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A Comparison on Healthy Ageing in the City:Systemic Design Perspectives on Urban Ageing Community Care in Shanghai and Turin

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44

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Ageing for the N(ex)t Ageing
di Matteo Macciò

Il flusso che sta alla base della vita di ciascun individuo: lo scorrere del tempo è identificato da una scia densa, capace di impregnare la mente di chi ne è travolto. L'individuo ha nella propria mente la responsabilità di diventare lo stesso "vecchio futuro" che vive il presente e che – consapevole dello scorrere del tempo – sarà il futuro stesso, intriso di una nota di responsabilità malinconica nei confronti del mondo.

Incontri generazionali

Risale a pochi mesi fa l'annuncio dei Rolling Stones riguardo al nuovo tour nordamericano di 16 date nel 2024 (ma già si prevede un allargamento anche in Europa). La notizia, di per sé, non sembra nulla di eccezionale se si considera che l'ultima tournée della band, il *No Filter Tour*, è iniziata nel settembre 2017 ad Amburgo e si è conclusa solo nel 2021 in Florida per un totale di 59 spettacoli. Se però si guardano le biografie dei componenti del gruppo l'impresa assume un sapore del tutto diverso, con un'età media dei membri storici dei Rolling Stones di 79 anni: il più giovane della band, il chitarrista Ronnie Wood, ne compirà infatti 77 a giugno, mentre Keith Richards e il *frontman* Mick Jagger ne compiranno entrambi 81 nel 2024. Sarà questo il 49° tour di una band che da oltre sessant'anni porta sul palco un'energia e una carica incredibile per degli ottantenni, quasi come se nulla fosse cambiato dai loro esordi nei primi anni '60 quando, poco più che ventenni, cominciano a esibirsi nei club londinesi. Ma a sorprendere, ancora di più che l'annuncio del tour, è stata la notizia che tra gli sponsor principali dell'evento ci sia l'AARP, l'*American Association of Retired Persons*, ossia l'Associazione Americana Pensionati, che supporterà i concerti americani garantendo prevendite anticipate e scontate per gli ultrasessantacinquenni, nonché corsie preferenziali agli ingressi e aree dedicate nei pressi del palco per i primi e più longevi fan del gruppo. Tutto ciò al fine di garantire sicurezza e qualità di fruizione dello spettacolo per un pubblico che vede coinvolte almeno tre generazioni di fan: i padri, i figli e i nipoti – e qualche volta anche i pronipoti – ciascuno con esigenze specifiche.

Quello degli spettacoli trasversali a molte generazioni è un fenomeno che negli ultimi decenni sta caratterizzando le performance di molte star oggi ultrasettantenni come Bob Dylan (82 anni), Eric Clapton (78 anni), David Gilmour (77 anni), Elton John (76 anni) – solo per citarne alcuni – che oggi sono ancora in attività, così come molte band che, sebbene non attive, restano pietre miliari della musica dell'ultimo secolo, come i Beatles – Paul McCartney compirà 82 anni a giugno 2024 – o ancora come i The Who che esordirono nel 1965 con un album, *My Generation*, in cui la celebre frase "I hope I die before I get old" (Spero di morire prima di diventare vecchio) divenne il simbolo di una generazione e di una cultura, quella Mod, in rivolta contro l'ipocrisia e il perbenismo del mondo ma che forse oggi, con oltre sessant'anni di vita sulle spalle, ha deciso che, invece di morire, è meglio continuare a vivere cantando. *Emilio Antoniol*

Stefania Mangini

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Italo Calvino, lettera a Francesco Leonetti, 1953

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N(ex)t Generation

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N(ex)t Generation

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Matteo Macciò

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N(EX)T GENERATION

A cura di **Rosaria Revellini**.
Contributi di **Francesco Airoldi**, **Erminia Attaianese**, **Giulia Azzini**, **Silvia Barbero**, **Antonio Carvalho**, **Cristiana Cellucci**, **Gian Andrea Giacobone**, **Luana Gilio**, **Wen Lu**, **Amina Pereno**, **Mariangela Perillo**, **Alessandro Pollini**, **Stefano Sartorio**, **Giulia Sodano**, **Jingya Zhou**.

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A Comparison on Healthy Ageing in the City



01. Morning exercise for the old adults in Shanghai Wusong Fortress National Wetland Park | Esercizi mattutini per anziani a Shanghai presso il Wusong Fortress National Wetland Park. *Wen Lu, 2024*

Systemic Design Perspectives on Urban Ageing Community Care in Shanghai and Turin



Un confronto sull'invecchiamento in città

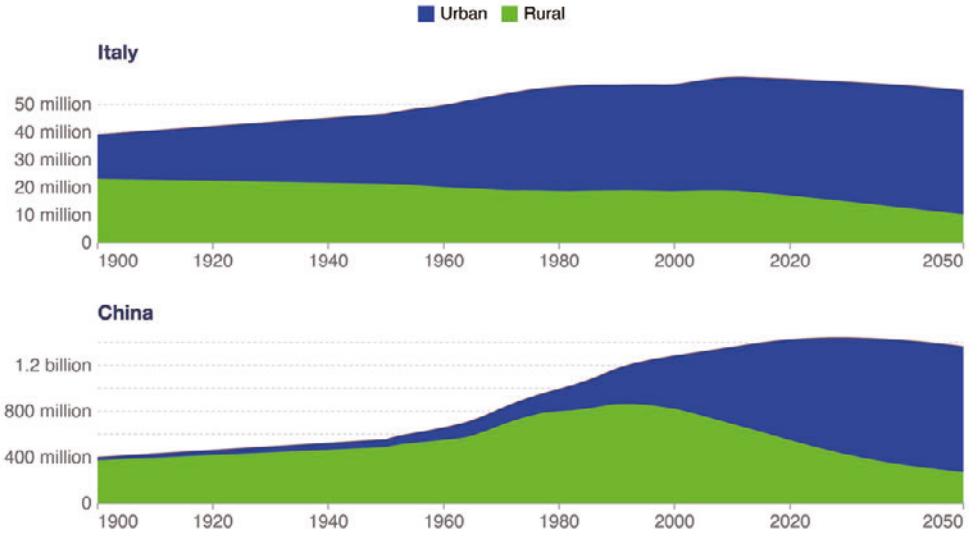
*Entro il 2050, secondo le proiezioni dei dataset attualmente a disposizione, più di due terzi della popolazione mondiale risiederanno in aree urbane. L'incremento delle città ad alta densità, unito all'invecchiamento della popolazione, presenterà una serie di sfide da affrontare. Approfondendo la complessità di questo scenario attraverso l'approccio del Design Sistemico, questo articolo propone un'analisi comparativa, incrociata, dell'assistenza comunitaria agli anziani a Shanghai e a Torino, al fine di individuare le relative sfide e buone pratiche. Dall'analisi emergono opportunità di insegnamento reciproco per entrambe le città.**

By 2050, more than two-thirds of world population will live in urban areas, according to projected data from Our World in Data. Many problems are highlighted by the combination of population ageing and the increase in high-density cities. This paper presents a cross-comparative analysis of community care for older adults in Shanghai and Turin in the context of a systemic design perspective and the policy framework of active ageing to track challenges and good practices in community care more comprehensively. After a thorough analysis both cities have something to learn, and reflect on.*

Introduction

As the population ages and the number of people with non-communicable and chronic diseases continues to grow, health and ageing needs will become more complex, and older adults will have a stronger need for care services and home-based care. The growth of ageing affects the viability of the urban physical environment, including demographics and size, housing needs, transport, public facilities and care facilities. For the dynamic continuity of care for the older adult and the sustainable community care, which comprehensively ensures the provision of healthcare, nursing care, prevention care, housing and livelihood support (Song and Tang, 2019) has emerged, and it is a system providing integrated support and services in the community. They include a variety of both formal and informal actors to maintain the dignity of older adults and support their independence, so that they can continue to live, to the extent possible, in their way in the communities to which they are accustomed to the end of their lives (Japan International Cooperation Agency, 2022).

Based on years of research on the case of Shanghai, this paper comparatively analyses Shanghai and Turin, the third-largest cities in China and Italy, known for their high urban densities. Image 02 depicts urban and rural population projected to 2050, 1900 to 2050 in Italy and China, facilitating predictions of population changes in both cities. Additionally, the demographic similarity is evident in their ageing populations, with **Shanghai at 28.2%** and **Turin at 26.25%** for those over 65, as per the latest statistics. With the world population ageing at an alarming rate, the World Health Organization (WHO) during the United Nations Second World Assembly on Ageing, identified six key determinants of active ageing: economic, behavioural, individual, social, health and social services and physical environment. These factors are valued for promoting the active participation of older adults in socio-economic and public activities, as well as for guiding national policy development and multi-stakeholder action, with the goal of ensuring



02. Urban and rural population projected to 2050, 1900 to 2050 in Italy and China | Popolazione urbana e rurale proiettata al 2050, dal 1900 al 2050 in Italia e in Cina. *Ritchie, H. and Roser, M. (2018) Urban and rural population projected to 2050, Our World in Data*

that "older adults remain a useful resource for their families, their communities and their economies" (World Health Organization, 2020). However, while the framework is designed with older adults in mind and considers the full life cycle of older adults, it neglects environmental, social and environmental sustainability. The five key principles of systemic design were added to provide a more comprehensive evaluations of current healthy ageing interventions in Shanghai and Turin.

Targets

The paper aims to systematically and holistically analyse ageing, healthy ageing projects, community care for older adults, and good practices in ageing in high-density urban areas in Shanghai and Turin. The cross-sectional analysis provides a point of reference for urban planners, policymakers, and collaborators involved in the governance of urban ageing in high and medium-density cities. Concurrently, it underscores the significance of prevention over treatment for older adults and aids in fostering a healthy and active ageing perspective by enhancing community social participation.

The cross-sectional perspective on community care for older adults in Shanghai and Turin

Approach and methods

It is rather the research in the paper that uses a mixed methodology that includes both qualitative and quantitative research, presenting the results of the study through deductive research methods. The qualitative and quantitative research was carried out through data collection and literature research methods in the perspective of systemic design using the principles matrix tool to generalise and cross-sectionally assess the nine key points of the different weights of the two cities in order to comprehensively evaluate the overall perspective of the two territorial systems. The paper analyses the realities of the two cities side by side in order to learn from each other's good practices. There are also limitations to the current study, as the two cities have different political environments and the design of new interventions is only sometimes appropriate.

The evaluation is based on the five key criteria of systemic design and the six key criteria of the WHO policy framework for active ageing, to perform a cross-sectional analysis on demographics, urbanisation processes, ageing policy, community governance, older adult welfare systems, community ageing services, public and private spatial, digital ageing and age-friendly facilities in high-density cities Shanghai and Turin. As shown in image 03, the key criteria for evaluation include systemic design principles, which sets a maximum weighting of three points, and active ageing in the WHO policy framework, which sets a maximum weighting of five points. There is a need to consider the sustainability of new actions across systems paradigm shifts. It is more important for older adults to be more attentive to their own life needs, including healthcare and social services, societal, physical, economic, behavioural and individual environment.

In the early 2000s, a research group at the Department of Architecture and Design in Politecnico di Torino (Italy), in collaboration with ZERI Foundation, started to develop a systemic design approach as a step forward from eco-design to reach blue economy and circular economy (Battistoni, 2019). In 2022, SYS-Systemic Design Lab was founded in Politecnico di Torino in order to formalize the importance of systemic design research in this university and to enforce systemic design as a design discipline that provides practical tools to approach to complex scenarios with holistic perspective, while supporting active cooperation among the involved stakeholders. Systemic design is a next-generation practice developed by the necessity for significantly better social systems, complex services, and to lead systems change. It is strongly based in pragmatism, drawing as it does from many

Key principal		City	Demography of high-density cities	Urbanisation process	Ageing policy	Community governance	Older Adults Welfare System	Community ageing services	Public and private space planning	Digital ageing	Ageing-friendly facilities
Evaluations (Total)		Shanghai 319	34	30	42	42	36	38	36	41	20
		Turin 296	32	33	31	38	32	35	37	22	36
Systemic design principle (Maximum 3 points)	Outputs > inputs (Sustainable development)	SH 16	1	0	3	3	3	2	0	3	1
		TO 23	2	1	3	2	3	3	3	3	3
	Relationships	SH 21	1	1	3	3	3	3	3	3	1
		TO 14	2	2	0	2	2	1	2	1	2
	Autopoiesis	SH 24	3	3	3	3	3	3	3	3	0
		TO 12	2	2	1	2	1	1	2	2	0
	Act locally	SH 25	3	3	3	3	2	3	3	3	2
		TO 18	3	2	1	3	2	3	1	1	2
	Humanity-centred design	SH 21	2	3	3	3	2	2	2	3	1
		TO 20	3	3	1	2	1	3	3	2	2
Active ageing in the WHO policy framework (Maximum 5 points)	Healthcare and social services	SH 36	4	3	4	4	3	5	5	5	3
		TO 36	2	4	5	4	5	4	5	3	4
	Societal	SH 37	5	2	4	5	5	5	5	4	2
		TO 35	3	4	4	5	4	5	3	2	5
	Physical environment	SH 32	3	4	4	4	3	4	3	5	2
		TO 36	4	5	4	5	4	4	5	1	4
	Economics	SH 38	5	5	5	5	4	3	4	4	3
		TO 37	4	4	4	5	4	5	4	3	4
	Behaviour	SH 33	3	3	5	4	4	3	4	4	3
		TO 32	4	4	3	4	4	3	5	0	5
	Individually	SH 36	4	3	5	5	4	5	4	5	2
		TO 33	3	3	5	4	2	3	4	4	5

03. Cross-sectional analysis of Shanghai and Turin in the context of high-density urbanisation through the six elements of Active Ageing in WHO policy framework and the five principles of systemic design | Analisi trasversale di Shanghai e Torino nel contesto dell'urbanizzazione ad alta densità attraverso i sei elementi del quadro politico dell'WHO sull'invecchiamento attivo e i cinque principi del design sistemico. *Wen Lu*

ideas and knowledges integrating, across multiple levels and boundaries of systems practices, an active learning, not theoretical, orientation to complexity (Peter and Kristel, 2022).

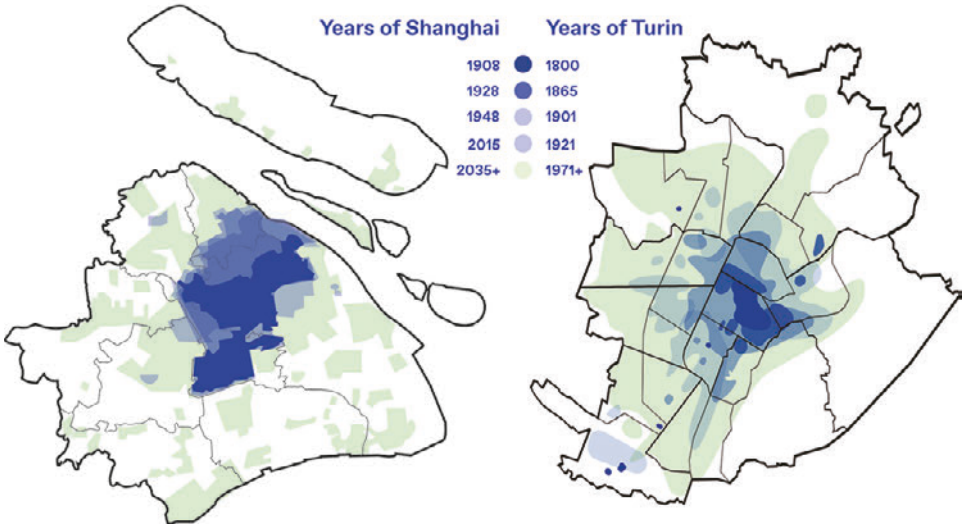
The systemic design approach has five key principals to promote a paradigm shift, providing a new way to act:

- *First: outputs > inputs*; According to Luigi Bistagnino, founder of the Master of Science in Systemic Design at the Politecnico di Torino, the concept of outputs > inputs was developed in order to create a continuous flow of matter, energy and information, where the outputs (wastes) of a system become the inputs (resources) of another one (Bistagnino, 2011), in order to achieve the goals of sustainable development and circular economy.
- *Second: Relationships*; The relationships developed within the system.
- *Third: Autopoiesis*; Autopoietic systems adapt to new environments and solve new problems by adjusting their parts while changing with other systems.
- *Fourth: Act locally*; The local context is prioritised, enhancing its unique material, social, cultural and economic resources.
- *Fifth: Humanity-centred design*; To view wicked and interconnected problems through the social and human lens as part of a wider ecosystem, and to consider whether the system is designed with key stakeholders in the centre.

Results and discussion

The overall horizontal scores for Shanghai are 319, and for Turin, it's 296 (the full score is 405), as analysed in image 03. This indicates that both Shanghai and Turin offer different insights to learn from and reflect upon when addressing the challenges of population ageing and promoting active ageing in cities. A detailed comparison and analysis are presented below.

In the evaluation of high-density demographic structure systems, Shanghai scored two points higher than Turin overall. The primary gap lies in Shanghai's population structure, which exhibits a gradient from the center to the suburbs, compared to Turin's structure, which follows a gradient from the suburbs to the city center. This discrepancy is influenced by Shanghai's status as a modern economic city, offering more mobility possibilities, and its extensive and efficient network of transport, communication, and informa-



04. Map of the urbanisation expansion in Shanghai and Turin | Mappa dell'espansione dell'urbanizzazione a Shanghai e Torino. *Wen Lu*

tion. Turin, an early industrialized city currently undergoing industrial transformation, stands out for its socio-technological inclusivity and multicultural ethnic integration.

Regarding the urbanisation process, Turin receives a rating three points higher than Shanghai, with scores of 33 and 30, respectively. As illustrated in image 04, Turin's urbanisation process commenced early, characterised by gradual and slow expansion. This early start allowed the city to adjust to resource depletion and energy challenges, resulting in reduced environmental damage. Moreover, Turin's early access to advanced healthcare and social services, along with a rapidly developing transport network, enabled its inhabitants to adopt healthier behaviours earlier. In contrast, Shanghai's rapid urbanisation in a short period led to healthcare and social services lagging behind, and inadequate waste disposal practices, such as landfill and incineration, contributing to severe environmental pollution.

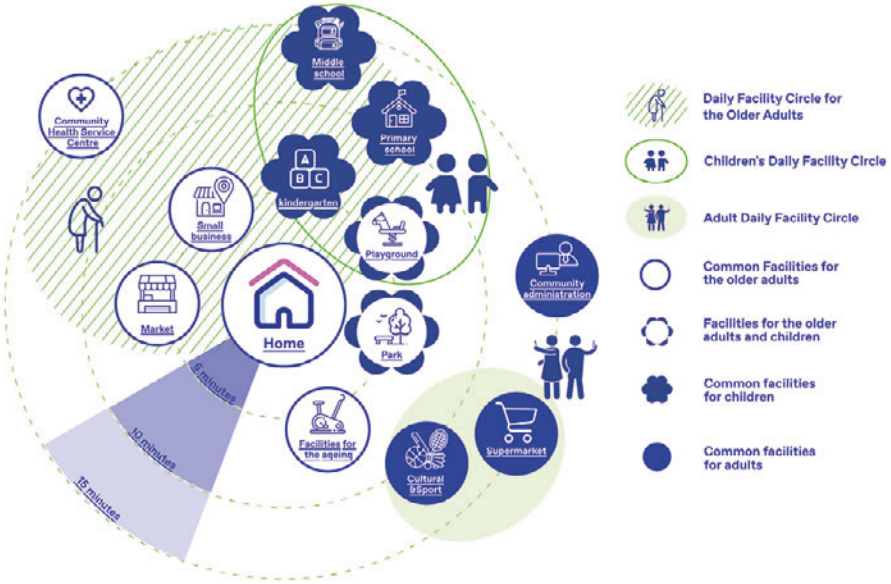
The five key principles of systemic design provide a more comprehensive evaluations intervention

In the evaluation of ageing policies, Shanghai secured a total of 42 points, whereas Turin scored 31 points. Shanghai has developed over 20 local ageing plans since 1996, aligning with national ageing policies. These plans encompass detailed provisions for healthcare and community services, geriatrics department establishment, preventive interventions for chronic diseases among the ageing, social integration plans, residential environment improvements, and initiatives promoting lifelong learning, re-education, community integration, re-employment, and access to community sports facilities. Shanghai's approach also emphasises sustainable economic development through government, social capital activation, and social governance, providing behavioural advice on positive ageing and disease prevention interventions. In contrast, despite Turin's early entry into an ageing society, there is no general legislative definition for older adults. Although collaborative initiatives have been undertaken, including a three-year agreement between the Department of Family Policies of the local Presidency of the Council of Ministers of Turin and the National Institute for Rest and Care of the Ageing, and the approval of Law No. 33, *Empowering the Government to Implement Policies in Favour of the Older Adult* in 2023, tangible changes in policy implementation are yet to be observed.

In the evaluation of community governance, Shanghai's overall score is four points higher than Turin's. Shanghai has an urbanisation rate of 64.78%, and its community model is a multifunctional, population-specialised, historically and culturally rich new town. Shanghai's communities address the challenges of complexity and diversity by establishing basic community living units within 15-minute community living circles, as seen in image 05. The city plans an extensive and efficient public intelligent transport system through synergistic governance involving multiple actors. Turin, with an urbanisation rate of 71.97% and a community model encompassing historical centres, industrial suburbs, new settlements, and multiculturalism, encounters the challenges of diversity, complexity, and specialisation. Its community governance model is based on pluralism and co-governance.

In the evaluation of the welfare system for older adults, Shanghai scores four points higher than Turin, offering a broader range of benefits, including cash subsidies, community restaurants for older adults, and healthcare to meet their basic needs. Turin boasts a well-established and mature social security and free healthcare system, but benefits are skewed towards lower-income earners.

In the evaluation of community services for older adults, Shanghai's overall score is three points higher than Turin. Shanghai's services, provided by community clinics, community health centres, and community hospitals, offer a healthcare model



05. Shanghai 15-minutes community living circle | Cerchio di vita comunitaria di Shanghai 15 minuti. *Planning Guidance of 15-Minute Community-Life Circle*

with specific Shanghai characteristics and a range of interventions, including prevention, intervention, and regular follow-up. Telecare and virtual nursing homes or nursing homes without walls contribute to the continuity of care, reducing healthcare waiting times. Consequently, life expectancy in Shanghai has increased significantly. In contrast, Turin, with a well-established and inclusive free public healthcare system, often experiences interruptions in the continuity of care due to long waiting times.

Turin has a higher total score than Shanghai in the evaluation of public and private space and ageing-friendly facilities. Due to its earlier and higher urbanisation and open communities, Turin's space planning is more rational and mature, with a higher coverage of barrier-free facilities compared to Shanghai. Turin also offers more housing and green space *per capita*. The recent spatial planning interconnections in Shanghai exhibit a cohesive structure, featuring 15-minutes community living circles that adapt to community self-adjustment. This design provides increased opportunities for lifelong learning and the re-employment of older individuals within the community. Moreover, there is an active promotion of inter-community co-design and communicative learning through various activities.

In the evaluation of digital ageing, Shanghai scored a total of 41 points, while Turin scored 22 points. Shanghai's digitalisation is interconnected across the city, facilitated by a big data centre for analytical decision-making. Home, community, and healthcare scenarios are interconnected, providing remote services for chronic disease medication, home care, emergency rescue, and intervention services for cognitive impairment. Additionally, Shanghai offers elderly information resource services and an intelligent cloud companion service with disease preventive intervention. Digital healthcare in Turin is limited to minority healthcare provider, currently providing services such as medical appointments, electronic health records, online report collection, cancer screening programmes, access to medicines with a health card, and free management of rare diseases and disabilities.

Conclusions

Through cross-comparisons, Shanghai aims to alleviate and address the complexities of ageing in high-density cities by implementing a series of digital solutions based on big data, focusing on smart cities, smart healthcare, and smart transport. In Turin, while grappling with challenges of high-density urbanisation and an ageing population, the city prioritises a high level of social inclusiveness, social participation, and sustainable city development. However, there is a notable absence of initiatives for community care for older adults.

Given that many health issues in older adult's stem from chronic diseases, which can often be prevented or delayed through adopting healthy behaviours, it becomes crucial to emphasise physical activity and good nutrition for overall health and well-being. Additionally, various health problems, particularly when identified early, can be effectively managed. Hence, it is recommended that high-density cities incorporate more comprehensive and accessible pre-disease interventions, encompassing policy, community governance, community services for older adults, and perspectives on digital ageing.*

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