From the concept of frailty to intrinsic capacity

World Health Organization

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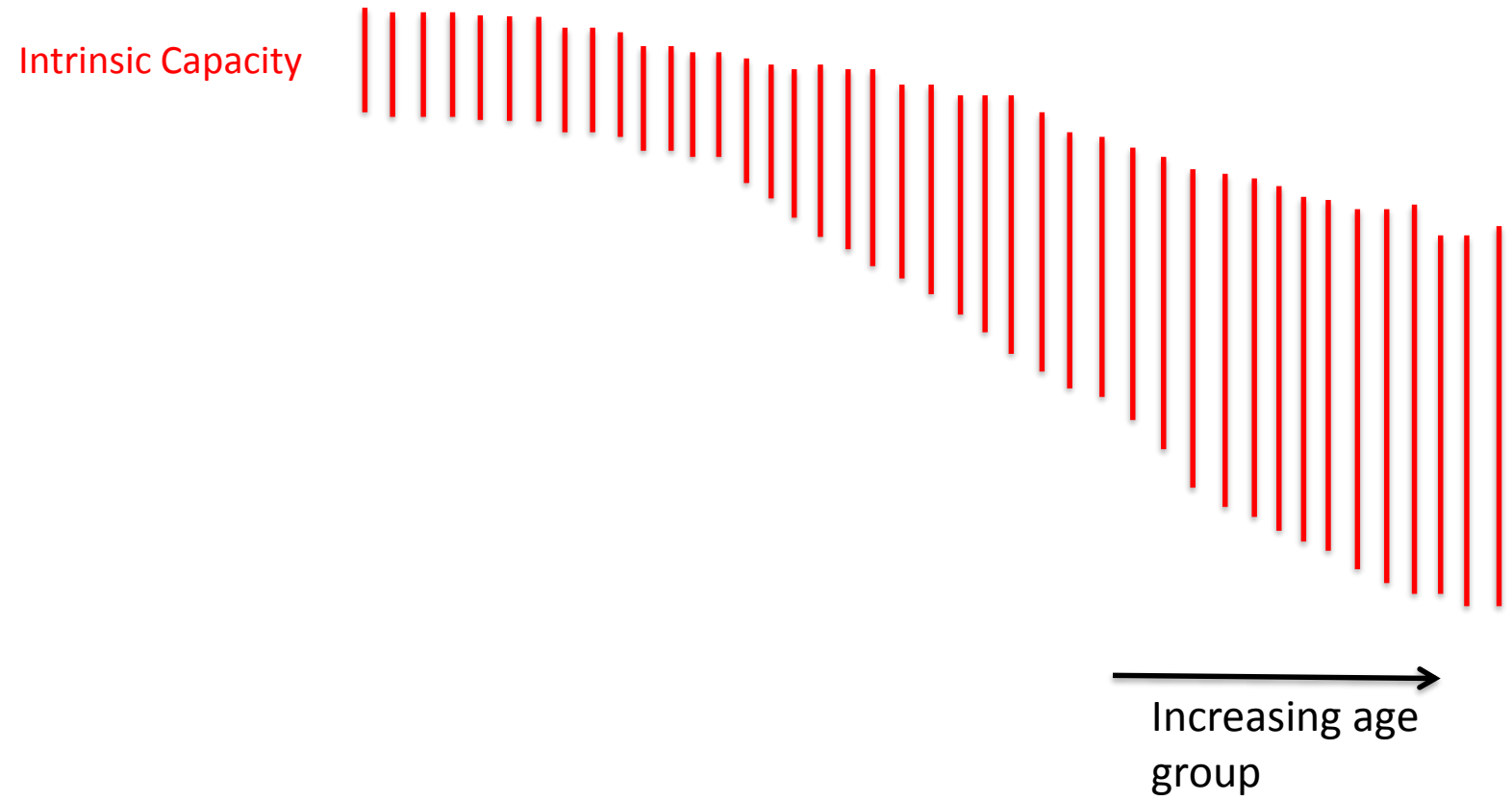
Functional ability (FA) comprises the health-related attributes that **enable people to be and to do what they have reason to value**.

It is made up of the

- intrinsic capacity of the individual,
- relevant environmental factors and
- the interactions between the individual and these factors.

Population in the second half of life



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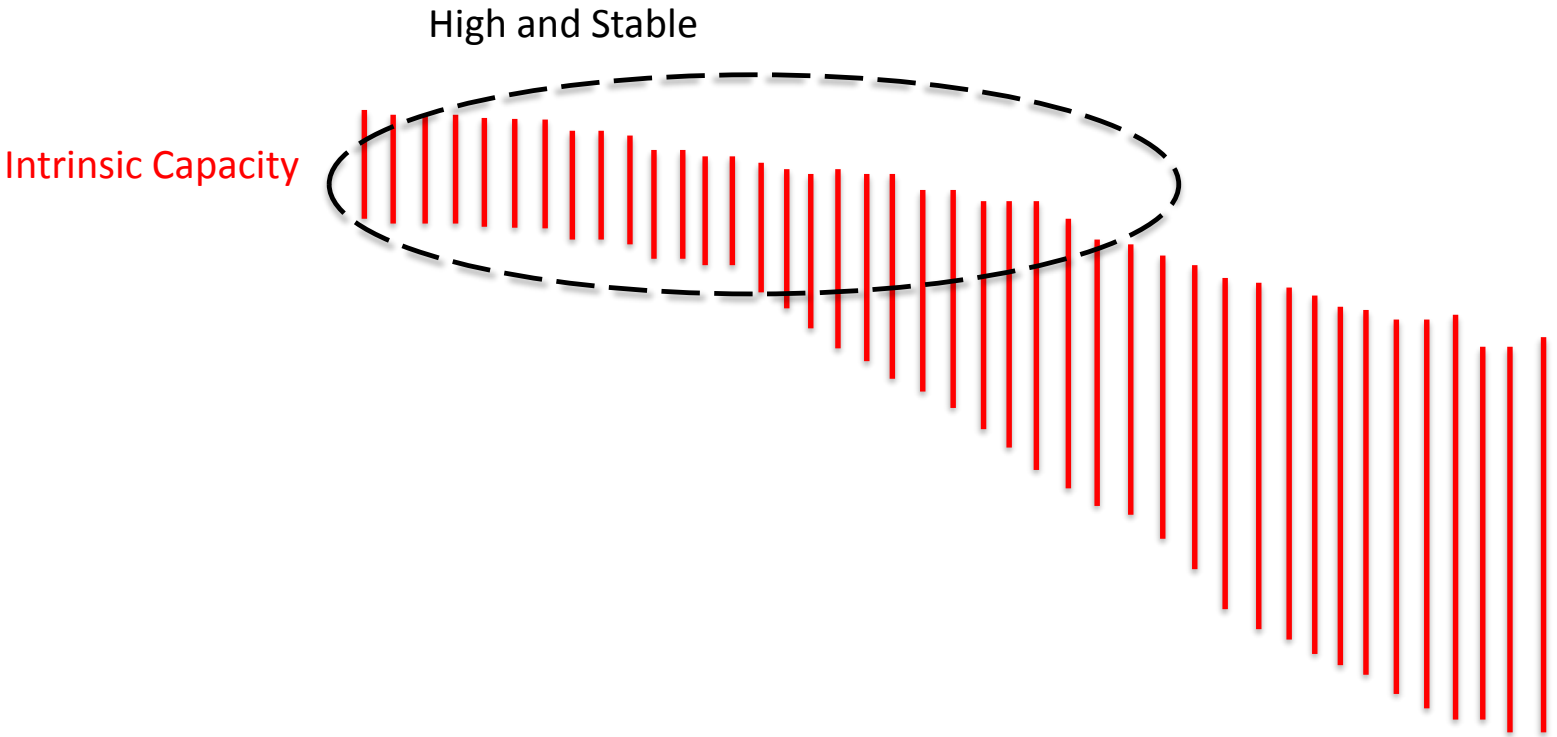

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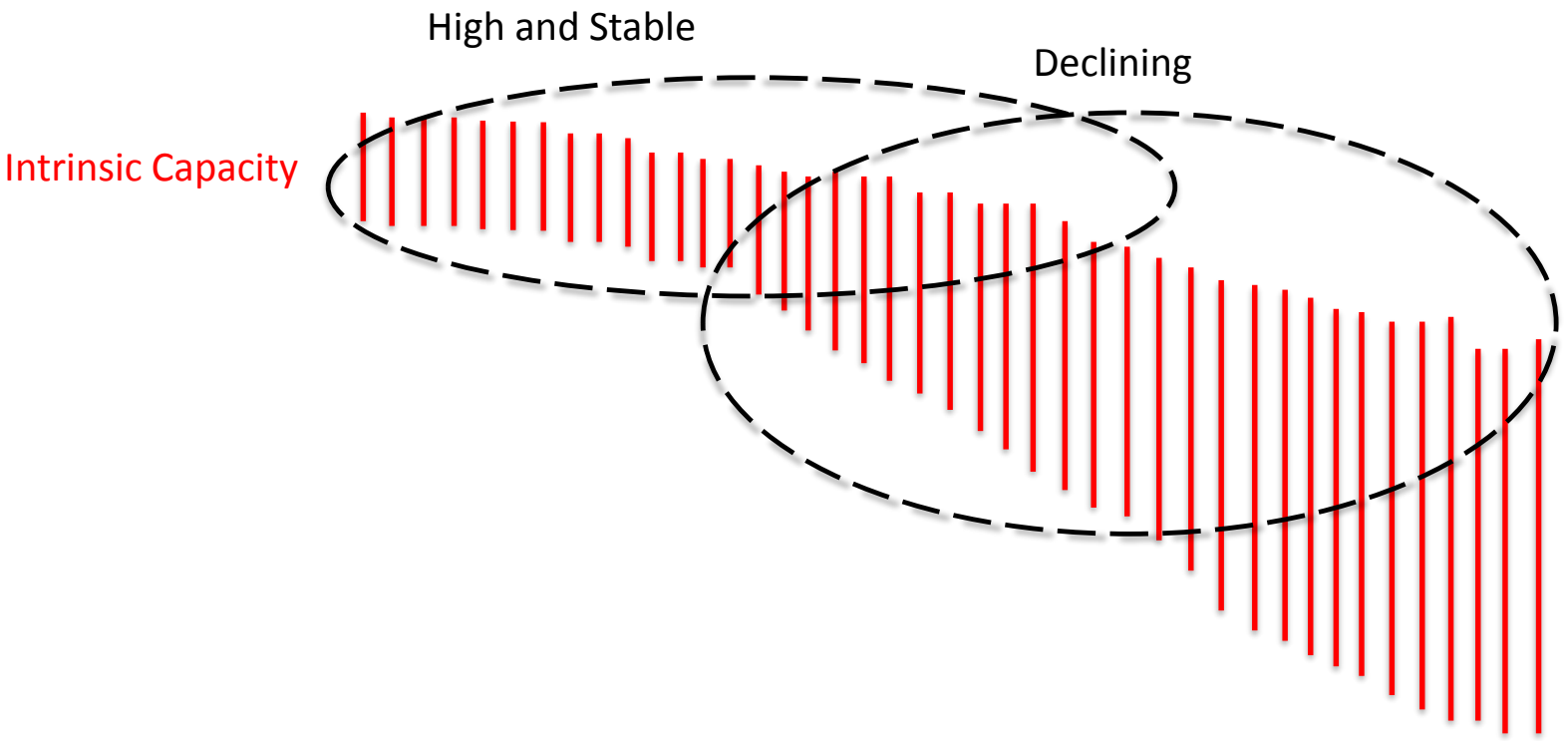

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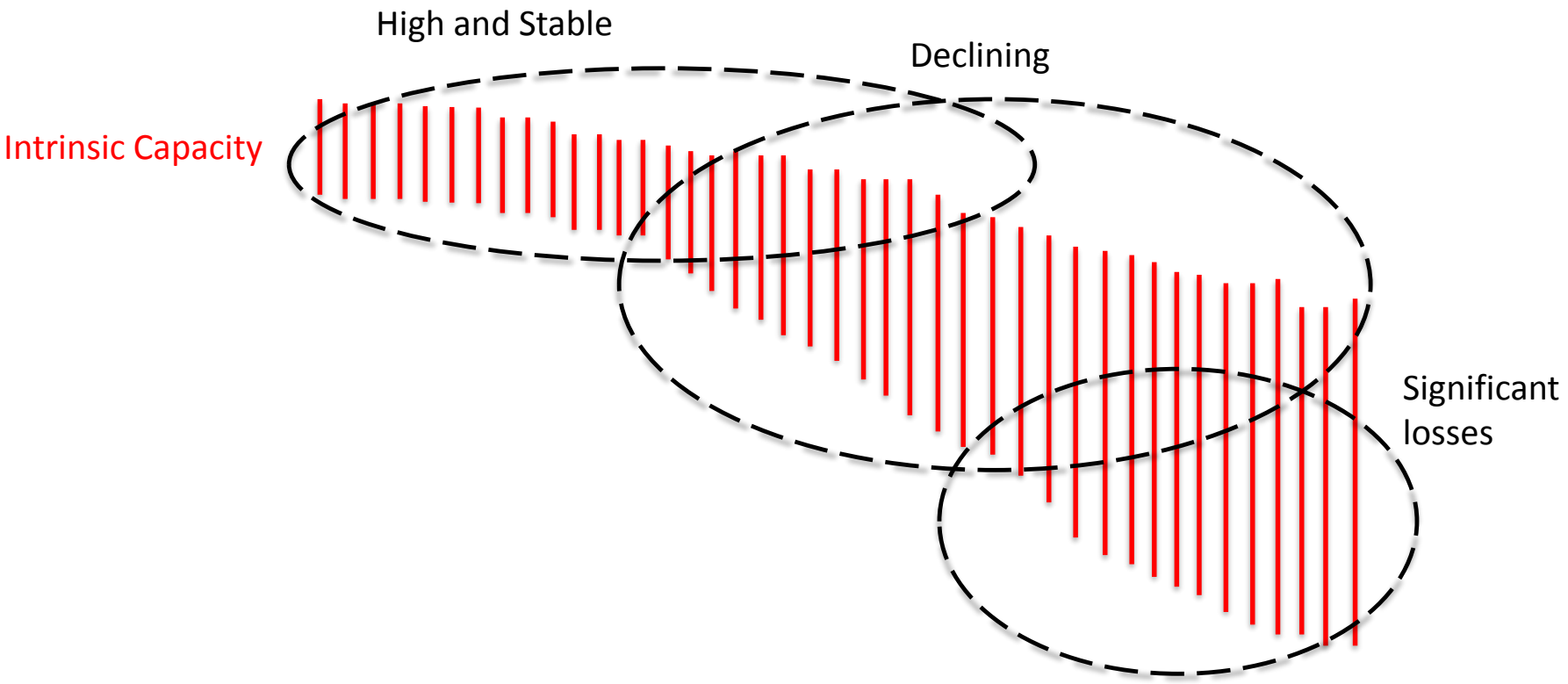

Three common periods of intrinsic capacity in older age

Period	High and stable capacity	Declining capacity	Significant loss of capacity
Risks and challenges	Risk behaviours, emerging NCDs	Falling mobility, sarcopaenia, frailty, cognitive impairment or dementia, sensory impairments	Difficulty performing basic tasks, pain and suffering caused by advanced chronic conditions
Goals			
Responses	Reduce risk factors and encourage healthy behaviours Early detection and management of chronic diseases Build resilience through capacity-enhancing behaviours, strengthening personal skills and building relationships	Implement multicomponent programmes delivered at primary health care level Treat the underlining causes of declines in capacity Maintaining muscle mass and bone density through exercise and nutrition	Interventions to recover and maintain intrinsic capacity Care and support to compensate for losses in capacity and ensure dignity Rapid access to acute care Palliative and end-of-life care

Frailty: Geriatricians' Perspective

- Aging-related state of vulnerability
- Thought recognizable clinically
- High risk - for: mortality; falls; disability; hospitalization
- Potential for treatment and prevention of frailty as well as its poor outcomes

Formalized phenotype:

Definition and validation of the clinical syndrome of frailty

Multiple (3-5/5) criteria present = frail:

- Weight loss
- Weakness
- Exhaustion
- Slowed walking speed
- Low activity

Fried LP, et al, J Ger Med Sci, 2001

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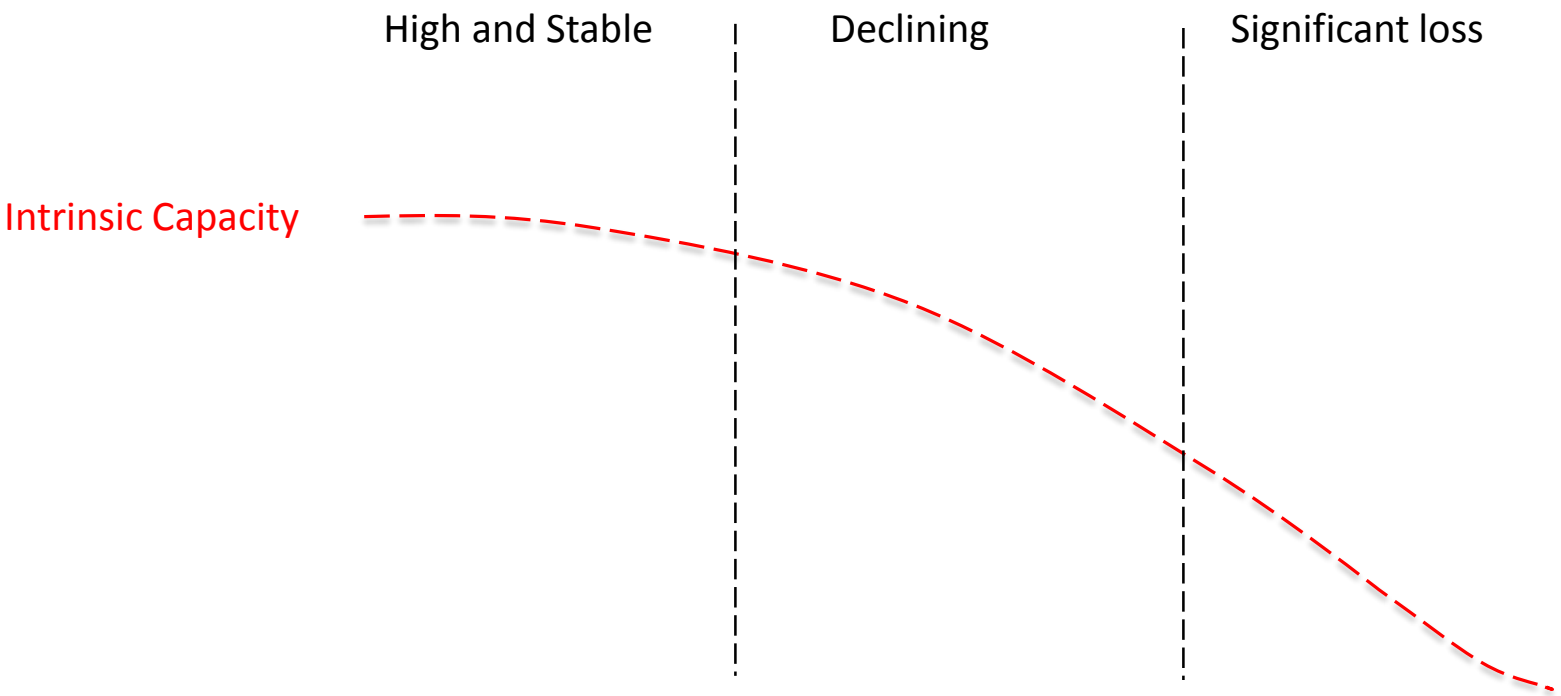

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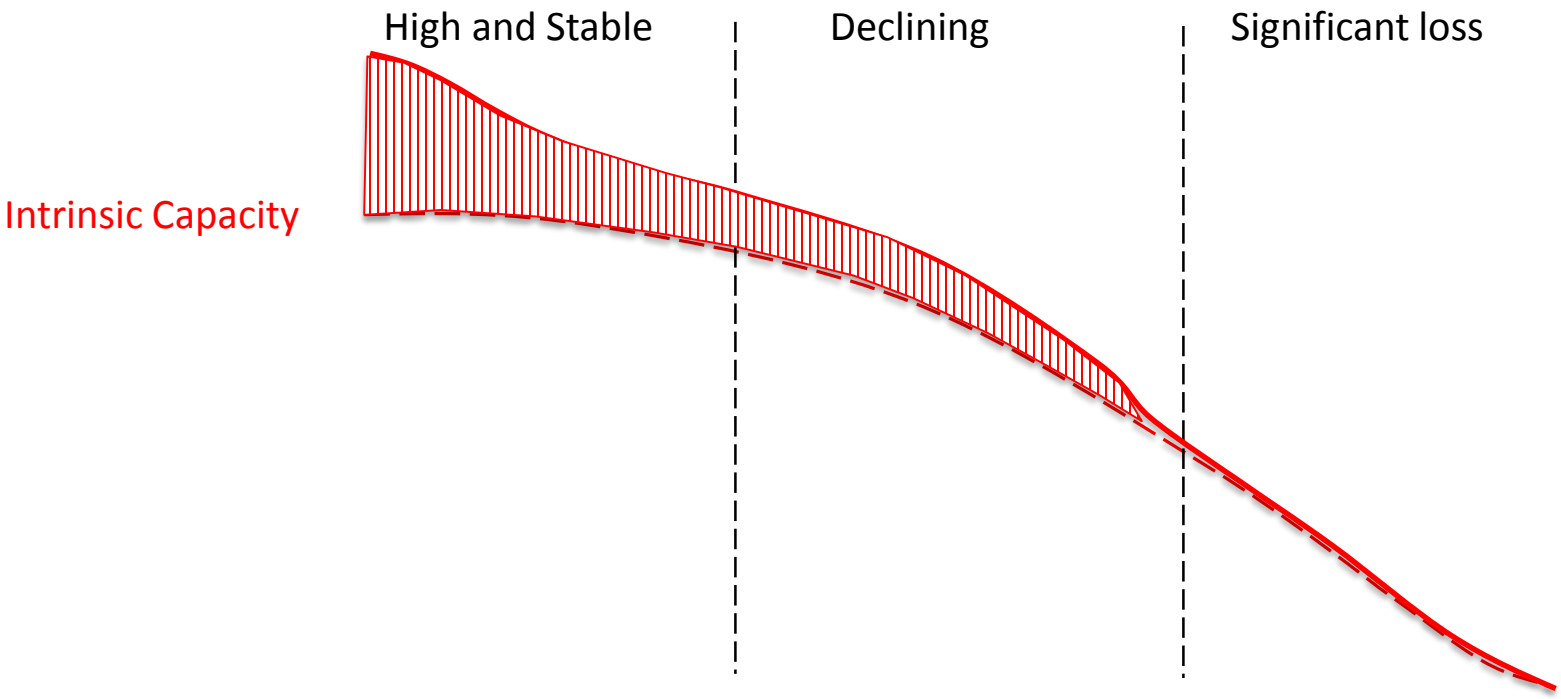

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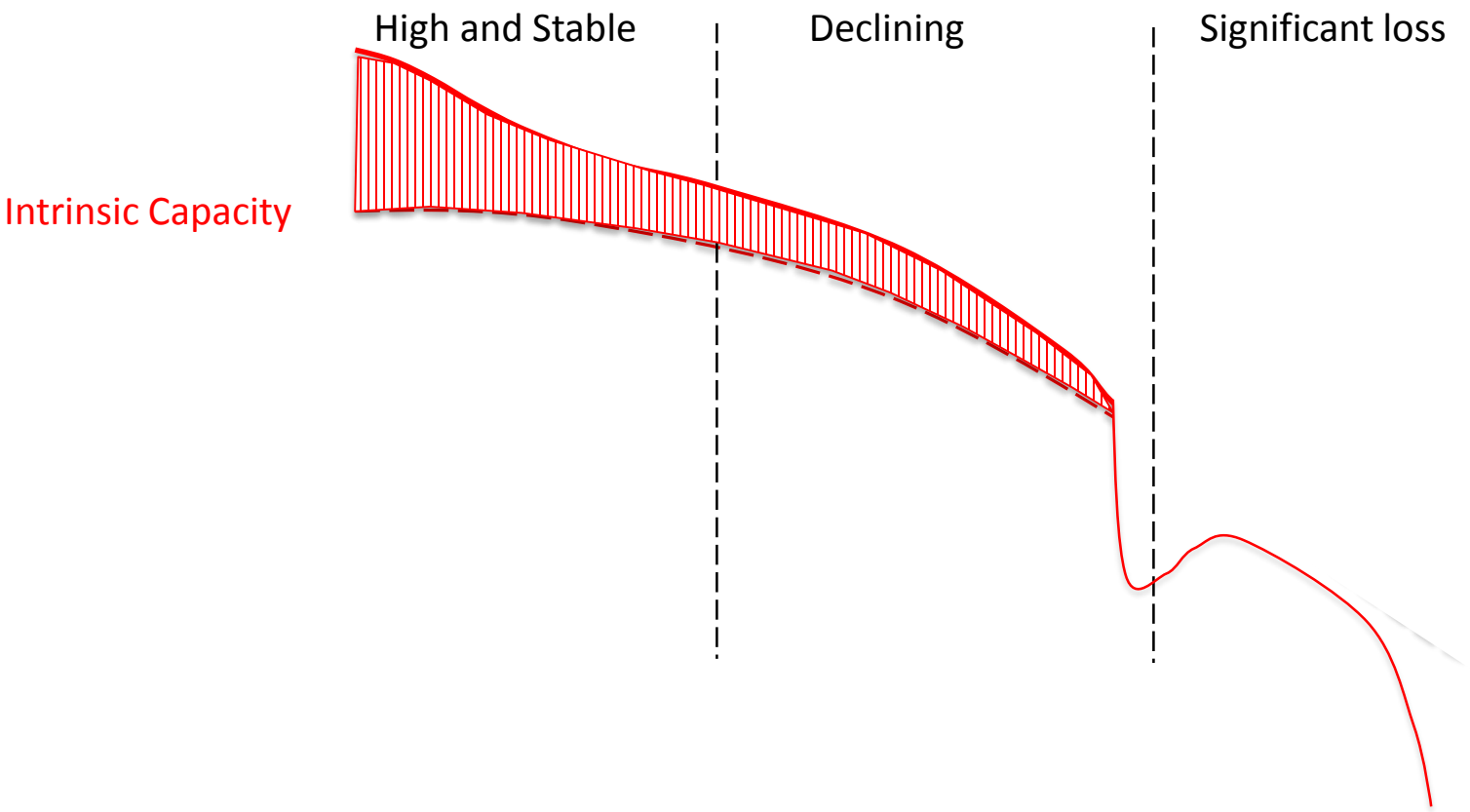
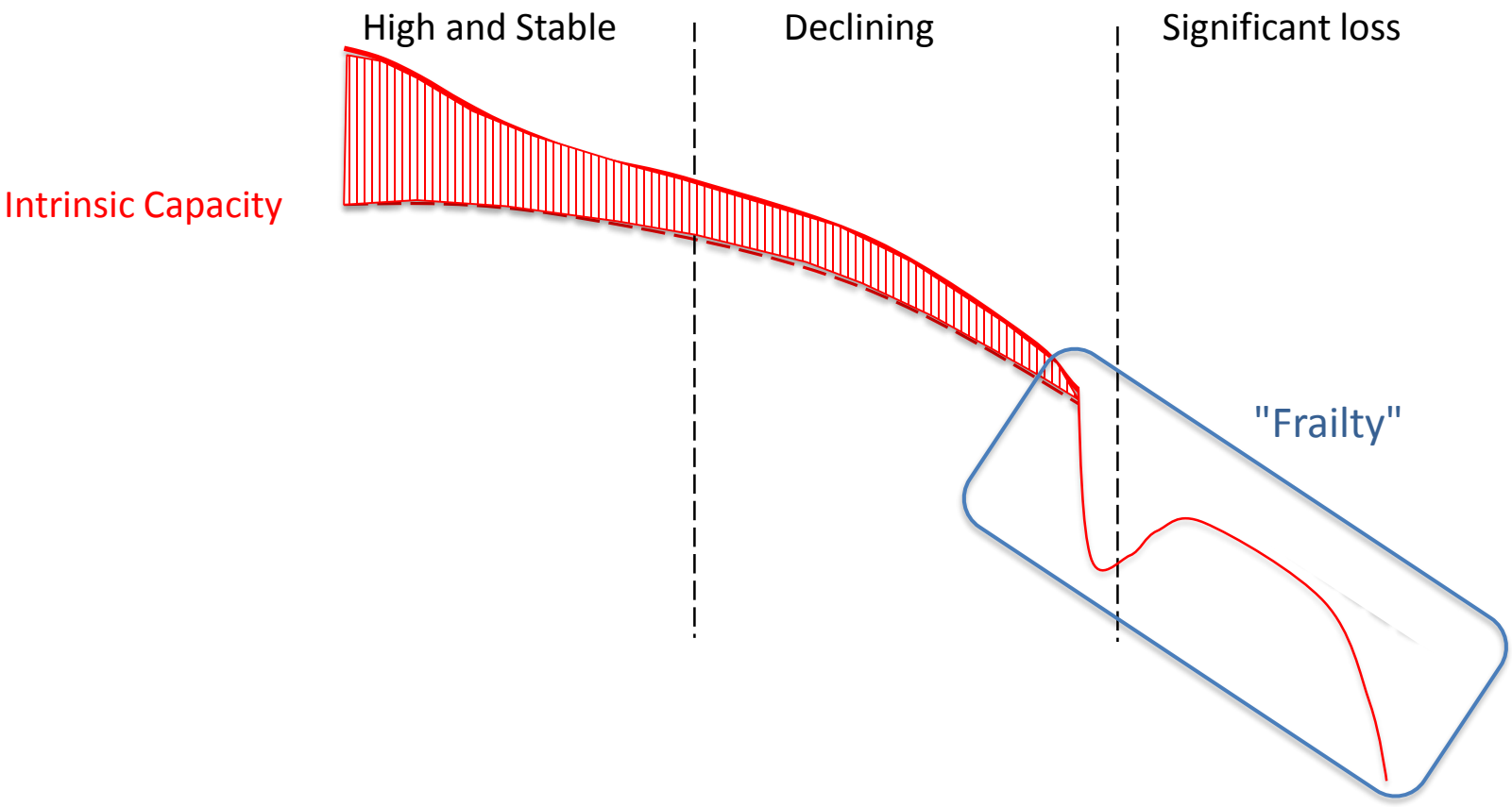
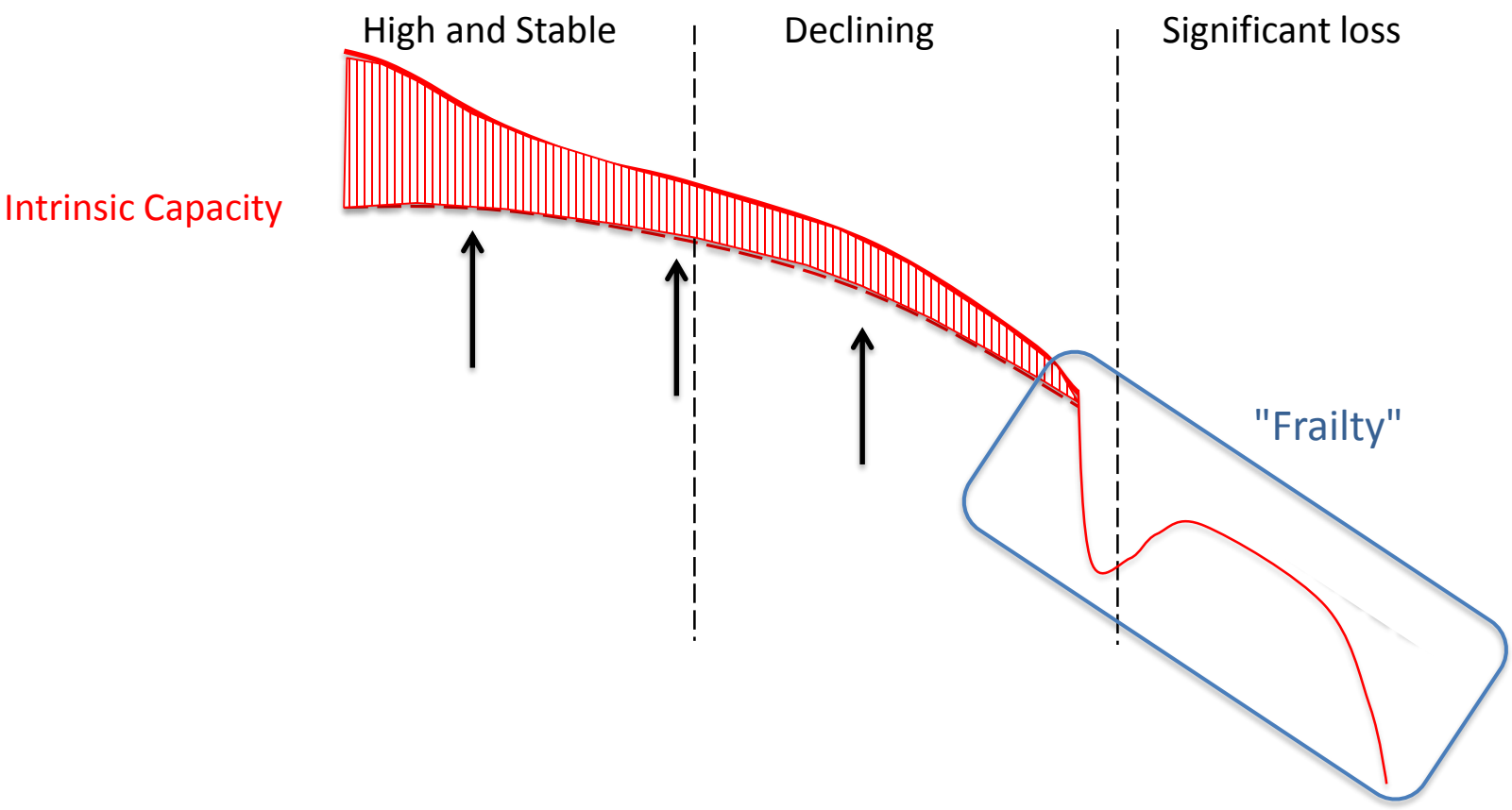


Frailty


High and Stable
Declining
Significant loss
Intrinsic Capacity
"Frailty"

Frailty


High and Stable
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Frailty and Intrinsic Capacity

- Frailty is part of the trajectory of intrinsic capacity
- Shift from focus on clinical diseases end points to multifaceted traits and longitudinal trajectories of intrinsic capacity.
- That would allow to consider health from the perspective of an older person's trajectory of functioning rather than disease or co-morbidity they are experiencing at a single point in time
- It means that IC should be monitored and assessed before any clinical threshold is reached
- This will require a composite marker or markers, that can be assessed at different points across the life course

ICOPE Partners:

- **ICOPE Steering Group**: 10 WHO Departments (nutrition, disabilities, mental health, NCDs, health services) and 6 Regions

- **WHO Clinical Consortium on Healthy** Ageing: 55 organizations, 9 member States (Spain, Japan, Germany, China, Mexico, France, Thailand, India, South Africa), 2 WHO Collaborating Centers

- **Community of practice** led by **Thailand** in partnership with WHO SDS (Brazil, Mexico, Japan, South Africa, Australia, Saudi Arabia, India, Morocco, Kuwait, Lebanon, Ethiopia)

Focus on Frailty and Intrinsic Capacity

- IC relevant for clinical practice if split into domains
- The group recommended the development of instruments: detect IC declines, monitor and trigger subsequent actions
- IC plus routine clinical assessment leads to a care plan
- Measurement of IC – first step in the evaluation of older people
- Assessment of IC also in mid life

Evidence for the domains of intrinsic capacity

THE GERONTOLOGICAL SOCIETY OF AMERICA®

Journals of Gerontology: Medical Sciences
cite as: *J Gerontol A Biol Sci Med Sci*, 2018, Vol. 00, No. 00, 1–8
doi:10.1093/gerona/gly011
Advance Access publication February 02, 2018

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Review

Evidence for the Domains Supporting the Construct of Intrinsic Capacity

Matteo Cesari, MD, PhD,[1–4] Islene Araujo de Carvalho, MD, MPH,[5] Jotheeswaran Amuthavalli Thiyagarajan, MSC, PhD,[5] Cyrus Cooper, MD, FMedSci,[6] Finbarr C. Martin, MD, MSc,[7] Jean-Yves Reginster, MD, PhD,[8] Bruno Vellas, MD, PhD,[1,2] and John R. Beard, MBBS, PhD[5]

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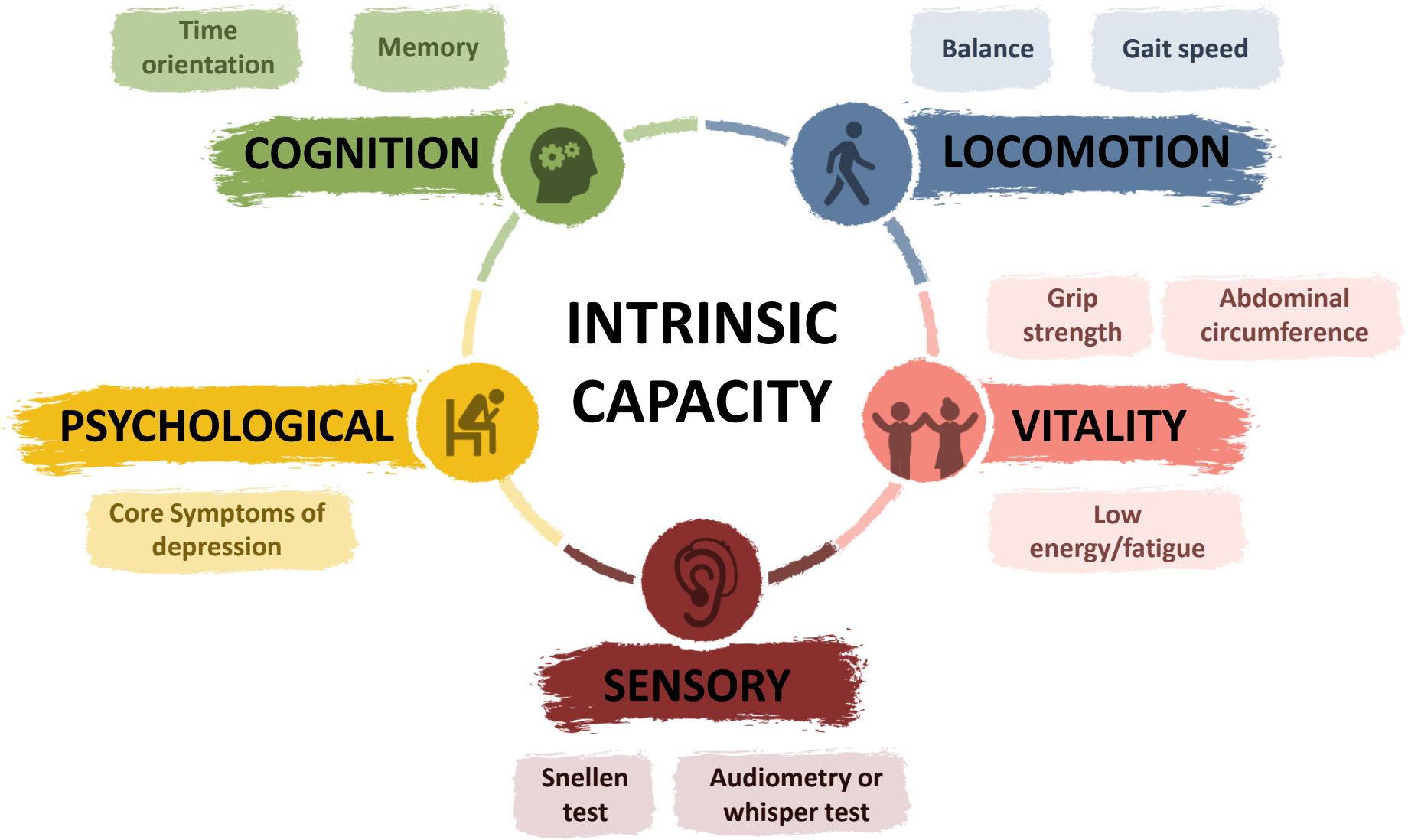
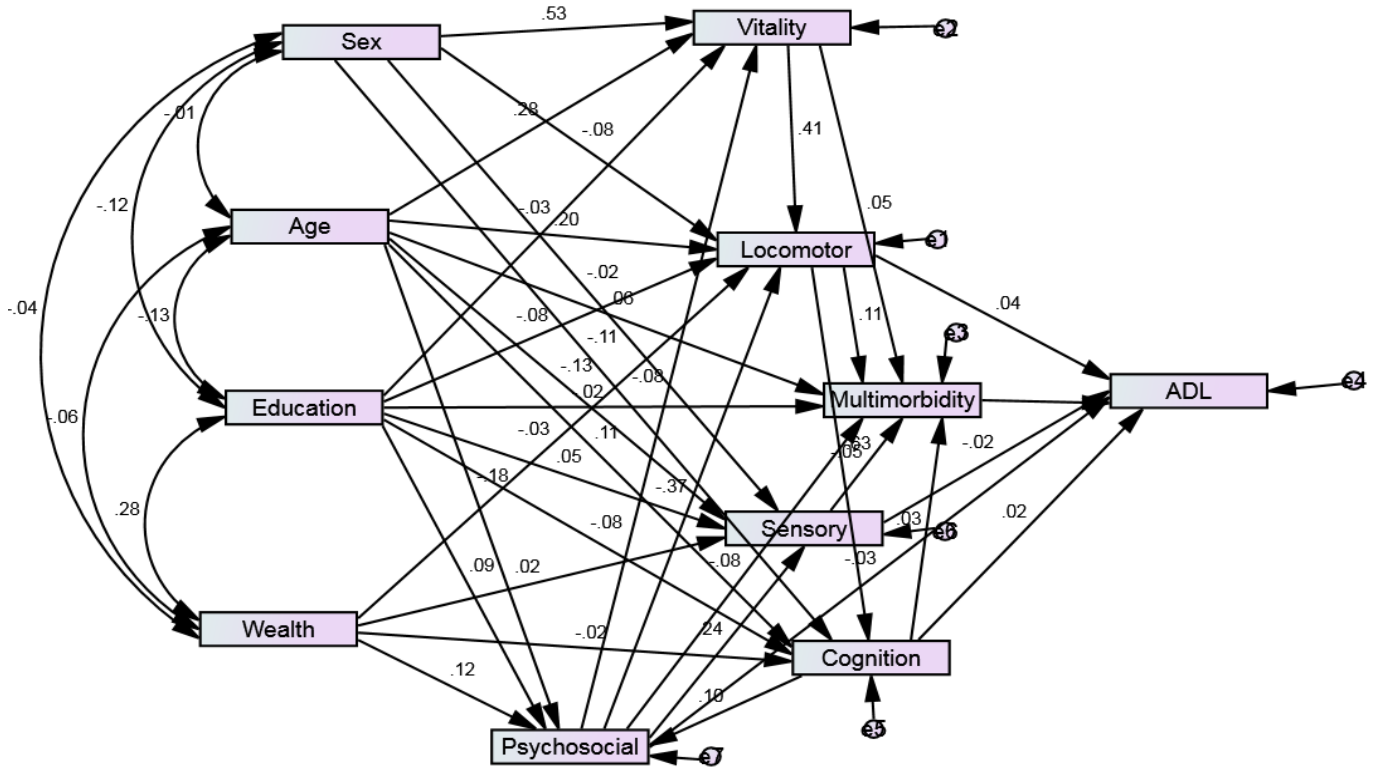
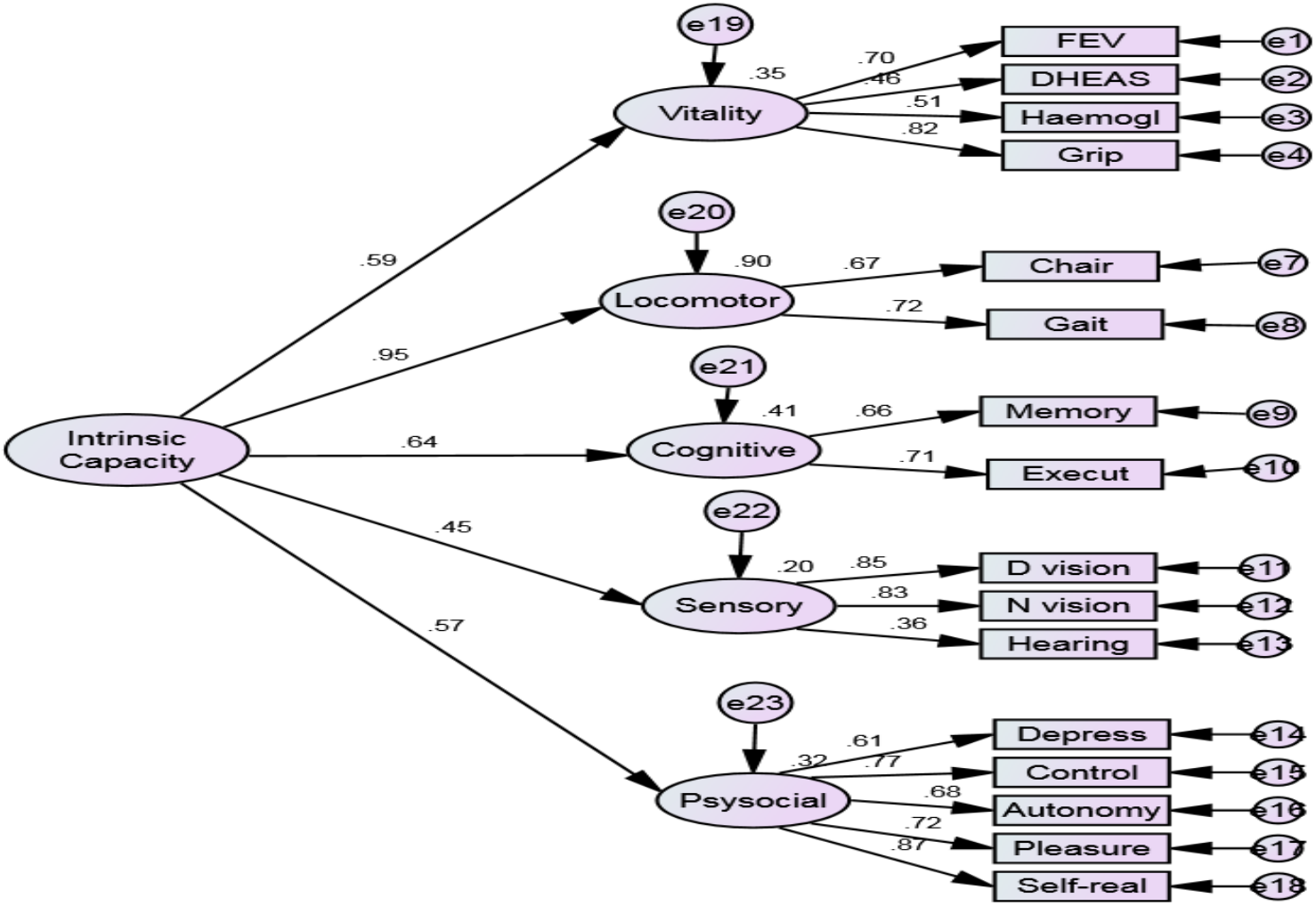
DOMAINS OF INTRINSIC CAPACITY



Structural Equation Model of Theory Derived Factor Score and Incident loss of IADL



Confirmatory Factor Analysis

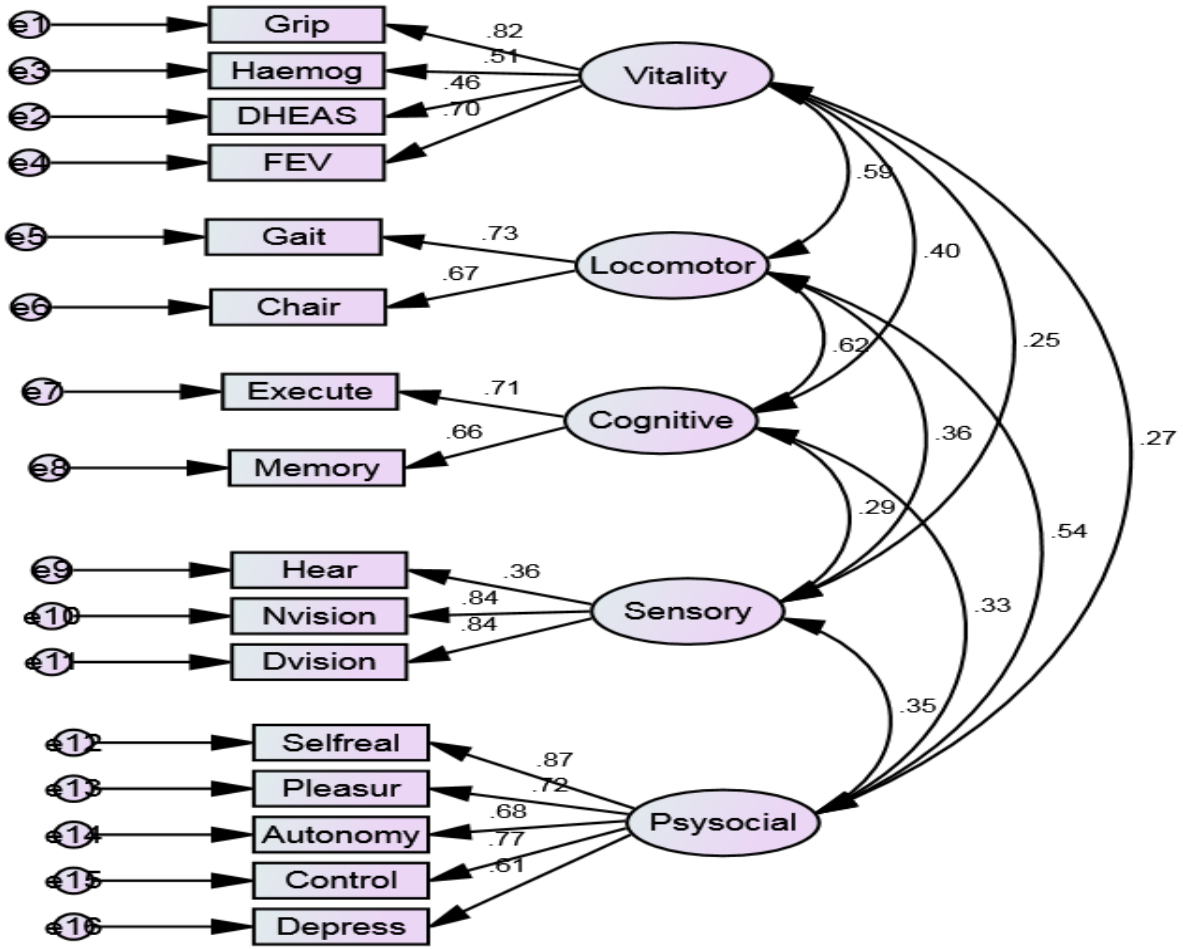


Theory Based Structure

Integrated Care:

One goal: Intrinsic Capacity

One Care Plan with Multidimentional interventions



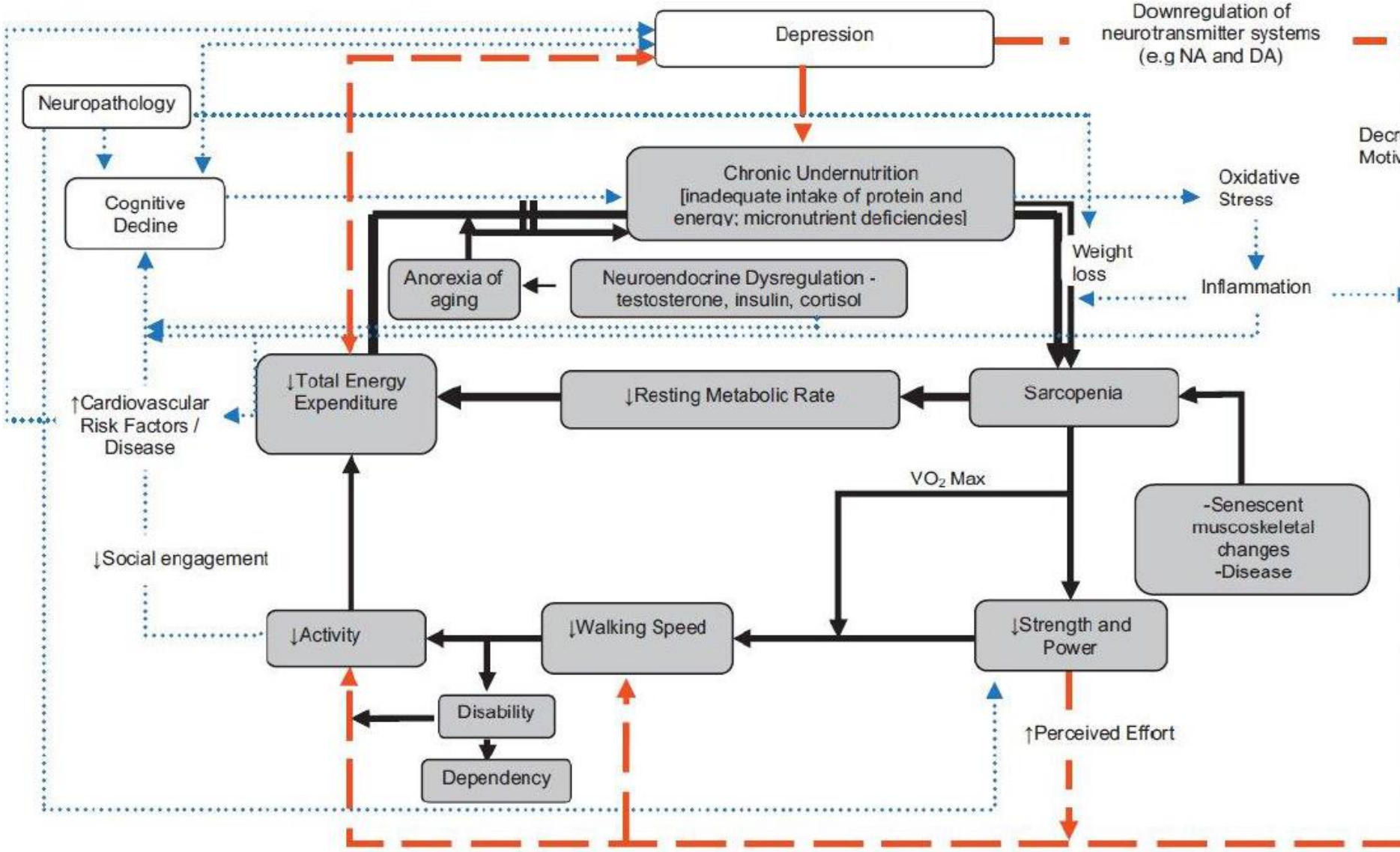


Fig. 1. The cycle of frailty and cognitive impairment. Fried et al.'s (2001) model is outlined in the grey shaded boxes. Our additions to this model are the mental
outlined in red (dashed) and the cognitive decline cycle outlined in blue (dotted) lines.

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INTEGRATED CARE FOR OLDER PEOPLE

Older people are frequently faced with...

1 Fragmented services

2 Too far from where they live

3 Ageist attitudes of healthcare workers

4 Lack of interventions to optimize Intrinsic Capacity and Functional Ability

INTEGRATED CARE

is important to help older adults maximize their Intrinsic Capacity and Functional Ability in the community.

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HOW DOES **INTEGRATED CARE** WORK?

1 Providing care at the communities, close where people live

2 Comprehensive assessment and care plan shared with everyone involved

3 All professionals work together to maintain IC and FA

4 Engaging communities and supporting family care givers

Thank you!

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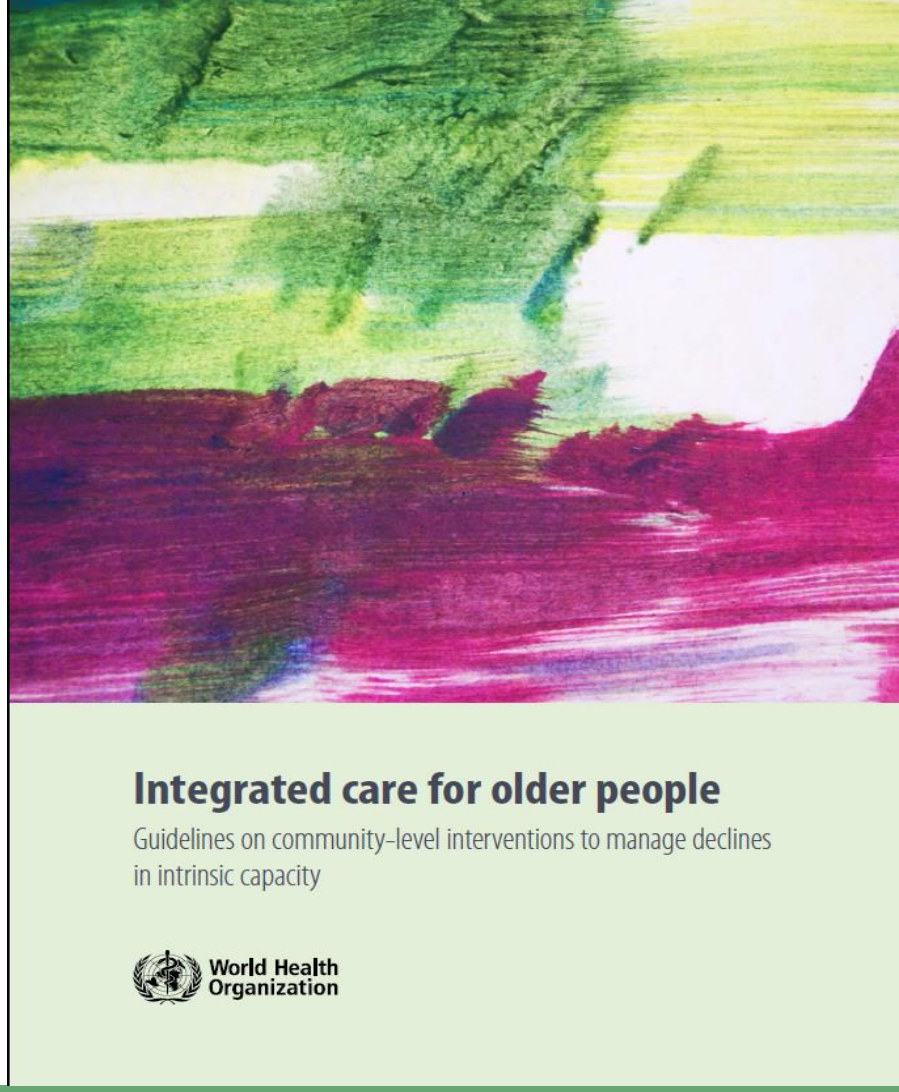
#ICOPE



See Guidelines in full:

www.who.int/ageing/health-systems/icope