FRAMING FRAILTY:
A STEP TOWARDS POSITIVE OUTCOMES FOR OLDER PEOPLE

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FACING THE FACTS: THE FUTURE OF IRELAND

Source: CSO population and labour force projections, 2016-2046

128,000
Number of 80-year-olds in 2011

484,000
Number of 80-year-olds in 2046

860,700
Number of over 65-year-olds by 2026

1.4m
Number of over 65-year-olds by 2046

57.9 years
Female life expectancy in 1926

88.5 years
Female life expectancy in 2046

57.4 years
Male life expectancy in 1926

85.1 years
Male life expectancy in 2046

100,300
Increase in the number of children at primary school age by 2021

300,000
Increase in labour force by 2046
The Irish context

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>65+ yrs</th>
<th>Frail</th>
<th>Prefrail</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>4.6 million</td>
<td>0.5 million</td>
<td>0.1 million</td>
<td>0.24 million</td>
</tr>
<tr>
<td>2041</td>
<td>6.1 million</td>
<td>1.4 million</td>
<td>0.3 million</td>
<td>0.75 million</td>
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</table>

The European Commission Economic Policy Committee predicts healthcare costs will rise by 0.9% of GDP by 2035.
HOW DO WE SEE FRAILTY?
• Though frailty results from ageing, it is not an inevitable part of ageing.
BIOLOGICAL V CHRONOLOGICAL AGING
Increased Vulnerability to Frailty

Genetics → Cumulative Cellular Damage → Environmental Factors

Stress or event → Poor Nutrition → Decreased Reserve → Decreased Physical Activity → Increased Vulnerability to Frailty

Multiple underlying causes can often be improved with appropriate assessment and intervention including rehabilitation

Instability
Falls
Incontinence
Changes in cognition

Increased care needs
Admission to hospital

Adapted from Clegg 2013
Frailty is the Most Problematic Expression of Population Ageing

Figure 1: Vulnerability of frail elderly people to a sudden change in health status after a minor illness

The green line represents a fit elderly individual who, after a minor stressor event such as an infection, has a small deterioration in function and then returns to homoeostasis. The red line represents a frail elderly individual who, after a similar stressor event, undergoes a larger deterioration, which may manifest as functional dependency, and who does not return to baseline homoeostasis. The horizontal dashed line represents the cutoff between dependent and independent.
FRAILTY: WHAT WE KNOW

- A distinct health state, related to the aging process
- A heterogeneous condition, people present differently
- Characterised by decreased physiological capacity across multiple body systems
- A risk factor for adverse health outcomes
- A transition phase between healthy ageing and disability

(Clegg et al, 2013; Morley et al, 2012; Rockwood et al, 2007; Wlaston et al, 2006; Fried et al, 2001)
FRAILTY AS A LONG TERM CONDITION

If we consider frailty as a long-term condition we begin to apply internationally established models and implement evidence based care.
Recognising Frailty: Two Broad Models

Phenotype Model (Fried et al. 2001)
Describes a group of patient characteristics:

- Unintentional weight loss (4.5kg in last year)
- Self reported exhaustion
- Weakness (grip strength)
- Slow walking speed (<0.8 metres/second)
- Low physical activity

Generally individuals with three or more of the characteristics are said to have frailty.

Cumulative Deficit Model (Rockwood et al. 2005)
Assumes an accumulation of deficits ranging from:

- Symptoms e.g. loss of hearing or low mood
- Signs such as tremor,
- Diseases such as dementia

which can occur with ageing and which combine to increase the ‘frailty index’ which in turn will increase the risk of an adverse outcome.
# CUMULATIVE DEFICIT MODEL (FRAILTY INDEX)

## 32 Age-related Health Deficits

| 1. Difficulty Walking                         | 17. Stroke/TIA                      |
| 2. Difficulty rising from a chair             | 18. Irregular heart rhythm          |
| 3. Difficulty climbing one flight of stairs   | 19. CVD                            |
| 4. Difficulty stooping, kneeling or crouching | 20. Diabetes                        |
| 5. Difficulty reaching above shoulder height  | 21. High cholesterol                |
| 6. Difficulty pushing/pulling large objects   | 22. Arthritis                       |
| 7. Difficulty lifting/carrying weights >10lbs | 23. Knee pain                       |
| 8. Difficulty picking up a coin from table    | 24. Osteoporosis                    |
| 11. Difficulty following a conversation       | 27. Urinary incontinence            |
| 12. Cataracts                                 | 28. Polypharmacy                    |
| 13. Glaucoma/Age related macular degen        | 29. Poor self-rated physical health |
| 15. Angina                                   | 31. Poor self-rated memory          |
| 16. Heart attack                             | 32. Feeling lonely                  |

**Physical function deficits, Sensory deficits, Cardiovascular deficits, Chronic or Acute illness, Other health deficits**
Cumulative Deficit Model (Frailty Index)

(Rockwood et al. 2005)

Robust

Pre-frail

Frail

Modified from O’Halloran A. TILDA (2018)
FRAILTY IN THE COMMUNITY

Figure 1: Weighted estimate of frailty in the community-dwelling population aged 65 years and older in Ireland (TILDA, wave 1).

- Frail: 24%
- Robust: 31%
- Pre-frail: 45%

Roe et al., TILDA 2016
FRAILTY IN THE COMMUNITY: WHAT WE KNOW

• Prevalence of frailty in 65 years and older varies from 17% to 29% CHO regions

• 57% of Public Health Nursing service users aged 65 years and older are frail.

• Less than one third of frail older people access the Public Health Nursing service
FRAILTY IN THE ACUTE HOSPITAL: WHAT WE KNOW

• Almost 22% of all hospital emergency department attendees are aged 65 +

• 40% of all acute emergency medical admissions and 47.3% of total hospital bed days
FRAILTY IN RESIDENTIAL CARE: WHAT WE KNOW

• 5-6% Older population receive residential care

• Approximately 22% of persons aged 85+ require nursing home care.

• This group is forecast to increase by 46% to 2021

• 50% have NH residents have dementia
Frailty may be identified when the person presents in a crisis with one of the “Frailty Syndromes”
TOWARDS A NEW PARADIGM

New Care Paradigm for older persons and frailty (adapted from Young 2014)

**TODAY**

- "The frail elderly" (i.e. A label)
- Presentation late & in crisis (e.g. delirium, falls, immobility)
- Hospital-based: episodic, disruptive & disjointed

**TOMORROW**

- "An older person living with complex needs" (i.e. a long-term condition)
- Timely identification for preventative, proactive care by supported self-management & personalised care planning
- Community-based: person-centred & co-ordinated (Health + Social + Voluntary + Mental Health)
Positive correlation between age and admission rate from ED (75yr olds x 2 and 94 yr olds x 3)

If Admitted to Hospital –

- More Likely to Move Wards
- More Likely to Experience a Longer Stay
- Every bed move adds two days to length of stay
- More Likely to Suffer

A stay of 4-8 hours increases inpatient length of stay by 1.3 days, while a stay of more than 12 hours increases length of stay by 2.35 days.

There is a strong correlation between excessively long PETs and inpatient AVLOS

Every day in hospital leads to significant muscle loss

48% of people over 85 die within one year of hospital admission
Evidence suggests that up to 50% of older people become incontinent within 24 hrs of hospital admission.
EACH ED AMU WILL HAVE IN PLACE AN AGREED PROCESS FOR IDENTIFYING/TRIAGING THE OLDER ADULT
CAPTURING FRAILTY IN THE ED

PRISMA 7 Questions

1] Are you more than 85 years?
2] Male?
3] In general do you have any health problems that require you to limit your activities?
4] Do you need someone to help you on a regular basis?
5] In general do you have any health problems that require you to stay at home?
6] In case of need can you count on someone close to you?
7] Do you regularly use a stick, walker or wheelchair to get about?

A cut off score of 3 or more suggests the need for clinical review
Over 75s screened using Variable Indicative of Placement (VIP)

Score > 1 activates the GEMS pathway
FRAILTY CAN BE IDENTIFIED USING A VALIDATED FRAILTY ASSESSMENT TOOL

3 of the following:

- Unintentional weight loss
- Muscle weakness (grip strength)
- Slow walking speed
- Feeling exhausted
- Low physical activity
- Biological markers

**Clinical Frailty Scale**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Fit</td>
<td>People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.</td>
</tr>
<tr>
<td>2 Well</td>
<td>People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g., seasonally.</td>
</tr>
<tr>
<td>3 Managing Well</td>
<td>People whose medical problems are well-controlled, but are not regularly active beyond routine walking.</td>
</tr>
<tr>
<td>4 Vulnerable</td>
<td>While not dependent on others for daily help, often symptoms limit activities. A common complaint is being &quot;slopped up,&quot; and/or being tired during the day.</td>
</tr>
<tr>
<td>5 Mildly Frail</td>
<td>These people often have more evident slowing, and need help in high order TADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.</td>
</tr>
<tr>
<td>6 Moderately Frail</td>
<td>People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.</td>
</tr>
<tr>
<td>7 Severely Frail</td>
<td>Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within 6 months).</td>
</tr>
<tr>
<td>8 Very Severely Frail</td>
<td>Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.</td>
</tr>
<tr>
<td>9 Terminally Ill</td>
<td>Approaching the end of life. This category applies to people with a life expectancy &lt;6 months, who are not otherwise evidently frail.</td>
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**Scoring frailty in people with dementia**

The degree of frailty corresponds to the degree of dementia. Common symptoms in mild dementia include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal. In moderate dementia, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting. In severe dementia, they cannot do personal care without help.
ROCKWOOD FRAILTY SCALE

1 Very Fit – People who are robust, active, energetic
2 Well – People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally. e.a.
3 Managing Well – People whose medical problems are well controlled, but are not regularly active beyond routine walking.
4 Vulnerable – While not dependent on others for daily help, often symptoms limit activities. A common complaint is being "slowed up", and/or being tired during the day.
5 Mildly Frail – These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.
6 Moderately Frail – People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.
7 Severely Frail – Completely dependent for personal care, from whatever cause (physical or cognitive)
8 Very Severely Frail – Completely dependent, approaching the end of life.
9 Terminally Ill – Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.
ALL PATIENTS LIVING WITH FRAILTY WILL HAVE A TIMELY COMPREHENSIVE GERIATRIC ASSESSMENT PERFORMED
COMPREHENSIVE GERIATRIC ASSESSMENT

CGA

Co-ordinated plan of care

Identify treatable health problems

Co-ordinated delivery of care

Organised approach to assessment
FRAILTY: WHAT WE KNOW

- The recognition of frailty is important and should form part of any interaction between an older person and a healthcare professional.

- An individual’s degree of frailty is not static. It may be made better or worse, depending on the care received when an individual presents to a healthcare professional.
By increasing the understanding of frailty, we can improve the detection, prevention, management and therefore outcomes for these older adults.
THE NATIONAL CLINICAL PROGRAMME FOR OLDER PEOPLE PARTNERING

TILDA
• The Longitudinal Study on Aging

NEMP
• National Emergency Medicine Programme

NAMP
• National Acute Medicine Programme
Development and sign off of Education resource pack and handbook
March 2019:

- **15 networks**
  7 ICPOP sites

- **140 “Frailty Facilitators”** completed development programme

- **1900 Healthcare Professionals** completed programme in local network
FEEDBACK TO DATE

• 15 Facilitator Networks established across CHO/HGs

• 140 “Frailty Facilitators” have completed the facilitators development programme,

• 1900 Healthcare professionals completed “Fundamentals of Frailty Education Programme” in local networks

I will now see older people in a different light. I realise frailty can sometimes be reversible so I need to understand what makes people frail

Education on frailty will enhance our understanding and change our perception of taking care of the frail older person. Highly recommend to all levels of staff

This course is the way forward and should be mandated

I'll stop mindlessly referring to other disciplines and thinking that’s my job done

Stop thinking of frailty as a word but as a long term condition

Best Programme I have undertaken in my 17 years of nursing

Question continence wear use. Stop tolerating patients in PJ/ Engaging in inappropriate bed moves

Giving the frail patient more of my time as I understand their situation better after today

Stop looking at frailty as just old age and now recognise the condition – its impact on the person.
CALL TO ACTION

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