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LKS Faculty of Medicine
School of Nursing
香港大學護理學院

Prescriptive care pathway to deter accelerated aging: Leveraging volunteer networks and potential digital solution

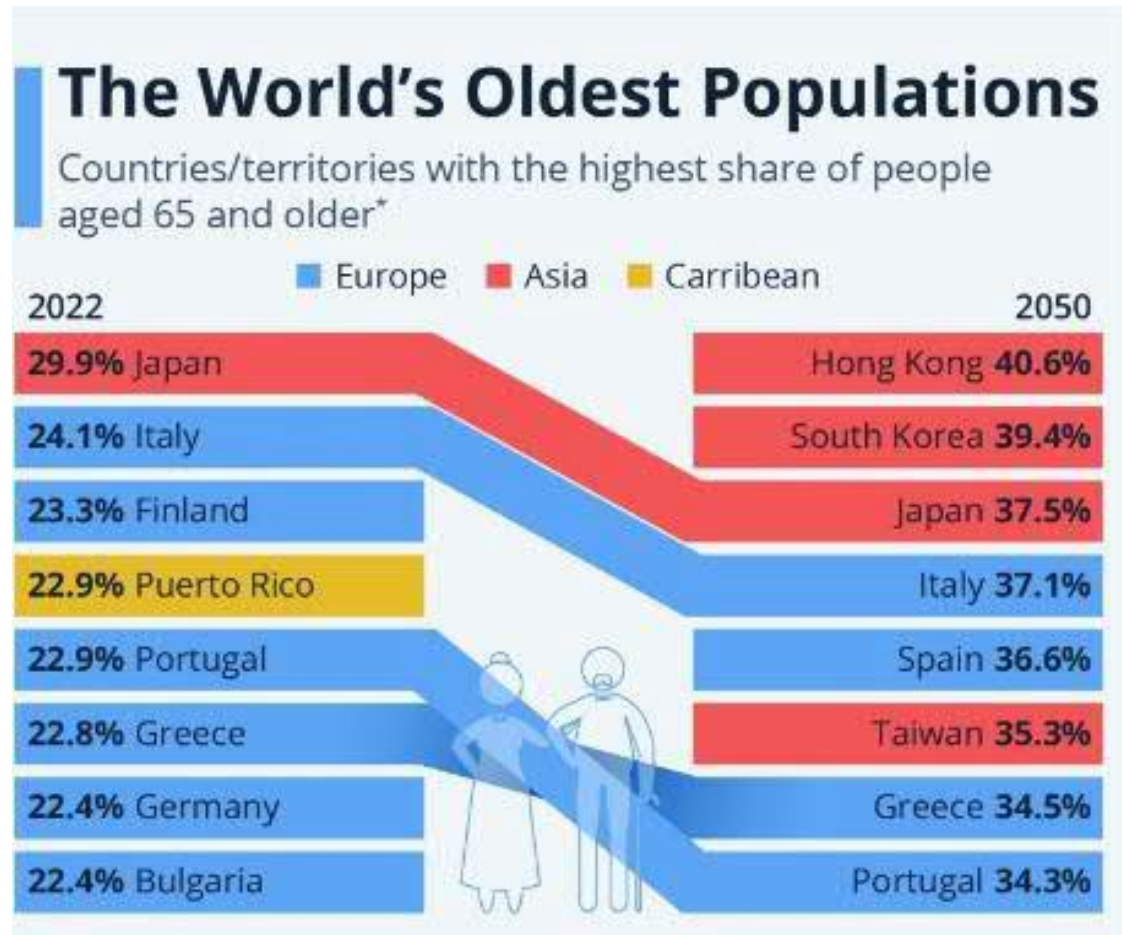
Doris Yu

Professor, School of Nursing,
LKS Faculty of Medicine, The University of Hong
Kong

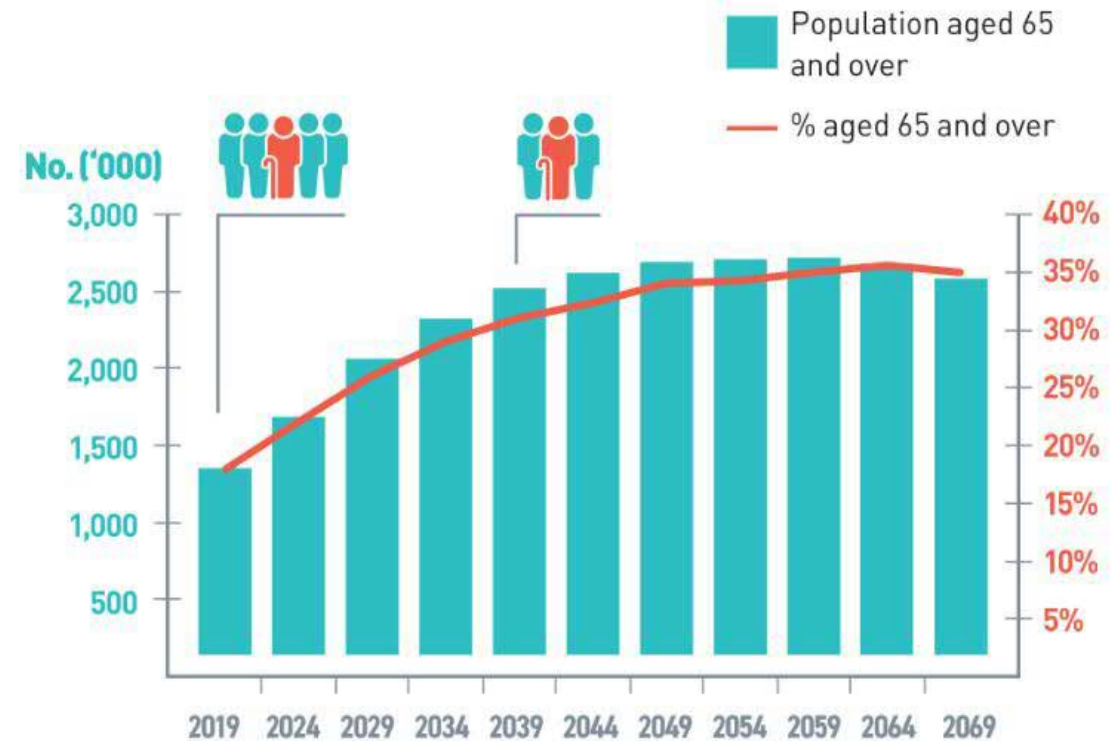
Global population aging



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Population aged 65 and over



Sources: Census & Statistics Department, HK

Aging: A global agenda



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**Decade of Healthy Ageing
2020-2030**

- Age is just a 'number'
- "Ageing" does not necessarily imply functional dependency & care needs

THE 4 ACTION AREAS OF THE DECADE



1. Change how we think, feel and act towards age and aging.



2. Ensure that communities foster the abilities of older people.



3. Deliver person-centered integrated care and primary health services responsive to older people.



4. Provide access to long-term care for older people who need it.

Functional optimization – *the key to address global aging*



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Healthy aging is the process of developing and maintaining the functional ability that enables well-being in older age.

*Intrinsic capacity drives
care prescription &
service mapping*

Functional Ability to

- meet basic needs;
- mobile;
- build & maintain relationship
- learn, grow & make decision;
- contribute to society

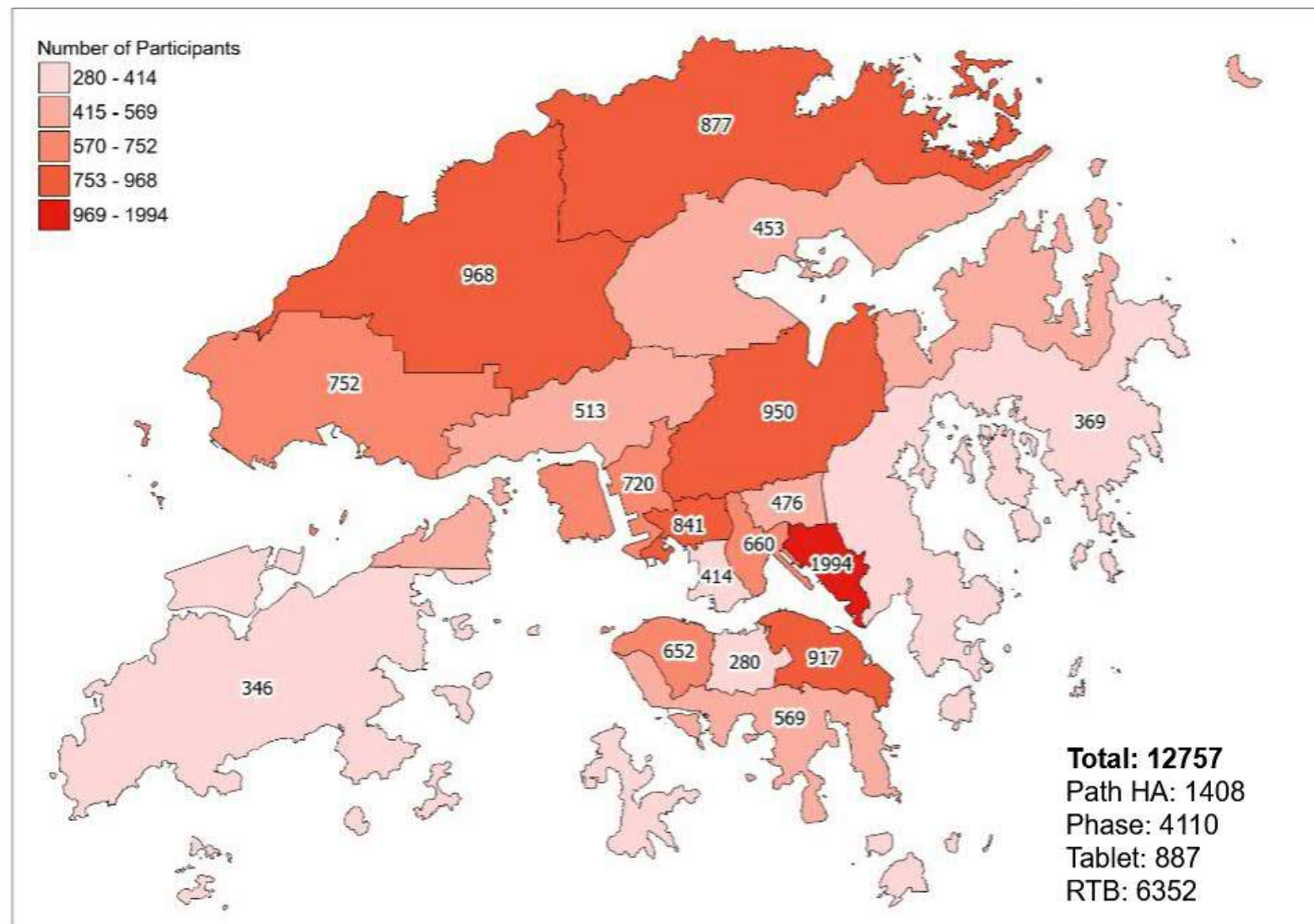


**Home/ community/
broader society at where
older people live**
- hardware, care service/ policy

KEY DOMAINS OF INTRINSIC CAPACITY



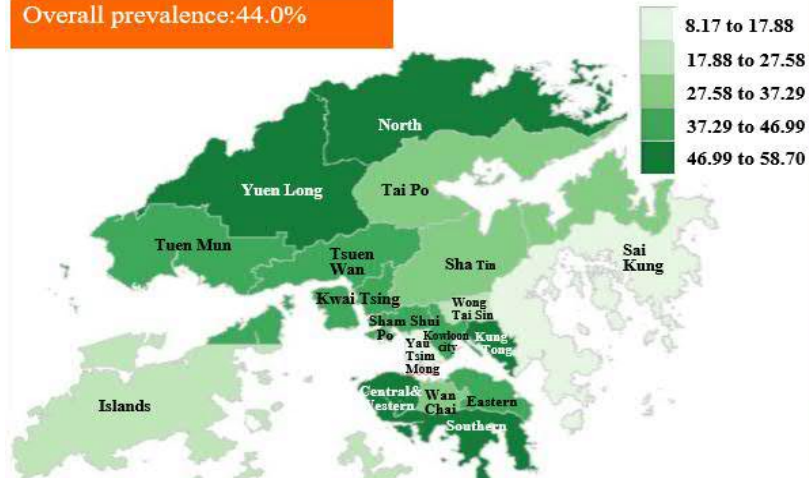
Diagnostic of intrinsic capacity of older adults in Hong Kong [2023-2025]



Locomotor capacity

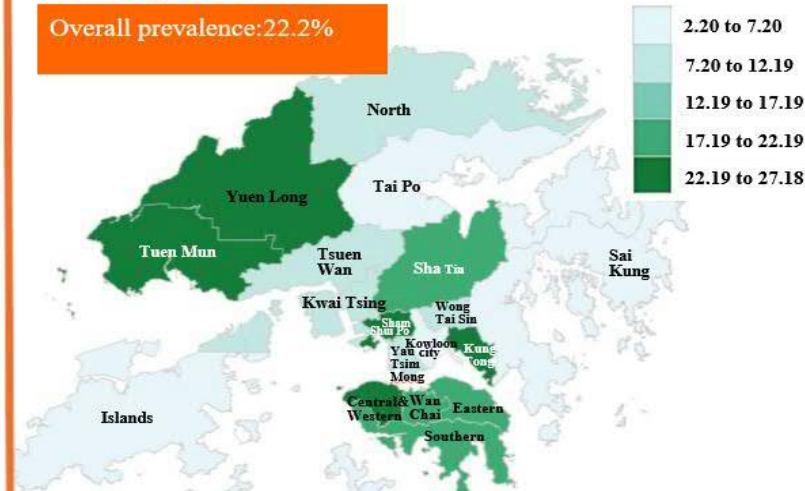
Poor integrated mobility function (SPPB <10)

Overall prevalence:44.0%



Sarcopenia

Overall prevalence:22.2%

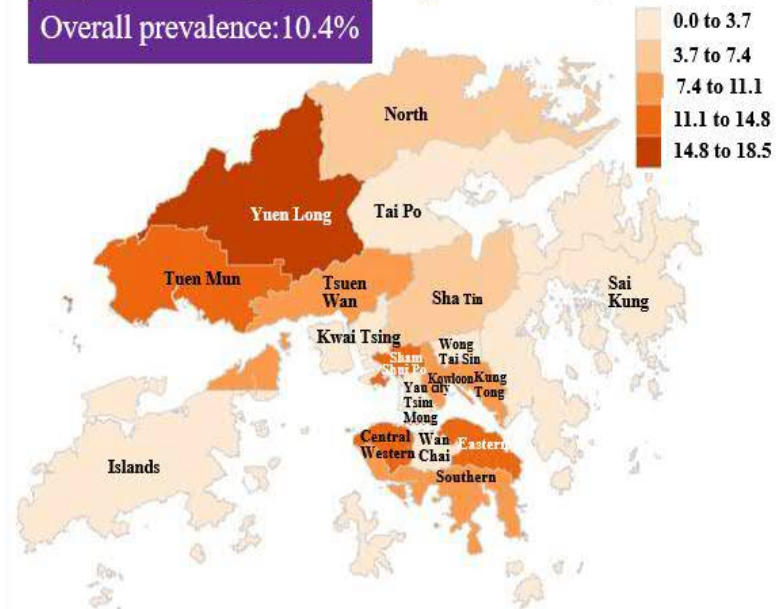


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Cognitive capacity

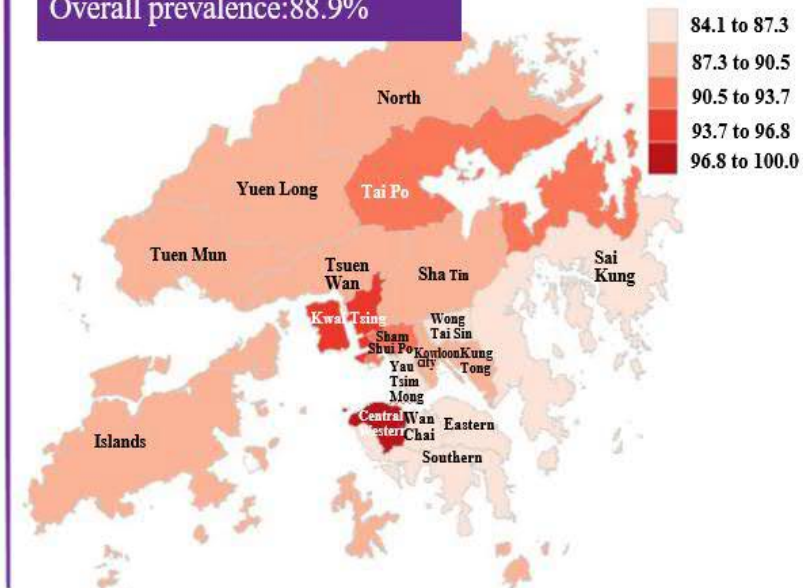
Objective cognition impairment (MoCA < 26)

Overall prevalence:10.4%



Subjective memory complaint (MCS >2)

Overall prevalence:88.9%



Psychological capacity

Loneliness (UCLA > 2)

Overall prevalence: 35.5%



Depression (GDS-15 ≥ 5)

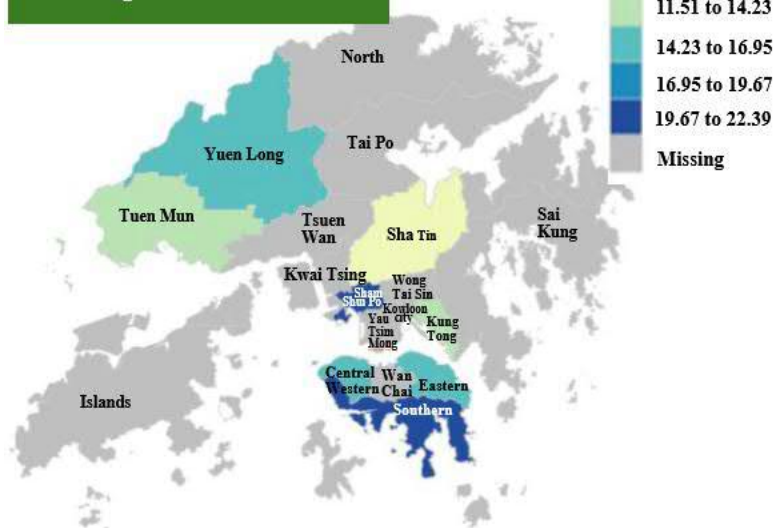
Overall prevalence: 15.2%



Vitality

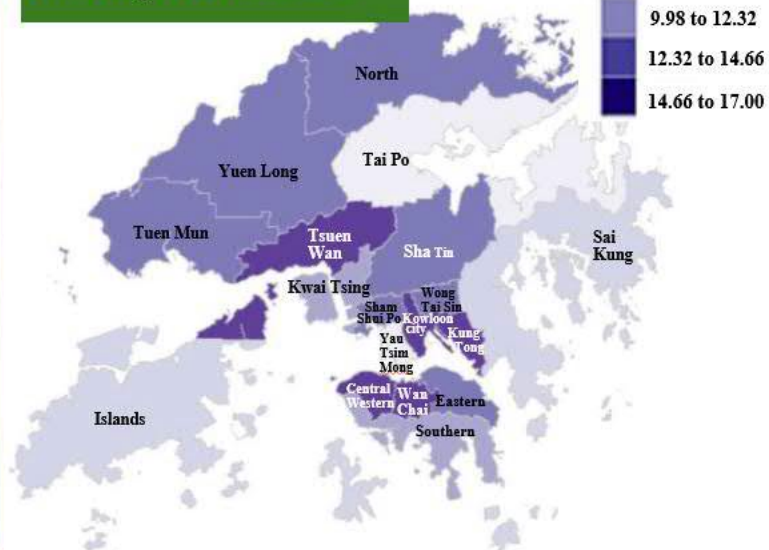
Wasting malnutrition (MNA < 12)

Overall prevalence: 15.7%

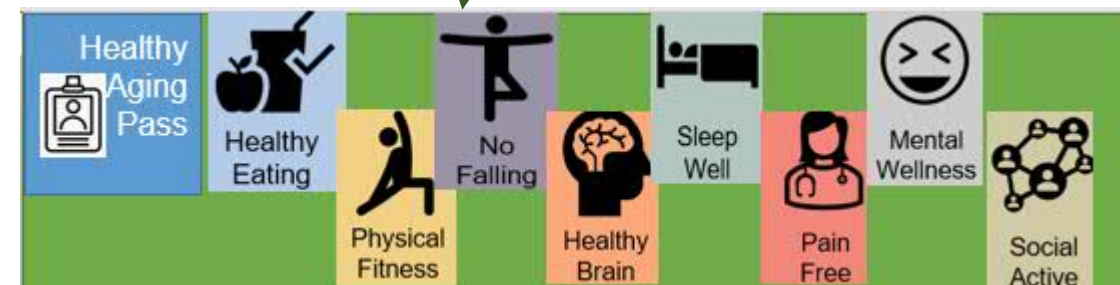
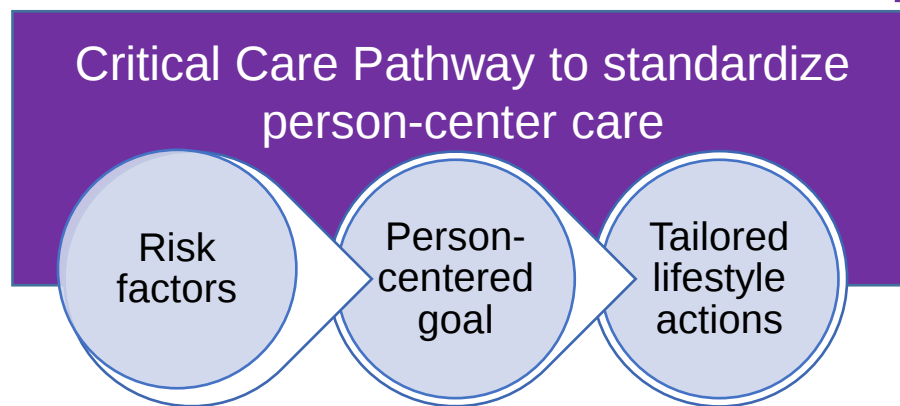


Obesity (BMI ≥ 28)

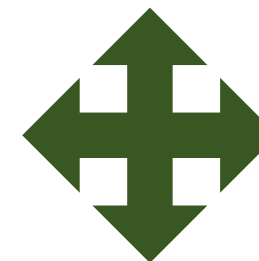
Overall prevalence: 13.5%



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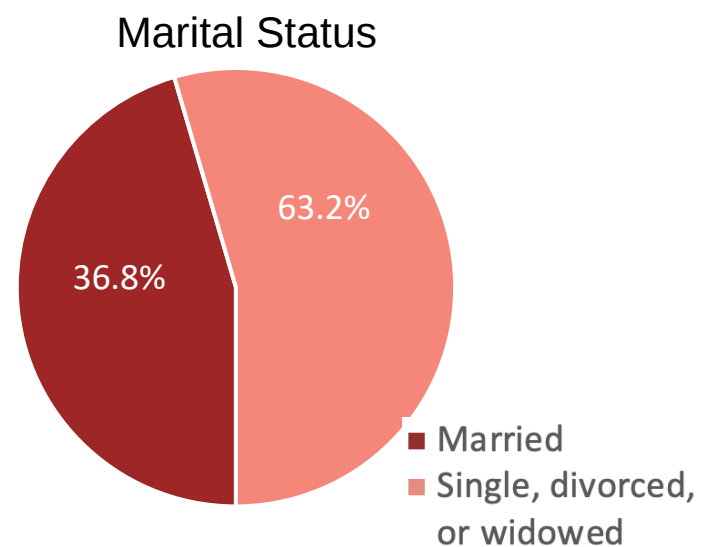
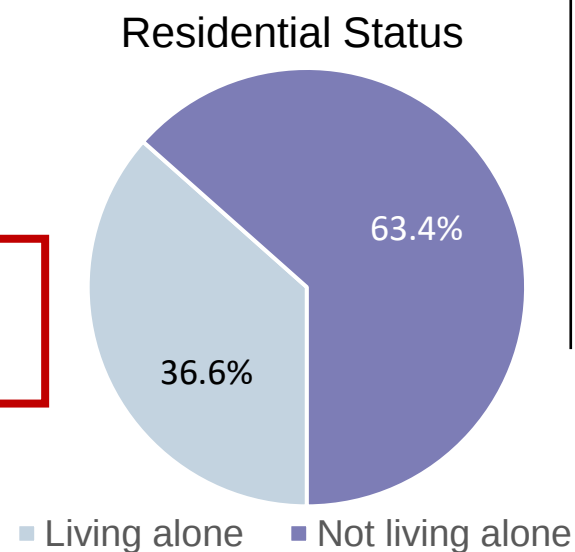
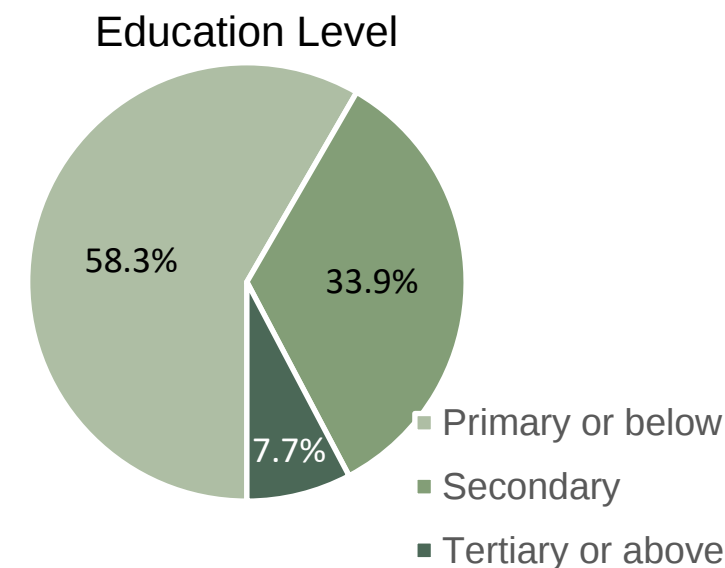
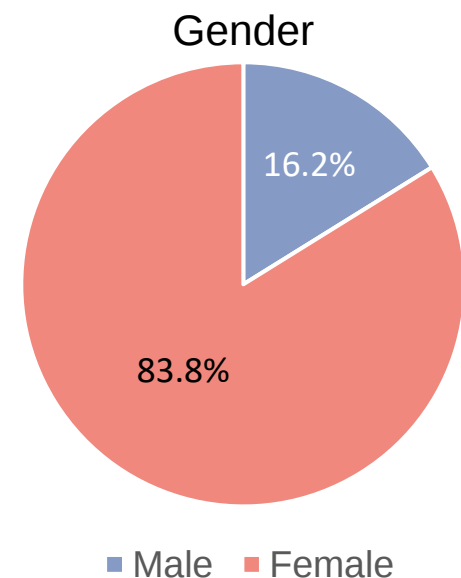
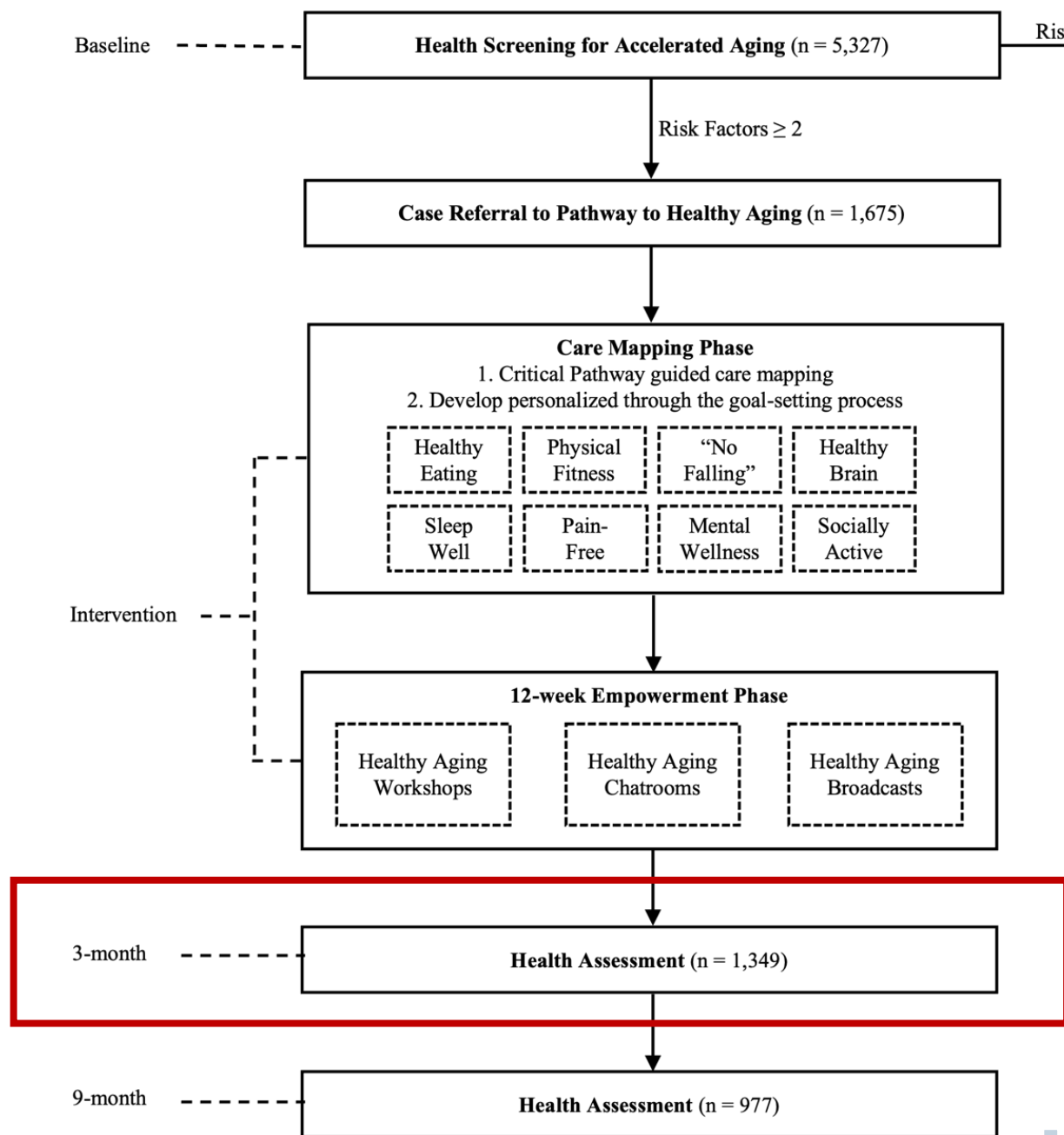


3. Nurse-HC
Collaborative
Case Review



1. Empowerment
workshop

2. Health coach (HC) -led
broadcast



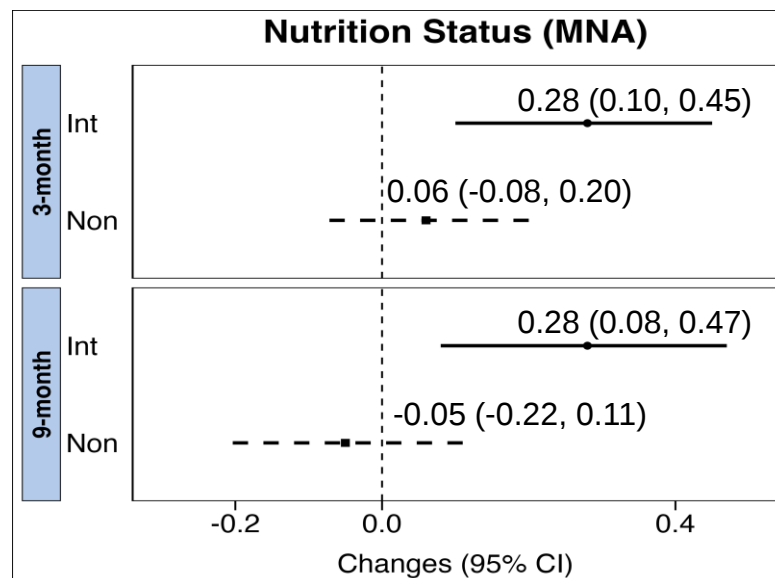
Effects of Each Pass on the corresponding outcome



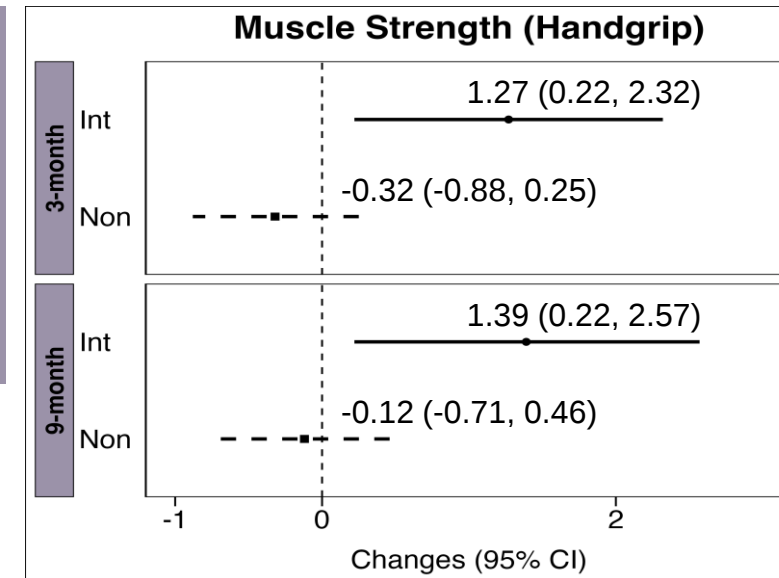
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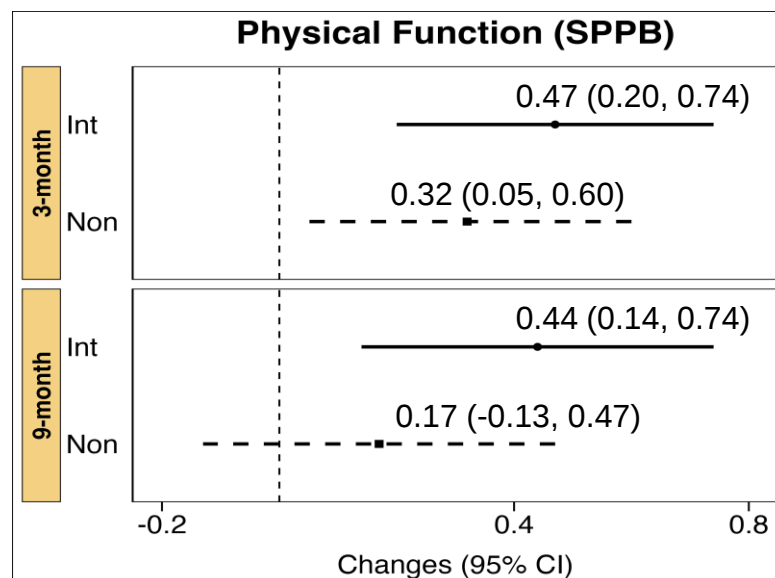
Healthy
Eating



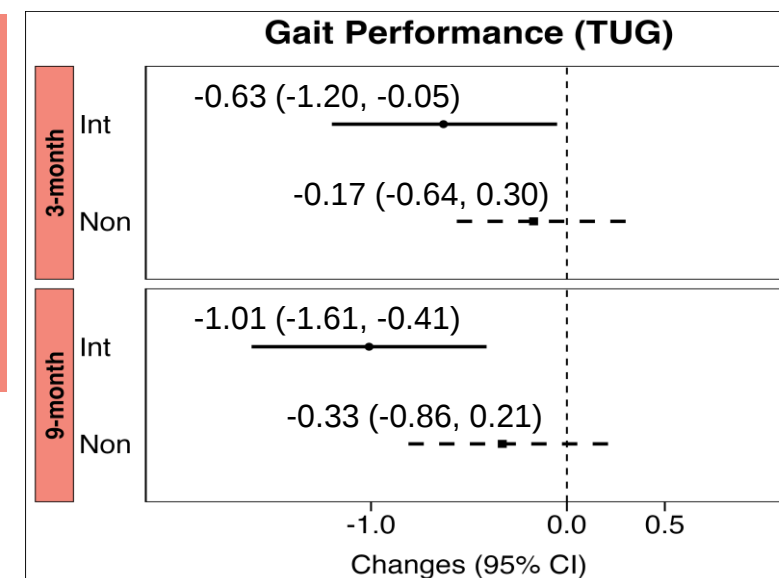
No
Falling



Physical
Fitness



Pain
Free



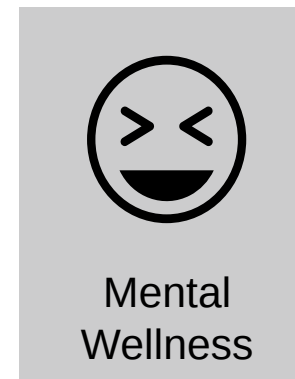
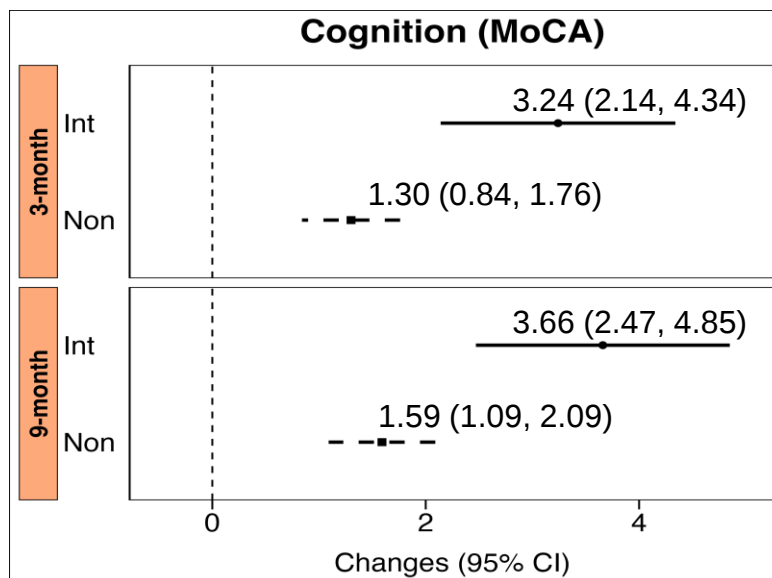
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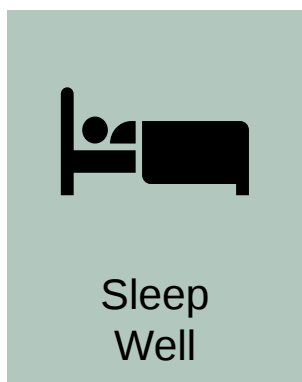
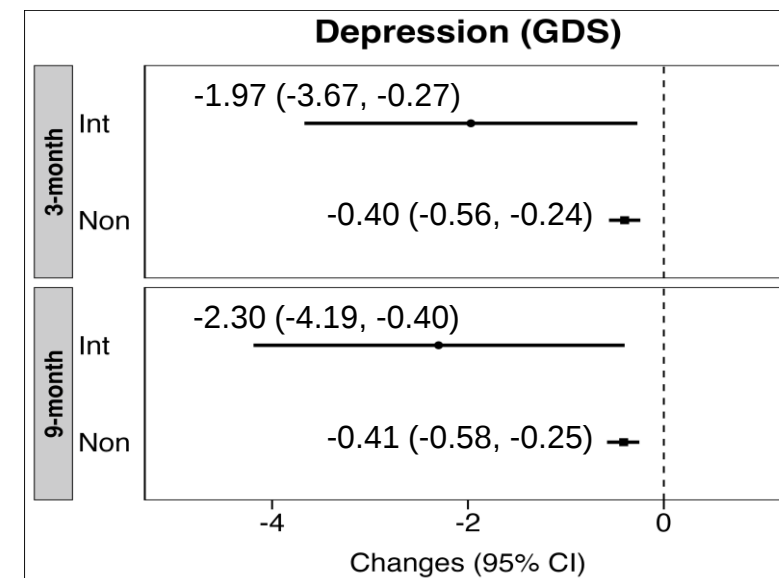
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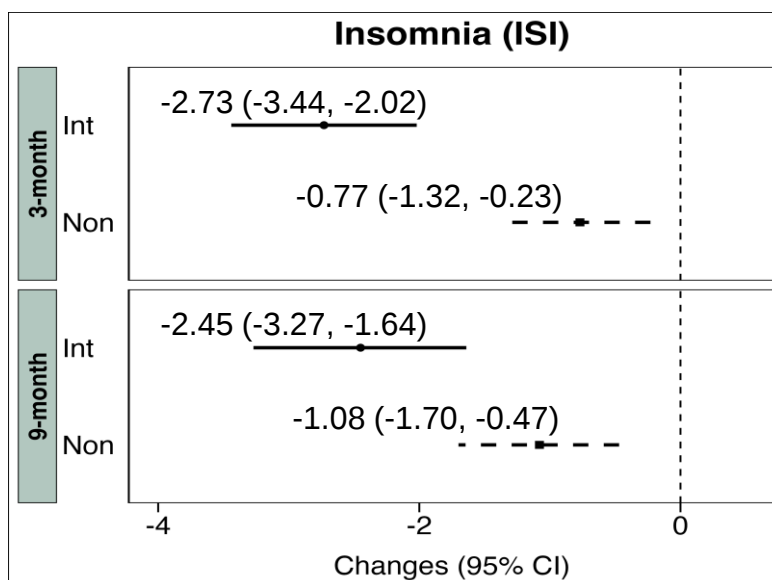
Healthy
Brain



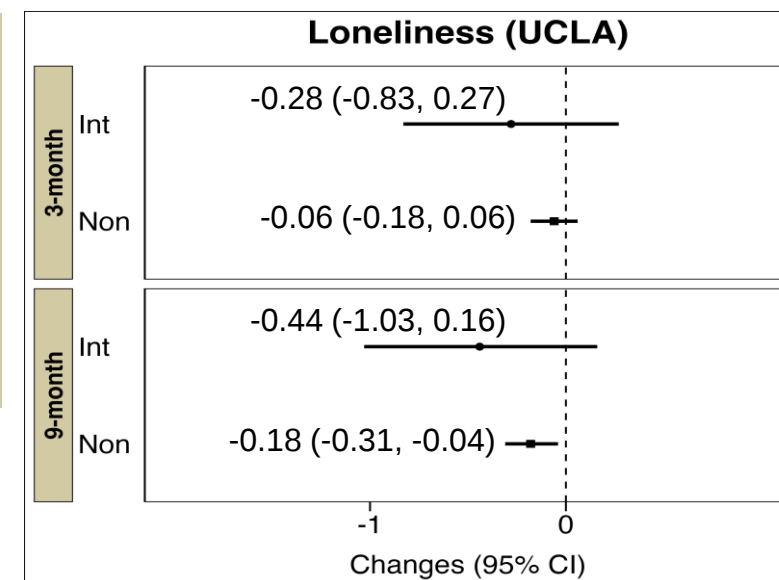
Mental
Wellness



Sleep
Well



Social
Active



Opportunities



Proactive &
need-driven
lifestyle modification
increases
intrinsic capacity of
older adults

Challenges



How to enable
territory-wide model
implementation in the
Era of Rapid
Population Aging

Solutions



Revisit the
implementation
process to identify
strategies for
expanding and
sustaining the
delivery of
critical input



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♥ Healthy Aging Ambassadors are ...

Health Educators for our seniors



Case managers to motivate & empower behavioral modification of our seniors



♥ Healthy Aging Ambassadors are ...

Authors & Actors of healthy aging audio broadcast



Health counselors to provide “Senior-Friendly” health advice



♥ Healthy Aging Ambassadors are ...



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Human capital in healthy aging diagnostics



Blood pressure



Muscle mass



Integrated physical
mobility



Hand grip

Peer Exercise Trainer



♥ Healthy Aging Ambassadors are ...

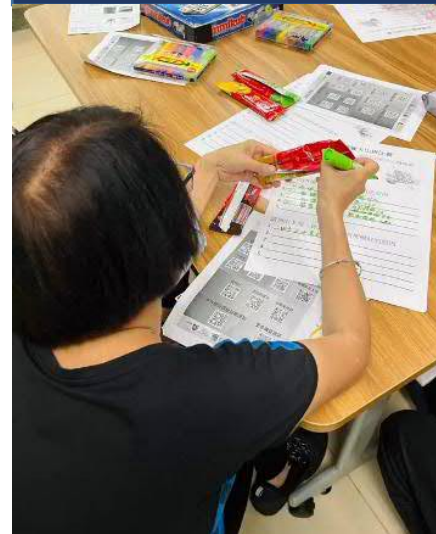


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Peer cognitive trainer



Peer dietary advisor



Strategies to expand the human asset



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Skill optimization

**Harassing personal strength and blending expertise
-- professional-lay skill mix**

Fueling passion

Fostering autonomy, inclusiveness, partnership

Empower task shifting

1. Target specific issue rather than full aging agenda

**2. Protocol-guided care prescription based on
individualized needs**

**3. Leverage technology advancement to expand the
care infrastructure.**

Volunteer-Engaged Lifestyle Optimisation via ICOPE on Sarcopenia in Older Adults (VELO-S)

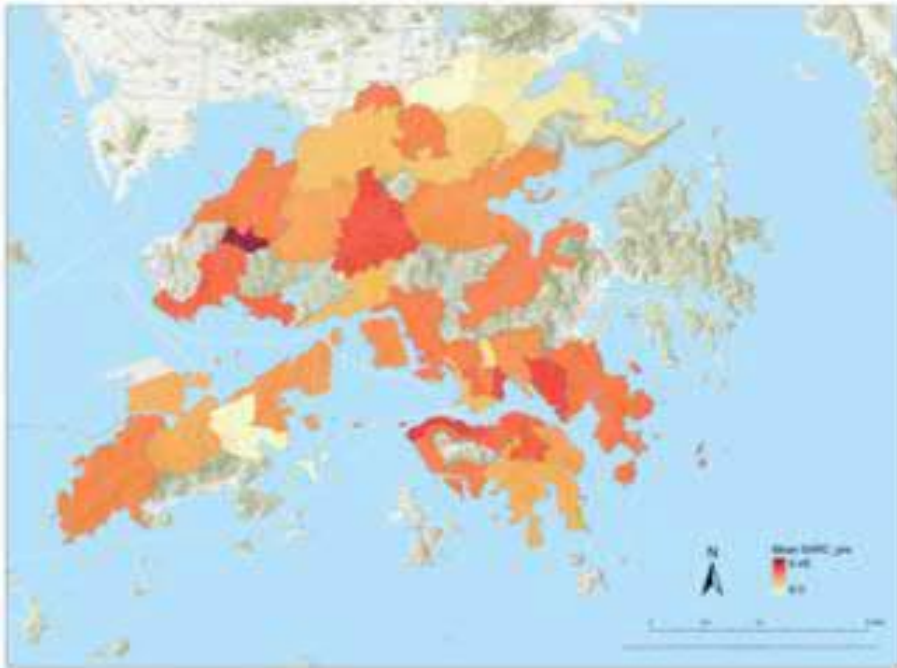


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Sarcopenia is a major public health issue among older adults

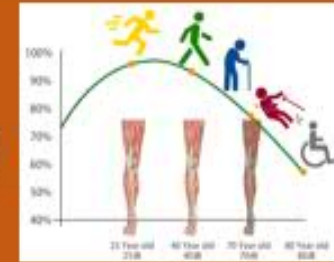
Vitality: Sarcopenia- based on AWGS2025

Overall prevalence: 26.45%



Impact of Sarcopenia

- Doubles fall/fracture risk
- Speed up frailty trajectory
- Increases mortality¹



J Am Med Dir Assoc. 2015 Mar;16(3):247-52.

Evidence

Guideline-based recommendation:
physical activity + protein supplementation

Implementation Gap

- Fragmented, center-based care with low adherence
- Lack of personalization
- Access barriers: mobility, transportation, workforce limits

Solution

- Integrated, critical care pathway to guide personalized advice on exercise, nutrition & fall prevention.
- Goal-oriented empowerment with explicit methods
- Estate-based peer-volunteers for role modelling

VELO Vs Path-HA: Key Features

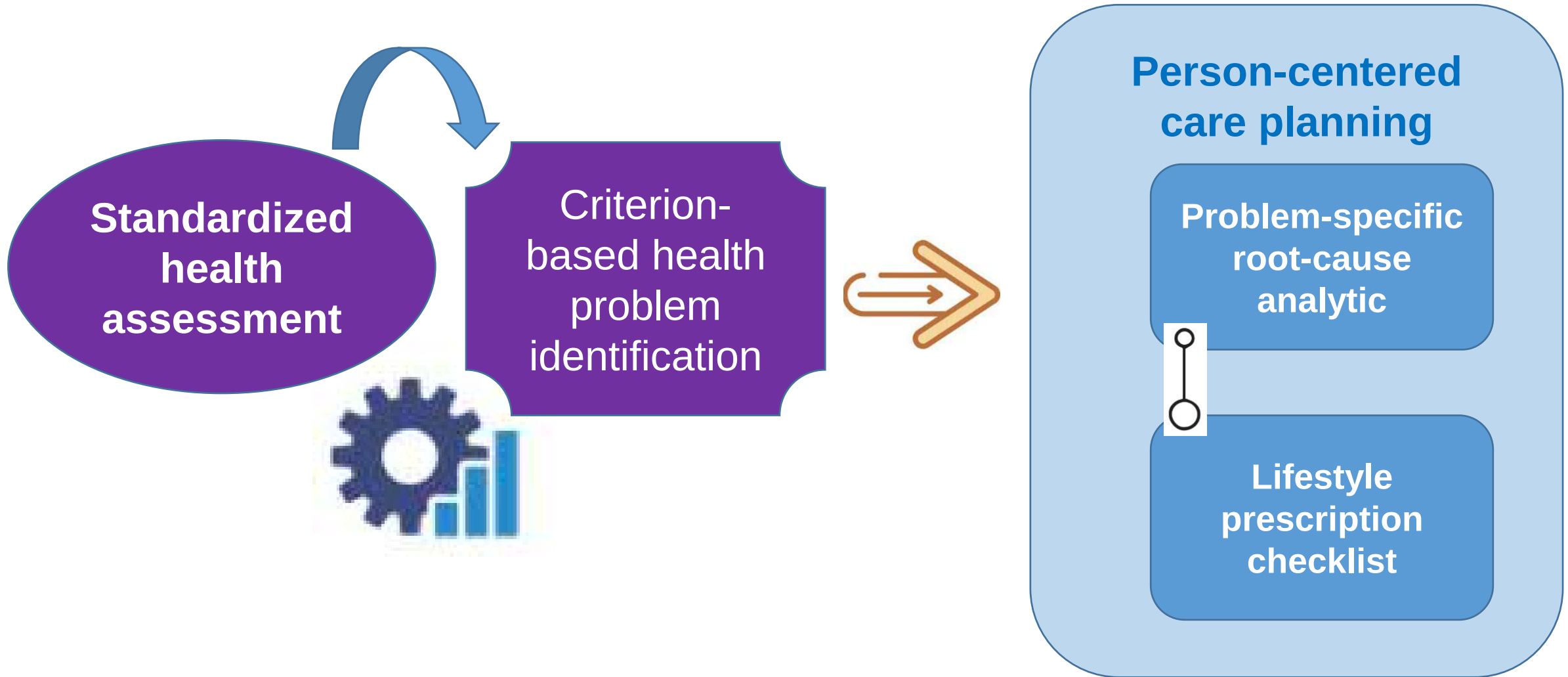
1. Digital decision-making tool on need-driven critical care mapping
2. Strengthened professional-health coach partnership:
 - health need identification
 - care planning & review
3. Empower integration of HC's own expertise in co-designing and implementation of lifestyle training.



Digital decision-aid for E-critical care mapping



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Training hub
for Velo's HC



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Continuous
Empowerment

Strengths-
based &
person-
centered

Digital
Platform

Living
well
strategies

Scenaio-
based
learning

Layperson
Motivational
strategies

Bi-
monthly
Chit-Chat
session



Problem-
based
learning

Expertise-
matched
role
engagement



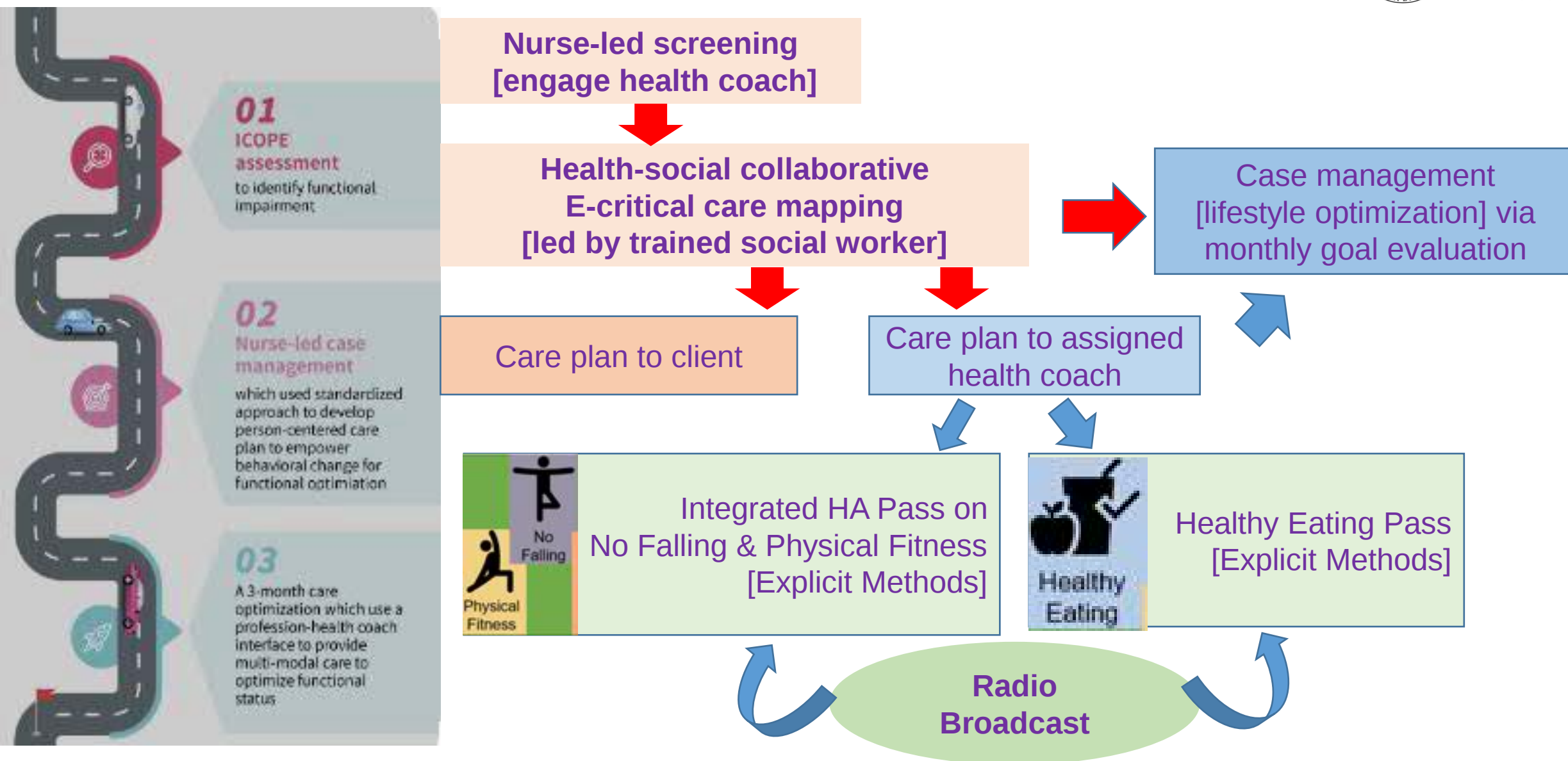
Autonomy-
optimized
volunteer
empowerment



Overview of the Design of VELO



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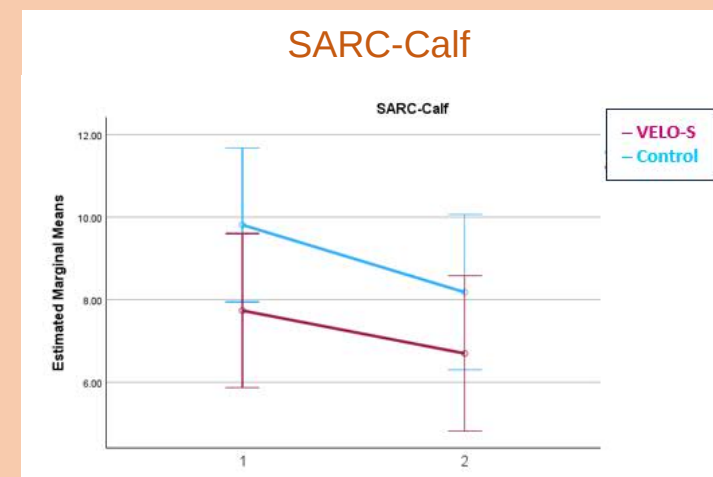
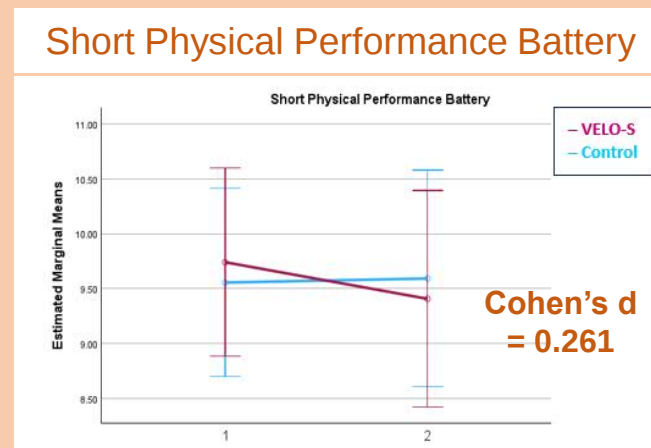
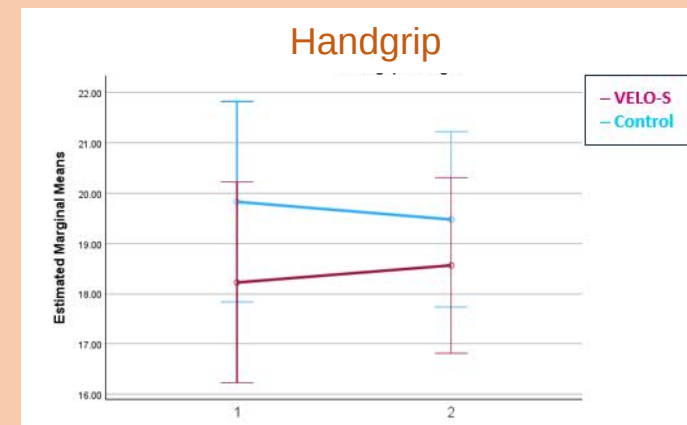
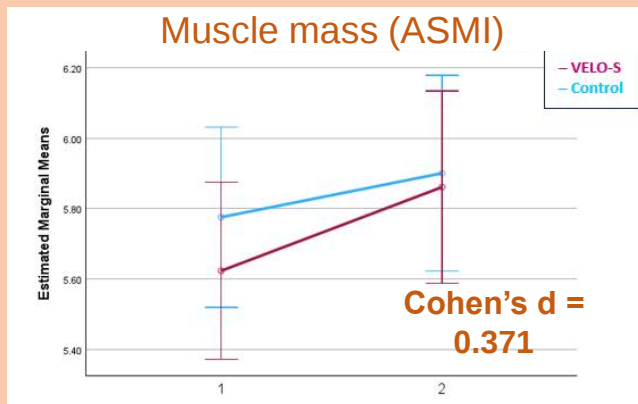
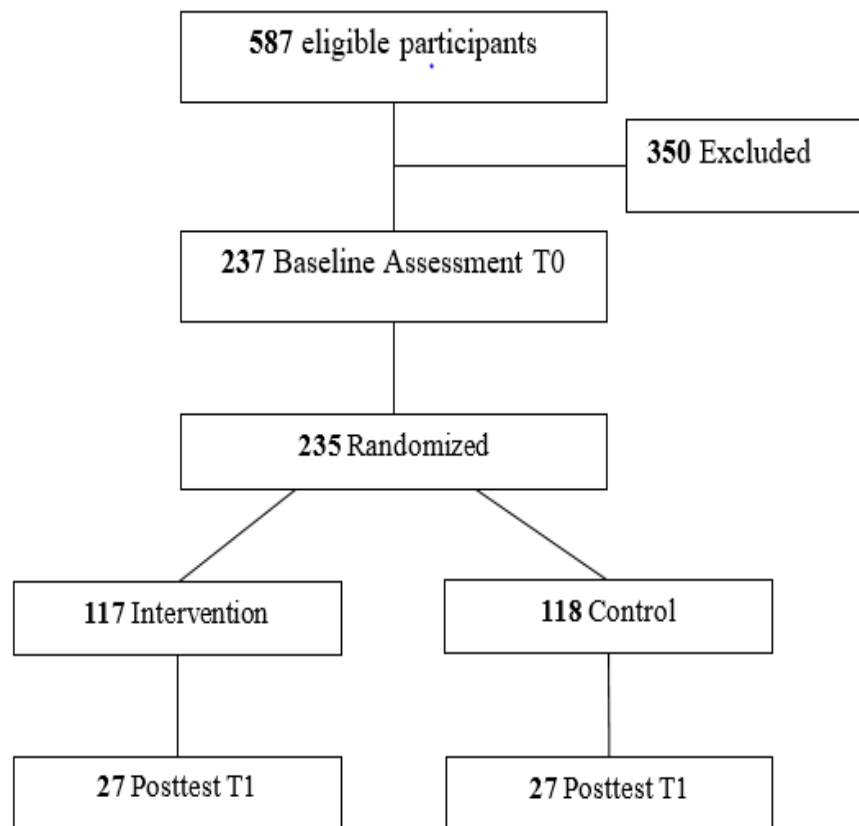


Preliminary impact of VELO on Sarcopenia



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CONSORT diagram of the 235 Study Participants

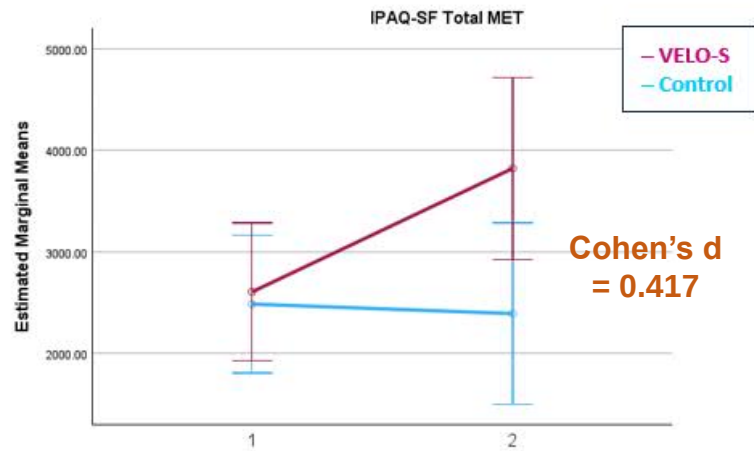


Preliminary Impact on behavioral & functional outcomes

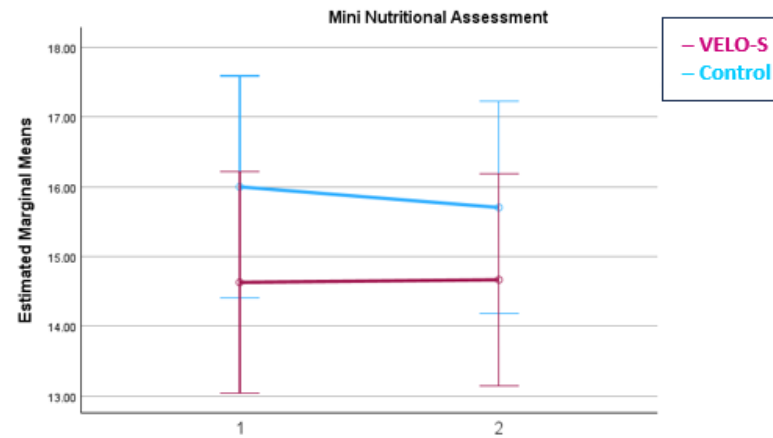


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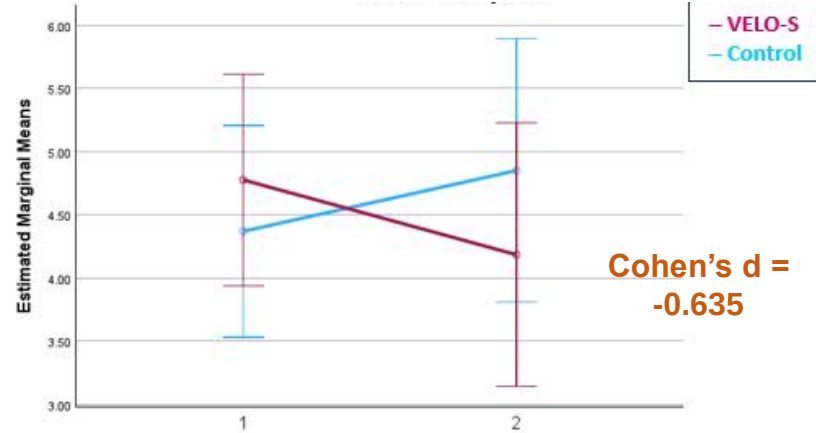
Physical Activity (Total MET)



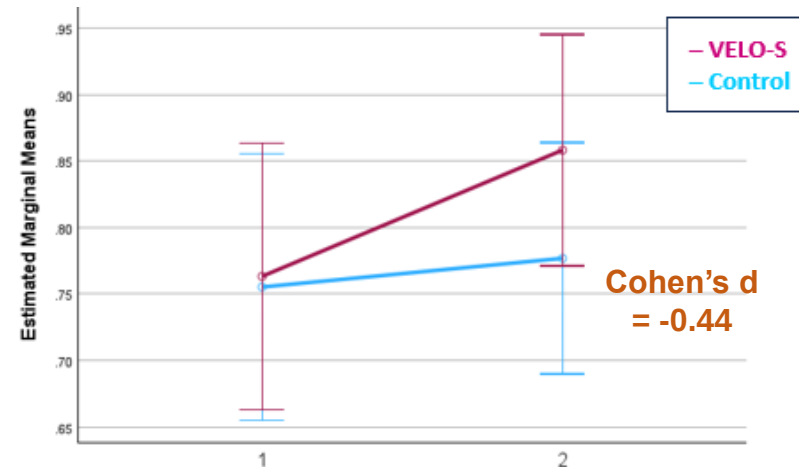
Nutritional status (MNA)



Edmonton Frailty Scale (EFS)



Health-related QoL (EQ-5D-5L)



Added value of partnership: Catalyst sustainable behavioral changes



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Health Coach Expertise: Nutrition Support

Health Coaches' support on nutrition classes:

- **Reminding** older adults about the importance of adequate protein intake
- **Sharing** simple examples of protein-rich foods
- **Explaining** nutrition tips using everyday language
- **Encouraging** older adults to apply healthy eating tips in daily life

Examples of foods to discuss:

- Eggs
- Omega-3-rich fish
- Lean meat
- Tofu & nuts



Active agent to support older adults to sustain behavioral modifications

Examples of activities initiated by Health Coaches:

- Walking together along promenade
- Hiking together
- Playing table tennis together
- Exercising together in community centers
- Discussing healthy food choices during yum cha



Exercise Coaching



Added value of task shifting: Creative health educator

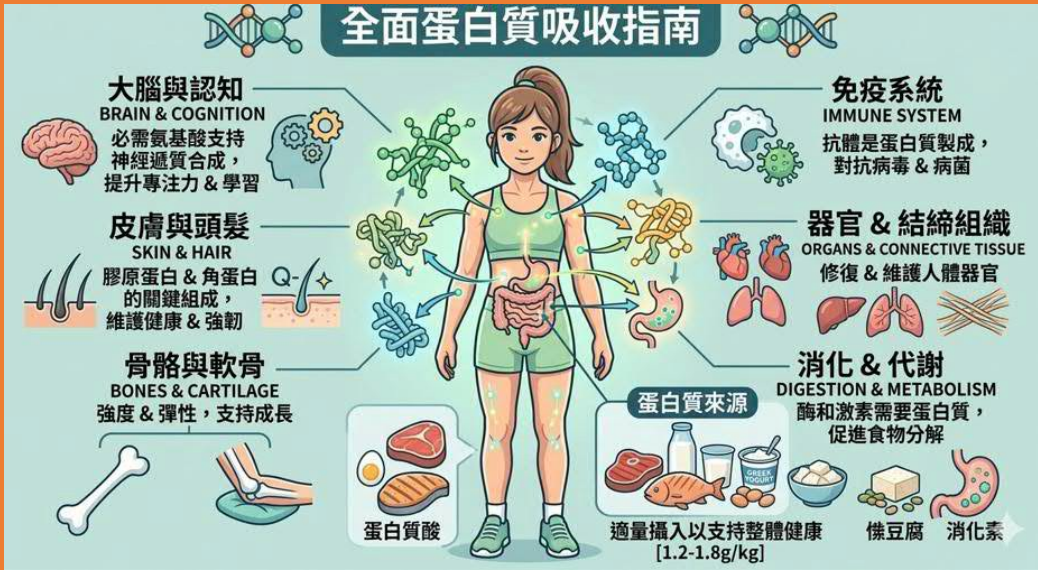


- Visually engaging infographics;
- Contextual relevant illustration to simplify complex health messages;
- Clear, concise language for laypersons;
- Storytelling approach to increase information uptake.

Added value of empowering autonomy: embrace the role & take ownership of promoting healthy aging



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Impact of VELO: HC's perspective



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Personal benefits

- Knowledge gain on important health issue & mitigate misconception
- Become more aware of personal muscle health



Increased role competence in delivering health-related endeavors.

- Partnership with health care professionals enables continuous role engagement.
- Facilitated health knowledge implementation



Fostering future volunteering motivation and passions

- Great desire for proactive engagement and autonomy.
- Great sense of ownership in the co-creation process.

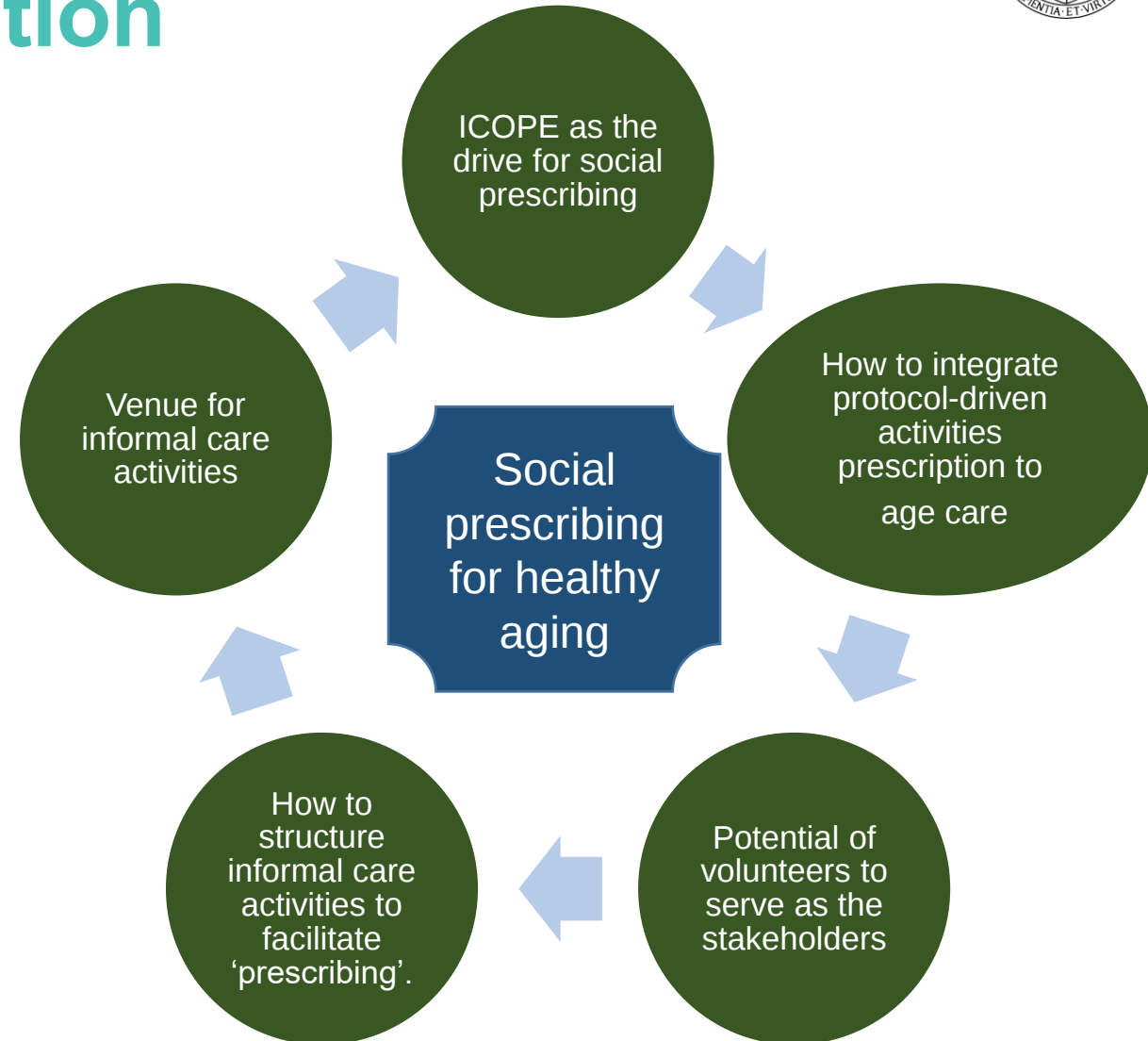
Extending social prescribing in healthy aging promotion



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Social Prescribing

- a means of enabling healthcare professionals to refer patients to **non-clinical services** to support their health and well-being.
- It involves linking patients in primary care with **community services and activities** that can improve their health outcomes and quality of life.



Role of Technology: Living Well Analytics



Need-driven engagement

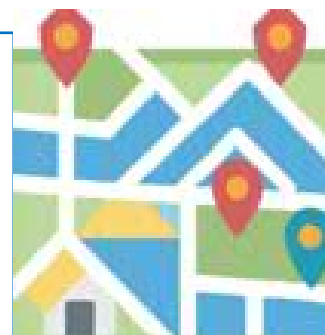


Communal Wellness Circuit Map

-- a visual map to outline a network of underutilize communal spaces for social engagement for older adults in lifestyle-based activities related to the IC deficit.

Information @ the Tag

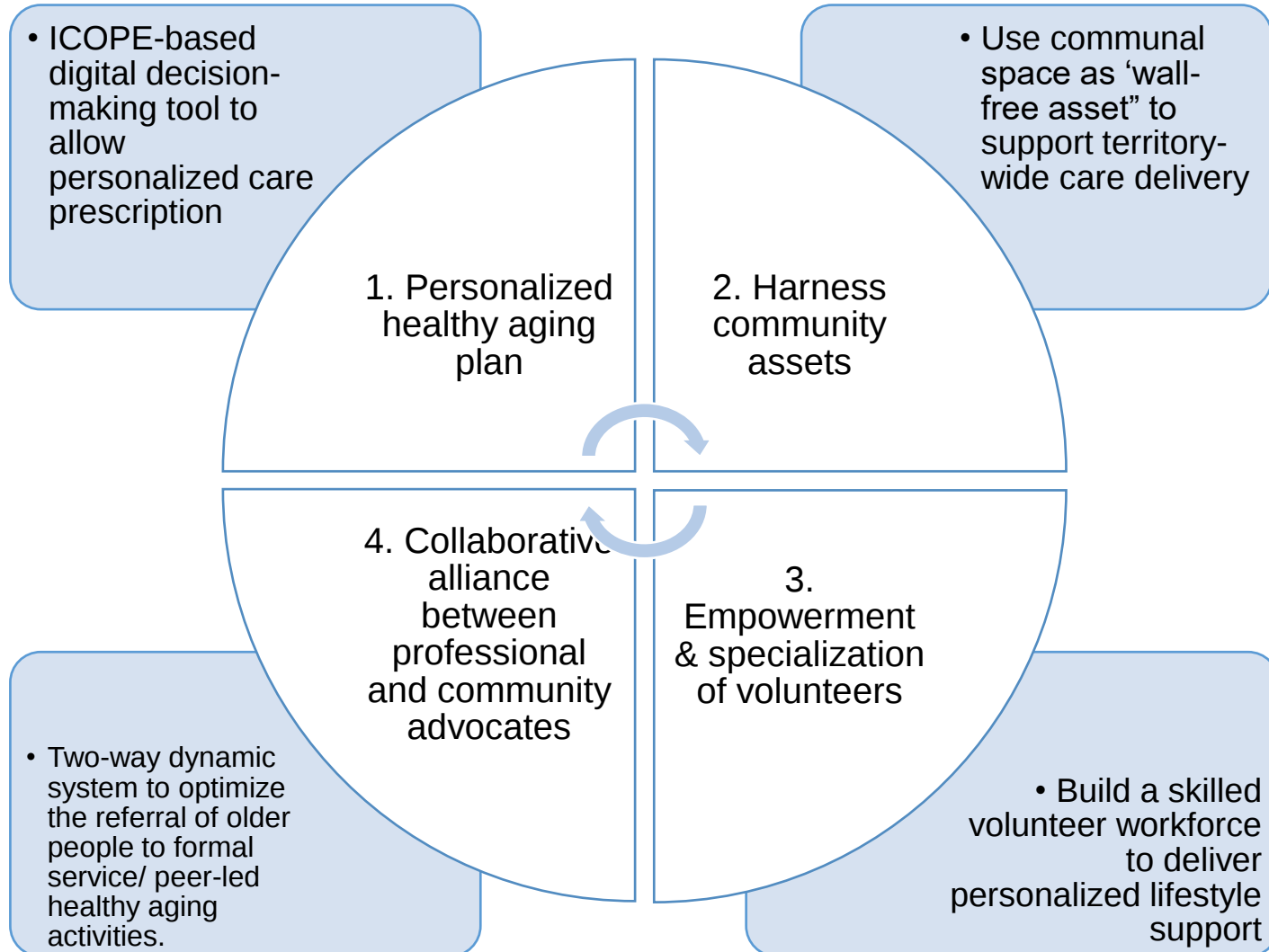
- Location of the communal space
- Environmental features
- Suitable activities



Expanding social prescribing for aging well



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*Transforming passive
recipients to active agents
of an individual's aging
journey*





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