## MEASURING AND EVALUATING AGE-FRIENDLY CITIES AND COMMUNITIES

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#### Populations are getting older





Source: UNDESA, Population Division. World Population Ageing 2015.

#### NCDs are key to extending longevity in old age



出典: Mathers C et al. Causes of international increases in older age life expectancy. *Lancet*. 2015, 385, 540-48.

## NCD risk factors - "The Big Four"

|                        | Tobacco<br>Use | Unhealthy<br>diets | Physical<br>Inactivity | Harmful<br>Use of<br>Alcohol |
|------------------------|----------------|--------------------|------------------------|------------------------------|
| Cardio-<br>vascular    |                |                    |                        |                              |
| Diabetes               |                |                    |                        |                              |
| Cancer                 |                |                    |                        |                              |
| Chronic<br>Respiratory |                |                    |                        |                              |



■ DALYs due to preventable environmental risks

Proportion of disease attributable to the environment

Main areas of environmental action to prevent disease

出典:WHO (2016) Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks.

## Social and structural determinants of health

"Social stratification likewise determines differential access to and utilization of health care, with consequences for the inequitable promotion of health and wellbeing, disease prevention, and illness recovery and survival." (WHO, 2008)



#### Conceptual framework of the determinants of health



Being "healthy" in old age: a paradigm shift

Healthy Ageing is the process of developing and maintaining the **functional ability** that enables wellbeing in older age

Health is a state of complete physical, mental and social well-being and **not merely the absence of disease** or infirmity.







Source: Beard et al. 2016. The World report on ageing and health: a policy framework for healthy ageing. The Lancet, 387, 2145-54. DOI: 10.1016/S0140-6736(15)00516-4

#### Concept of Age-friendly City

An Age-friendly City is an **inclusive and accessible community environment** that optimizes opportunities for **health**, **participation and security** for all people in order that **quality of life and dignity** are ensured as people age.

# Dom **Global Age-friendly Cities:** A Guide bation

#### WHO Global Network of Age-friendly Cities and Communities

400 member cities in 37 countries covering over 146 million people worldwide



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. Data Source: World Health Organization Map Production: Health Statistics and Information Systems (HSI) World Health Organization



| World Health<br>Organization   |   |  |  |
|--|---|--|--|
| Adding life to years Organization Home About WHO Global Network  | Age-Friendly in Practice Resources                |  |  |
| AGE-FRIENDLY WORLD   | Change Text Size                                  |  |  |
| adding life to years   | А А А   |  |  |
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| cities and communities   | Quick Links                                       |  |  |
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| By local communities, for local communities  | ► Guides and Toolkits                             |  |  |
|  | ▶ News  |  |  |
| What is an aga friandly world?   |   |  |  |
| What is an age-friendly world?<br>It is a place that enables people of all ages to actively participate in community activities. It is a place that treats everyone with   | WHO Global Network                                |  |  |
| respect, regardless of their age. It is a place that makes it easy to stay connected to those around you and those you love. It is a   |   |  |  |
| place that helps people stay healthy and active even at the oldest ages. And it is a place that helps those who can no longer look   | 287   |  |  |
| after themselves to live with dignity and enjoyment. Many cities and communities are already taking active steps towards becoming  | Cities and Communities                            |  |  |
| more age-friendly. You will find more information about these in our section on the WHO Global Network of Age-friendly Cities and Communities. However, many barriers persist. Some of these are physical, for example, poorly designed buildings or lack of | 12  |  |  |

#### Many factors in staying mobile



#### "Food deserts" in the U.S.A.



Source: National Geographic http://www.nationalgeographic.com/foodfeatures/hunger/

## Functional Ability is the result of different sectors working together



## An Age-friendly City is for people of <u>all ages</u>



#### Age-friendly City Case Studies

• Buffel *et al.* 2014. Developing age-friendly cities: case studies from Brussels and Manchester and implications for policy and practice. *Journal of Aging & Social Policy*, 26, 1-2, 52-72.

- Green *et al.* 2015. Healthy cities as catalysts for caring and supportive environments. *Health Promotion International*, Suppl 1, i99-i107.
- Menec et al. 2014. Lessons learned from a Canadian province-wide agefriendly initiative: The Age-Friendly Manitoba Initiative. Journal of Aging & Social Policy, 26, 1-2, 33-51.
- Neal *et al.* 2014. Age-Friendly Portland: a university-city-community partnership. Journal of Aging & Social Policy, 26, 1-2, 88-101.

## Local Governance Factors

- Leadership/Champions
- Participatory governance
- Active citizenship
- Social inclusion
- Multisectoral collaboration

#### Environmental Effects on Health of Older People

- Cerin *et al.* 2017. The neighbourhood physical environment and active travel in older adults: a systematic review and meta-analysis.
   International Journal of Behavioral Nutrition and Physical Activity, 14, 15.
- Rosso *et al.* 2011. The urban built environment and mobility in older adults: a comprehensive review. *Journal of Aging Research*, 2011.
- Sawyer *et al.* 2017. Simultaneous evaluation of physical and social environmental correlates of physical activity in adults: A systematic review. SSM Population Health, 3, 506–15.
- Smith *et al.* 2017. **The association between social support and physical activity in older adults: a systematic review.** *International Journal of Behavioral Nutrition and Physical Activity,* 14, 56.
- Yen et al. 2009. Neighborhood environment in studies of health of older adults: a systematic review. American Journal of Preventive Medicine, 37, 5, 455– 63.

## State of the Art

- Physical environment factors that promote mobility and physical activity
  - higher street connectivity leading to shorter pedestrian distances, street and traffic conditions, proximity to destinations such as retail establishments, parks, and green spaces
- Social environment factors affecting physical, mental and self-reported health
  - participation in groups, sense of belonging, trust, social network, neighborhood-level socioeconomic status

## Evaluation guides for AFC

- Handler. 2014. A Research and Evaluation Framework for Age-friendly Cities. UK Urban Ageing Consortium, Manchester.
- Harrell et al. 2014. Is This a Good Place to Live? Measuring Community Quality of Life for All Ages. AARP Public Policy Institute, Washington, DC.
- Neal & Wernher. 2014. Evaluating Your Age-Friendly Community Program: A Step-by-Step Guide. AARP, Washington, D. C.
- Public Health Agency of Canada. 2015. Age-Friendly Communities Evaluation Guide: Using Indicators to Measure Progress. Public Health Agency of Canada, Ottawa.

#### WHO Age-friendly City Core Indicator Guide

MEASURING THE AGE-FRIENDLINESS OF CITIES

A GUIDE TO USING CORE INDICATORS

- Identifies a framework for selecting local indicator set
- Defines core indicators
  - Physical environment
  - Social environment
  - Impact
  - Equity
- Examples from pilot sites
- Published in 2015
- Available at: http://apps.who.int/iris/handle/ 10665/203830

#### Framework for selecting local AFC indicator set

EQUIT

#### INPUTS

Resources and structures which act as key enabling factors.

→ High-level political commitment

ightarrow Collaboration of multiple stake holder groups

→ Shared
 ownership by
 older people
 → Financial &
 human resources



#### OUTPUTS

Interventions to create an age friendly environment.

#### Physical environment

 $\rightarrow$  Planning and land use

 $\rightarrow$  Design of public spaces & buildings

- $\rightarrow$  Housing design
- & cost options

 $\rightarrow$  Transportation design

#### Social environment

EQUITY

 → Culture & recreation programmes
 → Communication & advocacy
 → Health & social care services

→ Employment & business opportunities

#### OUTCOMES

Short medium term changes achieved in creating an age friendly environment. → Malkability → Accessibility of public spaces, buildings and transport → Affordability of housing

ightarrow Safety

#### Social environment

 → Volunteer activity
 → Participation in decision making
 → Economic security
 → hositive social attitude toward ageing & older adults
 → Accessible

information



IMACT

Long term



#### Global Pilot Study, 2014-15



Entire city or town assessed

Specific districts or neighbourhoods assessed

#### Bilbao, Spain Improving mobility and transport that is healthy for people and the environment



#### Banyule, Australia Assessing engagement and participation

| Engagement in<br>volunteer activity         | Proportion of older people<br>(aged 60+ years) who<br>reported undertaking<br>voluntary work through an<br>organisation or group in<br>the last 12 months    | 17.9% | % Participation in local decision making                          | Proportion of eligible<br>voters (aged 70+ years)<br>who voted in the most<br>recent local Government<br>election<br>Proportion of adult | 48∙0%<br>19∙1% |
|---|--|-------|---|--|----------------|
| Engagement in<br>socio-cultural<br>activity | Proportion of older adults<br>(aged 55+ years) among<br>all adults (aged 18+ years)<br>that reported participating<br>in arts and related                    |       |   | population (aged 18+<br>years) who are members<br>of a decision-making<br>board or committee   |                |
|   | activities in the last 3<br>months<br>Proportion of people<br>(aged 55+ years) who<br>participated in arts and<br>related activities in the<br>last 3 months |       | Participation in leisure-<br>time physical activity in<br>a group | Proportion of older<br>people (aged 60+ years)<br>who are members of<br>leisure centres owned by<br>Banyule Council                      | 5.3%           |
|   |  |       |   | Proportion of older<br>people (aged 60+ years)<br>that report participating<br>in sports clubs   | 12.7%          |

#### New Haven, USA Measuring equity among older people

Social participation: volunteer activity





## Pilot study findings

- Measuring and comparing indicators were more difficult for social environment indicators
- Citizens' perceptions were considered to be as important as objective measures
- Engagement of older people was a highly valued principle and a practical strategy
- Provided validity and status to the team's work
- Increased awareness within the community and reinforced collaborative relationships

#### **Conclusion: Future Research Needs**

- Greater **coherence in research methods** in order to improve comparability and to facilitate evidence synthesis.
- Evaluation of both independent and **interactive effects of physical and social factors** which are modifiable by intervention.
- Evaluation of the **overall social impact** of an integrated set of Age-friendly interventions, demonstrating efficiencies and synergies.
- **Prospective studies** to establish causal associations.
- Assessments of **both objective and perceived measures** and their associations with health outcomes.
- Greater consideration of **neighbourhood environmental factors** in health equity research.
- Inclusion of older community members as research partners to enhance neighborhood-level efficacy and to sustain advocacy efforts over time.

#### WHO Centre for Health Development (WHO Kobe Centre)



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Thank you!