

Trauma Exchange: Professor Ian Civil and Siobhan Isles

Transcript

Carl Shuker:

Kia ora and welcome to Trauma Exchange, a series of conversations which explore the world of serious injury in New Zealand. My name is Carl Shuker and it's a privilege to host these discussions on behalf of the National Trauma Network and its partner organisation, Te Tāhū Hauora Health Quality & Safety Commission.

The National Trauma Network was established in 2011. Its aim is to create a world-leading trauma care system in Aotearoa New Zealand by creating a culture of quality improvement and improved collaboration across regions. The network has influenced models of care that have saved lives and improved quality of life for survivors of major trauma.

In this episode, I'll be talking with Professor Ian Civil and Siobhan Isles about the Network's first decade and what to expect in the future.

Professor Civil is the National Clinical Director of the National Trauma Network, and Siobhan Isles was the National Programme Director for 12 years, from the Network's inception to 2023. Thank you both for joining me today.

Prof Ian Civil:

Thank you, Carl.

Siobahn Isles:

Thanks, Carl.

Carl:

So Ian, what led to the establishment of the Network and why was a national network so important for New Zealand?

Prof Civil:

Well, it's a quite a long story, Carl. Um, we've known about trauma systems, which is what a network is, being effective at reducing inequity and saving lives for a very long time. In fact, the early eighties in the US they had the very first evidence of that in the so-called two county study in California. But we've been quite slow to get on board with that principle in New Zealand. And right through the 90s, there was very little resonance in the health system at that stage with addressing the issues which were even more apparent there. There wasn't much interchange between regions and areas and doctors. And it became increasingly apparent that there was wide variation in care and outcomes for patients having suffering injuries, certainly in the... in the 90s and the first decade of this century.

And it got to the point where there was enough evidence around to present to, what was actually the precursor of the Commission, the Quality Improvement Committee back in 2010, the extent of the variation and the expected degree to which a network or a system could improve things.

And this was obviously using... not our own data because we didn't have our own registry, but rather data from other jurisdictions, particularly Victoria in Australia, which allowed us to present a case that really resonated with the decision makers at the time and the parliamentarians, and that we could do better both absolutely and relatively by making sure

that we had better systems and that there was more or less variation between different regions of the country.

Carl:

So what would you say are some of the accomplishments you're most proud of since then?

Prof Civil:

Well, I guess you can't do quality improvement work or improve anything without data. And while we had regional and hospital registries going back right to the mid-90s, there was no national registry. So it was not until we established a national registry, which was 2015, that we actually had information which we could start undertaking quality improvement work.

And registries are a bit of a labour of love, I'd have to say. They take a lot of maintenance, they take a lot of work, but the results, the outcomes that you can get from having an effective data repository are absolutely impressive. So that really has been one of the achievements which has underscored all of the progress of the Network.

The second achievement really stems from having data and working with the Commission using quality improvement methodology. And that is the way we have been able to address the issue of critical haemorrhage.

Now, when you suffer a major injury, if it's very severe, you may obviously die. And the usual causes are brain injury or, historically, have been bleeding to death. Now, when you get to hospital, we do have the tools in hospital to stop people dying, but still about 10 to 15 percent of patients who got to hospital died from haemorrhage. And we took the view that theoretically this should be preventable.

We took a road to zero type approach to critical haemorrhage and introduced a quality improvement programme which has, at this stage after only running for two or three years, reduced that mortality rate down from the... 10 to 15 percent down to 3 percent.

And I guess the third area where I'm really pleased to see how the overall work has produced outcomes has been reduction in mortality. And that's by people being aware of the data and applying the tools equitably across the country. So, it's really exciting that the overall mortality rate has dropped 10 percent, but it's even more exciting that the Māori mortality rate has dropped 25 percent. And that just shows how an approach applied evenly across the country can produce outcomes which really address inequity.

Carl:

That's fantastic Ian. Siobhan, I'm interested from your perspective, what you would say is enable the network to deliver these accomplishments that Ian mentions, especially the latter two around haemorrhage and around inequity.

Siobhan:

Well, I think the first thing is funding. The ACC funded us several years ago, and we're just at the end of a five-year business case at the moment. And that funding has enabled the development of the registry and the collection of data and the transformation of that data into information, which is really usable both by clinicians, but also by the sector and managers who are making decisions at every level of the trauma system, including pre-hospital and hospital and rehabilitation.

So, I think that funding supported by performance indicators. So we, Ian and I, have worked in a close partnership. It's been very results focused and we've spent considerable time and effort to measure our performance against the results, including mortality, but also including cost savings to ACC which is why they funded us in the first place.

I think one of the other reasons is really around the commissioning approach that ACC took to commission and give us the freedom and autonomy to drive a system and to drive that really strong clinical focus on what is, so that we could focus our time and effort on what is the most important and what would deliver the best value for money and get the results for patients, but also for their whānau and for the whole of the health system.

Carl:

It's a real interagency collaboration. And Ian, I'm interested over the past five years, you've worked closely with Te Tahu Hauora, the Health Quality and Safety Commission. How has this collaboration influenced the network's work?

Prof Civil:

Well, with the interaction with the Commission, it's really been fundamental to being able to deliver in whole areas of improvement, because without a really good quality improvement methodology, all you get is telling people what the expected results are and expecting them to get on and deliver. And in fact, it's really the barriers that exist already in the system, which are stopping people delivering on the current structure.

So, what we've been able to do with the Commission is work to develop appropriate quality improvement initiatives. Traumatic brain injuries, one, rehab's, another and of course critical haemorrhage. We've got some others in the pipeline for chest injury and for severely injured limbs. And that methodology is, as has been proven in other areas, including safe surgery, which I worked on for many years, very effective at getting an outcome in the workplace.

Carl:

Fantastic. Siobhan, I'm interested in what excites you about future opportunities in the trauma space.

Siobhan:

Some of which I think Ian's alluded to there. Look, I think there's a really good foundation of work that's been established. And I think what should happen is for that foundation to continue and to continue to be built on. And I think particularly around the transformation of knowledge, of data into knowledge and using the scientific integrity that we've applied throughout all of this process and the research, building on the research from others.

So I think if I had to pick on two aspects that really excite me about the future, the first is around the opportunities to improve the move from patients from acute care to community rehabilitation. We know that there are a number of issues associated with that move. New Zealand, we're very incredibly fortunate that we've got a universal no fault system under ACC. What we do know though is that we have some real issues that while the transition from hospital to community might work really well for some patients, it does not work... we have not achieved that universal systematic approach for all patients.

And I think that is one of the key areas whereby particularly ACC and Te Whara Ora working in a slightly different way, we might be able to achieve some of those advantages for patients and the quality improvement expertise really underpins that.

And I think the second area is around research. Research is really the difference between a mediocre trauma system and a best performing trauma system. And really particularly because New Zealand's population is not big enough; usually some of the collaborations with countries such as Norway and Australia that we can compare quite closely with, those research collaborations can be enormously important to building up the wealth of knowledge in New Zealand.

Carl:

Ian, people may not know that the network actually works beyond just the health and disability system. Some of the work you've done with New Zealand Police, for example, to understand the impacts of prescription drugs on road traffic accidents and major trauma.

Prof Civil:

Well, trauma is predominant in certain populations, and we're very keen, and we have been very keen, to work with those agencies that have a role in both injury prevention and ongoing management of patients or people that are exposed to that environment.

So I guess at the top of our list would be Waka Kōtahi, which road traffic-related incidents being represented with just over 50 percent of all major trauma patients. They have a very major role in potentially supporting the work we're doing in the clinical space, but also us supporting them in the environmental space to reduce the likelihood of patients suffering injury or reduce the severity.

Similarly, many of our patients who have major injury have had exposure to or are exposed to drugs. And so, working with police to understand where drugs are prevalent and what we can do to reduce the impact on people, that they are less likely to become a major trauma patient, is a big feature of our work.

There are a number of other areas, particularly in remote environments and with other population groups where trauma is more prevalent, and we've been keen to work with any agencies that have particular knowledge and activity in those areas.

Carl:

Siobhan, is the Trauma Network's work exclusively focused on hospital care?

Siobhan:

No, Carl, the Trauma Network focuses on the journey of care from the point of injury through pre-hospital care, particularly with the ambulance services, hospital care and rehabilitation. And our early focus was on that pre-hospital care and early period of time in the first hospital. And we changed that, we spent a lot of time to implement triage criteria so that patients would be taken to the best hospital, or the most appropriate hospital from the point of injury. And we've had fantastic collaboration with the ambulance services, as well as with all of the hospitals.

So, we encompass that whole-of-system approach and take that whole of system approach in our work.

Carl:

Ian, do you have any perspectives on that question?

Prof Civil:

I think the early achievements with the pre-hospital care providers were really crucial to getting better outcomes. We know that patients are more likely to suffer complications and more likely to die if they have to be transferred between two hospitals. And when we started this work, about 70 percent of our patients were getting hospital that could provide all the care that they needed and about 30 percent needed to be transferred.

At this stage we've got up into the low 80 percents of patients who now go to a hospital where they can get all of their injury treatment provided and we're hopeful to get even more. What will be the limit we don't know but we certainly are aiming to get as many patients into the right hospital and the first on the first journey. and working with the ambulance services is the best way to do that.

Carl:

Siobhan, any last thoughts?

Siobhan:

Yeah, look, I think the impact of the network on people who are seriously injured and their whānau is really important. And while the general public might not be necessarily aware of it, just a lot of that system approach and that movement of the system so that patient, if you are injured, you're more likely to be taken to a hospital that deals with complex injured patients more often, plus the comprehensive coordination of care inside that hospital is really important.

And I think that some of these initiatives have an incredible impact, positive impact on patients. And I think the buildup of capacity and capability across the trauma system is really important as well.

Carl:

Ian, any last thoughts from you?

Prof Civil:

No, I'm looking forward to the network being able to continue its work and to be able to deliver future gains and reduce both the mortality from patients who are unfortunate enough to suffer major injury, but also improve the quality of life.

One of the things that I'm very hopeful we'll be able to achieve is more consistent measurement of patients' outcomes in the months and years after discharge. Although a small minority of people die after injury, most survive, and they are particularly interested and we're interested in what their outcomes are.

We did some work on patient reported outcome measures and hopefully we'll be able to do this on all patients suffering major trauma in the future.

Carl:

Well, it's been fantastic to hear about this work, about what the National Trauma Network has come from over the past decade and where you're headed.

It's clear from what you've shared with us that though you've accomplished a lot, the Network has still got a lot of opportunity ahead and I'm sure you'll continue to influence improvement in trauma care for health care providers and to improve outcomes for those experience major trauma and their whānau.

So, thanks for your time today Ian and Siobhan, it was great to speak with you both.

And if you want to learn more about the National Trauma Network and their work, feel free to explore the National Trauma Network website. That's at www.majortrauma.nz.

Thanks again for joining us.

Mā te wā.