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An inquiry by the APPG on Osteoporosis and Bone Health

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This Inquiry would not have been possible without the oral, written and survey submissions of over 3,300 private individuals, clinicians and organisations.

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EXECUTIVE SUMMARY

Osteoporosis is one of the most significant threats to healthy life expectancy in the UK – affecting over 3.5 million people and causing over 550,000 broken bones every year. The scale of the disease burden, the effectiveness of early treatment, and the significant savings made by preventing fractures make osteoporosis particularly well-suited to a population health model that prioritises primary identification of people at risk and proactively prevents fractures. Instead, however, osteoporosis remains an under-prioritised condition within health policy compared to conditions of similar prevalence and impact. Osteoporosis care is characterised by underdiagnosis, inconsistent access to services, and limited long-term management. Our Inquiry found care to be often poor, fragmented, lacking clear clinical accountability, and frequently reactive rather than preventative.

Diagnosis and Identification

Many people at high risk of fracture are not identified early, despite clear national guidance. Most diagnoses follow a fracture, meaning care is reactive rather than preventive. The evidence showed that a population health approach to osteoporosis, using technologies (including AI), would deliver early intervention and significant cost savings for the NHS. People with osteoporosis want earlier detection, routine fracture risk checks and smoother handover between hospitals and GPs. Currently, however, the removal of QOF (Quality Outcomes Framework) incentives has weakened case-finding in primary care. Experts called for new levers, including Enhanced Services for bone health to incentivise better identification and management, and national audit of the whole pathway to ensure consistent, preventive care across the NHS.

Ongoing Monitoring and Review

Due to the lack of monitoring, many people with osteoporosis don't start or stick to their medication, leading to preventable broken bones and poor health outcomes. Government commitments to ensure universal access to high-quality fracture liaison services (FLS) are vital to addressing this. FLS identify people after a fracture and initiate treatment, but their long-term impact depends on what follows for the patient. Too often, people are discharged without clear arrangements for ongoing review or reassessment in primary care. Monitoring is patchy, leaving people to manage their condition alone, uncertain who is responsible for their follow-up care. Our research

found the lowest rates of satisfaction in deprived areas – a worrying health inequality, with those in the most deprived areas receiving the weakest support despite their higher risk of fracture and poor health outcomes.

Structured, proactive follow-up, automatic digital reminders, and shared decision-making are needed. A personalised 'Bone Health Management Plan' (aligned with a locally agreed osteoporosis pathway) would restore patient confidence. Regular check-ins, designated points of contact, and structured education provision would help reduce avoidable fractures and align osteoporosis care with established standards for other long-term conditions.

Integrated and Multi-Disciplinary Care

A more integrated approach to osteoporosis care is required to close gaps in care, both at local and national levels. However, our Freedom of Information request found that half of regional health bodies do not have an osteoporosis pathway. While FLS provide the essential foundation for secondary fracture prevention, their success depends on equally effective coordination of healthcare for osteoporosis patients in the community. A comprehensive osteoporosis pathway that makes full use of the range of clinical and allied health expertise would support an improved patient experience. The Inquiry recommends a national steering group to support the development of integrated osteoporosis pathways co-designed with patients, as a priority. By improving community-based care, the benefits of FLS will be sustained over the longer term.

Patient Experience and Self-Management

Many people with osteoporosis report feeling unsupported and isolated. Enabling self-management requires clear information, reliable access to advice, and shared decision-making between patients and clinicians. The Inquiry concludes that alongside patient-held 'Bone Health Management Plans', structured education should become a standard component of care, empowering people to manage their condition with confidence. The NHS App shows potential to support people with osteoporosis, particularly if it connects people with osteoporosis to *Diagnosis Connect* in future.

Conclusion

People's experience of navigating health services for osteoporosis is fragmented and inconsistent – often in stark contrast to care for other long-term conditions. Lack of sustained clinical ownership of their care leaves people to manage their condition alone. Absence of proactive prevention is leading to avoidable and sometimes life-threatening broken bones. National leadership across all four nations is essential to recognise osteoporosis as a major long-term condition that threatens healthy life expectancy and requires urgent action. High-quality FLS form the backbone of the response, ensuring that every patient receives timely identification and treatment after a fracture. Alongside this, primary care, subject to audit against national clinical guidance, would embed fracture prevention and long-term management at community level. Integrated pathways, exploiting digital technologies and providing equitable access to diagnosis, treatment and monitoring, can deliver consistent, person-centred osteoporosis care that restores patient confidence and supports people to live well with osteoporosis.

Key Levers for System Transformation

- 1. Enhanced services for the identification, assessment and management of osteoporosis and high fracture risk in the community.**
- 2. National audit of the whole osteoporosis pathway – extending the current audit of FLS to include osteoporosis healthcare delivered in primary and community care settings where most people with osteoporosis are managed over the long term.**
- 3. Technological solutions for case-finding, identification of people at high risk, and routine follow-up of patients.**
- 4. Local development of comprehensive osteoporosis pathways to deliver consistent, coordinated care to people with osteoporosis and reduce inequality.**
- 5. National and regional leadership for osteoporosis care to promote collaboration and support the development of osteoporosis pathways.**
- 6. Structured osteoporosis education for people diagnosed with the condition.**
- 7. Patient-held Bone Health Management Plans that set out the appropriate actions, timings and responsibilities across the pathway.**



INTRODUCTION

Osteoporosis is a public health crisis, causing over half a million broken bones every year in the UK – including approximately 80,000 hip fractures.^(1,2) A hip fracture is a heart-attack-level event – 36% of men and 25% of women affected will die within a year.⁽³⁾ In 2019, the total direct cost of fragility fractures to the NHS and social care was £5.4 billion, a substantial proportion of which was spent on hip fracture care.⁽⁴⁾ Beyond healthcare costs, musculoskeletal conditions are the leading cause of sickness absence from work – osteoporotic fractures account for 1.5 million days absent from work every year among adults aged 40 to 69 in England.⁽⁵⁾ This Inquiry demonstrates that the potential of fracture prevention to help reverse the decline in healthy life expectancy has not yet been fully exploited, despite fractures being a major cause of sudden and sustained loss of independence. Alarmingly, projections indicate that hip fractures will double by 2060 (from 2019), underscoring the urgency for a proactive fracture prevention policy – starting now.⁽⁶⁾

Although effective and affordable treatments exist to manage osteoporosis and prevent fractures, the reality is stark: nearly two-thirds of those who could benefit remain untreated.⁽⁴⁾ Behind this statistic lies the painful daily reality for people with osteoporosis: long waits for diagnostic scans, delayed diagnosis, lack of follow-up or monitoring, limited expertise (particularly in primary care), a lack of shared decision-making and clinical accountability, and non-existent patient education. Patients have no clear pathway, and people feel abandoned to manage their condition alone.

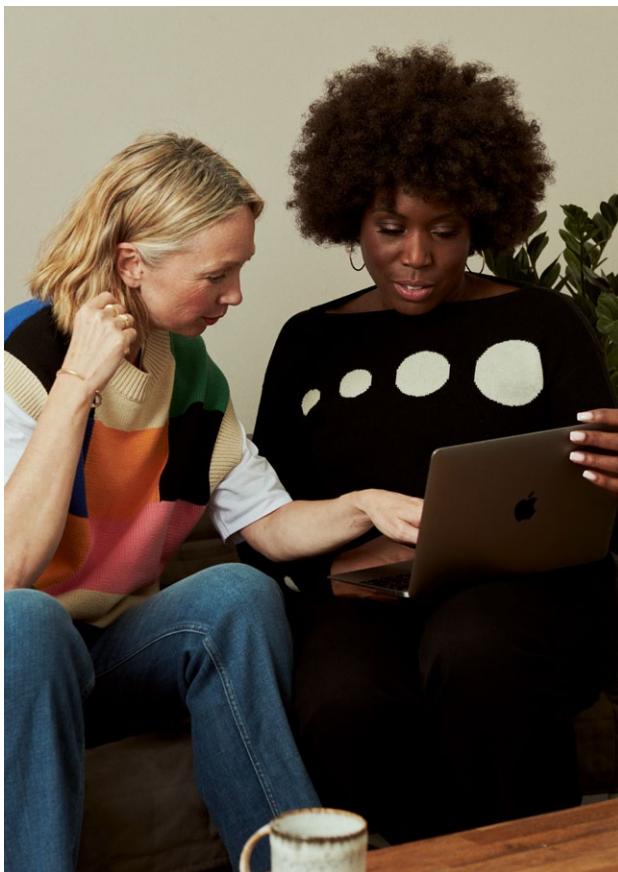


These kinds of systemic failures are not exclusive to osteoporosis. The National Audit Office's new analysis of frailty care found that better frailty assessment was required to address similar failures.⁽⁷⁾ This would strengthen community care and expose a large cohort with hidden osteoporosis who could benefit from timely treatment.

“ [I had an] unexpected and sudden diagnosis of osteoporosis. A curt phone call to prescribe medication. I had to demand an appointment with the GP pharmacist to discuss. I was told via a receptionist that the locum GP had said that I didn’t need to speak to a doctor because ‘it’s not as though she has cancer.’ I complained. I have never felt more let down, dismissed or stupid than navigating management of my condition totally alone. ”

Lisa, 55, was diagnosed two years ago

Improving the osteoporosis patient experience will contribute to reversing the decline in healthy life expectancy. When people with osteoporosis receive regular monitoring, clear information and support to make informed decisions, they are more likely to stay on treatment, remain engaged with their care and avoid fractures – ultimately reducing pressure on the NHS.⁽⁸⁾



Hospital admissions for fragility fractures are second only to those for respiratory conditions, however, people with osteoporosis receive less systematic attention and care than patients with other chronic conditions.⁽⁹⁾ This Inquiry will draw on the approaches from other long-term conditions which, historically, have been afforded higher priority and therefore more structured management. People with osteoporosis have been offered poor care by comparison. By reflecting on successful care models for other conditions, this Inquiry will identify strategies that can be adopted to improve the prevention, diagnosis, and management of osteoporosis.

Throughout this report, we will align our recommendations with the evolving strategic context of the NHS in the UK – in particular, the shift of national health policies towards prevention and earlier intervention, community-focused care, and digital transformation. In England, for example, the shift of strategic commissioning powers from NHS England to ICBs presents an opportunity for ICBs to address the osteoporosis care pathway as a population health priority. It also highlights the importance of workforce planning, including how multidisciplinary teams are configured and supported in the community, in line with the direction of travel set out in the forthcoming NHS workforce plan.

What we did

- In March 2025, ROS published an online patient survey, which received 3,363 responses.
- In July 2025, we published our call for evidence around the patient experience for people with osteoporosis. Responses were received from a range of clinicians, organisations and others.
- We submitted a Freedom of Information request to all Integrated Care Boards, Health Boards, and Health and Social Care Boards in the UK, asking whether they had a clinical pathway for people with osteoporosis in their area. We received 50 responses.
- In June, October and December 2025, we held two oral evidence sessions in Parliament and a ‘round table’ meeting where we heard directly from people living with osteoporosis, clinicians, and health technology experts.
- We reviewed a range of national and international literature to ensure that the recommendations in this report are informed by both the research evidence and current thinking in this area.

We are indebted to the 3,363 survey respondents and all those who provided oral or written evidence to the Inquiry who gave up their time to enhance our understanding.

TERMINOLOGY

Throughout this report the following terms will be used to collectively describe health structures in the four nations:

Regional health bodies

Integrated Care Boards (ICBs) in England
Health Boards in Scotland and Wales
Health and Social Care Board in Northern Ireland

The four UK health administrations

NHS England

NHS Scotland

NHS Wales

Department of Health in Northern Ireland

Primary care networks (PCN)

Primary Care Networks in England
GP Clusters in Scotland
Primary Care Clusters in Wales
Integrated Care Partnerships in Northern Ireland

IDENTIFICATION AND DIAGNOSIS

People at high risk of breaking a bone often fail to be identified and assessed. Several well-evidenced national guidelines recommend an assessment of fracture risk for people over the age of 50 with clinical risk factors for osteoporosis and all postmenopausal women. This would ensure that people are diagnosed, start treatment, and avoid broken bones in the future.⁽¹⁰⁻¹²⁾ We know, however, that the real-world application of these guidelines is lacking.⁽¹³⁾

“ I believe my osteoporosis could have been avoided if detected earlier... Guidance and support to help live with it from a medical point of view is not there. A very lonely condition, no one sees it, therefore no one speaks to you about it! ”

Rebecca, 57, was diagnosed after breaking a bone. She doesn't know who to contact if she has any questions or concerns

In his oral evidence to this Inquiry, Dr. Sunil Nedungayil (a GP from Lancashire and Senior Clinical Lead for the Royal College of Physicians' Falls and Fragility Fracture Programme) contrasted the care for heart disease and osteoporosis. Heart disease - like osteoporosis - can be treated after a medical event such as a heart attack (*secondary prevention*) or detected beforehand through someone's identified risk factors (*primary prevention*). However, while treatment rates for heart disease are well over 90%, only 34% of eligible individuals with osteoporosis are taking bone-strengthening medication to avoid devastating fractures.^(2,9) Dr. Nedungayil called on the APPG to question how such a marked difference in treatment uptake can be justified.

What people with osteoporosis told us

“ Where there is a family history of osteoporosis and other symptoms, such as back pain, I feel a DXA scan should be offered. I had to ask (strongly) to get the scan. The results show osteoporosis in the spine. I believe if I had had the scan earlier, I would be in a better position. ”

Elaine, 74

Identification of osteoporosis is often reactive rather than proactive. The majority of respondents (61%) reported that their diagnosis followed fractures, rather than having their declining bone health identified early through an assessment of their risk factors.

People with osteoporosis want to see more systematic case-finding and prevention efforts to address the widespread underdiagnosis of osteoporosis. Where they are diagnosed following fractures, they want to see effective handover from the hospital or Fracture Liaison Service (FLS) to GP care, with ongoing effective monitoring.

“ There should be a preventive action plan for people with osteopenia rather than only management of the condition later on. ”

Lynne, 62, was diagnosed with osteoporosis in 2025, many years after being told she had osteopenia.



How can we incentivise better identification?

Since the osteoporosis indicator in the Quality and Outcomes Framework (QOF) was removed in 2025, there are no longer any financial incentives to identify people with osteoporosis, nor any enhanced contractual requirements related to its management in primary care in England. Several contributors to this Inquiry identified the introduction of **some form of Enhanced Service** (the exact form will depend on the relevant UK nation) as a possible lever to encourage GP practices in proactively identifying people at high risk of fracture, and to manage patients with osteoporosis to prevent avoidable fractures.^(1,2) Encouraging proactive identification in the community supports a shift from hospital-based fracture treatment to community-led fracture prevention, aligning with national policy.^(16–21)

Routine health checks

As part of this move to embed prevention of the first fracture in community-based services, assessment of fracture risk needs to be embedded in all NHS health checks in England, older adult care reviews and care home assessments.^(1,4) The recently announced inclusion of menopause advice in routine NHS health checks in England marks a pivotal policy development.⁽²³⁾ Menopause is a critical tipping point for women's bone health, so menopause advice should include discussion of risk factors for osteoporosis and assessment of fracture risk where appropriate.

Extending audit to primary care

Clinical audit can act as a mirror and catalyst to prompt reflection, accountability, and a culture of improvement in health services. However, this Inquiry heard how, currently, only one element of the osteoporosis pathway, FLS, is subject to national audit.⁽⁴⁾ Meanwhile, the greatest opportunity for primary prevention of fractures lies in primary care – where the majority of people with osteoporosis are diagnosed, treated and managed before and after fracture. By way of contrast, diabetes, asthma and COPD care are subject to national audit programmes that span the entire patient care pathway, including primary care.^(5,6) These regularly sit alongside patient experience surveys.

Several evidence submissions to this Inquiry recommended extending audit to primary care, with metrics including case-finding, treatment initiation, adherence to treatment, reviews at 1, 5 and 10 years – derived from national guidance (NICE, NOGG, SIGN). As with the audits for diabetes, asthma, and COPD, audit results should be transparent and published on both primary care network and regional health body dashboards.^(14,22) New metrics around shared decision-making and communication with secondary services (e.g. FLS) were suggested to create a better, seamless patient experience.

A national patient survey, alongside a new audit of osteoporosis services, would provide a comprehensive picture of both patient experience and service quality, enabling targeted improvement. Audit of the whole osteoporosis pathway, including primary care, would support the development of new osteoporosis pathways locally and deliver more consistent and proactive care for patients.



The role of technology in prevention strategies

Digital technology can assist health professionals in identifying individuals at high risk of fracture who have not yet broken a bone (*primary prevention*) and those who have already broken a bone due to osteoporosis but who have not yet been assessed (*secondary prevention*).

Primary prevention using a population health approach

While a public health approach to cancer (prevalence: 3.5m people) and type-2 diabetes (prevalence 3.6m) is common, osteoporosis (prevalence 3.5m) is not routinely treated at population level to identify people at risk.

The Inquiry heard about the benefits of a population health approach to osteoporosis to identify people at high risk of fracture at population level before they have a fracture.^(1,4) Osteoporosis identification and management is an ideal candidate for a population health approach because:

- the risk factors for osteoporosis are well understood, allowing straightforward identification of people at high risk across a population, rather than waiting for fracture to occur.
- the burden of harm is large and preventable due to effective and evidence-based interventions.
- multiple opportunities for proactive prevention exist in both secondary and community-based care – such as falls prevention programmes, FLS case finding, and primary care risk stratification.
- each fracture prevented delivers significant savings to health and social care systems.

Focusing on osteoporosis as part of new integrated needs assessments in England would allow strategic commissioners for ICBs to address health inequalities, reduce admissions, and improve health outcomes. Proactive use of population health tools with shared information across different care organisations would enhance primary prevention efforts.⁽¹⁾



Northern Bone Health Programme

CASE STUDY

A population health research project was run centrally by clinical pharmacists and involved 59 GP practices and a population of half a million people in the North of England. Software was used to identify cohorts of patients at high risk of fracture through primary care records. Every patient record was automatically analysed, including more than 150,000 assessed using the FRAX® tool; the result was that 27,202 were found to be at high risk of fracture – many of whom had never been previously identified as such. Subsequently, more than 12,500 people with osteoporosis were started on life-changing treatment. Scaled up to the total population of the North (16 million people), the researchers involved in this project calculated that this approach could save the NHS over £35 million in direct costs and over £8.5 million in residential costs, with over £43.5 million in potential savings in health and social care over three years.⁽⁷⁾

AI-enabled secondary prevention

AI-enabled case-finding pilots are already being deployed in the UK. The application of automated algorithms in hospital systems flags patients who have had a fragility fracture. Primary care services are then immediately alerted to the need for assessment and treatment. In Australia, the INTERCEPT pilot is improving the role of primary care after someone has broken a bone by using AI to scan hospital radiology reports for potential osteoporotic fractures. An alert is then sent to the patient's primary care practice, and their GP is given management advice for the patient.⁽⁸⁾



CASE STUDY: SCOTLAND'S DIGITAL RED STAR FLS

Andrew Conkie, Founder and Chief Executive of Red Star (a digital healthcare company creating solutions for the NHS) gave evidence to this Inquiry. This award-winning, technology-driven platform is currently being used by NHS Greater Glasgow and Clyde, Scotland's largest Health Board and will begin operating in NHS Lothian in 2026. It plans to introduce AI to rapidly identify fragility fractures from clinical data later in 2026.^(9,10)

Andrew Conkie told this Inquiry, “[Under the previous FLS] It took up 50% of the nurses’ time just to identify the patients that they need to look at instead of actually administering clinical care to them...They went to the high-yield areas, like the hip fracture ward. That’s the last place you want to identify patients with osteoporosis. We want to get them earlier in the pathway. [When] we rolled out to minor injury units in hospitals and outpatient clinics, we found a significant uptick of patients with incidentally identified vertebral fractures – we are now processing twice as many vertebral fractures as is estimated for the population level.”

The platform:

- **Automatically detects** fragility fractures from clinical records and radiology reports within 72 hours.⁽³⁰⁾
- Provides a dashboard for clinicians with all relevant information, including radiology reports, DXA scans, previous treatment and blood results.
- From the dashboard, the clinician can select risk factors, click a button and generate an automated letter **to the patient and their GP**, including:
 - 1) fracture details
 - 2) recommended actions based on national guidelines and
 - 3) direct links to relevant pathways and referral forms.
- **Produces care plans** for both GPs and patients, ensuring timely follow-up and treatment initiation.

Implementation of the Red Star FLS has led to dramatic improvements in detection, treatment rates, and service efficiency, and is now being considered for national roll-out across other Scottish health boards. In 2026, it will provide an automated feed of audit data into the new Scottish Fracture Liaison Service audit (under the umbrella of the Scottish National Audit Programme, SNAP, run by Public Health Scotland). This burdensome task is typically undertaken manually by a member of staff.

Key results include:

- Reduction in the average time to identify patients with a fragility fracture from an average of 15 months to 3 days.⁽³⁰⁾
- Detection of spinal (vertebral) fractures at 202% of expected population-level estimates, uncovering more than twice the anticipated number.⁽²⁸⁾
- A 55% reduction in case-processing time, enabling faster, more efficient care and freeing up clinical capacity.

These outcomes demonstrate how digital automation and AI-enhanced workflows can transform secondary fracture prevention – delivering earlier intervention, improved patient outcomes, and more sustainable service models across Scotland.

“From a technical perspective, none of this is difficult. The challenges we find are to do with resources and prioritisation on the NHS side. You’re asking [NHS IT teams] to do something extra on top of their day-to-day job. They’re often focused on just keeping the wheels turning... and in some cases, firefighting, as the NHS becomes under strain. ”

Andrew Conkie, Oral Evidence to this Inquiry

Clinicians who gave evidence to this Inquiry reinforced the value of embracing AI-enabled technology to enhance identification. Dr. Fionna Martin, Consultant Physician and Geriatrician, Guy's and St Thomas' NHS Foundation Trust explained the logical imperative of exploiting the advantages of AI-case finding “We absolutely ought not to be wasting the skills of a specialist Band 7 nurse with a wealth of skills and knowledge [on case-finding]. It's an absolute no brainer.”

Technology to support case-finding at GP practice level

Few primary care health professionals are experts in bone health. They rely on digital tools, such as templates and embedded risk assessment tools, to support their decisions and deliver better care for patients.

The Inquiry heard how the accessibility of fracture risk tools varies across GP practices. The extent to which tools such as FRAX® and QFracture® are integrated in clinical systems, as buttons or prompts, depends on the templates installed locally by the IT team of the practice, primary care network, or regional body.^(14,22,31,32) Similarly, decision-making tools for clinicians (such as Ardens templates) are usually adopted at practice level.⁽³³⁾ Some primary care networks or regional health bodies encourage consistency by requiring or funding the use of certain templates, but this is not standardised beyond local boundaries.

Without automatic access to these digital tools, primary prevention is challenging. Opportunities are more likely to be missed, coding and documentation is more likely to be inconsistent (and therefore harder to audit or share across systems). Without full integration of digital tools, GP workflows will not automatically benefit from embedded guidelines, prompts and referral pathways. In practice, clinicians are often diverted by the need to move between multiple computer systems and criteria-checking tasks, which all detract from proactive case-finding and identification.

OUR ASSESSMENT

People with osteoporosis want their condition to be spotted earlier, for the NHS to actively look for people at risk, and for care to be better joined up between hospitals and GPs. They expect fracture risk checks to be part of routine NHS health checks, so that care shifts from treating broken bones to preventing them in the first place.

To make this happen, primary care needs stronger support, clear incentives and better digital tools to identify and manage osteoporosis risk before fractures occur. AI-driven case finding models present an exciting opportunity to improve rates of identification,

communicate better with patients and increase FLS capacity to focus clinical management of patients rather than administrative tasks. By expanding national audit, using population health data and AI to find people at risk, and embedding simple digital templates in GP systems, osteoporosis care and fracture prevention can be modernised and delivered consistently across the NHS.

RECOMMENDATIONS

Primary prevention

- 1) The four UK health administrations should introduce high fracture risk pilot programmes in primary care to test the feasibility and scope of dedicated enhanced services.
- 2) The UK health administrations (in England, Wales and Northern Ireland) or Health Boards (in Scotland) should introduce an Enhanced Service in primary care covering the identification and long-term management of people with osteoporosis and at high risk of fracture.
- 3) The Department of Health and Social Care in England should mandate that risk factors for osteoporosis and fracture are assessed in every NHS adult health check (in England), older adult care review and care home assessment to improve identification and strengthen primary prevention of fractures.

AUDIT

- 4) The UK health administrations should each introduce:
 - a national audit of osteoporosis management in primary care by mandating the extension of the existing FLS audit to encompass primary care services.
 - a national patient survey in osteoporosis care to provide patient insight, measure performance and drive meaningful improvement.

Case-finding, population health, and AI approaches to identification

- 5) Regional health bodies and primary care networks should adopt a population health approach to osteoporosis as part of strategic commissioning, using digital and AI-enabled technologies to identify people at risk of avoidable fractures.

Identification through primary care systems

- 6) Regional health bodies should ensure that fracture risk assessment tools and structured clinical decision-making templates are embedded in all primary care IT systems as a default.

MONITORING AND REVIEW

There is systemic under-treatment of people with osteoporosis due to variation in health services offered and a postcode lottery in access to medications.(13) Many people with osteoporosis either fail to start their prescribed medication, take it inconsistently, or stop early. This 'non-adherence' has a devastating impact on their health outcomes, including avoidable and devastating fractures.

Solutions to non-adherence need to be multi-faceted and patient-centred. Monitoring and review by a workforce with the skills, knowledge and experience are essential to allow people the opportunity to discuss concerns and share decisions around their treatment regimen.

BONEMED⁺ ONLINE

CASE STUDY: BoneMed Online

In May 2025, ROS launched a new free digital support service for people newly diagnosed with osteoporosis. This digital journey guides individuals through their first year after diagnosis, providing timely health information, practical tips, and advice to make informed decisions about their care.

The programme aims to empower and inform participants, supporting them to stay on treatment and manage their condition confidently over the long term. Participants complete a short survey about their medicine, attitudes to treatment, and beliefs about osteoporosis. Based on their responses, they receive tailored information over 12 months addressing their specific needs, beliefs, and common concerns. People are supported and encouraged to stay on treatment, and given confidence to live well with osteoporosis.

What people with osteoporosis told us

Over half of people hadn't been contacted by a healthcare professional about their condition in the past year – nearly 1 in 4 (23%) hadn't been contacted in over three years.

Only 30% of people are satisfied with how their condition is monitored – the majority feel unsupported and frustrated.

Responses to our Inquiry survey revealed a pervasive lack of monitoring in primary care of osteoporosis patients. Many individuals reported long gaps between DXA scans, minimal clinical engagement at diagnosis, and no scheduled follow-up.

"I have had no help from my GP following my diagnosis, apart from telling me that they were unable to interpret the DXA scan results and to tell me what bone drugs to take without talking me through them or discussing potential side effects... I have had compression fractures in my spine since the diagnosis and have mentioned my concerns to the surgery, but nothing further was done."

Clare, 61, lives in constant fear of moving in case she breaks something.

Monitoring is rarely proactive after diagnosis. Patients are commonly told to "come back in five years," with no interim checks or support. People described having to request scans themselves and having to deal with GPs who were unaware of when to stop or adjust medication. Even when fractures occur or scan results worsen, follow-up is inconsistent or absent.

“ I had to request a DXA scan at my GP as I hadn’t had a scan for more than 5 years. I also had to come off the Alendronic tablet myself after taking it for 5 years, as I read on the internet that it is advisable to do so. I don’t know who the experts are on osteoporosis in [Scottish health board]. ”

Morag, 74, was diagnosed over ten years ago

“ I was told when I had my DXA scan this would be repeated in 3-5 years, but this never happened. ”

Jane, 68

Health inequalities

Unlike other long-term conditions, such as asthma, hypertension, or thyroid disease – where annual reviews and routine blood tests are often system-triggered – osteoporosis care was shown to be largely passive and dependent on patient initiative. This creates a deeply inequitable system, where people with lower health literacy or other significant life demands are least likely to receive timely care – simply because the onus falls on them rather than health services.

“ I do not receive any help. I have a visual impairment, and I am caring for my wife, who has dementia. I feel we have been kicked into the long grass. I was supposed to have a zoledronic acid infusion... and I am still waiting. ”

Charles, 81, has had several fractures.

In our survey, satisfaction with care was much lower in deprived areas (28%) compared to more affluent areas (50%) – a stark sign of health inequality. Many factors play into health inequalities, such as GP shortages in deprived areas, higher levels of multimorbidity, lower health literacy, greater financial stress and more insecure employment, limiting people’s opportunities to attend medical appointments.⁽³⁴⁾ Markedly lower satisfaction in deprived areas is particularly concerning because previous research has shown that people living in deprived areas are at a heightened risk of fracture, with men in the most deprived areas 50% more likely to have a fragility fracture than those in the least deprived areas.⁽³⁵⁾

Follow-up for other long-term conditions

More than a quarter of people (28%) with osteoporosis alongside other long-term conditions said their other condition(s) received better support and monitoring.

Respondents to our survey highlighted how they had structured reviews for other long-term conditions, such as hypertension, while their osteoporosis care is characterised by the absence of any systematic follow-up, with people being ‘diagnosed and left’.

“ I have annual appointments relating to my hypertension and medication, but nothing on osteoporosis. ”

Julian, 70

The Inquiry survey and written evidence indicated the clear need for structured annual review of all osteoporosis patients, in line with other long-term conditions such as diabetes and asthma.^(14,36) People with osteoporosis need the opportunity to discuss their treatment, any side effects, comorbidities and lifestyle.

“ I have never had a conversation with a medical professional about my osteoporosis. The diagnosis came in a text from the GP, which read ‘DXA scan shows osteoporosis, take alendronic acid, prescription in pharmacy’! Decisions about treatment have been made without communication, and I have not had contact with any doctor or nurse about it. By way of contrast, I can easily contact the asthma team by phone or message if I need to, and they respond quickly and efficiently. ”

Marion, 67, has broken her wrist, rib and ankle – she doesn’t know who is in charge of her care



“ I think it is a disgrace to be given life-changing news via telephone by the clinical pharmacist. I was given no in-depth advice about osteoporosis, just told I had it and to take medication. No one took the time to discuss my situation. [In contrast] My asthma is controlled and I have reviews every 12 months. ”

Sarah is 62, works part-time and was diagnosed in 2025

Patient-held ‘Bone Health Management Plans’

“ Despite three fractures, I had to find out for myself how to investigate the possibility of osteoporosis... In one and the same phone call, the GP told me that I had osteoporosis and prescribed medication. Job done. At no time have I seen anyone face-to-face... I feel rather abandoned to my own care. ”

Sally, 75, diagnosed in 2023 after breaking both wrists and her shoulder.

Sally’s story reflects the all-too-common experience of abandonment many people with osteoporosis feel after their diagnosis, when ongoing support is minimal. Rather than offering a face-to-face appointment to discuss Sally’s osteoporosis, her treatment options and what to expect over the following years, she was dismissed and left to work out how to manage her condition alone.

The Royal College of General Practitioners stated that GPs should take responsibility for annual reviews, patient-held care plans, ongoing risk assessment and medication review, supported by IT software that creates automatic alerts in GP systems.⁽¹⁴⁾ They highlighted the need for people with osteoporosis to hold a digital or hard copy care plan, agreed following a shared decision-making process (see [Technology to support self-management](#)).⁽¹⁴⁾ This would reassure the patient, help to set expectations and should correspond with automatic prompts for medication reviews, follow-up scans, etc.

The Inquiry heard strong support for making better use of allied health professionals and advanced practice clinicians in osteoporosis care. Physiotherapists, nurses,

pharmacists and first contact practitioners already support diagnosis, education and long-term management in other conditions and could do the same for bone health, reducing pressure on GPs while improving access and continuity.

Digital support for follow-up

Osteoporosis care would benefit from IT-enabled pathways, including alerts for both clinician and patient regarding annual reviews and triggers for when something needs to be done.^(14,15,36) To avoid the risks associated with ‘patient-initiated follow-up’, reminders can be issued to patients at 16 weeks, annual review and at 5 years for bisphosphonate review. Alerts for patients could include (according to preference): text messages, emails, letters (for people without digital access) or phone calls for high-risk or hard-to-reach patients. All alerts should be automatically escalated with further nudges, telephone or face-to-face contact if patients do not respond to communications.

Shared decision-making

Clinicians need to involve people with osteoporosis in decisions about their treatment and focus care on what really matters to the patient. Our survey, however, revealed the widespread absence of shared decision-making between clinicians and patients. People told us that they had been prescribed medication without any discussion of risks, benefits, or alternatives, and often received their diagnosis via impersonal channels such as texts, phone calls or via a receptionist.

Many reported being denied opportunities to explore treatment options, especially when experiencing side effects or when concerned about contraindications. Some people reported being discharged immediately from specialist services after refusing a recommended drug treatment.

“ After I refused medication for osteoporosis (due to migraines), I have not received further help. I feel that the NHS is only interested in people who accept the [first] medication on offer. ”

Helen, 68, said that she wants her GP to take responsibility for her care.

Compared to other long-term conditions like asthma, cancer, or diabetes – where structured reviews and collaborative planning are the norm – the picture of osteoporosis care from the patient survey is reactive, dismissive and lacking empathy.



Irene lives in South Yorkshire, and gave oral evidence to this Inquiry.

Irene described a litany of missed opportunities to identify her condition. She suffered four fractures (including three in her spine) before being diagnosed and two further fractures before receiving appropriate treatment. She discovered on the NHS App that her first fracture had been coded as a fragility fracture at the time, but she was never told or assessed.

She encountered a low level of expertise at her GP practice, in marked contrast with her experience as someone with asthma: “I have mild asthma, and once a year I go to the asthma clinic to see the nurse to blow into a little tube and talk about my medication. But it’s completely under control. I have absolutely no concerns about my asthma whatsoever and could probably just contact them if I was worried about something.

I am *really* concerned about my osteoporosis because it is so severe. I know, first-hand, what multiple fractures in the spine is like. I discovered that I have had medication reviews, but I’ve never had a discussion with anybody. Nobody ever contacted me to see whether I was managing with the [osteoporosis] medication....There is no follow up at all.”

Irene described a tortuous route through primary care provision to seeing a specialist, including a four-month wait for a DXA scan, and a wait of 12-months for the results. Exasperated, she chose to move her care within the ICB. She was seen by a rheumatologist shortly after and prescribed an anabolic treatment. “I thought, that’s where I should have been five years ago, but actually I had to wait for more fractures.”

OUR ASSESSMENT

Lack of structured monitoring and review of people with osteoporosis over the long term is contributing to missed opportunities for effective fracture prevention. People with osteoporosis are being left with unmanaged side effects and an understandable sense of abandonment. Monitoring of osteoporosis patients would be strengthened by introducing structured reviews and automating alerts for follow-up and repeat scans. Putting all of this, along with information and signposting, into people’s hands in the form of a personalised ‘Bone Health Management Plan’ would go a long way to restoring patient confidence – allowing them to engage in their own care rather than feeling adrift after diagnosis.

RECOMMENDATIONS

- 7) Regional health bodies and/or primary care networks should ensure that:
 - a. every person with osteoporosis has a personalised, patient-held ‘**Bone Health Management Plan**’
 - b. digital technologies that automate follow-up and review of osteoporosis patients are fully integrated into primary care systems as default.
 - c. training in personalised care and shared decision-making is promoted as a core component of the osteoporosis pathway.
- 8) New Enhanced Services (see recommendation 2) should include provision of bone health follow-up clinics in the community with a specialist point of contact for patients.

MULTI-DISCIPLINARY PATHWAYS TO BETTER CARE

An integrated care pathway is a structured, evidence-based plan for managing a patient's care across primary, secondary, and community settings. It ensures consistency, reduces variation, and improves communication between services while being centred on the patient's needs. A defined care pathway can demonstrate to patients what the role is of a healthcare professional at any time during their care, for example, how a physiotherapist can help them to develop muscle strength and balance. It can also include details of local voluntary and care services that can support patients at different points, depending on the stage of their condition.

There is currently no requirement for a regional health body to have a formal clinical pathway for osteoporosis despite the significant pressures, including cost pressures, that the condition places on multiple parts of the health services, and the inequities that patients experience.

What people with osteoporosis told us

People with osteoporosis told us about their experience of fragmented care in the absence of a defined and coordinated care pathway.

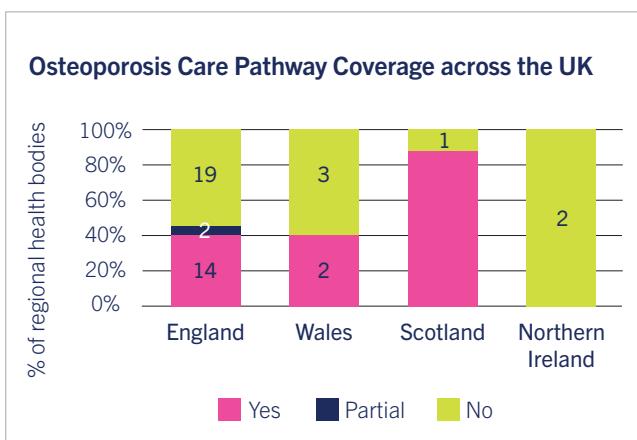
“ The specialist clinic at [the hospital] has discharged me because I did not want to take bisphosphonates. My last DXA was requested by my GP, and she requested that the hospital review it, but nobody got back to me. ”

Judy, 65, feels that she is in charge of coordinating her osteoporosis care, although she would like this responsibility to rest with a specialist

People who were identified and managed by a Fracture Liaison Service (FLS) told us how oversight fell away after 12 months when their care was handed over to their GP in the absence of a defined handover protocol.

Our Freedom of Information Request

As part of this Inquiry, an FOI request was submitted to all Integrated Care Boards, Health Boards, and Health and Social Care Boards across the UK to ask whether they had a care pathway for osteoporosis patients spanning hospital, community and primary care.



Across the whole of the UK, half (25/50) of regional health bodies did not have a defined osteoporosis care pathway spanning secondary and community care, and many had no plans to develop one. The impact on patients can be seen in the evidence to this Inquiry from people with osteoporosis, as clearly demonstrated in the previous chapter.

The best practice by country was in Scotland where there is near-universal coverage of osteoporosis pathways aligned with the osteoporosis guideline published by the Scottish Intercollegiate Guidelines Network and supported by the digital Right Decisions Support Service (RDS).

^(11,37) Pockets of good practice were identified in England, such as the South East London ICB, which published a detailed and structured pathway for osteoporosis patients that covers diagnosis, treatment, glucocorticoid-induced osteoporosis and multiple advanced therapies.⁽³⁸⁾

Developing integrated osteoporosis care pathways

In their submission, the Royal College of Nursing (RCN) recommended the development of integrated pathways for osteoporosis that sequence the key touchpoints of care – such as diagnosis, treatment decisions, and annual review – and clarify responsibilities across settings.⁽³⁹⁾ They recommended that integrated pathways should be co-designed with people with lived experience and explicitly identify and address current weaknesses, such as poor communication or missed follow-up.⁽³⁹⁾ The Society of Radiographers proposed a national steering group of stakeholders – including patient representatives – to oversee and support local delivery, develop a standardised pathway, and enhance communication between professional groups.⁽⁴⁰⁾ There are good precedents for pathway development by national working groups, such as the Getting It Right First Time programme's Non-Ambulatory *Fragility Fracture Pathway*.⁽⁴¹⁾ However, for the most part, these focus on secondary care and still need promotion to achieve better take-up.

Leadership, both national and regional, is particularly important in osteoporosis care due to the large number of specialties involved. These include rheumatology, endocrinology and metabolic bone specialists, emergency medicine, geriatric medicine, radiology, orthopaedics and others. Fragmentation of clinical responsibility due to the number of specialties involved has historically made service improvement in osteoporosis care more challenging.

This Inquiry heard oral evidence from several clinicians and health professionals working in rheumatology, endocrinology, pharmacy and geriatric medicine within the South East London ICS. Alongside other stakeholders from all areas of the osteoporosis pathway, both secondary and primary care, they collaborated to produce a comprehensive treatment pathway for patients with osteoporosis to try to tackle the inequities across the six boroughs within their ICS.⁽⁴²⁾

Professor Emma Duncan, Honorary Consultant at Guy's and St Thomas' and Professor of Clinical Endocrinology at King's College, London, explained how the process of developing the pathway had been enriched by the diversity of knowledge across all the stakeholders “We have a common aim...to stop fractures and to improve healthy ageing, and we can achieve much more through collaboration than we can by ownership.”

A multi-disciplinary approach

The RCN highlighted how nurses are currently an underused asset in osteoporosis care, though their involvement may require additional training and support. In an ideal, integrated care pathway, patients would benefit from a multidisciplinary team that draws on the expertise of a range of healthcare professionals with complementary skills, including specialist consultants, nurses, physiotherapists, dietitians, pharmacists and others.

Models from other long-term conditions demonstrate the potential of integrated, multi-disciplinary working. By sharing responsibility for patients, people can receive more holistic care, while sharing the burden of care coordination. For example, using the template of the NHS Hypertension Case-Finding Service, community pharmacists could be commissioned to case-find people at high risk of fracture.⁽¹²⁾ In one Primary Care Network, occupational therapists were already conducting fracture risk assessments and referring patients to GPs for review – an approach that could be expanded nationally.⁽⁴⁴⁾

OUR ASSESSMENT

Integrated osteoporosis care pathways that embed multi-disciplinary teamwork would bridge the gaps from diagnosis to long-term management of osteoporosis. This approach could ensure greater continuity, reduced variation, and better patient-centred care across the system. Leadership, at both national and regional levels, is essential to improve osteoporosis care, which is currently characterised by an accountability vacuum in the absence of regional or national leadership to facilitate and drive quality improvement.

RECOMMENDATIONS

- 9) The four UK health administrations should create a national steering group with stakeholders from primary and secondary care and professional bodies representing all disciplines. This group should support the development of comprehensive osteoporosis pathways by regional health bodies.
- 10) Regional health bodies should develop an integrated care pathway for people with osteoporosis across secondary, community and primary care by adopting an existing best practice pathway or convening a multidisciplinary working group (including primary, community, secondary and lived experience representatives) to co-design one.

PROMOTING KNOWLEDGE AND SELF-MANAGEMENT

“ My previous GP gave me an osteoporosis diagnosis by text and told me to check the internet for information. ”

Julie, 63

What people with osteoporosis told us

In their responses to our survey, respondents show high levels of motivation and willingness to self-manage their condition; however, less than half of people (48%) are confident to do so.

Only 15% of people reported being signposted to helpful resources by a health professional.

People with osteoporosis face barriers to the specialist expertise they want, as specialists in secondary services are hard to access and primary-care professionals often lack the time or specialist knowledge to provide this support.

“ I only received medication on diagnosis, with no further information at all from my GP about osteoporosis. At diagnosis, I had questions about appropriate and inappropriate exercise, but got a pretty limited response from my GP. I did my own research and continue to do so. ”

Judy, 74, broke a bone in her foot.

“ I went on an open day for osteoporosis at the hospital, only because I saw a poster, when at the hospital for something else. Why didn’t GP or hospital notify patients? ”

Esther, 74

“ No one seems interested in my osteoporosis, but they X-rayed me and followed up on my osteoarthritis and gave me detailed advice and information for that. ”

Celia, 62, was diagnosed in the last three years.

People who were motivated to improve their bone health through diet and exercise could not get the information they needed from health professionals. Clinicians either lacked knowledge or were almost exclusively focused on medication. In the absence of this support, people opted not to exercise for fear of causing a fracture, despite the known benefits to their bone health.

“ There should be more information for people who are active and sporty about how to adapt exercise. There isn’t enough emphasis on exercise for preventing/managing the condition. ”

Chloe, 62

“ I have been left completely on my own, except being prescribed bisphosphonates and told to return to the doctors in 5 years. I paid for a dietitian and exercise coach as I was told there was no help for me. ”

Karen, 65



Structured education programmes

“ I think that everyone diagnosed with osteoporosis should be given a course on how to manage it including diet and exercise. ”

Christine, 72

Structured education programmes for long-term conditions, such as diabetes or respiratory diseases, are organised courses designed to help people better understand their condition and empower them to manage it well. They provide evidence-based information about treatment, lifestyle changes, self-management skills and coping strategies. These programmes are usually delivered by trained healthcare professionals, either in groups, one-to-one, or online and often include practical demonstrations and peer support. Access is typically arranged through a specialist nurse, GP or other local health service. Many areas currently offer free NHS-approved programmes for diabetes and pulmonary rehabilitation courses for chronic respiratory conditions.

“ I have a diagnosis of pre-diabetes and was given support by a health worker in my GP surgery. They referred me to a dietitian-run pre-diabetes course for 8 x 2-hour sessions. ”

Julie, 68, does not know who to contact if she has any questions about her osteoporosis

Respondents to our survey reported that while they receive good information and patient education for their other health conditions, their osteoporosis is comparatively unsupported.

“ My friend has diabetes and was sent on a course to learn how to manage it. With osteoporosis, I just got a leaflet. ”

Claire, 69

“ So much wonderful support for my cancer treatment, the only advice I got for my osteoporosis was ‘Don’t trip over’. Being able to speak to a specialist nurse at the ROS was such a relief but I had to seek that out. ”

Rachel, 67, was diagnosed with osteoporosis recently.



In their written evidence, both the Royal College of GPs and the Royal College of Nursing recommended the development and roll-out of national structured education programmes for people with osteoporosis, highlighting the success of evidence-based programmes for diabetes, asthma, and pulmonary diseases.^(14,39)

Digital resources for self-management

Digital tools are playing an increasingly important role in empowering people to understand, monitor and self-manage long-term conditions. The Government recently announced the launch of *Diagnosis Connect*, a new digital signposting service designed to connect patients with specialist charities offering helplines, health information, support groups and other services.⁽⁴⁵⁾ In the first two years, the service will focus on diabetes, mental health and lung conditions, but its scope could be expanded to include osteoporosis. Given the significant unmet support needs described by people with osteoporosis, *Diagnosis Connect* represents a clear opportunity to improve the patient experience.

Each UK nation operates its own version of the NHS App. This Inquiry has primarily focused on England’s NHS App (as the most advanced iteration). National health policy is focused on developing it into a key self-management tool for patients, though it has yet to deliver significant improvements in patient experience.⁽¹⁸⁾ Many long-term conditions are increasingly being managed with digital tools – such as diabetes apps and asthma monitoring platforms – and so the NHS App has the potential to be a transformative, prevention-focused tool in everyone’s pocket. Its utility will depend to a large extent on its seamless integration with the emerging Single Patient Record, which will bring together all relevant health records, including GP records, hospital data, test results and correspondence.⁽⁴⁶⁾

Features could include:

- results in plain English, reminders, digital care plans and referrals.
- lifestyle advice and signposting to community exercise programmes (such as Good Boost⁽⁴⁷⁾, ESCAPE-pain⁽⁴⁸⁾, Move it or Lose it^{® (49)}). This could be integrated with *Diagnosis Connect* in England (part of the Government's Plan for Change) or NHS Inform in Scotland.^(45,50,51)
- embedded access to the ROS osteoporosis risk checker.
- access to specialist advice
- signposting information to falls-prevention services

Caution was expressed to this Inquiry about the NHS App's current capabilities. Some information currently on the app is unsuitable for lay people, such as DXA reports. One suggestion is for the NHS App to include a 'What this means' layer, codesigned with patients, after any technical information, with links to relevant charities' advice, such as that offered by the Royal Osteoporosis Society.⁽⁴⁶⁾ Currently, information on the app cannot be filtered by condition, which makes it far less user-friendly, especially for people with multiple conditions. Information availability is still fragmented and depends on where you live.

“ I can't access bone scan X-rays on my iPad through the NHS App, only T-numbers, which don't give explanations as to what they mean. ”

Sarah, 57

Current app development risks replicating the historical siloes between general practice and specialist services, presenting information in ways that reflect organisational boundaries rather than a person's whole clinical journey – such as 'My specialist' and 'My GP health record'. This may discourage integrated, multi-disciplinary care. Instead, the app must be designed from the patient perspective, to provide intuitive, condition-specific support pathways that allow people to access shared records (in time, the single patient record), advice and monitoring tools, reducing people's experience of fragmentation and improving the sense of continuity of care.^(18,46)

What people with osteoporosis told us about the NHS App

48% of people who responded used an NHS App.

Only 15% had used it to access test results or condition-specific health information.

“ Face-to-face appointments with the specialist nurse are good, but she doesn't respond to questions via the NHS App, although she said she would. It's left me feeling very anxious. ”

Sarah, 70, has broken a bone in her foot and was diagnosed in the last three years.

“ The NHS App in Wales is rubbish and is not up to the standard of the English NHS App. ”

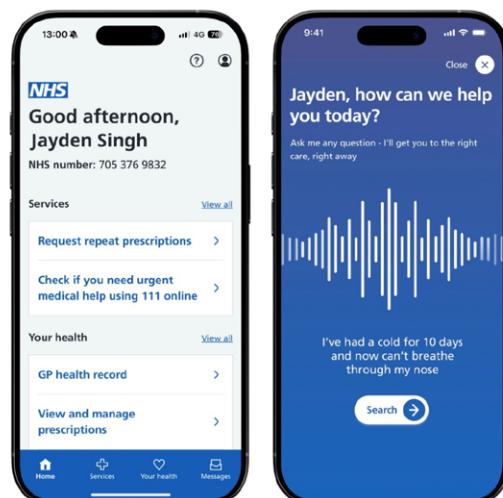
John, 79, feels let down by NHS care provision.

“ My osteoporosis is not recorded on my NHS App despite my requests. ”

Sarah, 57

Use of NHS Apps varied significantly across the UK, with the highest adoption in England (77%), but significantly lower in Wales (53%) and Northern Ireland (30%). This may be a promising indicator that the more advanced the functionality of the app, the greater the uptake.

The current NHS App, and what a best-in-class version could look like



Source: Tony Blair Institute for Global Change. Used with permission.

OUR ASSESSMENT

People with osteoporosis are motivated to manage their condition but are not empowered by health services with specialist support, health information resources or structured education. Healthcare focuses, almost exclusively in some cases, on prescription of osteoporosis medication, leaving significant gaps in support around dietary, exercise, lifestyle and self-management advice. Many people described feeling unsupported or abandoned to manage their condition alone. Structured education programmes and targeted supported self-management strategies have proven effective in other long-term conditions and are urgently required to empower patients with osteoporosis and reduce health inequalities. The respective NHS Apps have the potential to transform self-management if they become a genuinely person-centred and integrated interface that is accessible to all.

RECOMMENDATIONS

Patient education

- 11) The four UK health administrations should commission national structured education programmes for people with osteoporosis.

Digital tools and resources

- 12) The Department of Health and Social Care should expand *Diagnosis Connect* to cater for people diagnosed with osteoporosis at the earliest opportunity.
- 13) The four UK health administrations should work towards achieving a patient-friendly interface in the NHS App, including features such as: condition-specific dashboards to view all information, results and reminders in one place; lay interpretations of results – ‘*What this means*’ and the capacity for push notifications and motivational tools to encourage adherence to osteoporosis medication and lifestyle changes.



CONCLUSION

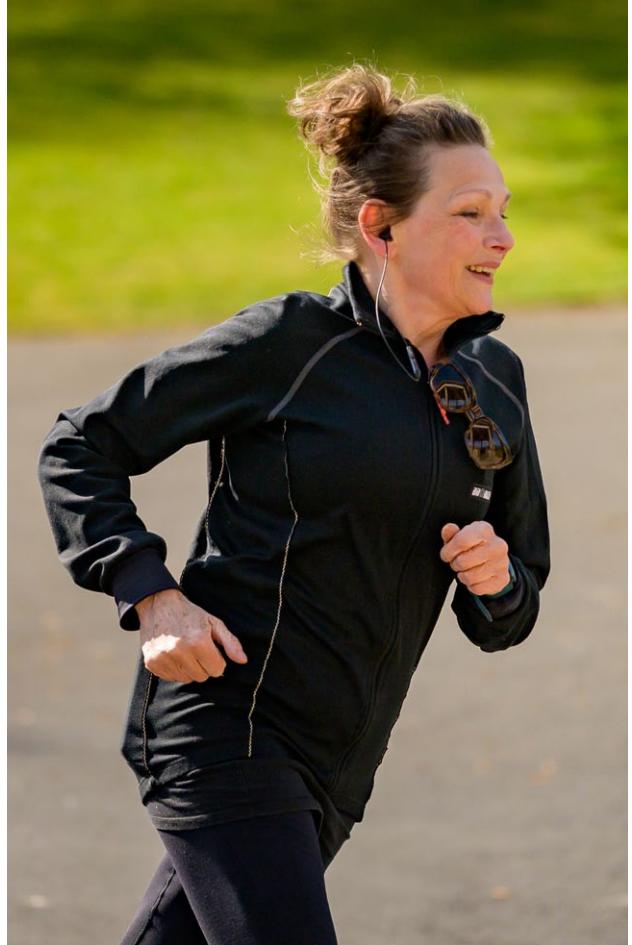
Strategic shifts in the NHS towards earlier intervention, prevention, digital transformation and increasingly community-based care, provide a real opportunity to improve the healthcare experience of people with osteoporosis. Political commitment to fracture prevention through universal provision of FLS across the UK has emphatically demonstrated this and marks a step-change in care. While we wait for FLS services to be delivered, progress can be made now to support and complement them. Fracture prevention in the community is another major, underexploited lever to improve healthy life expectancy, reduce the economic burden on the NHS and improve the experience of many thousands of people with osteoporosis.

Our Inquiry has revealed that patient experience across the osteoporosis care pathway is fragmented, inconsistent and poor in many cases. Healthcare provision for osteoporosis in primary care, where responsibility for most people with osteoporosis lies, was described by several contributors to this Inquiry as 'non-existent.' A lack of skills and expertise, reinforced by limited access to postgraduate training and continuing professional development in osteoporosis, poor transfers of care from secondary services, and competing priorities are undermining provision.

A particularly troubling theme to emerge from this Inquiry has been the sense of abandonment felt by many people with osteoporosis as a result of the lack of clinical ownership of their condition. In many respects, this problem is echoed at regional and national levels, where responsibility for osteoporosis care remains similarly diffuse. This leads to systemic gaps that contribute to the widespread undertreatment of osteoporosis – two-thirds of eligible people are missing out on treatment that would help them to avoid broken bones. Instead, healthy life expectancy is reduced, and many people face a shortened life as a result.

This Inquiry finds that the major shift underway in secondary prevention – through the commitment to universal FLS – would be best supported by strengthening osteoporosis care in the community. With a proactive approach, services can identify people at high risk of fracture, provide effective monitoring, and offer a named professional to guide and support them. Decisions around a person's care can be reached through shared decision-making with clinicians with clear expectations for future care, including repeat scans and medication reviews. Digital tools can enhance people's sense of agency by providing the personalised resources and support they need to self-manage their condition.

A seamless, integrated and multi-disciplinary care pathway – spanning primary and secondary fracture prevention, diagnosis, and long-term management – will ultimately improve outcomes for people with osteoporosis and reduce the financial burden on the NHS and social care.



SUMMARY OF RECOMMENDATIONS

Identification and Diagnosis

- 1) The four UK health administrations should introduce high fracture risk pilot programmes in primary care to test the feasibility and scope of dedicated enhanced services.
- 2) The UK health administrations (in England, Wales and Northern Ireland) or Health Boards (in Scotland) should introduce an Enhanced Service in primary care covering the identification and long-term management of people with osteoporosis and at high risk of fracture.
- 3) The Department of Health and Social Care in England should mandate that risk factors for osteoporosis and fracture are assessed in every NHS adult health check (in England), older adult care review and care home assessment to improve identification and strengthen primary prevention of fractures.
- 4) The UK health administrations should each introduce:
 - a. a national audit of osteoporosis management in primary care by mandating the extension of the existing FLS audit to encompass primary care services.
 - b. a national patient survey in osteoporosis care to provide patient insight, measure performance and drive meaningful improvement.
- 5) Regional health bodies and primary care networks should adopt a population health approach to osteoporosis as part of strategic commissioning, using digital and AI-enabled technologies to identify people at risk of avoidable fractures.
- 6) Regional health bodies should ensure that fracture risk assessment tools and structured clinical decision-making templates are embedded in all primary care IT systems as a default.

Monitoring and Review

- 7) Regional health bodies and/or primary care networks should ensure that:
 - a. every person with osteoporosis has a personalised, patient-held **'Bone Health Management Plan.'**
 - b. digital technologies that automate follow-up and review of osteoporosis patients are fully integrated into primary care systems as default.

- c. training in personalised care and shared decision-making is promoted as a core component of the osteoporosis pathway.

- 8) New Enhanced Services (see recommendation 2) should include provision of bone health follow-up clinics in the community with a specialist point of contact for patients.

Multi-disciplinary Pathways to Better Care

- 9) The four UK health administrations should create a national steering group with stakeholders from primary and secondary care and professional bodies representing all disciplines. This group should support the development of comprehensive osteoporosis pathways by regional health bodies.
- 10) Regional health bodies should develop an integrated care pathway for people with osteoporosis across secondary, community and primary care by adopting an existing best practice pathway or convening a multidisciplinary working group (including primary, community, secondary and lived experience representatives) to co-design one.

Promoting Knowledge and Self-Management

- 11) The four UK health administrations should commission national structured education programmes for people with osteoporosis.
- 12) The Department of Health and Social Care should expand *Diagnosis Connect* to cater for people diagnosed with osteoporosis at the earliest opportunity.
- 13) The four UK health administrations should work towards achieving a patient-friendly interface in the NHS app, including features such as: condition-specific dashboards to view all information, results and reminders in one place; lay interpretations of results – *'What this means'* and the capacity for push notifications and motivational tools to encourage adherence to osteoporosis medication and lifestyle changes.

Bibliography

1. The International Osteoporosis Foundation. Broken Bones, Broken Lives: A roadmap to solve the fragility fracture crisis in the United Kingdom. 2018.
2. Svedbom A, Hernlund E, Ivergård M, Compston J, Cooper C, Stenmark J, et al. Osteoporosis in the European Union: a compendium of country-specific reports. *Arch Osteoporos.* 2013 Dec 1;8(1–2):137.
3. Baji P, Patel R, Judge A, Johansen A, Griffin J, Chesser T, et al. Organisational factors associated with hospital costs and patient mortality in the 365 days following hip fracture in England and Wales (REDUCE): a record-linkage cohort study. *Lancet Healthy Longev* [Internet]. 2023 Aug 1 [cited 2024 Dec 4];4(8):e386–98. Available from: <http://www.thelancet.com/article/S2666756823000867/fulltext>
4. Kanis JA, Norton N, Harvey NC, Jacobson T, Johansson H, Lorentzon M, et al. SCOPE 2021: a new scorecard for osteoporosis in Europe. *Arch Osteoporos.* 2021 Dec 1;16(1).
5. Lane Clark & Peacock LLP on behalf of the Royal Osteoporosis Society. Quantifying the economic impact of osteoporotic fractures in the working age population. 2024.
6. Murphy T, Culliford DJ, Hawley S, Johansen A, Whitehouse MR, Judge A, et al. Hip fracture projections up to the year 2060: an analysis based on data from the National Hip Fracture Database (NHF) for England, Wales, and Northern Ireland. *Injury* [Internet]. 2024 Nov 1 [cited 2025 Oct 31];55(11):111863. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S0020138324005928>
7. National Audit Office. Primary and community healthcare support for people living with frailty. HC 1518. Department of Health & Social Care and NHS England. [Internet]. London; 2025 Dec [cited 2025 Dec 7]. Available from: <https://www.nao.org.uk/reports/primary-and-community-healthcare-support-for-people-living-with-frailty/>
8. Doyle C, Lennox L, Bell D. A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *BMJ Open* [Internet]. 2013 Jan 1 [cited 2025 Oct 11];3(1):e001570. Available from: <https://bmjopen.bmjjournals.com/content/3/1/e001570>
9. Dr. Sunil Nedungayil GP - Clinical Director for the MSK services in East Lancashire SCL for the F and FFAPRC of Physicians. Oral evidence to the Inquiry.
10. Kanis JA, Johansson H, Harvey NC, others. An assessment of intervention thresholds for very high fracture risk applied to the NOGG guidelines. *Osteoporos Int.* 2021;32:1951–60.
11. Scottish Intercollegiate Guidelines Network (SIGN), Healthcare Improvement Scotland. SIGN142. Management of osteoporosis and the prevention of fragility fractures - A national clinical guideline [Internet]. 2020 [cited 2022 Jan 14]. Available from: <https://www.sign.ac.uk/media/1741/sign142.pdf>
12. National Institute for Health and Care Excellence (NICE). Fractures (non-complex): assessment and management NICE guideline [NG38] [Internet]. 2017 [cited 2022 Jan 6]. Available from: <https://www.nice.org.uk/guidance/NG38/chapter/Recommendations#initial-pain-management-and-immobilisation>
13. Royal Osteoporosis Society. APPG on Osteoporosis and Bone Health Inquiry Report: Fracture Prevention and Osteoporosis in Primary Care. [Internet]. Bath; 2022 Nov [cited 2025 Jun 26]. Available from: <https://strwebprdmedia.blob.core.windows.net/media/vxuhotlh/appg-on-osteoporosis-and-bone-health-inquiry-report-into-primary-care-2022.pdf>
14. Royal College of General Practitioners. Written evidence to the Inquiry.
15. Northern Health Science Alliance. Written evidence to the Inquiry.
16. The Scottish Government. Scotland's Population Health Framework 2025-2035 [Internet]. 2025 [cited 2025 Oct 1]. Available from: <https://www.gov.scot/publications/scotlands-population-health-framework/>
17. Scottish Government. NHS Scotland operational improvement plan [Internet]. <https://www.gov.scot/publications/ecosystem-restoration-code-engagement-paper/>. 2025 [cited 2025 Oct 1]. Available from: <https://www.gov.scot/publications/nhs-scotland-operational-improvement-plan/>
18. Department of Health & Social Care, Prime Minister's Office, UK Government. Fit for the future: 10 Year Health Plan for England (CP 1350) [Internet]. London: HM Stationery Office; 2025 [cited 2025 Sep 21]. Available from: <https://www.gov.uk/government/publications/10-year-health-plan-for-england-fit-for-the-future>
19. Welsh Government. A Healthier Wales: our Plan for Health and Social Care [Internet]. 2021 [cited 2024 Dec 2]. Available from: <https://www.gov.wales/sites/default/files/publications/2021-09/a-healthier-wales-our-plan-for-health-and-social-care.pdf>
20. Welsh Government. NHS Wales planning framework 2025 to 2028 [Internet]. 2025 [cited 2025 Oct 1]. Available from: <https://www.gov.wales/nhs-wales-planning-framework-2025-2028>
21. Department of Health, Northern Ireland Executive. Health and Social Care NI - Three Year Plan [Internet]. 2024 [cited 2025 Oct 1]. Available from: <https://www.health-ni.gov.uk/publications/health-and-social-care-ni-three-year-plan>
22. Faculty of Public Health. Written evidence to the Inquiry. 2025.
23. Department of Health and Social Care. Major NHS update brings menopause into routine health checks - GOV.UK [Internet]. 2025 [cited 2025 Nov 2]. Available from: <https://www.gov.uk/government/news/major-nhs-update-brings-menopause-into-routine-health-checks>
24. National Diabetes Audit Programme - NHS England Digital [Internet]. [cited 2025 Oct 1]. Available from: <https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit>
25. The National Respiratory Audit Programme (NRAP) | RCP [Internet]. [cited 2025 Oct 1]. Available from: <https://www.rcp.ac.uk/improving-care/national-clinical-audits/the-national-respiratory-audit-programme-nrap>
26. Northern Health Science Alliance. Interactive toolkit launched for bone health project - The Northern Bone Health Project [Internet]. [cited 2025 Oct 1]. Available from: <https://www.thenhsa.co.uk/2022/03/interactive-toolkit-launched-highlighting-successful-bone-health-project/>

27. Wang M, Knight A, Demeshko A, Girgis CM, Bolton P, Das A, et al. Integrated model of secondary fracture prevention in primary care (INTERCEPT): protocol for a cluster randomised controlled multicentre trial. *BMC Primary Care* [Internet]. 2024 Dec 1 [cited 2025 Oct 1];25(1):1–10. Available from: <https://bmcprimcare.biomedcentral.com/articles/10.1186/s12875-024-02601-3>

28. Red Star AI. Red Star Digital FLS Solution Gains Momentum across Scotland [Internet]. 2025 [cited 2025 Oct 1]. Available from: <https://redstar.ai/2025/04/14/red-star-digital-fls-solution-gains-momentum-across-scotland/>

29. Conkie A. Futurescot. 2024 [cited 2025 Oct 1]. Red Star: Revolutionising Fracture Care in NHS Scotland. Available from: <https://futurescot.com/red-star-revolutionising-fracture-care-in-nhs-scotland/>

30. O'Sullivan K. <https://futurescot.com>. 2025 [cited 2025 Oct 27]. Glasgow healthcare AI company scoops award for transforming fracture care. Available from: https://futurescot.com/glasgow-healthcare-ai-company-scoops-award-for-transforming-fracture-care/?utm_source=chatgpt.com

31. Centre for Metabolic Diseases (University of Sheffield UK). FRAX® [Internet]. [cited 2024 Feb 19]. Available from: <https://www.fraxplus.org/>

32. ClinRisk Ltd. QFracture® [Internet]. [cited 2024 Oct 18]. Available from: <https://qfracture.org/>

33. Ardens Healthcare Informatics. Osteoporosis : Ardens EMIS Web [Internet]. [cited 2025 Oct 8]. Available from: <https://support-ew.ardens.org.uk/support/solutions/articles/31000161182-osteoporosis>

34. Arthritis and Musculoskeletal Alliance (ARMA). Act Now: Musculoskeletal Health Inequalities and Deprivation. 2024 Mar.

35. Avgerinou C, Petersen I, Clegg A, West RM, Osborn D, Walters K. Trends in incidence of recorded diagnosis of osteoporosis, osteopenia, and fragility fractures in people aged 50 years and above: retrospective cohort study using UK primary care data. *Osteoporos Int* [Internet]. 2023 Aug 1 [cited 2025 Nov 5];34(8):1411–27. Available from: <https://pubmed.ncbi.nlm.nih.gov/37162537/>

36. Rheumatology consultant DrKM. Written evidence to the Inquiry.

37. Digital Health and Care Innovation Centre. The Right Decision Support Service (RDS) [Internet]. [cited 2025 Nov 2]. Available from: [https://www.dhi-scotland.com/projects/the-right-decision-support-service-\(rds\)](https://www.dhi-scotland.com/projects/the-right-decision-support-service-(rds))

38. South East London Integrated Medicines Optimisation Committee. South East London Osteoporosis Treatment Pathway. 2023.

39. Royal College of Nursing. Written evidence to the Inquiry.

40. Society of Radiographers. Written evidence to the Inquiry.

41. NHS England. Non-ambulatory fragility fracture (NAFF) pathway aims to ensure patients with similar needs receive good and equitable care. Getting It Right First Time (GIRFT). [Internet]. 2024 [cited 2025 Nov 14]. Available from: <https://gettingitrightfirsttime.co.uk/non-ambulatory-fragility-fracture-naff-pathway-aims-to-ensure-patients-with-similar-needs-receive-good-and-equitable-care/>

42. South East London Integrated Medicines Optimisation Committee. South East London osteoporosis treatment pathway: guideline summary [Internet]. London: NHS South East London Integrated Care System; 2023 [cited 2025 Dec 8]. Available from: <https://www.selondonics.org/download/9303/?tmstv=1765203927>

43. Community Pharmacy England. Hypertension Case-Finding Service [Internet]. [cited 2025 Oct 1]. Available from: <https://cpe.org.uk/national-pharmacy-services/advanced-services/hypertension-case-finding-service/>

44. Northwich Primary Care Network. Written evidence to the Inquiry.

45. Department of Health and Social Care. Patients with long-term conditions to receive help from charities [Internet]. 2025 [cited 2025 Nov 2]. Available from: <https://www.gov.uk/government/news/patients-with-long-term-conditions-to-receive-help-from-charities>

46. Tony Blair Institute for Global Change. The NHS at a Crossroads: The App That Can Transform Britain's Health [Internet]. 2025 Aug [cited 2025 Oct 6]. Available from: <https://institute.global/insights/public-services/the-nhs-at-a-crossroads-the-app-that-can-transform-britains-health>

47. Good Boost. Home [Internet]. 2024 [cited 2025 Dec 7]. Available from: <https://www.goodboost.ai/>

48. ESCAPE-pain. Homepage: An evidence-based group rehabilitation programme for people with chronic joint pain [Internet]. 2025 [cited 2025 Dec 7]. Available from: <https://escape-pain.org/>

49. Move it or Lose it. Home [Internet]. 2025 [cited 2025 Dec 7]. Available from: <https://www.moveitorloseit.co.uk/>

50. Prime Minister's Office. Build an NHS Fit For the Future [Internet]. [cited 2025 Nov 2]. Available from: <https://www.gov.uk/missions/nhs>

51. NHS Inform. Osteoporosis [Internet]. 2025 [cited 2025 Nov 2]. Available from: <https://www.nhsinform.scot/illnesses-and-conditions/muscle-bone-and-joints/conditions-that-can-affect-multiple-parts-of-the-body/osteoporosis/>



The All-Party Parliamentary Group on Osteoporosis and Bone Health intends to raise awareness of osteoporosis amongst parliamentarians and to influence legislation and policy makers to improve the lives of people living with the condition.

Chair: Sonia Kumar MP

Co-Chair: Lord Black of Brentwood

Vice Chairs: Matt Bishop MP, Baroness Chisholm of Owlpen

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