



Falls – Implementing best practice

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www.profound.eu.com



Older people at risk of falls

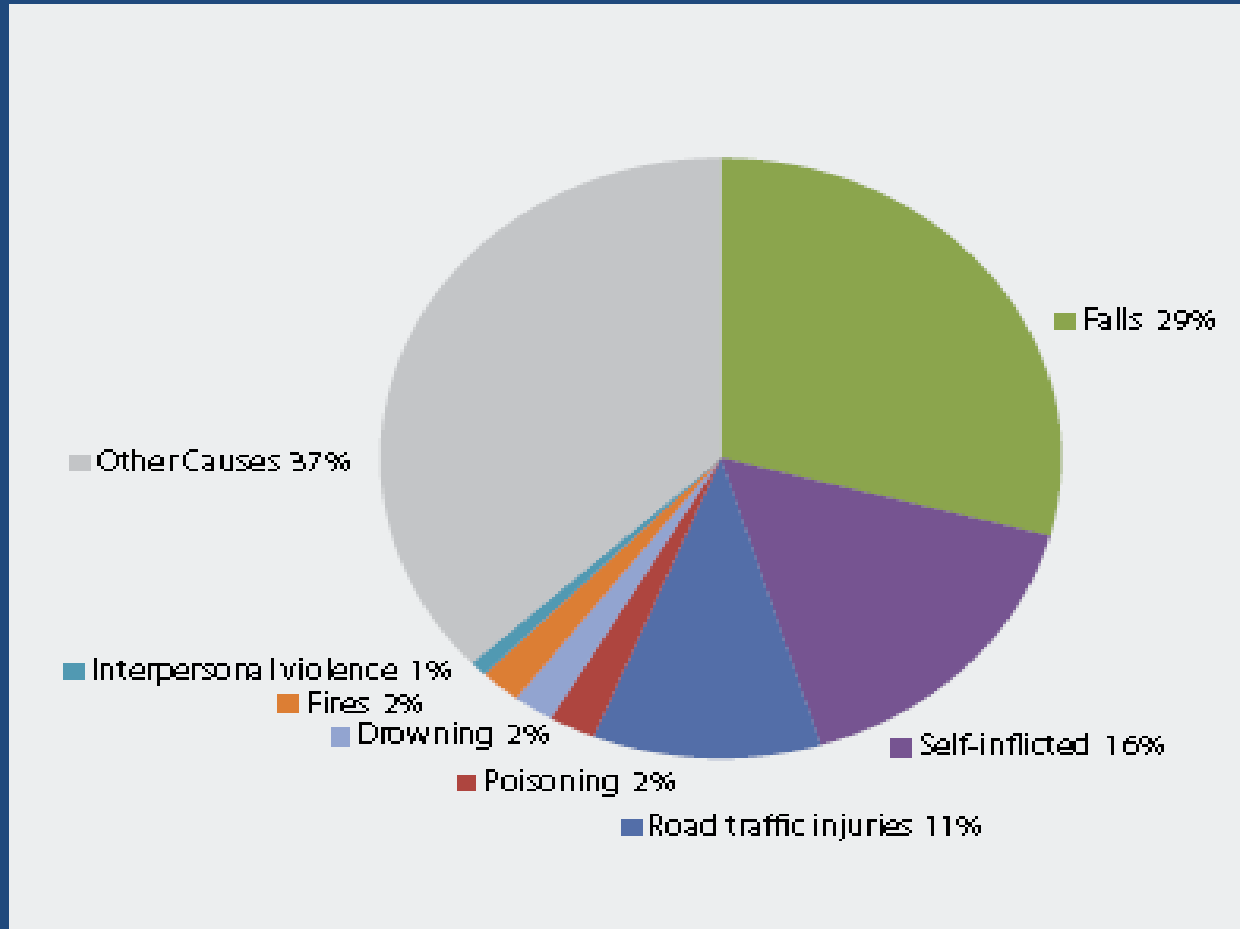
- ▶ In > 75s, falls are the leading cause of death resulting from injury.
- ▶ 500 admitted to Hospital every day, 33 never go home
- ▶ 1 in 3 >65's and 1 in 2 >80's fall p.a.
- ▶ Fractures costs £1.8 billion p.a.

1 Hip Fracture every 10 mins
1 Wrist Fracture every 9 mins
1 Spine Fracture every 3 mins



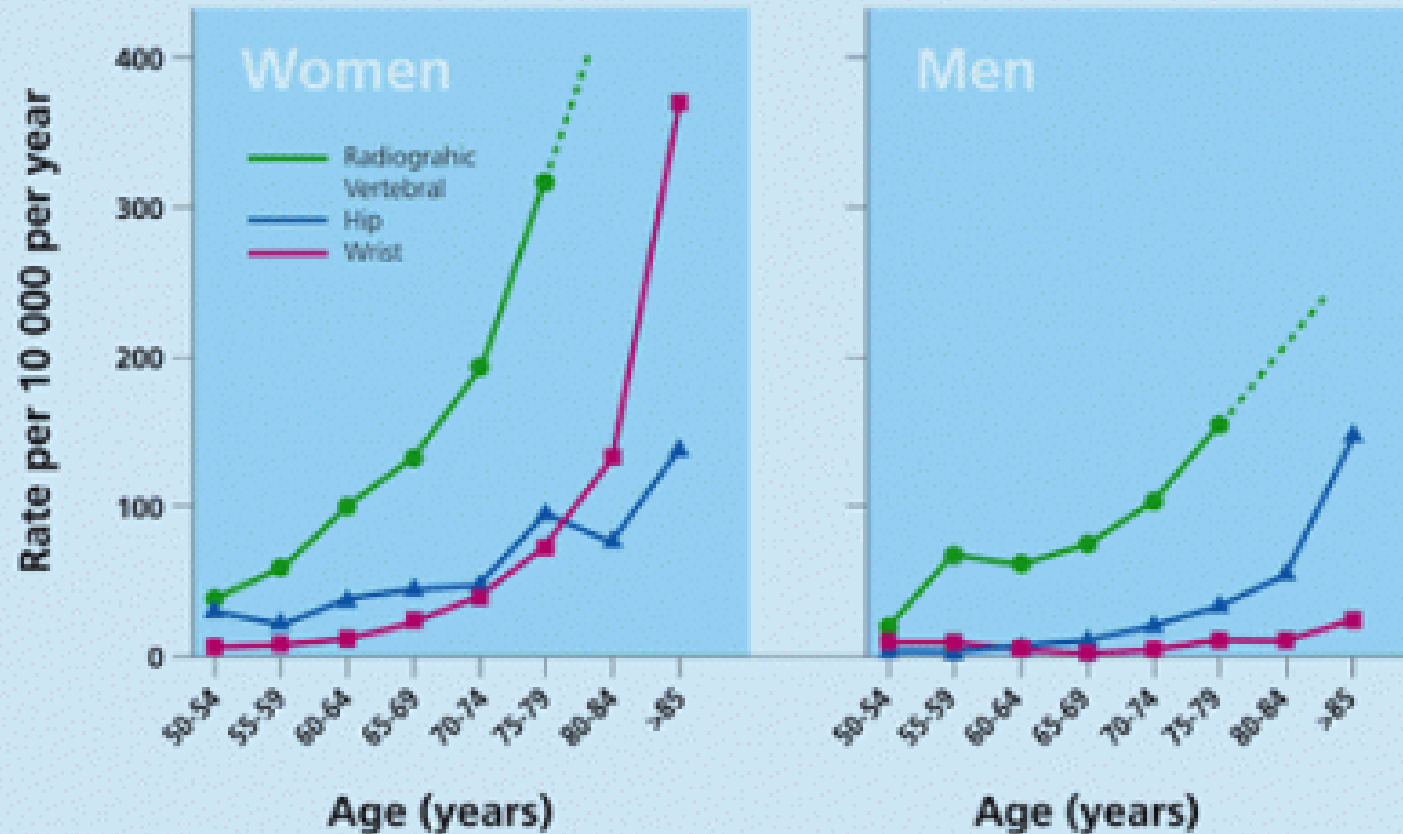
(World Health Organization (2007)
WHO Global report on falls prevention in older age.
Masud, Morris *Age & Ageing* 2001; 30-S4 3-7
Rubenstein. *Age & Ageing*; 2006; 35-S2; ii37-41

Falls most serious frequent home accident



Fatal injuries in the EU amongst older people (65+) by cause and gender

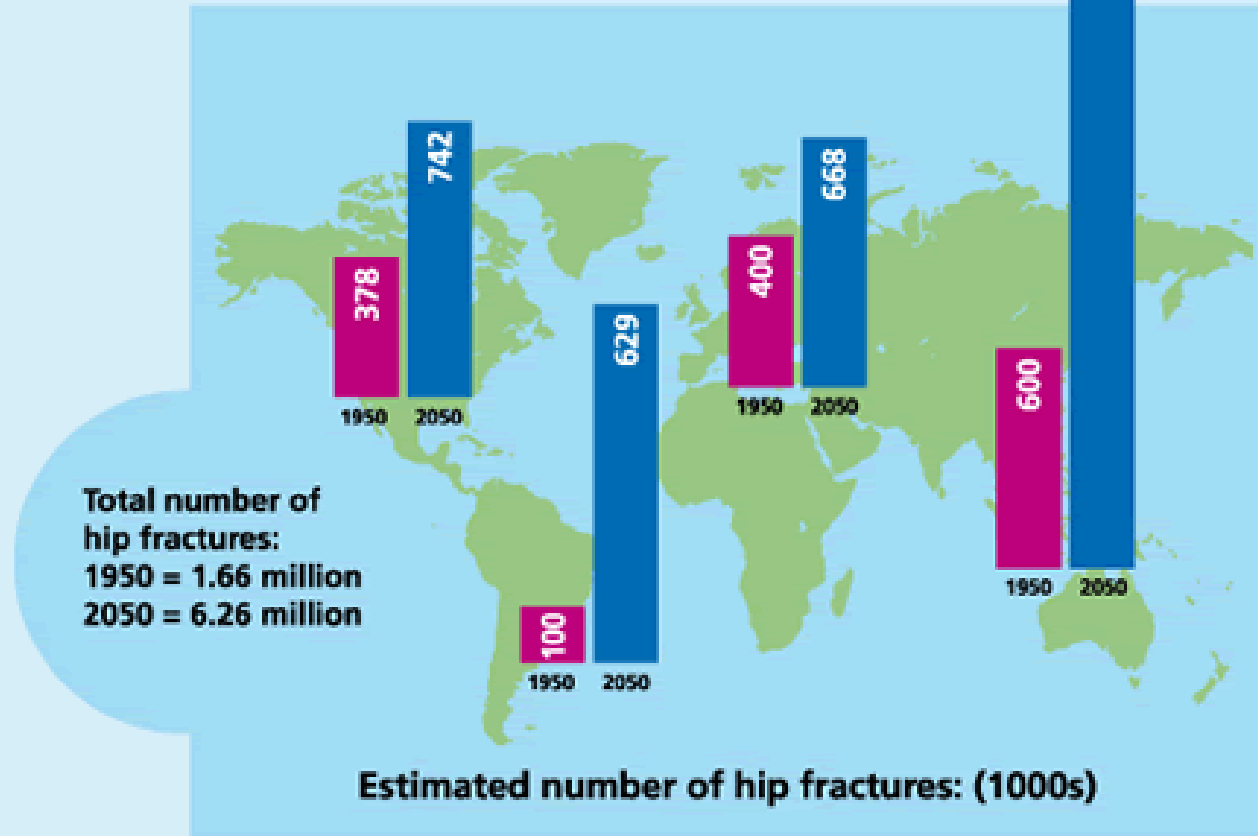
Age- and gender-specific incidence of vertebral, hip and distal forearm fractures



Adapted with permission of the authors, P. Sambrook and C. Cooper

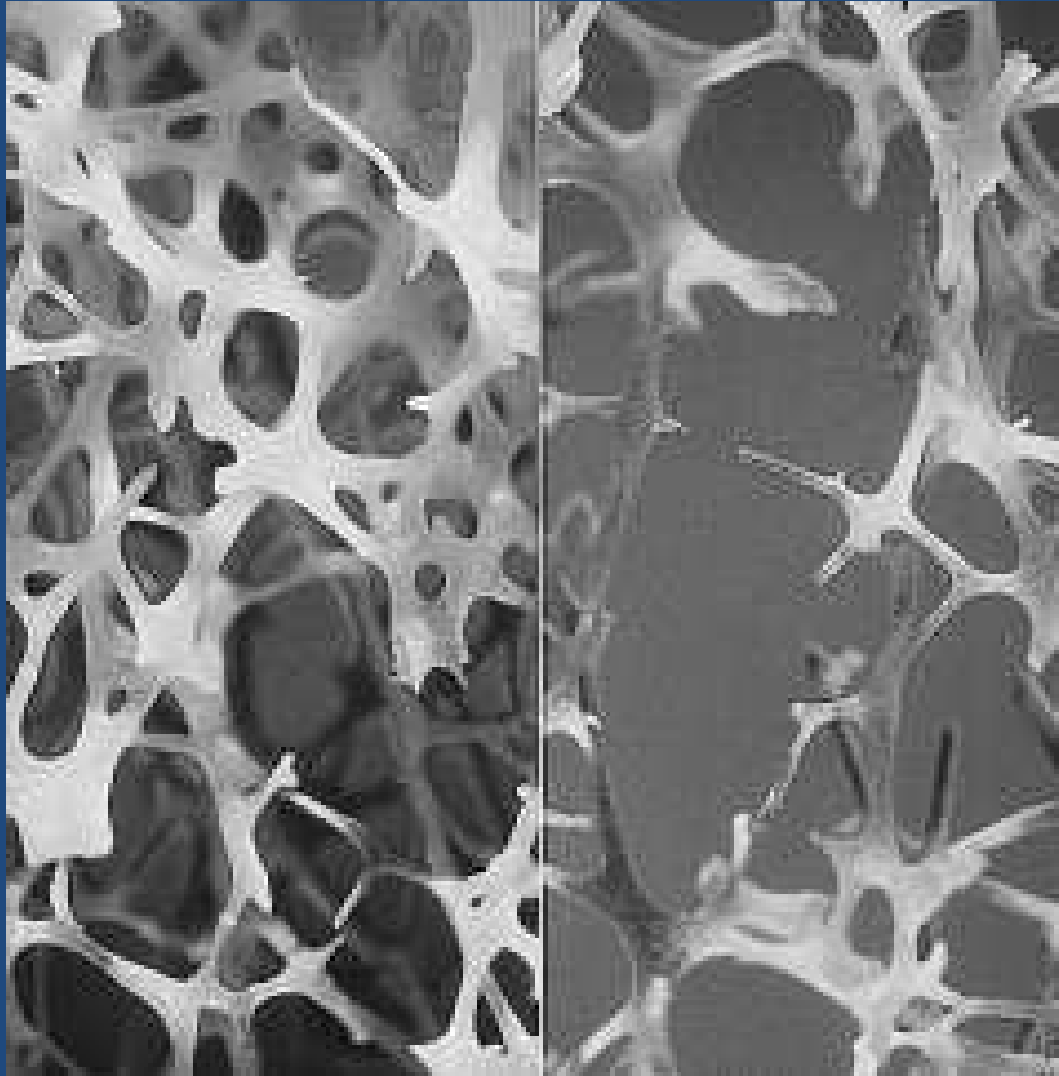
Projected number of hip fractures worldwide 2050

← Projected to reach 3.250 million in Asia by 2050



Adapted from C. Cooper et al, Osteoporos Int 1992; 2:285-9

Osteoporosis, falls and fractures



EVOS/EPOS Group

Falls explain between-center differences in the incidence of limb fracture across Europe. *JBMR* 2002

Low BMD is less predictive than risk of falling for future limb fractures in women across Europe. *Bone* 2005

www.iofbonehealth.org

Robinovitch S et al Lancet 2013

- Video captured 227 falls: 130 individuals (mean age 78 years, SD 10)
- Most frequent cause of falls:
 - incorrect weight shifting, 41% (93 of 227)
 - trip or stumble (48, 21%),
 - hit or bump (25, 11%),
 - loss of support (25, 11%),
 - collapse (24, 11%).
 - NB Slipping only 3% (6) falls.
- 3 activities associated with highest proportion of falls (n=227 falls)
- forward walking (54 falls, 24%),
- standing quietly (29 falls, 13%),
- sitting down (28 falls, 12%).

Falls can be prevented!

- Multiple-component group exercise
- Multiple-component home-based exercise
- Tai Chi
- Multifactorial intervention individual risk assessment
- Vitamin D NB low Vit D
- Home safety interventions by OT

Interventions for preventing falls in older people living in the community (Review)

Gillespie LD, Robertson MC, Gillespie WJ, Lamb SE, Gates S, Cumming RG, Rowe BH



THE COCHRANE
COLLABORATION®

This is a register of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in The Cochrane Library 2010, Issue 10

Gillespie et al 2012, 159 trials, 79193 pts

Modifiable risk factors for falls

Intrinsic

History of falls

Medications

Medical conditions

Age

Impaired mobility

Postural instability

Depression

Visual impairments

Foot problems

Incontinence

Nutritional deficiencies

Extrinsic

Environmental hazards

Walking aids/assistive devices

Footwear and clothing

Exposure

Physical activity

Behaviour

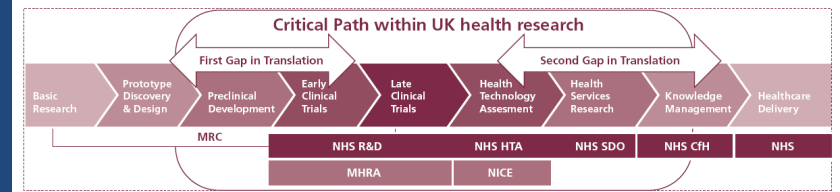


Figure 2: First and Second Translational Gaps (Cooksey Review 2006)

- Prevention programmes are *efficacious*
- *Implementation gap*
 - *Falls prevention not a priority*
 - *Services not available*
 - *Evidence not used or modified*
 - *Training needs to be challenging, progressive & regular*
 - *Programmes often too short term*
 - *Refusal/non-adherence=50-90%; prevention not effective?*

Resources

ProFaNE: <http://profane.co> (Prevention of Falls Network Earth) - Online Community of healthcare professionals committed to the Prevention of Falls.

Later Life Training: www.laterlifetraining.co.uk
Training programmes, Advice, Booklets,
Videos/training DVDs, Websites

ProFouND: <http://profound.eu.com> disseminate
best practice in falls prevention

What is ProFouND?

- 21 partners 12 countries
- disseminate best practice in falls prevention
- embed evidence based programmes in at least 10 countries/15 regions by 2015
- use internet & ICT to facilitate widespread implementation

www.profound.eu.org

ProFouND

- collate resources library
- create *PFPApp* - distribute tailored, customised, best practice guidance
- cascade model e-learning to create cadre of accredited exercise trainers across Europe
- create “ICT for Falls Forum”

EUROPE



- UK **Manchester** Glasgow
Belfast London
- D Stuttgart
- NL Amsterdam Leiden
- FIN Jyväskylä
- S Umeå
- I Empoli Ancona
- E Madrid Barcelona
- EL Valencia Lamia
- NO Trondheim
- CH Zurich
- Ö Vienna
- H Budapest

- WP 1 **Management ,co-ordination, sustainability & meetings**
UNIMAN
- WP 2 **Website construction and maintenance**
GCU
- WP 3 **Website resources content management**
NTNU
- WP 4 **Toolkit and best practice guidance development**
RBMF
- WP 5 **Best practice exercise regimen training**
LLT
- WP 6 **Evaluation and outcome monitoring**
UNIMAN
- WP 7 **ICT and technology for falls forum**
ECHAlliance
- WP 8 **National & regional implementation & dissemination**
EuroSafe

Maximising Take-up of Effective Falls Prevention Interventions



Curating the best falls prevention resources for use by professionals in practice and to inform our application development



Developing powerful web applications to enable easy production of tailored information for at-risk older people



Promoting the dissemination and adoption of evidence based best practice in falls prevention throughout Europe and beyond

The Prevention of Falls Network for Dissemination (ProFouND) is a new EC funded initiative dedicated to bring about the dissemination and implementation of best practice in falls prevention across Europe.

ProFouND comprises 21 partners from 12 countries, associate members from a further 10 countries. ProFouND aims to influence policy to increase awareness of falls and innovative prevention programmes amongst health and social care authorities, the commercial sector, NGOs and the general public so as to facilitate communities of interest and disseminate the work of the network to target groups across EU. Read more [about ProFouND](#).

ProFouND has eight work packages with clearly defined aims, objectives and deliverables.



1. University of Manchester
2. Glasgow Caledonian University
3. Robert Bosch Gesellschaft für medizinische Forschung
4. Norges Teknisk-Naturvitenskapelige Universitet
5. Later Life Training Ltd
6. EuroSafe European Association for Injury Prevention and Safety Promotion
7. Osteoporosis Betegek Magyarországi Egyesülete
8. Swiss Council for Accident Prevention bfu
9. Instituto de Salud Carlos III
10. Azienda Unità Sanitaria Locale 11 Empoli
11. National Center for Scientific Research "Demokritos"
12. Connected Health Alliance CIC
13. Instituto de Biomecánica de Valencia
14. Fundacio Institut Catala de l'Envelliment
15. TEILAM: Technical Educational Institute of Central Greece
16. Johanniter-Unfall-Hilfe in Österreich
17. Istituto Nazionale Riposo e Cura Anziani
18. Regionförbundet i Västerbottens län
19. Jyväskylän Yliopisto
20. Stichting Consument en Veiligheid

Deliverable	Description	Month
D1.1	Brief project presentation	1
D1.2	Kick-off meeting & report	2
D1.3	Management and communication guidelines	3
D1.4	Interim periodic report: Period	7
D1.5	First periodic report: Period	14
D1.6	Draft business plan and sustainability strategy	18
D1.7	Interim periodic report: Period 2	20
D1.8	Second periodic report: Period 2	26
D1.9	Business plan and sustainability	30
D1.10	Interim periodic report: Period 3	32
D1.11	Third periodic report: Period 3 1	36
D1.12	Final report	36

Deliverable	Description	Month
D2.1	Website online	2
D2.2	Resources management system	6
D2.3	Basic Platform for distance learning provision	6
D2.4	Secure data transfer portal	12
D2.5	EU Directory of Stakeholders	10
D2.6	PFP App online	24

Deliverable	Description	Month
D3.1	Content classification scheme	4
D3.2	Crowd sourcing underway	12
D3.3	Crowd sourcing quadrupled	30
D3.4	Content classification scheme revision	30

Deliverable	Description	Month
D4.1	Online videos on evidence based strength and balance exercises (English language version)	6
D4.2	First evidence synthesis and generic guidance	8
D4.3	First suite of tailored toolkits available online with implementation guidelines	18
D4.4	Updated evidence syntheses and generic guidance	20
D4.5	Full series of evidence synthesis reports with implementation guidance and toolkits for tailoring regimens available in app version	24
D4.6	Updated evidence syntheses and generic guidance	34

Deliverable	Description	Month
D5.1	Home exercise booklets distributed for translation	1
D5.2	Protocol for tutor training	4
D5.3	Online resources to support tutor training	6
D5.4	Protocol for quality assurance	9
D5.5	Interim report on trained tutors	24
D5.6	Final report on trained tutors	36

Deliverable	Description	Month
D6.1	Core standardised data set	4
D6.2	Protocol for standard data collection from administrative databases	6
D6.3	Open meeting on core datasets and protocols	7
D6.4	Protocol for bespoke data collection	9
D6.5	Baseline data in participating centres/regions	15
D6.6	Interim report on data collection	24
D6.7	Report on changes in participating centres and regions	36

Deliverable	Description	Month
D7.1	Launch of on-line marketplace and innovation factory platform	12
D7.2	Promotion of at least one reference site project or technology	12
D7.3	Report on networking event to encourage partnerships	24
D7.4	Repository of procurement, implementation and standardisation best practice with reference examples	24
D7.5	Report final ICT networking meeting	36

Deliverable	Description	Month
D8.1	Publication and dissemination strategy	8
D8.2	Launch stakeholder meeting	8
D8.3	Directory of EU stakeholder and template for regions	9
D8.4	Interim stakeholder open meeting	20
D8.5	Final stakeholder open meeting	36
D8.6	Report on implementation actions	36