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Introduction

Osteoporosis New Zealand is half way through driving a transformational change in the way bone health is promoted in New Zealand.

Our strategic plan describes the significant progress that we have made and critically highlights what is yet to be done.

Together we can prevent the effects of osteoporosis on our community, friends and family through awareness and funding.

We would appreciate your support to make this happen.

Osteoporosis is a serious problem

Fractures caused by osteoporosis can be life-threatening and a major cause of pain and long-term disability.

At least 1 in 3 women & 1 in 5 men will suffer from an osteoporotic fracture during their lifetime.

At least 4,000 hip fractures occur in NZ each year

50% of people who break their hip have previously broken another bone

LESS THAN 50% return to full mobility post hip fracture

25% will enter long-term residential care

25% will suffer a premature death

We are living longer thus we need to make sure our skeleton lasts the distance.

Bones can stay healthy and strong

- Lifestyle modifications can improve bone health
- Safe and effective treatments are available
- Anyone over 50 who has broken a bone as a result of a minor fall or injury needs to have a bone health assessment
- It’s never too late to take action – the time to manage bone health is now

Fractures caused by osteoporosis can be life-threatening and a major cause of pain and long-term disability.
About Osteoporosis

Bone Health

Bone is a dynamic tissue that is constantly being remodelled.

Maximum (peak) bone density and strength is reached in adult life generally around age 30. As we age bone mass begins to decline naturally. The risk of bone fractures (breaks and/or cracks) increases, exponentially with age.

Osteoporosis is a condition characterised by low bone mass and deterioration in the microarchitecture (structure) of bone tissue. It causes a net loss of bone strength so that even a slight bump or fall can lead to a broken bone (referred to as a fragility fracture). Osteoporosis has no signs or symptoms until a fracture occurs – this is why it is often called a ‘silent disease’.

Failure to reach one’s peak bone mass at about 30 is a major determinant of developing osteoporosis in later life. For every 10% of peak bone mass not achieved osteoporosis will occur 13 years earlier.

We are all living longer, so if we want a good quality of life we need to ensure that our skeleton lasts the distance.

Osteoporosis New Zealand

What is Osteoporosis New Zealand?

Osteoporosis New Zealand (ONZ) is a national charitable trust dedicated to raising awareness of bone health and improving care and outcomes for people who are at risk of, or are living with, osteoporosis.

ONZ’s aim is for all New Zealanders to have stronger, better bones and to avoid or suffer fewer fractures. We do this by providing information and educational material to the public, and making recommendations to Government and the medical profession for improved management strategies for osteoporosis.

ONZ has forged active collaborative relationships with partner organisations in New Zealand, Australia and further afield. These encompass those involved in bone health, osteoporosis, bone fractures, Government health sector agencies and clinical bodies.

Through our collaborative relationships, we have commenced implementation of a coordinated nationwide strategy and systems to manage the increasing numbers of older New Zealanders at risk of sustaining fragility fractures.

ONZ Vision:

Better bones, fewer fractures

ONZ Mission:

To prevent bone fractures caused by osteoporosis, and the resulting impact on people’s quality of life, by:

- Engaging with the public, health professionals, policymakers and the private sector
- Undertaking programmes of awareness, advocacy and education
- Promoting, publicising and assisting with research into osteoporosis in New Zealand.
ONZ Values:
Prevent suffering

Our primary concern is for the suffering and loss of those affected (or likely to be affected) by osteoporosis-related bone fractures.

Respect expertise:

Our advice and actions will reflect evidence based solutions for osteoporosis interpreted by appropriately qualified health practitioners and academics.

Recognise resource constraints:

We recognise the practical financial limits of budgets and priorities in New Zealand’s public healthcare system.

Collaborate:

We will collaborate with the health and private sectors and our communities to achieve optimal outcomes for current osteoporosis sufferers and those at risk.

Osteoporosis NZ’s Strategy

In 2012, ONZ was faced with a huge challenge. Osteoporosis was a condition with little awareness and there was not a coordinated, nationwide strategy for its management nor were there systems or strategies to increase public and health professional awareness of the burden of this condition.

Given the scale of the challenge posed by osteoporosis and related fractures, the question for ONZ, policy makers, health care professionals and the population was where to start?

In December 2012, ONZ published Bone Care 2020 - A systematic approach to hip fracture care and prevention for New Zealand. This document clearly defined ONZ’s strategy as illustrated in the following pyramid. ONZ’s strategic objectives and programmes follow a top-down approach to the Bone Care 2020 pyramid.

This strategy has been informed by policy, guidance and quality improvement initiatives occurring in Europe and North America, and more recently some Asian countries.
The programmes we have proposed to achieve each objective can be seen next to the pyramid below:

1. **Improve outcomes and quality of care after hip fractures** by delivering ANZ professional standards of care monitored by the NZ Hip Fracture Registry.

2. **Respond to the first fracture to prevent the second** through universal access to Fracture Liaison Services in every District Health Board in New Zealand.

3. **GPs to stratify fracture risk** within their practice population using fracture risk assessment tools supported by local access to axial bone densitometry.

4. **Consistent delivery of public health messages** on accrual of Peak Bone Mass through a well-balanced diet and regular exercise which promotes bone development.

5. **Exercise regularly, eat well to maintain a healthy body weight and create healthy lifestyle habits**

6. **Consistent delivery of public health messages** on preserving physical activity, healthy lifestyles and reducing environmental hazards.

7. **Consistent delivery of public health messages** on accrual of Peak Bone Mass through a well-balanced diet and regular exercise which promotes bone development.

8. **Develop and implement public awareness campaigns** for schools, students and parents on how to optimise Peak Bone Mass accrual through diet and exercise.

9. **Develop and implement a NZ Hip Fracture Registry** which will enable DHBs to benchmark acute care against quality measures derived from professional standards.

10. **Drive widespread adoption of Fracture Liaison Services** through demonstration projects, web-based and direct education, and national quality measures.

11. **Develop and implement public awareness campaigns** on preserving physical activity, healthy lifestyles and reducing environmental hazards.

12. **Develop and implement public awareness campaigns** on exercising regularly, eating well to maintain a healthy body weight and creating healthy lifestyle habits.

13. **Develop clinically effective and cost-effective First Fracture Prevention Programmes**, and publish case studies, to drive systematic primary fracture prevention.

14. **Drive widespread adoption of** Fracture Liaison Services **through demonstration projects, web-based and direct education, and national quality measures**.
Implementation of Osteoporosis NZ’s strategy

Objectives 1 and 2:

| Secondary fracture prevention – case finding and management. |

ONZ has achieved a significant amount. Throughout the period 2012 to 2016, ONZ has been dedicated to closing some of the clinical care gaps to ensure that every patient presenting to urgent care services in New Zealand with a fragility fracture receives appropriate osteoporosis management and falls assessment to reduce their future fracture risk.

ONZ has:

1. Supported the development of a hip fracture registry which enables hospitals to benchmark the care that they provide against new national standards.
2. Championed nationwide implementation of Fracture Liaison Services (FLS) in every hospital/District Health Board (DHB) to case find all new patients with a fragility fracture.
3. Published widely endorsed clinical care standards for FLS, so that these services can also benchmark their care against best practice.
4. Led development of new clinical guidance for the diagnosis and management of osteoporosis in New Zealand, which will help all health professionals, particularly GPs, to provide optimal care for their patients.

With this critical clinical work having been achieved, our next challenge is to address:

Objective 3:

| Through collaborative processes, develop clinically effective and cost-effective systems for prevention of the first bone fracture caused by osteoporosis – First Fracture Prevention Programmes. |

Objective 4, 5 and 6:

| Address the major public awareness and knowledge gap of osteoporosis in the entire New Zealand population. This will result in empowered consumers with improved health literacy who can make the best decisions for themselves. |

Strategic Goals: Progress to date and Future Actions

To achieve the ONZ’s Strategy we have defined some clear, measured strategic goals as follows:

**Strategic Goal #1  A National Audit of Hip Fractures**

*Achieve comprehensive clinical participation in a New Zealand Hip Fracture Registry, which will prospectively benchmark the quality of hip fracture care in all DHBs against trans-Tasman professional guidelines published in 2014.*

The Australian and New Zealand Society for Geriatric Medicine published detailed guidance on best practice for Orthogeriatric Services, which have been shown to dramatically improve post-hip fracture care.

**Throughout the period 2012 to 2016, ONZ has:**

- Been the consumer advocate for an integrated approach to management of osteoporosis and falls prevention for individuals at high risk of fracture.
• Worked with the Accident Compensation Corporation (ACC), the Ministry of Health (MoH), and the New Zealand Hip Fracture Registry Implementation Committee (NZHFR IC) to develop and implement a national strategy for a systematic approach to hip fracture care and prevention.

• Been a member of the ANZ HFR Steering Group that developed Trans-Tasman Acute Hip Fracture Care guidelines which were published in September 2014 with approval from the Australian National Health and Medical Research Council.

• In conjunction with the Australian Commission for Safety and Quality in Healthcare and the NZ Health Quality and Safety Commission (HQSC) disseminated the Hip Fracture Care Clinical Care Standard derived from these guidelines published in 2016.

• Collaborated with ACC, the NZ Orthopedic Association, HQSC and other professional learned societies to develop the hip fracture registry, which has support from ACC for the period 2016 to 2018. The registry enables hospitals to benchmark the care they provide against new national standards. After a successful pilot in the Northern Region, 6 DHB’s across the country are now participating in the Registry.

**Work to be completed 2017 – 2020**

• Support the NZHFR IC to gain comprehensive clinical participation by all 20 DHB’s in the NZHFR.

• Drive adherence with the Hip Fracture Care Clinical Care Standard for all hip fracture patients in New Zealand.

• Reduce the incidence of hip fractures in New Zealand.

**Strategic Goal #2  Improve DHB Services**

Fracture Liaison Services (FLS) deliver coordinated service where patients presenting with a fragility fracture receive osteoporosis assessment, treatment where needed, and interventions to reduce falls risk. The outcome of FLS has been a significant reduction in fracture incidence and associated costs. FLS ensures equitable access to PHARMAC subsidised treatments for osteoporosis throughout New Zealand.

Secondary fracture prevention – delivered by well organised FLS – is a crucial part of ONZ’s strategy for a very simple reason: half of hip fracture patients have broken another bone in the months or years before they break their hip and several highly effective and inexpensive osteoporosis treatments are available in New Zealand which have been shown to reduce future fracture risk by 30-70%, dependent on the agent and site of fracture. Accordingly, FLS respond to the first fracture and provide appropriate preventive intervention to prevent fracture in up to half of individuals who would otherwise go on to fracture their hip. Effective use of evidence-based falls interventions will add benefit above and beyond that delivered by osteoporosis treatments.

Throughout the period 2012 to 2016, ONZ has:

• Effectively advocated to government to ensure that DHB annual planning guidance for the period 2013/14 to 2016/17 states that DHBs should have fully a fully operational FLS.

• Worked with the MoH, ACC and the Fracture Liaison Network New Zealand (FLNNZ) to establish a FLS in every DHB throughout New Zealand. In July 2016, ACC announced a NZ$30.5 million investment for falls and fracture prevention initiatives over the next 4 years, in combination with investment from our 20 DHBs. This should lead to universal access to FLS in NZ within the next year.

• ONZ has advocated with the MoH and ACC for the development of both Clinical standards for Fracture Liaison Services in NZ and Clinical guidance on the Diagnosis and Management of Osteoporosis in New Zealand.

• Published a comprehensive FLS Resource Pack to support clinicians and administrators in DHBs to implement a FLS.
Championed nationwide implementation of FLS in every hospital/DHB to case find all new fragility fracture patients and reliably deliver secondary fracture prevention (Currently ongoing – ~70% complete).

Published widely endorsed Clinical Care Standards for FLS so these services can also benchmark their care against best practice. We were delighted with the level of endorsement that has been achieved with these standards. Fifteen organisations, including learned societies, government agencies, the International Osteoporosis Foundation (IOF) and the Fragility Fracture Network (FFN) have endorsed the Standards. This demonstrates the level of consensus that exists regarding the importance of FLS in NZ.

Led development of new Clinical Guidance for the Diagnosis and Management of Osteoporosis in New Zealand which will help all health professionals, in particularly GPs, to provide optimal care for their patients. The guidance provides a succinct and practical distillation of the evidence base. It will contain practical recommendations on identification of high risk individuals, diagnostics and treatment for both patients with fragility fractures and those at high risk of suffering their first fragility fracture. This guidance will be launched in Quarter 1 2017.

**Work to be completed 2017 – 2020**

- Assist with the adoption of a high performing FLS in all 20 DHBs.
- Work to support the FLNNZ.
- Gain endorsement and launch the Clinical Guidance for the Diagnosis and Management of Osteoporosis in New Zealand.

**Strategic Goal #3  Improve Prevention in Primary Care**


We believe that all New Zealanders at high risk of suffering a hip fracture require pre-emptive intervention. Studies from New Zealand, including the recently added Falls Domain of the HQSC Atlas of Healthcare Variation, suggest that a significant proportion of older people who have suffered fragility fractures in the past, prior to introduction of FLS, have not undergone bone health assessment and/or falls interventions.

In parallel to implementation of the highly focused secondary fracture prevention strategy ONZ needs to address primary fracture prevention (objective 3).

**Work to be completed 2017 – 2020**

ONZ wants to work with all key stakeholders – including the Australia New Zealand Society of Geriatric Medicine (ANZSGM), Royal New Zealand College of General Practitioners (RNZCGP), Australia New Zealand Bone and Mineral Society (ANZBMS), ACC, HQSC and the MoH to:

- Identify individuals who have sustained fragility fractures during the last 5 years who have not undergone a bone health assessment and/or falls intervention.
- Develop and implement a world first: a clinically effective and, crucially, cost-effective strategy to identify individuals who are at high risk of suffering a hip fracture as their first fragility fracture (primary hip fracture prevention). Put another way: to develop an effective strategy to pre-emptively identify the 50% of hip fracture patients who do not “give us notice” of their impending hip fracture in the form of a ‘signal’ fracture.
Strategic Goal #4  Raise Public Awareness

Address the major public awareness and knowledge gap of osteoporosis in the entire New Zealand population. This will result in empowered consumers with improved health literacy who can make the best decisions for themselves.

Public awareness of osteoporosis is very limited. Many people have never heard of osteoporosis, and those that have often confuse osteoporosis with osteoarthritis.

Most people never think about their bones; they have never seen them so just take their skeleton for granted. The problem of an unnecessarily high incidence of osteoporosis is due, in part, to a lack of awareness and insufficient focus/understanding of the simple steps that anyone can take to build and maintain healthy bones.

People think of osteoporosis as a disease, rather than a condition of aging. The older you get, the greater your risk of osteoporosis. This is due not only to the decrease in bone mineral density, but also due to the increased rate of falls among the elderly.

Osteoporosis is a growing public health problem so ONZ’s work in this area is critically important.

During 2012 – 2016 ONZ has:

- Developed consumer resources which includes a new osteoporosis brochure - All about Osteoporosis. This is a consumer targeted resource that contains the latest information regarding osteoporosis. The brochure explains what osteoporosis is, whom it affects, (including risk factors for developing osteoporosis) and describes osteoporosis prevention, diagnosis and management.
- Built a social media presence on Facebook that is used regularly by ONZ stakeholder groups and members of the public.
- Collaborated with our colleagues at IOF to drive awareness of the global World Osteoporosis Day (WOD) Awareness Campaign. The theme of WOD 2016 was Love Your Bones: Protect Your Future. This called upon the general public to take early action to protect their bone and muscle health, and for health authorities and physicians to protect their communities’ bone health. This was an excellent campaign which allowed ONZ to collaborate with our partners including learned societies, government organisations and other NGOs to maximise awareness of WOD and the important messages of the campaign.

Work to be completed 2017 – 2020

- ONZ needs to work with our partners wherever possible and raise funds to support development of a disease awareness campaign to raise public awareness of osteoporosis.
- The way we propose to do this is through development of a consumer brand and innovative campaigns to target consumers and engage the New Zealand population in bone health awareness, fracture prevention and osteoporosis management. The campaign will centre around the following critical messages:
  - It is never too late to think about bone health
  - Awareness of risk and early diagnosis are key to the treatment of osteoporosis
  - The first osteoporotic fracture provides an opportunity to prevent further fractures.

- We aim to target age groups as follows:
  - Children and Adolescents (0 – 20) Build the biggest and strongest skeleton possible, in light of the individual’s genetics.
  - Adults (20 – 50) Maintain healthy bones and avoid premature bone loss. Understand your personal risk factors for osteoporosis and talk to your doctor about bone health. Be proactive, ensure good nutrition, do regular weight bearing and muscle strengthening exercise and avoid negative lifestyle habits.
  - Adults (50 – 65) Sustain mobility and independence. Be empowered to know how to keep bones healthy and prevent and manage osteoporosis. If you have broken a bone as the result of a minor fall or bump, this is a signal of poor bone health. These individuals are encouraged to ask their doctor or healthcare provider about osteoporosis and a bone health assessment.
  - Seniors (65 +) Treat osteoporosis to prevent fractures, and stop falls. If medication is prescribed, make sure that it is adhered to.
Strategic Goal #5  Improve Outcomes

By 2020, demonstrate a national reduction of 1000 cases of hip fracture per year (relative to the ageing population trend line of 2012) and a public health cost saving of NZ $20 Million per year (adjusted annually from 2012 dollars for inflation).

Approximately 30,000 clinically apparent fractures occur every year in New Zealand, this figure includes almost 4,000 hip fractures.

Hip fractures are the most serious fracture caused by osteoporosis with half of hip fracture sufferers requiring long-term care and a quarter suffering an early death.

ONZ’s work in a multisector, multidisciplinary collaboration of government organisations, learned professional societies and the NGO sector aims to prevent up to 1,000 cases of hip fracture and save NZ$20 million dollars annually. Additional savings will be accrued by prevention of fragility fractures at other skeletal sites.

This strategy will provide an illustration of what can be achieved when all stakeholders in a country work together in the best interests of people who are living with osteoporosis.

Work to be completed 2017 – 2020

• In 2021 ONZ will collaborate with ACC and MoH to analyse hip fracture incidence and associated costs to establish if this strategic goal has been achieved.

Strategic Goal #6  High Performing Charity

Ensure the Osteoporosis NZ Trust is sufficiently resourced so that it can operate effectively and efficiently to focus on delivery of its strategy to prevent bone fractures caused by osteoporosis.

ONZ runs an effective and efficient charity with lean staffing and outsourced financial functions. ONZ has made a major difference to improving care and outcomes for people who are living with osteoporosis, however, there is considerably more work to be done.

Work to be completed 2017 – 2020

• ONZ must maintain a continued focus on seeking funds from all appropriate sources to enable delivery of the Strategy

• Maintain an active, contributing board that is motivated and invested.

• Remain vigilant on the operational aspects of the trust such as cash flow, strategic planning and development of policies and procedures.
Benefits

Better Bones and Fewer Fractures for New Zealanders.

Delivery of ONZ’s strategy as outlined above will make a major difference to improving the quality and consistency of care and outcomes of those who are at risk of, or are living with, osteoporosis and to the prevention of bone fractures that result from osteoporosis. The benefits of delivering our strategy include but are not limited to:

**Reduction in the incidence of hip fractures in New Zealand**

FLS and Orthogeriatric Services established by DHBs throughout New Zealand are likely to prevent up to 1,000 cases of hip fracture and save NZ$20 million dollars annually. Additional savings will be accrued by prevention of fragility fractures at other skeletal sites.

**Improved quality of care for fragility fracture patients**

Improved quality and consistency of care for all New Zealanders suffering fragility fractures at all skeletal sites.

**Prevention of all fragility fractures**

Raise consumer awareness and understanding of osteoporosis, their individual risk factors, and the simple steps to build and maintain health bones.

Empowered consumers with improved health literacy who can make the best decisions for themselves.

To make a difference, we need your help

Donate today

Visit www.osteoporosis.org.nz

Help us raise awareness and prevent the effects of Osteoporosis on our community, friends and family.

Increased support + increased awareness = fewer fractures

Better bones and fewer fractures.