Welcome to the first newsletter of the SOS Fracture Alliance!

On 20th November 2015, representatives from 22 organisations gathered in Sydney to attend the inaugural National Forum on Secondary Fracture Prevention. As a direct result of this meeting, a National Alliance was formed in mid-2016 to finally close the osteoporosis care gap that has been in place for all too long. This Alliance is now known under the name of “SOS Fracture Alliance”, where “SOS Fracture” not only stands for “Stop Osteoporotic Secondary Fracture” but also for the urgency of what we are trying to achieve.

Already in 2015, a good number of organisations and key stakeholders endorsed the ANZBMS Position Paper on Secondary Fracture Prevention, which drew attention to the appalling lack of effective osteoporosis care in Australia, and the shocking fact that 80% of patients who suffer a fragility fracture receive no treatment to prevent further fractures.

The case for addressing the lack of osteoporosis awareness, both among health professionals and patients, has been made repeatedly over the past 15 years. However, despite the inclusion of osteoporosis as part of the 7th Australian National Health Priority in 2002, little or no progress has been made. A major reason for this failure was the lack of a peak body that encompassed all stakeholders and spoke with one voice.

The SOS Fracture Alliance is on its way to becoming this peak body. With currently 25 member organisations, amongst them professional and scientific colleges and societies, regional and rural organisations, patient organisations and medical research institutes, the Alliance is already supported by an important segment of relevant professions and the Australian public and poised to tackle the burden of secondary fragility fractures.

_in the words of Nelson Mandela: “We know it well that none of us acting alone can achieve success. We must therefore act together.”_
## Current member organisations

1. Australia New Zealand Bone & Mineral Society  
2. Australia and New Zealand Orthopaedic Research Society  
3. Australian and New Zealand Society for Geriatric Medicine  
4. Australian College of Nurse Practitioners  
5. Australian College of Rural and Remote Medicine  
6. Australian Orthopaedic Association  
7. Australian Physiotherapy Association  
8. Australian Rheumatology Association  
9. Carers New South Wales  
10. Country Women’s Association of New South Wales  
11. Dietitian Association of Australia  
12. Endocrine Nurses Society of Australia  
13. Endocrine Society of Australia  
14. Exercise and Sports Science Australia  
15. Internal Medicine Society of Australia and New Zealand  
16. MOVE muscle, bone & joint health  
17. National Hip Fracture Registry  
18. Osteoporosis Australia  
19. Public Health Association of Australia  
20. Royal Australasian College of Surgeons  
21. Royal Australian and New Zealand College of Obstetricians & Gynaecologists  
22. Royal Australian and New Zealand College of Radiologists  
23. The Garvan Institute of Medical Research, Sydney  
24. The Institute for Health & Ageing, Australian Catholic University, Melbourne  
25. The ANZAC Research Institute, Sydney
Since its inception in July 2016, the SOS Fracture Alliance has been run by a Steering Committee of nine members, supported by a number of highly competent advisors:

**Our Steering Committee Members (in alphabetical order)**

**Professor Bruce Armstrong** is a public health physician and retired public health academic with experience in health service management and operations, and good connections with senior officers in the Commonwealth Department of Health, NSW Ministry of Health and WA Health Department. He has substantial epidemiological and health services research experience and is contributing to the design of the national secondary fracture prevention program and to establishing what key areas of government are likely to give their support.

**Professor Jacqui Close** is a clinician and academic in the field of geriatric medicine. Her particular area of interest is in surgery for older people and she has worked in the field of orthogeriatrics for almost 20 years. She is the President of the Australian and New Zealand Society for Geriatric Medicine and Co-Chairs the ANZ Hip Fracture Registry.

**A/Professor Mark Kotowicz** is a physician and researcher whose activities have focused on the pathophysiology, epidemiology and treatment of osteoporosis. He is Director of the Department of Endocrinology and Diabetes at the University Hospital Geelong and Chair of the Therapeutics Committee of the Australian and New Zealand Bone and Mineral Society.

**Ms Colleen Langron** is a Physiotherapist with over 20 years clinical and research experience. She has worked in all areas of gerontology and assists the National and NSW Gerontology Committees of the Australian Physiotherapy Association with the translation of research into clinical practice.

**Dr Andreas Loeffer** is an orthopaedic surgeon and Head of the Department of Orthopaedics the Prince of Wales Public Hospital. He has a strong interests in joint replacement, spinal surgery, trauma and fracture prevention. He is the Immediate Past-President of the Australian Orthopaedic Association.
Dr Greg Lyubomirsky is the Chief Executive of Osteoporosis Australia. Greg has decades of experience in the healthcare industry and in chronic disease management. He is passionate about patient support and achieving better outcomes for patients.

Dr Gabor Major is the Director of Rheumatology at Hunter New England Health Service, Co-Chair of the Musculoskeletal Network, NSW Agency for Clinical Innovation, and Conjoint Senior Lecturer at the School of Medicine and Public Health, Faculty of Health and Medicine, Newcastle University. He has a long standing interest in fragility fracture prevention, and was instrumental in setting up a service at the John Hunter Hospital.

Dr Davor Saravanja is an orthopaedic and spine surgeon specialising in complex deformities (scoliosis, kyphosis), tumours, degenerative and paediatric spinal conditions. He holds appointments at both Macquarie University and Sydney Children’s Hospital. Davor is involved in numerous research projects and has completed world leading research in the field of primary bone tumours affecting the spine.

Professor Markus Seibel is an Endocrinologist at the University of Sydney and heads the Department of Endocrinology & Metabolism at Concord Hospital, Sydney. He is an active clinician in the field of bone and mineral metabolism and passionate about improving fracture prevention for all Australians. Markus has many years of experience in running and analysing secondary fracture prevention programs, and currently chairs the Alliance’s Steering Committee.

Our Advisors

Dr Peter MacIsaac works for Hunter New England Health and Hunter Medical Research Institute in Clinical and Research Informatics, Innovation and change management. His health background is in rural and urban General Practice. Peter is supporting the Alliance with input on primary care prevention of fractures and liaison with the RACGP and Primary Healthcare Networks.
Paul Mitchell has spent the last 16 years working on programs to improve fragility fracture care and prevention throughout the world. Paul has served as an advisor to government organisations in New Zealand and the UK. Paul is Chairman of the Board of Trustees of Osteoporosis New Zealand, an Adjunct Senior Lecturer at the University of Notre Dame Australia and Managing Director of Synthesis Medical NZ Ltd.

Professor Kerrie Sanders has been working in clinical research of osteoporosis for more than 20 years and combines this experience with her interest in health economics. In collaboration with Jenny Watts and Julie Abimanyi-Ochom, Kerrie has produced Australian and individual state reports on Burden of Disease analyses for osteoporosis and related fracture 2012 to 2022. Kerrie is a member of several editorial boards and national and international scientific advisory committees including Osteoporosis Australia and the International Osteoporosis Foundation.

A/Prof Jennifer Watts is a health economist at Deakin University, Melbourne. Jennifer leads a research program in the economics of chronic disease. She is lead author on Osteoporosis costing all Australians: A new burden of disease analysis - 2012 to 2022 published in 2013. The economic model she developed for this work provided key evidence for the Case for Action Proposal to NHMRC on Falls and Fracture Prevention. Most recently she completed an economic evaluation of a chronic disease management intervention for Barwon Health from both a health service (Barwon Health) and health system perspective. The economic evaluation demonstrated that the costs of the intervention were offset by savings in hospitalization costs.
Activities and Progress

Over the past 6 months, the members of the Alliance Steering Committee have been busy corresponding and meeting with numerous people to discuss the best way forward. While the Alliance’s detailed strategy is still being discussed and fine-tuned, advice received from federal and state government advisors indicates that secondary fracture prevention can be embedded in primary care along with maintenance of hospital-based fracture prevention programs.

SOS Fracture to engage with Primary Healthcare Networks

Experience from hospital-based fracture prevention programs has shown they are effective in the identification and follow-up of patients with fragility fractures. However, in the Australian healthcare setting much preventive care and the bulk of chronic disease management operates in primary care.

Certain fragility fractures are managed by GPs, without reference to hospital, and would be missed by purely hospital based programs. For example, most vertebral fractures do not trigger admission to EDs or hospital, and about one-third of all wrist fractures are managed in the community. Likewise, the reverse is true that fractures are commonly managed in public hospitals, sometimes without active engagement of primary care. Improving engagement with primary care has the potential to better engage patients and support adherence to long term management.

The SOS Fracture Alliance has commenced discussions with two Primary Healthcare Networks to explore models of care that will engage with community health without diminishing the hospital-based models. Both Networks signalled interest in the Alliance’s proposals and indicated their willingness to be involved. Further meetings are planned for early 2017.

PHNs address nine national health priority areas: arthritis and musculoskeletal conditions, asthma, cancer control, cardiovascular health, diabetes, dementia, injury prevention and control, mental health, and obesity along with preventing unnecessary hospital attendance. Given the close associations between fractures, falls, and dementia, secondary fracture prevention actually ticks FOUR national priorities: musculoskeletal conditions, dementia, injury prevention and control and preventing unnecessary hospital attendance.

We are hopeful that our Alliance objectives can be met by the development of an integrated service that includes hospital and primary care delivered components of the SOS Fracture model operating with the patient at the centre of the program.
Another important aspect of secondary fracture prevention is cost. Fractures, and particularly re-fractures cost the Australian tax payer millions of dollars every year. The direct cost of post-fracture care is estimated at $1.97 billion in 2016, and set to increase to $2.37 billion over the next 6 years. And that’s only the direct cost, which excludes indirect costs of lost wages and associated tax revenue. However, preventing these costs doesn’t come free. It is therefore important to obtain a clear picture of the cost-benefit ratio of secondary fracture prevention across Australia and over the next few years. The SOS Fracture Alliance has commissioned Professors Kerrie Sanders and Jenny Watts to produce an up-to-date analysis of the cost and potential savings achievable through a national program for secondary fracture prevention.

**Secondary Fracture Prevention: A return on investment analysis**

This analysis aims to determine the magnitude of savings and the distribution of fractures averted across population cohorts and by fracture site that might be possible with early identification of fractures and subsequent management of poor bone health with a Fracture Liaison Service. The fractures averted that are likely to have the biggest impact in terms of costs saved are hip fractures, due to the high cost of treating them (ranging from $23,600 - $35,000); and “other” fractures, due to a volume effect. The largest number of fractures prevented are in the group of “other” fractures that does not include wrist, vertebral or hip fractures.

In our analysis the effectiveness of the Fracture Liaison Service will be measured in terms of the number of fractures averted and the cost savings associated with the management of these fractures offset against the costs of the Service. Any specific analysis of a fracture liaison service model will depend on the type of service proposed and its implementation. The fractures identified are likely to differ by the location of the service, the means of identifying the fracture and the target population group.

In October 2016, the SOS Fracture Alliance commissioned Paul Mitchell, a world expert on secondary fracture prevention programs, to analyse the literature in regards to:

- Which Secondary Fracture Prevention (SFP) Programs have been successful and which have failed; why, and in what settings?
- SFP Programs embedded in primary care: Where have they been implemented, how do they work, what are their specific designs? What are the challenges and barriers to development of such primary care programs?
Effective SFP Programs have been established in many countries throughout the world. Regardless of the structure of the particular healthcare system, well designed SFP Programs with a dedicated coordinator have delivered best practice for the majority of fragility fracture patients. Effective SFP Programs have been established in both the primary and secondary care setting. While the majority of publications describe programs based in secondary care, there are examples of high-performing primary care-based programs illustrating that the setting does not determine success or failure. The organisation and staffing of the program is crucial.

The funding situation in the UK NHS makes it increasingly likely that successful SFP Programs will be funded by primary care and, therefore, commonly be located in primary care. The Commonwealth-state divide of funding streams in Australia is analogous to the UK situation. Accordingly, Primary Health Networks (PHNs) should be candidate organisations in the Australian public health system to fund SFP Programs in the future. In this regard, we know that a proportion of fragility fractures – including the majority of vertebral fractures - are managed by GPs, without referral to hospital. Accordingly, the solutions that the SOS Fracture Alliance advocate must be cognisant of the fact that these patients would be missed by purely secondary care-based programs.

### Coming up

**Meeting Canberra**

Members of the Alliance Steering Committee will meet with officials and advisors from the Department of Health in Canberra to further explore the issue of nation-wide secondary fracture prevention programs.

**Election of the new Governing Committee in early 2017**

The MOU accepted by all Alliance Members states that “once fully established, a Board will govern the National Alliance. The Board will comprise an executive and a limited number of additional members and represent all parties to the Alliance. The organizational structure of the Board will be nominated by the Alliance members and determined by the steering committee. The Board will:

- Develop a strategic plan
- Ensure all members views are taking into account
- Ensure all members are kept informed.”

Consistently with this statement (except for the fact that the term “Board” has now been replaced with the term “Governing Committee”), all Alliance members will be invited to participate in a democratic election process to determine the new SOS Fracture Alliance Governing Committee. You will hear from us again in Jan 2017.
From our member organisations

The Burden of Disease Report on Osteoporosis
(commissioned by Osteoporosis Australia)

This report updates previous burden of disease analysis undertaken in 2001 and 2007, and shows little progress is being made in preventing and managing osteoporosis in Australia. With an ageing population, it is now critical that real steps are taken to address this silent and often under-diagnosed disease affecting women and men that is costing governments, the community and comes at a great personal cost to the individuals affected.

http://osteoporosis.org.au/sites

Key Findings

Poor bone health: 2012-2022
- 4.74 million Australians over 50 years of age (66% of people over 50) have osteoporosis or osteopenia or poor bone health.
- Based on the 4.74 million Australians with poor bone health, 22% have osteoporosis and 78% have osteopenia.
- By 2022, it is estimated there will be 6.2 million Australians over the age of 50 with osteoporosis or osteopenia. That is a 31% increase from 2012.

High fracture rates: 2012-2022
- In 2013 there is 1 fracture every 3.6 minutes in Australia. This equates to 395 fractures per day or 2,765 fractures per week.
- By 2022 there will be 1 fracture every 2.9 minutes. That is 501 fractures per day and 3,521 fracture per week.
- This compares to a fracture every 8.1 minutes in 2001 and a fracture every 5-6 minutes in 2007.
- In 2012 there were 140,822 fractures that occurred as a result of osteoporosis or osteopenia. In 2022 it is expected there will be a 30% increase in the annual number of fractures resulting in 183,105 fractures per annum.
- The estimated total number of fractures over the next 10 years is over 1.6 million. This includes new fractures and re-fractures.
- Osteoporosis and osteopenia is not just a ‘women’s disease’. Men account for up to 30% of all fractures related to osteoporosis and osteopenia, and their associated costs.

Alarming costs to Government, the community and to individuals
- In 2012, the total costs of osteoporosis and osteopenia in Australians over 50 years of age were $2.75 billion.
- It is predicted that in 2022, the total costs will be $3.84 billion (2012$).
- That is a total cost of fractures of $22.7 billion over the next 10 years. These costs include ambulance services, hospitalisations, emergency department and outpatient services, rehabilitation, aged care and community services.
- Total direct and indirect cost of osteoporosis, osteopenia and associated fractures over 10 years is $33.6 billion (2012$).

Call to action
Previous reports have included recommendations for action. What is telling is that the recommendations here are the same as previous reports.
- That a re-fracture prevention initiative be funded to follow-up and co-ordinate the care of every Australian who has sustained their first fragility fracture.
- That bone density testing for menopausal women aged 50 with risk factors for osteoporosis be reimbursed.
- That more funding be provided for education and awareness programs about healthy bones as prevention is best, and the high rates of osteopenia are alarming.
The new Hip Fracture Clinical Care Standard

Australia has an ageing population and the number and burden of people admitted to hospital with a fractured hip is anticipated to increase annually. In an effort to ensure hip fracture patients receive best practice care, the Australian Commission on Safety and Quality have developed a Hip Fracture Clinical Care Standard. This standard consists of seven key quality statements which direct treatment from a patient’s presentation at hospital through to completion of treatment and transition from hospital care. This standard can be accessed at: https://www.safetyandquality.gov.au/our-work/clinical-care-standards/hip-fracture-care-clinical-care-standard/

The hip fracture registry allows for the timely comparison of meaningful data that can be used to understand current practice and trigger the case for change in areas where treatment can be improved. The Hip Fracture Registry information can be accessed at http://anzhfr.org/registry-sites/