Westmead Applied Research Centre

Assessing environments to support healthy aging and reduce social isolation

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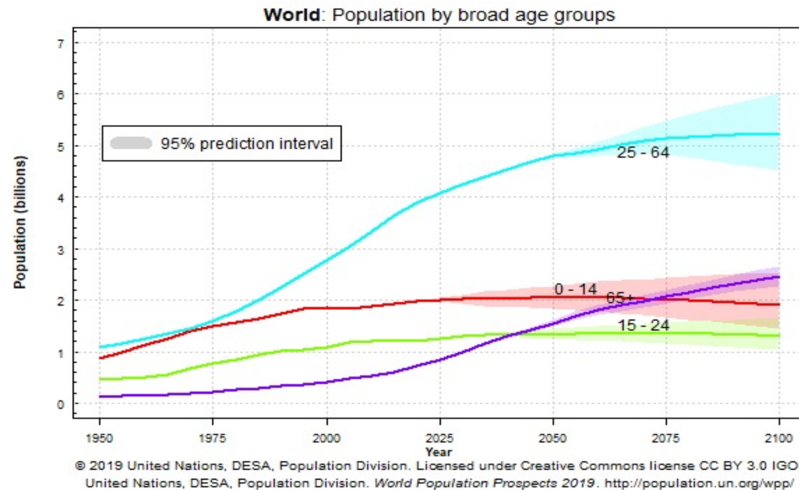
Webinar Overview

- Defining environmental supports for “healthy aging”
- WHO Age-friendly Cities & other audit tools
- Developing a new audit tool for broader application
- Describing global variation in access to supports
- Identifying environmental influences on social ties
- Integrating age-friendly designs into healthy cities

An Aging, Urbanizing Global Population



- By 2050, population of older adults (60+) will reach 2.1 billion
- Urban population will increase 60% to 6.7B
- Older-adult population growing 3X faster in low- & middle-income countries (LMIC) vs. high-income

Healthy Aging & Environmental Supports

- 2021-2030 = WHO's "Decade of Healthy Ageing"
- Healthy aging focuses on older adults' (OAs) maintaining "optimal functioning" across lifespan
- Core activities include cognition, mobility, & social participation
- Built, natural, social, & economic environments critical

WHO's Age-Friendly Cities (AFC) Framework

- Framework developed in 2007 via focus groups w/OA
- Process expanded in 2012-2015 to translate policy guidance into specific designs
- Three guiding principles:
  - Equity
  - Accessibility
  - Inclusiveness

WHO's AFC Core Indicators*

Domain	Objective Indicator	Subjective Indicator
Walkability	Acceptable walking paths	Suitability for walking
Public spaces & buildings	Accessibility by wheelchairs	Accessibility for OA w/mobility, vision, or hearing limitations
Transportation	Public-transit stops <500m	Accessible public-transit stops
Housing	Housing costs <30% of income	Affordable housing
Inclusive social environment	OA participation in events	Weekly participation in events
Information	Info on local services available	Knowing whom to call for info
Social & health services	Formal personal-care services	Personal-care needs met

*World Health Organization. Measuring the age-friendliness of cities: A guide to using core indicators. Geneva; 2015.

Alternate Healthy-Aging Environmental Audit Tools

- AFC called “urban oriented & industrial centric”
- Scoping review identified seven tools applied to rural areas or in LMIC
- Best practices include pilot-testing, triangulation, & focus on local context
- Coalition-building & sustainability vital to translate audits into improvements

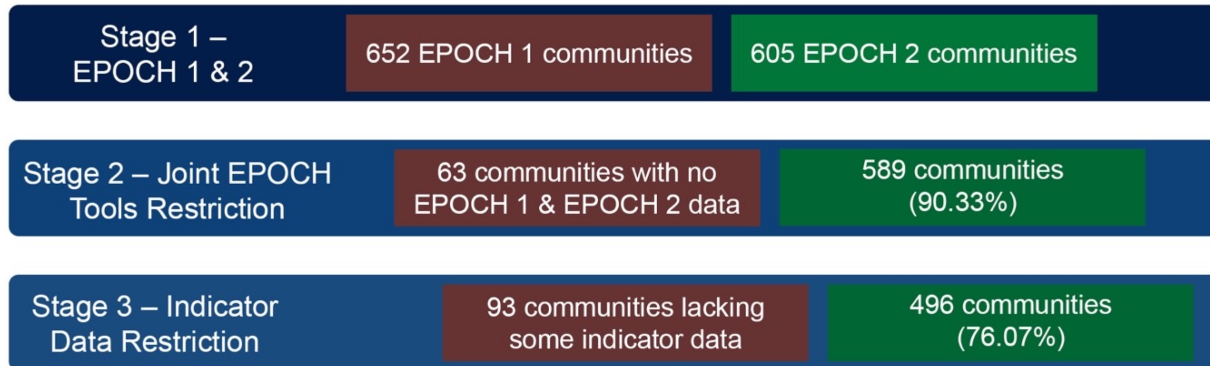
PURE Study*: Indicator Development & Description

- ***Aim 1*** = Develop a robust, novel set of healthy-ageing indicators aligned with the WHO framework via PURE
- ***Aim 2*** = Describe systematic variation in availability of indicators across a broad & diverse sample of communities, overall & by country-level income & community-level urbanicity

*Rugel EJ, Chow CK, Corsi DJ, Hystad P, Rangarajan S, Yusuf S, Lear SA. Developing indicators of age-friendly neighbourhood environments for urban and rural communities across 20 low-, middle-, and high-income countries. BMC public health. 2022 Dec;22(1):1-6.

PURE Study: Data Sources & Availability

- ***EPOCH 1*** = Systematic social observation on 1km walk in community center by local research team members
- ***EPOCH 2*** = Ecometric aggregation of survey data from convenience sample of PURE study participants



PURE Study: Multitrait, Multimethod (MTMM) Approach

Indicator	Domain			
	A	B	C	D
Domain A: Outdoor Spaces and Buildings				
Sidewalk completeness	**0.31**	0.23	0.38	0.23
Presence of street trees & flowerbeds	**0.28**	0.11	-0.04	0.11
Access to parks & recreational areas	**0.10**	0.18	0.17	0.14
No. of physical-activity & recreational facilities	**0.11**	-0.02	0.04	-0.04
Road completeness	**0.13**	0.06	0.29	0.25
Road quality	**0.13**	0.20	0.35	0.25
Street lighting	**0.11**	0.14	0.22	0.15
Traffic lights	**0.21**	0.22	0.48	0.27
Domain B: Transportation				
Bus connections	0.18	**0.23**	-0.03	0.12
Train connections	0.10	**0.38**	0.06	0.22
Access to train stations	0.00	**0.42**	0.25	0.39
Domain C: Communication and Information				
Home internet	0.04	0.14	**0.53**	0.21
Free public internet	-0.12	0.11	**0.53**	0.01
Domain D: Community Support and Health Services				
Access to hospitals	0.08	0.29	0.01	**0.42**
Access to public medical clinics	0.06	0.17	0.15	**0.10**
Access to private medical clinics	0.11	0.27	0.19	**0.34**

PURE Study: Variation by Country-Level Income

- HIC (n =114) generally scored higher
- UMIC (n = 131) had greatest amount of streetscape greenery (78 elements vs. 45 overall) & access to public parks & recreational areas (98% vs. 91%)
- LMIC (n = 168) had lowest rates of healthcare access: 64/69% had access to private/public medical clinics
- LIC (n = 83) had lowest home internet (9% vs. 41%); best availability of bus services (95% vs. 82%)

PURE Study: Variation by Community-Level Urbanicity

- Largest differences with:
  - Traffic lights (18% in rural communities vs. 67% in urban)
  - Availability of trains (8% vs. 25%)
  - Home internet (25% vs. 54%)
  - ***But***, stronger sense of social cohesion (1.7 vs. 2.0)

Older Adults & Social Isolation in the COVID-19 Era

- "Epidemic of loneliness" predates COVID-19
- Strong social ties can improve health behaviors & overall well-being
- Social isolation can create a vicious cycle

Environmental Influences on Social Participation

- Social engagement can offset shrinking networks
- "Third places" open to all especially important
- Intergenerational opportunities highly valued
- History, culture, gender, & place influence preferences & needs
- Elements of poor built design may impede access

Is the "15-Minute City" for Everyone?

https://twitter.com/Anne_Hidalgo/status/1219580657984245760/photo/1

Conclusions

- Supports for healthy aging are generally less available in rural communities & LMIC
- Healthy-aging indicators may need to be adapted to specific resource levels & contextual settings
- Social isolation may look different in rural vs. urban areas & for different populations
- Communities can support healthy aging in ways that advance equity & improve overall public health

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