inclusion of older people in Brazil:

Lessons learned from a rapid ethnographical study. *Inf Technol Dev.* 2016;22(sup1):26–46.

<https://doi.org/10.1080/02681102.2015.1091974>

19. * Menec VH. Conceptualizing social connectivity in the context of age-friendly communities. *J Hous Elderly.* 2017;31(2):99–116. <https://doi.org/10.1080/02763893.2017.1309926>

20. * Lak A, Rashidghalam P, Myint PK, Baradaran HR. Correction to: Comprehensive 5P framework for active aging using the ecological approach: an iterative systematic review. *BMC Public Health.* 2020;20(1):101.

<https://doi.org/10.1186/s12889-019-8136-8>

21. * Carroll N, Kennedy C, Richardson I. Challenges towards a Connected Community Healthcare Ecosystem (CCHE) for managing long-term conditions. *Gerontechnology.* 2016;14(2):64–77.

<https://doi.org/10.4017/gt.2016.14.2.003.00>

22. * Jang HY. Factors associated with successful aging among community-dwelling older adults based on ecological system model. *International journal of environmental research and public health.* 2020;17(9):3220.

<https://doi.org/10.3390/ijerph17093220>

23. * Loos E, Sourbati M, Behrendt F. The role of mobility digital ecosystems for age-friendly urban public transport: A narrative literature review. *Int J Environ Res Public Health [Internet].* 2020;17(20).

<https://doi.org/10.3390/ijerph17207465>

24. * Camarinha-Matos, L. M., Rosas, J., Oliveira, A. I. and Ferrada, F. (2015). Care services ecosystem for ambient assisted living, *Enterprise Information Systems*, 9:5-6, 607-633, <https://doi.org/10.1080/17517575.2013.852693>

25. * Marston HR, Shore L, White PJ. How does a (Smart) Age-friendly ecosystem look in a post-pandemic society? *Int J Environ Res Public Health.* 2020;17(21):8276. <https://doi.org/10.3390/ijerph17218276>

26. * Aldwin C, Igarashi H. Chapter 6 an ecological model of resilience in late life. *Annu Rev Gerontol Geriatr.* 2012;32(1):115–30. <https://doi.org/10.1891/0198-8794.32.115>

27. * Bettis J, Kakkar S, Chan CD. Taking access to the community: An ecological systems framework for in home counseling with older adults. *Adultspan j.* 2020;19(1):54–64.

<https://doi.org/10.1002/adsp.12087>

28. * DeLaTorre A, Neal M, B. Ecological Approaches to an AgeFriendly Portland and Multnomah County. *Journal of Housing For the Elderly.* 2017;31(2):130–145, <https://doi.org/10.1080/02763893.2017.1309931>

29. * Fulmer T, Patel P, Levy N, Mate K, Berman A, Pelton L, et al. Moving toward a global age friendly ecosystem. *J Am Geriatr Soc.* 2020;68(9):1936–40. <https://doi.org/10.1111/jgs.16675>

30. *Wetle T T. Age Friendly Ecosystems: An Aspirational Goal. *Journal of the American Geriatrics Society.* 2020;68(9):1929–1930. <https://doi.org/10.1111/jgs.16676>

31. Lawton, M. P., & Nahemow, L. Ecology and the aging process. In C. Eisdorfer & M. P. Lawton (Eds.), *The psychology of adult development and aging* (pp. 619–674). American Psychological Association; 1973.

<https://doi.org/10.1037/10044-020>

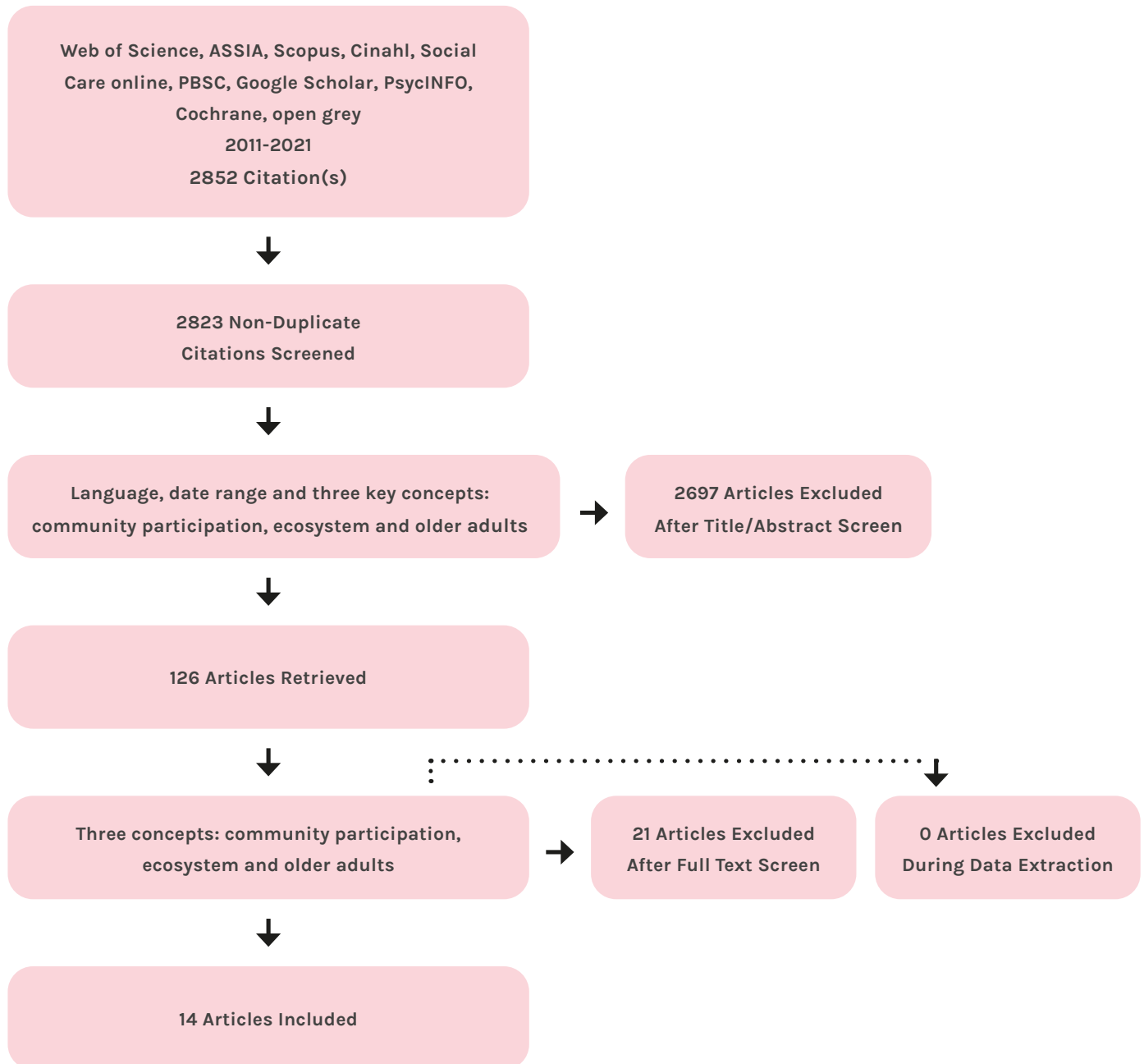
32. CityZen. Innovation Ecosystem Tool Kit. [Internet]. 2020 [Accessed 23rd August 2021]. Available at: [CityZen Ecosystem Toolkit.pdf](#) (multiscreensite.com)

33. University of Kansas Centre for Community Health and Development. The Community Toolbox. [Internet]. 2021 [Accessed 23rd August 2021]. Available at: <https://ctb.ku.edu/en/toolkits>

34. Union of British Columbia Municipalities and New Westminster. Seniors Engagement Toolkit. [Internet]. 2011 [Accessed 23rd August 2021]. Available at:

https://www.newwestcity.ca/database/files/library/SET_Final_Report_May_2_2011.pdf

Appendix 1 : PRISMA flow diagram



Citation

Sixsmith, J., Menezes, D., Cranwell, M., Chau, I., Smith, M., Levy, S., Scrutton, P., and Fang, M-L (2021). Age Friendly Ecosystems for Community Participation: A Rapid Realist Review. Final Report.

University of Dundee, School of health sciences.
DOI: 10.20933/100001217

Funded by

Institute for Social Science Research (ISSR)
University of Dundee

Contact

Prof Judith Sixsmith
j.sixsmith@dundee.ac.uk
School of Health Sciences
University of Dundee
11 Airlie Place
Dundee
DD1 4HJ



**University
of Dundee**

DOI 10.20933/100001217