

The left half of the page features a vertical rectangular area with a teal, marbled texture, resembling crumpled paper or stone. This texture is composed of various shades of teal and green, with darker, more intricate patterns interspersed with lighter, smoother areas.

FFN

Policy Toolkit



About FFN

The Fragility Fracture Network (FFN) is a global multidisciplinary alliance whose mission is to advance treatment and secondary prevention of fragility fractures. The FFN Global Call to Action,¹ endorsed by over 130 organisations worldwide, sets out the four pillars of effective fragility fracture care.

What is in this toolkit?

This toolkit outlines five components of successful policy engagement. These are supported by a set of practical resources, including:

- Guidance
- Templates which can be adapted for different contexts
- Case studies
- Links to additional resources and further reading.

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The authors are grateful to the experts who generously provided their time to be interviewed for the toolkit. For a full list of contributors, [see page 50](#).

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What's this toolkit about, and who is it for?

This toolkit is for anyone aiming to engage with policymakers to seek improvements in fragility fracture care. While we hope that the toolkit will be of interest to everyone, we understand that it may have more relevance to those at an earlier stage of their policy engagement journey.

The toolkit describes some key components of effective policy engagement drawn from the real-world experiences of advocates in fragility fracture prevention and care. It contains guidance, tools and case studies with lessons which could be applied in other contexts. It was developed with input from members and associates of the FFN, gathered through 19 interviews across 12 different countries.

The policy toolkit was developed alongside a clinical toolkit with the aim that, together, these resources can support FFN members and others to effectively lobby for and implement improvements against the four pillars in the FFN's Global Call to Action ([see Box 1](#)).



*Click here to read the
FFN Clinical Toolkit*



Box 1

The four pillars of fragility fracture care, as set out in the FFN Global Call to Action

I

Acute multidisciplinary care for the person who suffers a hip, clinical vertebral and other major fragility fracture.

III

Rapid secondary prevention after first occurrence of all fragility fractures, including those in younger people as well as those in older persons, to prevent future fractures.

II

Rehabilitation and ongoing post-acute care of people whose ability to function is impaired by hip and other major fragility fractures.

IV

Formation of national alliances between relevant professional associations to persuade politicians and promote best practice among colleagues.



*Click here to read the
FFN Global Call to Action*

Key commentators in fragility fracture prevention and care have repeatedly called on governments to urgently address the human and economic toll that fragility fractures are placing on societies.

The case for this is compelling. As many as one in two women and one in five men aged over 50 will experience a fragility fracture in their lifetime.² Across the world, it is estimated there are at least 56 million fragility fractures per year.³ The burden of fragility fractures and their associated costs is likely to rise – in the USA, it has been estimated that costs will double by 2025 compared with 2005 due to population ageing,⁴ and similar trends have been identified across Europe and the Asia-Pacific region.⁵

Yet many advocates seeking improvements in fragility fracture prevention and care report low interest from governments and difficulties in securing political prioritisation. This is despite the wealth of international evidence on the burden of fractures, the unmet need around secondary fracture prevention and the high need for formal and informal care for people who have experienced a fracture. This is also despite the existence of cost-effective models of care, and evidence on the positive impact of improvements in fragility fracture care and prevention on broader, system-wide goals, including avoidable mortality, morbidity, disability and hospital admissions. In a competitive policy environment, reversing decades of poor understanding and policy inertia is certainly no easy task – one that has become all the more challenging in a reality dominated by the COVID-19 pandemic.

It is therefore central to the FFN's mission to support colleagues as they seek meaningful engagement with policymakers, ideally working together to ensure their voices are heard.

The FFN urges all colleagues across the world to closely consider the need to engage policymakers in working to achieve change. Central to the FFN's mission is support for national multidisciplinary alliances as they seek meaningful engagement with policymakers. The ultimate policy goals of national alliances are to influence policymakers to:⁶

- respond effectively to the threat posed to their societies from fragility fractures, and recognise the critical role that they play in establishing sustainable health systems, ready for the demands of future populations
- prioritise acute and long-term fragility fracture care and prevention in national health strategies
- increase funding available to develop, implement and test care models, such as orthogeriatric services and fracture liaison services, designed to improve outcomes for people with fragility fractures.

Optimal strategies for political engagement will vary a great deal across countries. Therefore, this toolkit does not attempt to provide a prescriptive approach or promote a single "best" method. Instead, it offers a summary of practices and learnings, to guide and support colleagues as they consider how to approach policy engagement in their own settings.



Click here to read the guide to the formation of national FFNs

Policy engagement in light of COVID-19

We recognise that the guidance and advice presented in this toolkit are based on the experience of policy engagement in a “pre-COVID” world. As the pandemic evolves, health systems and government budgets are likely to be put under even more pressure. While we do not know exactly what the impact of this will be, it will likely become more important than ever to make a strong case to policymakers on the critical importance of prioritising effective fragility fracture prevention and care.

While many aspects of fragility fracture care have been disrupted and secondary fracture prevention services closed,⁷ it is crucial to emphasise the essential and continued need for fragility fracture care, including secondary fracture prevention. Those who are worst affected by fragility fractures – people who are frail, those who have pre-existing conditions and the oldest in our societies – are also particularly vulnerable to the effects of COVID-19.

COVID-19 can increase the risk of fractures among older people, whether they contract the virus or not. Those who have had COVID-19 may face a higher risk of fractures due to both the immobility associated with recovery and the impact of COVID-19 medications on muscle function and bone mass.⁸ Levels of physical activity among older people who are attempting to avoid infection can also be severely limited, potentially leading to a loss of bone and muscle mass.⁹ As levels of the virus fall and older people become more active, reduced bone and muscle mass may put them at a greater risk of falls and fractures, resulting in even more fractures that require care.

In a new reality marked by the pandemic, it will be essential to think creatively and be flexible in how we implement care measures for this population.

What is **policy engagement**?

In this toolkit, we define policy engagement as the action of connecting, communicating and negotiating with policymakers with the specific intention of influencing their decisions in pursuit of improved fragility fracture prevention and care.

Engaging with policymakers is essential for improving the prevention and care of fragility fractures. Policy engagement is not always easy – it can be a complex, time-consuming and often frustrating process.

The premise of this toolkit is to distil and share the experience of FFN members and associates, to enable the lessons that they have learnt to be shared with colleagues around the world. We begin from a position of understanding that FFN and its members have already led successful policy engagement activities, achieved significant policy change in their countries and learnt important lessons which could benefit others. It is these lessons which have formed the backbone of our understanding of what policy engagement is and how it can be used to successfully support improvements in fragility fracture care.

Policy researchers and practitioners have written at length about the role of policy engagement and have developed multiple (sometimes conflicting) theoretical frameworks for understanding how policy change happens.¹⁰ It is not our intention to re-state this literature, although we reference it where appropriate.

"Policy engagement takes time – much longer than we expected."

Derrick Chan, Taiwan



"The only way to improve care in the long run is to change policy."

Karen Hertz, UK



There are many ways for policy engagement to happen, but three broad approaches seem to be most important. Advocates may choose to focus on just one of these approaches, or they can address all three in combination:¹¹

1. Presenting evidence and advice to policymakers through developing and piloting new approaches, delivering evidence-based arguments and high-quality research (including implementation science approaches) and analysis, among others. This can be delivered to policymakers directly or indirectly, and used to build support for policy change among clinical colleagues, creating pressure from the bottom up.

2. Lobbying and negotiation with policymakers through formal meetings and participating in boards and committees, in addition to more informal channels of engagement. The face-to-face aspect of this route to engagement can be important, as can the development of new or existing relationships of trust.

3. Public campaigns and advocacy to raise awareness through the media, public meetings, presentations at conferences and other platforms for public debate. This can be achieved through advocacy activities, public education and activation, and targeted messaging.

Policy engagement is both a science and an art. There is no right or wrong way for policy engagement to happen and what works well in one country at one specific moment in time could have limited influence under different circumstances, or worse, completely backfire. Although we cannot provide a blueprint or roadmap for your policy engagement activities, what we have compiled is an overview of the components which are seen as critical to the policy successes achieved by FFN members across the world in fragility fracture prevention and care. These are organised in this toolkit into two phases: a preparatory internal phase, which involves setting the groundwork for policy engagement, and a second, external-facing phase, when policy engagement actually takes place.

Phase I:

preparing for policy engagement

Before you begin engaging with policymakers, it is important that you carefully plan and prepare.

This can involve three key elements:

- Building an alliance for change around clear, shared goals based on a foundation of solid evidence
- Mapping the context and harnessing opportunities
- Understanding your audience and tailoring your arguments

Building an alliance for change around clear, shared goals based on a foundation of solid evidence

Why is it important?

Building alliances around a clear goal for a specific need, based on solid evidence, has been critical in driving successful policy engagement for fragility fracture prevention and care.¹²⁻¹⁶ This involves bringing together a diverse group of stakeholders with an interest in fragility fractures – including clinicians from different disciplines, patients and carers – to understand where shared priorities lie, and forming an alliance around a specific goal. This can then form the basis of policy engagement activities for the alliance or its member organisations.¹³

"Politicians will struggle with mixed messages. We need to engage policymakers with a single, unified voice to gain their support."

Jacqueline Close, Australia



"You cannot underestimate the importance of a coalition of the willing in driving large-scale change. This involves leaders from different organisations seeing the bigger picture and the value that working together presents."

Gill Hall, New Zealand



"Everyone has their own advocacy agenda but to have an impact you need a unified voice. If you don't, you risk confusing policymakers and diluting your messages."

William Shaffer, USA



Policymakers are more receptive to policy demands when a range of groups with different perspectives are calling for the same goal. FFN members testify to this as being far more impactful than policy engagement activities undertaken by organisations individually (see Box 2).¹²⁻¹⁹

"Policymakers were receptive to our demands because they could see that our advocacy was built on strong multidisciplinary collaboration."

Maroun Rizkallah, Lebanon



"Multidisciplinary collaboration is critical in supporting policy change. All voices must be heard."

Karen Hertz, UK



Box 2

Osteoporosis Refracture Prevention programme, Australia

In New South Wales, Australia, developing a coalition was essential to the successful implementation of the Osteoporosis Refracture Prevention (ORP) programme. The ORP is based on the fracture liaison service concept which was developed by a multidisciplinary team from across the state. It has been integrated into healthcare policy, and is now implemented statewide.

The ORP was developed to align to the state government's broader approach to health policy, which prioritises value-based healthcare through its Leading Better Value Care initiative.²⁰ The initiative delivers patient-centred models of care in 13 areas including the ORP. The ORP model guides consistent service delivery and key performance indicators to monitor quality and outcomes. Collaboration across disciplines as well as the engagement of well-respected clinical leaders have been essential factors contributing to the programme's success.²¹



[Click here to read the full case study 1](#)

The role of alliances is also well-recognised as a success factor in the wider policy engagement literature. They are identified as key in bringing together different skill sets, building support for a particular cause and ensuring that stakeholders who may otherwise be in a position to block, delay or alter policies are brought on board.¹⁰ Policymakers may also find it more straightforward to work with alliances as opposed to working with multiple single organisations (see Box 3).²²

"Good collaboration between different specialisms has been very important in raising awareness of the importance of fracture prevention and care among different groups of healthcare professionals in Thailand."

Aasis Unnanuntana, Thailand



"Developing a coalition of the willing to speak with one voice is incredibly powerful."

David Marsh, UK



Box 3

National Hip Fracture Database, UK

In the UK, strong multidisciplinary collaboration was essential in driving the successful establishment of the National Hip Fracture Database (NHFD). This collaboration led to the development of a set of quality standards for hip fracture care, which eventually formed the basis of the NHFD. FFN members report that policymakers were receptive to the establishment of the database for a number of reasons, particularly their ability to "speak with one voice" to policymakers.^{13 15 23}



[Click here to read the full case study 2](#)

What can I do?

Although necessary, developing an alliance will likely require care and patience. While it can be relatively straightforward to identify partners and garner support, such as including a supporting organisation's name and logo on a letter, gaining commitment for more tangible support can be more difficult. Negotiating policy goals in a way that meets the strategic objectives of all the organisations involved can be complex.²⁴

Furthermore, early in the alliance-building process it may be necessary to spend time developing trust among stakeholders who may not have worked together in the past or need to work together differently (see Box 4).^{15 16}

"As an alliance approach, it is essential to stay focused on what you are trying to achieve. Everyone has their part to play in the puzzle, everyone has a role in achieving a shared goal."

Gill Hall, New Zealand



Box 4

Live Stronger for Longer, New Zealand

In New Zealand, the success of the Live Stronger for Longer programme was based in part on the strong multi-stakeholder alliance approach, which was cultivated around a clear shared vision. Live Stronger for Longer takes a whole-system approach to falls and fracture prevention. It supports initiatives in the community such as home- and group-based strength and balance classes, fracture liaison services, medication review and more integrated models of care. The programme has been developed and implemented through collaboration of government agencies, non-governmental organisations and local healthcare providers. Building trust and finding common ground between the different stakeholders involved was critical to their success.¹⁶



*Click here to read
the full case study 3*

FFN has developed guidance to support alliance building. The *Guide to the formation of national Fragility Fracture Networks* provides helpful guidance on how to establish national FFNs (nFFNs), and this may be the logical starting point.

Policy alliances can take many forms. They could be formal groupings with extensive membership and governance arrangements based on memoranda of understanding, but they can also be informal networks of individuals who participate based on an interest in a specific issue and who reflect the alliance's discussions and activities back to their own organisation to build wider support (see Box 5).²²



Click here to read the guide to the formation of national FFNs



Box 5

FFN Philippines

FFN Philippines has developed a broad multidisciplinary alliance around a set of clear policy goals. It was established in 2018 with the aim of catalysing change among key medical societies and organisations. Key stakeholders who were nominated as "champions" were given the responsibility of bringing their colleagues on board with FFN Philippines' broader policy aims. FFN Philippines now has membership which includes representatives from orthopaedics, rehabilitation medicine, anaesthetics, internal medicine, family medicine, geriatrics, nursing and physiotherapy.¹⁸



Click here to read the full case study 4

When developing an alliance built around clear shared goals and based on solid data, key learnings include the following:

- **Agree on clear goals and objectives.** How these goals are framed will vary depending on the context, but it may be helpful to select goals shared by enough interested parties to form an alliance and involve stakeholders who can open doors to policymakers.¹³ These goals must be based on a foundation of strong evidence which is compelling to all stakeholders, including clinicians, policymakers and patients (see 'How to establish clear goals and objectives').
- **Identify and establish a diverse and dedicated core of alliance members who strongly align to your common goals.** It may be helpful to ensure a small core of stakeholders are aligned before seeking to expand the alliance's membership.²⁵
- **Make it easy for partners to join your alliance and then convince them to play their part.** Alliance partners need to understand how they will benefit from joining you and how much work will be required of them.²⁵
- **Identify champions within your immediate network** who can gain the support of their organisations, such as the medical societies of which they are members.¹⁸ The champions can advocate for their organisation to join your alliance and ensure it is kept up to date on developments.
- **Identify a wider set of stakeholders to prioritise for inclusion in the coalition.** These can be selected strategically based on factors such as their interests, policy engagement expertise, political connections, how they are perceived by policymakers and existing gaps in the alliance (see 'How to do stakeholder analysis').
- **Be pragmatic and flexible.** When many organisations come together, it is reasonable to expect that they will each have their own priorities and that they will not necessarily align on *all* issues. You may be required to make compromises to secure the involvement of particularly important organisations,^{13 16} as long as this does not detract from the overall goals of the alliance.
- **Build a sense of momentum as the alliance expands.** As you bring more stakeholders into the alliance, you can create a sense of needing to join or being left behind.¹³
- **Continue to come back to the question: "What are we here to achieve?"¹⁶** Keeping a clear, ongoing focus on your goals is important, especially as the alliance expands.

"Flexibility is vital. It is important to understand that involving the right stakeholders from the start is essential, but to secure their involvement, compromises may need to be made."

Finbarr Martin, UK



Additional tools and practical guidance

How to establish clear goals and objectives

To arrive at clear goals and objectives which are based on a robust evidence base and will guide the alliance, you can follow a number of approaches. One such approach is known as SMART. It can help you to clarify what you hope to achieve, and provide a framework for organising key aspects of your goal in a way that can be easily communicated to those you are working with.

In summary, SMART calls for goals and objectives to be:

- **Specific:** the goal should be direct, detailed and meaningful.
When considering specific goals and objectives it can be important to consider questions such as:
 - What** do you want to achieve? Is this a change in policy, increased funding, a change to the existing rules etc.?
 - Why** is this goal important? What problem does it aim to address?
 - Who** will be involved? This includes members of your alliance and wider supporters.
 - Where** will this goal be located? This might be important for policy changes which target specific regions or levels of the health system.
- **Measurable:** the goal should be framed in a way that enables progress to be monitored. This will require consideration of how you will know when the goal has been achieved.
- **Achievable:** the goal is realistic with the resources you have available.
- **Relevant:** the goal is important to all organisations involved.
- **Time bound:** there is a deadline by which you plan to achieve your goal.

As with any method, there are pros and cons with SMART. It is easy to use and does not require any training. On the other hand, some see it as an inflexible approach which can stifle creativity. Nonetheless, it can be a helpful starting point.

How to do stakeholder analysis

What is stakeholder analysis?

Stakeholder analysis is a process of understanding which individuals and organisations can help you achieve your goals. It can be used to identify who you can invite to join your alliance and to target individuals within the government or the statutory sector for your future policy engagement activities.

Who are your stakeholders?

To identify your stakeholders, start by thinking about who is likely to be impacted by the policy goal you are trying to achieve, regardless of whether they are likely to be supportive or not. It can be helpful to debate this as a group, brainstorming with a range of colleagues from different backgrounds and perspectives, if possible.

Your target stakeholders may include elected officials, civil servants, professional societies, opinion leaders, healthcare administration/management, payers, advocacy organisations, health insurance providers, patient organisations and the private sector, among many others. It is important to consider stakeholders not just from the health sector; those in the treasury or the finance sector may also be important in helping you to achieve your goal.

Understanding your stakeholders

During this brainstorming session, it could be helpful to organise and prioritise stakeholders by putting down names of individuals and organisations into a matrix (see [Figure 1](#)).²⁶

Once you have organised your stakeholders, try to understand how they are likely to feel about your policy goals. Ask yourself questions such as:²⁷

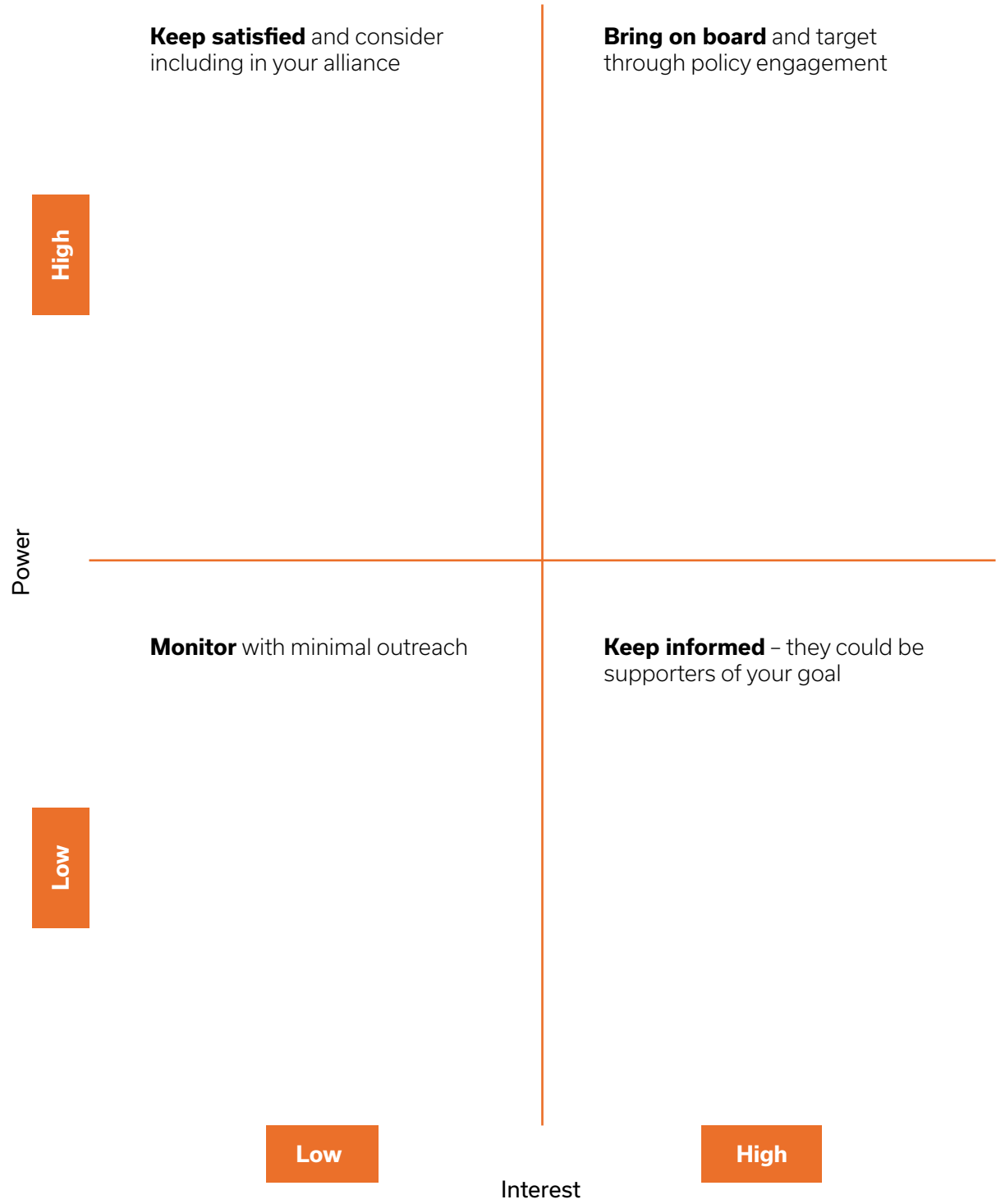
- What motivates them?
- How can your goals support their interests?
- Are they likely to be positive or negative about your policy goals?
- If they are likely to be negative about your goals, what can help to win them over?
- If you think it will be difficult to win them over, how will you manage their opposition?
- Who else might be influenced by their opinions?

Responses to these questions can help you to understand how best to engage and communicate with these stakeholders.



Figure 1

Stakeholder analysis template



Mapping the policy context and harnessing opportunities

Why is it important?

It is much more effective and efficient to align your goals to the stated priorities of decision-makers, as opposed to expecting policymakers to adopt your priorities in the short term. Furthermore, this assessment of policy priorities and opportunities needs to be constantly revisited as the context changes (see Box 6). This resonates with established political engagement theory, which holds that a sound understanding of policy context is an essential lens for efficiency. It allows you to focus your efforts where they are most relevant to achieving your goal and to determine which activities are likely to be most effective or appropriate in a particular place and time.¹⁰

"It is important to understand the changing political environment and the government's strategic priorities, so you can understand how your goals fit with theirs."

Ravi Jain, Canada



"Policy engagement requires strategy and a healthy dose of opportunism. Otherwise, it is very challenging to translate clinical best practice into policy, and ultimately into better outcomes for our patients."

Jacqueline Close, Australia



Box 6

Ontario Osteoporosis Strategy, Canada

In Canada, stakeholders advocating for the Ontario Osteoporosis Strategy were successful by responding to the government's changing strategic focus. In the early 2000s, the Ontario government turned its attention to women's health. This provided an opportunity to present the Ontario Osteoporosis Strategy and the Fracture Screening and Prevention Programme as a women's health priority. Over time, key programme partners understood that policymakers were increasingly seeing hip fractures as an important societal and economic challenge. In response, they shifted the programme's positioning to an explicit focus on hip fracture prevention.²⁸



[Click here to read the full case study 5](#)

When policy engagement at the highest level is yielding limited results, it may be more effective to focus efforts on raising awareness and gathering support “from the bottom up”. This can be achieved through engaging communities, hospital administrators, physicians, nurses and professional societies.^{18 29 30}

Some have noted the important role that communicating local success stories can have in influencing national policymakers, especially where there is already a culture of comparing regional performance.¹³ Others point to the importance of engaging policymakers at the state or regional level. For example, in Canada, where healthcare policy decisions are made at the provincial level, many successful policy engagement activities have focused their efforts on even smaller local or regional stakeholders, such as an individual hospital or district health authority.^{24 28 31}

“We can’t just wait for government to make policy;
we have to work from the bottom up.”

Irewin Tabu, Philippines



“Securing the buy-in of the implementers of policy change is critical and often a challenge. To successfully advocate for implementation of FLS, we came to realise the importance of obtaining the buy-in of hospital administrators as they are ultimately responsible for decisions on funding allocations and hiring.”

Diane Theriault, Canada



“We looked for where there were existing government initiatives to understand how our priorities could align with theirs. Although we could see the bigger picture around fragility fractures, the policymakers didn’t need to. Ultimately, we do not need to convince policymakers of the whole picture, we just need to convince them to play their part in it.”

Finbarr Martin, UK



The COVID-19 pandemic is having an unprecedented impact on healthcare policy and delivery. When working to understand the context, we must bear in mind that policymakers – especially those involved in healthcare – are facing many challenges, some previously unknown, and fragility fractures may not be seen as a priority right now. Within your context, it is therefore important to understand where opportunities for engagement lie and how fragility fractures can be positioned during the pandemic and post-pandemic phases.

What can I do?

Evidently, then, you must understand your government's overarching strategic priorities in healthcare, in order to determine how your goals fit in with theirs.^{13 21 28} Discussions with FFN members have highlighted some key learnings:

- **You might find it helpful to seek expert advice on policy engagement,** which can help you understand the context and key opportunities within government.^{16 17 31} This may be advice which is commissioned through an agency or expert guidance from individuals either within the political system or experienced in working with it.
- **Be ready to adapt as you go.** The specific approaches or key messages which you have identified at the outset may not continue to drive the change you need in the long term.¹³ Therefore, FFNs are well advised to continually assess policy opportunities and respond to the changing strategic environment.²⁸
- **Consider whether upcoming elections present opportunities for policy engagement.** A change in government can bring opportunities as well as challenges, which need to be understood, planned for and addressed.^{28 30}
- **Consider whether the World Health Organization's decade on healthy ageing 2020–2030** and the focus on age-friendly healthcare systems present any opportunities which could be harnessed.
- **Identify opportunities to meet policymakers face to face.** This can allow you to answer their questions and gain a nuanced understanding of their position. It is important to be as well-prepared as possible to make the most of these meetings.²² In Brazil, the São Paulo officials became supportive of the fracture liaison service (FLS) concept following a face-to-face meeting with FFN Brazil to discuss how FLS could be implemented in the city.³²
- **If engaging with elected officials, identify opportunities to link with them in their constituencies,** tailoring messages relevant to their area.²⁸
- **Organising or participating in events where policymakers are present can also be helpful in raising awareness and support.** FFN colleagues in the Philippines, Brazil, Canada and Lebanon have commented on the benefits of arranging summits, conferences and meetings to educate and raise awareness of specific approaches to fragility fracture care among participants, which included policymakers.^{18 30-32}

- **Choose eloquent, influential spokespeople to engage with policymakers.**
It will be important to select spokespeople who will be trusted and respected by the policymaker. This may include patients, clinical leaders, government ministers, political leaders or community leaders.^{21 30}
- **Be persistent.** Policy change can take time and it is important to use any opportunity you can to reiterate your messages.^{18 19 21 30}
- **Harness the power of the population to influence government.**
Raising awareness of the importance of fragility fracture prevention among the community through traditional and social media can be an important driver of policy change (see Box 7).³⁰

"Policy changes which are important in driving fragility fracture care at a particular point in time may not remain levers of change forever. Timing and context are critical. It is just as important to realise when a specific approach is no longer necessary as it is to know when it is a key driver."

Finbarr Martin, UK



"Policymakers face so many competing priorities. We must continually reassess opportunities to emphasise the importance of secondary fracture prevention to ensure the sustainability of our successes."

Cyrus Cooper, UK



Box 7

FFN Lebanon

In Lebanon, awareness raising among the community helped to put pressure on the government to act. FFN Lebanon (formerly the Lebanese Osteoporosis Prevention Society) has been very active in both direct policy engagement and raising awareness of osteoporosis and fragility fractures. Communities were able to put pressure on policymakers, contributing to a change in reimbursement policy for osteoporosis treatment and fragility fracture care.³⁰



[Click here to read the full case study 6](#)

With current opportunities for face-to-face meetings being limited due to the COVID-19 pandemic, alternative approaches need to be considered. These could include video calls, presenting at virtual conferences and developing persuasive written communication to share with policymakers.

"Although it took many years to see the policy change we had been advocating for, in the end, the argument was too convincing to ignore."

Robyn Speerin, Australia



"It takes a high degree of consistency, commitment and time to build relationships of trust with policymakers. Being persistent, constantly available and honest is key."

William Shaffer, USA



"You need to look for opportunities all the time to speak up and reinforce your messages."

Robyn Speerin, Australia



"We were able to gain attention from policymakers by framing FLS as a new technology in healthcare. This was a topic they were interested in at this time."

Adriana Machado, Brazil



"Presenting compelling local data to the Minister of Health at our conference was a key factor in supporting important changes in policy. The Minister understood the very real public health impact fragility fractures place on our societies."

Maroun Rizkallah, Lebanon



Additional tools and practical guidance

How to map the context

When trying to understand the context, it can be helpful to consider the following questions:

- Which policymaking structures are relevant to your goals? These may include ministries of health, organisations which commission health services, insurance agencies and national or state-level parliaments.
- How are decisions made and how does policy change happen? Which mechanisms are critical to influence?
- What opportunities are there to input into formal policy processes? This could include raising questions in parliament through elected officials, or writing formal submissions to specific agencies or politicians.
- Who shapes the aims and outputs of policies and who might support/block change? (See 'How to do stakeholder analysis')
- What evidence is available to you?
- Which assumptions and narratives influence policymaking? Examples of existing narratives may include active and healthy ageing, wellbeing, quality patient outcomes or cost-effectiveness.

For tips on how to prepare for meeting with policymakers, see [Box 8](#).

How to assess and prioritise key opportunities

Analysing the context to understand key opportunities can be a helpful exercise to undertake. SWOT analysis provides a simple framework for understanding four aspects of the context of your work: strengths, weaknesses, opportunities and threats (see [Figure 2](#)). As with the stakeholder analysis, it can be helpful to undertake SWOT analysis as a group.²⁶ When completing the matrix, try to think of strengths and weaknesses as internal to your organisation/alliance and opportunities and threats as external.

Figure 2

SWOT analysis template for policy engagement

Strengths

- What kind of policy influence do you have?
- Where have you had most success?
- What policy engagement skills or expertise do you have?
- Do you have relationships with policy actors?
- What capacity do you have?
- Are you involved in projects or initiatives you could leverage?
- What local data are available?

Weaknesses

- What kinds of challenges have you or your alliance faced when trying to engage policymakers?
- What policy engagement skills or expertise do you lack?
- What capacity do you lack?
- What areas would others see as your weaknesses?

Opportunities

- Does the policy space present any opportunities you can take advantage of?
- Are there other groups working towards your goal?
- Are there potential sources of advice you can pursue?
- How can you turn your strengths into opportunities?

Threats

- Are there any threats that could impact your ability to achieve your goal?
- Are there any groups working against your goal?
- What threats do your weaknesses expose?



Box 8

Tips for meeting with policymakers

- Research the policymaker to understand their interests and tailor your key messages accordingly.
- Ensure those involved in the meeting understand and are able to explain the problems and solutions you are planning to raise, drawing on clear key messages.
- Decide who will lead the meeting and who will take notes.
- Prepare talking points covering what each person attending from your team will say.
- Do not spend too long talking about your organisation or the problems. Instead, focus on solutions and actions the policymaker can take. Rehearse this before the meeting.
- Be clear on what you are asking the policymaker for and what you want them to do after the meeting.
- Make sure you emphasise how the policymaker's support or actions can benefit them and their constituents.
- Try to understand the policymaker's views on the issue.
- Think about the questions they may ask and plan your answers.
- Respect their time by arriving slightly early and being prepared to finish on time.
- Leave behind some concise, high-impact written materials, such as a short policy briefing or flyer.
- Follow up with a thank-you email after the meeting which summarises key points discussed and any actions the policymaker volunteered for.



See also 'How to identify and understand your target audience'

Understanding your audience and tailoring your arguments

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Why is it important?

Understanding the kinds of arguments which resonate best with policymakers has been central to the success of many policy engagement efforts by FFN members. It is clear that evidence provides an important foundation for these arguments. How that evidence is framed and presented, however, both on its own and alongside other narratives and arguments, can be critical in determining the extent to which it has an impact on policymakers.

"Policymaker" is a broad category. You may need to engage a variety of groups, including elected officials, civil servants, insurers, payers, opinion leaders and others.

"Policy engagement is not just about evidence. You need to take a systems approach to understand the complexity of influences on the behaviours of individuals, clinicians and policymakers. You need to try to impact as many of these as possible."

Cathie Sherrington, Australia



"Policymakers have to be able to see and understand the benefits of fragility fracture prevention, especially in these uncertain economic times."

Karen Hertz, UK



"We had to understand the government's strategic plan for our health system to know how to frame our efforts and tailor our arguments. We have had to continually re-evaluate this as the government's priorities evolve."

Robyn Speerin, Australia



"Policymakers understand and react to clear, tangible messages. Emphasising the burden of hip fractures, the associated costs, the impact on patients and caregivers and the future challenges related to an ageing demographic tell a convincing story."

Famida Jiwa, Canada



This means that multiple approaches and sets of tailored arguments will likely be needed. Ultimately, policy decisions are made by individuals who process the information presented to them in a way that reflects their wider views of the world.¹⁰ In Australia, colleagues have noted the importance of engaging with and tailoring specific arguments for high-level bureaucrats who are influential in setting policy.²¹

Naturally, arguments might be framed in several different ways to connect with various audiences, reflecting the stakeholders' political priorities and opportunities identified in the context mapping (see 'Mapping the policy context' and Box 9). Examples include arguments which focus on health outcomes,²¹ quality improvement,¹³ wellbeing and healthy ageing,¹⁶ in addition to those which are more focused around efficiency and the economic case.^{12 28 30} Ultimately, arguments are likely to be most successful when they draw on multiple sources including scientific evidence, economic data and patient experience, among others.

"You need to think carefully about how to 'sell' fragility fracture prevention. This means choosing a focus which you know will resonate well with policymakers. In other words, think about how to market the package."

Jacqueline Close, Australia



"Messages need to be simple and present concepts in a clearly understandable way."

Ravi Jain, Canada



Box 9

Fragility Fracture Alliance, USA

In the USA, the Fragility Fracture Alliance (FFxA) has found success by building strong relationships with policymakers at the national and state levels and developing compelling tailored arguments. FFXA has spent many years developing relationships with policymakers, including regulators such as the Centers for Medicare & Medicaid Services and elected politicians at the national and state levels. For each group of policymakers, FFXA has identified the kinds of arguments which seem to have the greatest impact, whether those are focused on science and data or on personal stories which highlight the impact of fragility fractures.¹⁹



[Click here to read the full case study 7](#)

Overall, simple messaging is an important aspect of developing effective arguments. Select the key angle that the audience will value and focus on winning interest in that topic first. It is important to avoid jargon and be sure to present concepts in a way that is clearly understandable to busy policymakers.^{13 28}

Policy engagement can be much more effective when arguments are based on robust local data (see Box 10). Conversely, gaining traction with policymakers when only international evidence is available can be challenging. In the absence of local data, policymakers may be sceptical that the challenges presented are relevant or that solutions could be applied in their country.^{14 18} In Lebanon, the collection and sharing of data on the success of a local FLS helped to raise awareness among policymakers of the importance of this approach, leading to increased support from government.³⁰

"Without local data, it is very difficult to show the government the importance and impact of improving fragility fracture prevention."

Irewin Tabu, Philippines



"Presenting policymakers with local data was powerful. It challenged them to improve the situation for their constituents."

Karen Hertz, UK



Box 10

Improving fragility fracture prevention and care, Thailand

In Thailand, presenting robust and convincing local data was instrumental in securing national policy change. Advocates collected and presented local data on the impact of FLS on health outcomes and costs, which they combined with international FLS data. These data were presented to government and contributed to the implementation of a national policy requiring each of Thailand's 77 provinces to introduce at least one FLS.^{12 34}



[Click here to read the full case study 8](#)

What can I do?

Of the many methods for persuading policymakers, FFN colleagues identified some as particularly important and often use them in combination. These include the following:

- **Present solutions, not just problems.** Policymakers are more likely to engage if they are presented with solutions to problems they are already facing. How you frame these will vary, but there are similarities in how FFN members have approached this. In contexts as different as the [UK](#) and [Thailand](#), for example, solutions were offered which focused on quality, efficiency and the long-term impact of improved services.^{12 15}
- **Aim to capture what local data you can.** Highlight the importance of the challenge in a local setting and the potential impact of different solutions on the local population.^{12 18 30} Sources of local evidence can include data from research initiatives and pilot studies^{14 30} and publicly available data sets, such as those on hospital admissions or population demographics.³² These can be used to develop compelling, locally relevant arguments, especially when supplemented with international data to fill any gaps in local evidence.^{31 32}
- **Develop economic arguments based on local data.**^{14 30} In some contexts, arguments that centre on return on investment and those which stress how resources can be used more efficiently have been important in driving policy change.^{14 16 21}

"We didn't have a lot of local evidence on fragility fractures so we combined the data on the number of femur fractures with demographic data on population ageing and national and international cost data to develop a persuasive narrative on the scale of the fragility fracture challenge facing Brazil."

Adriana Machado, Brazil



"We have to change the mindset of policymakers. We must present robust evidence to encourage policymakers to understand that adapting the system to support fragility fracture prevention and care is a critical and cost-effective investment."

Tanawat Amphansap, Thailand



- **Emphasise the personal impact of fragility fractures.** In addition to hard data, real-life stories can be powerful in helping policymakers understand the disease on an emotional and personal level. ^{19 23 35} In New Zealand, the Live Stronger for Longer programme was developed around a persona called Muriel. This character was used to engage the stakeholders and engender a deeper understanding of the issues, the programme and the role they could play in keeping Muriel healthy and independent.¹⁶
- **Emphasise that international accolades can raise interest among policymakers.** ^{14 34} In Taiwan and Thailand, the international recognition associated with the Capture the Fracture® programme by the International Osteoporosis Foundation has contributed to increased government awareness and support for fragility fracture prevention and care.^{14 34}
- **Be clear, concise and free of jargon.** You should be able to communicate your key message in less than a minute.
- **Involve patients in policy engagement.** Patients can be invited to meetings with policymakers or to speak at conferences.^{13 31}

"When engaging with politicians, do not focus on the problems; present the solutions to the challenges they have already identified."

David Marsh, UK



Additional tools and practical guidance

How to identify and understand your target audience

When pursuing a specific policy goal, it is important to identify the individuals who are in a position to make the changes you are asking for (decision-makers) and the opinion leaders who can influence them (influencers).^{36 22} When identifying these individuals, be specific, naming people or positions where possible so that you can tailor your messages accordingly.^{36 22} A stakeholder analysis tool can help you to identify these individuals, with questions designed to help you to understand how best to tailor your messages for them (see '[How to do stakeholder analysis](#)' and [Figure 3](#)). Complete one table per stakeholder.

Figure 3

Understanding your audience

Question	Notes
Who is the target of your policy engagement?	
Why is this person a policy engagement target and what actions do you want them to take?	
How much do they know about the topic already?	
What motivates them?	
What interests do they have in your policy goals?	
Based on their past activity, what kinds of arguments would it take to persuade them? Are they persuaded by facts or more personal narratives? Are economic arguments important?	
Are there specific people or groups this person is likely to listen to?	
What actions should you take next?	

Phase II:

delivering effective policy engagement

Once you have prepared and planned for your policy engagement, you will be ready to begin reaching out and engaging with policymakers. The experience of FFN members suggests some important factors associated with successful policy engagement:

- Collecting and disseminating data which demonstrate impact
- Making the best use of your networks

Collecting and disseminating data which demonstrate impact

Why is it important?

Policymakers need to feel confident that the changes they are being asked to drive or continue to support will have a positive impact. Highlighting benefits already gained can be instrumental in achieving this.

Monitoring results and highlighting benefits to policymakers can be very effective. Anyone asked to commit time or resources to your initiative needs to see results, particularly documented local successes, before they commit to investing in or scaling-up a proposed approach.²⁹⁻³¹

There are different ways of collecting and presenting impactful data. For instance, in Ontario, Canada, monitoring and evaluation with regular feedback loops has been built into programmes to generate the robust data policymakers need.²⁸

In some contexts, collecting and presenting data which compare the situation and impact of interventions between areas has been helpful in grabbing the attention of local policymakers and driving change. In the UK and Australia, the national hip fracture databases publish comparative data, which FFN colleagues have noted as being important in highlighting gaps and areas to focus on.^{15 17} It is worth noting, however, that this approach is not always culturally acceptable. In some countries, comparisons between regions or hospitals would not be seen as appropriate by policymakers.²⁴

"We have used the results of our pilot study to emphasise the success of FLS in our country and build support among policymakers."

Elias Panagiotopoulos, Greece



"The key to our success was our ability to show policymakers the impact that FLS were having on fragility fractures and costs in our own country."

Tanawat Amphansap, Thailand



What can I do?

- **Publish studies which highlight your results in peer-reviewed journals.**
This can provide a credible basis on which to engage with policymakers and their advisers.
- **Agree and report on quality standards,** so that policymakers can feel confident you are committed to results and that progress in key areas is being monitored.

"Being able to present solid data on performance to policymakers is critical."

Ravi Jain, Canada



Why is it important?

Policymakers are more likely to be receptive to messages from prominent, influential partners and people they already know. Individuals who are well known and well respected within your alliance could therefore be important to include in your policy engagement activities, for example, to lead policy engagement efforts on your behalf. This could include international experts in addition to experts and other champions working in your own country. In New South Wales, Australia, the success of the [Osteoporosis Refracture Prevention programme](#) has been in part due to the support of well-respected, prominent, influential clinical champions to whom policymakers were willing to listen.²¹

Having a personal connection with policymakers who understand the importance of fragility fracture care and prevention can be helpful in supporting policy change.^{13 15} A lack of connections with policymakers has been noted as a barrier.¹⁴

Being pragmatic is important. If your alliance does not have existing relationships with policymakers, you may need to take a different approach, such as seeing whether policy engagement would be more effective at a more local level.

"FFN Greece is new and although we do not yet have policy leverage, we have been able to gain the attention of ministers through the influential scientific societies who support our work."

Elias Panagiotopoulos, Greece



"Policymakers are overwhelmed with arguments and data on the scale and impact of different diseases, making it difficult for them to make decisions. We presented local data on fragility fractures, but this did not create the level of support we had hoped for until we secured the support of local clinical champions."

Robyn Speerin, Australia



What can I do?

- **Map your networks to understand the extent of the personal and professional connections available to you.**^{18 29} This will also help you identify where there are gaps.
- **Consider engaging with new stakeholders** who may be supportive of your goal and able to support your policy engagement activities.

"In some provinces, we have found it difficult to secure the widespread support of the local clinical champions. This has impacted our ability to be successful in our policy engagement activities."

Diane Theriault, Canada



"Collaborating with international experts and bringing them into policy discussions helped to generate momentum and engagement from policymakers".

Derrick Chan, Taiwan



Case studies

Here we have collected eight examples of successful policy engagement to advance fragility fracture prevention and care. FFN colleagues from across the world, spanning countries such as New Zealand, the Philippines, Lebanon and Canada, among others, talk about what motivated them to seek change, what they have achieved through engaging with policymakers and the lessons they have learnt.



Australia: Osteoporosis Refracture Prevention programme in New South Wales

The Osteoporosis Refracture Prevention (ORP) programme is based on the FLS model, which delivers coordinated, multidisciplinary management of fragility fractures.³⁷ The programme was spearheaded by the Agency for Clinical Innovation's Musculoskeletal Network and is implemented by the Agency in collaboration with the New South Wales government. It aims to reduce the morbidity, mortality and costs associated with refracture admissions in the state.³⁷

ORP involves the statewide implementation of FLS, which can be accessed through outpatient or primary care clinics.^{21 37} The model has been adapted to meet the needs of people living in rural or remote areas, not only those who live in cities.³⁸

The programme was established alongside an evaluation framework, key performance indicators and a set of clinical indicators. This allows the state to closely monitor the service and ensure outcomes are being achieved. Evaluation measures include coverage, access, quality, staff knowledge and patient-reported measures (PRMs).^{21 37 39}

ORP was developed in line with the government's Leading Better Value Care Initiative's aims to deliver value-based and patient-centred models of care. ORP was the first programme in the state to trial systematic implementation of PRMs, a central feature of the state government's vision for healthcare. By integrating PRMs, the programme was able to highlight the social and psychological issues faced by those who had experienced fragility fractures which, when addressed, allow patients to better focus on the behaviour change required to help prevent future fractures.^{21 40}

What did it achieve?

In 2011, a statewide model of care was published. This allowed the programme to be implemented in a consistent way across the state. At the same time, a formative evaluation of the model of care concluded that it was highly suitable for implementation in a range of different settings.³⁷

The Ministry of Health now funds the implementation of the programme through Local Health District budgets.³⁸ This has contributed to an increase in the number of FLS in New South Wales.

Results from a study of one of the programme's early adopters demonstrated a 30% reduction in any refracture, and a 40% reduction in major refractures, compared with a site without an FLS.⁴¹

Key lessons learnt

- **Collaboration is critical.** Well-respected clinical engagement is key to gaining policymaker support. Collaborating across disciplines to build support from the bottom up is also essential.
- **You should take advantage of opportunities and understand wider strategic priorities.** The Musculoskeletal Network developed a programme that was clearly framed around the state government's strategic priorities, including PRMs.
- **You need to be persistent** and keep rehearsing your story and key messages.
- **Appealing to policymakers' personal experience can be important.** Fragility fractures affect all levels of society, and policymakers may relate to fracture information on a personal level. Asking high-level officials if they have personal experience can be impactful.



UK: improving hip fracture care through the establishment of a National Hip Fracture Database

The National Hip Fracture Database (NHFD) is a clinically led audit of hip fracture care and secondary fracture prevention in England, Wales and Northern Ireland. Hospitals upload data directly to the database and receive benchmarked feedback to support the implementation of changes needed to improve care.⁴² Annual audit reports published by the NHFD summarise progress and gaps against key indicators.

The NHFD was launched in 2007 following wide-ranging collaboration among stakeholders, which involved the development of a set of six consensus-based quality standards by a multidisciplinary team.^{43 44}

The NHFD, along with the Fracture Liaison Service Database and the National Audit of Inpatient Falls, now forms part of the Falls and Fragility Fracture Audit Programme, which is managed by the Royal College of Physicians.⁴⁵

What did it achieve?

In 2009, the NHFD achieved clinical audit status, which has brought with it national recognition and government funding.⁴⁶ In addition, the NHFD was selected as the basis for monitoring the Department of Health's new Best Practice Tariff (BPT) for hip fracture care, a payment-by-results initiative which rewards best-practice hip fracture care delivered in line with, and successfully achieving, the national quality standards.⁴⁶

The NHFD continues to be used to monitor care for hip fracture patients, with all trauma units in England, Wales and Northern Ireland uploading data. The NHFD and BPT have contributed to a reduction in hip fracture deaths, which has been attributed to their promotion of a collaborative orthogeriatric approach.⁴²

Key lessons learnt

- **Speaking with one voice to policymakers is very powerful.** The consensus developed around the NHFD was critical in ensuring that policymakers perceived it as robust and reliable. A coalition with dynamic and highly motivated leaders to champion the initiative was essential.
- **Compromises may be needed to secure buy-in from key partners.** People involved early in the development of the NHFD understood the importance of involving key stakeholders, such as those representing patients and the public, and recognised that compromises might be needed to secure their participation.
- **Presenting policymakers with local data is powerful.** It allowed them to truly understand the situation for their own constituents and challenged them to act.
- **Emerging policy opportunities need to be identified and seized.** The NHFD was established at a time when the government was increasingly beginning to recognise the role of quality improvement, measurement and incentive mechanisms. The NHFD capitalised on these opportunities, presenting its data as the basis on which these mechanisms could be developed.
- **It is important to focus on solutions, not problems.** When engaging with policymakers, those involved framed the NHFD as an effective and efficient solution to the government's problem of poor health among older people.
- **Demonstrating regional variation and proposing solutions can be powerful to policymakers.** Through the data it has collected, the NHFD was able to highlight how different areas were performing against each other and where improvements could be sought.



New Zealand: preventing falls and fractures

Live Stronger for Longer takes a whole-system approach to falls and fracture prevention.^{16 47 48} The programme supports activities such as in-home and group-based strength and balance classes, FLS, medication review, vitamin D prescription, and integrated care across primary and secondary sectors.⁴⁹ The programme's website also provides resources and information on osteoporosis, falls and fracture prevention for people aged over 65 and healthcare professionals.⁵⁰

The programme was developed as part of an ongoing, multi-stakeholder alliance approach of health system partners, including Osteoporosis New Zealand,⁴⁹ the Accident Compensation Corporation (ACC) (which provided NZ \$30.5m of funding), the Ministry of Health, the Health Quality and Safety Commission, non-governmental organisations supporting older people, and local health systems.^{16 47} It was designed around a persona called Muriel and her husband George. The programme's goal was to ensure Muriel remained independent and living at home.^{16 48}

Data collection is integral to the programme. An outcomes framework is used to monitor progress across key indicators, including the number of injury claims received by the ACC, acute falls admissions, length of stay in hospital and coverage of osteoporosis medication.⁵¹

What did it achieve?

The alliance that formed Live Stronger for Longer was able to develop a clear shared goal – the impact the programme would have on Muriel and George keeping independent and well at home.¹⁶ Developing these personae supported stakeholders in understanding not only the goal, but also their role in working towards it.

The programme was also able to achieve strong support and buy-in from government agencies, despite the challenge of not always being able to attribute outcomes to the investment or activities of one agency alone.¹⁶ This required a change of mindset from one of accountability and attribution towards one of recognising the greater benefits of working together for broader common goals.¹⁶

Key lessons learnt

- **Policy engagement based on a strong multi-stakeholder alliance approach can be extremely powerful.** The "coalition of the willing" that worked together to develop a national strategy for improved falls and fracture prevention included policymakers, funders, service providers and consumers.
- **Having clear, common goals is important** in building support among different stakeholders.
- **Developing a robust business case is important, but it can be highly intensive and time consuming to balance perspectives.** Developing a business case which included a return on investment model took around a year to complete. It required an understanding of which data on health and cost outcomes were needed in addition to how messages on social benefit and wellbeing could be communicated.
- **Personal stories are powerful.** Meaningful examples and personal stories, such as those about "Muriel", can resonate well with policymakers and the public who can often find it easier to relate to the issues raised.
- **A focus on outcomes is essential for monitoring and driving change.** The data collected through the programme against a set of carefully chosen indicators provide a shared view of the success of the programme and allow local health systems to understand their contribution.



The Philippines: collaborating around clear policy goals

Fragility fracture care in the Philippines faces a number of challenges. These include limited national guidance, gaps in reimbursement and a lack of coordination between specialties. This is within a wider context of low awareness of the importance of bone health among the population and policymakers alike.¹⁸ While some FLS have been established in the Philippines, there are wide gaps leading to inequalities in access.

To address these challenges, in 2018, key stakeholders formed FFN Philippines with the aim of catalysing different medical specialties to implement the pillars in the FFN's call to action. FFN Philippines began on the initiative of Dr Irewin Tabu, consultant orthopaedic surgeon, who involved key stakeholders within his network to champion the aims of FFN Philippines among their colleagues.

FFN Philippines has laid out a set of clear policy goals, including the integration of bone health in national health policy and the nationalisation of FLS. Each member of FFN Philippines who is also affiliated to other organisations is given the task to promote the call to action to their organisation.¹⁸ This has led to broad multidisciplinary support.

What did it achieve?

Although FFN Philippines is still at an early stage, it has managed to implement some important policy engagement activities, including the following:

- It has built a broad multidisciplinary membership that comprises representatives from orthopaedics, rehabilitation medicine, anaesthetics, internal medicine, geriatrics, family medicine, nursing and physiotherapy.
- It has participated in a national working group on dementia and the elderly (under the Department of Health), which provides opportunities to emphasise the importance of fragility fractures for the health of older people as part of the National Healthy Aging Program.¹⁸
- Through their extensive collaboration, a number of specialist associations in the Philippines have become more receptive to including fragility fracture prevention within their wider activities. The Gerontology Nurses Association of the Philippines has already integrated fragility fractures into its work, which has traditionally focused on dementia.¹⁸
- Orthogeriatrics and FLS have been included in the National Institute of Health's Institute of Aging research agenda.

Key lessons learnt

- **Policy engagement can work from the bottom up rather than from the top down.** In the absence of government policy, clinical groups and hospital administrators are important stakeholders for implementing changes in fragility fracture services.
- **Demonstrating impact to government is very challenging in the absence of local data.** While international resources, including from the FFN and the International Osteoporosis Foundation, have been helpful, it has been difficult to gain traction with the government without local data on the burden of fragility fractures and the economic benefits of secondary prevention.
- **It is important to be persistent in policy engagement.** Every opportunity must be harnessed to raise awareness of fragility fractures and the importance of secondary prevention.



Canada: developing and delivering comprehensive fracture prevention programmes through the Ontario Osteoporosis Strategy

The Ontario Osteoporosis Strategy (OOS) aims to improve the morbidity, mortality and costs associated with osteoporosis and fragility fractures. It focuses on fracture prevention and education for healthcare professionals and patients, including self-management of osteoporosis.⁵²

The OOS was launched in 2005 following the work of the Ontario Women's Health Council to engage the Minister of Health on osteoporosis management.^{28 52} While the OOS is funded directly by the Ontario Government, it is implemented by a range of partners, including Osteoporosis Canada, tasked with overall management and coordination of the OOS in addition to implementing its largest investment – the Fracture Screening and Prevention Program (FSPP). FSPP is a coordinator-based programme to identify, assess, refer and educate fragility fracture patients in 37 orthopaedic clinics across Ontario.⁵³⁻⁵⁵

What did it achieve?

The OOS and the FSPP have been able to secure ongoing support and government funding, contributing to a reduction in the number of fragility fractures in the Ontario province.^{28 52} Data collected through the programme have consistently shown improvements against key indicators, including rates of screening, treatment and hip fractures.⁵³

The OOS has contributed to improvements in clinical care, such as the development of quality standards and a clinical handbook for hip fractures.^{56 57} It has also developed software to support primary care physicians in screening and assessing the risk of fracture in their patients.

Key lessons learnt

- **Being able to present solid data on performance to policymakers is critical.** The continued support of the government was assured, at least in part, by demonstrating the impact of the FSPP on outcomes and cost, based on solid data collected through the programme and its built-in data collection and feedback loops.
- **It is crucial to take advantage of opportunities that present themselves and respond to the changing strategic environment.** In the early days of the OOS, osteoporosis was framed as a women's health issue. Over time, Osteoporosis Canada recognised the government's changing priorities and increasing focus on hip fractures. Recognising this shift, it positioned the FSPP around hip fracture prevention.
- **Clear, jargon-free information should speak to policymakers' priorities.** Osteoporosis Canada learnt the importance of tailoring its narrative, arguments and business cases to its audience. It spent time understanding what is important to the policymakers it was engaging with, whether these were Ministers of the Provincial Parliament or staff within the Ministries of Health and Long-Term Care.
- **You should make strategic linkages and collaborate with key stakeholders.** Osteoporosis Canada sought the endorsement and engagement of key stakeholders who were perceived as credible by policymakers. This included the Ontario Hospital Association, Ontario Orthopaedic Association and the Ontario College of Family Physicians, as well as reputed clinicians and researchers from institutions such as McMaster University, University of Toronto and St Michael's Hospital, among others.



Case study 6

Lebanon: engaging with policymakers for secondary fracture prevention

FFN Lebanon (previously the Lebanese Osteoporosis Prevention Society) has been active in fracture prevention for many years, driving significant improvements in fracture care and prevention. Key activities have included delivering workshops and publishing data based on the first FLS to be established in the country. It has engaged directly with policymakers through meetings and media campaigns, which highlighted the importance of preventing fragility fractures among the public, encouraging them to advocate for change.^{30 58}

What did it achieve?

The collaborative policy engagement undertaken by stakeholders in Lebanon has been successful in gaining traction with the Ministry of Public Health, leading to tangible policy changes. The government now fully reimburses acute fragility fracture care and osteoporosis medication, regardless of whether these are provided at public or private facilities.^{30 58} In addition, despite the unstable political and economic environment, the government reimburses dual X-ray absorptiometry scanning during annual month-long osteoporosis awareness campaigns in an attempt to improve access to and uptake of the procedure. These campaigns also provide an opportunity for bone health advocates to more easily access the media.³⁰

Furthermore, the collection and sharing of data on the impact of FLS in Lebanon has improved understanding and awareness among clinicians and policymakers. The FLS achieved a significant improvement in the number of bone health assessments and an increase in the use of osteoporosis treatment.⁵⁸

It also demonstrated a reduced rate of secondary fractures in the group that underwent care in the FLS programme. These positive results have supported a growing momentum calling for widespread FLS across hospitals in Beirut and Lebanon as a whole.

Key lessons learnt

- **Local data can be powerful when engaging policymakers.** These data are helpful to highlight the benefits of secondary fracture prevention on health and economic outcomes at a local level.
- **The public can be strong advocates in driving policy change.** Their advocacy can be helpful in holding the government to account.
- **Multidisciplinary collaboration can support acceptance by policymakers** and facilitate the implementation of changes in hospitals. FFN Lebanon understood the importance of collaborating with different clinicians and medical societies when building support for improving fracture care and prevention. This also ensured agreement from policymakers.



USA: collaborating for policy change

The USA healthcare system is fragmented, with policy and delivery coordinated by a wide range of stakeholders. In addition, reimbursement policies do not always align with clinical guidelines, leading to gaps in the delivery of best-practice care.¹⁹

The Fragility Fracture Alliance (FFxA) is a multidisciplinary collaboration of seven organisations advocating for a comprehensive approach to fragility fracture prevention and management.^{59 60} FFXA was formed in 2014, following collaboration of its members as part of the National Bone Health Alliance. It is coordinated by the American Academy of Orthopaedic Surgeons (AAOS), which also leads FFXA's policy engagement activities.¹⁹

Given the fragmented nature of the USA healthcare system, FFXA's policy engagement involves liaising with a wide range of regulators, insurers and legislators.¹⁹ Activities have included submitting formal comments to regulators and legislators in addition to expressing support or concern for planned policy changes.

FFxA and AAOS have also been involved in the development of clinical guidelines and performance measures which have formed the basis of discussions with regulators.^{61 62} This includes their role in a coalition of more than 40 USA and international organisations which developed a set of consensus-based clinical recommendations for secondary fracture prevention.

What did it achieve?

FFxA is at the forefront of efforts to support more comprehensive and value-based fragility fracture prevention services in the USA. FFXA is currently in discussions with the Centers for Medicare & Medicaid Services (CMS) to develop an approach to delivering osteoporosis care through a condition-based bundle payment.⁶⁰ This would allow a set fee to be paid to healthcare providers for managing the full spectrum of a patient's condition. It is hoped that this will incentivise providers to deliver better value, more comprehensive and higher-quality care than would be the case under the current "fee for service" model.^{19 60} The success of these discussions is based, at least in part, on the clear clinical recommendations it has developed with its partners.¹⁹

Recently, FFXA has been instrumental in the publication of a bipartisan report on falls prevention. It provided information on reducing falls and fall-related injuries to the Senate Special Committee on Aging, leading to the report which summarises the impact of falls and proposed solutions at national, state and local levels.^{60 63}

Key lessons learnt

- **Collaboration with other players and speaking with a unified voice is crucial.** A message looks stronger to policymakers when substantiated by the unified voice of a strong coalition.
- **Messaging needs to be simple and solution-focused.** The information being presented needs to be clear, concise and accessible to the audience. You should demonstrate efficient, solution-oriented arguments rather than just focusing on problems.
- **Knowing your audience will help tailor your arguments to resonate with different groups.** When working with the federal agencies and regulatory bodies, such as the CMS, conversations are led by evidence and scientific arguments. When working with legislators, FFXA have learnt that personal stories tend to hold greater impact.
- **Relationships should be built to instil trust over time.** It is important to build strong relationships with policymakers over time by being consistent, reliable and honest.
- **Policy work takes persistence.** Policy change is a long, incremental process and it requires dedication throughout.



Thailand: influencing policy for fragility fracture care

Key stakeholders in Thailand collaborated to address significant gaps in fragility fracture care. The aim of these activities was to encourage policymakers to scale up FLS and improve access to “fast-track” hip surgery (surgery delivered within three days of a fracture).³⁴

Efforts to improve fragility fracture care began in 2014 with the implementation of Thailand’s first FLS at Police General Hospital, which achieved gold accreditation under the global Capture the Fracture® scheme in 2016.¹² Following this success, the Department of Medical Services within the Ministry of Health collaborated with the Thai Osteoporosis Foundation (TOPF, under which FFN Thailand sits) and the Royal College of Orthopaedic Surgeons to promote the scale-up of FLS.^{12 34}

The collaborative policy engagement activities of the TOPF and FFN Thailand have included presenting persuasive data to policymakers, including the Minister of Public Health.¹² Through letter writing and direct meetings, the group was able, over about six months, to convince policymakers that FLS is an effective solution which could lead to significantly improved patient outcomes with low investment. The data it presented were drawn from Police General Hospital’s FLS¹² and supplemented by international data. This showed that widescale implementation of FLS could save the Thai government USD \$270m over 10 years.¹²

What did it achieve?

In 2017, FLS and fast-track hip fracture surgery became national policy in Thailand.¹² As part of this policy, a key performance indicator was established, requiring at least one hospital in each of Thailand’s 77 provinces to implement an FLS. This has led to the rapid scale-up of FLS across the country, which in July 2020 was being implemented in 97 public and private hospitals, 11 of which are accredited under Capture the Fracture®.

An additional key performance indicator requires at least 50% of hip fracture patients to receive surgery within three days.¹² Each hospital is required to report on this indicator directly to the government through a mobile phone app. In addition, the Healthcare Accreditation Institute is collaborating with Siriraj Hospital in developing a comprehensive care plan for hip fracture surgery.³⁴

TOPF and FFN Thailand are building on their successful policy engagement and continue to discuss priorities for fragility fracture prevention and care with the Ministry of Health.¹²

Key lessons learnt

- **Collaboration is key.** A multidisciplinary coalition which worked together towards common policy objectives was very powerful in driving policy change.
- **A convincing argument can be built by combining local and international data.** Pilot data collected locally were combined with international data to develop a persuasive case on the impact of FLS on health outcomes and costs.

Across the world, significant improvements in fragility fracture prevention and care are being achieved through the carefully planned and collaborative policy engagement efforts of FFN members and their associates. Through this toolkit, we have attempted to understand the lessons from these experiences and present some of the key strategies which advocates seeking to advance fragility fracture prevention and care have found to be effective, with the hope that these learnings can be adapted and implemented in different contexts.

An important point to note is that we started work on this policy engagement toolkit before the COVID-19 pandemic had swept through the world. By the time we have finished, we find ourselves in a very different reality, one in which our societies, healthcare systems and economies are facing unprecedented pressures. At the same time, this new reality may also present unmissable opportunities to engage policymakers on the critical importance of implementing innovative, evidence-based solutions to address healthcare challenges, not least the significant challenge fragility fractures will increasingly place on our ageing societies.

Our intention is to update the policy toolkit to reflect the future successes of our colleagues – including how they have managed to create or maintain interest in fragility fracture prevention and care in a COVID and post-COVID world – and ensure we continue to share the lessons that we learn.

Resources which provide policy narratives about the importance of addressing fragility fractures

- Budig K, Harding E, Morris T et al. 2020. *Osteoporosis and fragility fractures: A policy toolkit*. London: The Health Policy Partnership (HPP)
- International Osteoporosis Foundation. 2016. *Gaps and solutions in bone health: a global framework for improvement*. Nyon: International Osteoporosis Foundation
- International Osteoporosis Foundation. 2017. *Toolkit: IOF compendium of osteoporosis*. Nyon: International Osteoporosis Foundation
- The Economist Intelligence Unit. 2017. *Demystifying ageing: Lifting the burden of fragility fractures and osteoporosis in Asia-Pacific*. London: The EIU

Key resources which provide international data on fragility fractures

- Curtis M, Rebecca J, Harvey N et al. 2017. The impact of fragility fracture and approaches to osteoporosis risk assessment worldwide. *Bone* 104: 29-38
- International Osteoporosis Foundation. 2019. *Broken bones, broken lives: A roadmap to solve the fragility fracture crisis in Europe*. Nyon: International Osteoporosis Foundation
- Cooper C, Ferrari S. 2019. *IOF compendium of osteoporosis*. 2nd edn. Nyon: International Osteoporosis Foundation
- Seibel M and Mitchell J (eds). 2019. *Secondary fracture prevention: An international perspective*. London: Elsevier

FFN resources

- Dreinhofer KE, Mitchell PJ, Begue T et al. 2018. A global call to action to improve the care of people with fragility fractures. *Injury* 49(8): 1393-97
- Fragility Fracture Network. 2019. *Guide to the formation of national Fragility Fracture Networks*. Zürich: Fragility Fracture Network
- Mitchell PJ, Magaziner J, Costa M et al. 2020. *FFN Clinical Toolkit*. Zürich: Fragility Fracture Network
- Falaschi P, Marsh D, eds. 2020. *Orthogeriatrics: The Management of Older Patients with Fragility Fractures*. Cham: Springer Nature

Experts interviewed for this toolkit

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We are grateful to the following individuals who provided their time to be interviewed for this toolkit.

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1. Dreinhofer KE, Mitchell PJ, Begue T, et al. 2018. A global call to action to improve the care of people with fragility fractures. *Injury* 49(8): 1393-97
2. Johnell O, Kanis J. 2005. Epidemiology of osteoporotic fractures. *Osteoporos Int* 16 Suppl 2: S3-7
3. Johnell O, Kanis JA. 2006. An estimate of the worldwide prevalence and disability associated with osteoporotic fractures. *Osteoporos Int* 17(12): 1726-33
4. Burge R, Dawson-Hughes B, Solomon DH, et al. 2007. Incidence and economic burden of osteoporosis-related fractures in the United States, 2005-2025. *J Bone Miner Res* 22(3): 465-75
5. Cooper C, Ferrari S. 2019. *IOF compendium of osteoporosis*. 2nd edn. Nyon: International Osteoporosis Foundation
6. Fragility Fracture Network. 2019. *Guide to the formation of national Fragility Fracture Networks*. Zürich: Fragility Fracture Network
7. Napoli N, Elderkin AL, Kiel DP, et al. 2020. Managing fragility fractures during the COVID-19 pandemic. *Nat Rev Endocrinol*: 1-2
8. Tramontana F, Napoli N, El-Hajj Fuleihan G, et al. 2020. The D-side of COVID-19: musculoskeletal benefits of vitamin D and beyond. *Endocrine*: 10.1007/s12020-020-02407-0
9. Nestola T, Orlandini L, Beard JR, et al. 2020. Covid-19 and Intrinsic Capacity. *J Nutr Health Aging*: 10.1007/s12603-020-1397-1
10. Weible CM, Heikkila T, deLeon P, et al. 2011. Understanding and influencing the policy process. *Policy Sci* 45(1): 1-21
11. Jones H. 2011. *A guide to monitoring and evaluating policy influence*. London: Overseas Development Institute
12. Amphansap T. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 24/04/20
13. Martin F. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 17/04/2020
14. Chan D. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 17/04/20
15. Marsh D. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 23/04/20
16. Hall G. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 28/04/20
17. Close J. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 22/04/2020
18. Tabu I. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 17/04/2020
19. Shaffer W. 2020. Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 18/06/20
20. Koff E, Lyons N. 2020. Implementing value-based health care at scale: the NSW experience. *Med J Aust* 212(3): 104-06. e1
21. Speerin R. 2020. Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 07/05/20
22. World Stroke Organization. 2016. *Advocacy Toolkit*. Geneva: World Stroke Organization
23. Hertz K. 2020. Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 07/05/20
24. Jiwa F. 2020. Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 29/04/2020
25. Mitchell PJ. 2020. Interview with Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 16/07/20
26. Start D, Hovland I. 2004. *Tools for policy impact: a handbook for researchers*. London: Overseas Development Institute
27. MindTools. Stakeholder Analysis: Winning Support for Your Projects. Available from: https://www.mindtools.com/pages/article/newPPM_07.htm [Accessed 01/06/20]
28. Jain R. 2020. Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 29/04/20
29. Panagiotopoulos E. 2020. Interview with Jody Tate at The Health Policy Partnership [Video conference call]. 08/05/20
30. Rizkallah M. 2020. Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 29/04/20
31. Theriault D. 2020. Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 27/04/2020
32. Machado A. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 24/04/20
33. MindTools. SWOT Analysis: How to Develop a Strategy For Success. Available from: https://www.mindtools.com/pages/article/newTMC_05.htm [Accessed 02/06/20]
34. Unnanuntana A. 2020. Interview with Ed Harding, Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 17/04/20
35. Sherrington C. 2020. Interview with Jody Tate and Pooja Krishnaswamy at The Health Policy Partnership [Video conference call]. 07/05/20
36. World Health Organization. 2006. *Stop the global epidemic of chronic disease : a practical guide to successful advocacy*. Geneva: World Health Organization

37. NSW Agency for Clinical Innovation. 2017. *Model of care of osteoporotic refracture prevention*. Chatswood: ACI
38. Close J. 2019. Fracture Liaison Services: An Australasian Perspective. In: Seibel M, Mitchell PJ, eds. *Secondary Fracture Prevention: An International Perspective*. London: Academic Press: 63-77
39. ACI Health Economics & Evaluation Team. 2017. *Osteoporotic Re-fracture Prevention Monitoring and evaluation plan*. Chatswood: Agency for Clinical Innovation
40. Agency for Clinical Innovation. Patient Reported Measures: Outcomes that matter to patients. [Updated 2020]. Available from: <https://www.aci.health.nsw.gov.au/make-it-happen/prms> [Accessed 13/07/20]
41. Nakayama A, Major G, Holliday E, et al. 2016. Evidence of effectiveness of a fracture liaison service to reduce the re-fracture rate. *Osteoporosis Int* 27(3): 873-79
42. National Hip Fracture Database. 2019. *National Hip Fracture Database (NHFD) Annual Report 2019*. London: Royal College of Physicians
43. National Hip Fracture Database. 2009. *The National Hip Fracture Database Preliminary National Report 2009*. London: British Geriatrics Society
44. British Orthopaedic Association and British Geriatrics Society. 2007. *The care of patients with fragility fracture (Blue Book)*. London: British Orthopaedic Association
45. Royal College of Physicians. Falls and Fragility Fracture Audit Programme (FFAP). Available from: <https://www.rcplondon.ac.uk/projects/falls-and-fragility-fracture-audit-programme-ffap> [Accessed 27/05/2020]
46. National Hip Fracture Database. 2010. *The National Hip Fracture Database National Report 2010*. London: British Geriatrics Society
47. The Economist Intelligence Unit. 2017. *Demystifying ageing: Lifting the burden of fragility fractures and osteoporosis in Asia-Pacific*. London: The EIU
48. Accident Compensation Corporation. Improving falls and fracture service outcomes for older people prevention and rehabilitation: A story of change. Available from: <https://www.livestronger.org.nz/assets/Uploads/a-story-of-change-for-george-and-muriel.pdf> [Accessed 19/08/20]
49. Mitchell PJ. 2019. National and International Programs. In: Seibel M, Mitchell PJ, eds. *Secondary Fracture Prevention: An International Perspective*. London: Academic Press: 173-84
50. Accident Compensation Corporation. Live Stronger for Longer. Available from: <https://www.livestronger.org.nz/> [Accessed 19/06/20]
51. Health Quality and Safety Commission. Falls and Fractures Outcomes Framework. [Updated 29/05/20]. Available from: <https://public.tableau.com/profile/hqj2803#!/vizhome/FallsFracturesOutcomesFramework/Landing> [Accessed 19/06/20]
52. Jaglal S, Hawker G, Cameron C, et al. 2010. The Ontario Osteoporosis Strategy: implementation of a population-based osteoporosis action plan in Canada. *Osteoporosis Int* 21(6): 903-08
53. Beaton DE, Mamdani M, Zheng H, et al. 2017. Improvements in osteoporosis testing and care are found following the wide scale implementation of the Ontario Fracture Clinic Screening Program: An interrupted time series analysis. *Medicine (Baltimore)* 96(48): e9012
54. Sujic R, Beaton DE, Mamdani M, et al. 2019. Five-year refracture rates of a province-wide fracture liaison service. *Osteoporosis Int* 30(8): 1671-77
55. Elliot-Gibson V, Sale JE, Jain R, et al. 2019. Fracture Liaison Services – Canada. In: Seibel M, Mitchell PJ, eds. *Secondary Fracture Prevention: An International Perspective*. London: Academic Press: 79-107
56. Health Quality Ontario, Ministry of Health and Long-Term Care. 2013. *Quality-Based Procedures: Clinical Handbook for Hip Fracture*. Toronto: Health Quality Ontario
57. Health Quality Ontario. 2017. *Quality Standards: Hip Fracture Care for People With Fragility Fractures*. Toronto: Health Quality Ontario
58. Maalouf G, Rizkallah M. 2019. Secondary Fracture Prevention: Lebanon. In: Seibel M, Mitchell PJ, eds. *Secondary Fracture Prevention: An International Perspective*. London: Academic Press: 117-22
59. American Association of Orthopaedic Surgeons. Fragility Fracture Alliance on Reducing Risk of Falls, Related Injuries. [Updated 9/07/2019]. Advocacy Now. Available from: https://aaos.new-media-release.com/2019/advocacy_now/jul9/pages/article3.html [Accessed 24/06/20]
60. Naso C, Shaffer W. Osteoporosis and Fragility Fractures: Reinvigorating a National Public Health Priority. [Updated 9/1/2019]. Available from: <https://www.aaos.org/aaosnow/2019/sep/advocacy/advocacy04/> [Accessed 23/06/20]
61. American Association of Orthopaedic Surgeons. Hip Fractures in the Elderly: Clinical Practice Guideline on Management of Hip Fractures in the Elderly. [Updated 2015]. Available from: <https://www.aaos.org/quality/quality-programs/lower-extremity-programs/hip-fractures-in-the-elderly/> [Accessed 22/07/20]
62. Conley RB, Adib G, Adler RA, et al. 2020. Secondary Fracture Prevention: Consensus Clinical Recommendations from a Multistakeholder Coalition. *J Bone Miner Res* 35(1): 36-52
63. Sen Collins S, Sen Casey RJ. 2019. *Falls Prevention: National, State, and Local Solutions to Better Support Seniors*. USA: United States Senate Special Committee on Aging

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