

# MOOC 14 Presentation of Illness Symptoms in Older Adults

## Chapter 2 - Healthy Ageing and Ageing Trajectory

### What Is Healthy Ageing?

**Healthy Ageing** replaces the World Health Organization's previous Active ageing (a policy framework developed in 2002).

**Healthy Ageing** is the focus of WHO's work on ageing between 2015 – 2030.

### World Health Organization (WHO) Definition of Healthy Ageing

- It is the process of developing and maintaining the **functional ability** that enables wellbeing in older age.
- WHO considers Healthy Ageing in a **holistic** sense, one that is based on **life-course** and **functional** perspectives.
- WHO describes this functional ability as being formed by interactions between **intrinsic capacity** and **environmental characteristics**.
- It is naturally understood that intrinsic capacity includes the **mental** and **physical** capacities of a person.
- The environmental characteristics are related to **home, community and society as a whole**.

### Functional ability

- **Functional ability** comprises the health-related attributes that enable people to be and to do what they have reason to value.
- It is made up of the **intrinsic capacity** of the individual, relevant **environmental characteristics** and the interactions between the individual and these characteristics.
- Several domains of functional ability appear crucial to allowing people to achieve these ends.
- These are the abilities to:
  - meet their basic needs,
  - learn, grow and make decisions,
  - be mobile,
  - build and maintain relationships, and
  - contribute to society.

 The logo for Jockey Club Cadenza e-Tools for Elder Care. It features the text 'Jockey Club' at the top, 'Cadenza' in a large stylized font, 'e-Tools' in a smaller font, and 'for Elder Care' below it. At the bottom, there is Chinese text: '賽馬會逾金箱護老有道'.	File	Handout – Presentation of Illness Symptoms in Older Adults - Chapter 2
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## Environments

- **Environments** comprise all the factors in the extrinsic world that form the context of an individual's life.
- These include – from the micro-level to the macro-level – home, communities and the broader society.
- Within these environments are a range of factors, including the built environment, people and their relationships, attitudes and values, health and social policies, the systems that support them, and the services that they implement.

## Intrinsic Capacity

- **6 key domains of intrinsic capacity (IC):**
  - Vitality
  - Locomotor capacity
  - Psychological capacity
  - Cognitive capacity
  - Hearing capacity
  - Visual capacity
- **How to measure intrinsic capacity?**
  - WHO Integrated Care for Older People (ICOPE) Screening Tool
  - [The World Health Organization's ICOPE Handbook App](#) is a digital application developed by WHO which is used to assess the intrinsic capacity of older adults and provide a personal care plan which enable them to achieve healthy ageing.

Table I. Assessment for the loss in Intrinsic capacity

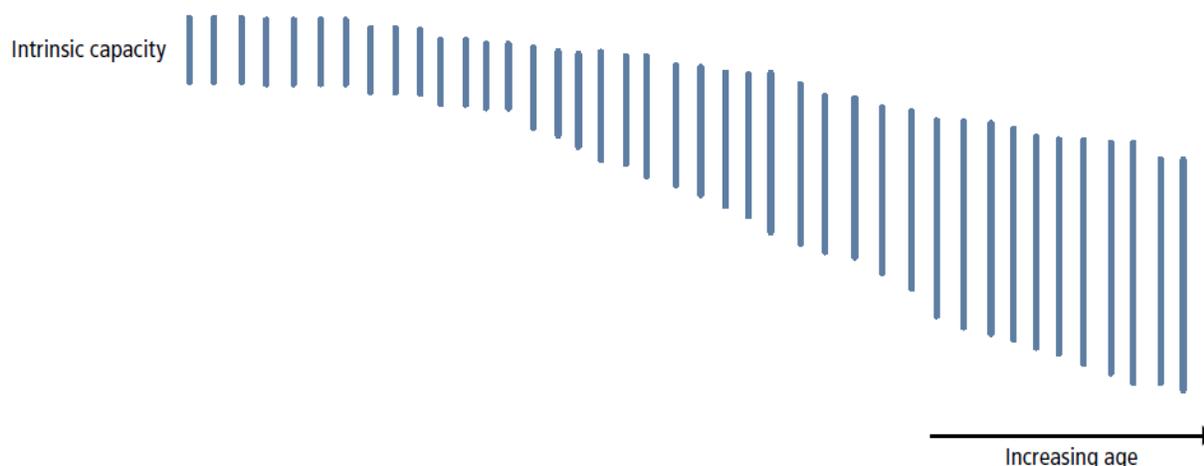
Intrinsic capacity domains	Recommended screening tests for the loss in intrinsic capacity	Recommended measures for further assessment for the loss in intrinsic capacity (select the most suitable)
Cognition	<p>Cognitive decline:</p> <ol style="list-style-type: none"> <li>Remember three words: for example: flower, door, rice</li> <li>Orientation in time and space, what is the full date today? Where are you now (home, clinic, etc)</li> <li>Recalls the three words</li> </ol>	<p>Mini-Cog.                      Montreal cognitive assessment (MoCA).                      Mini mental state examination (MMSE).                      General practitioner assessment of cognition (GPCOG)</p>
Locomotion	<p>Limited mobility:</p> <ol style="list-style-type: none"> <li>Chair rise test. Rise from chair five times without using arms. Did the person complete five chair rises within 14 seconds?</li> </ol>	<p>Short physical performance battery (SPPB) which includes balance, gait speed and chair test</p>
Vitality	<p>Malnutrition:</p> <ol style="list-style-type: none"> <li>Weight loss: Have you unintentionally lost more than 3 kg over the last three months?</li> <li>Appetite loss: Have you experienced loss of appetite?</li> </ol>	<p>Mini nutritional assessment (MNA).                      DETERMINE nutrition risk assessment.                      Malnutrition universal screening tool (MUST).                      Seniors in the community risk evaluation for eating and nutrition questionnaire (SCREEN).                      Short nutritional assessment questionnaire 65+ (SNAQ65+).</p>
Psychology	<p>Depression:                      Over the past two weeks, have you been bothered by: feeling down, depressed or hopeless: little interest or pleasure in doing things.</p>	<p>Patient Health Questionnaire (PHQ-9)</p>
Sensory	<p>Hearing loss:                      Hears whispers (whisper test) or                      Screening audiometry result is 35 dB or less or                      Passes automated app-based digits-in-noise test                      Vision impairment:                      Do you have any problems with your eyes: difficulties in seeing far, reading, eye diseases (e.g. diabetes, high blood pressure)?</p>	<p>Diagnostic audiometry</p> <p>Distance and hear vision test with World Health Organization (WHO) simple eye chart.</p>

Chhetri, et al., 2022

## Heterogeneity – A Hallmark of Intrinsic Capacity

- Intrinsic capacity peaks in early adulthood and tends to decline from midlife onwards. There is great variability in these trajectories and some components of capacity may remain stable or even increase over the life course.
- These trends highlight the diversity that is a hallmark of older age and that counters the stereotype that there is such a thing as a typical older person.

**Fig. The diversity of intrinsic capacity increases with age**



(World Health Organization, 2017)

## Factors Influencing Healthy Ageing

- declines in physical and mental capacity.
- physical and social environments – including their homes, neighbourhoods, and communities, as well as their personal characteristics (e.g., sex, ethnicity, or socioeconomic status)
- healthy behaviours.

## Resilience

- At any point in time, an individual may have **reserves of functional ability** that they are not drawing on. These reserves contribute to an older person's **resilience**.
- The Healthy Ageing model conceptualizes **resilience** as the ability to maintain or improve a level of functional ability in the face of adversity.
- This ability comprises both components **intrinsic** to each individual and **environmental** component that can mitigate deficits.

## Healthy Ageing Attributes

Although research is limited, some of the things that older people identify as important include having:

- a role or identity;
- relationships;
- the possibility of enjoyment;
- autonomy (being independent and being able to make their own decisions);
- security;
- the potential for personal growth.

## Person–environment Fit

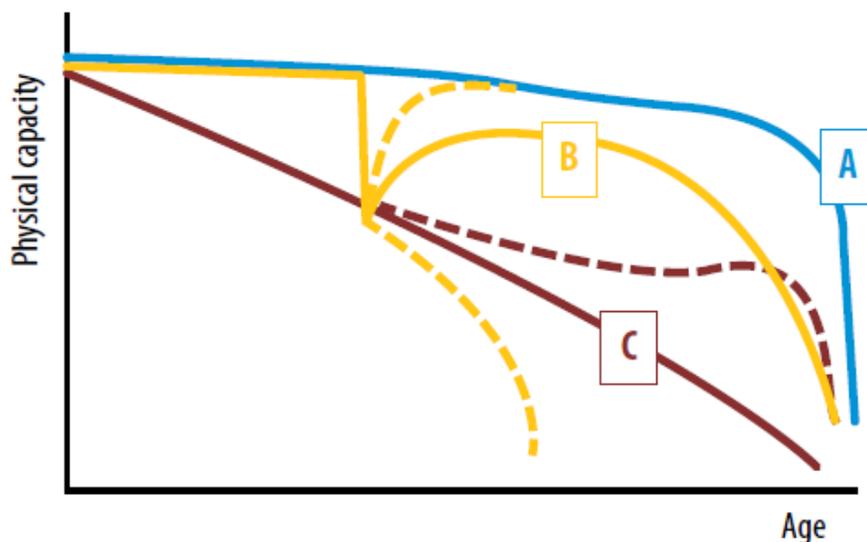
- One way of assessing the interaction between individuals and their environment is through the notion of **person–environment fit**.
- This reflects the dynamic and reciprocal relationship between individuals and their **environments**.
- The concept of person–environment fit considers:
  - individuals and their health characteristics and capacity;
  - societal needs and resources;
  - the dynamic and interactive nature of the relationship between older people and the environments they inhabit;
  - the changes that occur in people and places over time.

## Environment and Health Inequities

- However, an environment is not neutral in its relationship with different individuals.
- Indeed, the same environment may affect different individuals in very different ways, influenced strongly by the range of personal characteristics that help determine a person's social position.
- The result can be a systematic and unequal distribution of access to resources or exposure to negative environmental characteristics, or both.
- When these interactions are unfair, they result in health inequities.
- The cumulative impact of these inequities across our life course is a powerful influence on Healthy Ageing.

## Trajectories of Healthy Ageing

Fig. Three hypothetical trajectories of physical capacity



- A. Optimal trajectory, intrinsic capacity remains high until the end of life.
  - B. Interrupted trajectory, an event causes a decrease in capacity with some recovery.
  - C. Declining trajectory, capacity declines steadily until death.
- The dashed lines represent alternative trajectories.

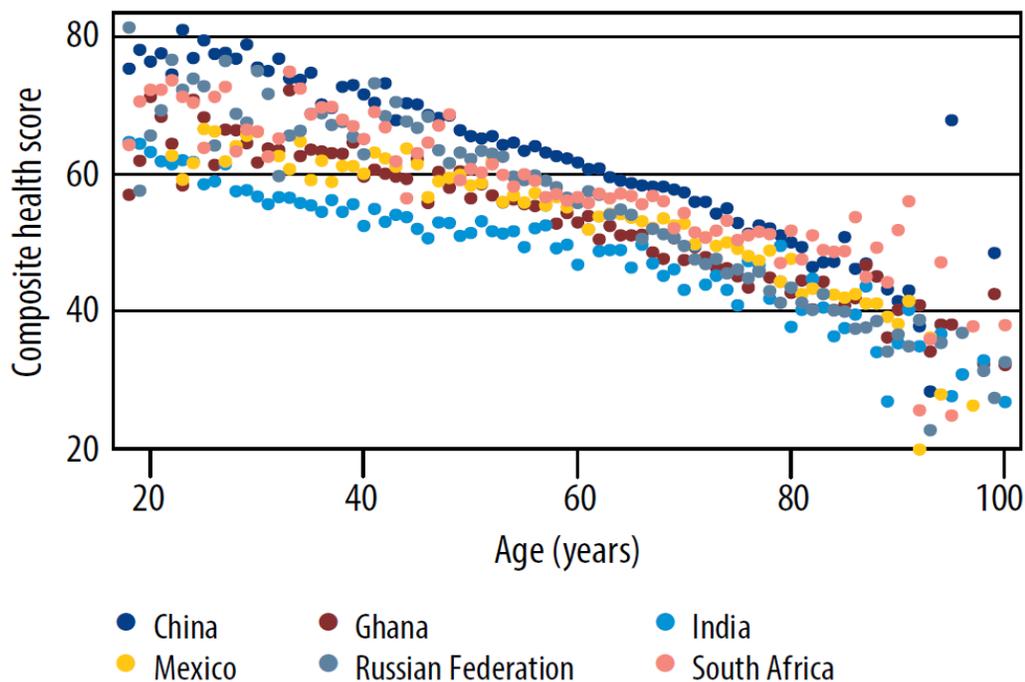
(World Health Organization, 2015)

- Healthy Ageing reflects the ongoing interaction between individuals and the environments they inhabit. This interaction results in trajectories of both intrinsic capacity and functional ability.
- To illustrate how these might be conceptualized and used, the above Figure shows three hypothetical trajectories of physical capacity for individuals beginning from the same starting point in midlife.
  - **Individual A** can be considered as having the optimal trajectory, in which intrinsic capacity remains high until the end of life.
  - **Individual B** has a similar trajectory until a point when an event causes a sudden fall in capacity, followed by some amount of recovery and then a gradual deterioration.
  - **Individual C** has a steady decline in function.
- Each trajectory sees the person die at around the same age, but the levels of physical capacity they have enjoyed in the interim are very different.
- From the original starting point in the Figure, the goal would be for each individual to experience the same trajectory as individual A.
- Figure also shows alternative trajectories for individuals B and C.
  - For **Individual B**, a more positive trajectory might, for example, result from access to rehabilitation, and a negative trajectory might result from a lack of access to care.
  - For **Individual C**, a more positive trajectory might result from a change in a health-related behaviour or having access to medication.

### Diversity of Ageing Trajectories

- These hypothetical curves are an example of the diversity of older age and reflect the weak link at an individual level between intrinsic capacity and chronological age.
- However, at a population level, more general trends can be observed, with the average capacity at age 65 being very different from that at 80.

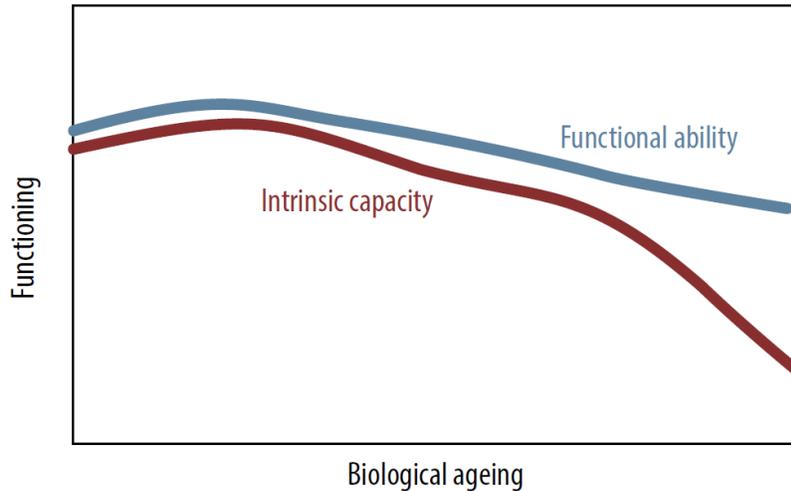
## Changes In Intrinsic Capacity Across the Life Course



(World Health Organization, 2015)

- These population averages can be seen in Fig. It is worth noting, however, that even at a population level, there are significant differences in these average trajectories of intrinsic capacity.
- In developing a country specific response to population ageing, a first step might be to identify these differences and why they exist.
- Even if an individual's intrinsic capacity has fallen below its peak, the person may still be able to do the things that matter to them if they live in a supportive environment.
- This reflects the concept of functional ability: the ultimate goal of **Healthy Ageing**. Here, too, the concept of trajectories can be applied.

## Trajectories of Functional Ability and Intrinsic Capacity



(World Health Organization, 2015)

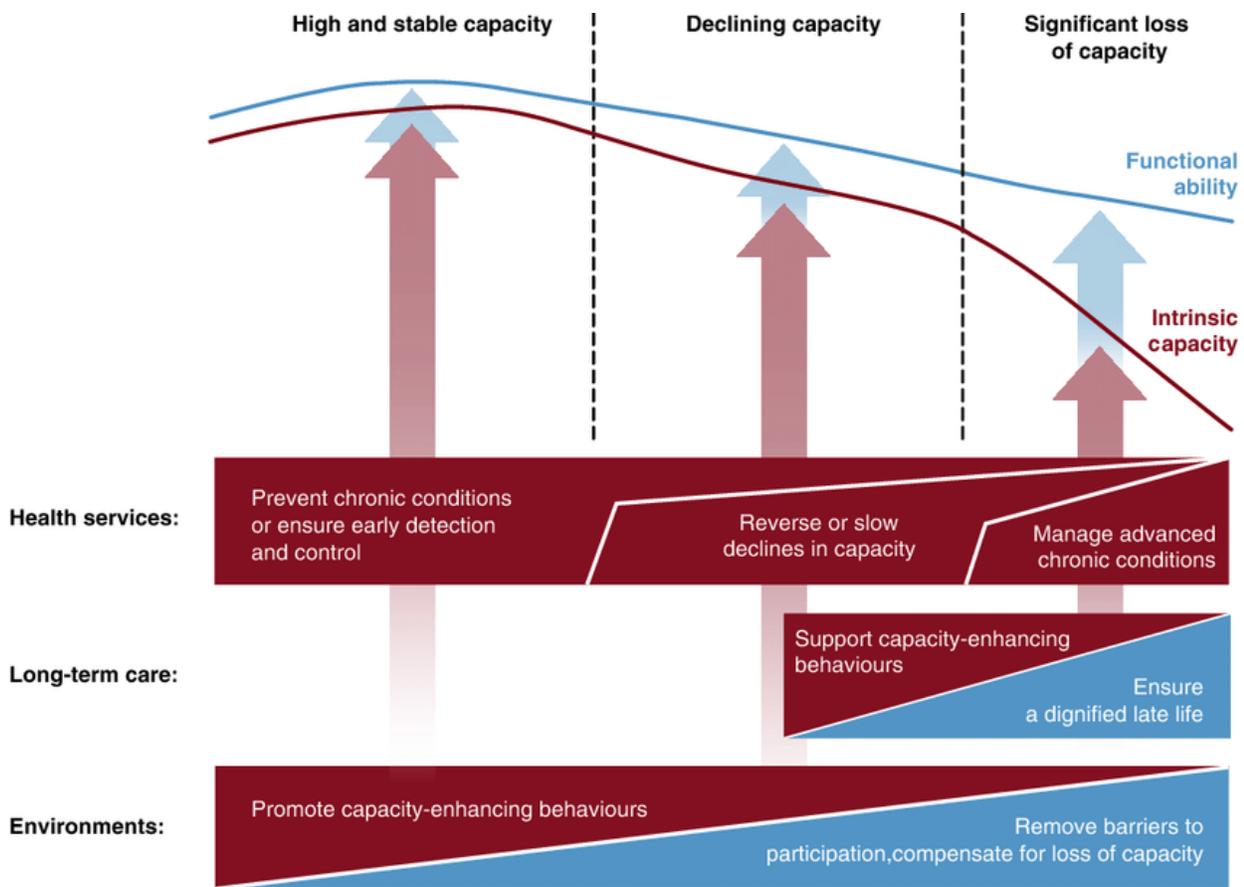
- Fig. shows average trends from midlife in intrinsic capacity and functional ability.
- The additional functioning associated with functional ability reflects the net benefits accrued from the environment that a person lives in.
- This may become increasingly important as decrements in a person's capacity increase.
- It is assumed that the environment always enables functional ability to be greater than might be possible through intrinsic capacity alone.
- However, it is possible that in some settings the barriers that the environment puts in the way of older people may be greater than the benefits it provides.

## A Public-Health Framework for Healthy Ageing

- This can be achieved in two ways:
  - by supporting the building and maintenance of intrinsic capacity
  - by enabling those with a decrement in their functional capacity to do the things that are important to them
- These general trajectories can be divided into three common periods:
  - a period of relatively high and stable capacity
  - a period of declining capacity
  - a period of significant loss of capacity

- It is important to note that these periods are not defined by chronological age, are not necessarily monotonic (that is, continually decreasing) and that trajectories will differ markedly among individuals (and may be disrupted entirely by an unexpected event such as an accident).
- Some people may, for example, die suddenly from any of a variety of causes while still in the period of high and stable capacity.

### A Public-Health Framework for Healthy Ageing: Opportunities for Public-Health Action Across the Life Course



(World Health Organization, 2015)

## Recommendations for Promoting Healthy Ageing

### Seamless Public Health Intervention

- Healthy Ageing considers these phases of older age as part of a continuous trajectory of ability and capacity.
- Public-health interventions should similarly be seamless to remain relevant for older people as they transition from one phase to another.

### 4 Key Issues for Public Health Action

#### 1. Dealing with diversity

- Shaping policy to foster Healthy Ageing will require active efforts to better understand the diverse needs of older populations.
- Another approach that is increasingly used is the concept of being person-centred.
- This strategy is designed to encourage a fundamental paradigm shift in the way health services are funded, managed and delivered so that all people have access to health services that respond to their preferences, are coordinated around their needs, and are safe, effective, timely, efficient and of an acceptable quality.

#### 2. Reducing inequity

- Several steps can help ensure that policy choices enhance equity.
- These include:
  - making a commitment that all older people will have equal opportunities to improve or maintain their health;
  - assessing health policies and programmes in relation to inequalities, from inputs to outcomes, and gauging to what extent these are fair or unfair.
  - involving older people and other stakeholders in identifying interventions that draw on the evidence for what works locally and elsewhere.

#### 3. Enabling choice

- Older people with the lowest intrinsic capacity and functional ability at any given age are not only less likely to be financially secure and well educated but are also less likely to have had the opportunity to develop the skills and knowledge that allows them to make the choices that are in their best interest.

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- Therefore, fostering the abilities to choose and to self-manage in this group may be a useful strategy for overcoming some of the inequities experienced in older age.

#### 4. Ageing in place

- To encourage the ability of older people to live in their own home and community safely, independently, and comfortably, regardless of age, income or level of intrinsic capacity.
- Emerging technologies, provide opportunities to learn, and monitor the safety and ensure the security of an older person, may make this goal more achievable in the future.
- Ageing in place can be further enhanced by creating age-friendly environments that enable mobility and allow older people to engage in basic activities.
- However, as with other policies on ageing, putting too rigid an emphasis on one-size-fits all solutions can present problems.
- For example, ageing in place may not be the prime goal for isolated older people, for those with high unmet needs for care and inappropriate housing, or for those living in unsafe or less than supportive neighbourhoods.

### WHO UN Decade of Healthy Ageing (2021–2030)

- The World Health Organization, Member States and Partners for Sustainable Development Goals created a Global Strategy and Action Plan for Ageing and Health for 2016–2020.
- The United Nations Decade of Healthy Ageing (2021–2030) is a global collaboration, aligned with the last ten years of the Sustainable Development Goals, to improve the lives of older people, their families, and the communities in which they live.
- To foster healthy ageing and improve the lives of older people, their families, and communities, fundamental shifts will be required not only in the actions we take but in how we think about age and ageing.

- The Decade will address four areas for action:

#### 1. Age-friendly environment

Age-friendly environments are better places in which to grow, live, work, play, and age. We can create them by addressing the social determinants of healthy ageing and enabling all people, irrespective of their level of physical or mental capacity, to continue to do the things they value and live dignified lives.

#### 2. Combatting Ageism

Ageism is stereotyping (how we think), prejudice (how we feel) and discrimination (how we act) towards people on the basis of their age. It affects people of all ages but has particularly negative effects on the health and well-being of older people.

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3. Integrated care

Older people require a comprehensive set of services to prevent, slow, or reverse declines in their physical and mental capacities. These services need to be delivered to meet the person’s needs (person-centred), coordinated between different health and social care providers, and avoid causing the user financial hardship.

4. Long term care

Many older people experience declines in their physical and mental capacity which means they can no longer care for themselves without support and assistance. Access to good-quality long-term care is essential for these people to maintain their functional ability, enjoy basic human rights and live with dignity.

***Further reading***

WHO’s work on the United Nations Decade of Healthy Ageing (2021–2030)

<https://www.who.int/initiatives/decade-of-healthy-ageing>

**WHO Integrated Care for Older People (ICOPE)**

- The 2015 *World report on ageing and health* defines the goal of healthy ageing as helping people to develop and maintain the functional ability that enables wellbeing.
- This concept of healthy ageing inspires a new focus for health care in older age – a focus on optimizing people’s intrinsic capacity and functional ability as they age.
- In October 2017, WHO published Integrated care for older people: Guidelines on community-level interventions to manage declines in intrinsic capacity.
- These guidelines set out **13 evidence-based recommendations** for health and care workers to help develop and carry out person-centred integrated care for older people (ICOPE) at the community level.
- The ICOPE approach embodies the focus on optimizing intrinsic capacity and functional ability as the key to healthy ageing.

***Further reading***

Integrated care for older people (ICOPE): guidance for person-centred assessment and pathways in primary care

<https://www.who.int/publications/i/item/WHO-FWC-ALC-19.1>

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