



UNIVERSITY OF  
OXFORD

# FRiSCy Oxford Fracture Prevention Service

MK Javaid

Lecturer in Metabolic Bone Disease, University of Oxford

Hon Consultant Rheumatologist, Nuffield Orthopaedic Centre

Lead Clinician for FRiSCy

# Declaration

- These views are my own
- In last five years received honoraria, travel and/or subsistence expenses from:
  - Amgen, Eli Lilly, Medtronic, Novartis, Proctor and Gamble, Servier, Shire

# Mapping to Public Health

## Responsibilities

- making the public healthier by encouraging discussions, advising government and supporting action by local government, the NHS and other people and organisations
- supporting the public so they can protect and improve their own health
- protecting the nation's health through the national health protection service, and preparing for public health emergencies
- sharing our information and expertise with local authorities, industry and the NHS, to help them make improvements in the public's health
- researching, collecting and analysing data to improve our understanding of health and come up with answers to public health problems
- reporting on improvements in the public's health so everyone can understand the challenge and the next steps
- helping local authorities and the NHS to develop the public health system and its specialist workforce

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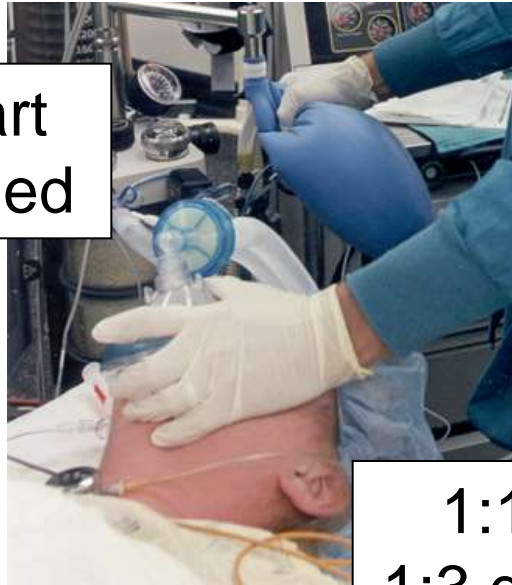
# Lifetime fracture risk in 50 white men and women

	Men (%)	Women (%)
Hip	10.7	22.9
Clinical vertebral	8.3	15.1
Distal forearm	4.6	20.8
Humerus	4.1	12.9
<b>Any of above</b>	<b>22.4</b>	<b>46.4</b>

Lifetime risk for Wrist/ Hip or vertebral is 30- 40% (similar to CHD)

# After a HIP fracture:

More bed days than heart attack and stroke combined



1:10 dead 1 month  
1:3 dead by 12 months

50% require  
care home admission

2.3 billion in hip fracture costs alone per year

£2.3 billion / years

more bed days than heart attack and stroke combined

340,00 fragility fractures last year

> 68,000 Hip fractures last year

> Each hip fracture costs £30K/2 years (NHFD 2010)



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> Each hip fracture costs £30K/2 years (NHFD 2010)

**50% have already had a fracture**

**Drugs cost from £11 per year**

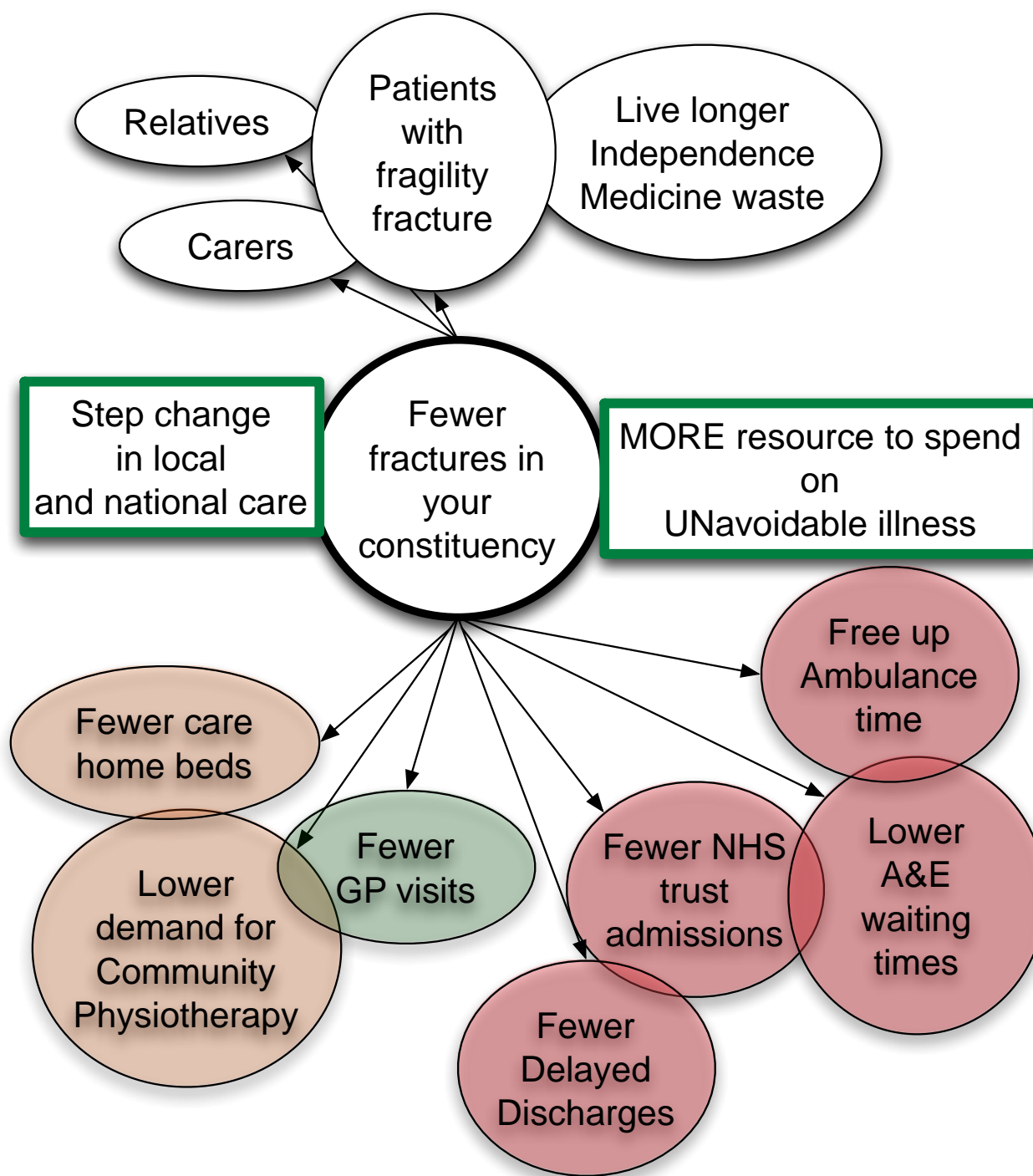
**RCT demonstrate reduced risk of re-fracture by 20 – 70%**



**DXA scan costs £69...**





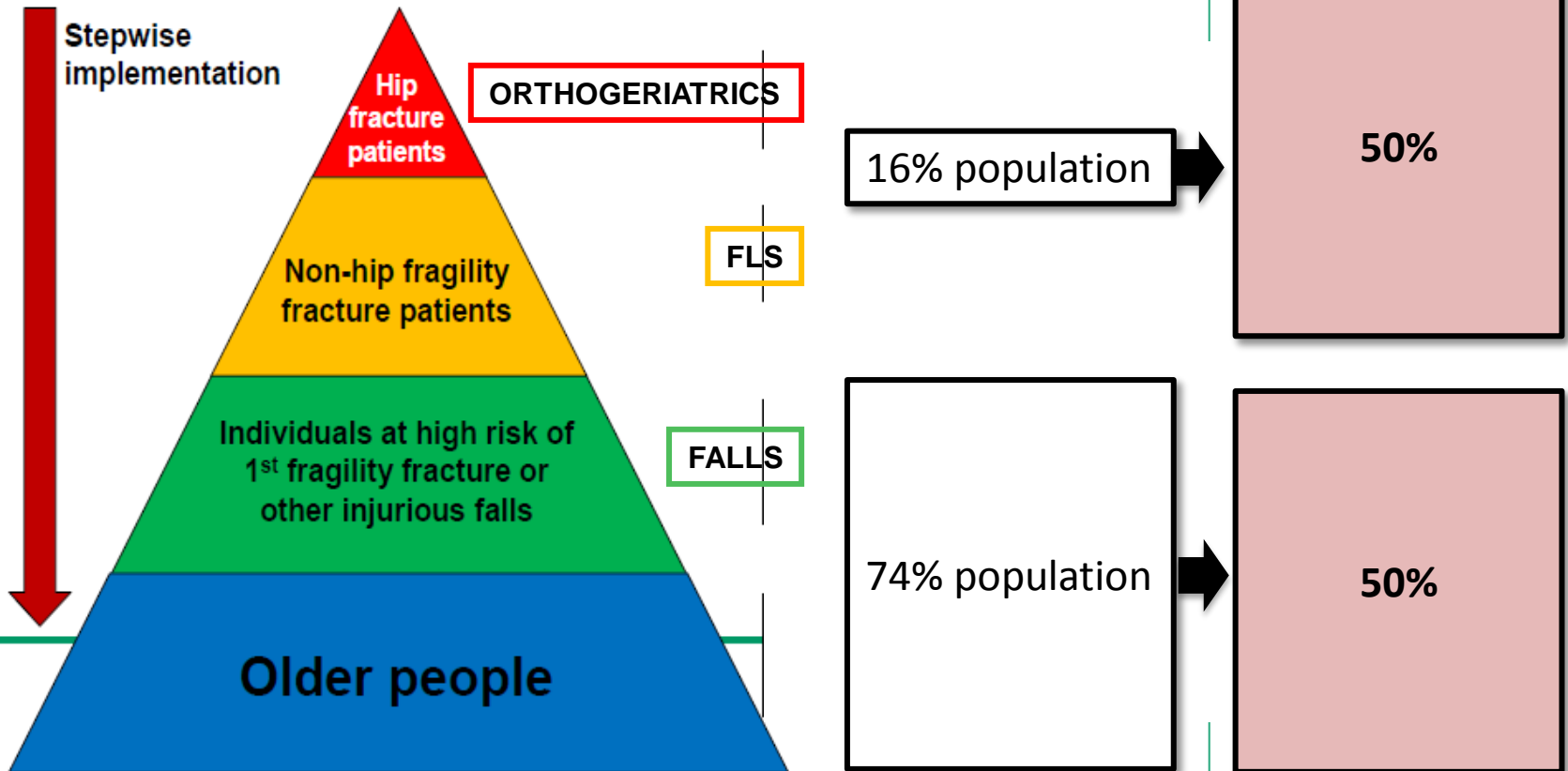


Primary or secondary prevention

# Limited resource: maximize value

Falls and fracture care and prevention  
A road map for a systematic approach

System Reform for Older People



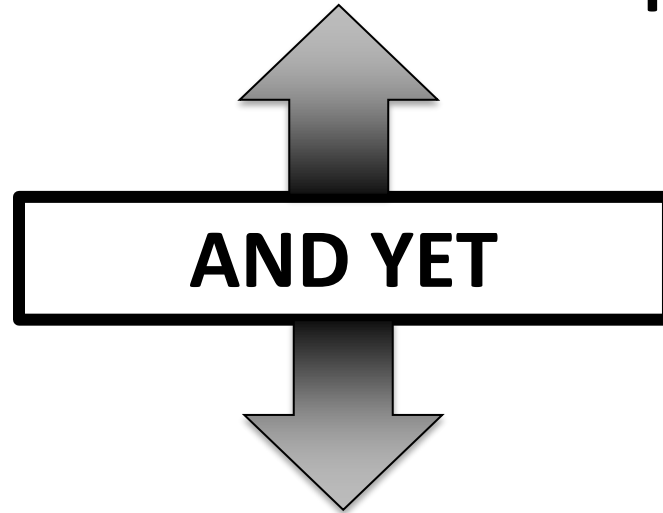


50% hip fracture patients have already had a fragility fracture

A fragility fracture Doubles risk of fracture

**“After the first fracture, act to prevent the second”**

Less than 50% of fracture patients are  
assessed for osteoporosis



Less than 50% of patients who start treatment  
are still on it at 1 year...

# Achieving the outcome



**Find them**

**Assess them**

**Decide which treatment**

**Make sure they stay on it**



# High value



EVERY ONE CONTRIBUTES

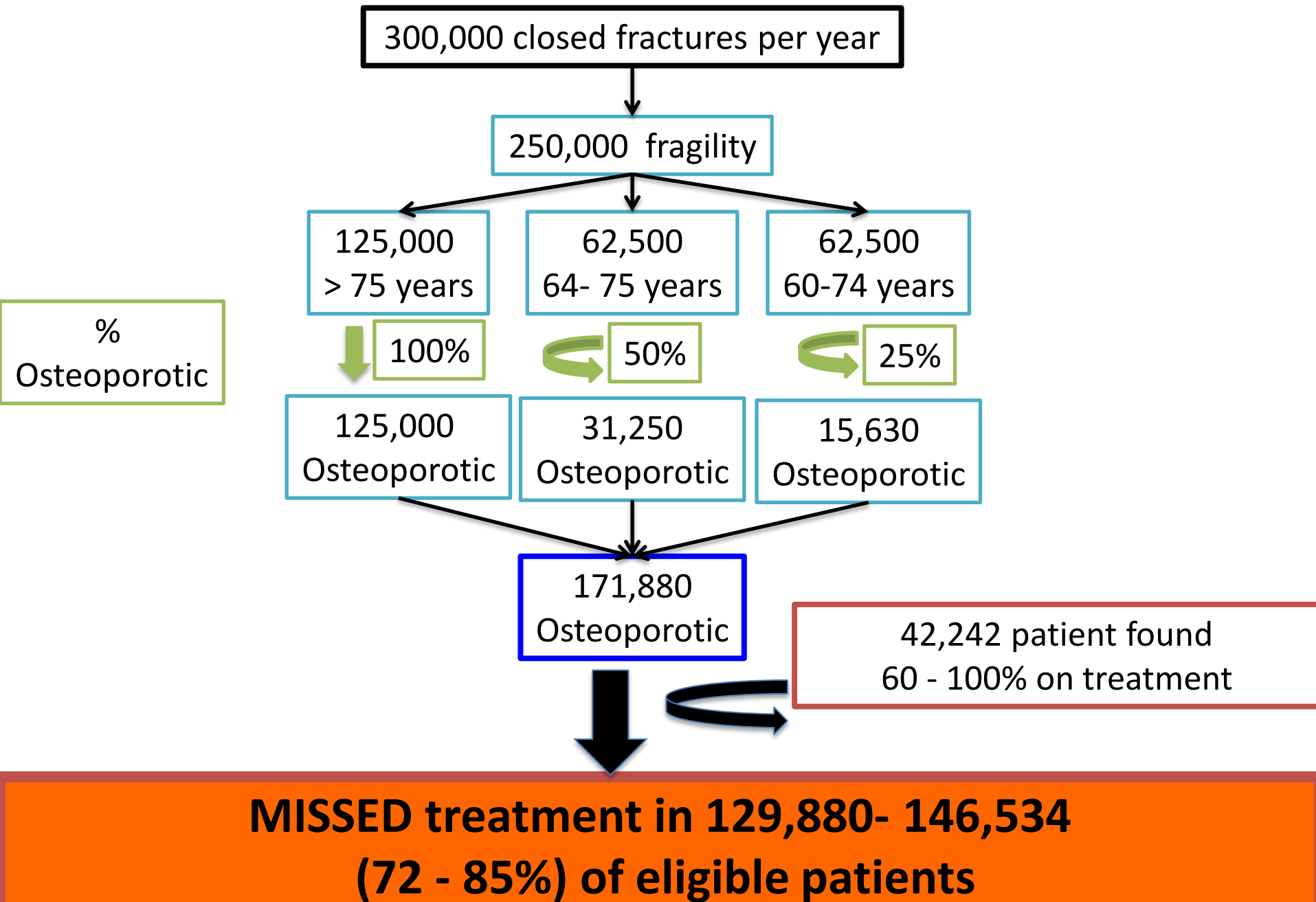


> 3mth delay

> 30% DNA RATE

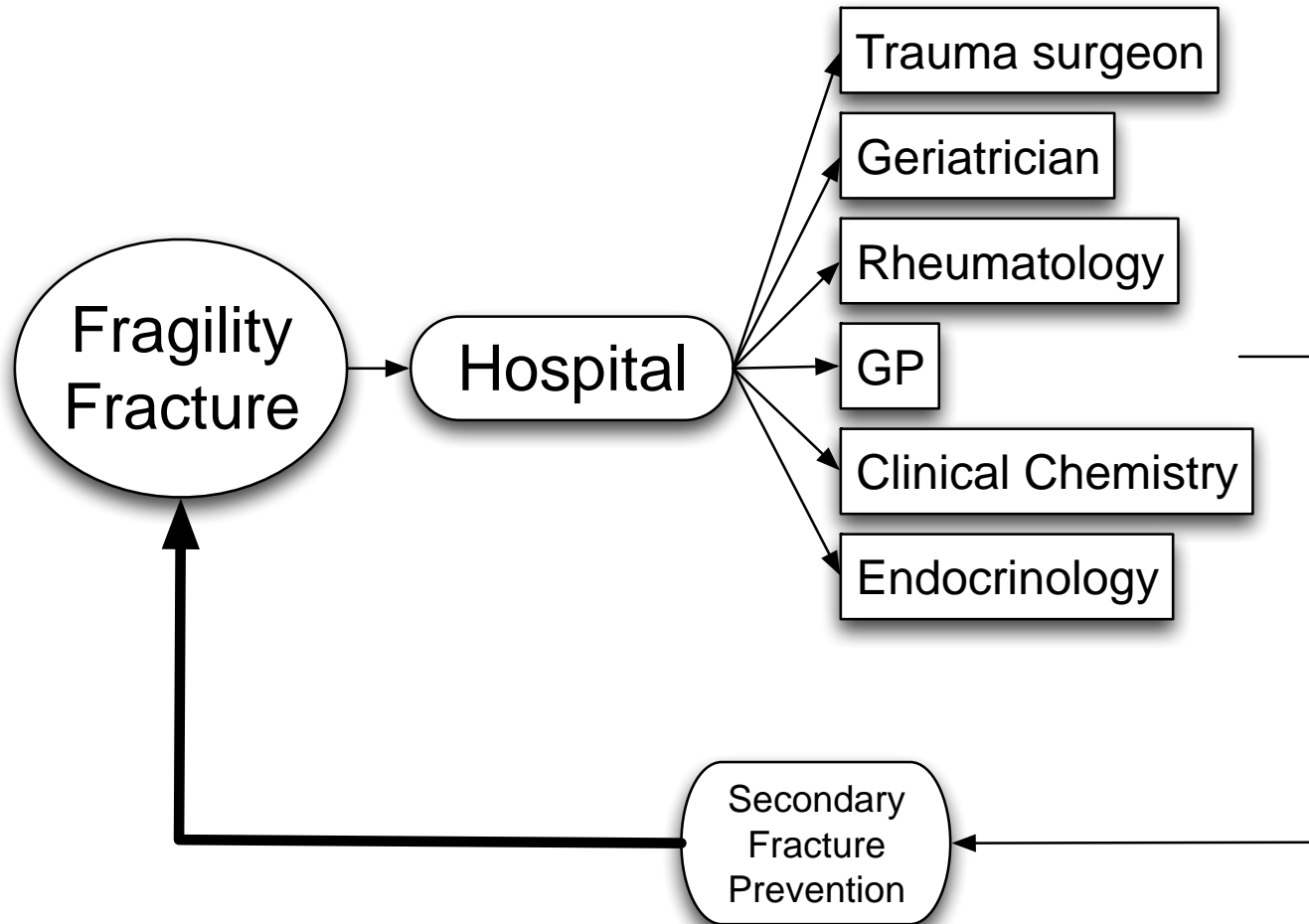
> 50% Non adherence

# Delivered within Primary care: QOF 2012/13



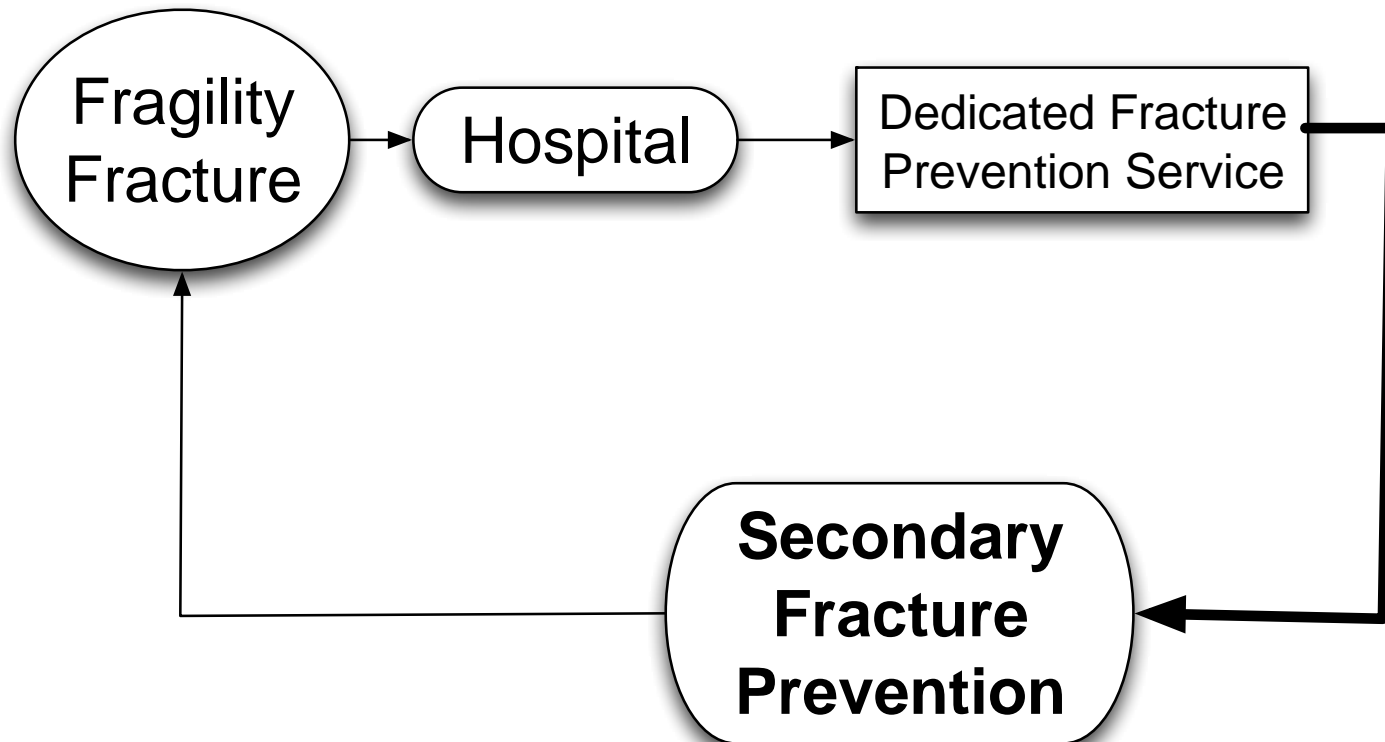


# The NHS pathway



Already paying for finding and treating Hip fracture best practice tariff  
Un-provided other inpatient fracture (50%) & all outpatient fracture patients

# The Effective Service



**Minimally disruption healthcare**

Public health, primary or secondary care led but *must* be patient focused

# A therapy for every patient (annual cost)

## ORAL

Alendronate 70 mg weekly (£11.44)

Risedronate 35mg weekly (£15.21)

Ibandronate 150 mg monthly (£18.98)

Strontium 2g nocte (£353)

Calcium replete

Vitamin D replete

Zoledronate 5mg iv annually (day case rate)

Denosumab 60mg sc 6m (£366)

Treatment adherence –  
options with  
parenteral therapy

Teriparatide 20mcg od s.c (£3263)

# Fracture Reduction in South Central PolicY group



A network of every bone clinician/ Nurse



## AIM:

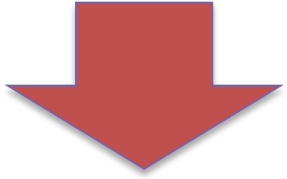
Every patient with a fragility fracture over the age of 50yr in South Central is:

1. Identified
2. Assessed
3. Treated effectively for at least five years  
*for both bone and falls health*

Fracture Liaison Service > Fracture Prevention Service

**POSITIVE LIBERTY- We choose the scope of what we can decide**

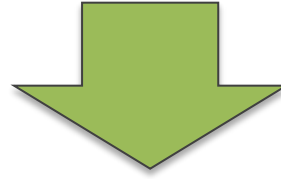
Case find



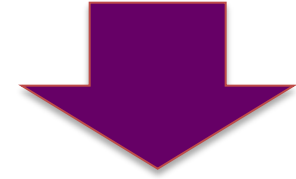
Assessment



Treat initiation



Monitoring



- Minimize patient burden
- Interface service
  - Trauma case finding + community monitoring
- Transfer care from high cost specialist settings to lower cost community settings
- Integrated care
  - Cost effective...
  - Safety
  - Patient Experience



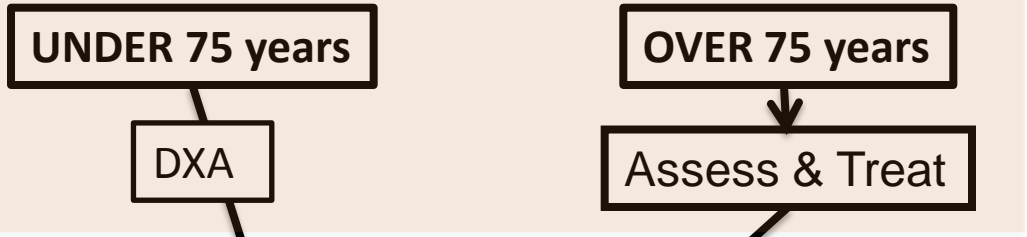
Trauma ward patient

Trauma clinic patient

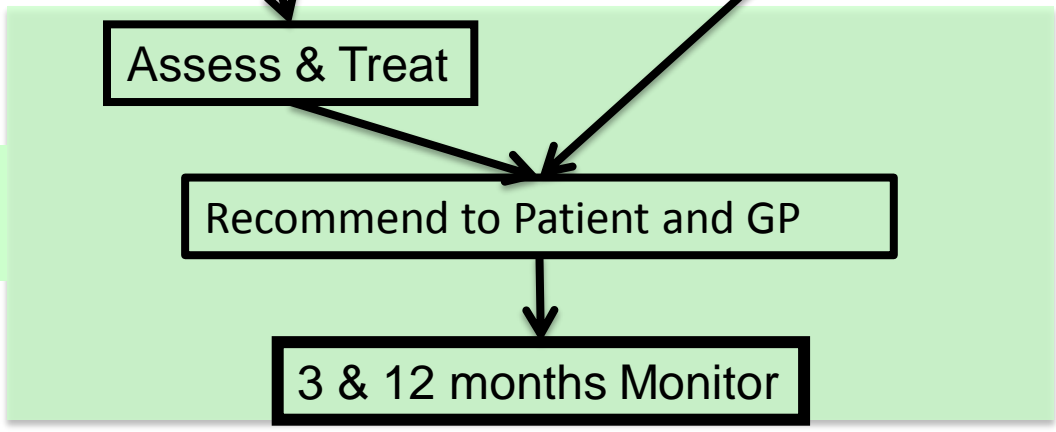
Pelvic fracture  
Medical patient

Spine fracture  
General patient

Hospital based



Community based

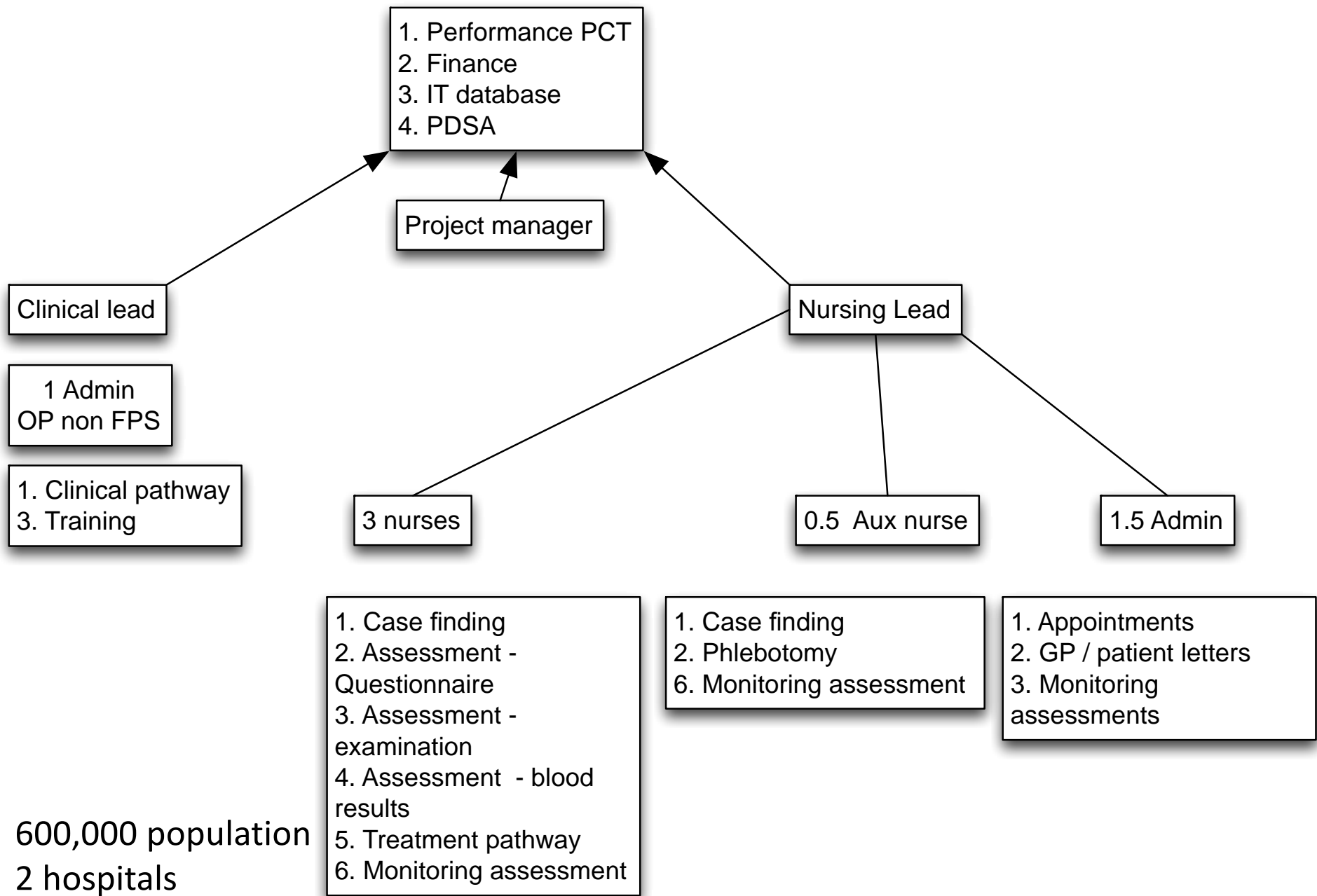


Falls & Generations Game

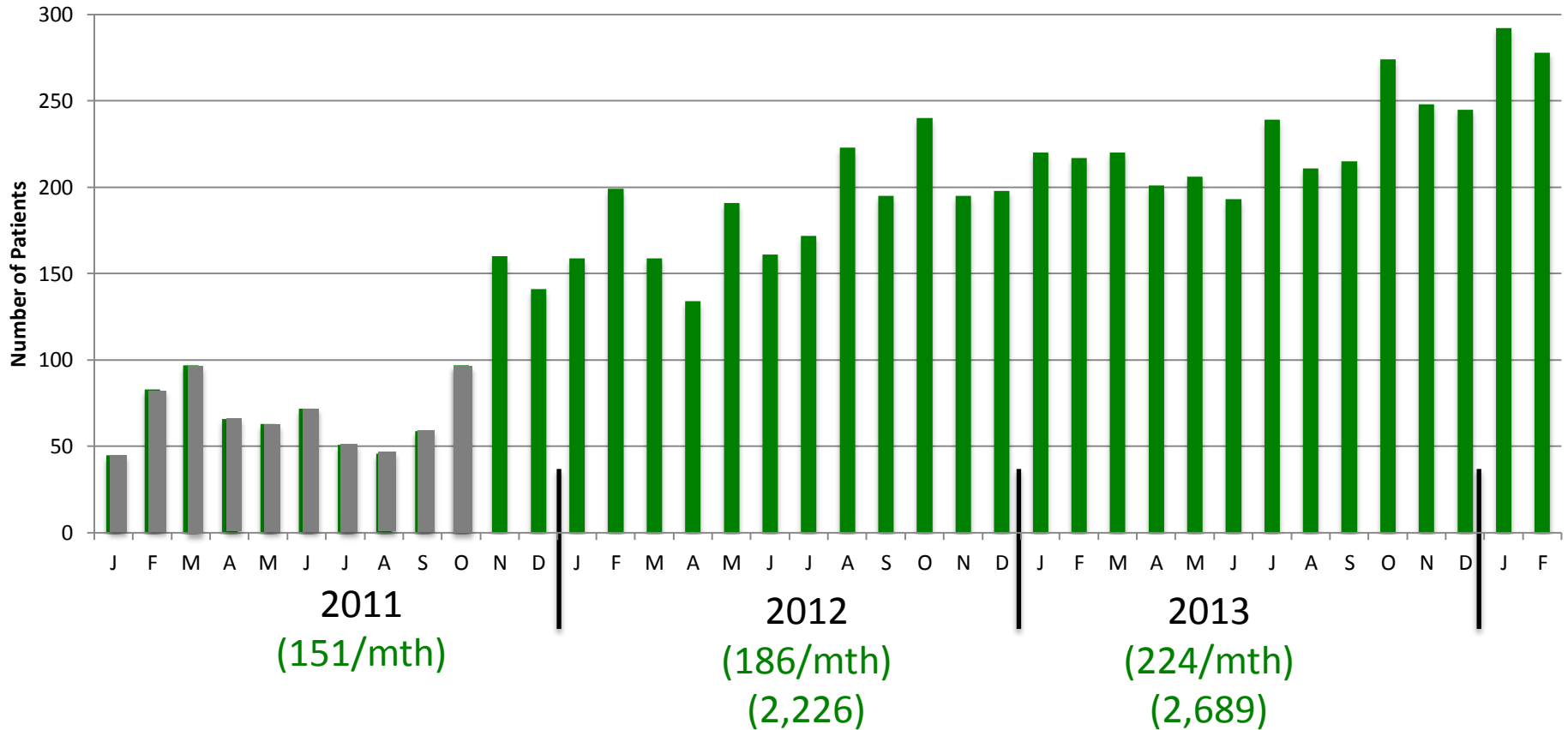
Care Home

Dementia

Renal Care



# Secondary fracture assessments by month



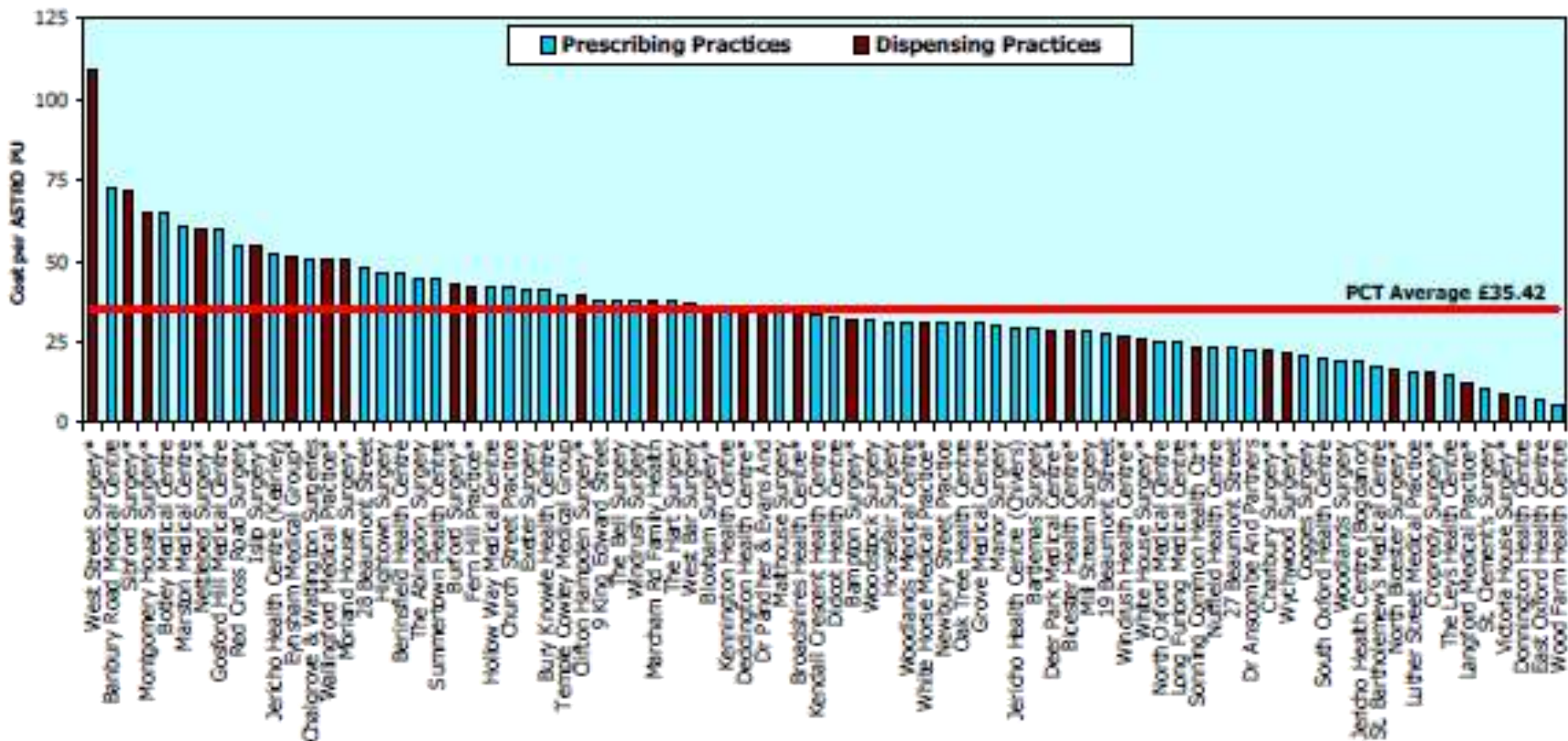
600,000 population  
2 hospitals

**N= 5786**

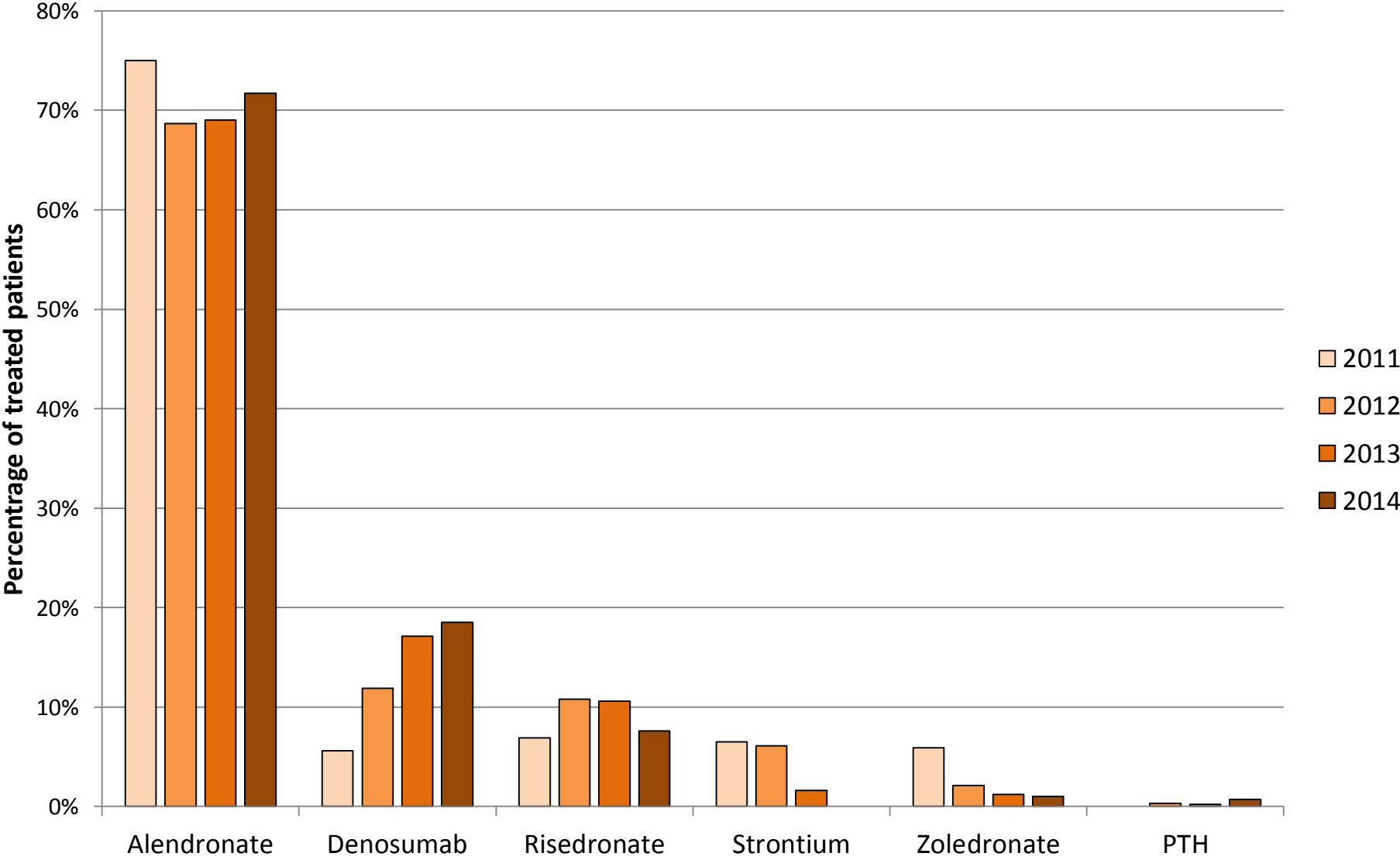


# Prescribing of Bisphosphonates and other drugs affecting bone metabolism

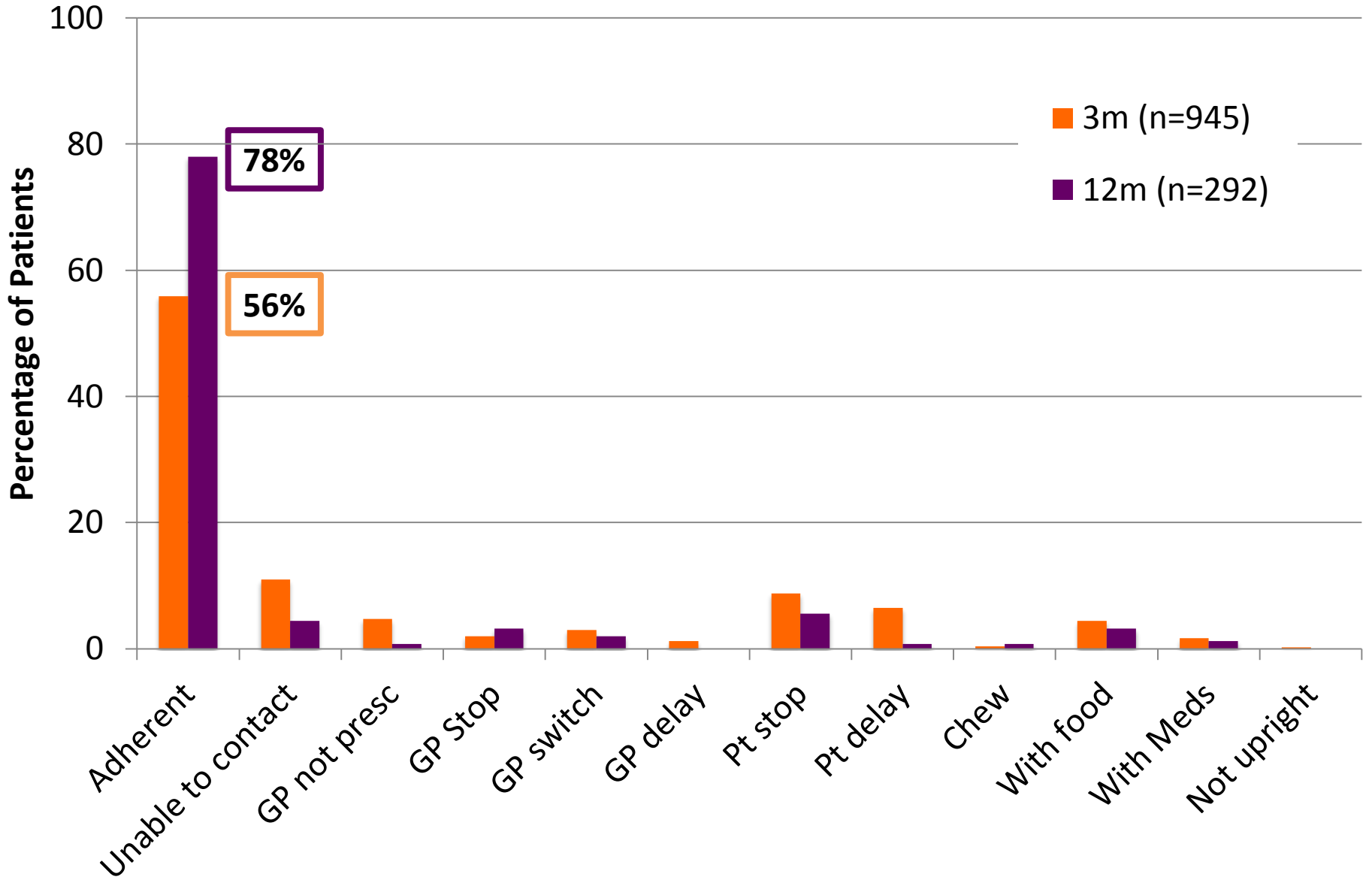
## Osteoporosis Prescribing Costs per Weighted Population (Cost per Astro PU) October to December 2009



# Fracture Prevention Specialist Nurse Recommendation (n=3,680)



# Outcome of monitoring



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Set the outcome: need to ensure all fragility fracture patients over 50 years have 4 steps

TOP



Find them

Assess them

Decide which treatment

Make sure they stay on it



BOTTOM

Champion network: Work out how much and how to do this for the locality





# Summary

- Set the standards and priorities
- Population approach across 4 steps
- High value interventions
- Bone health and falls to reduce fracture



Kerri Rance

Sally Hope

Sarah James

Terri Morgan

Carol Weeks

Rachael Knight

Tracy Dobbin

Rhys Davies

Suzanne Jones/ Sylvie Thorn

Adam Dawroski / Antoinette Broad

Professors

Cooper, Wass, Willett, Arden, Carr

D Prieto Alhambra, A Judge, R Batra,  
G Round, A Kiran, K Leyland, A Soni,  
R Warne

And all the FRiSCy team!

Stephen, Colin, Annie, Gill, Mark...

ElevenInformatics:

John, Naveed & Joanna





## Osteoporosis CONFERENCE 2014

Birmingham ICC 30 November – 2 December



*Campaign Update*