Orthogeriatric co-management for fractures in older adults

Comanejo en ortogeriatría para fracturas de adultos mayores

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El bosquejo de mi conferencia

Outline

- Societal consequences of population ageing and the impact of fragility fractures

  Consecuencias sociales del envejecimiento de la población y el impacto de las fracturas por fragilidad

World Population Prospects
The 2017 Revision

Volume II: Demographic Profiles

United Nations
New York, 2017

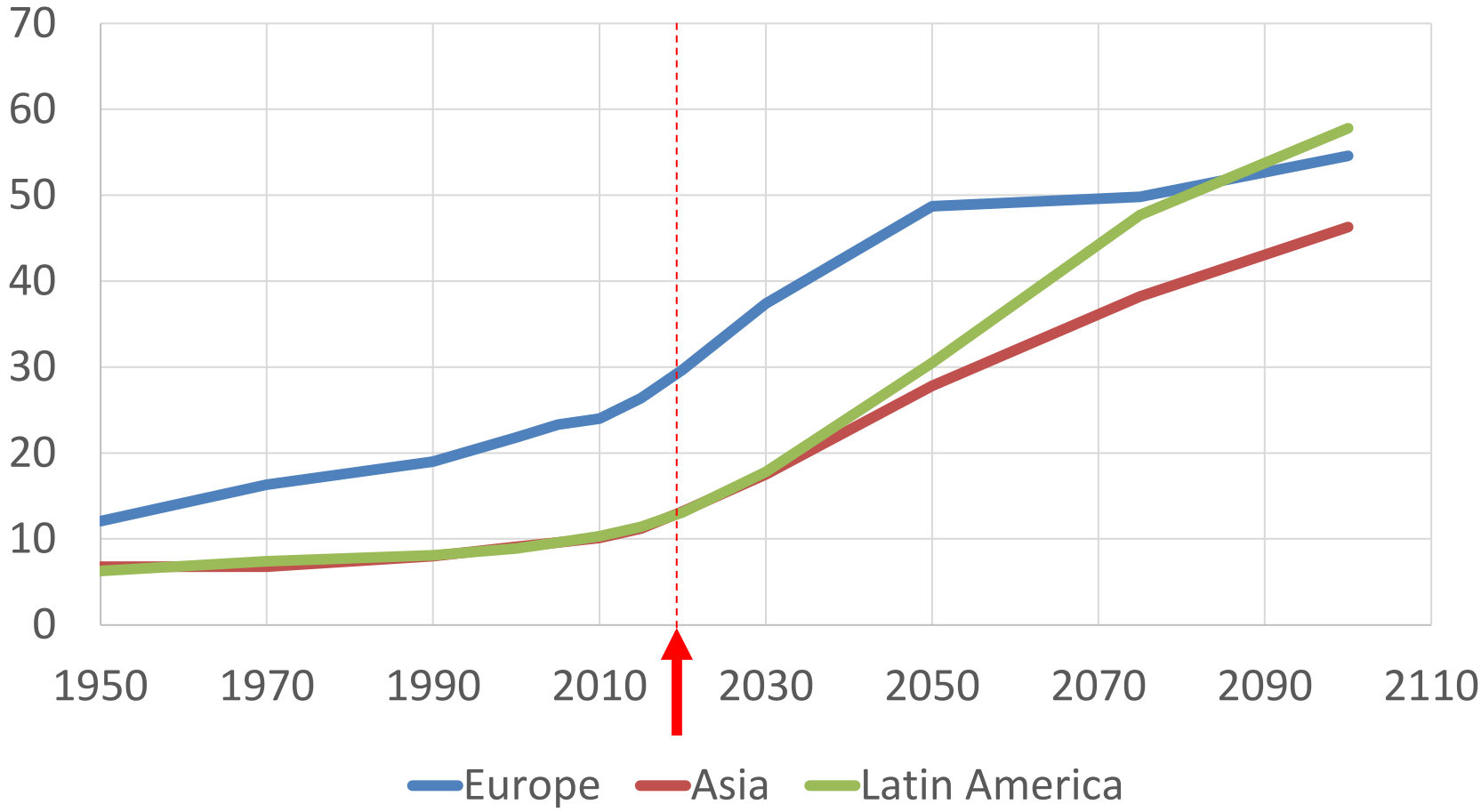
Old-age dependency ratio

The number of people aged 65 years or older per 100 persons of working age (15-64)

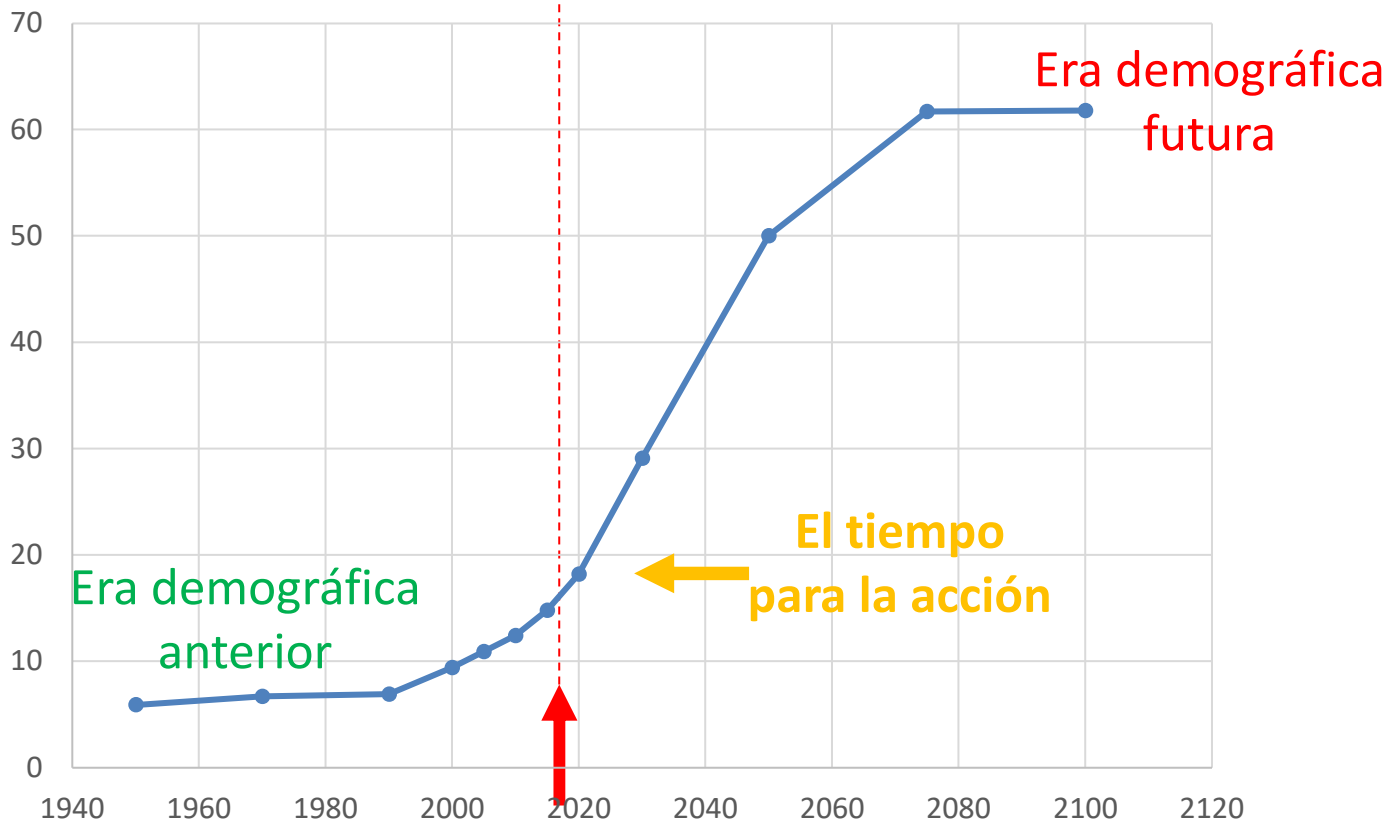
El número de personas de 65 años o más por cada 100 personas en edad de trabajar (15-64)

Old age dependency ratio

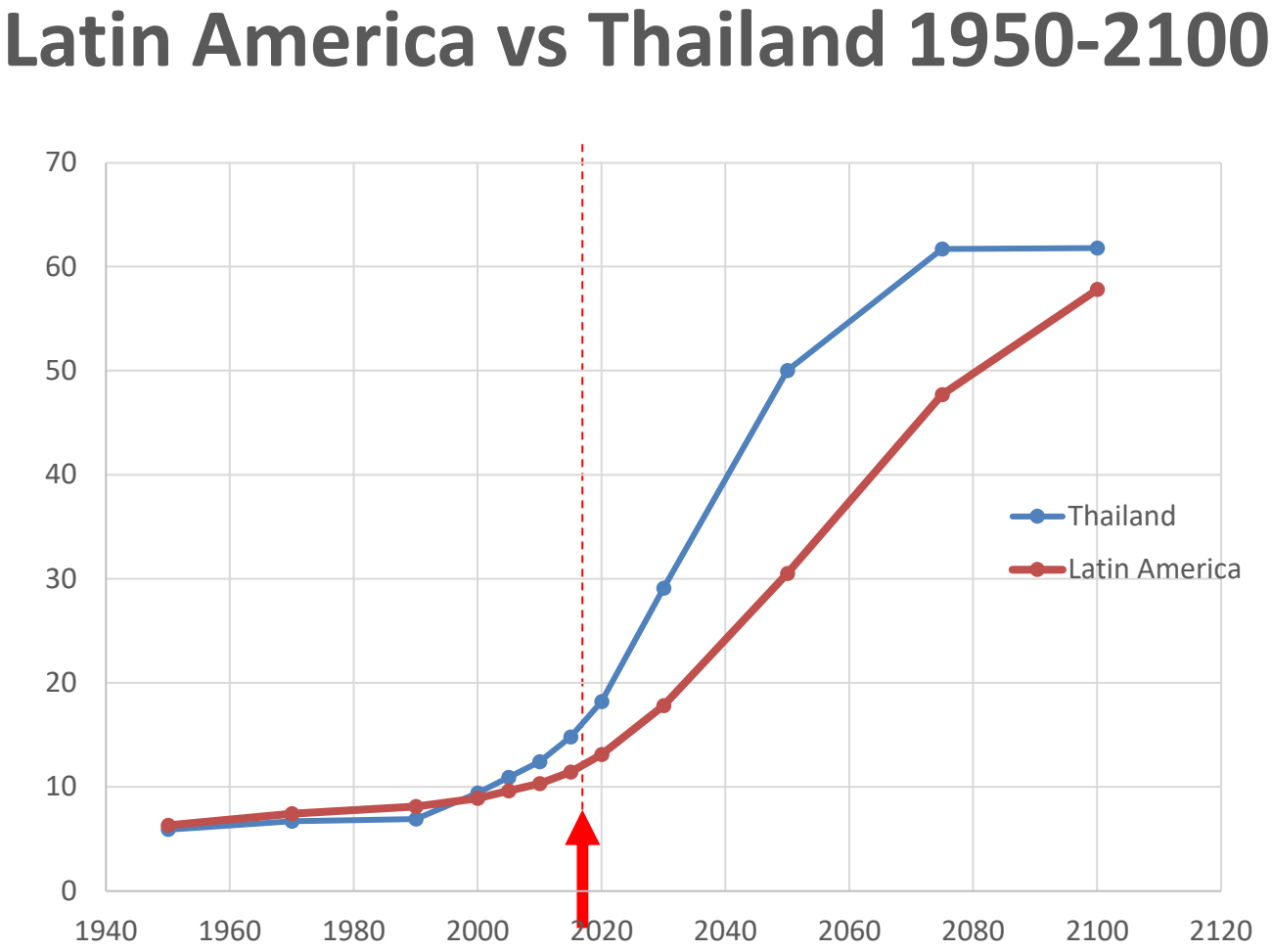
Developed vs emerging regions



Old age dependency ratio

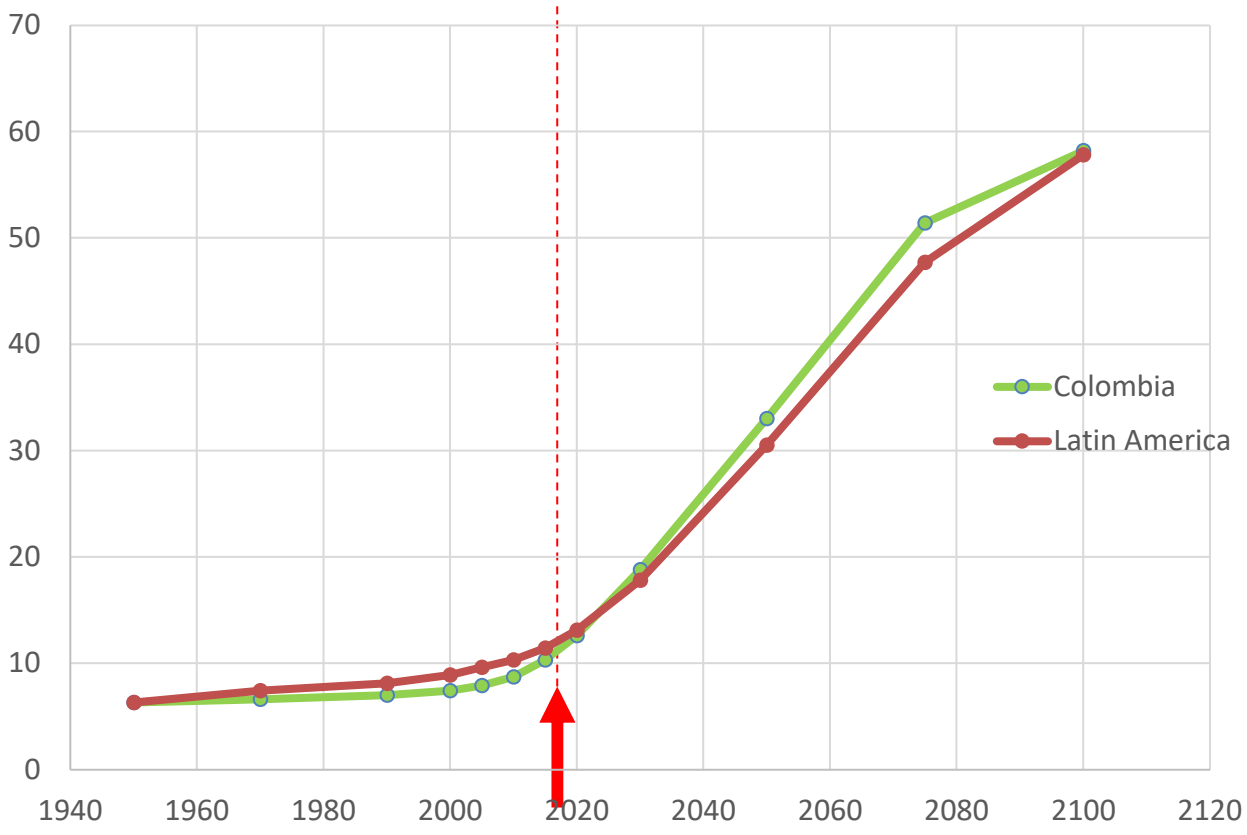


Old age dependency ratio

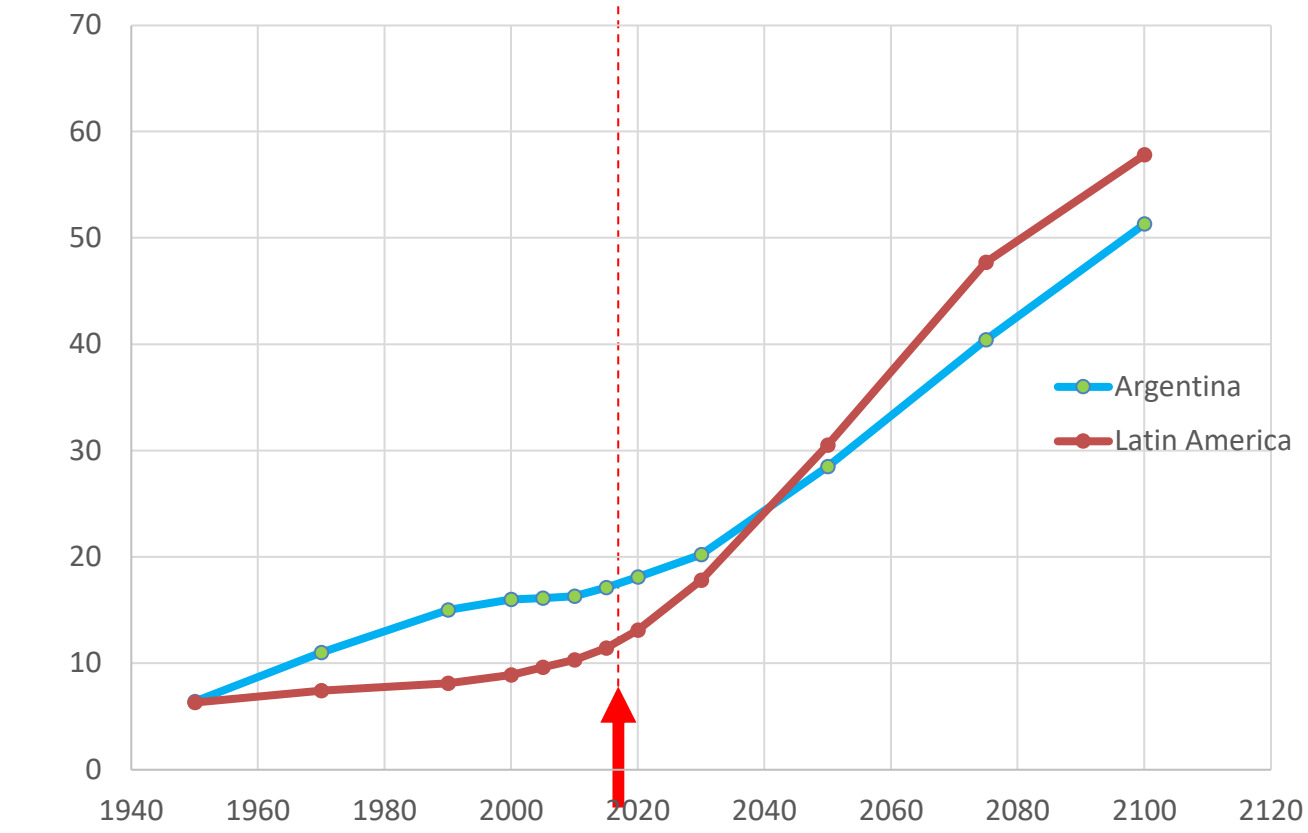


Old age dependency ratio

Colombia vs Latin America 1950-2100



Old age dependency ratio



esto significa que

This means that ….

- Society needs older people to be much more active and independent than in the past
  - Osteoporosis and fragility fractures is one important area in which improvement is needed
  - Our work will impact on the whole of society
- *La sociedad necesita que las personas mayores sean mucho más activas e independientes que en el pasado*
  - *La osteoporosis y las fracturas por fragilidad son un área importante en la que se necesita mejorar*
  - *Nuestro trabajo tendrá un impacto en toda la sociedad.*

This means that ….

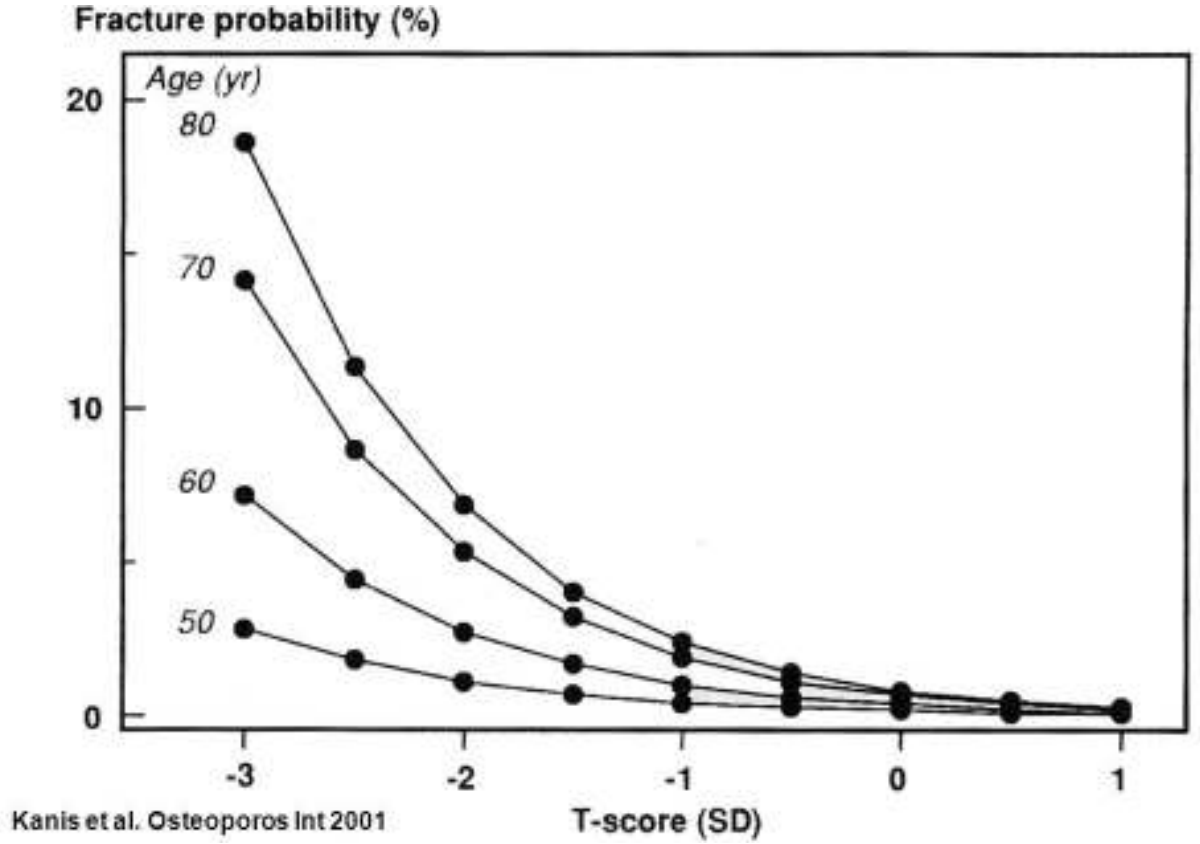
- Rehabilitation after fracture treatment is a crucial element of our response to the challenge
- Change is going to be very rapid in many countries
- *La rehabilitación después del tratamiento de fractura es un elemento crucial de nuestra respuesta al desafío*
- *El cambio va a ser muy rápido en muchos países*

As well as this challenge, ageing will increase the population incidence of fragility fractures because age is a strong independent predictor of hip fracture incidence

Además de este desafío, el envejecimiento aumentará la incidencia de fracturas por fragilidad en la población porque la edad es un fuerte predictor independiente de la incidencia de fracturas de cadera

Age is a strong independent predictor of hip fracture incidence

La edad es un fuerte predictor independiente de incidencia de fractura de cadera



An epidemiological emergency

- The ageing population will lead to massive increases in hip fractures in the next few decades

Debido al envejecimiento de la población habrá un aumento masivo en el número de fracturas de cadera en la próximas décadas

  - In Europe and USA: 2X the number of cases

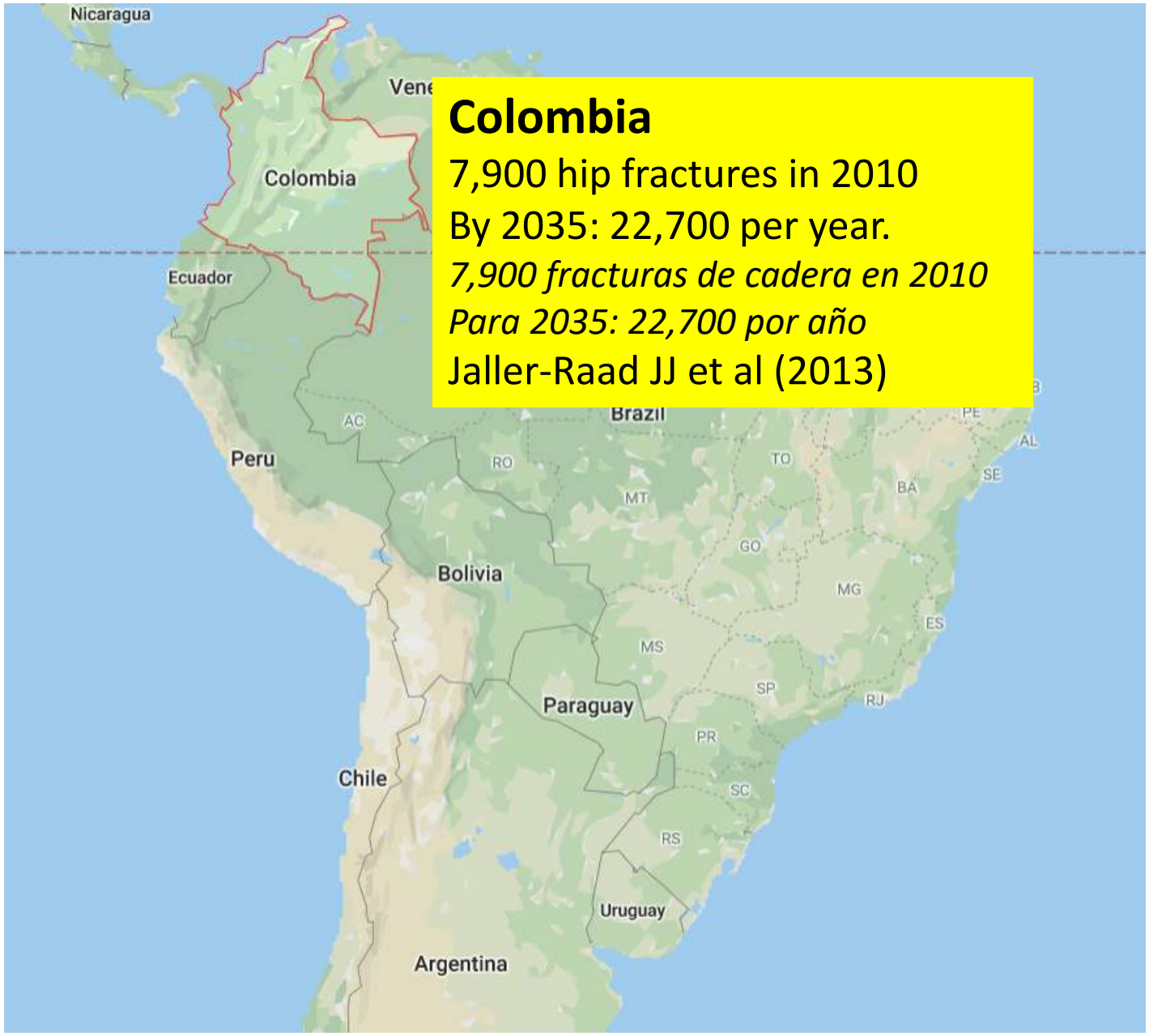
    En Europa y USA: el número de casos se multiplica por 2

  - In Asia-Pacific and Latin America: up to 6X increase

    En Asia-Pacífico y América Latina: aumento de hasta 6 veces

- Current trauma services will not be able to cope

Los servicios de trauma actuales no podrán hacerle frente



Colombia

7,900 hip fractures in 2010

By 2035: 22,700 per year.

7,900 fracturas de cadera en 2010

Para 2035: 22,700 por año

Jaller-Raad JJ et al (2013)

Outline

Tomorrow, I will talk about the mission of the Fragility Fracture Network – where we came from and where we are going

Mañana hablaré sobre la misión de la Fragility Fracture Network: de dónde venimos y hacia dónde vamos

But the idea that lies at the heart of our purpose is orthogeriatric co-management

Pero la idea que se encuentra en el corazón de nuestro propósito es el co-manejo ortogeriatrico

The older patient with a fragility fracture

El paciente mayor con una fractura por fragilidad

High quality surgery is necessary but not sufficient

La cirugía de alta calidad es necesaria pero no suficiente

El argumento básico para el co-manejo ortogeriatrico de pacientes mayores con fractura

The basic argument for orthogeriatric co-management of older fracture patients

High quality surgery is necessary but not sufficient

They have both fragility and ***frailty***

- of the bone — *biomecánico*
- of the whole body — *fisiológica*

"Fragilidad" significa dos cosas diferentes

Orthopaedic surgeons know how to manage ***fragility***

Los cirujanos ortopédicos saben
cómo manejar la ***fragility***

Geriatricians know how to manage ***frailty***

Los geriatras saben
cómo manejar la ***frailty***

These patients need both skillsets

Estos pacientes necesitan ambas habilidades

Of course, the multidisciplinary team is bigger than that

Por supuesto, el equipo multidisciplinario es más grande que eso

It includes anaesthetists, nurse, physiotherapists etc

Incluye anestesistas, enfermeras, fisioterapeutas, etc

But the orthopaedic–geriatric combination is the key

Pero la combinación ortopédica-geriátrica es la base

History

Hastings:

Michael Devas (orthopaedic) and Bobby Irvine (geriatrics) worked together from 1960, creating a 'geriatric orthopaedic unit'

- Their first presentation to the British Orthopaedic Association in 1966:
  100 patients with hip fractures, over the age of 80 years
- Immediate full weight-bearing
- comorbidities

History

- Not much was added to this between 1960 and 2004
- A few important hospitals practised the system – Cardiff, Edinburgh, Belfast, Oxford, Nottingham
  - They kept the idea alive and were the foundation for what followed
- In 2004 we assembled a very small group of activists
  - Orthopaedic and geriatric co-chairs from the very beginning
  - Members from other disciplines: nursing, physiotherapy, anaesthesia, endocrinology etc

History

- This multidisciplinary group …
  - Wrote the Blue Book, published jointly by the BOA and BGS
  - Designed the National Hip Fracture Database and secured industry funding to launch it
  - Persuaded the Councils of the BOA and BGS to sign a memorandum of understanding to tackle fragility fractures, including secondary prevention

BGS

newsletter

Issue 13
October 2007

Editor: David Beaumont

Our historic alliance

with the world of orthopaedics

The BGS has established an exciting new collaboration with the British Orthopaedic Association, with the shared aim of improving the clinical care of patients with fragility fractures and promoting effective secondary prevention to reduce future falls and fractures.

Sponsored by the BOA and BGS, it has also been endorsed by the Age Anaesthesia Association, the National Osteoporosis Society, the Faculty of Public Health, the RCN, the Society for Endocrinology, the Forum of the Royal Colleges of Surgeons and the Specialist Surgical Associations of Great Britain and Ireland - a vital demonstration of multidisciplinary commitment to improving hip fracture care. The Blue Book thus offers a foundation for joint training and clinical governance activities that can build on the success of two BGS/BOA national joint "Instructional Courses" for trainees and consultants held in 2006 and 2007, with a third now planned for 2008 (see 1st Stanmore Fragility Fractures Course at www.rnoh.nhs.uk/education)

Central to these are the two key initiatives, the Blue Book on the Care of [illegible] with Fragility Fractures and the National Hip Fracture Database, which were jointly launched with widespread TV, radio and press coverage on September 19th.

Blue Book

The second edition, totally rewritten and updated, replaces a 1st edition published several years ago and is now an authoritative evidence-based clinical practice guide for the multidisciplinary team, and includes a set of six specific clinical practice standards. Geriatrician Opinder Sahota, Antony Johansen and Colin Currie contributed greatly to the Blue Book's multidisciplinary writing group, with Colin Currie as its editor. It can be downloaded as a pdf file from www.boa.ac.uk or from www.nhfd.co.uk

National [illegible] Fracture Database

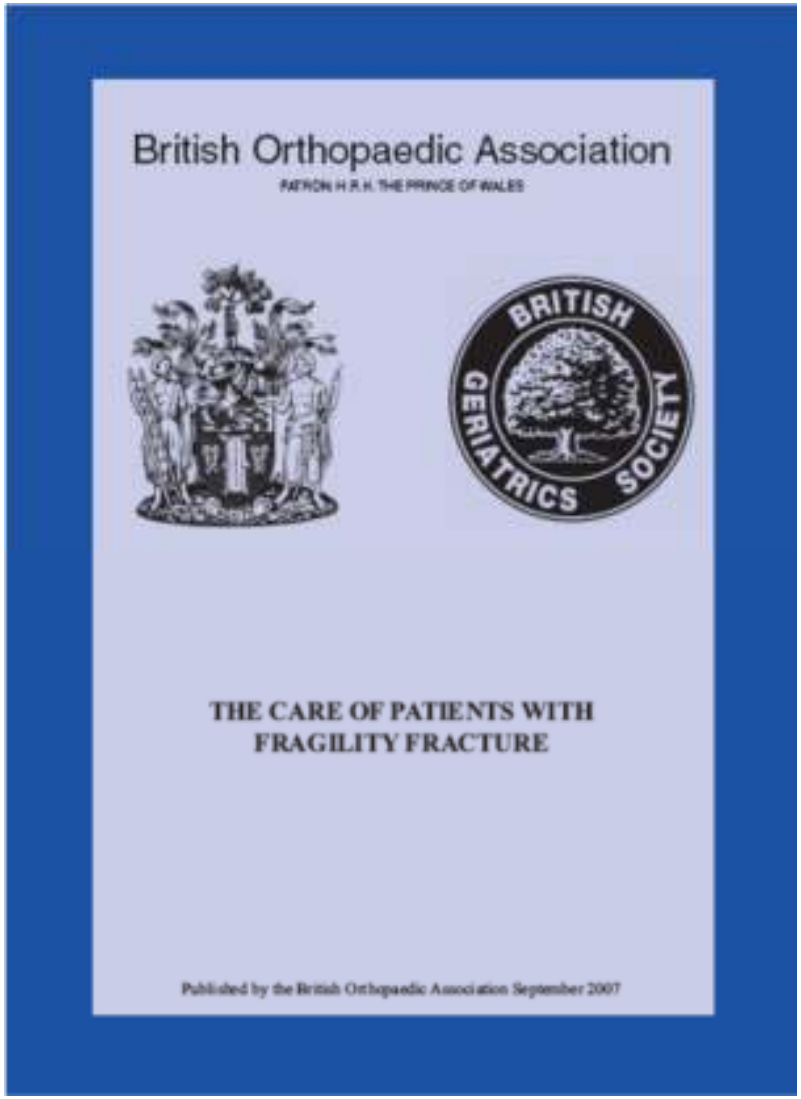
(NHFD, www.nhfd.co.uk). This joint BOA-BGS venture is entirely complementary to the Blue Book. It has involved the creation of an ongoing web-based database of key caseload, process and outcome indicators to monitor and improve the clinical care of hip fracture patients by enabling units to measure the care they provide against the six standards set out in the Blue Book. It has been developed from several existing audits, including the Scottish Hip Fracture Audit, which has been established for several years and has now galvanised the Scottish government into setting explicit

President: Prof Peter Currey President Elect: Prof Graham Hoffey
Honorary Secretaries: Dr David Beaumont and Dr David Oliver Meetings Secretary: Dr Michael Vassallo
Honorary Treasurers: Dr Tom Smith and Dr David Cotton Chief Executive: Alex Weir Sub Editor: Rosie Atkins

for better health in old age

La British Geriatrics Society ha establecido una nueva y emocionante colaboración con la British Orthopaedic Association, con el objetivo compartido de mejorar la atención clínica de pacientes con fracturas por fragilidad y promover una prevención secundaria efectiva para reducir futuras caídas y fracturas.%

La alianza BOA-BGS fue muy poderosa para influir en la política del gobierno.
Esto fue de gran beneficio para los pacientes.



2007

Four big messages

Multidisciplinary approach to the management of fragility fracture patients

Reliable secondary prevention
- osteoporosis
- falls

Chronic disease model

Quality assurance
- the NHFD

BOA-BGS Blue Book
six standards for hip fracture care

1. All patients with hip fracture should [redacted] to an acute orthopaedic ward [redacted] of presentation
2. All patients with hip fracture who are medically fit should have [redacted] of admission, during normal working hours
3. All patients with hip fracture should be assessed and cared for with a view to minimising their risk of developing a [redacted]
4. All patients presenting with a fragility fracture should be managed on an orthopaedic ward with routine access to [redacted] from the time of admission
5. All patients presenting with fragility fracture should be assessed to determine their need for [redacted] to prevent future osteoporotic fractures
6. All patients presenting with a fragility fracture following a fall should be offered multidisciplinary assessment and intervention to [redacted]

UK National Hip Fracture Database

- Measures compliance with Blue Book standards
- A web-based national database, now including every fracture unit in England, Wales and N. Ireland
- Feed back to units their performance compared to national and regional peers
- A professional steering group to manage analysis of, and access to the data
- Extensile for research
- Adopted by government as a national clinical audit

Best Practice Tariff (BPT)
From April 2010

- Two criteria used initially:
  - Time to theatre less than 36 hours
  - Orthogeriatric co-management in the acute phase
    - Including secondary prevention
- Other criteria added since
  - Mental scoring for dementia and delirium

Orthogeriatric co-management in the acute phase

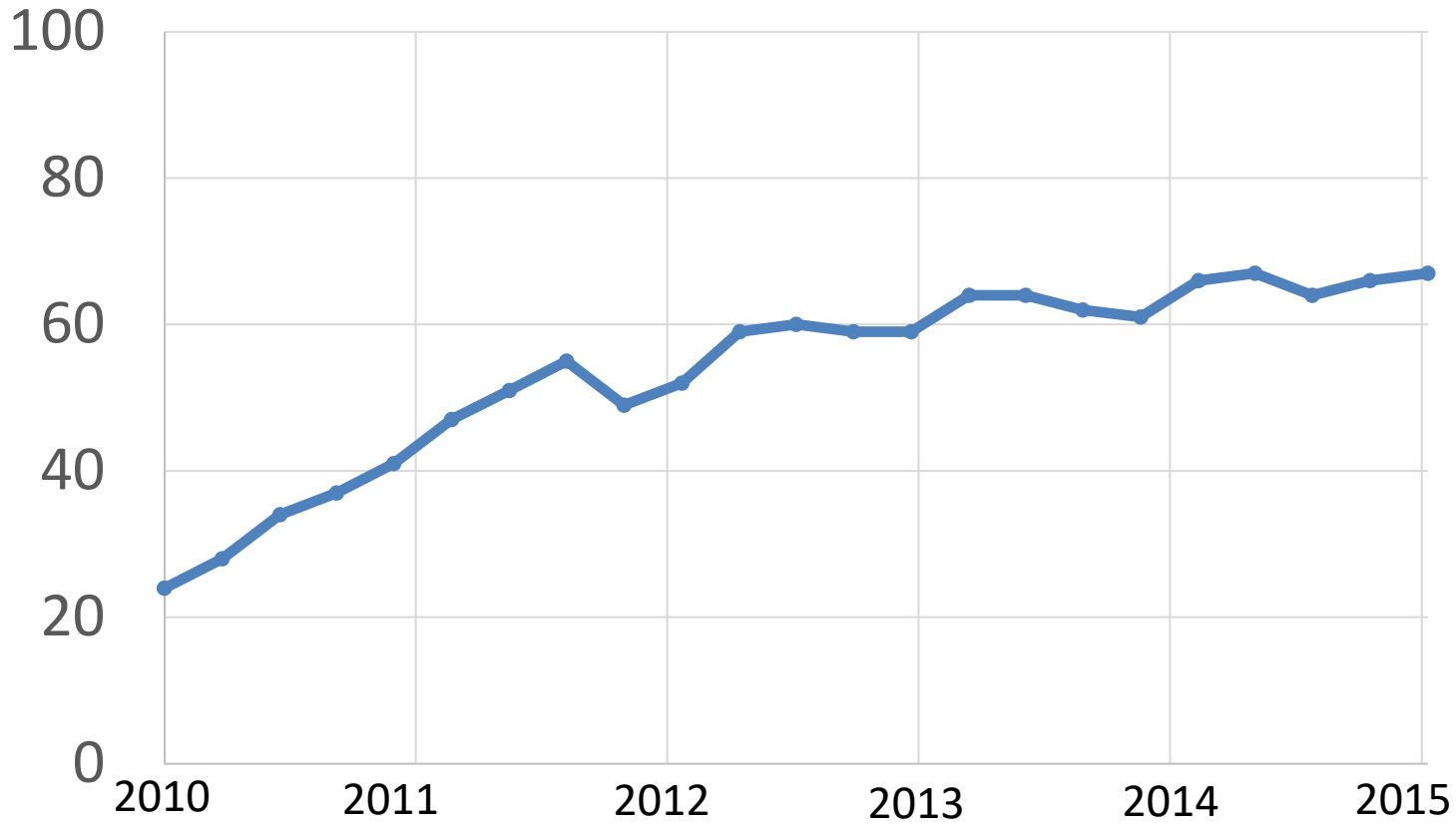
- Admission using a protocol agreed between orthopaedics, geriatrics and anaesthetics
- Patient seen by a geriatrician within 72 hours of admission
- Geriatrician-led, multidisciplinary rehabilitation
- Secondary prevention
  - Osteoporosis
  - Falls risk

2010	Eligible hospitals	Hospitals (%) achieving BPT	Number of pts submitted	Patients (%) achieving BPT
Qtr 2	162	92(57%)	9455	2303(24%)
Qtr 3	165	105(64%)	11839	3328(28%)
Qtr 4	163	111(68%)	13136	4502(34%)
				2011
Qtr 1	167	119 (71%)	12680	4671 (37%)
Qtr 2	170	131 (77%)	13578	5508 (41%)
Qtr 3	166	135 (81%)	13212	6169 (47%)
Qtr 4	166	140 (84%)	14145	7207 (51%)
				2012
Qtr 1	168	147(88%)	14315	7837 (55%)
Qtr 2	166	148 (89%)	13971	6815 (49%)
Qtr 3	166	150 (90%)	13744	7167 (52%)
Qtr 4	166	155 (93%)	14218	8413 (59%)
				2013
Qtr 1	166	156 (94%)	14662	8748 (60%)
Qtr 2	166	160 (96%)	15076	8929 (59%)
Qtr 3	166	160 (96%)	14259	8377 (59%)
Qtr 4	164	160 (98%)	14856	9529 (64%)
				2014
Qtr 1	163	162 (99%)	14908	9601 (64%)
Qtr 2	162	160 (99%)	14292	8890 (62%)
Qtr 3	161	157 (98%)	13751	8405 (61%)
Qtr 4	161	159 (99%)	15008	9870 (66%)
				2015
Qtr 1	160	158 (99%)	15305	10246 (67%)
Qtr 2	160	158 (99%)	15143	9617 (64%)
Qtr 3	159	159 (100%)	14604	9580 (66%)
Qtr 4	159	159 (100%)	14919	10026 (67%)

FFN
Fragility Fracture Network

Steady improvement in high quality care from one quarter to two thirds over five years

% of patients receiving high quality care



The benefit to patients has been enormous

30-day mortality
All UK hospitals

12-month moving average has fallen from 8,5% in 2011 to 6,5% in 2015.
1000 fewer deaths per year

Why did the NHFD work?

- Continuous feedback and benchmarking to every Fracture Unit drove behavioural and attitudinal change
- The whole system was ***jointly owned*** by orthopaedics and geriatrics from the beginning
  - We had orthopaedic and geriatric co-chairs of the Steering Group in UK, Ireland and Australia
  - It only took a few activists to bring along the mainstream professional associations

Orthogeriatric co-management of the acute fracture episode

- Gives the patient a better quality of care with better outcomes
- Saves money by enabling
  - Shorter length of stay because fewer complications
  - fewer readmissions

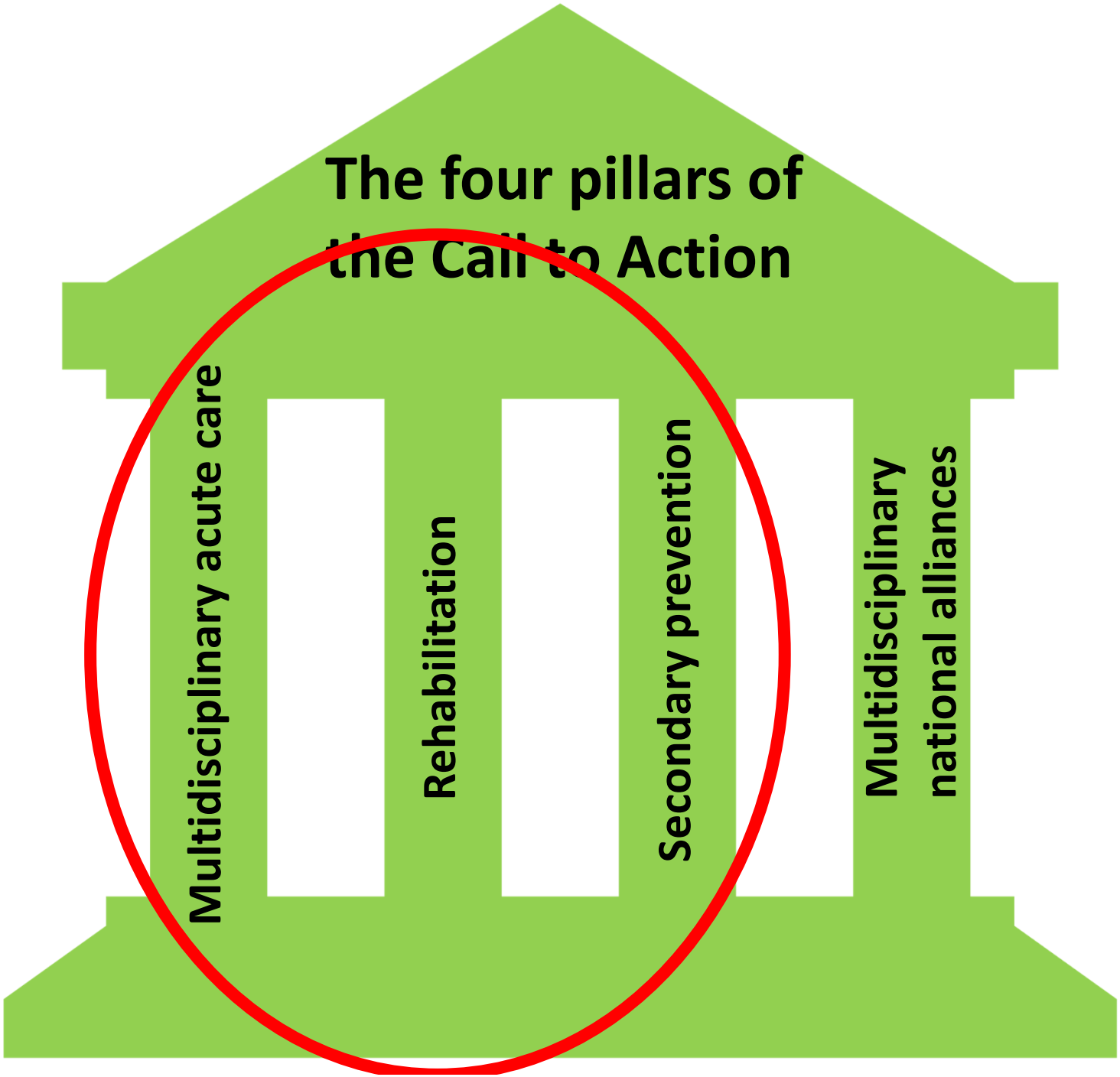
Treating fragility fractures well is cheaper than treating them badly

History

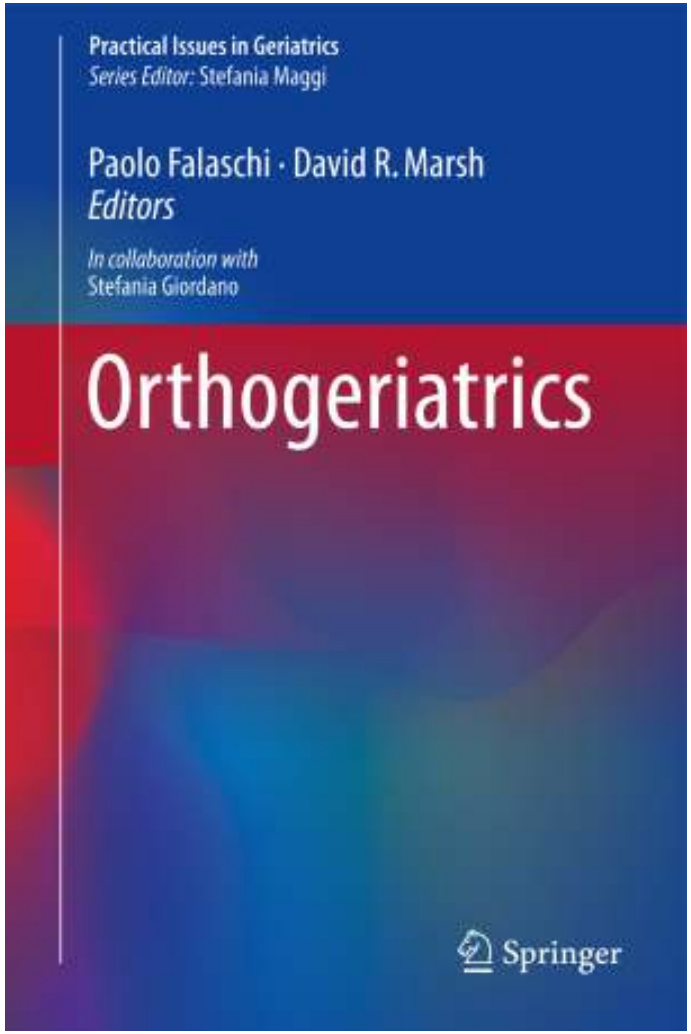
- This experience in the UK was repeated in Ireland and Australia/New Zealand
- Then it was taken to the global level by incorporating the philosophy in the Fragility Fracture Network (2011)
- Now, National FFNs are being formed to apply the principles in practice all over the world

But ….

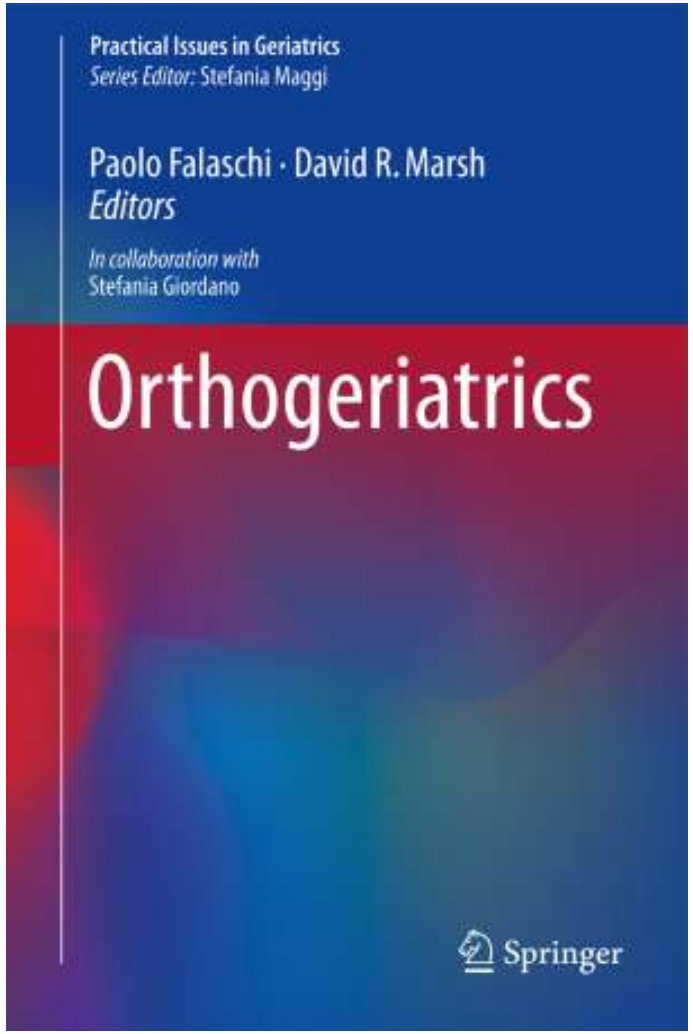
- Co-management of the acute fracture episode is not enough
- It is also necessary to
  - Deliver high quality rehabilitation to restore function and quality of life
  - Prevent the next fracture
- The meaning of orthogeriatrics is therefore expanding


The four pillars of the Call to Action
Multidisciplinary acute care
Rehabilitation
Secondary prevention
Multidisciplinary national alliances

FFN's drive to promote orthogeriatrics



- Addresses all Four Pillars
- First edition had almost 10,000 downloads in 2.5 yrs
- Second edition in preparation it will be open-access ie free to download



- Less historical stuff
- Bring up to date, in light of Call to Action
- Emphasis on practical implementation
- Address low-resource issues
- Update evidence for best practice

ORTHOGERIATRICS
The management of older patients with fragility fractures

PILLAR II - Rehabilitation

Rehabilitation Following Hip Fracture

The Psychological Health of Patients and Their Caregivers

PILLAR III – Secondary prevention

Fracture Risk Assessment and how to implement a Fracture Liaison Service

Current and Emerging Treatment of Osteoporosis

How can we prevent falls?

CROSS-CUTTING ISSUES

The Nursing Role

Nutrition in the Elderly: multidisciplinary approach

The importance of Fracture Audit

Orthogeriatric co-management

- The only action shown to be effective, and cost-effective, in the acute fracture episode
- This team-work is what will be needed to survive the coming pandemic of fragility fractures
- Orthogeriatric competencies can be acquired by other physicians

The urgent questions facing a large proportion of the world's population

- How can we provide orthogeriatric co-management when we have no/few geriatricians?
- How do we provide secondary prevention when we have no DXA scans etc?
- Should we embark on audit of hip fracture audit, rehabilitation or secondary prevention?

The book should address these

What we really need …

… is people trained in “frailology”
to work alongside orthopaedic surgeons
in the management of frail elderly
fracture patients

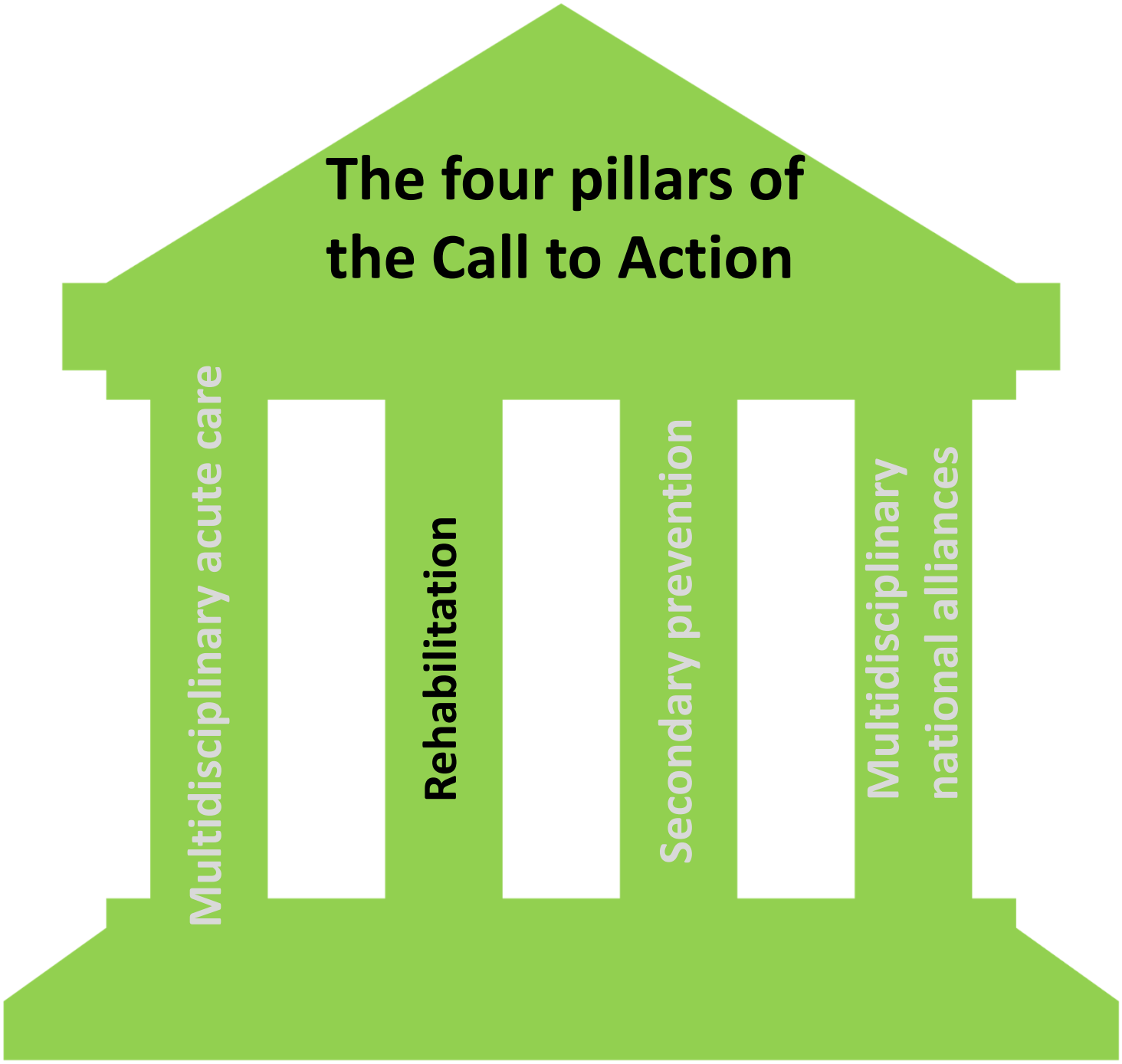
Who can provide orthogeriatric competencies, if not a certified geriatrician?

- Another species of physician, trained up in "frailology"
  - Hospitalist?
- Another species of health worker, trained up in frailology
  - Frailty Practitioner?
  - Analogous to Fracture Prevention Practitioner

What would frailology training look like?

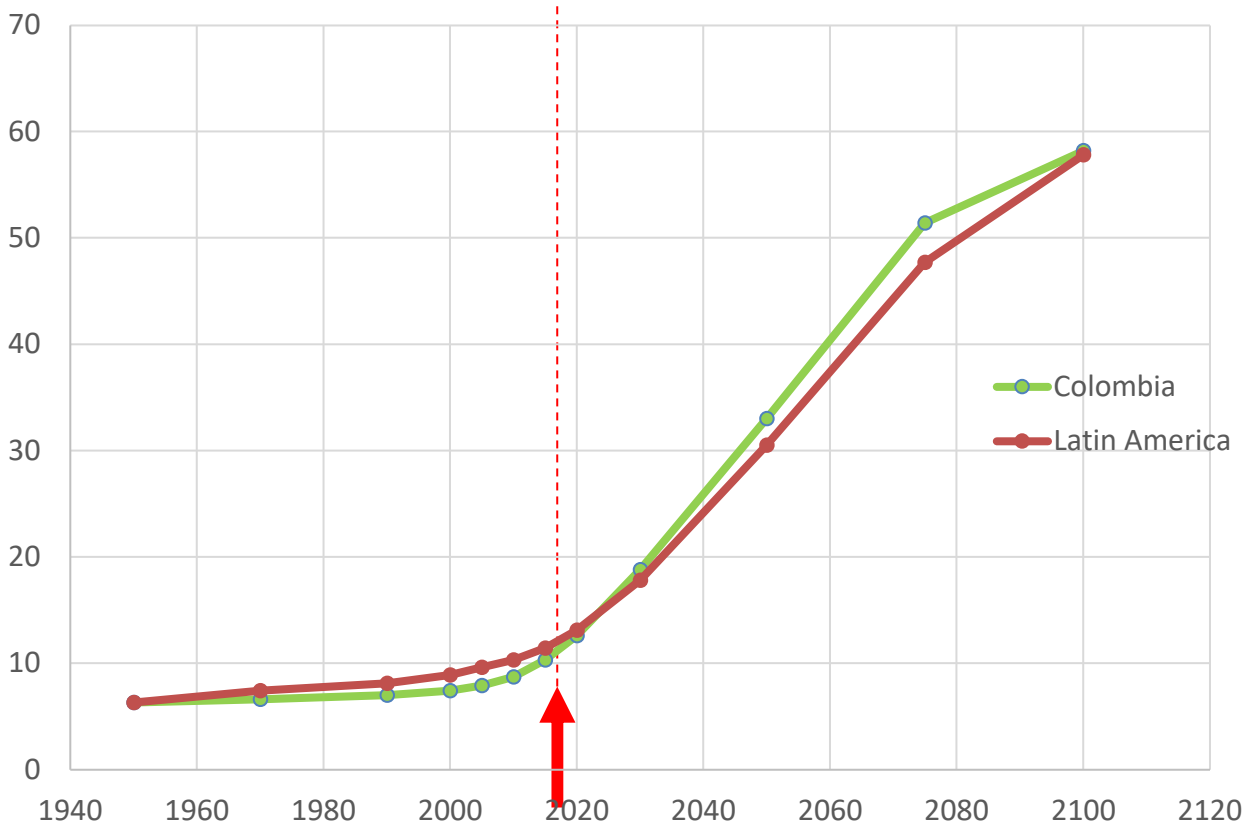
- Protocols with specialist backup
- Do the protocols exist; can we borrow them?
- Who would provide the backup in a given setting?

The four pillars of the Call to Action



Old age dependency ratio

Colombia vs Latin America 1950-2100



We can’t change **old** / **young**

But we can change **dependent** / **independent**

Imagine we rehabilitate older fragility fracture patients better, such that they move from being dependent to being independent. Suppose this could affect 5% of people over 65, then ….

Imagine que rehabilitamos a los pacientes mayores con fracturas por fragilidad mejor, de modo que pasen de ser dependientes a ser independientes. Supongamos que esto podría afectar al 5% de las personas mayores de 65 años, entonces ...

$$\frac{60}{100} \quad \text{becomes} \quad \frac{55}{105}$$

0.6 becomes **0.52**

Summary

- Orthopaedic-geriatric collaboration is powerful, both clinically and politically
- Orthogeriatrics now includes the whole story
  - Perioperative acute management
  - Rehabilitation and long-term support
  - Secondary prevention
- The FFN embodies the whole of orthogeriatrics
  - National FFNs will implement it

Questions for ALMA

- How can the necessary orthogeriatric competencies be generated in Latin American countries quickly enough to avert disaster?

¿Cómo se pueden generar las competencias ortogeriatricas necesarias en los países de América Latina lo suficientemente rápido como para evitar el desastre?

Questions for ALMA

- How can we convince orthopaedic colleagues that their patients need
  - Geriatric input in the acute phase
  - Secondary prevention?

¿Cómo podemos convencer a los colegas ortopédicos de que sus pacientes necesitan Insumo geriátrico en la fase aguda prevención secundaria?

Questions for ALMA

- Are fragility fracture registries the way to go?

¿Son los registros de fracturas por fragilidad el camino a seguir?

Questions for ALMA

- How can the necessary orthogeriatric competencies be generated in Latin American countries quickly enough to avert disaster?
- How can we convince orthopaedic colleagues that their patients need
  - Geriatric input in the acute phase
  - Secondary prevention?
- Are fragility fracture registries the way to go?