# EU Osteoporosis Report 2007-2008

## United Kingdom and Scotland

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<table>
<thead>
<tr>
<th>OVERVIEW</th>
<th>2001-2005</th>
<th>2007</th>
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| Ref: Osteoporosis in the European Community: A Call to Action, Nov 2001 IOF publication  
Ref: Osteoporosis in Europe: Indicators of Progress, Feb 2005, IOF publication  
Ref: Osteoporosis in Europe: Indicators of Progress, Feb 2005, IOF publication | UK data: black Scotland data: blue | |
| National population | 60,000,000 | UK: 58,789,194 Scotland: 5,116,900 (June 2006) |
| Population over 50 | 20,000,000 | Women: 10,624,559 Men: 8,975,293 |
| Number of hip fractures in 1998 – 1999 | 70,000 (est); (11.67 per 10,000 population) | UK: 74,757 (1998-1999)  
Hip fracture data are based on hospital episode statistics for each of the 4 years included. Note these data include all fractured femur in people over 60. |
| Scotland (SHFA) 1998-6321  
1999-6401  
2000-6186 | Scotland(SHFA) 2001-6206  
2002-6356  
2003-6318  
2004-6126 | |
| Number of hip fractures in 1999 – 2000 | 86,408; (14.40 per 10,000 population) | 76,167 (1999-2000) |
| Number of hip fractures in 2000 – 2001 | No information available | 75,328 (2000-2001) |
16.5 per 10,000 population Scotland: 6126 (2004)  
11.9 per 10,000 population |
| Individual hospital cost of hip fracture: direct costs  
indirect costs | Euros 18,500 | For hospital costs Lawrence et al (2005) *Int J Care Injured* estimated 18,074€ per hip fracture. However, other estimates have suggested costs of 7663€ - 12,688€ depending on age (Stevenson et al (2007) |
### Average number of hospital days in acute care in 2005 – 2006

**Cost/day (Euro)**

- 26 (2005-06 Hospital Episode Statistics)
- 24 (SHFA Report 2007)
- 426€ per day (estimated in NICE decision support unit (DSU) analysis in 2006)

### Average number of days in rehabilitation or long term care

**Cost/day (Euro)**

Number of people admitted to nursing homes after a hip fracture varies from 4 % at 60-69 years to 12 % at 80-89 years. No data on average length of stay (NICE DSU report 2006)

- 15 (SHFA)
- Residential nursing home costs approximately 95€ per day

### Total direct hospital costs of hip fractures

€ 847,284,600 (1999)

(Note that these data are estimated assuming 75,000 osteoporotic hip fractures per year using cost data from NICE 2006 DSU report) 1,039,875,000€

### Number of diagnostic scanners (DXA) per million population

- Recommended: 10.6
- UK: 2.8/million (We believe the difference from the last return is due to better data and removal of private scanners from the calculation)
- Scotland: 3.9 million

### Waiting time for DXA scan in the public health system

1 week – 78 weeks

Average 6 weeks (range 0-36 weeks) (NOS Survey, Summer 2007)

### Cost for DXA scan of hip and spine

€ 70 -100 (private)

NHS Tariff Price 69€

### How many DXA scans are carried out/year?

500,000 per annum (NOS Survey, Summer 2007)

### DXA reimbursement (public system)

- Criteria for reimbursement: Yes
- Yes– however, people that fall outside of criteria laid down by NICE will limit who is eligible for a DXA scan on the National Health Service in the future

### Reimbursement of proven therapies

- Yes – full reimbursement, prescription fee paid by patient
- Yes-full reimbursement, prescription fee paid by patient – but in accordance with NICE guidance
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<tr>
<th>1.</th>
<th><strong>IS OSTEOPOROSIS A PRIORITY?</strong></th>
<th><strong>2001 Audit</strong></th>
<th><strong>Interim 2001-2007</strong></th>
<th><strong>2007 Report</strong></th>
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</table>
| 1:a | **Has your government made osteoporosis a national health priority?** | *Osteoporosis in the European Community: A Call to Action. IOF publication 2001* | | Scottish Government Health Department: The “Delivery Framework for Adult Rehabilitation and Prevention of Falls in Older People” February 2007) specified that, as part of the implementation of the NHS Boards Rehabilitation Framework:
   i) NHS Boards throughout Scotland need to develop a combined falls prevention and bone health strategy.  
   ii) Community Health Partnerships (CHPs) need to develop an operational combined falls prevention and bone health implementation strategy, working within the NHS Board strategy and any wider Community Planning strategy.  
   iii) Scottish Government Health Department: Scottish Enhanced Services Framework for Primary and Secondary Care 2007-2009: Falls Prevention and Bone Health |

The UK government’s National Service Framework (NSF) on older people refers to osteoporosis and falls, but as a priority osteoporosis still ranks well below mental health, heart disease and cancer.

NSF refers only to England and Wales – reference to UK Government not correct

All Health issues devolved to Scottish Government Health Department: The “Delivery Framework for Adult Rehabilitation and Prevention of Falls in Older People” February 2007)
| 1:b | **Has your government supported national or regional osteoporosis campaigns?** | The National Institute of Clinical Excellence (NICE) established as part of the clinical governance agenda, and plans to address the effectiveness of osteoporosis treatments with national guidelines | Not reported |
| 1:c | **Do national initiatives advance or restrict the cause?** | Not recorded | Not recorded |

| 2. | **FRAGILITY FRACTURE STATISTICS** | **2001 Audit** | **Interim 2001-2007** | **2007 Report** |
| 2:a | **Has a national fragility fracture registry been established for data collection and monitoring?** | No coordinated system for monitoring fragility fracture rates has been set up at the national level | UK: Yes. National Hip Fracture Database (NHFD) launched September 19th 2007, by the British Orthopaedic Association (BOA) and the British Geriatric Society (BGS) and supported by the NOS. This aims to combine local data collected in UK centre and engage other centres At this stage the 2 databases will remain separate. Scotland: Yes. Scottish Hip Fracture Audit (SHFA) – commenced in 1993 in four centres in Scotland but is now implemented across Scotland | | | | SHFA – 1993 to 2007 |
| 2:b | **Is collected data from general or selected populations?** | **SHFA** – Patients aged 50 years or over who have sustained a hip fracture  
**NHFD** – data will be collected from participating sites only |
|-----|-----------------------------------------------------------|------------------------------------------------------------------|
| 2:c | **Incidence rates for hip fracture for men & women over 50 years (per 10,000 population)** | No age/sex specific incidence rates for hip fractures within 5-year age bands available  
No incidence data for over 50s – data for 2.3-2.5 are for UK population from Van Staa et al (2002) Bone vol 29, no. 6, p 517-522.  
Men: 5.3/10,000 person years  
Women: 17/10,000 person years |
| 2:d | **Prevalence rates for vertebral fracture for men & women over 50 years (per 10,000 population)** | Not reported  
Men: 3.2/10,000 py  
Women: 5.6/10,000py |
| 2:e | **Incidence and/or prevalence of wrist and other non-vertebral fracture for men & women over 50 years** | Not reported  
WRIST:  
Men: 26.2/10,000py  
Women: 10.4/10,000py |

### 3. CO-OPERATION AND FUNDING

#### 3:a **Which partners have been supportive of your osteoporosis efforts?**  
**Corporate, allied health, government**  
Give specifics

|-------------|------------------|-------------|
| Not aware of partnership funding in fight against osteoporosis, other than Bone & Joint Decade Health Strategies project which includes osteoporosis and the UK. No national budget dedicated to | Members Interest Debate Scottish Parliament 2002 | The NOS Health Professional Partners Forum (HPPF) (members of Professional Organisations with an interest in osteoporosis) have provided discussion forums for brainstorming and work programme planning as well as some opportunities for joint working. The All Party Parliamentary Osteoporosis Group have continued to support the NOS lobbying efforts  
Scotland:  
Members of all parties/ NOS support group political patrons at Scottish Parliament meet with NOS/lead clinicians and patient representatives at constituency level  
NOS Annual Briefing Dinner for MSPs. (PROMOTION OF BLUE BOOK: FRAGILITY FRACTURE MANAGEMENT AT 2007 DINNER.) |
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<th>3:b</th>
<th>Did these partners collaborate on mutual goals &amp; objectives?</th>
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<td></td>
<td>The HPPF has provided a number of opportunities to collaborate on mutual goals, perhaps the most important collaboration has been a joint appeal against the final NICE recommendations which has been supported by 3 professional organisations from this group. Additionally the NOS has supported initiatives from other members of the group including the British Geriatric Society/British Orthopaedic Association National Hip Fracture Database and Blue Book for example.</td>
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**Scotland:**
Partnership with NOS in Scotland/SIGN and ABPI Scotland:
educational programme to support the implementation of SIGN 71;
management of osteoporosis-national conference and series of 12 study days in mainland Scottish health board areas. Over 1000 health professionals attended programme.

“Next Steps” Partnership Conference .2007: a multidisciplinary approach to the management of Falls, Fragility Fractures and osteoporosis- partnership conference between NOS in Scotland, Scottish Hip Fracture Audit Steering Group, ABPI Scotland, National Hip Fracture Registry- 2 day meeting-370 attended

|----|-----------------------|-------------|-------------------|-------------|
| 4:a| Is there a national public health program? | No government supported public health campaigns undertaken | No government supported public health campaigns undertaken | SCOTLAND
“Hungry for Success” healthy eating initiative/Scottish Government Health Department |
Health Promoting Schools-promoting of exercise and well balanced diet including calcium rich foods

- Falls Prevention booklet-2003/2005-NHS Health Scotland/NOS in Scotland/ Age Concern/Help the Aged/RoSPA


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<th>4:b</th>
<th>Are there national guidelines on optimum daily intake?</th>
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<td>On-going studies to investigate effect of vitamin D and calcium in prevention of hip fractures in those &gt;70 years.</td>
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<td>Adult reference nutrient intake (RNI) for calcium is 700mg per day. An RNI is provided for adults over 65 for vitamin D of 10 micrograms</td>
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<th>5.</th>
<th>ACCESS TO BONE DENSITOMETRY SYSTEMS</th>
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<td>5:a</td>
<td>Number of hip &amp; spine DXA units (per million population)</td>
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<tr>
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<td>Number of DXA units/million population: 4.2(2000)</td>
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<tr>
<td></td>
<td>2.8 NHS scanners/million population</td>
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<td></td>
<td>3.9 NHS scanners/million population(Scotland)</td>
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| 5:b | Is the distribution of services equitable throughout your country? |
|     | Not recorded |
|     | Scotland-annual update survey by NOS office in Scotland |
|     | The distribution of services varies across the country with some people having to travel quite large distances from rural areas. |
|     | Scotland- has improved |
|     | All but 1 mainland health board areas have at least 1 local NHS DXA scanner but travel from remote and rural areas remains an issue. |
| 5:c | **Cost of DXA (public and private health systems)** | Average cost per scan of hip & spine: Euros 87 (public); Euros 160-242 (private) | National Health Service (NHS) tariff price is 69€ Private 70-270€ |
| 5:d | **Utilization of scans:**  
• Public  
• Private | Not recorded | Approximately 500,000 scans are performed each year on the NHS. No data for private scanners |
| 5:e | **Are diagnostic procedures (DXA) reimbursed? If yes, what are the criteria for reimbursement?** | Reimbursement: Public: NHS pays for scans, permitted on those who fulfill criteria, usually according to local guidelines Private: varies, but reimbursement available | Yes, through the NHS in accordance with NICE guidance (usually people would have to fulfill specific criteria) |
| 5:f | **Average wait time for DXA (public and private systems)** | Waiting time: Public: varies widely, average 2-3 months Private: 2-3 weeks | Public – 6 weeks (0-36 weeks) Private - < 1 week |
| 5:g | **Quality Assurance: is there standardized training of technologists?** | Not recorded | The NOS organises a training scheme for technologists, however, it is not compulsory within individual units |

### 6. PREVENTION, TREATMENT AND REIMBURSEMENT

| 6:a | **Do evidence based guidelines exist on prevention, diagnosis and treatment?** | Yes  
Nationally – RCP guidelines  
Locally, | NICE TA 87 (2005)  
http://www.nice.org.uk/page.aspx?o=TA087guidance  
SIGN 56 (2002)  
Currently under review (2007) |
### 6:b What approved drug therapies are available?

Not reported

1. Bisphosphonates (etidronate, alendronate, risedronate, ibandronate, zoledronate in Scotland)
2) Selective Oestrogen Receptor Modulator (SERMs) (raloxifene)
3) Strontium ranelate
4) Parathyroid hormones (PTH) (Teriparatide and Preotact)
5) Systemic hormone replacement therapy, including tibolone
6) Calcitonin
7) Calcitriol

Only alendronate, risedronate and teriparatide are licensed for use in men.

### 6:c Are the most effective treatments reimbursed?

Reimbursement Public: Health

NHS patients pay a prescription charge (~10€ per treatment, usually for one months supply or one course) but do not pay for the...
### Please include criteria for reimbursement

Authorities budget includes reimbursement for diagnostic scans, treatment and care. Treatment covered as part of total drugs budget. Patient pays prescription charges.

In England, Wales and Northern Ireland, NHS medicines are prescribed on the basis of guidance from NICE.-SMC in Scotland For secondary prevention the current criteria are listed at http://guidance.nice.org.uk/TA87/quickrefguide/pdf/English

NICE are currently reviewing guidance on the use of treatments for secondary prevention and are also producing new guidance on the use of treatments for primary prevention.

In Scotland, treatments are prescribed based on SIGN 71 guidelines (see section 6.1), NICE and SMC (see section 6.1)

| 6:d | Are patients at high risk for fractures eligible for treatment reimbursement BEFORE the first fracture? | Not reported | Currently those at the highest risk of fracture are eligible for treatment reimbursement before the first fracture, however, the awaited guidance from NICE will determine the eligibility criteria in the future for at least England, Wales and Northern Ireland, but is also likely to be adopted by Scotland via NHS Quality Improvement Scotland |
| 6:e | Do lifestyle prevention programs exist? | Not reported | There are no national programmes, although these may be available at a local level, often through research projects. Lifestyle health promotion programmes in Scotland promote exercise and healthy well balanced diet which also will have beneficial effect on bone health |

### 7. THE NGO SECTOR AND TRAINING HEALTHCARE PROFESSIONALS

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<td>7:a</td>
<td>Has the government supported (financially or through public information) patient and scientific societies?</td>
<td>No government budget dedicated to support national patient or scientific societies.</td>
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<td>7:b</td>
<td>Do appropriate training programs exist for health professionals?</td>
<td>Training programs for healthcare professionals: No change since</td>
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1998. The Royal College of Physicians and Bone & Tooth Society plan audit of training for specialists. Osteoporosis will be central to this. The IOF conducts training programs in partnership with national societies.

Endocrinology organize specialist registrar training for osteoporosis and metabolic bone disease and the University of Derby offers a postgraduate certificate in osteoporosis and falls management as well as a BTEC diploma in practice in osteoporosis and falls management. Several other orthopedic courses are offered and Glasgow fracture liaison unit has a preceptorship programme that focuses exclusively on osteoporosis and service delivery.

Several different organizations offer study days and most of the professional organizations in related fields include sections on osteoporosis in their conferences.

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<td>8:a</td>
<td><strong>How many funding agencies are there in your country that fund bone research? Include details if available</strong></td>
<td>Government funded research through Health Technology Assessment (HTA) is assessing cost/utility ration of screening older women; Thematic Network on Male Osteoporosis (NEMO) brings together expertise from 10 European countries including UK</td>
<td>NOS – awards approximately £250,000 per year. ARC – Arthritis Research Campaign – specifically funds musculoskeletal research MRC – Medical Research Council – general medical research, but has recently committed considerable funding to an osteoporosis project Remedi – general funding, but specific projects funded in metabolic bone disease HTA – Health Technology Assessments - NIHR – National Institute for Health Research CSO – Chief Scientist’s Office There are a number of other smaller funders that include osteoporosis within their research strategy.</td>
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<td>8:b</td>
<td><strong>Specify major osteoporosis or related research</strong></td>
<td>NHS Quality Improvement Scotland Audit Report: Effectiveness of strategies for the secondary prevention of osteoporotic fracture. (2004)</td>
<td>SCOOP (Screening for Osteoporosis in Older People) study funded by the MRC and ARC to sum of £4.3 million. UK Biobank (covers all disease areas but includes specific measurements related to osteoporosis) Generation Scotland (covers all disease areas but includes specific measurements related to osteoporosis) Scottish Funding Council Strategic Research Development Grant - Biomarkers For Battling Chronic Disease (Osteoporosis one of the exemplars)</td>
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<tr>
<td>8:c</td>
<td><strong>Include references/links to publications</strong></td>
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