

Know Your Bones Community Risk Report Second Edition 2021



A JOINT INITIATIVE FOR FRACTURE PREVENTION

# Forewords



**Professor Peter Ebeling AO**  
Chair Healthy Bones Australia

For over 30 years I have witnessed both the devastating impact of osteoporosis on the lives of those affected and, in parallel, the remarkable advances in its diagnosis and treatment. We need to continue to work together with consumers to be proactive about bone health.

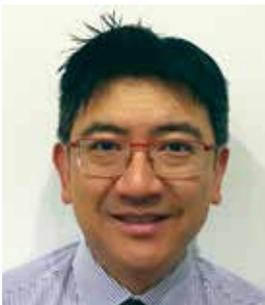
*Know Your Bones* is a living example of what becomes possible with stakeholder collaboration and a shared focus on disease prevention. This report provides evidence of the work remaining to be done but with a reminder positive change is just within reach. It is our collective responsibility to improve bone health for all Australians.



**Greg Lyubomirsky**  
CEO Healthy Bones Australia

*Know Your Bones* is an online self-assessment tool to help Australians understand their risk of poor bone health. It represents an easy first step for many consumers in considering their bone health. Any risks identified can then be discussed with their doctor. *Know Your Bones* is promoted to rural and city communities and can be accessed around Australia in the comfort of your home.

Healthy Bones Australia (formerly Osteoporosis Australia) remains committed to improving bone health in Australia and the data presented in this second edition of the *Know Your Bones* Community Risk Report provides timely insights for health professionals, policy makers and the community.



**Associate Professor Peter Wong**  
Medical Director Healthy Bones Australia

*Know Your Bones* is vitally important to help raise community awareness about bone health and reduce the impact of osteoporosis and related fractures. The program was developed in partnership with the Garvan Institute of Medical Research, based on their long-running study of osteoporosis in Australia. Research has demonstrated that specific risk factors increase the risk of developing osteoporosis, including certain medical conditions, medications and lifestyle factors. Early diagnosis and management can protect bone health in consumers.



**Elaine Cotter**  
Consumer Advocate and Member of the Healthy Bones Australia National Consumer Advisory Committee

I know first-hand the impact of this disease. My late diagnosis has resulted in me experiencing years of pain and many fractures. I encourage everyone to use *Know Your Bones* and talk to your doctor about your bone health to prevent osteoporosis. It has hugely impacted my life and I want others to avoid what I have been through.

# Know Your Bones

## Background

*Know Your Bones* is an online, evidence-based consumer self-assessment. This national program was developed by Healthy Bones Australia (formerly Osteoporosis Australia) in partnership with the Garvan Institute of Medical Research to help Australians understand risk factors for poor bone health.

The self-assessment investigates clinical and lifestyle risk factors as well as medication use. *Know Your Bones* is based on key findings from Garvan's long standing study of osteoporosis in Australia. This online tool provides personalised recommendations to further discuss with a General Practitioner.

*Know Your Bones* is both an awareness program and an essential tool for encouraging the community to take action to protect their bone health. The aim is to improve understanding of individual risk and encourage early diagnosis of osteoporosis to reduce the prevalence and severity of osteoporosis.

## Timeline of Key Achievements

- *Know Your Bones* website launched mid-2016
- Inaugural Community Risk Report<sup>1</sup> released World Osteoporosis Day 2018
- *Know Your Bones* identified as a key awareness program under the National Strategic Action Plan for Osteoporosis<sup>1</sup> launched by the Australian Department of Health 2019
- Australian TV personality and health and wellness coach, Michelle Bridges appointed *Know Your Bones* Ambassador 2020
- *Know Your Bones* website updated to reflect launch of Healthy Bones Australia 2021
- Second Edition *Know Your Bones* Community Risk Report 2021

## About this Report

This second edition *Know Your Bones* Community Risk Report, represents de-identified data which has been self-reported via the online self-assessment questionnaire. *Know Your Bones* asks consumers a series of evidence-based questions under four broad areas:

- Medical history including age, weight, previous fracture, previous falls, gender
- Medical conditions which can impact bone health
- Lifestyle risk factors
- Medication/supplement use

This report is based on 88,015 completions (as at 20 September 2021). This report is available on the Healthy Bones Australia website ([www.healthybonesaustralia.org.au/about-us/publications-reports/](http://www.healthybonesaustralia.org.au/about-us/publications-reports/)).

## Snapshot of Bone Health in Australia

The *Know Your Bones* program was developed in response to the growing prevalence of osteoporosis and related fractures in Australia.

- Estimated number of fractures over 183,000 by 2022<sup>2</sup>
- Cost of fractures estimated to be \$2.59 billion and overall cost of disease is \$3.84 billion in 2022<sup>2</sup>
- Hip fracture remains the most costly type of fracture however fractures at other sites are more common (spine, wrist, arm and leg)<sup>2</sup>
- Nearly half of people who experienced a hip fracture had a previous fracture<sup>3</sup>

*Know Your Bones* forms part of a renewed focus on bone health in the community and a national program for prevention and early diagnosis of osteoporosis.

Know Your Bones Community Risk Report Second Edition is proudly supported by: Colonial Foundation, Amgen Australia, Theramex Australia

<sup>1</sup>Available at [www.healthybonesaustralia.org.au/about-us/publications-reports](http://www.healthybonesaustralia.org.au/about-us/publications-reports)

<sup>2</sup>Watts JJ, Abimanyi-Ochom J, Sanders KM. Osteoporosis costing all Australians A new burden of disease analysis – 2012 to 2022. *Osteoporosis Australia* 2013

<sup>3</sup>Australian and New Zealand Hip Fracture Registry Annual Report 2017. <https://anzhfr.org/wp-content/uploads/2017/08/ANZHFR-Annual-Report-2017.pdf>

# Summary – Key Findings

## Know Your Bones Community Engagement

- Self-assessment completions following visits to website 30%
- Overall age breakdown of females and males completing self-assessment (see table) →
- Gender breakdown of self-assessment usage
  - 83% female and 17% male
- Age breakdown of self-assessment usage
  - 84% adults 50 years and over

	Female	83%	Male	17%
under 50 years	13%		under 50 years	3%
50-69 years	54%		50-69 years	8%
70 years+	16%		70 years+	6%

## Fracture Status and Bone Density Testing Status

- Number of assessments completed that reported a minimal trauma fracture 17%
- Based on total number of minimal trauma fractures reported 52% (over half) occurred in adults aged 50-69 years
- Number of assessments completed that reported a minimal trauma fracture and reported status of bone mineral density (BMD) testing:
  - Reported 'yes' for BMD testing 52%
  - Reported 'no' for BMD testing 40%
  - Reported 'don't know' for BMD testing 8%
- Number of assessments completed that reported a minimal trauma fracture and reported medication status:
  - On medication 14%
  - Not on medication 86%
- People over 70 years and Bone Mineral Density (BMD) testing status:
  - Reported 'yes' for BMD testing 59%
  - Reported 'no' for BMD testing 29%
  - Reported 'don't know' for BMD testing 12%

## Clinical and Lifestyle Risk Factors\*

- Number of assessments completed and total clinical risk factors reported:
  - Reported 'yes' to a clinical risk factor 36%
  - Reported 'no' to a clinical risk factor 64%
- Based on those reporting a clinical risk factor only half reported having a bone density test
- Based on those reporting 'yes' to a clinical risk factor the majority 70% had a single clinical risk factor and 30% had 2 (or more) clinical risk factors
- Number of assessments completed and total lifestyle risk factors reported:
  - The majority 99% reported having a lifestyle risk factor

## Comment on Age and Risk

- Notably 16% of completions were adults under 50 years. Research indicates bone health in younger adults can be impacted by specific risk factors such as early menopause, low testosterone, coeliac disease, anorexia nervosa, breast cancer treatment and cortico-steroid use. It is important to protect bone health in these groups.

## The data in this report demonstrates further action is required to address poor bone health across Australia

- Only half of people reporting a fracture have reported having a bone mineral density test. Investigation of patients with a bone density test should be higher. Over half of the total number of reported fractures occurred in adults aged 50-60 years
- Vast majority of people (86%) reporting a previous fracture are also reporting not taking preventative medication.
- Nearly 40% of people completing assessment have a clinical risk factor for osteoporosis and vast majority of people completing assessment (99%) reported having a lifestyle risk factor.
- Bone density testing reimbursement remains available for anyone over 70 years, yet nearly 30% reported not having a bone density test.

**The findings of this report are consistent with other studies which suggest osteoporosis is under-investigated and under-treated even where obvious risk factors (signals for development of osteoporosis and subsequent fracture) exist.**

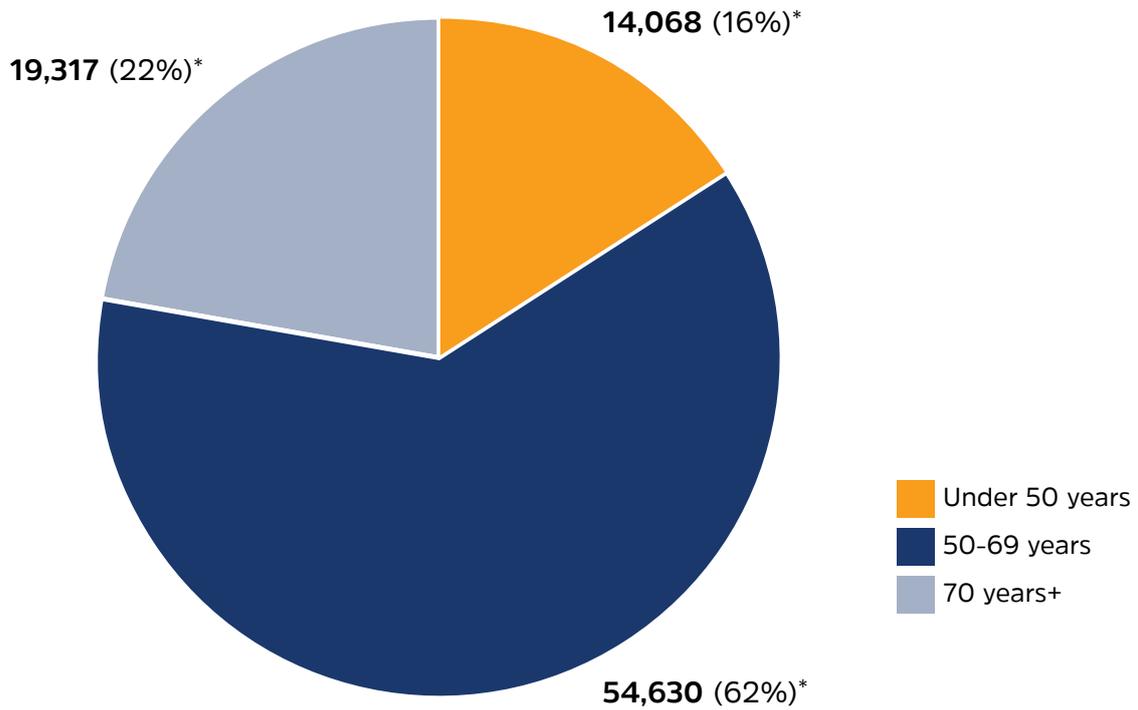
### What is needed?

- ✓ Early intervention to capture adults following a broken bone (fracture) due to poor bone health.
- ✓ Routine investigation of adults with risk factors for poor bone health to ensure early diagnosis of osteoporosis to manage bone health and prevent unwanted fractures.

\*Risk factors: Clinical risk includes: Daily oral use glucocorticoids, early menopause/low testosterone, loss of height, coeliac disease, overactive parathyroid, overactive thyroid, rheumatoid arthritis, chronic liver or kidney disease, treatment for breast cancer or prostate cancer. Lifestyle risk includes: smoking, alcohol intake, lack of adequate calcium/vitamin D/exercise.

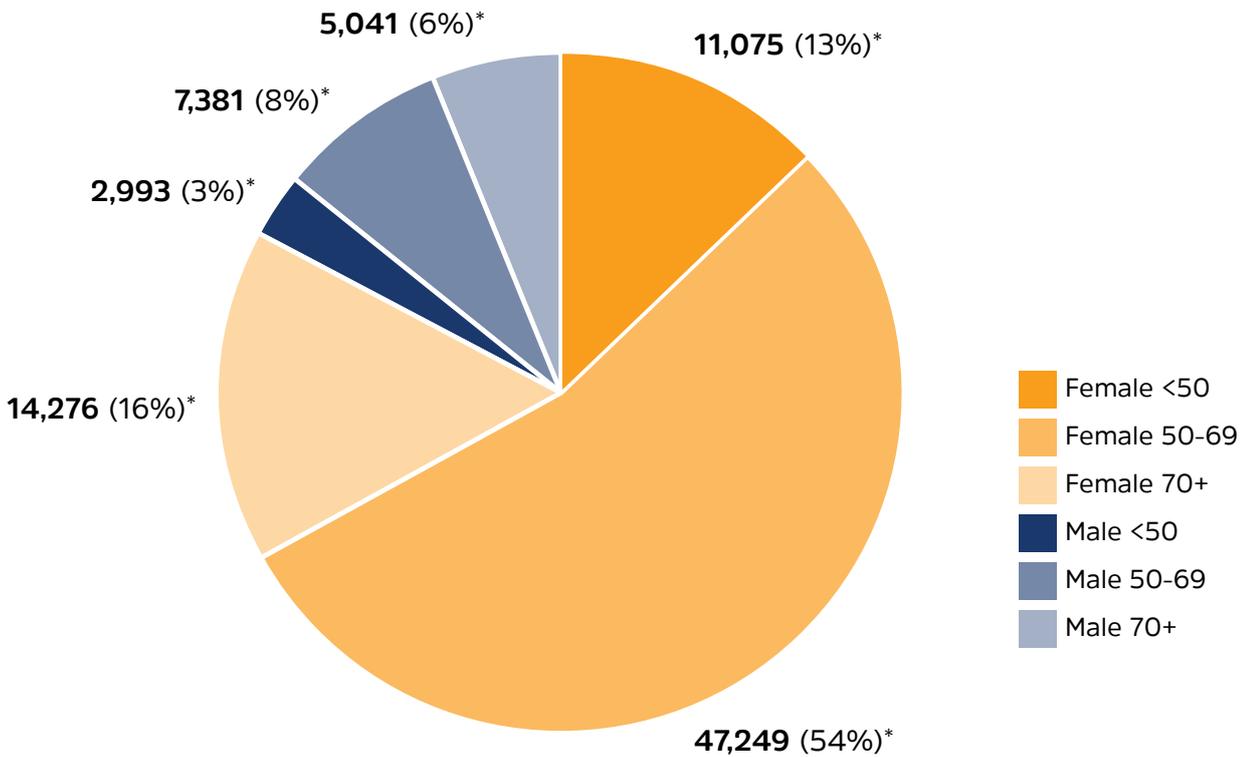
### Number of Assessments by Age

(Total no: 88,015)



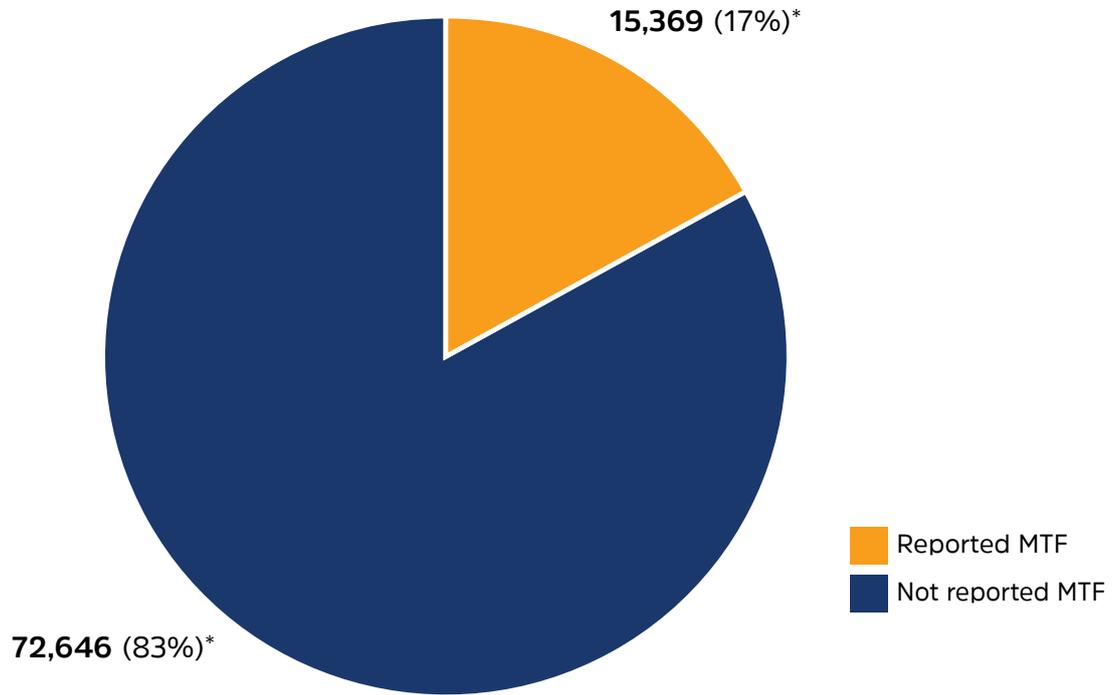
### Number of Assessments by Gender and Age

(Total no: 88,015)

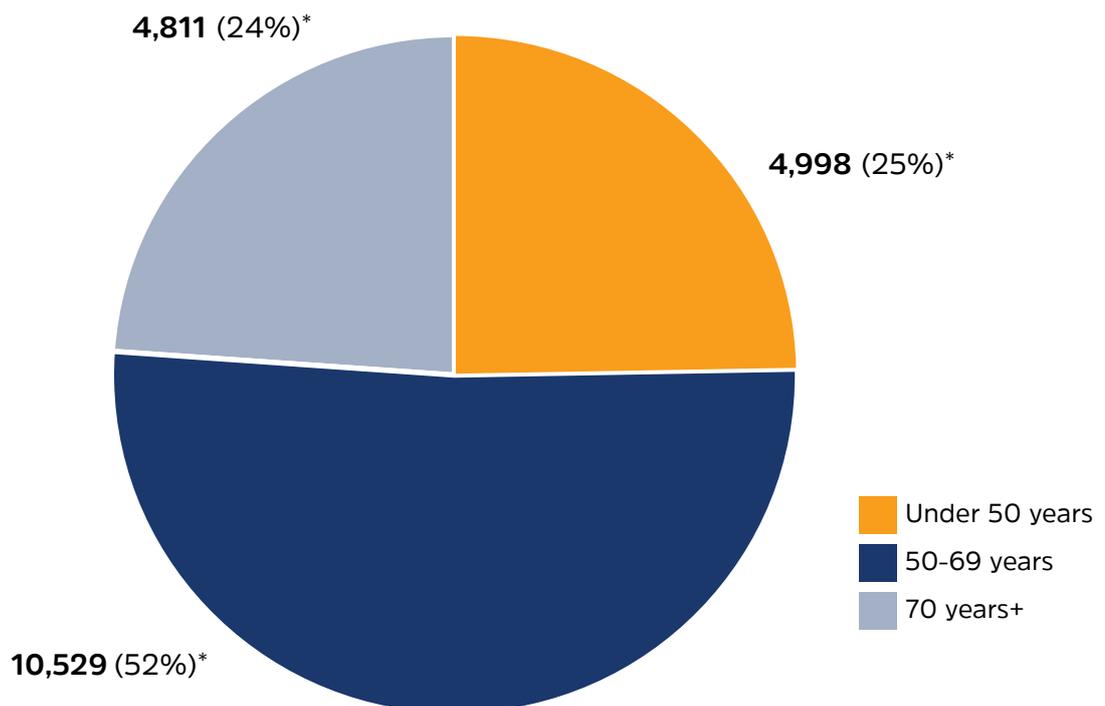


\*Percentages are rounded

## Number of Assessments and Minimal Trauma Fracture (MTF) Status (Total no: 88,015)



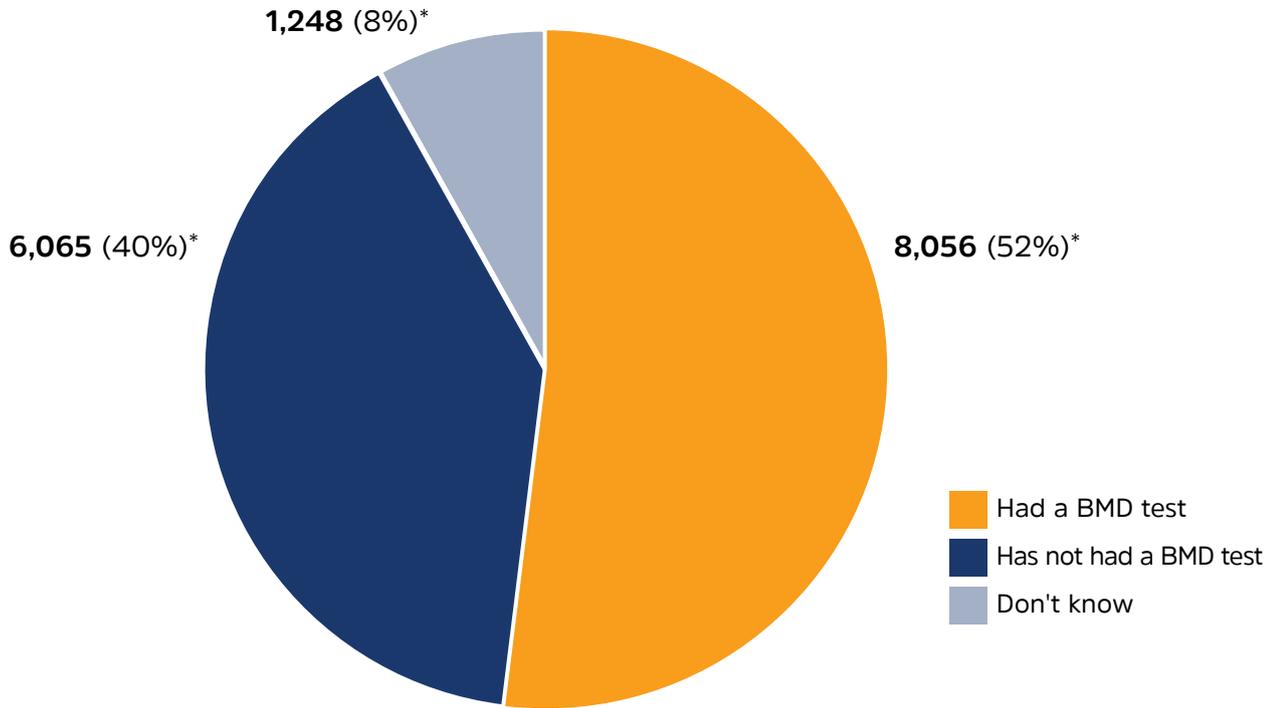
## Total Number of reported Minimal Trauma Fractures (MTFs) by Age (Total no: 20,338)



\*Percentages are rounded

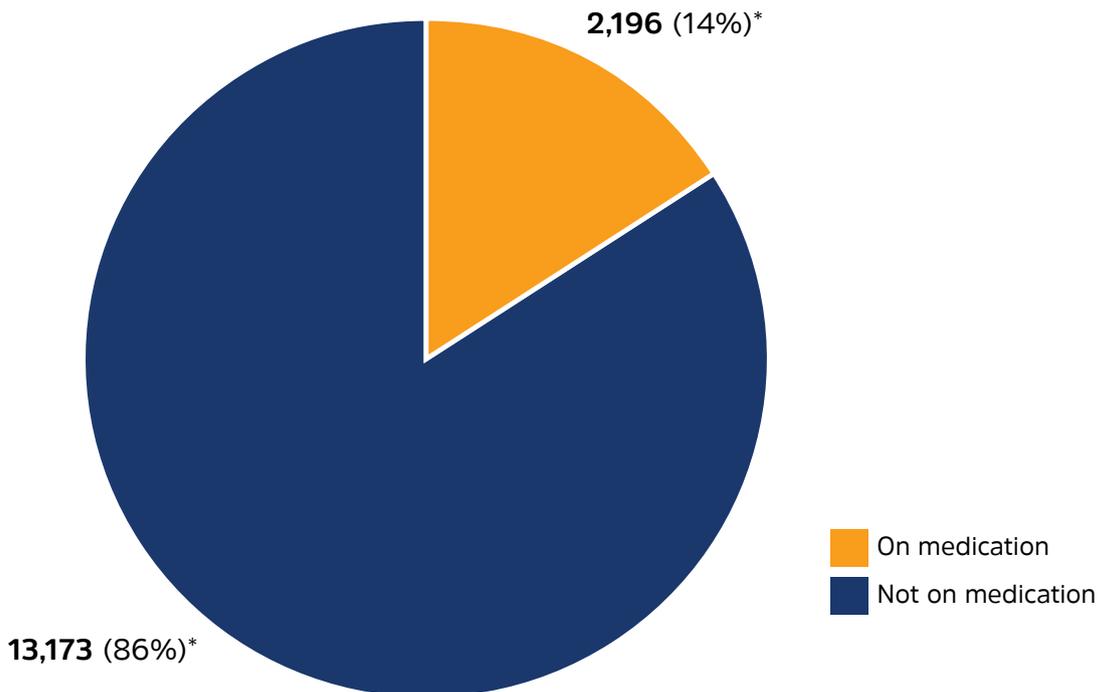
### Number of Assessments that reported a Minimal Trauma Fracture (MTF) by Bone Mineral Density (BMD) Test Status

(Total no: 15,369)



### Number of Assessments that reported a Minimal Trauma Fracture (MTF) by Status of Treatment

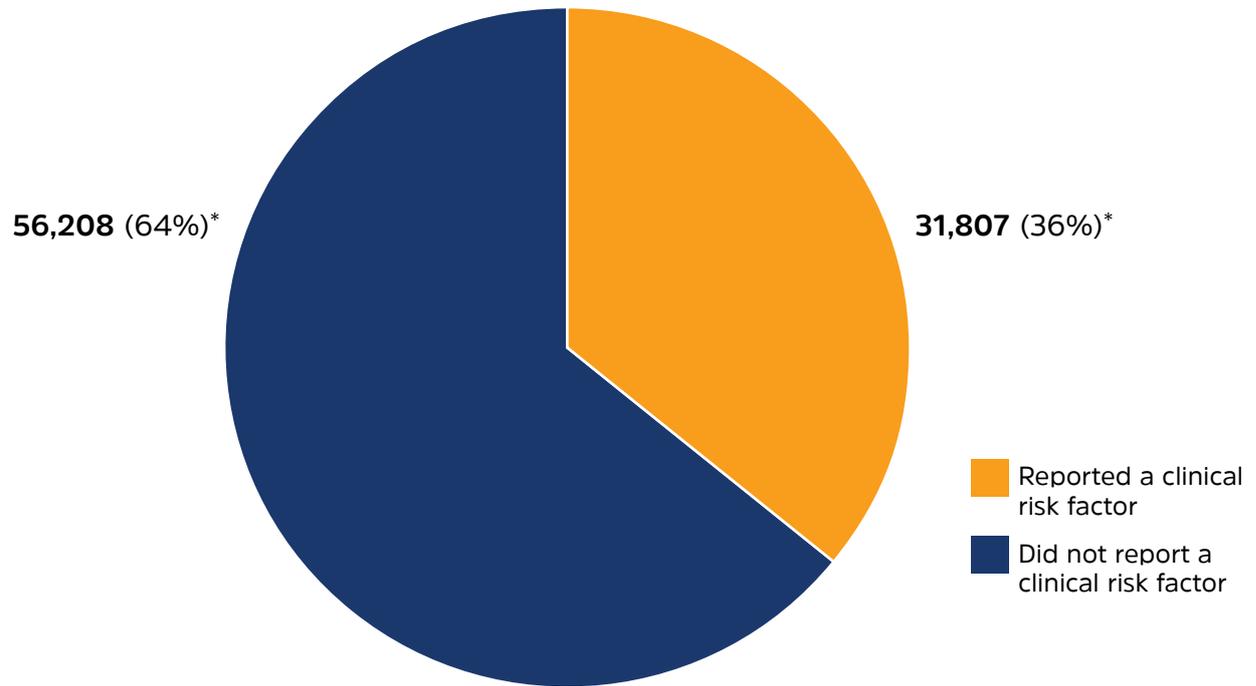
(Total no: 15,369)



\*Percentages are rounded

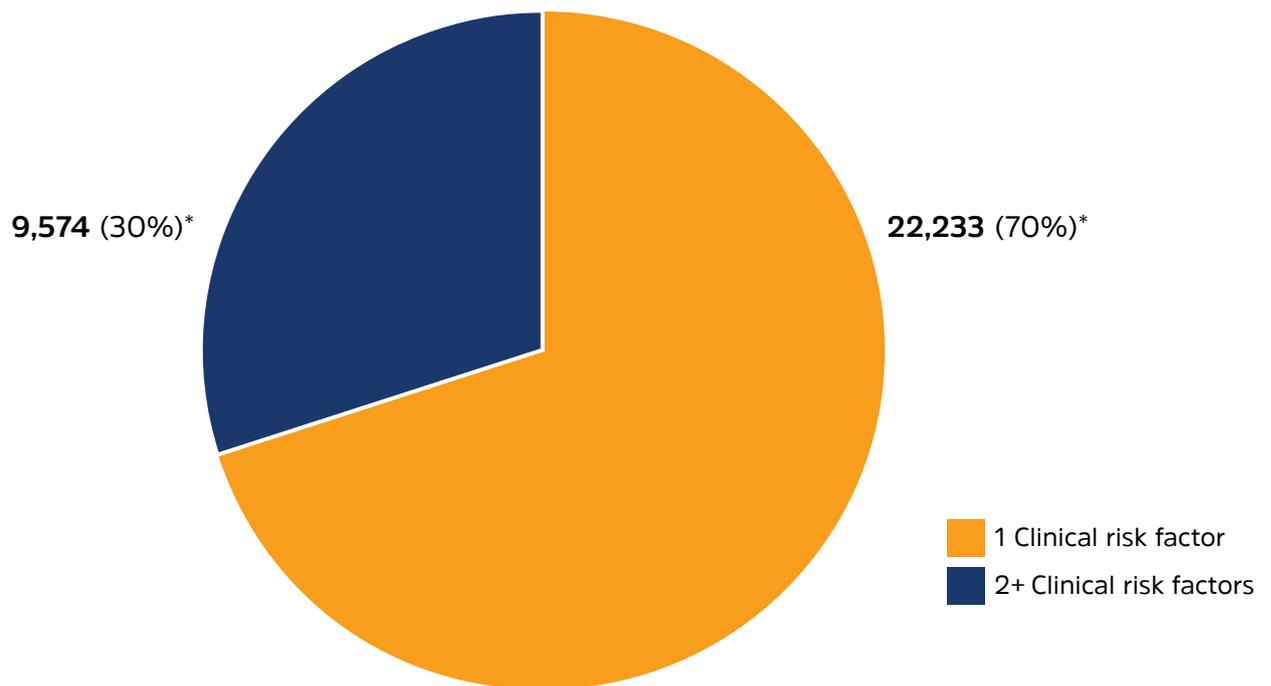
## Number of Assessments by Total Clinical Risk Factors<sup>†</sup> Reported

(Total no: 88,015)



## Number of Assessments Reporting Either 1 or, 2 or More Clinical Risk Factors<sup>†</sup>

(Total no: 31,807)

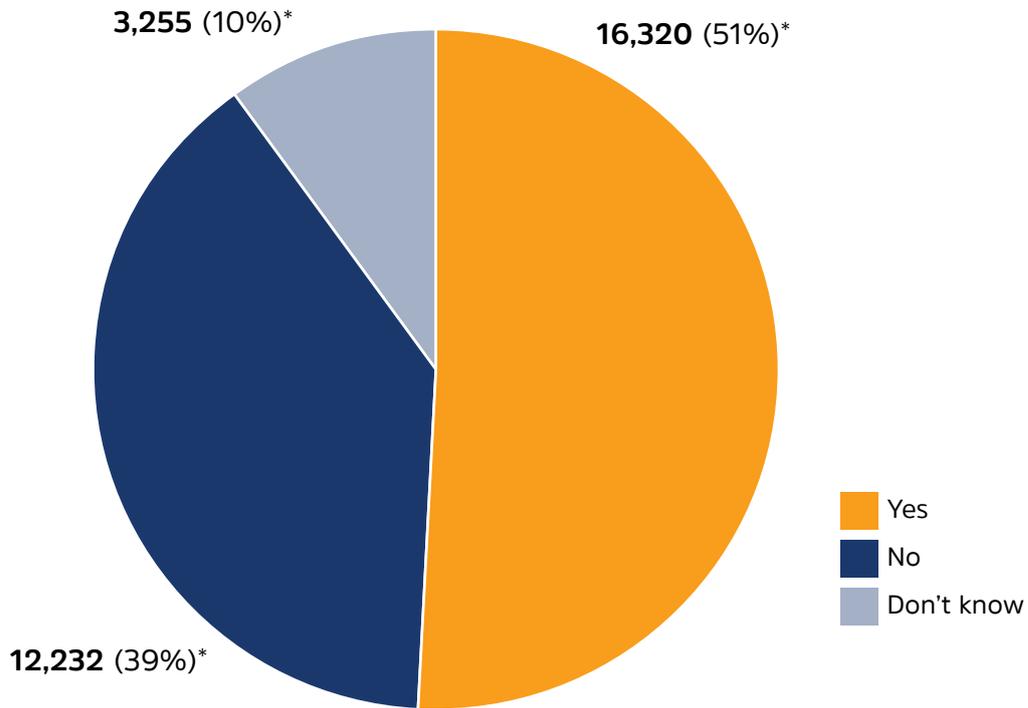


<sup>†</sup>Clinical risk factors include: Daily oral use glucocorticoids, early menopause/low testosterone, loss of height, coeliac disease, overactive parathyroid, overactive thyroid, rheumatoid arthritis, chronic liver or kidney disease, treatment for breast cancer or prostate cancer.

\*Percentages are rounded

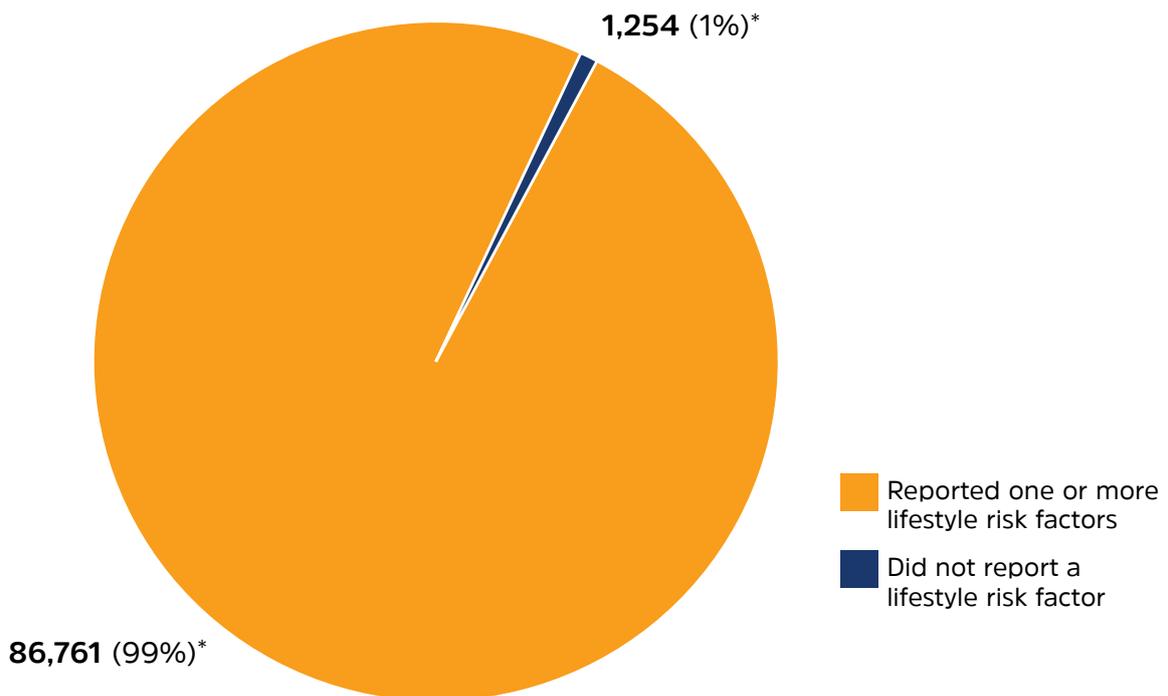
## Number of Assessments of Clinical Risk Factors<sup>†</sup> by Bone Mineral Density (BMD) Test Status

(Total no: 31,807)



## Number of Assessments by Total Lifestyle Risk Factors<sup>†</sup> Reported

(Total no: 88,015)

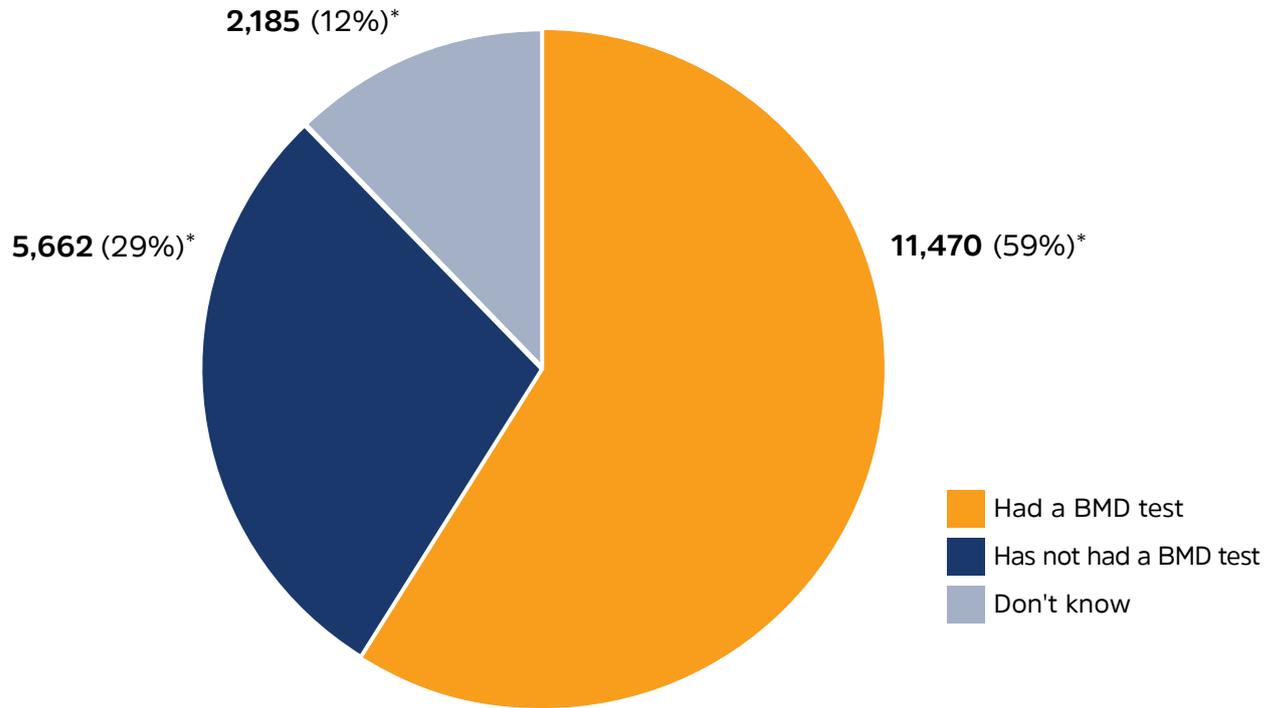


<sup>†</sup>Lifestyle risk factors include: smoking, alcohol intake, lack of adequate calcium/vitamin D/exercise.

\*Percentages are rounded

## Number of Assessments for People Age 70+ and Bone Mineral Density (BMD) Test Status

(Total no: 19,317)

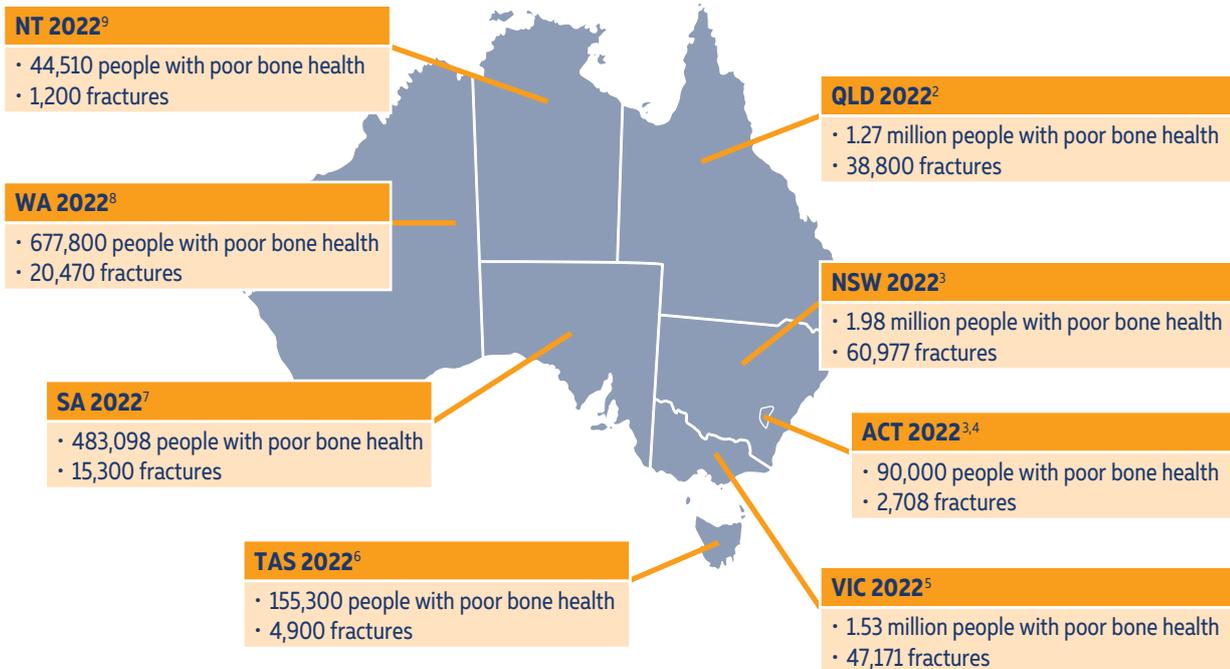


\*Percentages are rounded

# National Overview

Poor bone health is common in Australia affecting over 6 million adults over 50 years and leading to an estimated 183,000 fractures per year by 2022<sup>1</sup>. Fractures severely impact the lives of people living with poor bone health and are costly to the healthcare system. Healthy Bones Australia remains committed to improving bone health in the community by supporting targeted national programs to capture people at risk.

## Issue by State and Territory



## The Cost – Australian Healthcare System



<sup>1</sup> Watts JJ, Abimanyi-Ochom J, Sanders KM. Osteoporosis costing all Australians A new burden of disease analysis – 2012 to 2022. Osteoporosis Australia 2013

<sup>2</sup> Sanders KM, Watts JJ, Abimanyi-Ochom J, Murtaza G. Osteoporosis costing Queensland: A burden of disease analysis – 2012 to 2022. Osteoporosis Australia 2017

<sup>3</sup> Sanders KM, Watts JJ, Abimanyi-Ochom J, Murtaza G. Osteoporosis costing NSW & ACT: A burden of disease analysis – 2012 to 2022. Osteoporosis Australia 2017

<sup>4</sup> Sanders KM, Watts JJ, Abimanyi-Ochom J, Murtaza G. Burden of Osteoporosis, Osteopenia and Associated Fractures in ACT. Osteoporosis Australia 2017 (Summary only)

<sup>5</sup> Sanders KM, Watts JJ, Abimanyi-Ochom J, Murtaza G. Osteoporosis costing Victoria: A burden of disease analysis – 2012 to 2022. Osteoporosis Australia 2017

<sup>6</sup> Sanders KM, Watts JJ, Abimanyi-Ochom J, Murtaza G. Osteoporosis costing Tasmania: A burden of disease analysis – 2012 to 2022. Osteoporosis Australia 2017

<sup>7</sup> State data: Sanders KM, Watts JJ, Abimanyi-Ochom J, Murtaza G. Osteoporosis costing South Australia: A burden of disease analysis – 2012 to 2022. Osteoporosis Australia 2017

<sup>8</sup> State data: Sanders KM, Watts JJ, Abimanyi-Ochom J, Murtaza G. Osteoporosis costing Western Australia: A burden of disease analysis – 2012 to 2022. Osteoporosis Australia 2017

<sup>9</sup> State data: Sanders KM, Watts JJ, Abimanyi-Ochom J, Murtaza G. Osteoporosis costing Northern Territory: A burden of disease analysis – 2012 to 2022. Osteoporosis Australia 2017

National and State/Territory Reports can be viewed at [www.healthybonesaustralia.org.au/about-us/publications-reports/](http://www.healthybonesaustralia.org.au/about-us/publications-reports/)



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