Focus on Frailty
Can we live up to expectations?

Dr Phil Wood, Geriatrician,

Chief Advisor Healthy Ageing, MoH

Disclaimer:- Many of the views expressed are NOT Policy and are a personal perspective!

So what is Frailty?

Why do you want to know?

? The new refreshed and popular term in Geriatrics?

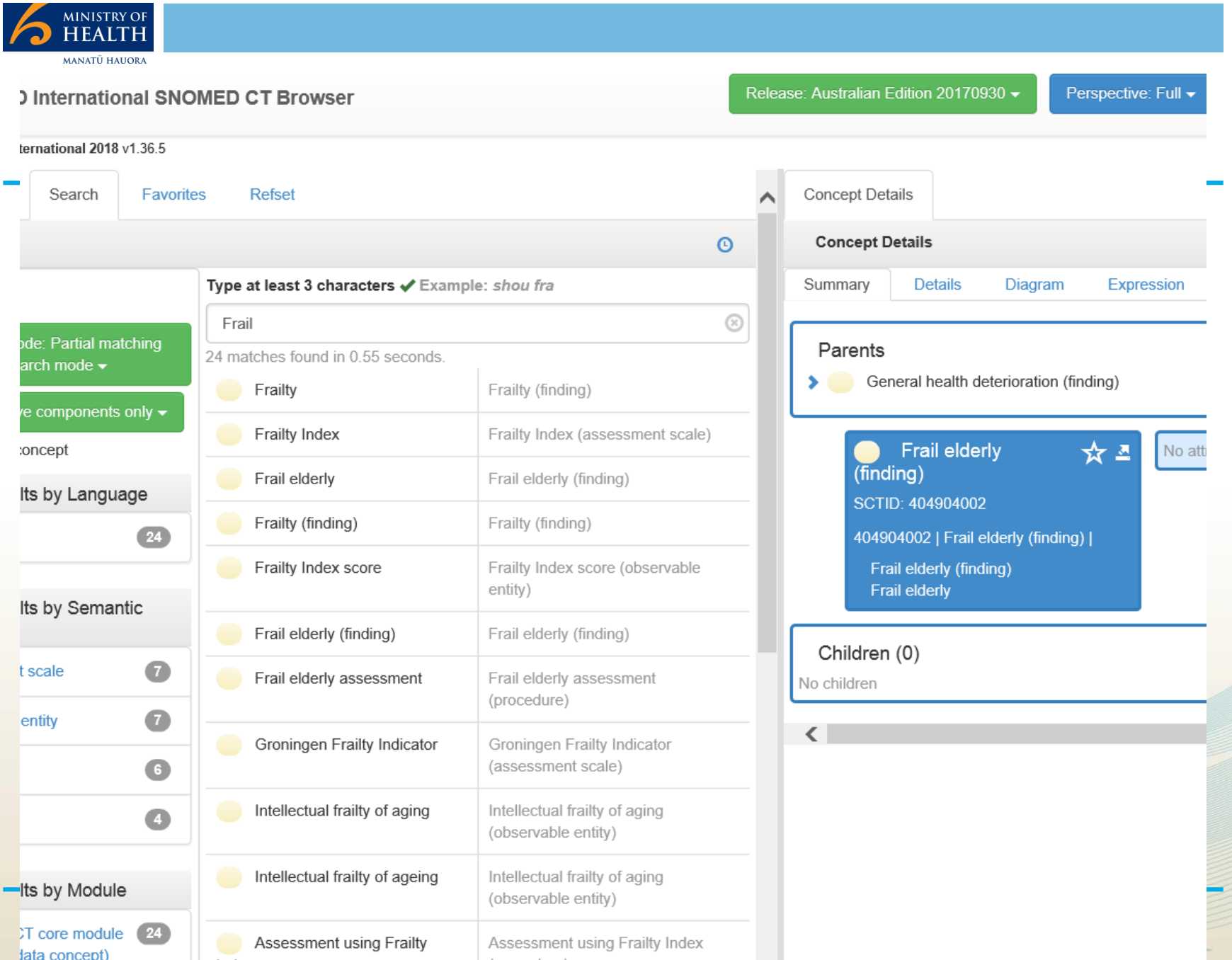
A newly discovered syndrome?

? $\frac{1}{Resilience}$

Wiki version = geriatric syndrome that embodies an elevated risk of catastrophic declines in health and function among older adults

declines in physiologic reserves and resilience is the essence of being frail

It is NOT a DRG but DOES appear in SNOMED CT (yay!).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International SNOMED CT Browser
Release: Australian Edition 20170930
Perspective: Full
International 2018 v1.36.5
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Frail
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Frailty
Frailty (finding)
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Frailty (finding)
Frailty Index score
Frailty Index score (observable entity)
Frail elderly (finding)
Frail elderly (finding)
Frail elderly assessment
Frail elderly assessment (procedure)
Groningen Frailty Indicator
Groningen Frailty Indicator (assessment scale)
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Children (0)
No children
Its by Language
24
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24

Frailty, what are you going to do if-when you come across it?

All descriptions / diagnoses / identification are :-

for the purpose of communication,

offering some form of hope, intervention, prognosis

Ie Such identification should primarily be to the benefit of the Client/patient but will also benefit ‘the system’, loved ones, etc

Who is interested in the concept of frailty and why?

Frail Folk	?Helping them to get to understand themselves and circumstance
Families	Providing understanding, expectations, support etc
MoH	Healthy Ageing Strategy since it is a core issue
Treasury	Healthcare in the Future / $
DHBs	Planning of focussed services and minimising risk
	Quality Services which are Cost effective
	Identify those at greatest risk of adverse outcomes

Community Support Services (Core Business)

Long Term Care Providers (Core Business)

Etc

How do you:- ?

Recognise Opportunistic, 'know it when you see it', can be proportional to experience and vigilance

Find In a prior selected at risk population, more formal

Screen ? Using existing data/ populations.

Electronic (GP records, NMDS etc, InterRAI)

? Using a special form / interview etc

What are the cost-benefit of this?

What are the False Negative and False Positive Stats

Do we have a 'gold standard? Comprehensive Geriatric Assessment, ie which one?

So what? Why are we looking at frailty?

All the good reasons, …. providing the best care in a fashion that best suits the client / patient….. Providing rational and compassionate care….. Looking at our processes…

Some not so good reasons:-

Rationing?

Labelling/stigmatising/treating as ‘that sort of patient’ ?

(the frail are not fungible- an archaic legal term, = people are individuals)

Avoiding?

Spend on ‘better’ things?

Every healthcare system struggles with…

Increasing costs

Poor quality

Variability

Continuity and coordination of care

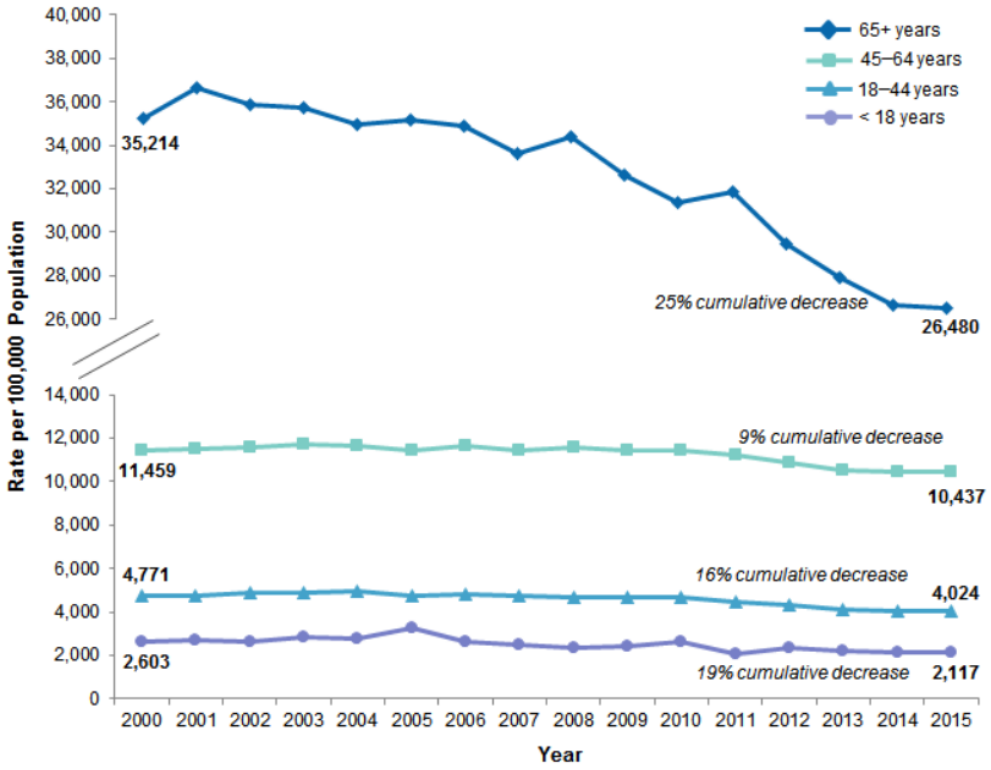
- *For those with chronic disease and the frail elderly*

..in addition, we all have some specific local issues, related to culture, politics, context etc

Are the 'Frail elderly' more or less of a burden than in the past? Eg What actually has happened to Admission rates?

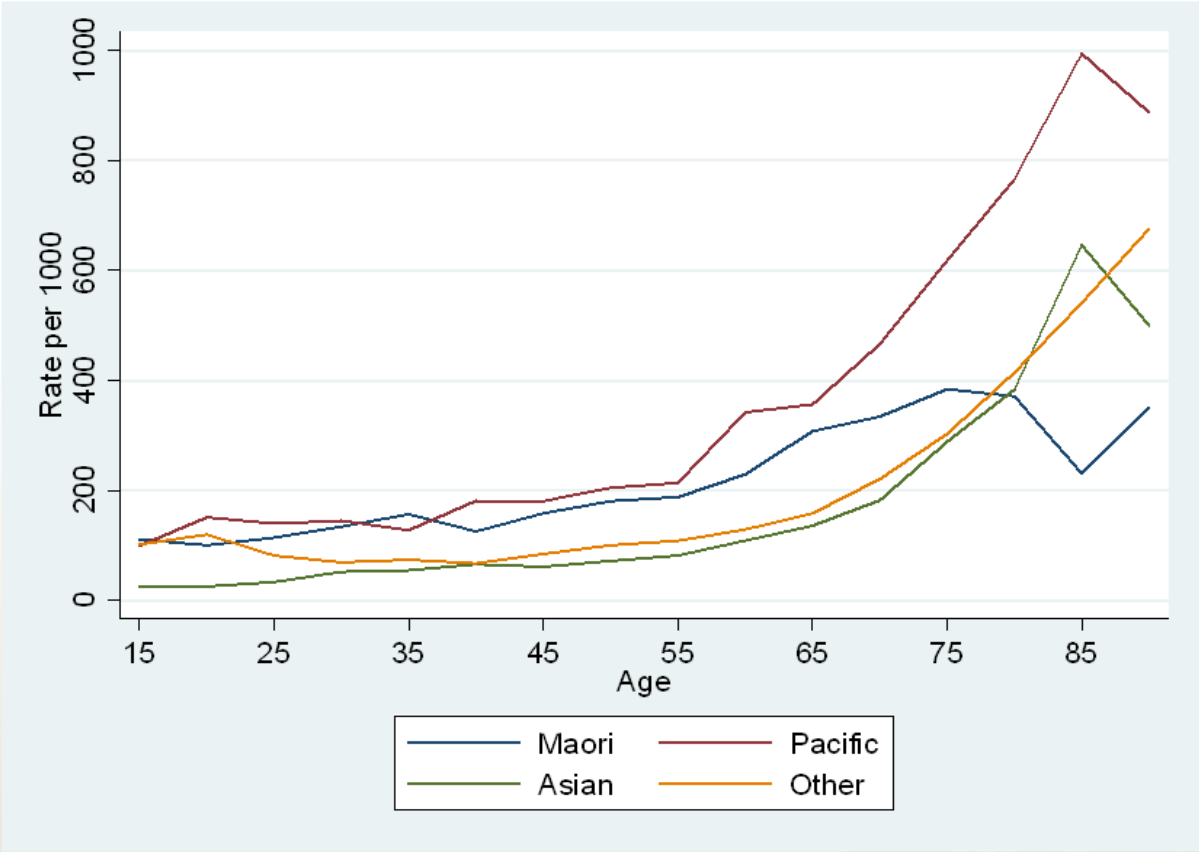
USA Data

Figure 1. Rate of nonneonatal, nonmaternal inpatient stays, per 100,000 population by age group, 2000-2015



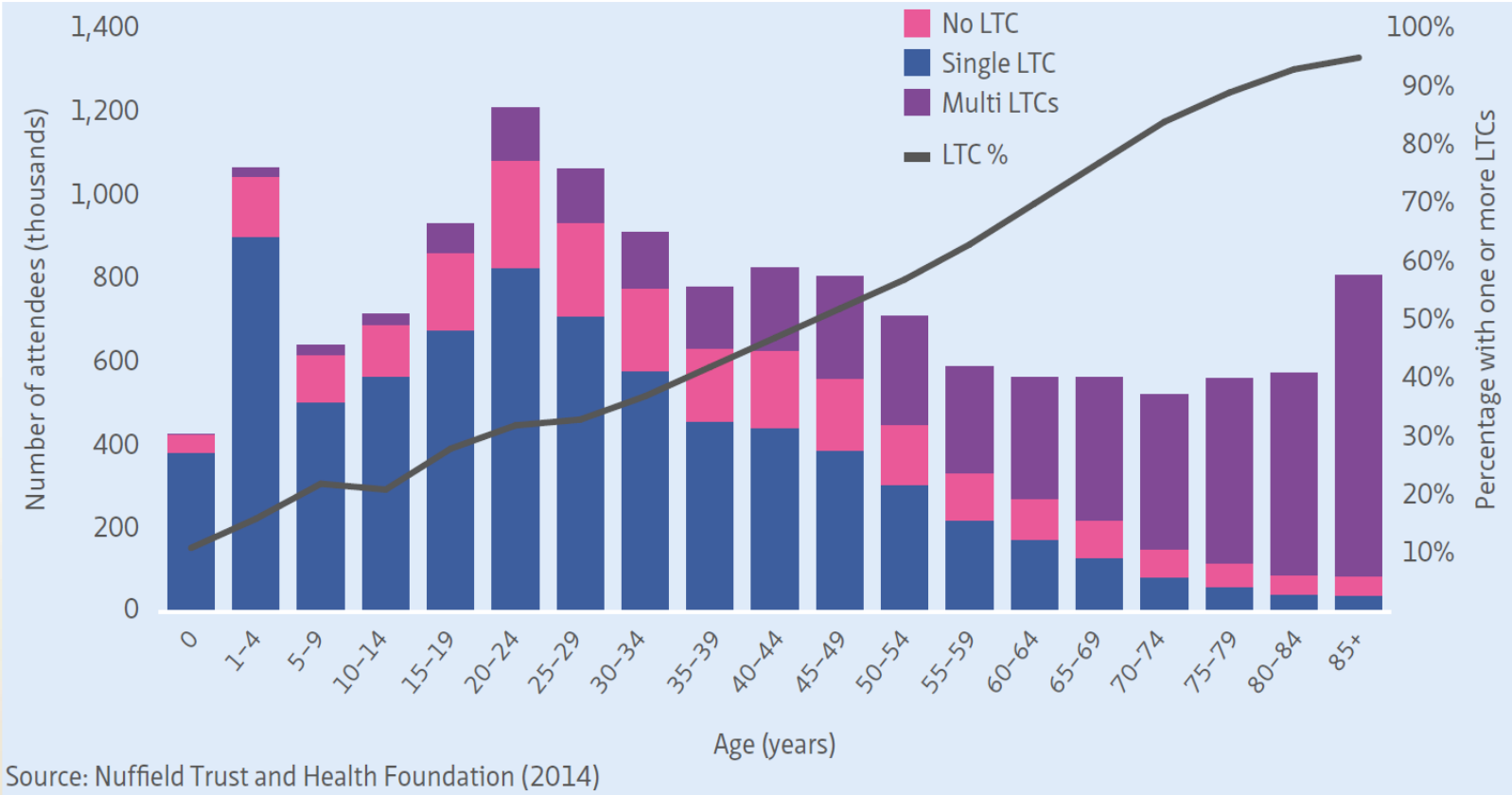
Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets. Healthcare Cost and Utilization Project (HCUP), National (Nationwide) Inpatient Sam
(NIS), 2000-2015

Admission rates (Auckland)



Characteristics of the Frail Older Adult (requiring admission)

Co-morbidity, cognitive impairment, poor mobility, history of falls, sarcopenia etc.



Source: Nuffield Trust and Health Foundation (2014)

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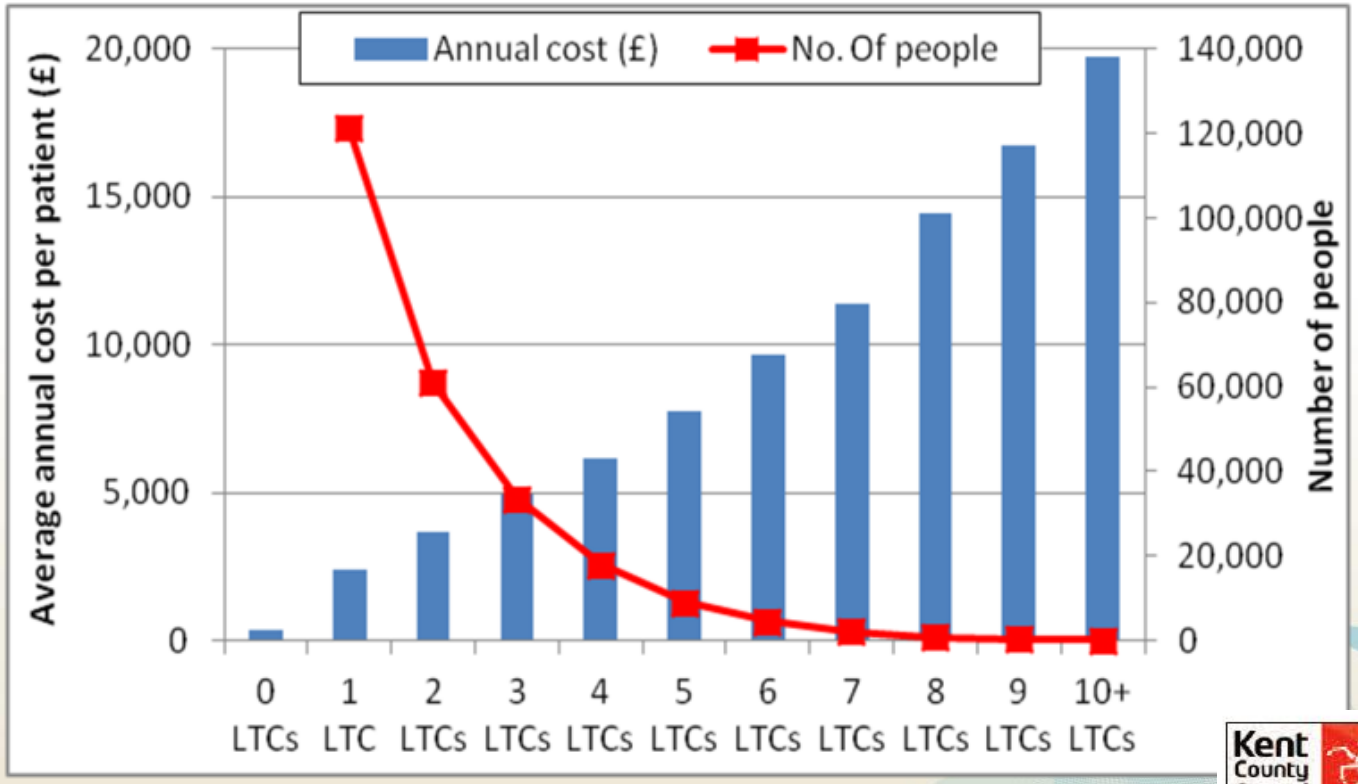
The total health and social care cost is strongly related to multi morbidity:



Kent County Council
kent.gov.uk

What do we already have to ‘Find Frailty?’

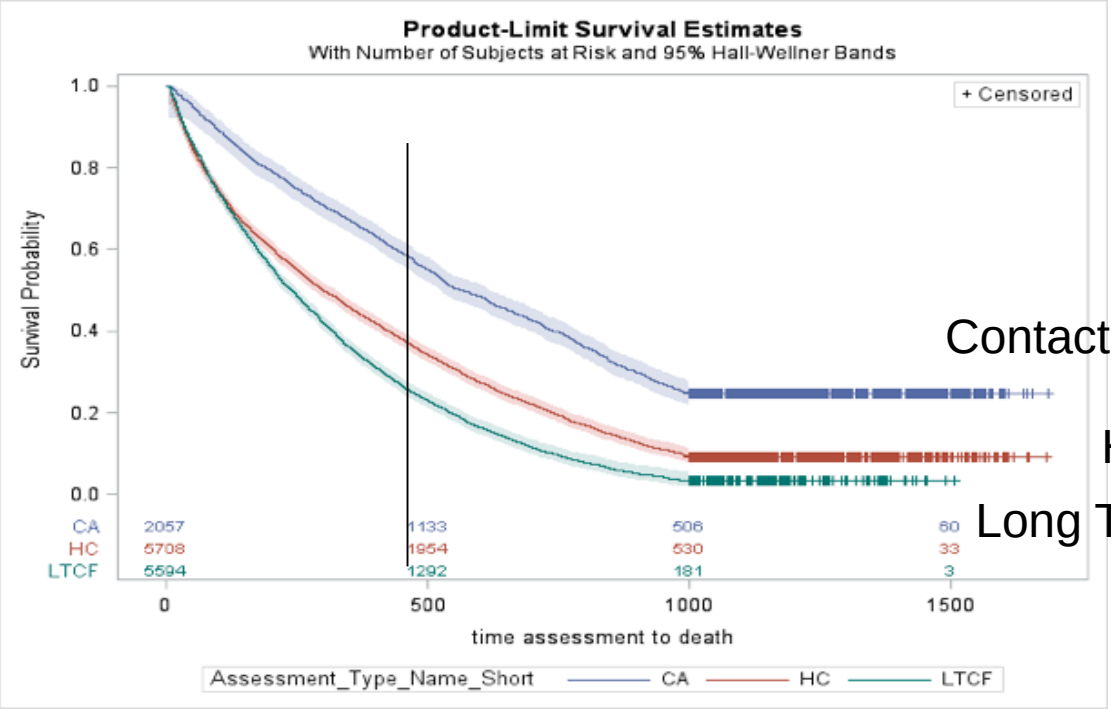
GP data

NMDS

InterRAI suite of ‘measures’.

Past Frailty triggers

Other?



Contact Assessment

Home

Long Term Care

there is a significant difference between the three assessments (P=<0.0001).

The values at the bottom of the plot tell us for instance that 181 people were alive at 1000 days (from 5594).

The median survival for CA = 566 days; median survival for HC = 300 days; median survival for LTC = 240 days)

Some research

Institute of Healthy Ageing
Rehabilitation, Ageing and Clinical Studies
Waikato District Health Board

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A Thousand Days

Item (first interRAI assessment)	Cox's Proportional HR	Relationship with mortality
Dressing lower body	**0.315***	**69% increased risk**
Locomotion	**0.342***	**66% increased risk**
Falls	**0.677***	**32% increased risk**
Bathing	**0.321***	**68% increased risk**
Personal hygiene	**0.339***	**66% increased risk**
Self rated health	**0.506***	**49% increased risk**
Unstable conditions	**0.626***	**37% increased risk**
Change in decision making	**0.553***	**45% increased risk**
Decrease in food or fluid	**0.374***	**63% increased risk**
Weight loss	**0.380***	**62% increased risk**
Ability to understand others	**0.709***	**29% increased risk**
Change in ADL	**0.400***	**60% increased risk**
Dizziness	0.918**	8% increased risk
Chest Pain	**0.803***	**20% increased risk**
Peripheral oedema	**0.768***	**23% increased risk**
Pain frequency	0.916*	8% increased risk
Pain intensity	0.916*	8% increased risk

** Significant at 0.05
* Significant at <0.0001

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Clinical Frailty Scale*

1 Very Fit – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

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.g. seasonally.

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). Even so, they seem stable and not at high risk of dying (within ~ 6 months).

8 Very Severely Frail – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

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.**

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.

* 1. Canadian Study on Health & Aging, Revised 2008.
2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

DALHOUSIE UNIVERSITY
Inspiring Minds

Frailsafe Checklist - Confused , Reduced Mobility , Care Home Resident

Where are the possibilities for improvement?

Effecting Admission rates, LOS, quality for Frail Folk

Some 'Wood Phylogeny/Terminology'

Admission Prevention:- This implies planning to prevent against random /unpredictable episodes from both known and unknown conditions

Admission avoidance:- Broadly trying to intervene when a random/unpredictable event occurs and admission to … is an option

Admission Diversion:- Admitted to a facility / service from either a specific area that was NOT the original / primary target, (immediate or subsequent)

Admission Enhancement:- Active specific intervention related to specific factors

Discharge enhancements:- Looking for preplanning and tailoring of support post admission (irrespective of the above)

Mixes of the above….. Length of Stay…..

Avoiding Admissions?

Are we talking Ambulatory Sensitive Hospitalisation (ASH)?

Ie 45% of >65 yr olds admitted are potentially able to be cared for in the community.... ... maybe, perhaps closer to 25%...

By what standard? By what approach? Has this been properly tested?

It is clearly and inexact **DRG based approach**

NO attempt is made to define on the basis of functional ability for the person to self manage or be safe.

Avoidable Admissions?

Prevention:- The best evidence is **Chronic Conditions management**.

Chronic Pulmonary and Cardiac Conditions ('isolated')

Few NZ data ? A lot of unpublished examples, ? Well reviewed. ? What about in Multiple/Complex Chronic, dementia etc

End of Life, Advance Care planning,

Avoid, eg prior planning, Home /LTC support

Divert, eg Intermediate Bed

Enhance eg Hospice

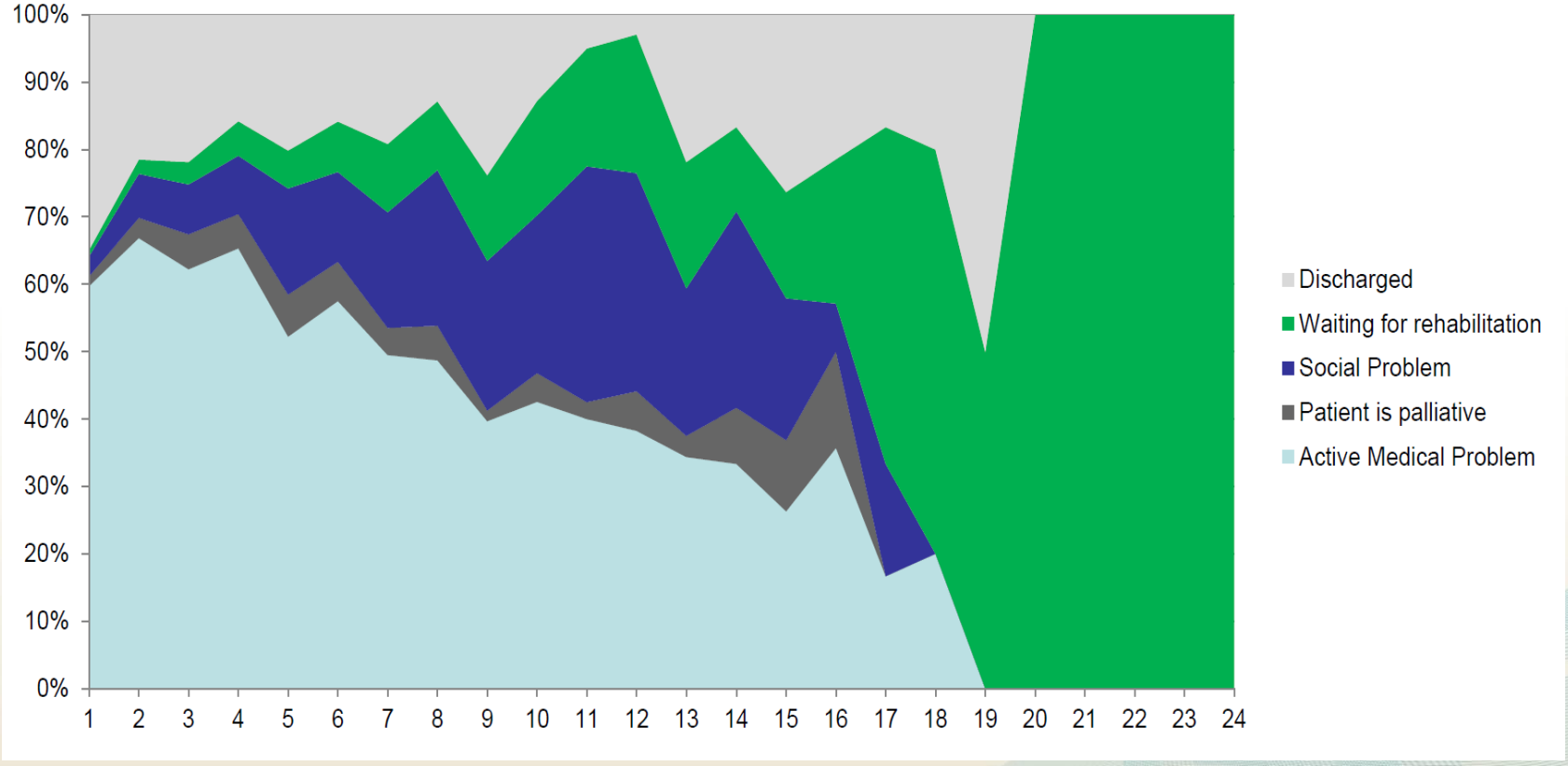
Supported discharge eg Home based TC

Chronic Disease Management

See the rest of the Conference!

Community Care / Support /Restoration

What is delaying Discharge? (Waitemata DHB, perceptions of Medics).



Delayed Discharge (3.3% Acute Bed days A+)

	Patients	Bed days	Proportion
Social issues – e.g. awaiting PPR resolution, family meeting, NASC	47	282	15%
Medical treatment – e.g. awaiting radiology, lab test, procedure, surgery	52	144	8%
Specialist review – e.g. geriatrician or other	57	220	12%
Transfer – e.g. ARRC, other DHB, housing	90	369	20%
Reablement	65	198	11%
Palliative - hospice	20	30	2%
Uncoded	157	623	34%
Total	**487**	**1865**	**100%**

More Terminology

"Intermediate Care" Much too broad a term to be useful is discussing specific models but has been defined as : -

Intermediate care is a range of integrated services to promote faster recovery from illness, prevent unnecessary acute hospital admission and premature admission to long-term residential care, support timely discharge from hospital and maximise independent living.

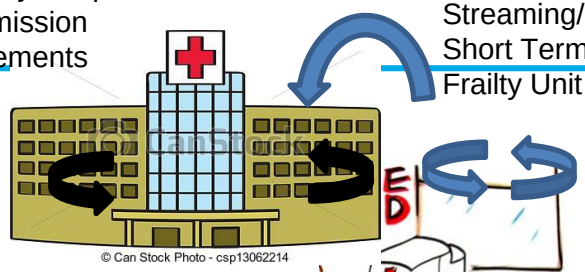
In short 'Everything' a health system should do!

Factors taken into account:-

- Appropriate Assessment
- Targeted
- Outcomes designed towards re-enablement/rehab
- Time limited, Multi-Inter Disciplinary, Skill mix, common record.

Intermediate Care in LTC facility

Secondary Hospital with Admission Enhancements



Admission Diversion, Streaming/Pathways Short Term Frailty Unit etc

Respite etc

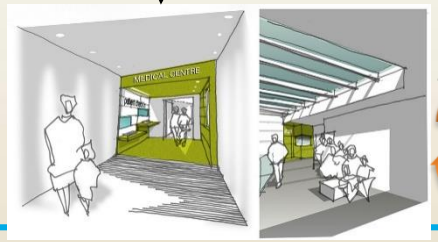
Home Care LT Conditions, Navigation, ACP

Discharge Enhancement

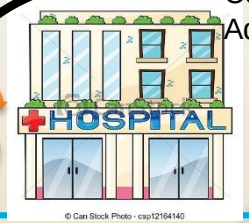
Diversion to 'Intermediate Care'

Hospital at Home

Primary Care Admission Avoidance



Community Unit Admission diversion

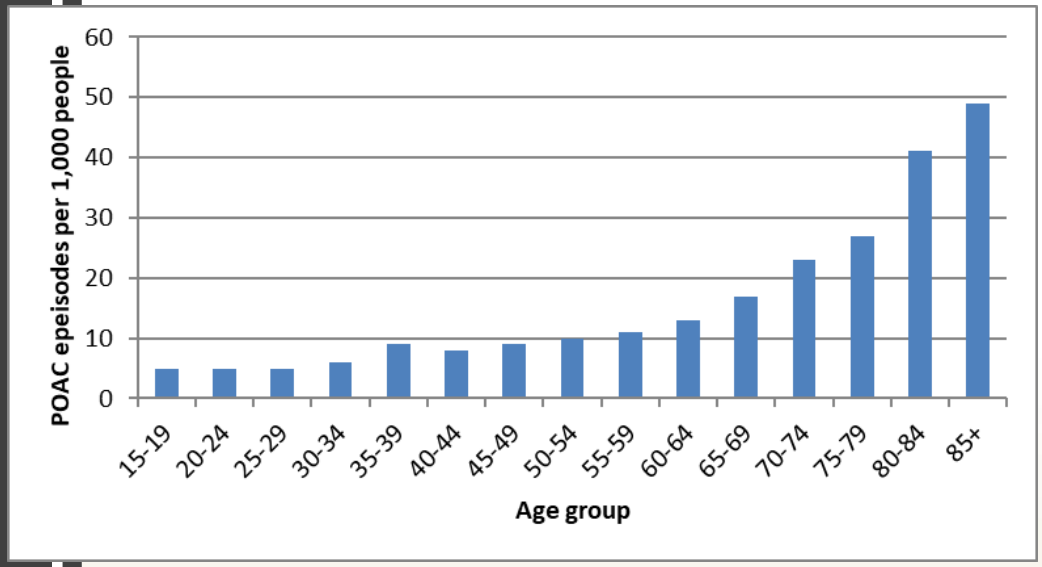


Does Primary Options help eg Frail Older Person?

65 yr olds are the biggest receivers:-

Sadly limited evidence that it leads to attendance avoidance or Admission… but what about …

(Stephenson & Wright, 2016)



Geriatricians or GNS at the Front Door? (Admission)

Zone = Admission avoidance / diversion / enhancement

Have a high recognition rate for ‘Frailty’ and stream patients accordingly

Many services throughput NZ have such models now

? GNS sees 5-6 NPs per day, ? 5 days per week?

Vulnerable to staff churn, and lack of cover.

Need a system behind them that has strong community support (it is not a magic wand service)

Rapid Community Access Team / ESD / ESD

Nurse or Geriatrician lead

Intense support post discharge, or at risk of readmission (? Complex Chronic conditions/Social)

Multi Disciplinary support

? Short activation time ? 8-12 hrs day / 5- 7 days per week

Referral from ED, Wards, Clinics, GP, ARC, Ambulance

Can be extended to admission avoidance.

Variable across NZ, 1-4 visits daily, 2-8 weeks stays

Limited evidence in some settings except more formal programs such as START- CREST (Early Supportive models)

25% in some settings admitted within 1 month of entry.

Interim Care

Widely used as al alternative to ‘Non-Weight Bearing’ for x weeks.

May be in contracted / reserved beds (ie a stepdown service in LTC facilities

Some services in small town local hospital settings.

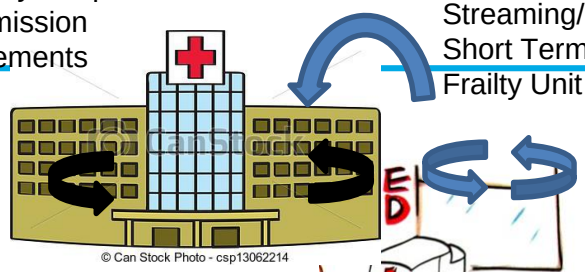
Meant to be associated with a GNS CGA and foillow up

Limited on going maintenance of capacity in many settings (eg limited PT / OT)

Limited evaluation…..

Intermediate Care in LTC facility

Secondary Hospital with Admission Enhancements



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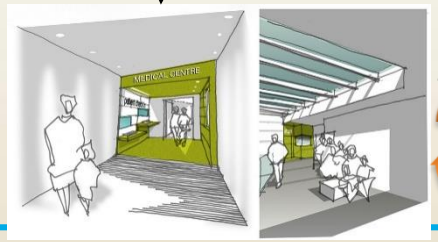

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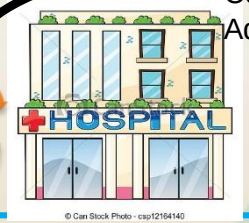

Some 'International and Local Models'

Title:- **Hospital At Home**

Target:- Acute Unwell GP/ED….

Approach	MDT team in person own home, either Primary or Secondary Care delivered
Evidence	Strong but susceptible to cost blowouts

- Cochrane (Shepperd 2016, RCTs, including Auckland, NZ, 2005)
  - Multiple Diagnoses,
  - End of Life
  - DVT
- Similar Outcomes, improved client satisfaction, costs up to double ? Poor capacity management
- Australian sites very keen!

Some ‘International Models’

Title:- Rapid Response Teams

Target:- Frail and Vulnerable

Approach Advanced Nursing variable MDT, in persons own home, triggered by either Ambulance, Primary or Secondary Care, delivered by mixed team, 2 hr initial and up to twice a week support…..

Evidence Weak, ? A cut down of H@H?

Some ‘International Models’

Title:- **ED enhancement Models with some local adaptations**.

Target:- Frail and Vulnerable, lower triage

Approach Advanced Nursing variable MDT, in ED and Assessment Units, CGA/special facilities, change of beds, layout and managing pathway onto wards etc. ie good follow through

Evidence ‘Weak’ in Cochrane, but actually now ? Overtaken by the **FRANCIS Health / PACE Model / PARIS**

eg Tauranga, Waitemata etc. Can be relatively modest costs to get up and going.

Evidence being collected (?)

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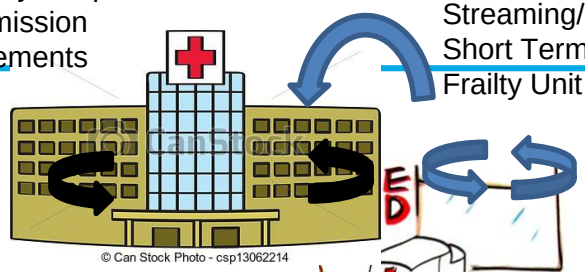

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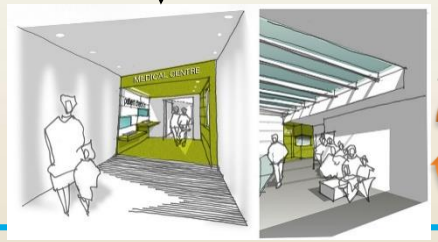

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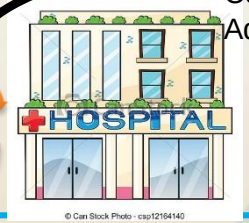


PACE Key Initiatives

Frailty Screening sticker

Frailty Education

#end PJ paralysis in City Hospitals

- Get Up, Get Dressed, Get Moving Audit

IDT Huddle and 1 CGA a day pilot – realignment of priorities

"More grunt at the front" – early access to needed expertise / assessments

Direct admissions to AT&R (? Beds?)

Electronic frailty screening and flag in eVitals

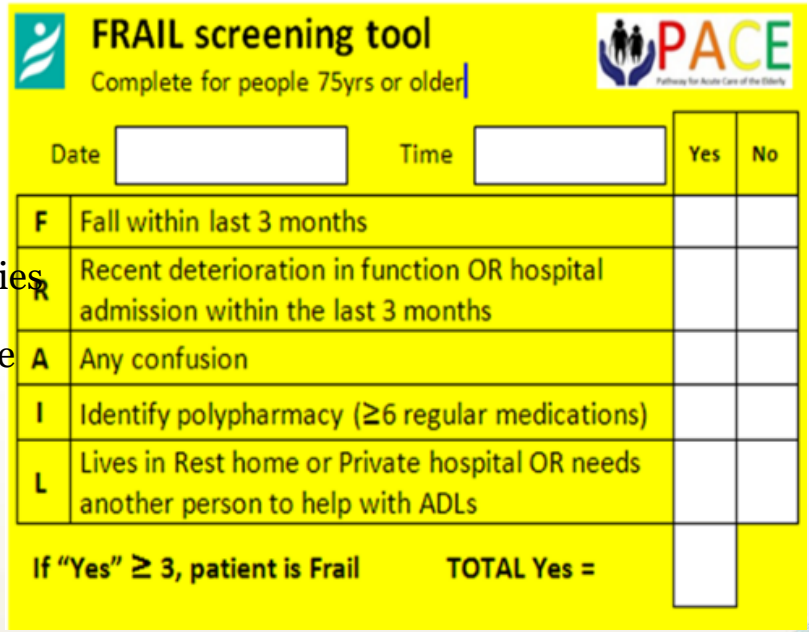
Electronic CGA in Concerto

Developed a generic Frailty assessment and care plan

PACE Response Sticker

#endPJparalysis

get up, get dressed, get moving!



FRAIL screening tool

Complete for people 75yrs or older

PACE

Date _____ Time _____

		Yes	No
F	Fall within last 3 months		
R	Recent deterioration in function OR hospital admission within the last 3 months		
A	Any confusion		
I	Identify polypharmacy (≥6 regular medications)		
L	Lives in Rest home or Private hospital OR needs another person to help with ADLs		

If "Yes" ≥ 3, patient is Frail **TOTAL Yes =**

Some ‘International Models’

Title:- **Early Supported Discharge, but also called ‘Hospital @ Home so can confuse’.**

Target:- Gen Medical, Stroke, Post Surgical, frail elderly but able to toilet self at night with limited support. Aimed at restoration / rehabilitation.

Approach 12-24hr prearranged home support by Care assistant supervised by GNS/PT/OT. Up to 3-4 x / day visits (not Overnight). Avg LOS 2-3 weeks.

Evidence ‘Strong’ in Cochrane, clear NZ examples (START Waikato 2012-prresent), CREST Canterbury 2013-present). Trialled in ACC patients with more strict randomisation. Improved cost effectiveness

Some ‘International Models’

Title:- **Transition Care**

Target:- Older Patients with Acute admission Approach

Approach:- Post discharge care continued intensively into the community, good discharge planning, patient education, nursing follow up

Evidence:- ‘Moderate’ in Cochrane,

Some evidence for reduced readmission,

NZ examples eg Waitemata – nurse Phone call, no clear evidence for reduced readmission (possibly not directed/intense enough)

Name Extended models of care	
Description Achieve integration by a using a single team to case manage the complete spectrum of care from rapid response, through to chronic care (including involvement in hospitalisations). The model may include first response, or increase coordination with first responders. MDT team led by a doctor who may be a GP or specialist. (Imison, Curry, et al., 2017) Virtual ward models are a recent example of this model (Lewis, Wright, & Vaithianathan, 2012), but there are other models (e.g. CareMore in USA). Some secondary care services also takes this approach with their high needs patients (e.g. oncology and renal dialysis). Case management approaches also provide a similar model of care, although sometimes less intensively.	
Diagnosis	Treatment
Evidence	WEAK

Author	Type	Size	Hospitalisation
Dhalla 2014	RCT	1923 patients, virtual wards	No effect
Low	RCT	840 patients Virtual wards	33% reduction in Readmssion
Hutt	Syst review	19 studies (14 RCT)	Some reduction readmission/ decreased LOS

(Dhalla et al., 2014; Hutt, Rosen, & al, 2004; Low et al., 2017)

NZ Evidence
Nil

Intermediate Care in LTC facility

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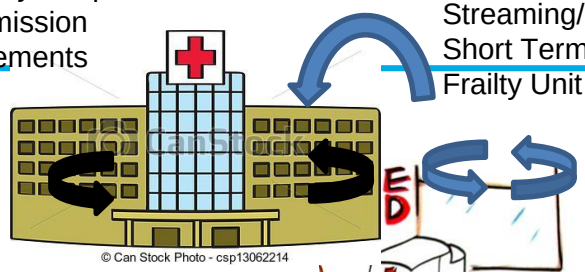

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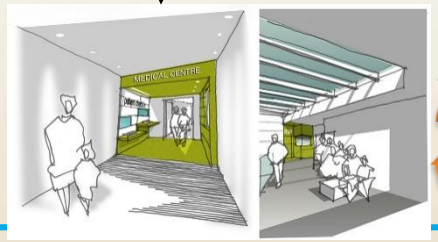

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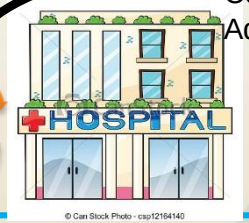


What do we need to 'Fix' to 'Avoid Admissions' (? To **our** special Hospital) for Frail Individuals

- Intensity of Care (Diagnostic)
- Progression /deterioration
- Home / Personal Support, eg getting to the toilet,!
- Complexity (eg interface with issues associated with Delirium, no family, staff / skill shortage.
- Wrong pathways started on
- Timeliness (usually to all the above).
- "It's Easier" (to send off somewhere (does this remind you of a 'Turf')?
- "We don't do that here"
- $, are we trying to save money?

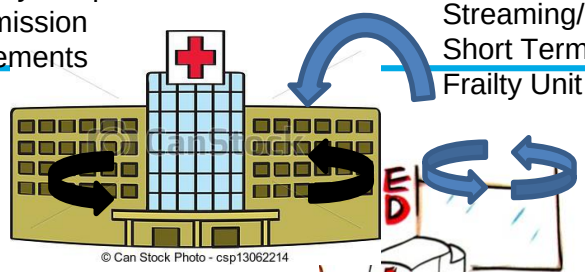
Other factors to keep in mind

The Hidden costs

- Transfer Cost, (time and $ and risk…)
- Disruption
- Adding to ‘stress’ a significant issue for Frail Older Patients.
- New Environment / staff etc
- ‘Readmission’… we go through it ‘all over again’ (both good and bad issues here!)
- WHAT IS THE BASELINE? It easy to improve a very poor system!

Intermediate Care in LTC facility

Secondary Hospital with Admission Enhancements



Admission Diversion, Streaming/Pathways Short Term Frailty Unit etc

Respite etc

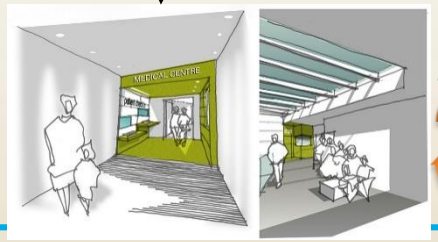
Home Care LT Conditions, Navigation, ACP

Discharge Enhancement

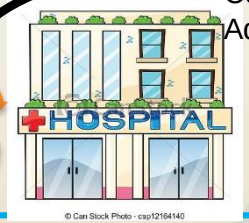
Diversion to 'Intermediate Care'

Hospital at Home

Primary Care Admission Avoidance



Community Unit Admission diversion



Rational Prescribing / ‘Polypharmacy’

The Success of Better Lifestyles and ? Pharmaceuticals

We have good data on when to start Medications

We have limited evidence base on when to stop

exceptions eg antibiotics and symptomatic treatments,

Many polypharmacy reviews (eg Pharmacists) are based on adverse events and interactions

What needs more attention is Relative merits of Diagnoses, Risks vs Benefit a and the concept of rational prescribing and ‘Futility’.

MINISTRY OF HEALTH
MANATŪ HAUORA

LIVE STRONGER FOR LONGER
PREVENT FALLS & FRACTURES

Falls and Fractures

Systematic and focused “DRG” (Falls and Fractures) based approach for whole spectrum ACC-MoH-HQSC

Secondary Falls prevention (Admission avoidance)

Intelligent direction (St Johns, Community A&E), Location Survey (Prevention)

Rapid Diagnosis and treatment, standards / evidence driven

Supportive Discharge and Frail in Home Strength and Balance, home care and Restoration programs

So what is going on out there? Further Examples Welcome!