2018 International Nurse Regulator Collaborative Symposium - Are There Indicators that can Preempt Public Risk? Video Transcript

Event
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Presenter
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- [Marie] Thank you for the warm welcome. It's wonderful to be here and thank you to the Nursing and Midwifery Board in Australia for being such wonderful research partners. I hope that my Kiwi accent's not too difficult for you to follow. This morning I have two versions of my presentation. I have the one-minute version and I have the 30-minute version.

So, I was asked to speak about indicators that might preempt public risk. The one-minute version of my presentation is that the single best indicator to preempt public risk is to be a nurse. I think that if all health practitioners across all of the professions were trained as nurses and had the skills and experience and values of nurses that we would greatly reduce risk across the whole health sector.

So that's the one-minute version of my presentation. So these are our rates of complaints about different professions. As you've heard, in Australia, we have a multi-professional regulator, which means that 15 different professions are regulated under one umbrella from plastic surgeons through to chiropractors, through to psychologists.

And what we can see when we look at rates of notification to the various regulatory boards are that nurses are doing something very, very right. You can see on this slide here, I'm unfortunately in that very red column over to the far left, which is the medical practitioners.

You can see how high the rates of notifications are for medical practitioners across a whole range of issues, from communication to sexual boundaries, to the use of medicines, to procedures. Medical practitioners have high rates of notifications. For the other specialties, it depends a little bit more on the kind of work they do. So, perhaps it doesn't surprise anyone in this room that for dentists pain and fees are the two things that people have concerns about with dentists.

And you can see there for psychologists, professional boundaries and communication become particularly important. I spend a lot of my research time looking at hotspots of risk and I don't think we spend enough time looking at the cold spots of risk. And what you can see really strikingly here is that nurses across multiple domains are doing something right.

So that's the one-minute version of my presentation, but I don't think that's why you flew me here from Melbourne. So I better carry on to the 30-minute version as well. So in my clinical work, I feel as though a notification to my practitioner board could really happen at any time.

I kind of feel as though I practice under this medico-legal cloud where I never know if one day perhaps I'm going to make a mistake or a family's going to be distressed by something that I've inadvertently said or whether there's going to be a lapse in my care and I'm very mindful of my professional responsibilities and my responsibilities to my regulator.

It feels as though complaints and notifications are kind of random events when you're walking in a practitioner's shoes. But when I put on my researcher hat and when I used to work in a large law firm advising health practitioner boards, it didn't seem that complaints were so random. It seemed as though they were patterns and as though there were some practitioners who turned up on our books more often than others.

So that's a really interesting paradox. Are complaints random or are their patterns? The best resolution to that question that I've seen comes from Jerry Hickson at Vanderbilt who suggests that medico-legal risk rains down on everybody, but it rains more heavily on some practitioners than others.

That some practitioners are practicing underneath a cloud of risk. And that's really why we're here today is to try and think about what the characteristics of that cloud of risk might look like. Because even though I say that nursing is a very safe profession and that the vast majority of nurses are doing an amazing job, when things go wrong, they can go very, very wrong.

So these are just a few headlines that I pulled from Australia over recent years and I'm sure that some of these incidents are probably sadly familiar to some of your regulators as well. Nurses are the most trusted profession in Australia and when that trust is breached, it can have devastating consequences.

So I think as regulators, it's really important for us to try and think about whether there are some indicators that may preempt that risk. So I'd love it if just around your tables, you could put your heads together for a minute and think about some of the things that you routinely collect as part of your work, whether that's sex or age or area of practice or any other kind of indicators that you collect as a regulator that you think may be telltale signs of risk or may be associated with increased risk for practitioners.

So I'll just give you a few minutes to talk to each other and just put your heads together and have a think about what some of those risk factors are that you look for. All right. Looks like there's lots of wonderful conversations happening and I wish I could just let those conversations run, but maybe we can come back to this a little bit more as we go through the rest of my presentation.

But why don't I just go round the room and see if tables have got any particular indicators that they wanted to share. So maybe this table down the front, did you have any kind of factors associated with

regulatory risk that you might want to share? Why don't you start with one and save some for the other tables? -

[Woman] We think male.

- Male. All right. Did any other tables have male? Yeah. Okay. This next table over here. Did you have another factor associated with risk that you wanted to share?

- [Woman] Age.

- Age. What in particular about age? - [Woman] Forty-five to 55.

- Forty-five to 55. Okay. All right. I feel as though there's some vulnerability and some people in the room. Okay. What about this middle table here? Did you have anything other than male sex or age?

- [Woman] Criminal background [inaudible].

- Criminal background? Yeah. Great. Okay. What about down the front here? - [Man]

Previous history.

- Previous history. So what do you mean by previous history?

- If someone doesn't [inaudible] in the past [naudible] future.

- Yeah. All right. Yeah. - [Woman] Long-term care, [inaudible]

support systems for the duration.

- Okay. So the practice context that they're in, and in particular you're talking about the lack of support in some long-term care settings. Yeah. Fantastic. Okay. This is getting harder as we go through, isn't it? Does this is table down here have anything we haven't mentioned so far?

- [Woman] Doing things the way they want to do them versus following procedure.

- Okay. So maybe something about their personality or just the way that they sort of approach things that they're least likely to be rule-abiding and least likely to comply? Yeah. All right. Has anyone else got anything else that we haven't mentioned yet? Yeah? -

[Woman] Thirty-five years of practice or last few years of practice.

- Okay. So new graduates or close to retirement. Yeah. - [Woman] Education.

- Yeah. And what in particular about their education?

- Well, perhaps the years of education, the degrees.

- Okay. So potentially something about the kind of undergraduate qualification or possibly postgraduate qualifications that you hold? Yeah. Great. Anything else that we haven't mentioned yet? We've got one at the back there. -

[Woman] Maybe the hours of work.

- What was that?

- Hours.

- Oh, hours worked. Yeah. Fantastic. And are you concerned about people working part-time losing their skills or people working too many hours getting burnt out?

- Both.

- Both. - [inaudible]

- Yeah. Okay.

- Just to add to the context of practice, solo practitioners, some are isolated in their profession.

- Yeah. So, professional isolation?

- Yes.

- All right, fantastic. Anything else? One more here. - [inaudible] solo practitioner goes with scope creep that go into other professionals' realms…- Yeah, scope creep. -

[inaudible] So interesting that you say that. Yeah. Okay. Yeah. One down the front here.

- So when nurses [inaudible].

- Right. Okay. So not sort of having a stable work home. So, again, this is something about your practice setting that you're working across multiple environments. Yeah. Okay. Fantastic.

All right. I think my work here is done. I think those are all the indicators of risk. I can probably fly home to Melbourne now. Except that because I'm a researcher, I hear suggestions like that and I think,"What a great hypothesis.Maybe we could test that. What does the evidence say about those indicators? How robust are those risks?How do they compare with each other? Are some of them confounding each other?"

So for example, do we think being male is just a risk because more male practitioners are older, for example, or working in high-risk specialties? So as a researcher, I get really excited and I think all of these are amazing suggestions and we can actually test out the impact that they have on regulatory risk.

So this is the team that I work with. It's a very multidisciplinary team as you can see. We have statisticians, lawyers, policy experts. We have a consumer with a chronic illness and disability on our research team, which has been incredibly valuable for our work and a few international expats including Professor David Studdert who's at Stanford University and some of you may be familiar with his amazing work.

And it's not enough just to have a great research team. You also need great data and I think that Australia is privileged to have what I suspect is the best regulatory dataset in the world? If anybody knows of a better regulatory dataset, please let me know, but I think we're so privileged in Australia that practitioners from every state and territory and from every one of our registered health professions are all registered under one umbrella.

And so we're able to access register information, as I said earlier, across 15 professions and across all of our states and territories. If you have access to similar data in your jurisdiction, could you may be put up your hand just so that I know if I'm missing anything? So just the comment that in the UK there's not one single register, but there is the ability to combine data from multiple register to answer these kinds of research questions.

So, it's an incredible privilege to have access to this dataset. It's obviously highly sensitive and confidential information. So, I've been doing regulatory research since I was at Harvard in 2004, so that's probably around getting close to 15 years of really working to build trust with regulators.

We've never had a privacy breach in those 15 years. We have very, very strict data protection rules, deeds of confidentiality, and we make sure that no identifiable data ever leaves the grounds of the agency. So that sometimes means a bit of travel, wherever the data is, we will go there, collate the data and make sure it's completely de-identified before we leave the premises of that agency.

So our analytical approach, I like to think that quantitative research gives you the skeleton and that qualitative research put some flesh on the bones, so we really use a mix of both quantitative and qualitative methods and our research is approved by the ethics committee at the University of Melbourne. So coming back to the suggestion by Jerry Hickson, that all practitioners practice under a cloud of regulatory risk, but that it rains more heavily on some than others.

The first study we did, we worked with health complaint commissioners looking specifically at doctors. And this is what we found. So fewer than 5% of doctors account for nearly 50% of complaints about doctors. So if you're sitting there as a regulator of doctors, do you think that this changes the way that you might go about your day to day business?

For me, I certainly think it does. It tells you something really important about where the risk is located, but also where you can most effectively spend your regulatory resources. So we wondered whether this was true across other professions. I'm a lawyer by background as well as being a medical practitioner, so we worked with the Legal Services Board, collected 10 years of data from the Legal Services Board to see if we see similar clustering in other professions.

And this is what we found for lawyers. Four percent of lawyers account for nearly 60% of the complaints about lawyers. So in my jurisdiction of Victoria, there were 100 lawyers who have accrued

more than 20 complaints to the regulator. And because of the regulators case-by-case approach with a focus on resolving individual complaints, they were not aware of the identity of those 100 highest risk lawyers.

So something really important about stepping back and looking for these patterns in your data. When we came to look at nurses, the pattern was a little bit different. So, as I said earlier, nurses are a very low-risk profession. And what we found is that among nurses there is some clustering, but because the overall rate of complaints is so low for nurses, it's a much less dramatic effect.

So what we're seeing is that about a quarter of a percent of nurses in Australia account for around 14% or 15%of the notifications to the regulatory board. So as a regulator, that's still kind of interesting to think that there is maybe 15% of your regulated population who are in this high-risk group, but it's not nearly as dramatic a finding as it is for the doctors and lawyers, partly because of their underlying higher rate of notifications.

So in my public health training, we learned a really wonderful parable, which is the parable about the children drowning in a stream where children are drowning and three friends see these children drowning and two friends jump into the river to try and save the children.

And the third friend turns around to walk away and the friends say, "Hey, where are you going? There are children drowning.We need you here." And the third friend says I'm walking upstream to find out why their falling in. So that's kind of the ethos of public health that it's incredibly important that there are people jumping in the river to save the children, but actually, it's important to also walk upstream and try and understand the causes and determinants of some of these problems.

So that's what we tried to do with this clustering of risk among practitioners is to try and understand why are these practitioners falling into that high-risk group. So these are some of the variables that we tested and that we were able to look at with the data that we have. And as you can see here, I almost feel as though my slides were circulated earlier this morning because these are all the variables that all of you have mentioned already, that male six is absolutely a risk factor.

Male practitioners, even after we control for everything else we can think of, so if you control for age, specialty, even after you control for hours worked, male practitioners have still got about a 30% higher risk of notifications than female practitioners.

And that ability to control for hours worked is really important because people often think it's that more women are in part-time practice, whereas men are working longer hours. But even after you control for that, that risk associated with male sex persists. Older age is definitely a risk factor. The question about new graduates was really interesting.

We sort of see a different pattern of notifications for new graduates but not an overall increase in risk. But there are some areas like assessment and diagnosis where there seems to be some increased risk for new graduates. But overall, it's the practitioners closer to retirement or particularly those over the age of 65 where we really start to worry.

Sexual boundary breaches have got a different age profile, so they peak between the ages of 45 and 55 for the sexual boundary breaches. But for most of the notifications, it's the practitioners at retirement age who are of most concern. We see a really consistent trend towards regional and rural practitioners being at slightly increased risk.

We don't quite have the data to say that's statistically significant, but we're hoping that with the next tranche of data that we receive from AHPRA, that we will be able to achieve statistical significance on that finding. And then past history is by far the strongest predictor of future performance that we've identified so far. So you can see here those statistics I mentioned earlier, male practitioners at about 30% increased risk, about a 20% increased risk for regional practitioners, although that kind of drops in and out of statistical significance depending on the analysis we're doing, and age over 65 years.

It's got about a 40% increased risk of notifications once you control for working hours. So it's a little bit like older drivers, that it in and of themselves, older drivers are not having so many accidents, but as soon as you control for the number of kilometers on the road, you can see the true risk among elderly drivers. And it's a bit like that with elderly practitioners that you really need to control for hours on the road, hours on the road or hours on the practice before you can see the true risk among elderly practitioners.

This slide's maybe a little bit hard to interpret, but basically, this is your number of previous notifications. This is data for doctors rather than nurses. And this is a few static time notch. If you've had one previous notification and you follow the practitioner for two years, after two years, there is about a 20% chance that they will have received another notification.

Whereas for a doctor who's had 10 previous notifications, you can see that you only need to follow them for less than 12 months before it's almost certain that they will have received another notification. So this slide really starkly illustrates how important that past history is to predicting future risk. The curves are not as dramatic for nurses, partly because the overall rate of notifications is just so much lower.

So those are the person level characteristics, but of course no practitioner works in isolation and I was really pleased that a few of the tables spoke about the importance of practice context. So we certainly did look at practice context. These were the variables we were interested in. So risk exposure, which is partly about the kind of work that you're doing, something about whether you are an isolated practice, which one of the tables over here mentioned.

So practitioners working with a lack of support from colleagues. And then that idea of scope creep where the people are beginning to take on additional tasks and responsibilities beyond their core area of expertise. So this is the slide that I started with around risk exposure.

You can see here how high those risks are for medical practitioners. Unsurprisingly, for pharmacists, the risks are around the use of medicines, as I said earlier, for psychologists around boundaries and communication. Whenever you see increased risks like this, it's really helpful to think how much of that is about the task and how much of that is about professional culture, because surgeons have the highest risk of all.

And whenever I speak with groups of surgeons, they tell me that it's because of the heroic lifesaving work, that they're doing and that the reason their risk of notification to the medical board is so high because of, you know, these extraordinary lifesaving heroic procedures that they undertake. So I'm a researcher and I think, "Yeah, I can test that." That's a hypothesis that I can test and that I think is probably worth testing because having been a junior doctor working with surgeons, I'm not convinced that that was the entirety of their increased risk.

So what we did is we looked at surgeons and we looked at physicians who have about half of the regulatory risk of their surgical colleagues and we tried to understand what those notifications were about. And we found that the surgeons were a little bit right. So some of the increased regulatory risk for surgeons is absolutely about the procedural nature of their work.

So, you can see there that we've got the regulatory risk for physicians over here and for surgeons the regulatory risk is about twice as high. You can see here that surgical procedures are accounting for about half of that risk difference, but actually other factors like communication and teamwork and bullying and alcohol misuse, are accounting for a really substantial part of the increased risk for surgeons.

So that was a really important finding. And in Australia the surgical college has started a new program called Operating with Respect where they are really focused on trying to address some of these cultural factors that are accounting for surgeons' increased risk. So it's not always just about the task. I think professional culture really matters as well.

Someone also suggested that professional isolation might be an important risk factor and gave the example of long-term care settings where you may have a nurse working either on their own overnight or perhaps with some caregivers who are not qualified nurses. We don't have data in Australia that I can easily access about the number of nursing colleagues that someone has, but lawyers do keep very good data on the number of legal colleagues they have.

So we were able to look at this question of professional isolation using the legal data. And we found that you're absolutely right, that professional isolation is absolutely a risk factor, at least in the legal context and I'm almost certain that the same would be true in health practitioner context as well. So you can see here that being in a small practice, you've got a much, much higher risk of notifications compared with working for a large employer.

I think some of that is the risks attached with being professionally isolated. I think some of it also is just about working for a large employer and the kind of procedures that they would have in place to help to resolve complaints before they reach a regulator. So I'm sure that there's lots of harm that happens inside large hospitals, but the bigger the hospital, the more likely they are to have good patient liaison staff and good complaint resolution processes to try and address those risks earlier.

One of the other factors that's really important for practice context is who can see the harm that is occurring. So who has eyes and ears on patient safety? And here, what we found is that it depends a lot on the kind of risk that you're thinking about.

So, this is an analysis we did looking at the source of notifications about different issues. And here you can see that who is in a position to make a notification varies a lot depending on the issue that you're

concerned about. So if you're thinking about difficulty in accessing health services, it's patients and members of the public and patients' families who can tell you where in the system there are problems with accessing health services.

If you're interested and problems with prescription drugs, you can see that red bar there is quite big. So that's the role of other agencies like the police or departments of health and alerting regulators to problems with prescription medicines. I kind of see a few nods around the room and it sounds as though many of you probably have good partnerships with departments of health and police around misuse of prescription medicines.

When it comes to sexual boundary breaches, peers are a really good source of information on sexual boundary breaches and when you're thinking about the mental health of practitioners, it seems that the patients and families have relatively little insight into mental health concerns within practitioners, but that it is more visible to employers and peers.

So I think that's a really important griff for understanding that different people can provide eyes and ears on different patient safety risks. All right. So the third part of our model, I was very interested in the comment earlier about personality and people who are not willing to abide by rules and procedures.

So that was the next quadrant of this model that we're developing is trying to think about the personality of these practitioners. So in an ideal world, what I would really love would be to have a highly skilled psychologist who could sit down with all 350,000 nurses in Australia and do a personality profile and compare that with the nurses who've had notifications or disciplinary issues.

I haven't yet found a psychologist who's willing to do a personality profile on 350,000 nurses for me yet. So, all that we've been able to do so far is to look at disciplinary records and we're focused so far on lawyers, but trying to understand what the disciplinary tribunals say about the personalities of people who come before them.

We use this kind of big five model of personality traits and probably of little surprise to anyone in the room, the traits that seem to come up over and over again in those tribunal decisions were a lack of conscientiousness and what they call a lack of agreeableness. So those were the personality traits that tribunals were often mentioning in their decisions.

So just to give you examples of the kinds of things that the big five model classifies as low conscientiousness or low agreeableness. Failure to comply with norms, which was absolutely that comment about people who think that policies and procedures are for other people and don't apply to them. Delays in responding to requests, so this was often a delay in providing information that the regulator had asked for, that the tribunal would comment on.

Chaotic record keeping and what they euphemistically called unorthodox practice arrangements. The low agreeableness, in this domain, you would often see practitioners with a lack of insight who could even be quite aggressive towards the regulator and towards their employer, who really had very poor insight into the harm that they had caused, were very quick to try and blame other people or to try and conceal wrongdoing.

So that was work that we did with the lawyers. I just wondered, does that resonate as nursing regulators? Are those some of the traits that you think you see in practitioners who are coming before you? Yeah. So just a couple of quotes to give you examples of the kinds of things that the tribunals we're saying.

So one practitioner, their practice was conducted in a chaotic manner, which actually meant that all of their client records were stored in boxes in their mother's basement, which was in a different city from where the practitioner worked. Another practitioner, the tribunal commented that the practitioner had just left the mess that they created to be cleaned up by others.

And when it came to low agreeableness, one comment that one of the practitioners had an attacking style akin to a terrier, so not really a lot of self-reflection and insight and concern about the harm that had been caused there. Another practitioner demonstrated contempt for the regulator. So that's an area where I'd really love to do some more work trying to understand whether those personality traits are robust.

It is possible that all lawyers may score lowly, you know, on this low agreeableness trait. So really, we would need a control group to be able to verify this work, but it does feel intuitively as though there is something in it. And then finally we looked at the pressures that these practitioners were under.

And again, we turned to these tribunal decisions and it was really heartbreaking to see the kind of personal and family and financial and practice stressors that these practitioners were under in addition to the notification that had been made to their regulator. So not uncommon to see tribunals commenting that practitioners had some form of health impairment, most commonly anxiety or depression, that there'd been an illness or death in the family, that they were experiencing workplace bullying, that they had some financial difficulties.

One of the tribunal members called this a concatenation of personal disruption, which is a really beautiful word and I think it rests on all of our shoulders as regulators to remember that all of these practitioners are people and that they have complex and sometimes very difficult lives. And if someone, for example, is grieving the death of a child at the same time as they're going through a regulator's process, I think it really behooves us to be sensitive and mindful of those stresses that they're under.

And these would often interact in ways that they meant that they compounded on each other. So a practitioner who was having difficulty at home, perhaps a relationship breakdown, and then they received a notification to the board, didn't feel that they could share that stress with their family, that would make their anxiety and depression worse, and in turn, they might start drinking more, which might make their relationship at home worse and these things would really compound upon each other.

So that's where we've got to so far with developing our model of indicators that might preempt risk. I feel as though it reflects pretty honestly the things that people said around the room this morning. I'm just trying to think, you know, what the factors are that we haven't included in here yet.

So, coming back to your earlier comments, there was one suggestion about the quality of education that people have received. So we do see in Australia that there seems to be some higher risk associated with enrolled nurses rather than registered nurses. We don't really have more information on nurses who, for example, hold master's degrees.

We haven't looked at the nursing school that they went to, although, you know, those would be fantastic things to look at. The question about hours worked is also one that I would love to explore further. We do have a survey which nurses complete in Australia that gathers information on hours worked. So again, that's potentially something we could explore further.

Just looking at this model, is there anything else that people feel as though we have missing from here that doesn't resonate with you that you think needs to be looked at? Yeah. - [Man] I just wonder, when you showed your matrix of risk versus the disciplines, whether or not there's actually a third dimension to those because it has been said in the media at least that nursing is rather harsh in terms of the determinations compared to medicine.

And I'm just wondering whether or not part of what we're seeing with the recurrent number of complaints coming into the medical regulator is because there is a…well, nothing really happens to me anyway, so I just carry on the way I do and I wondered if you'd looked at that at all.

- Yeah, that's a fantastic suggestion. So that actually when we're looking at those risks, there may be something that perhaps nursing regulators are addressing poor performance early and so that one of the reasons we may not see the same level of clustering is that people are not allowed to continue to accrue 20 notifications as the lawyers do or conversely that there may be a culture where people in the medical profession maybe a bit blase about the role of the regulator and feel as though they can get away with things.

Yeah, I think it was probably more the latter point that you were alluding to, but I think they're both really interesting. So we have looked at outcomes across professions and even though in Australia we do all operate under one umbrella board, there are really significant differences in the outcomes of notifications to regulators that some are more likely to impose restrictive sanctions.

Some are perhaps more likely to kick the ball on to another agency. Some are more likely to take no further action. I haven't specifically looked to see how that explains that grid, but that's a really fantastic suggestion which we can certainly follow up. And I think that the outcomes of notifications are crucially important. As AHPRA accrues more years of data, it becomes easier for us to look at the notifications in Australia as well.

So hopefully over the next few years, we will be able to do more of that work. Thank you. Any other suggestions? This is like a grant workshop for me. Yeah, Harry. - [Harry]

Marie, thank you. Really, really interesting. I just wanted to add some of the work we've done. You know that my colleague Douglas Bilton's been very interested in personality and behavioral issues. And we've recently published a paper which looked at a very large number of final determinations of complaints.

And one of the areas that you haven't mentioned, I think, which we found was significant was dishonesty. And what we found was that minor dishonesty maybe in the early part of someone's career, which might be as simple as just exaggerating your qualifications or making some, you know, writing a false reference, or something that, you know, was picked up, but doesn't stop you from qualifying as a professional may later be part of serious dishonesty, either financial dishonesty or worse, claiming to

have qualifications you don't have, changing medical records, doing things that result in significant harm.

And I think you're beginning to concentrate on what are the features of people's behaviors and moral or lack of moral focus is a really important one that we don't yet know enough about.

- Thank you. That's a really wonderful suggestion. I'll be very interested to have a look at that paper. So I guess the closest we have come to that is we looked at all of the different kinds of issues that people can make notifications about and we looked at which ones had the highest risk of recurrence.

And what we found is that notifications about, for example, a misdiagnosis, they're unlikely to reoccur and notification about a misdiagnosis is more likely to be a one-off situation. But there were three issues where we saw really high rates of recurrence. And one of the issues where we saw high rates of recurrence is exactly what you've suggested.

So dishonesty was one of the issues that was most likely to reoccur. The second issue that was most likely to reoccur was sexual boundary breaches and the third one was misuse of prescription medicines. And again, I think intuitively that makes a lot of sense, that dishonesty, abusive prescription medicines and sexual boundary breaches are the kinds of issues where there is something kind of intrinsic to the practitioner that means that those issues are likely to reoccur rather than a misdiagnosis which may tell you much more about how chaotic the emergency department was on that day or how rare, you know, that constellation of symptoms were.

But yeah, so I think what we're seeing is certainly consistent with Douglas' findings, and I'd love to follow up on that more. Thank you. So I guess the question for us is where do we go for this and how do we try and turn some of this into tools that regulators like yourselves can apply on a daily basis?

One idea that we had was that it would be great if we could develop a kind of a risk score. Some of you will be familiar with these cardiac risk scores that you can use to identify your risk of having a heart attack within the next few years. You take a number of pretty simple variables like your age and your blood pressure, smoking status, and it gives you a score that tells you what your probability of a heart attack is.

So wouldn't it be nice if regulators could do something similar to identify those practitioners with the highest risk of further harm to the public or highest risk of further notifications. So what we found is that for doctors who have such high rates of notifications, this works pretty well. So we've developed something called the PRONE score and if you just take some pretty simple variables like age and sex and previous complaint history and length of time that's elapsed since your last complaint, you can give somebody a score and then from that score you can figure out the percentage probability of them having another notification within the next two years.

And you can see how widely these scores vary from a female physician who has her first complaint at the age of 30, there's a less than 15% chance that she's going to have another notification within two years. But if you take a male plastic surgeon who's up to his ninth complaint, and it's been less than six months since the last complaint, he's got a more than 90% chance of another notification within two years.

So when you look at professions like medicine,who have high rates of notifications, you can construct a score like this, which has pretty good predictive properties to the point where in Australia, we're seeing some really significant changes to regulatory policy.

So the medical board has now imposed new requirements partly in response to our findings on practitioners over the age of 70 and practitioners with a past history of complaints and posing some additional requirements to ensure that they are fit to practice. I really wish that I could come here with the good news that I have a PRONE score for nurses for you, but unfortunately, the reality of epidemiology is that rare events are hard to predict.

And partly because the rate of notifications about nurses are so low. When we try to construct a PRONE score for nurses, we just can't get as good a predictive properties as we can for the medical practitioners and that really reflects what we saw earlier about the risks.

So we can develop good PRONE scores for doctors and for dentists, but not yet for nurses. And so when I think about what we can do to try and address it, to try and move the nursing profession to a point where you do have a robust set of tools for predicting future risk, I think probably my key takeaway message is that as regulators, you won't be able to do it on your own, that you're really going to need to supplement the information that you have with information from other sources.

So, as Harry suggests, whether it's information from the educator about whether there were minor issues of dishonesty during that nurse's training, whether it's information from their current employer, whether it's information from the Department of Health, I think that in the nursing profession, perhaps even more so than in the medical profession, it's going to be those relationships with other stakeholders that will give you a more complete picture of the complete puzzle.

So that's everything that I have to share today. I'm really hopeful that I will have validated some of your intuitions today. I think I have really confirmed that the sense in this room about the indicators that predict risk are absolutely spot-on. I think the wise use of these predictors can certainly help you to focus your regulatory resources and hopefully avert some of these careers of misconduct.

For professions with low rates of complaint, I think information sharing between agencies is going to be key. And finally, I just really want to congratulate you for being regulators of a profession that comes out at the top of most trusted professions year after year after year, and I really hope that rather than just speaking about the risks within the nursing profession, we will also be able to share some of the wonderful things that you as regulators are doing right and that your profession is doing right in order to be able to provide such safe high-quality care.

All right. We have about 10 minutes left for questions and discussion and comments. And maybe if people can step up to the microphone to share their question or comment. -

[Woman] Marie, thank you so much. I really enjoyed your presentation and see some application to the quality assurance or continuing competence program that we're rolling out in British Columbia, Canada. And one of the things I wonder about and I wonder if you've thought about is, you know, there's a lot of

data on where things fall down for patients and the public and how do we understand more there's a high percent, some of it's minor to major incidents that happen to people when they're in our care.

And how does nurses perhaps contribute to that and certainly help in a lot of cases, but is there some way for us to think about where do nurses contribute in that dataset and how could we then help prevent a progression of that that gets eventually probably to people falling into complaints.

- I think that the role of nursing research is absolutely critical there. You know, time and time again, I see the skew towards medical journals which have higher impact factors towards focusing on doctors when people do quality and safety research.

And I think that nursing voices are going to be absolutely critical to making sure that the contribution of nurses, you know, both to the harm that occurs, but also to preempting harm, will be really crucial. So I would just encourage all of you who know promising young researchers who are interested in quality and safety issues and who can see the world through a nursing lens to really tackle that work. -

[Woman] Hi. Thank you very much. And maybe it's just a little bit of a nuance on terminology, but you said that your research is based upon tribunal decisions. So that's complaints that have gone through and been validated.

Have you looked at those allegations or concerns that come in and that, as I know in regulatory bodies in Canada, I can't really speak across, but I'm thinking it's the same, we have an opportunity to do...alter the terms of dispute resolutions or, you know, they may even be dismissed. Have you done any research on that because that sort of feels as a regulator when you're dismissing something that, you know, it is an isolated look rather than a trend because that's the way we approach it.

So have you looked at whether that's a risk or not?

- So the vast majority of this research, whenever I'm talking about demographic characteristics like sex or age or hours worked, I'm looking at all of the notifications that came in as well as the ones that progressed further. It's just for the personality piece of this where we really needed documents that spent a lot of time talking about that person's behavior where we focused on the tribunal decisions because I very much think that, you know, every notification that comes in the door, it's a hard thing to do for people to reach out to their regulator.

And I think that the mere fact that a notification has occurred means that someone is distressed or concerned enough to have gone to the trouble of finding you and reaching out to you. And perhaps that may be because there's been a miscommunication rather than an error. Perhaps there has been a terrible relationship breakdown, but I absolutely agree with you that there's so much that we can learn from those notifications that come through that may not progress through to more formal regulatory action.

And I think in terms of, you know, focusing our resources as well, like really understanding, well, you know, why did this issue come through to the nursing board or to the nursing council if it hasn't required regulatory action and what were the opportunities for that to perhaps have been resolved in a more timely way before it reached us is really important as well because I'm not sure about in your

jurisdiction, but certainly in Australia, it's distressing and time consuming and stressful for both the notifier and the practitioner to have to go through a regulatory process.

- [Woman] Thank you very much, Marie. This is an area that I think as regulators we all struggle with. And one of the things I wondered about is, you commented a bit about the challenges for the nursing profession where the percentage of notifications is low.

Would there be merit in collaboration across jurisdictions? So increasing the dataset, would that assist or were your comments about additional stakeholder pieces about the information that's available about individual practitioners?

- Yeah. So look, there were a few things that I would really love. So I think part of it is about being able to fold additional variables into our dataset. So things like country of training, hours worked, type of education you've received perhaps even where you went.

Some of those are variables that some of you may well hold within your own organizations. They're not readily available to me with my Australian dataset, although we were talking last night about ways in which we may be able to access them. So I think part of it is about additional variables. I think part of it is about increasing our study power.

So, the collaboration across jurisdictions certainly would help. And so for variables like the increased risk associated with regional or rural practice, they're...you know, I can see the trend but we're just not quite there yet in terms of the power of our study. So sometimes collaboration across jurisdictions would really help. But then I think that there is also something about different agencies seeing problems in a different way where actually, you do just want a different perspective.

So I think that probably employers are seeing some lower level concerns, which, you know, you may have three or four concerns raised with an employer before the first notification to the nursing board. So I would be really, really interested to work with a large employer and to see how their data correlates with it, that goes through to a regulator.

Sorry, that's quite a complicated answer. Yeah. There's probably time for two more questions. - [Man] So I'm going to link some of the work that David Collie spoke about yesterday in terms of identifying harms. And I was just thinking about the fact that, you know, as a profession globally, we've struggled with this whole issue of continuing competence, but if you actually look at the number of notifications that jurisdictions get, at the top of the list, it's often around issues of diversion.

And therefore, are we looking at the issue of continuing competence through the wrong lens in terms of a strategy for reducing harm to the public?

- Sorry, what was that you said, issues of diversion?

- Yes.

- Can you just explain that a little bit more for me? Sorry.

- Medication diversion. So people taking drugs and using them for their own use or for others.

- So in your jurisdiction, that's one of the more common?

- It's the highest problem that we have in many of the jurisdictions.

- I don't think that's our experience in Australia. That's really interesting.

- Yeah.

- Yeah. And so your question was, are we looking at it through the wrong lens?

- Are we looking at the wrong problem if we're really serious about reducing harm because if that's the biggest problem, then the issue of continuing competence as we currently think about it is maybe the wrong thing we're looking at.

- Yeah. I certainly think…you know, if I go back to my public health analogy about why are the children falling into the river and if you think about why are people diverting medicine, you know, the reason that they're falling into that particular river is probably not because of a lack of core clinical competence.

So I think that for every jurisdiction whichever those issues are that are coming up over and over again, walking upstream and asking why are the children falling into this river is a really important question. And I think that you're right. That continuing education around competence issues is probably not going to resolve that particular problem. So I'm not sure how it works in your jurisdiction, but in Australia we certainly tend to stream the notifications according to health concerns, performance concerns or conduct concerns where conduct concerns is the kind of dishonesty that Harry spoke about previously, which requires a very different regulatory response, from somebody not knowing how to take someone's blood pressure properly.

And that requires a very different response to a practitioner who's struggling with anxiety and depression which is impacting on their work. So I think that's a fantastic point that actually there's not going to be one silver bullet for preventing harm, that you need to match your solution to the cause. Yeah. Thank you. All right. Is there one more question or maybe we'll just wrap up there and I'll be around at morning tea and at lunch and would love to continue this conversation.

And even beyond the conference, I'm always very happy to have phone calls. If you have research teams within your organizations, we love to hear about what's happening around the world. If you have research questions that you think we may be able to help answer with our Australian data, we're always, you know, very open to partnering and working together. Thank you again for the opportunity to be here.