

Clinical Practice Guidelines

Functional Screening for Older Adults in the Community 2010

# Screening of Physical Function Identifying Early Decline



DONALD  
SOFFRITTI

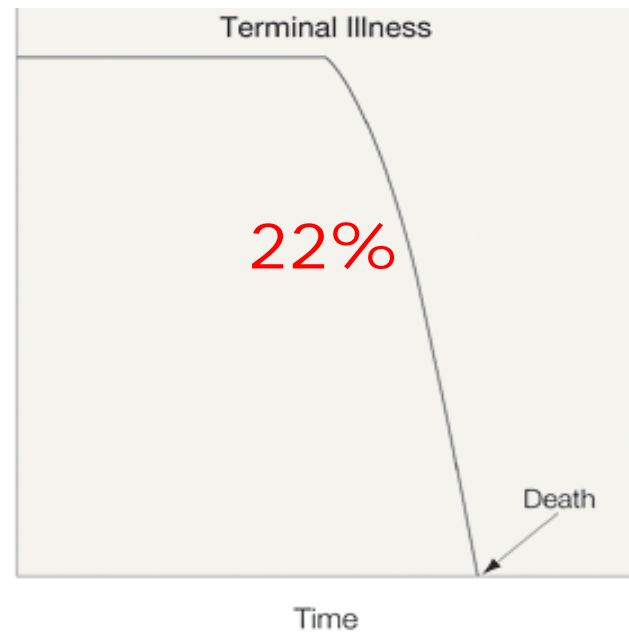
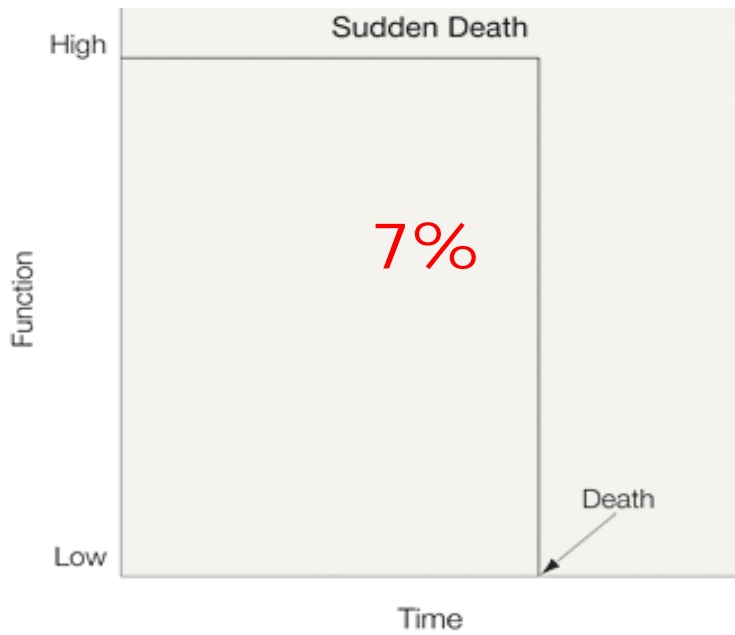




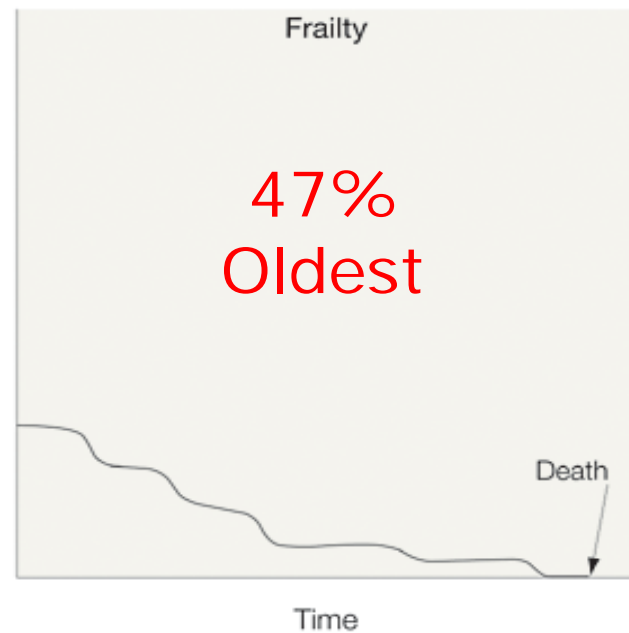
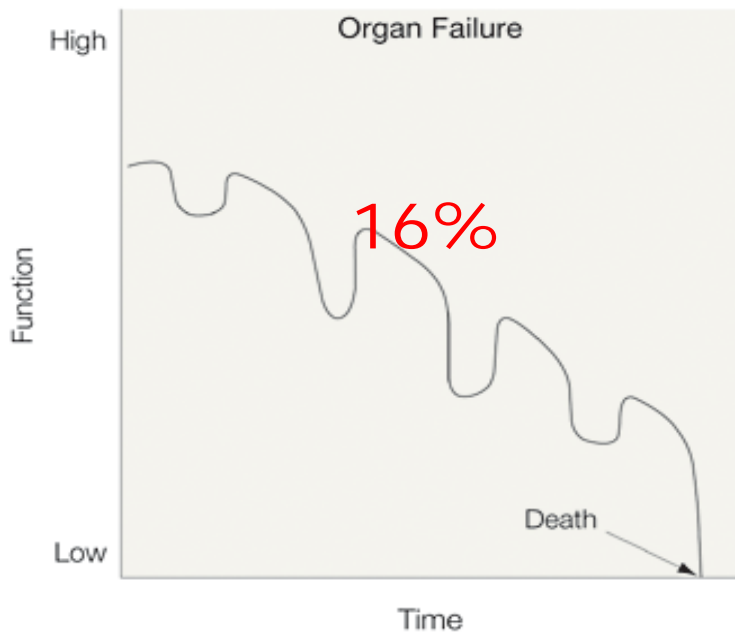
Even every superhero has to call it a day!



DONALD  
SOFFRITTI



## Theoretical Trajectories of Dying

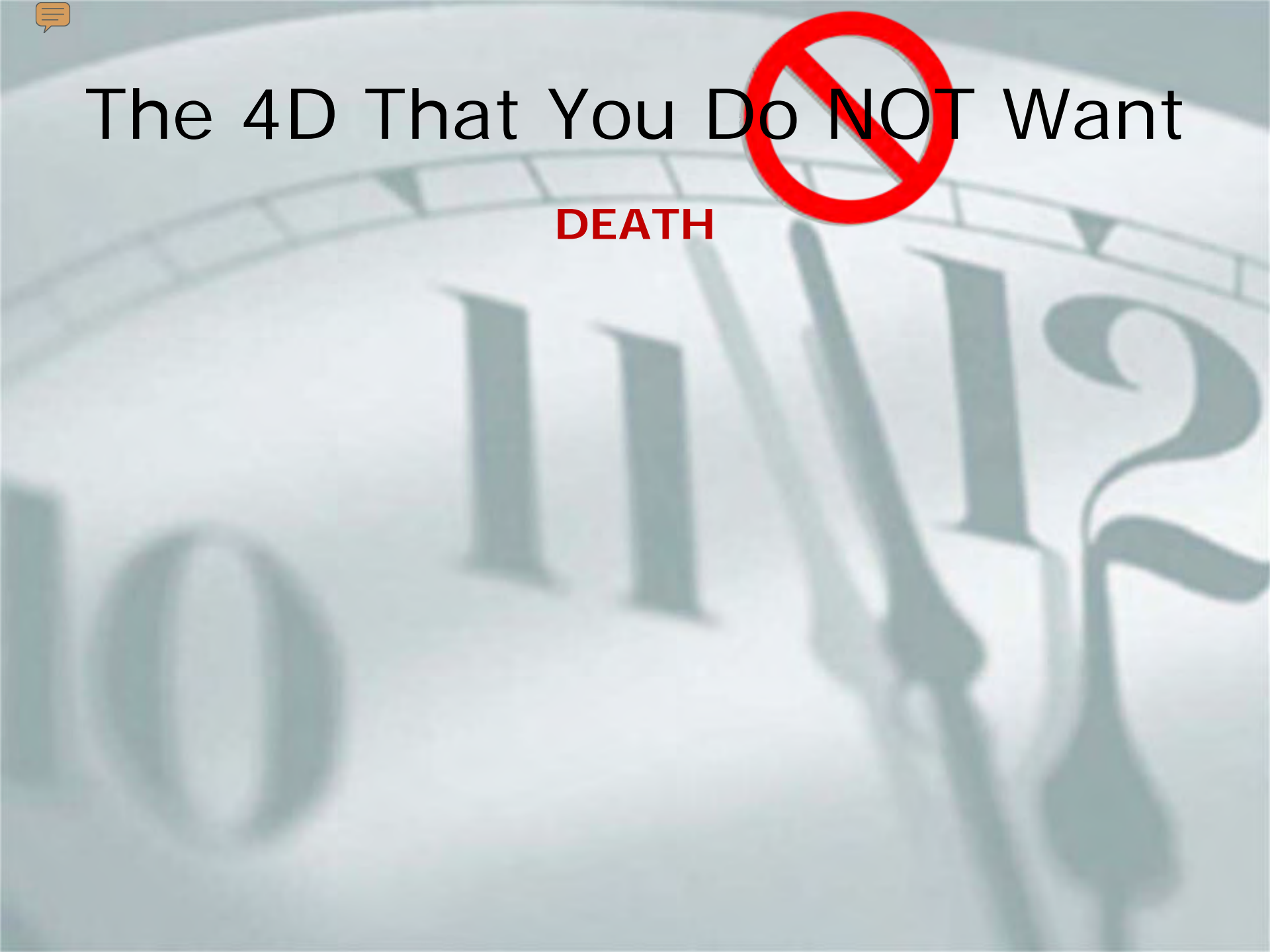




# The 4D That You Do NOT Want



**DEATH**



# The 4D That You Do NOT Want

**DEATH**



**DEPENDENCE**

To be dependent physically &/or mentally



**DISABILITY**

To need help to do essential tasks for an extended period



**DIFFICULTY**

To be inconvenienced



**DISEASE**

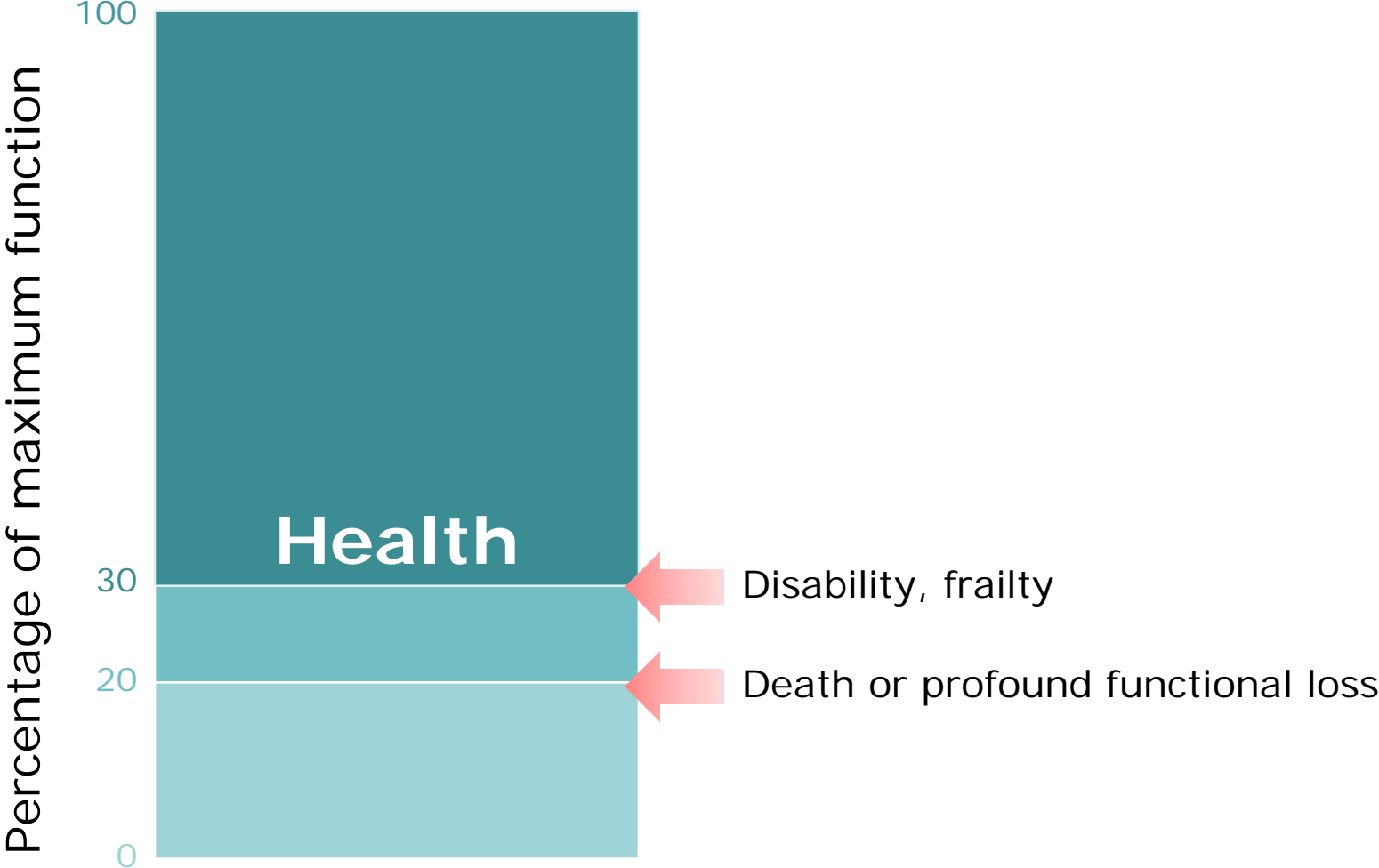
To be sick, to be admitted to hospital



"What doesn't kill you, makes you a burden."



# Frailty Threshold



Muscle strength declines 15-20% per decade after the age of 50.

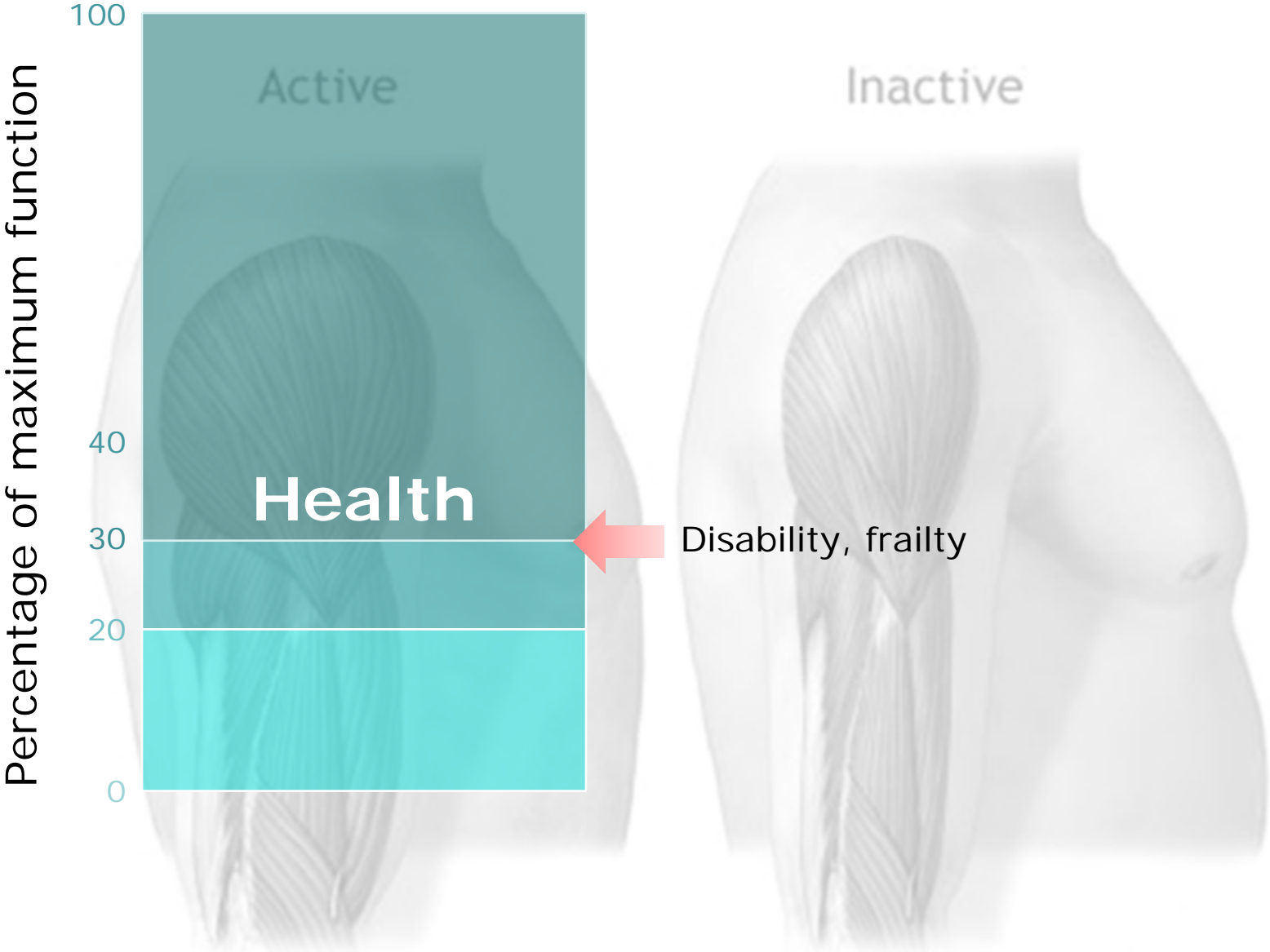
Active



Inactive

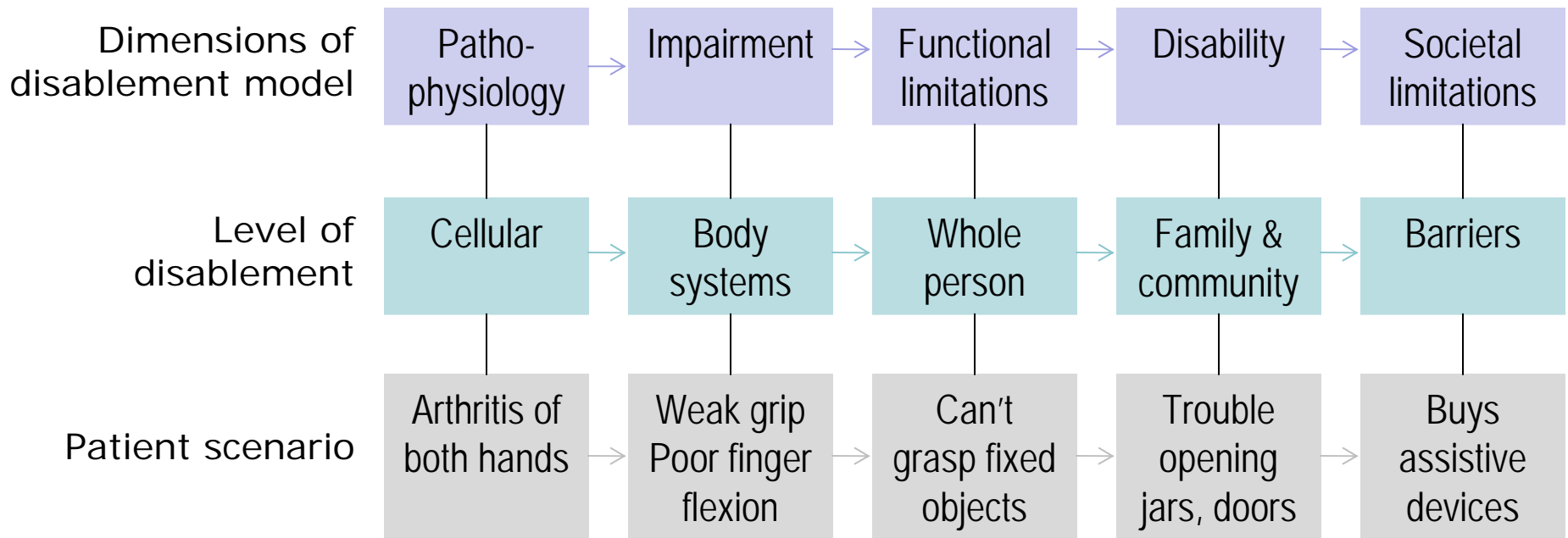


# Frailty Threshold



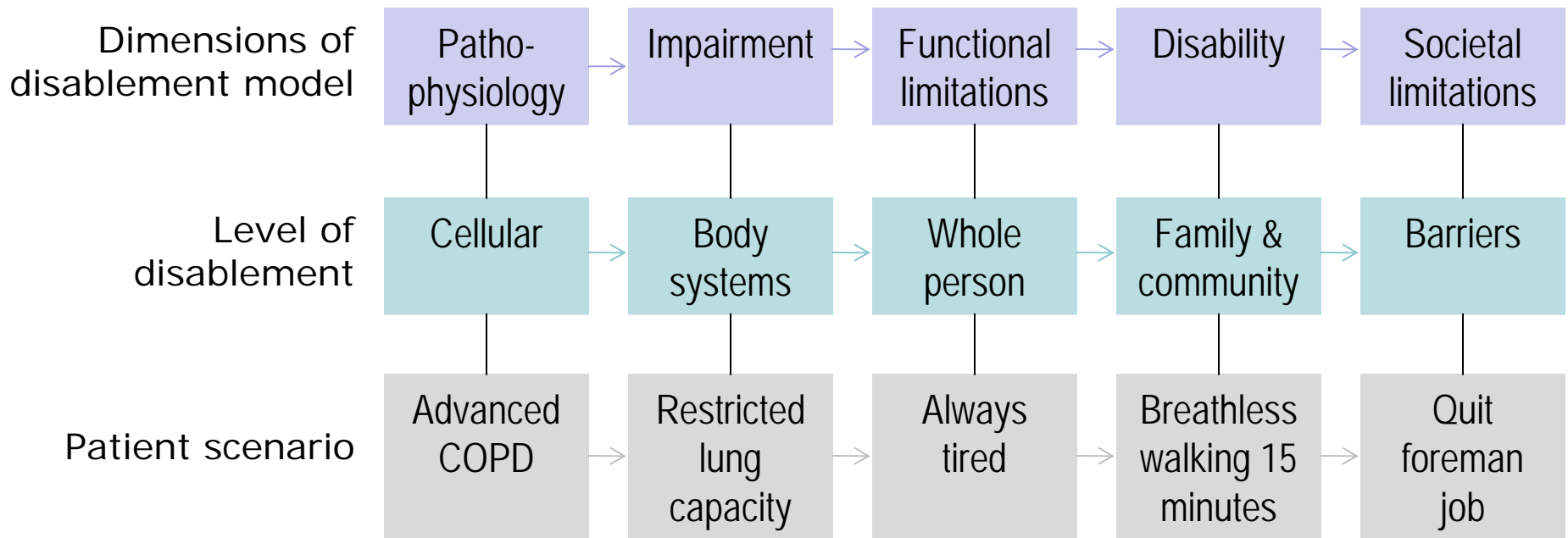


# The Disablement Process

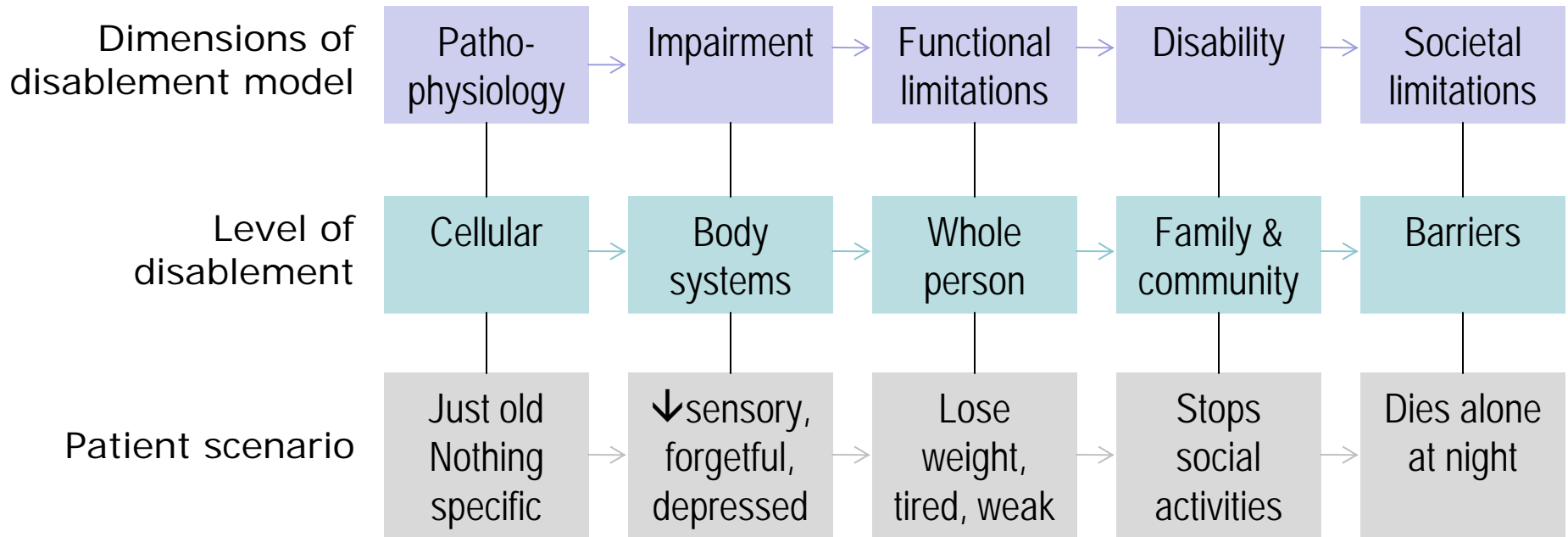




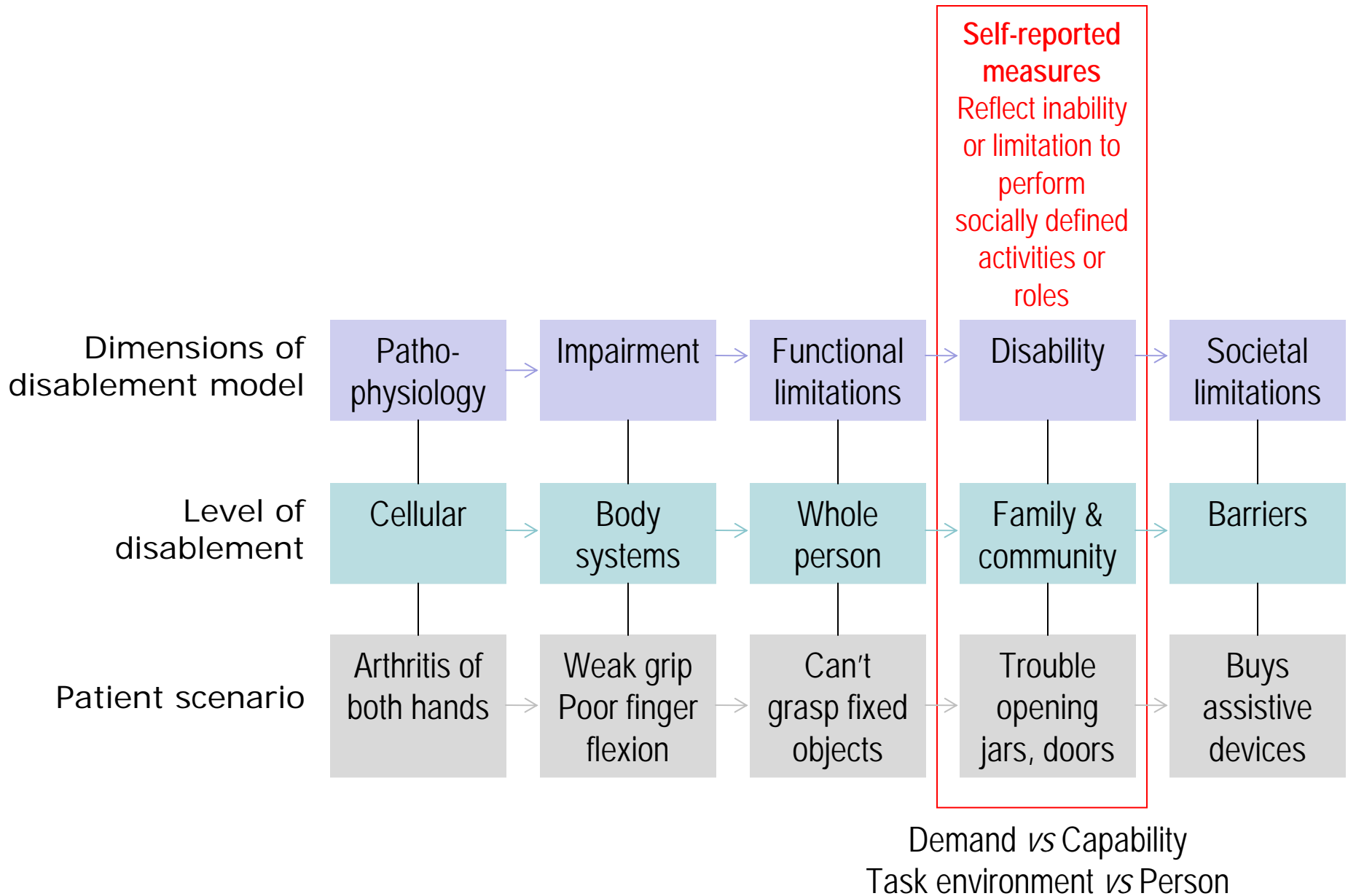
# The Disablement Process



# The Disablement Process

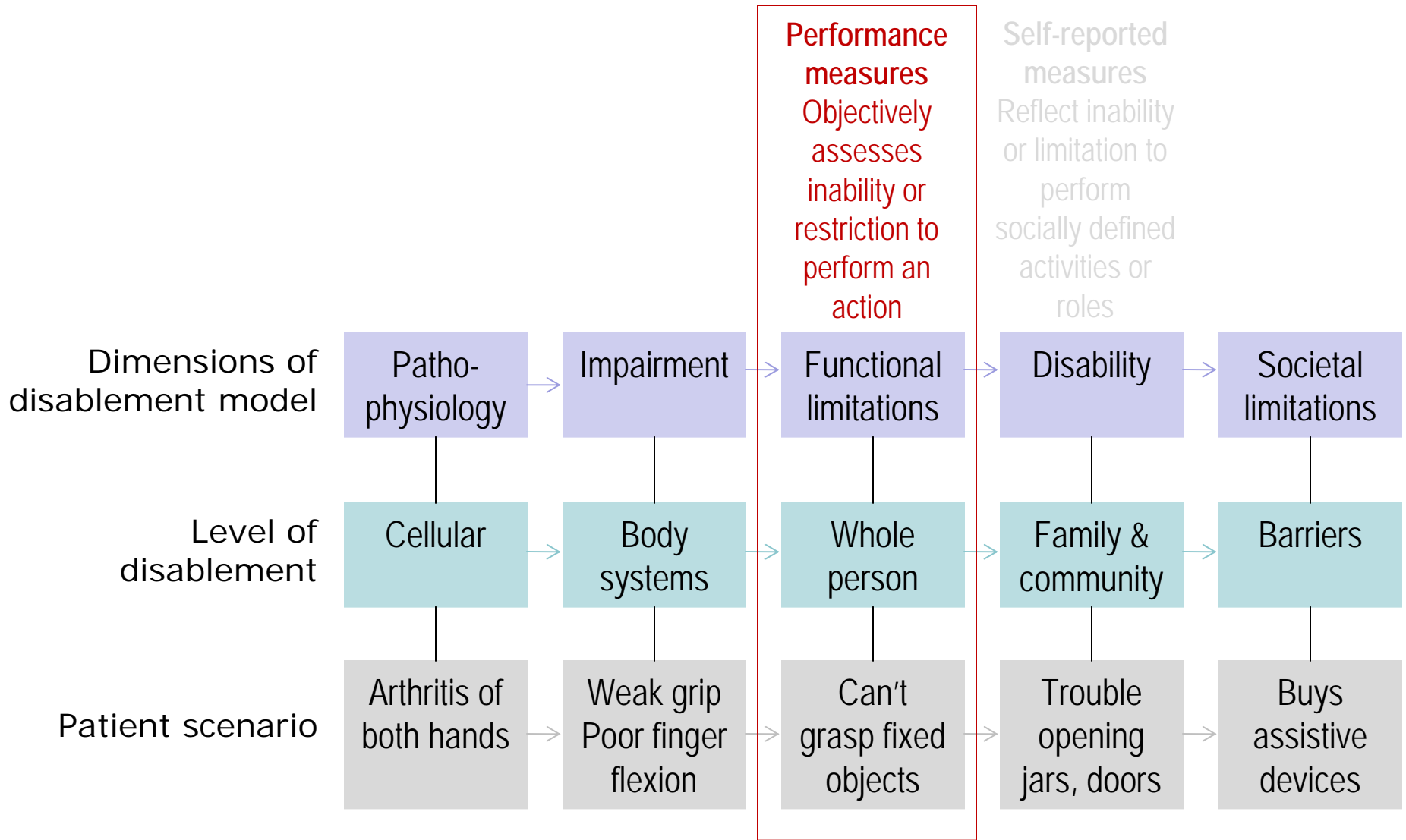


# The Disablement Process





# The Disablement Process





# Vulnerable Elders Survey (VES-13)

The Vulnerable Elders Survey (VES-13) is

- a simple function-based tool
- for screening community-dwelling populations
- to identify older persons at risk for health deterioration.
- The VES considers
  1. age
  2. self-rated health
  3. limitations in physical function
  4. functional disabilities
- Self-reported measure

# VES-13

1. Age     <75     75-84     ≥85

2. In general, compared to other people your age, would you say that your health is

Poor     Fair     Good     Very good     Excellent

3. How much difficulty, on average, do you have with the following physical activities:

	No	A little	Some	A lot	Unable
a. Stooping, crouching or kneeling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Lifting, or carrying objects as heavy as 10 lbs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Reaching or extending arms above shoulder level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Writing, or handling and grasping small objects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Walking a quarter of a mile?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Heavy housework such as scrubbing floors or washing windows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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f. Heavy housework such as scrubbing floors or washing windows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Because of your health or a physical condition, do you have any difficulty:

a. Shopping for personal items

Yes → Do you get help with shopping?  Yes  No

No

Don't do → Is that because of your health?  Yes  No

b. Managing money (keeping track of expenses or paying bills)?

Yes → Do you get help with managing money?  Yes  No

No

Don't do → Is that because of your health?  Yes  No

c. Walking across the room?

Yes → Do you get help with walking?  Yes  No

No

Don't do → Is that because of your health?  Yes  No

d. Doing light housework (washing dishes, straightening up, light cleaning)?

Yes → Do you get help with light housework?  Yes  No

No

Don't do → Is that because of your health?  Yes  No

e. Bathing or showering?

Yes → Do you get help with bathing/showering?  Yes  No

No

Don't do → Is that because of your health?  Yes  No



#### 4. Because of your health or a physical condition, do you have any difficulty:

##### a. Shopping for personal items

- Yes → Do you get help with shopping?  Yes  No
- No
- Don't do → Is that because of your health?  Yes  No

##### b. Managing money (keeping track of expenses or paying bills)?

- Yes → Do you get help with managing money?  Yes  No
- No
- Don't do → Is that because of your health?  Yes  No

##### c. Walking across the room?

- Yes → Do you get help with walking?  Yes  No
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##### d. Doing light housework (washing dishes, straightening up, light cleaning)?

- Yes → Do you get help with light housework?  Yes  No
- No
- Don't do → Is that because of your health?  Yes  No

##### e. Bathing or showering?

- Yes → Do you get help with bathing/showering?  Yes  No
- No
- Don't do → Is that because of your health?  Yes  No





# Scoring the VES-13

  Score 3 or more  
  Score 0-2



Age	0-3
Self-rated health	0-1
Physical function	0-2
Functional disability	0-4
Maximum possible score	10

# Scoring the VES-13

  Score 3 or more  
  Score 0-2



This vulnerable group has 4 times the risk of death or functional decline over 2 years when compared to elders scoring 3 or less.

# Short Physical Performance Battery (SPPB)

## Balance Tests



### Side-by-Side Stand

Feet together side-by-side for 10 seconds



### Semi-Tandem Stand

Heel of one foot against side of other big toe for 10 seconds



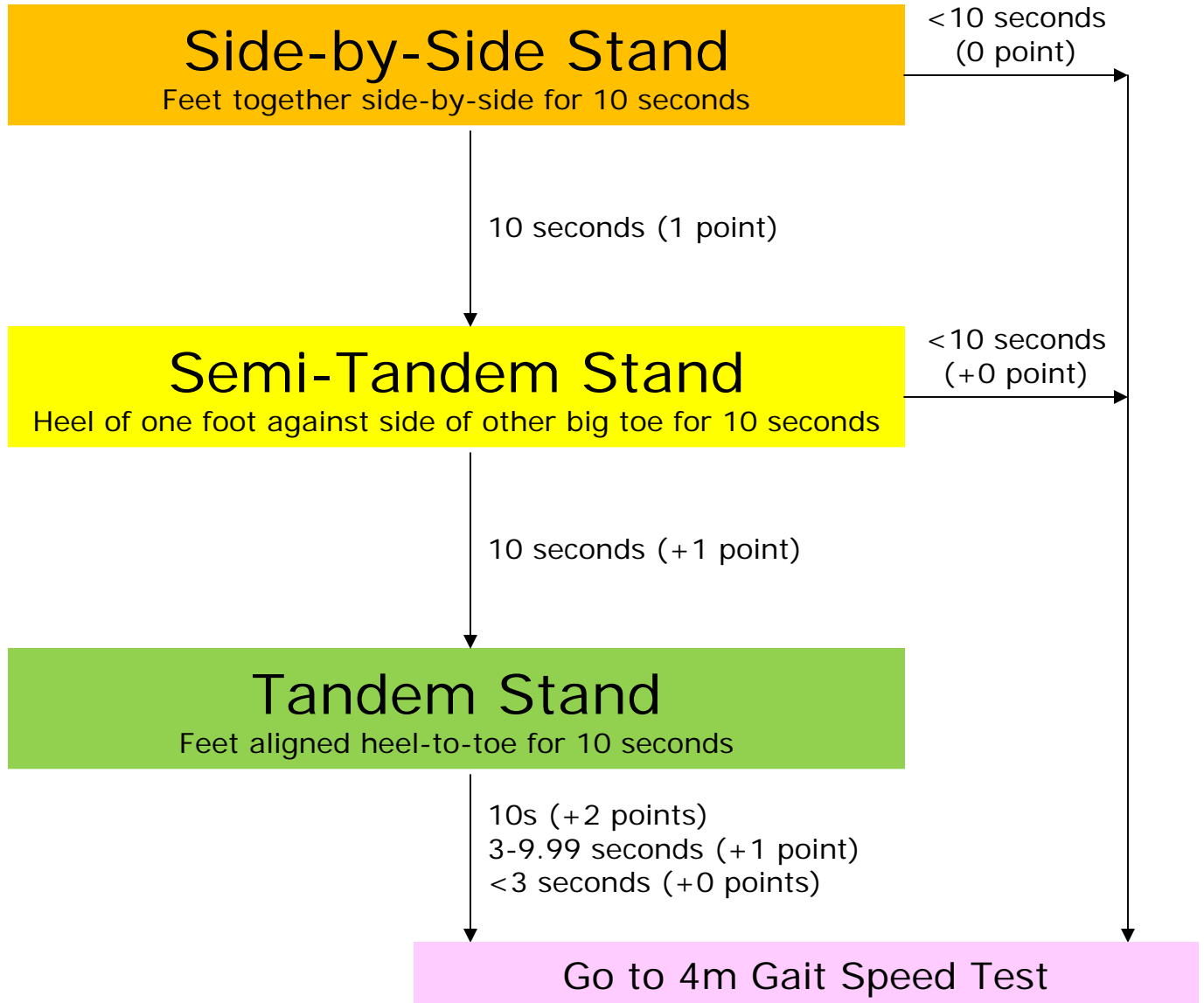
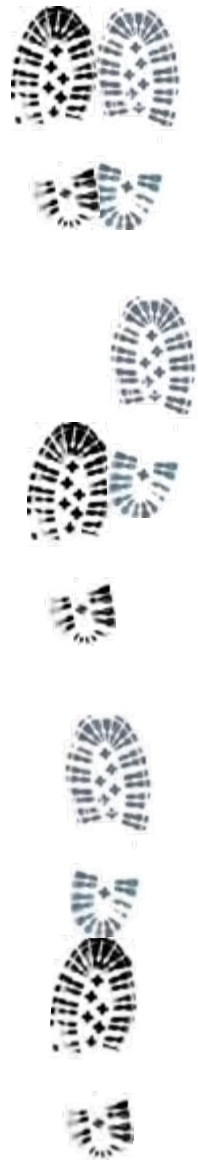
### Tandem Stand

Feet aligned heel-to-toe for 10 seconds



# Short Physical Performance Battery (SPPB)

## Balance Tests: Scoring



# Short Physical Performance Battery (SPPB)

## Gait Speed Test

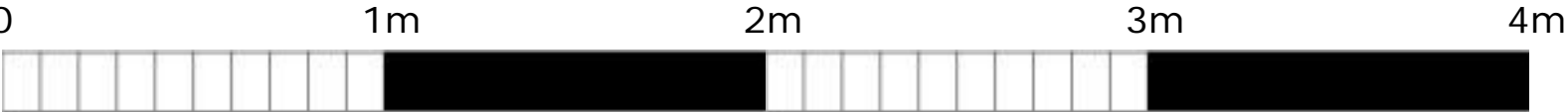
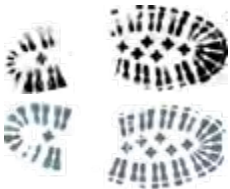
**Gait Speed Test**  
Measures the time required to walk 4m at a normal pace (take the better of 2 attempts)



# Short Physical Performance Battery (SPPB)

## Gait Speed Test: Scoring

**Gait Speed Test**  
Measures the time required to walk 4m at a normal pace (take the better of 2 attempts)



< 4.82 seconds	4 points
4.82-6.20 seconds	3 points
6.21-8.70 seconds	2 points
> 8.7 seconds	1 point
Unable	0 Point

Go to 4m Gait Speed Test



# Short Physical Performance Battery (SPPB)

## Chair Stand Test



### Pre-Test

Participant folds his arms around the chest and tries to rise from a chair once

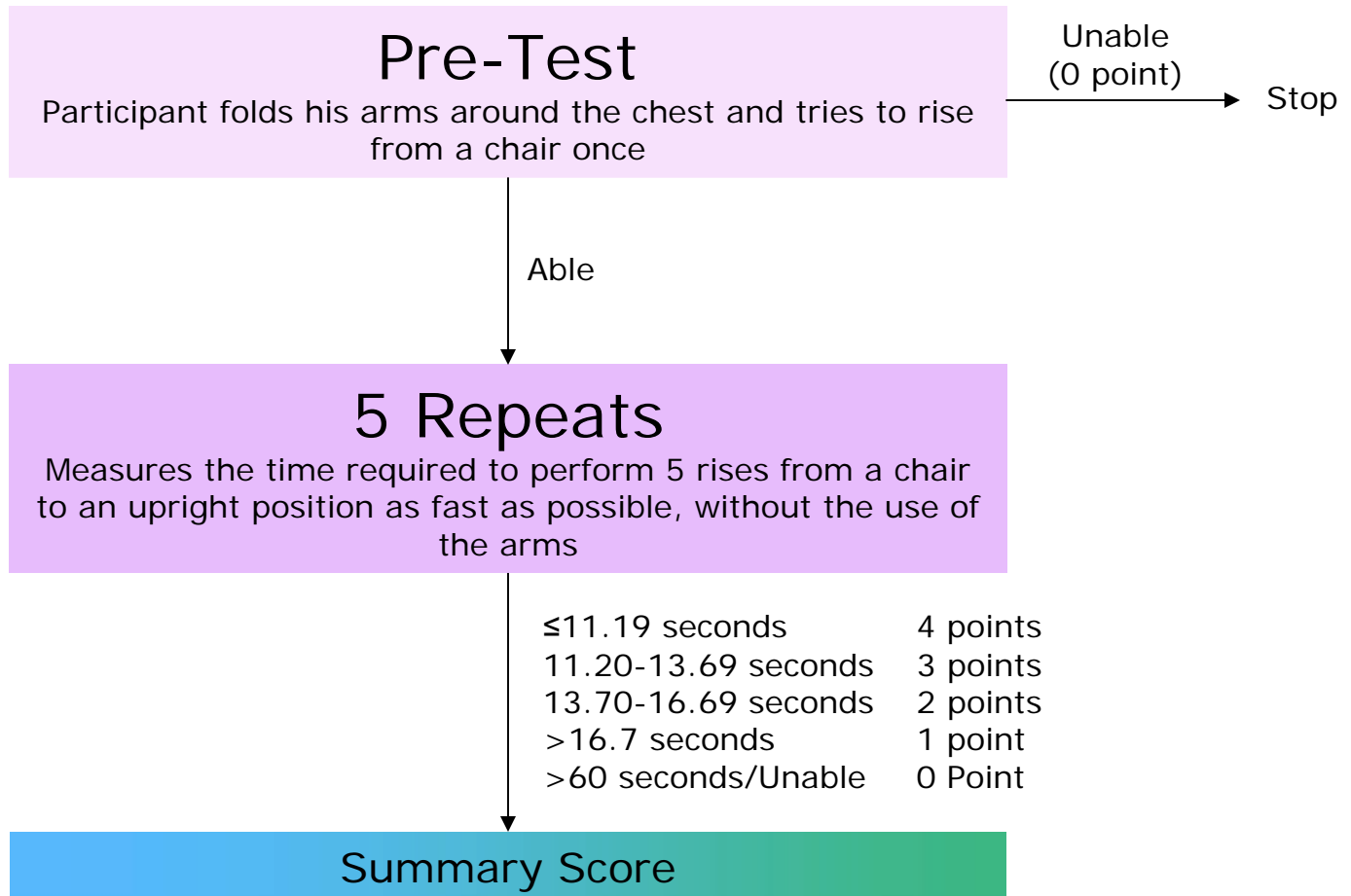


### 5 Repeats

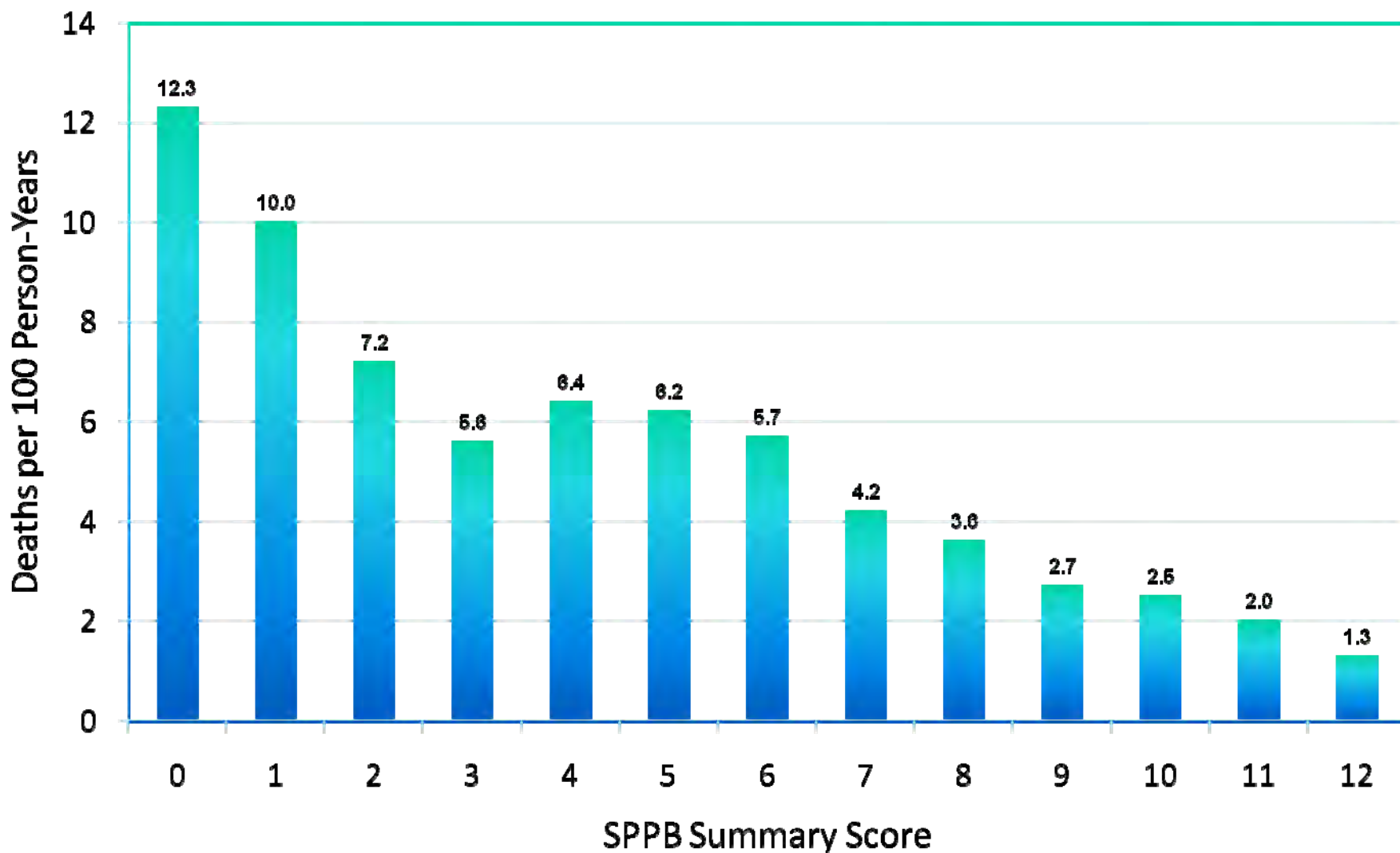
Measures the time required to perform 5 rises from a chair to an upright position as fast as possible, without the use of the arms

# Short Physical Performance Battery (SPPB)

## Chair Stand Test: Scoring



## Age- and Gender-Adjusted Death Rate According to SPPB Summary Score

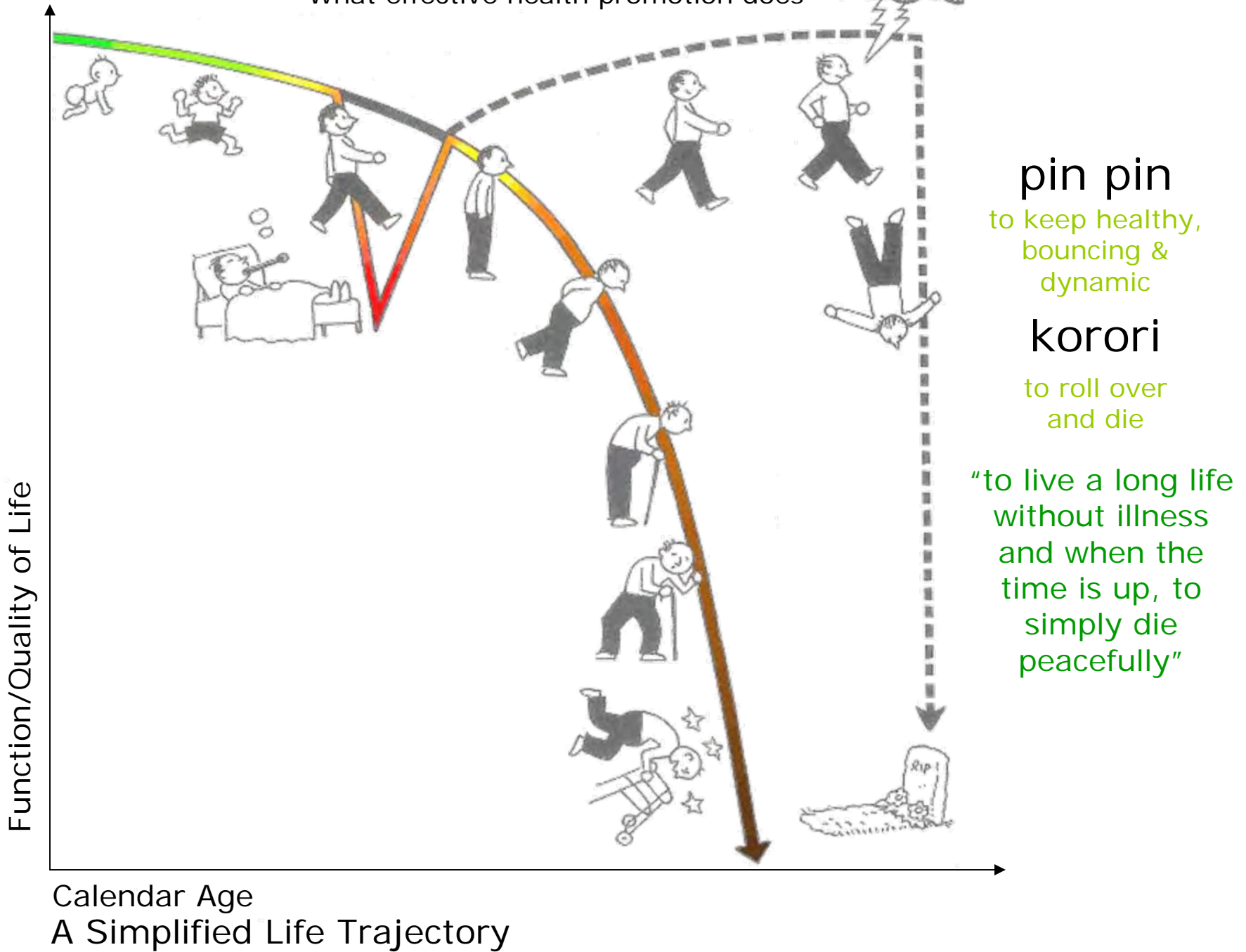


# Screening Physical Function

## The Imperative

- Key to frailty is muscle weakness.
- Strong predictor of
  - Disability
  - Institutionalisation (=Dependence)
  - Death
- There is a large pre-clinical range before symptoms occur → window for intervention
- Simple preventive & remedial strategy=physical exercise
  - Repeatedly given
  - Cheap
  - Effective
  - Universally available
  - No significant side effects

What effective health promotion does



pin pin

to keep healthy,  
bouncing &  
dynamic

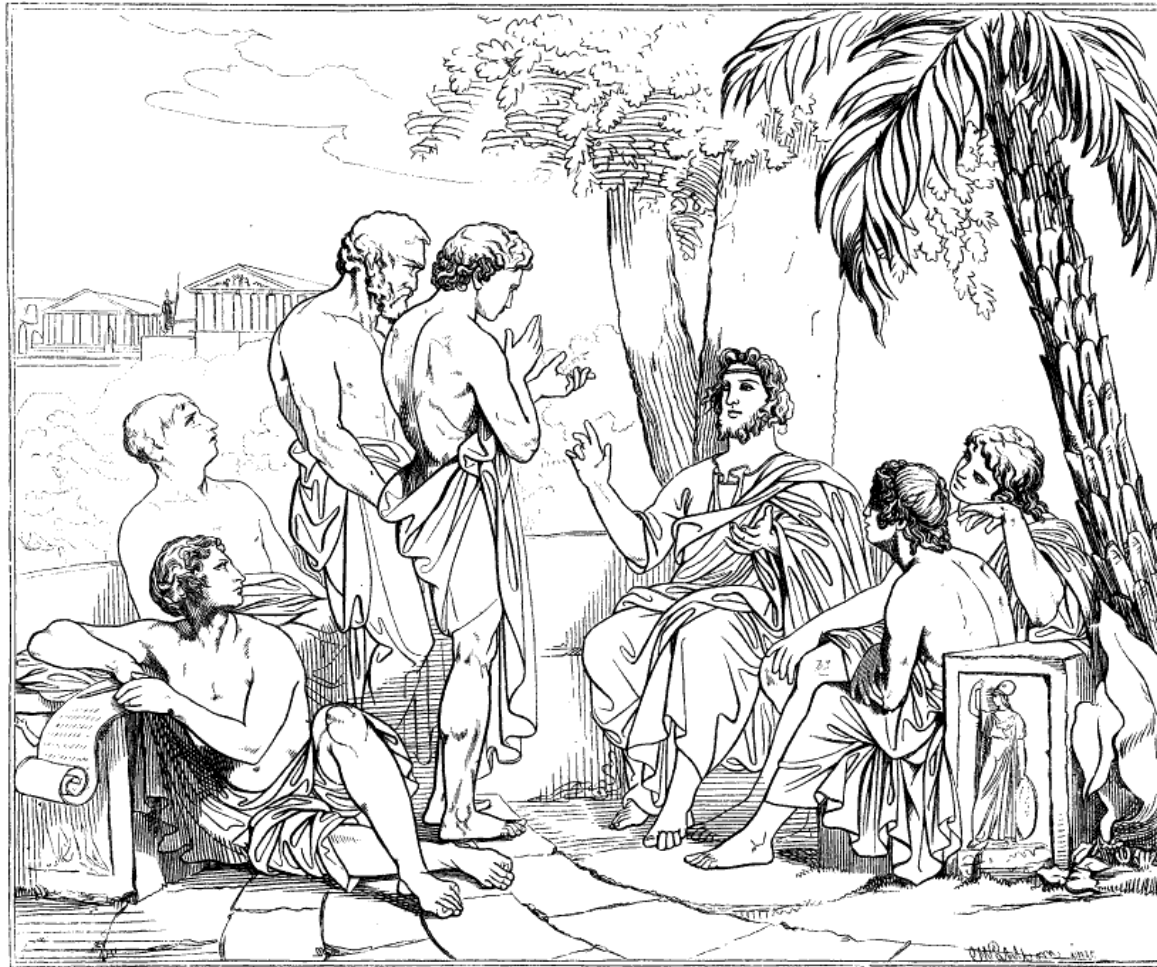
korori

to roll over  
and die

“to live a long life  
without illness  
and when the  
time is up, to  
simply die  
peacefully”

Function/Quality of Life

Calendar Age  
A Simplified Life Trajectory



**“To die young, as late in life as possible.”**

- the goal established for humanity by the ancient Greeks -

We may not want our last days propped up and supported by implants and prostheses.







Thank you :)