

Healthy aging: the need for an operational definition

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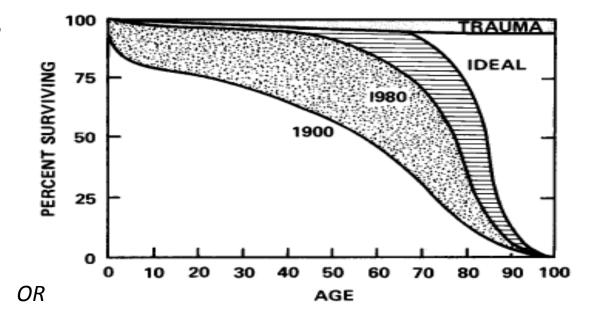
"Squaring the curve" – James Fries The compression of morbidity

SPECIAL ARTICLE

AGING, NATURAL DEATH, AND THE COMPRESSION OF MORBIDITY

James F. Fries, M.D.

NEJM 1980; 303: 130-5.



"The failure of success" - Ernest Gruenberg

APHA Rema Lapouse lecture, 1976 Milbank Q. 2005 Dec; 83(4): 779–800.



What is an operational definition?

- 3 components:
 - used to describe something (e.g. a variable, term, or object)
 - in terms of a process or set of validation tests
 - needed to determine its <u>existence</u>, <u>duration</u>, <u>and quantity</u>
- Vs. framework or theoretical definition



Operational definition

- A person other than the definer should be able to test for it
- Provides a common language
- Binary (does it exist?) vs. scaling (to what degree does it exist?)
- Examples:
 - baking a cake,
 - measuring intelligence, self-esteem, love
- Allows for unambiguous testing of a hypothesis through measurement

















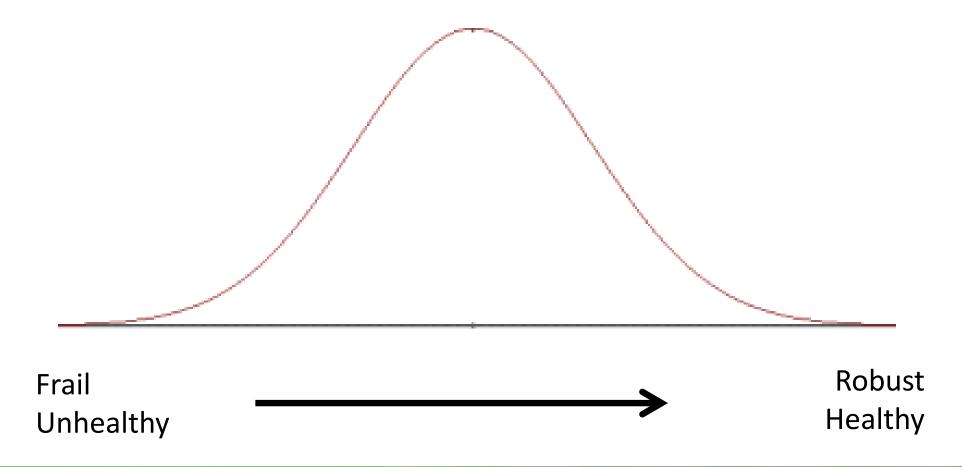














Why do we need an operational definition?

- Assess prevalence; compare across groups
- Look at outcomes / benefits
 - mortality,
 - function,
 - service utilization,
 - cost
- Look at predictors

- Track longitudinally— are we making strides?
- Study interventions
- Learn from each other
- Generalize programs
- Drive public health
- Develop public policy
- Plan

Etc., etc., etc.



Frailty as a paradigm

- Step 1: define it
- Step 2: use definition to look at outcomes
- Step 3: understand antecedents
- Step 4: develop approaches to optimize the outcome
- Step 5: disseminate information / create systems that utilize Step 4



What is the goal?

- To optimize every individual's vitality over the life cycle?
- To enable individuals to live as long as possible?
- To enable each person to work as long as possible?
- To minimize health care utilization / costs?
- To plan services to match to needs?
- All of the above?
- Other?





Figuring out a name

- Healthy ag(e)ing
- Successful ag(e)ing
- Active ag(e)ing
- Ag(e)ing well
- Optimal ag(e)ing
- Active and healthy ag(e)ing

- Robust ag(e)ing
- Positive ag(e)ing
- Effective ag(e)ing
- Productive ag(e)ing



WHO: Active and Healthy Ageing (AHA)

- "The process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age."
- Individuals and populations
- Adequate protection, security, and care
- Active contribution
- Extend healthy life expectancy and QOL
- Autonomy, independence, interdependence

- Multi-dimensional
 - Physical
 - Mental
 - Social
 - Economic
 - Cultural
 - Spiritual
 - Civic

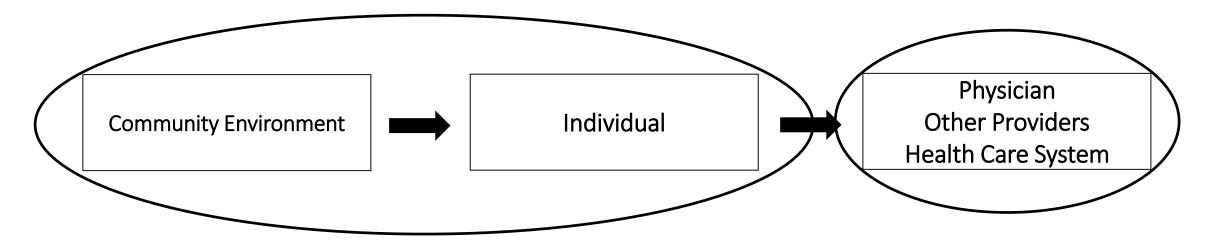


The importance of a life cycle perspective

- Health in old age is shaped by non-communicable, chronic disease
- Early life circumstances impact onset of disease
 - Socio-economic
 - Education
 - Environment
 - Culture
 - Lifestyle
- Healthy aging starts at the beginning of life
- Not "us and them"



Locus of control





Healthy biological aging

- Surviving to old age
- Delaying onset of chronic disease
- Maintaining optimal functioning
 - Physical
 - Cognitive

Healthy active aging

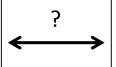
- Participation in social roles
- Engaging with others
- Leading meaningful lives
- Maintaining autonomy
- Preserving well-being
- Resilience

Kuh et al. European Geriatric Medicine 6(2015):196-200.



Objective

- Rarer
- "All or nothing" may inhibit research, policy
- Less resource utilization



Subjective

- More common
- Plastic
- Relevant outcomes to individual
- More resource utilization

Strandberg et al. European Geriatric Medicine 6(2015):196-200.

Academic

- ____
- Cover more domains

- Top 3 domains:
 - Physical function

Cover fewer domains

- Mental function
- Social function
- More focus on longevity

- Top 3 domains:
 - Physical function

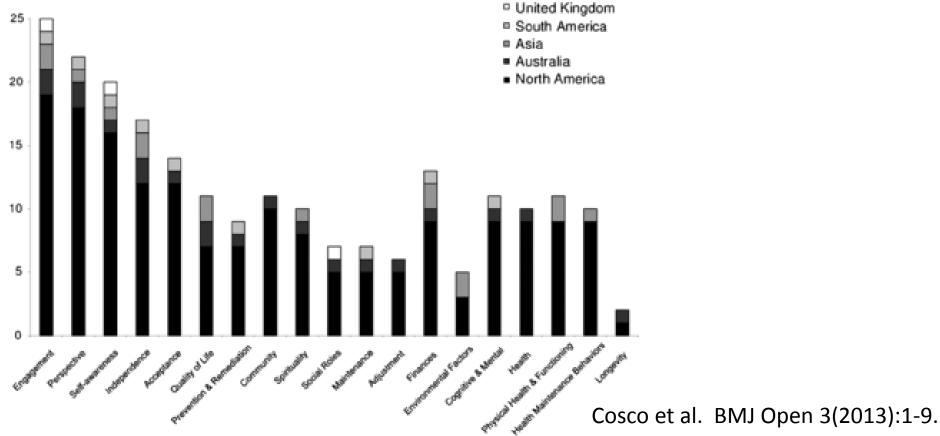
Lay

- Independence
- Social function
- More focus on happiness, wellbeing, family and adaptation

Hung et al. Ageing and Society 30(2010):1373-1391.

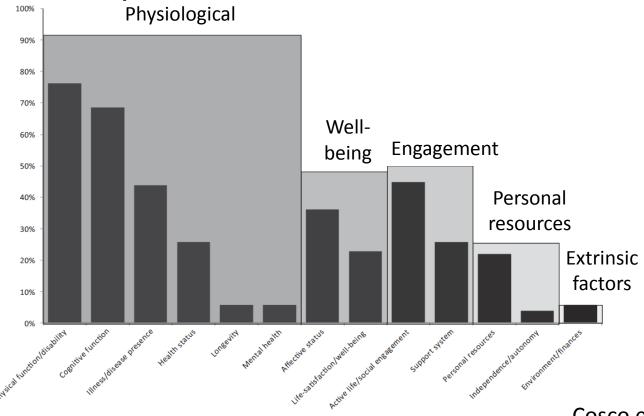


Lay perspectives of healthy aging





Components of successful aging



- Most common combinations
 - Physiological only
 - Physiological/well-being/engagement
 - Physiological/engagement
 - Physiological/well-being

Figure 2. Percentage of studies capturing each SA component, by construct.

Cosco et al. International Psychogeriatrics 26(2014):373-381.



European Innovative Partnership on AHA Conceptual framework – key domains

- Physical and cognitive capability
- Psychological and social well-being
- Mental health
- Quality of life
- Functioning of underlying physiological systems
- Preventing / delaying onset of chronic diseases, frailty, disability

Bousquet et al, JAMDA 16 (2015):1020-1026.

2°ENCUENTRO MÉXICO-JAPÓN Sobre Envejecimiento Saludable

European Innovative Partnership on AHA Attributes of questionnaire instruments

Common Attributes of the AHA Questionnaire Instruments

- Applicable to health and disease (general and clinical populations)
- Applicable across diseases
- Short, simple, and easy to administer
- Self-, interviewer-, and proxy-administration
- · Validated in many languages, older age groups, and across cultures
- Versions available across the life course (childhood, adulthood, old age)
- Applicable at all ages (65 to 100+)

Bousquet et al, JAMDA 16 (2015):1020-1026.



2º ENCUENTRO MÉXICO-JAPÓN SOBRE ENVEJECIMIENTO SALUDABLE EUropean Innovative Partnership on AHA Reporting of AHA questionnaire

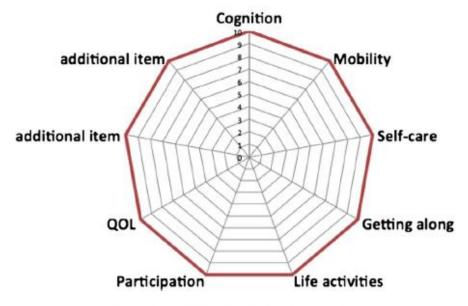
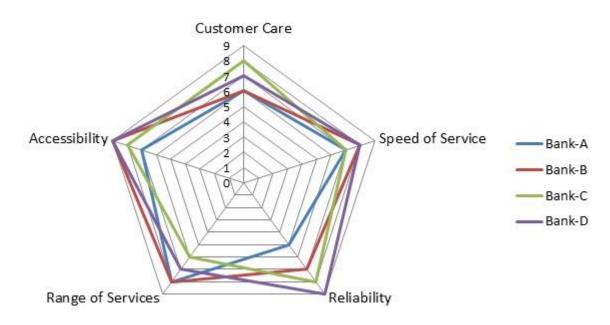


Fig. 2. Reporting of the AHA questionnaire.



Bousquet et al, JAMDA 16 (2015):1020-1026.



Summary

- Development of an operational definition of healthy aging is important but challenging
- Essential step in developing
 - generalizeable knowledge (research)
 - systems to optimize outcomes (program / policy development)
- Multi-dimensional construct
- Different viewpoints drive components



Where do we go from here?

- Look to other geriatric conditions to understand approach(e.g., frailty)
- Appreciate ongoing work on defining healthy aging
- Bring different stakeholders to the table
 - Academics, lay public
 - Different disciplines
 - Different cultures
- Communicate
- Refine



Thank you!

Gracias!

ありがとうございます



2°ENCUENTRO MÉXICO-JAPÓN SOBRE ENVEJECIMIENTO SALUDABLE