



Fracture Alliance

Making the first break the last

Newsletter #6 – March 2020

First frailty map highlights service need across Australia

An online interactive map, which shows for the first time where Australia's frail and pre-frail people live today and in the future, will help plan services for healthy ageing.

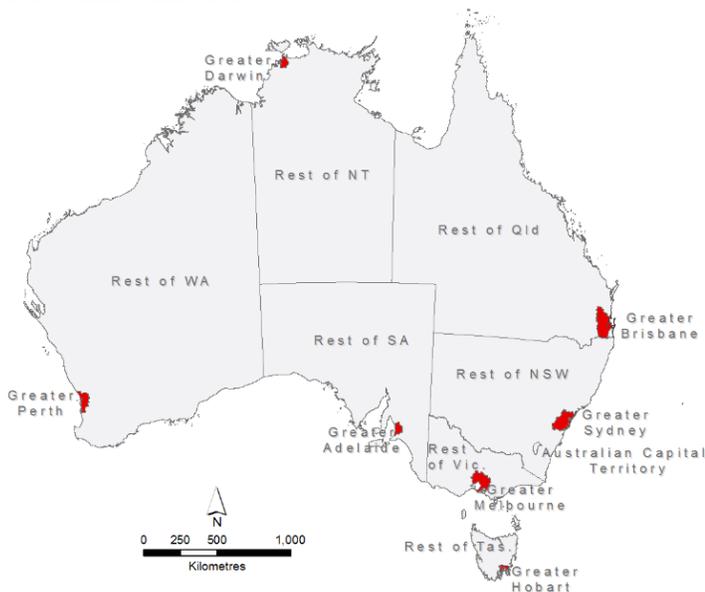
[The frailty web map](#) has been developed by researchers at the University of Adelaide's NHMRC Centre of Research Excellence in Frailty and Healthy Ageing. Dr Danielle Taylor is the research leader of the frailty web map project.

“Frailty is an increased vulnerability to adverse health outcomes, such as loss of mobility, falls leading to hospitalisation and death,” she says.

“Frailty is associated with ageing, but is not an inevitable consequence of ageing. It is a preventable and treatable condition that reduces the quality of life of many older people. The first step in addressing frailty is to identify people who are frail or likely to become frail (pre-frail). While this can be done on an individual level by frailty screening, on a population level, geospatial population modelling can be used to model frailty prevalence and identify frail and pre-frail populations and how their distribution is likely to change in the future.”

The interactive map shows population estimates of the number of frail and pre-frail people within all Australian suburbs for 2011, 2016 and 2027. It shows that the number of frail people in some suburbs around capital cities are projected to double.

Frailty Map of Australia



Capital Cities Suburbs projected to double number of frail people:

Sydney — Padstow, Chatswood, Bexley, Hurstville
Melbourne — Epping, Mulgrave, Kalor East
Canberra — Monash, Florey, Rivett
Brisbane — Eagleby, Raceview, Birkdale
Adelaide — Hallett Cove, Happy Valley, Mount Barker and Golden Grove
Perth — Armadale, Canning Vale, Bassendean, Kingsley
Darwin — Fannie Bay, Rapid Creek, Wanguri
Hobart — Risdon Vale, Brighton, South Hobart



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In 2016 3.6 million Australians (15.7 per cent of the total population) were over 65 years old. More than half of them are estimated to be frail or pre-frail and the number is expected to grow rapidly. It's estimated that more than 600,000 people will be frail and 2.2 million pre-frail in 2027. The growth is expected to be fastest in regional, remote and outer metropolitan areas.

“Australia is the first country to have an interactive frailty map and that shows where frail and pre-frail people live and is in a unique position to address this growing issue,” says Dr Taylor. “This information can be used to inform resource distribution, such as the provision of health services to areas that are likely to have a high level of need.”

The map is available for anyone to use including individuals or community groups that may wish to use the information to advocate for additional local services.

SOS Fracture Alliance Activities

Natural Language Processing (NLP) Project Update

The NLP project is nearing its completion. The two programs developed to electronically aid the identification of patients with minimal trauma fractures have been installed on servers at Concord and Royal North Shore Hospitals. Results comparing both tools over a specific period of time are currently analysed – a mountainous task requiring the full attention of our team. At this point in time, it appears that XRAIT identifies 2-3 times more reported fractures than the tool developed at North Shore hospital. We are currently analyzing which fractures are being missed by the NS tool, and whether the additional fractures identified by XRAIT are clinically relevant. The ultimate goal is still to develop a hybrid tool that merges the advantages of both programs into one tool with high sensitivity and specificity,

Based on our results so far, it is clear that the identification of fracture patients using electronic tools and NLP will result in a huge increase of potential cases requiring secondary fracture care. Whether hospital-based Fracture Liaison Services can cope with these numbers is currently an open question. In addition, a large number of vertebral fractures are identified in private radiology settings and these records are kept by the GP. None of these fractures will be captured by hospital-based identification tools.

Frail people need assistance from physiotherapists, dietitians, occupational therapists, social workers, aged care assessment services and community services to help alleviate the effects of ageing.

“This is a step forward in the way frailty can be identified, leading to more targeted treatment and prevention and ultimately a reduction in frailty prevalence. It also raises awareness of the projected rapid growth of frailty and the need to act to prevent and better manage frailty,” says Dr Taylor.

“Reducing frailty will improve the quality of life of many older Australians, enabling them to remain independent and living for longer in their own homes, while also reducing the higher utilisation of health services, a characteristic of frailty.”

It is therefore logical that programs need to be developed that can be used in general practice. This ties in with SOSFA's proposal for an integrated model of care, which has been submitted to Federal and State Governments.

Project members: Prof Markus Seibel (lead), Prof Rory Clifton-Bligh; Prof Chris White; Dr Shane Brown; Dr. Lloyd Ridley; Dr. Kirtan Ganda; Dr Ayanthi Wijewardene; Dr Kenrick Blaker.

Demonstrator Site Proposal (DSP)

After SOSFA's initial proposal to test an integrated national model of care for secondary fracture prevention received a non-committal response from the Federal Health Minister, the Hon. Greg Hunt MP, we have elected to modify the proposal to be State specific for consideration by State Governments. So far State DSPs have been developed and submitted to QLD, NSW, ACT and TAS. Encouragingly, some State Health Ministers, recognizing the magnitude of the problem and the potential cost to their budgets, flagged interest. In addition, SOSFA is now working with a Metropolitan PHN on a modified version of the model. Unfortunately, all planned meetings to progress these projects in early 2020 have been canceled due to the COVID-19 pandemic. However, we will recommence discussions once the air is clear again.



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Formation of Membership Activation Sub-Committee

Following the Q3 2020 Meeting of the SOSFA Governing Committee, a Sub-Committee was formed with the purpose of identifying how to better activate the SOSFA Member Organisations to improve their engagement with SOSFA and increase the advocacy efforts for improving secondary fracture prevention in Australia.

The Sub-Committee had their first meeting in January 2020 and discussed multiple ideas for better informing and involving Members, including additional information videos and a face-to-face Member meeting in late-2020 (if feasible at the time; see below).

If any other Member Organisations would like to be involved in the activities of this Sub-Committee or have suggestions for what they would find valuable as a Member of SOSFA, please contact SOSFA at james.ansell@sosfracturealliance.org.au

Proposal for a SOSFA 2020 Member Meeting

Following the SOSFA 2020 elections, it has been proposed to invite SOSFA Member Organisations to a face-to-face meeting to discuss and develop our strategic goals for the current Federal election cycle. However, given the current COVID-19 pandemic, the 2020 Member Meeting proposal has been postponed.

Second SOSFA Information Video

Following the positive reception from Members on the [first SOSFA Information Video about Osteoporosis in Australia](#), which has had nearly 45,000 views on Facebook, we are now looking at doing additional videos including one about the SOSFA integrated model proposal to improve fracture liaison services in Australia.

If any Member Organisations have suggestions for other video topics that would be valuable to them, please let us know at james.ansell@sosfracturealliance.org.au

SOSFA 2020 Governing Committee Elections

As highlighted in previous SOSFA Newsletters, the three year term of the current SOSFA Governing Committee will end on Monday the 3rd of August 2020.

An election will thus be held in 2020 to determine the six 'Elected Members' of the SOSFA Governing Committee for the 2020-2023 term. As outlined in the SOSFA Constitution the election will happen electronically over a three month period.

It is currently planned that a call for nominations for candidates to be elected onto the Governing Committee will be sent to SOSFA Member Organisations in mid-late April 2020. Each Member Organisation will be able to nominate up to one candidate to contest the election and represent them on the Governing Committee.

Candidate nominations should include a headshot of the candidate and a statement of no more than 300 words detailing the candidate's relevant experience and skills as well as any goals they would plan to achieve on the Governing Committee.

The call for candidate nominations will last for one month. If more than six candidate are nominated by Member Organisations, then an online election will be administered by the SOSFA Executive Officer for Member Organisations that will run for two months. The vote will be a preferential voting system as per the Australian Federal Senate and each Member Organisation will get one vote. At the conclusion of the voting period, the six candidates with the most votes will be declared elected.

If less than six candidates are nominated, then all nominated candidates will be declared elected and any unfilled positions will be declared vacant and filled by the Governing Committee as per the casual vacancy rules.

For more information about the SOSFA 2020 Election process or candidate nomination details, please contact the SOSFA EO at james.ansell@sosfracturealliance.org.au.



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From the Members

World Osteoporosis Day 2019 - government launches national action plan

Osteoporosis Australia and the Australian Government officially launched the National Strategic Action Plan on Osteoporosis on Thursday 17 October 2019, with the Minister for Health, the Hon Greg Hunt MP.

The National Strategic Action Plan for Osteoporosis (NSAP) will provide support to the 4.7 million Australians over the age of 50 who currently live with poor bone health and embark on a preventative approach to reduce future bone fractures and the impact of osteoporosis on the Australian healthcare system. In 2019 the cost of osteoporosis was over \$2.1 billion - 70 per cent of which will be directly related to fracture costs. Australians will sustain up to 165,000 broken bones (fractures) due to poor bone health, with 4.7 million Australians over 50 continuing to be impacted by the disease.

[The NSAP can be found on the OA website here.](#)

Advocating for Musculoskeletal Research in Australia White Paper

Following the Musculoskeletal Research Forum in August 2018, with researchers from both the Australian Institute for Musculoskeletal Science (AIMSS) and the University of Melbourne, the AIMSS released a white paper entitled "Advocating for Musculoskeletal Research in Australia".

The forum in August 2018 brought together a critical mass of musculoskeletal researchers to discuss how to increase awareness and funding of musculoskeletal research. Those researchers have now worked collectively to put together this white paper discussing the current state of musculoskeletal disease burden in Australia as well as the present funding landscape for research in this area. The AIMSS invite you to read and share their findings!

[The white paper can be found on the AIMSS website here.](#)

Hip Fests 2020

Once again, the ANZHFR is running a series of state- and island- based Hip Fests to harness the collective knowledge of key stakeholders, and to inspire and enable those involved in the provision of hip fracture care. This year, the ANZHFR will continue to work with local clinicians to provide events to support innovative ways to use data to improve hip fracture care across both countries. Stay tuned for Australian dates and locations, but please save the date for the New Zealand events in May and July 2020.

Hip Fest 2020 New Zealand Dates

New Zealand North Island	New Zealand South Island
Wednesday 6th May 2020	Wednesday 29th July 2020
Auckland City Hospital	Burwood Hospital
Auckland	Christchurch

ANZ Falls Prevention Conference- Save the Date!

Mark it in your diary; the 9th Biennial Australian and New Zealand Falls Prevention Conference is being held this year in Auckland, New Zealand.

By connecting colleagues and sharing new ideas and knowledge we aim to enhance collaboration and expertise across all sectors in the area of falls prevention for older people.

'Live Stronger for Longer' our theme but also a philosophy we hope to advocate for.

[To find out more, visit the ANZFPS Conference website.](#)



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Australian Orthopaedic Association- Annual Report on the National Joint Replacement Registry

Almost 1.5 million joint replacement procedures have been conducted in Australia since records began in 1999, with significant changes in surgical practice and patient outcomes meaning better quality of life for those that undergo replacement surgery now compared to when records began twenty years ago.

According to new analysis from the Australian Orthopaedic Association's Joint Replacement Registry (AOANJRR) Annual Report, released today, world-class surgeon performance and advancements in surgical techniques has meant Australians who undergo joint replacement surgery have increasingly better outcomes.

Australian Orthopaedic Association (AOA) President Dr David Martin said that the data was broken into three time periods, revealing stunning insights into how far the profession has come.

“While the vast majority of patients that have had joint replacement surgery since 1999 have had excellent outcomes, the 2019 AOANJRR Annual Report reveals the results are even better for those that have had surgery after 2013”.

The biggest factors impacting the results for hip surgery are the disuse of metal on metal prosthesis, total hip resurfacing and exchangeable neck prosthesis. All of which are no longer used in Australia. A large proportion of improvements in knee replacement surgery over the the same timeframe can be attributed to reduction in the use of unicompartmental knee replacement and reduced revision for loosening and pain when total knee replacement is used.

[The 20th Annual AOANJRR Annual Report can be downloaded from the AOA website here.](#)

Does your organization have any news around Secondary Fracture Prevention Services? Have you seen a recent publication in the area that might be of interest?

If so, let us know about it! Email the Alliance at contact@sosfracturealliance.com.au and we'll let all our Members know!

Research of Interest

New research cracks higher fracture risk in women

The presence of calcium in the abdominal aorta, the major artery between the heart and the abdomen, is associated with an increased bone fracture risk.

A novel way of analysing scans from bone density scans has revealed that more than 50 per cent of older women have advanced blood vessel disease, putting them at an increased risk of suffering a bone fracture.

Bone density scans are already widely used to identify individuals with osteoporosis (low bone mineral density), which can lead to fractures.

Now researchers from Edith Cowan University (ECU) have found that while around 1 in 10 of the women in the study had osteoporosis, over half of them also had a build-up of calcium in the aorta, increasing their risk of fracture regardless of bone mineral density.

ECU researchers examined the scans of more than 1000 older Australian women taken in the late 1990s, collected during bone density testing by UWA/ECU Professor Richard Prince.

The work builds [on previous research](#) that found that aortic calcification is associated with an increased risk of suffering a heart attack or stroke.

Work is now underway with a team of Artificial Intelligence researchers at ECU led by Professor David Suter to develop an algorithm that can automatically detect the aortic calcium build-up in bone density scans.

It is estimated around 1.2 million Australians have osteoporosis, with women being at greater risk than men. Fractures in the elderly cost Australia more than [\\$3 billion each year.](#)

['Association between abdominal aortic calcification, bone mineral density and fracture in older women'](#) is published in the Journal of Bone and Mineral Research.



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SOS FRACTURE ALLIANCE: MEMBER ORGANISATIONS

Representing over 3,000,000 individual members across Australia



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