

# Actuaries in Social Impact with Kirsten Armstrong

## Interview Transcript

**Julia Lessing:** Hi Everyone. Today we're talking about actuaries in social impact, and joining me for this discussion is experienced actuary, Kirsten Armstrong. Kirsten is an experienced Non-executive Director, and strategic advisor with a 25-year career in health, disability, social insurance and international development. A truly global actuary, Kirsten has helped governments introduce and reform their insurance systems, such as workers compensation in Russia, private health insurance in Hong Kong, and motor insurance in Mongolia.

In 2019 Kirsten was recognised as one of the AFR's 100 Women of Influence for her work as an Executive Director at The Fred Hollows Foundation to bring impact investors to help end blindness in low-income countries. She currently leads Social Ventures Australia's Social Impact Bond work, supporting governments, social purpose organisations and impact investors to create high impact projects that generate evidence and change the lives of Australia's most vulnerable. Kirsten also holds Non-executive Director roles with icare New South Wales, Northcott and WIRES. Wow! Kirsten, thank you so much for joining us today.

**Kirsten Armstrong:** Hi. Lovely to see you, Julia.

**Julia Lessing:** So much that we could be talking about today, but let's start with your current role at SVA. Can you tell us a bit about what you're doing now?

**Kirsten Armstrong:** Yeah. So my role is the Director of Impact Investing at SVA, and you've already talked about the fact that it's involved in Social Impact Bonds. We act as an advisor and an intermediary in that space, so advising government, investors and service providers on how to engage in Social Impact Bonds, as well as outcome-based contracting. So when governments want to try to target better outcomes and create contracts that might do that, we advise in that space as well. And I might just give an example of a project that we're working on now, because that seems to make it

**Julia Lessing:** Brings it to life.

**Kirsten Armstrong:** - - - more real, yeah.

**Julia Lessing:** Yes.

**Kirsten Armstrong:** So the Arc Social Impact Bond, it's a Victorian Social Impact Bond. So in Victoria they call them Partnerships Addressing Disadvantage, so the acronym is PAD, and I'll leave you to think about why we might use the word Social Impact Bond, SIB, instead. And so it's a seven-year contract between the Victorian government, ourselves, VACRO, which is a wraparound service provider I'll talk about in a bit, and community housing providers. And what the goal of that program is, is to help people leaving prison in Victoria to get back on track. And so effectively each person that joins a program will have access

to housing, so it's a housing first approach, because it's obviously really important for people to have somewhere to live. And then intensive support for two years to help them get their lives back on track. And so the way a Social Impact Bond works is that – so government says, okay, if you achieve certain outcomes, in this case, reducing reoffending rates, so reducing the amount of time a person then might go and spend back in prison, reducing the use of homelessness services, and reducing the use of emergency health services; if the program can demonstrate that it can achieve that, then government will pay an outcome-based payment.

But of course, VACRO, the service provider, can't just do all that work without getting paid. So investors stump up the money to start with, so investors will fund \$9 million upfront, and then government will pay, based on the outcomes achieved over the seven-year life of the program. And investors get some of that return as well. So it sort of brings together finance, government and really strong outcomes focus to really change the lives of people.

**Julia Lessing:** What a great example. So by being able to bring together those different parties you can set up a little system where you're supporting people to have better outcomes for their own lives, but you're also effectively saving government's money, in having to intervene and provide services down the track. So it's win win, isn't it, it's win for those people participating in the program, but it's also a win for government?

**Kirsten Armstrong:** Yeah. And it's a way to bring everyone's mind to thinking about outcomes. Sometimes outcomes take years to achieve and really years to observe, and so it's a way of actually starting to build contracts that talk more about outcomes and performance, and really making change. And it is also a way of thinking about how to invest early, so early intervention to achieve change down the track. Which is something that often governments and budgets and treasuries really struggle with. So it's a way of sort of reorienting some of the funding to prevention, rather than dealing with the Band-Aids at the end.

**Julia Lessing:** And so this concept of outcomes is quite fundamental to social impact. So, Kirsten, tell me why is social impact so important to you?

**Kirsten Armstrong:** It's a really good question, and one I always struggle with, Julia. So for me it's just I enjoy working in a space that I feel like I'm making a difference. So I've always, throughout my career, wanted to do something that I feel passionate about, and I feel proud of. I'm very privileged, as are many actuaries, we've got a really useful skill set that we can use for a range of different things. And for me I get the most passion and achieve the most when I'm working in a space that I'm actually delivering an impact that matters to me. So I guess connecting with purpose.

**Julia Lessing:** That purpose is so powerful. And it sounds like you've been able to use your actuarial career to do a lot of things that are quite meaningful, and where you feel like you're making a difference. It's very inspiring. So I wonder if – is there – of all the projects that you've worked on, what's the most memorable social impact project that you've worked on, and what was it about it that made it so memorable?

**Kirsten Armstrong:** I can't pick one that's the most memorable. But I'll pick one that was good fun.

**Julia Lessing:** Okay.

**Kirsten Armstrong:** And one of the other things about working in an impact space, a social impact space, is that often you're working with people who are really interesting and engaging to work with, really passionate about what they do, and it's a really interesting place. So I guess this is a good example, where it's just a really interesting time, and really enjoyed the work. So I was working in Mongolia – you mentioned that in the intro – where I worked in Mongolia to help them introduce a mandatory CTP system. So motor injury, insurance, motor vehicle insurance. And most countries in the world have got mandatory motor insurance. We just take it for granted here. There's CTP insurance. If you get injured there's some sort of way that you'll get supported. Mongolia was one of the few countries that didn't have anything like that. They didn't have cars until quite late in the piece, or most of the vehicles in the country were there for businesses. So for example, they were there for mining companies. So they kind of didn't need it, and then suddenly they did. There was a lot of really strong economic growth there. And so in 2012 they introduced a mandatory motor insurance scheme, or – and basically to be provided, like in Australia pretty much, through the private insurance sector. But they did it with about three months notice.

So they really rapidly needed to get a standard insurance policy, a standard – get the private insurers skilled up to be able to roll out these insurance policies, a regulatory system to be able to make sure that everyone who was meant to be insured was insured, define what the benefits of the scheme were going to be, and how they were going to be decided, et cetera. So they had to do that really, really quickly. So I spent about a month in Mongolia, basically working through every single piece of information I could with them. Mongolia is a fascinating country. It's beautiful. Everyone has got a yurt that they take out to the countryside, and like Australians taking their caravan or their tent out to the countryside in summer to go and experience nature and wildlife. In winter it's terribly cold.

So as I flew in it was something like minus 40 degrees, as I flew into Ulaanbaatar to start this project. So I was there in winter – terribly cold. And really interesting place to work there as well. But over that space of three weeks I sort of drew from everything that I knew. I'd spent a lot of time working in Russia in the past. Mongolia's legal system is set up very similar to Russia's. They're right next door, and they've always had a lot of support from Russia. So we drew everything we possibly could from the Russian system to help define the regulations, the policy terms and all those sorts of things. And then did the best we could with whatever data was available, and the fledgling sort of actuarial society in Mongolia, to really sort of do our best estimate of what premiums could be, what benefits could be and so on.

So it was just one of those really quick – everyone comes together, really rapid turnaround projects. And I'm pleased to say that they did get their insurance system up and running, and it's still continuing obviously today.

**Julia Lessing:** What an incredible story. And so, I mean, such an unexpected opportunity for an actuary having an actuarial career to be able to do something like that. And so meaningful for the people in Mongolia to be able to set up that sort of support. So how exciting. So that's the most memorable social impact project that you've worked on?

**Kirsten Armstrong:** Yeah. I mean, it's one of the most memorable.

**Julia Lessing:** Yep.

**Kirsten Armstrong:** Yeah. It was memorable partly because the location was amazing. But just having the opportunity to do something with a clear deadline, and just get in and be supported by the local experts in Mongolia, to make something happen really quickly, it's always a bit of an adventure, and you always feel a sense of achievement when you get to the end of something.

**Julia Lessing:** Definitely sounds like a very important achievement, but, yeah, also a fun adventure as well. So I'm sure not all social impact projects are easy or smooth sailing. All the important work in the world is usually – usually comes with some challenges. Can you tell us about the most challenging social impact project that you've ever worked on?

**Kirsten Armstrong:** I'll talk a little bit about some of my work with The Fred Hollows Foundation. So it's not immediately obvious to everyone why The Fred Hollows Foundation might be engaged in something like social impact investing, or why they might need an actuary. And it was quite an unusual place for an actuary to be working to try to apply some relevant skills into the international development sector. Now it's a little more commonplace, which is great. Not so much actuaries, but actually the international development sector thinking about how impact investors could actually extend the work of what all these charities are doing.

So one of the projects I worked on at The Fred Hollows Foundation was trying to launch a social enterprise that would roll out low cost, high efficiency, high quality cataract surgeries in Southeast Asia. Because we'd seen models in different countries like India and Pakistan and so on, where they really have nailed that. They've really got that right, sort of high turnover, high-quality, low-cost surgeries that really make a difference to helping to address blindness in those countries. So cataract surgery is a tricky one.

So this doesn't happen everywhere in health, but it does in cataract surgery. The more you do, the better you get, as a surgeon. And so volume actually helps you to get better quality. And there's lots of good evidence around that. So that was our priority, and we needed to find the right clinicians to work with to do it, but we also needed to find the right sort of business managers to work with to do it. And we needed investors as well. So for a charity based in Australia, to think about all those things in an international context, was

really quite tricky. So we launched – we helped launch – so we invested in the launch of a social enterprise called, Alina Vision, which is based in Vietnam, but enables investors to invest via a Singapore entity. There you go, another bit of complexity.

**Julia Lessing:** Yeah.

**Kirsten Armstrong:** Singapore is really investor-friendly place to invest, for tax reasons and various other reasons. We had to explore how – the technicalities of an Australian charity investing in something like this – so could we do that? Would rules enable us to do it? Would our rules, in terms of the way we worked with the Australian Government's Department of Foreign Affairs and Trade, so The Fred Hollows Foundation received funding; there are rules around that. We had tax-deductible status. Could we pay – could we own something that then paid an investment return? There were a lot of tricky things to actually through at the time, just from a legal and regulatory perspective, I suppose. And then the practicalities of trying to find a good leader for this program in the first launch site. So we found a fantastic doctor, Dr Ha, in Vietnam, who launched the first surgicentre with us, and she's a

**Julia Lessing:** Surgicentre?

**Kirsten Armstrong:** - - - yes, a surgicentre – and we've started to – and then started to roll out from there. So you can think of all the legal and regulatory things, and having an Australian charity trying to attract investors from overseas to invest in this centre, of course. Just even culturally, thinking about it from The Fred Hollows Foundation, something that had been an innovative charity for a long time, but this was quite different. There's a lot of different things. And culturally, did it fit the organisation? Where was the Board? Was management comfortable with paying an investment return? So lots of really tricky things.

Anyway, we got through all those hurdles. And I must say, it was so satisfying to go to Vietnam and go and see our first surgicentre opened to see the – buses being brought in, with people coming in for their surgery. Some of the lowest people in – lowest income people in Vietnam, et cetera. Really that's where the rubber hits the road. It was really amazing just to see it all open and happening, given all the hurdles to get through to start with.

**Julia Lessing:** Wow. Just gives me goosebumps thinking about it, Kirsten. Like the amount of people that you've been able to help through such a complex project. But to really – to be able to help people who otherwise they can't see, I mean, that's so – it's something that we just take for granted. But you've really been able to help some very low-income people, who wouldn't have otherwise had the means maybe to get that help.

**Kirsten Armstrong:** Yep. And as I said at the start, it's not immediately obvious how an actuary might bring their skills to something like eye care in the international development space. But I think it's just been creative and thinking about, well, how can I use my skills and my network, and just think a little differently about some of these problems.

**Julia Lessing:** Fantastic. And I can see how that problem solving skill would be so important for this social impact work. And you're no stranger to solving strange mathematical actuarial problems, because I know that you were part of a really interesting documentary – was it last year or the year before? – where you actually quantified some things that probably no-one realised that you could actually quantify, as an actuary around environmental costs and programs that were being put in place. And in fact, actuary, Sheridan Daniels nominated you for this podcast interview, and she would love to hear what your experience was like on that documentary. So I wonder if you can tell us a bit about what that was like for you, being an actuary on a documentary about activism?

**Kirsten Armstrong:** Yeah. So the documentary is called The Power of Activism. I'm not sure whether you can see it online. It was on SBS On Demand for quite some time there, but it may not be at the moment.

**Julia Lessing:** It was a great documentary. I loved it, and I shared it with all my networks when it came out. And I think the Institute of Actuaries did a screening as well, didn't they?

**Kirsten Armstrong:** Yes.

**Julia Lessing:** It was a great, great example of what actuaries can do. But probably not all actuaries would have felt that they could have done it. So, sorry, go on.

**Kirsten Armstrong:** Yeah. Agreed. And so it was working with six different activists who were involved in different things related to climate or environment, or culture, Indigenous culture. So various different aspects there, and helping them as small innovators, to think about how their work, how they could actually measure the impact of their work. And the goal was to try to work with them closely to use – and make it practical – available evidence to help them convert what they do into their language of government and investors and business.

So as an example, there was one particular activist who focused on trying to get plastic bags out of the system. And had this innovative idea to use fabric waste to make alternative bags. You can make a cotton bag that people might use all the time, instead of using plastic bags at the supermarket and so on. And that organisation was called Boomerang Bags. And set it up in a really clever way. Became a community group. Set up online as well, so that other people in other countries could actually take this Boomerang Bag model and build their own Boomerang Bag community in their own country. And so there's actually Boomerang Bag communities around the world.

And so it was possible to sort of - they collected a lot of data, which was always helpful. Not every activist or so on collects data on what they do and how they're delivering impact. Because they did collect lots of data they were able to estimate the amount of fabric waste avoided. They were able to estimate the amount of plastic bag use avoided because of their work. And they were also able to understand the social impact, in terms of bringing a community of people together. So I used their data to then combine it with external research.

So on the impact of communities and so on, on health and welfare and social wellbeing. So for example, to estimate the economic impact of all these different aspects of their work. And it was just such a fun thing to do, because you're with people who are largely young, energetic, innovators, trying to do something, trying to really make a difference, and then bringing in your own sort of expertise.

So different language, and trying to explain to them how people outside might think about their program, if they were thinking about a government grant to that program, or an investment to that program, et cetera. And it was just so energising to not only see the passion behind what they were doing, but also then bring that external – bring my own skills to that, and the business language and so on, and let them see how that could change and transform and grow what they were doing. The documentary side was fascinating. So we had several days up in Byron. So we did two different sessions, where we just filmed different pieces of it. If you ever get a chance to work being filmed, or in a documentary, just go for it, because you'll see that thousands of hours are put in, gets gelled down into one hour movie.

**Julia Lessing:** Yeah, yeah.

**Kirsten Armstrong:** And it's fascinating to see. The director for this film, I cannot believe how he was able to draw those thousands of hours of footage into a coherent story about all the different activists and their impact. It was incredible.

**Julia Lessing:** Yeah. What an amazing experience. And what an excellent distillation of all of those hours it was, that final product that we all get to see, I mean. And so exciting to see the passion of the activists. They knew that they were making a difference, but for you to be able to come in with your actuarial skills and creative thinking and problem solving, to be able to actually put some dollar amounts, and some dollar values on the benefits that they were producing, the outcomes that they were delivering, was super exciting.

**Kirsten Armstrong:** Yeah. And it links back to work that I'm doing now. Sort of that focus on outcomes space. So how can you measure your outcomes, how can you measure impact, and demonstrate the economic value of that? It very much underpins the work we do here at Social Ventures as well.

**Julia Lessing:** Yeah. Excellent. So you've had lots of experience in social impact, Kirsten. If you had a magic wand, and you could address any one of our society's current challenges – and I know that there's many, and you've seen many, and you've helped with many – what would you do?

**Kirsten Armstrong:** I couldn't think of just one. So I got myself down to four.

**Julia Lessing:** Four. Okay. Let's hear them.

**Kirsten Armstrong:** I'm really proud of myself for that. And a lot of it is big picture, just changing the policy thinking, so that we redirect how things are done. So in the health space, all our policy thinking, all our funding and incentives, is around treatment, not preventions. So we absolutely need to change the way we think of health. It needs to be - we need to fund and invest in prevention, rather than all the money and funding and effort and policy thinking going in treatment. So that would be the big change I would make in health.

**Julia Lessing:** Yep. Investing in more prevention?

**Kirsten Armstrong:** Yeah. Absolutely. In the broader social space, for me the topic on everyone's list right now is homelessness. And I guess from a policy settings perspective, we need to change what we think of as property from being an investment first, to being a home first. And if we change that mindset it might make us look at all the policy settings we've got across Australia that lead to it being so difficult for people to get homes. So some people having multiple homes, multiple bedrooms for every person there, et cetera, and some people having nothing, we need to change that. We need to think of home first, investment second.

**Julia Lessing:** I think that's a really big one. And I guess that ties in quite closely to the work that you're doing at the moment with this new Social Impact Bond around, you know, offending – it's not just about the justice system, it's about housing, and how everything kind of connects as well. Because housing is so fundamental. You can't apply for a job, you can't apply for Centrelink if you don't have an address. So how do you get an address if you don't have a job? And one of those real wicked problems.

**Kirsten Armstrong:** Absolutely. A wicked problem. Which means we need to reset the way we think about things. Climate – there's so much going on around climate change and environment, which is fantastic. And I just say more to it, and we need to act faster. We need to build in that cost of environmental degradation into all of our thinking, so that we would have made different choices, and we will make very different forward decisions going forward, if we understand the damage being done by our purchase decisions, and the opportunity that comes from change around climate. And I'm so pleased to see a lot happening in that space, but a lot more needs to happen.

My last one is the personal one. You've mentioned I'm on the Board of WIRES. I'm passionate about animals, and their welfare. I've been vegetarian since I was 18. It's just one of the things that's most important to me. And if there is one thing I could change in that space, it would be a real rethink around factory farming. I think we've sort of created opportunities for animal cruelty on an industrial scale, in the way we think about factory farming. And if I could just do one thing, and ask one thing for people to think about, the purchasing decisions they make around animal products, and make one different change. Be it meat free Monday, or something like that, just one simple change that everyone could make that helps to reduce that harm on factory-farmed animals.



**Julia Lessing:** Yep. Some great – great things that you do with that magic wand, Kirsten, ranging through from the health system and investing in more prevention, to changing the way we think about housing as being a home, not just an investment, and also your environmental and animal activities as well, so that we can take steps to better look after the environment and our animals that live in it as well. So amazing work. I think if we had a magic wand we should give it to you, because there's lots of great things that you would do. So to wrap up, Kirsten, I'd like to just ask you one final question, and it's this; if you had one tip for an actuary listening, who wants to get into social impact work like you, what would you tell them?

**Kirsten Armstrong:** I would say have the courage to do the thing you're passionate about, and if that involves making a change, or doing something a little bit extra at your current work, I would say just go for it and do it. When I first joined AMP, so I was lucky enough to be one of the people who studied at university and had a scholarship to do so, from AMP. And when I first joined AMP, I sort of met with them, and I met with the HR team, and I scratched my head, and I said, I've just done this fantastic degree, and I'm not sure that I want to be an actuary. And that honesty has opened up so many opportunities for me.

I had – they put me into work in the government relations team at AMP, with another actuary there called John Maroney, who was heavily involved in advocating around change and improvement around Australia's superannuation system, and how the details would be bedded down. Because that was just shortly after compulsory superannuation had come into being in Australia. And so it's just that one decision to have the courage to say I'm not sure this is right for me, opened up a world of opportunity. Because it gave me an opportunity to work in that whole sort of government and policy space from day 1. And I think it's – and work with people who were mentors and leaders, who had also – wanted to make a difference in their career. So I'd say just have that little bit of courage.

**Julia Lessing:** Have that courage. Yeah. And the honesty, it sounds as well, set you up for a really interesting career path. So great advice. Thank you, Kirsten. Kirsten, thank you so much for your time today. It's been really interesting hearing about your current work at Social Ventures Australia, and some of the interesting work that you've done as an actuary in the social impact space. Thank you so much for your time.

**Kirsten Armstrong:** Thanks, Julia.