# Transcript – AHS COVID-19 Podcast: Scientific Advisory Group (SAG)

Hosted by Alberta Health Services (AHS). Interview with:
**BM:** Dr. Braden Manns, Co-Chair, Scientific Advisory Group and Associate Chief Medical Officer, Strategic Clinical Networks

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HOST: Welcome to the Alberta Health Services COVID-19 podcast. In this episode, Dr. Braden Manns, Co-chair of the Scientific Advisory Group talks about the important work being done by SAG to support Albertans and AHS staff during the COVID-19 pandemic. Thanks for joining us Dr. Manns. First of all, what is SAG?

BM: So the Scientific Advisory Group was formed by the Emergency Coordination Centre probably seven or eight weeks ago. And for the first four weeks, Dr. Jia Hu was chairing it, Calgary's Medical Officer of Health. And they largely were dealing with public health type questions cause we were early in the outbreak. But it was realized that as we were moving into the hospital part of the outbreak, and the hospitals were admitting more and more patients, that the committee could be broadened and we needed to put some supports under the committee so that they could, when they got a question, that we could bring together all the evidence very quickly – within two to three days – and then bring the committee together, a multidisciplinary group of people, who could make recommendations based on the best evidence and collective wisdom of the group.

HOST: And what exactly does SAG do?

BM: The Scientific Advisory Group reports to the Emergency Coordination Centre, but actually, they answer questions that are asked by – not just the Emergency Coordination Centre, but also the Personal Protective Equipment (PPE) Task Force, which is directed by Dr. Mark Joffe, and also by Dr. Deena Hinshaw, the Chief Medical Officer of Health. So we get questions from any of those three places. And the first thing that we do is just, because they're constantly each day they're practicing, they're running into situations where they're not sure how to respond. So they're asking 'what's the evidence?', 'how should evidence guide us in how we respond to this?' So we work with them around clarifying exactly what the question is, and then we get a



team of reviewers on it – a team of reviewers from the Strategic Clinical Networks and from AHS Innovation, Evidence and Impact – to get us a report within two or three days that includes a full literature search, bringing that evidence together, and then we have reviewers from the committee modify the report. We bring it to this committee and later that day, we send back recommendations to Dr. Hinshaw, the Emergency Coordination Centre, or Dr. Joffe to just help inform their decision making.

HOST: Can you tell us who makes up SAG?

BM: SAG is a committee of about eleven individuals. Dr. Lynora Saxinger, an infectious disease specialist at the University of Alberta is the other Co-chair. And the group now has essentially added on to what the committee before was. The committee before was Infection Prevention people, Medical Officers of Health, Public Health, Lab experts. Now we've added on people who would look after patients in a hospital setting, so we've added on Critical Care, we've added on Emergency Departments - experts in those areas. We've added on Respiratory Medicine, we've added on General Internal Medicine, and we've also added on Pharmacy, and now we have a representative from the Chief Medical Officer of Health area as well. So just a broad range of expertise that looks at data slightly differently.

HOST: What was the catalyst to bring all of these people together to create SAG?

BM: So it's really the vexing questions. You know, we knew nothing about COVID-19 three or four months ago. We had some experience from the previous SARS epidemic or from the MERS epidemic, but really, our information about this virus is just growing week to week. The medications you might use, the ways you could manage an outbreak. So I give kudos to Alberta Health and to Alberta Health Services that they actually felt it was really important to distill down the evidence that is changing week to week. But distilling that down to actually help them answer the questions they're being asked. So it was really recognizing that every week we learn more about this, everybody is swamped these days, so if they could tag an external group to try to answer those questions and to have resources to answer those questions, it was just going to allow us to better respond to this pandemic.

HOST: What types of questions does SAG investigate, and why is it an important part of AHS?

BM: Well, for instance, when we started, the burning question was: physicians have started to prescribe hydroxychloroquine for their colleagues, for other staff to take that hydroxychloroquine in the hopes that it might prevent healthcare workers from actually contracting COVID-19…We were starting to run out of hydroxychloroquine, so that was a question that was brought to us and we were actually able to look at the information and say actually, there's some risks associated with this hydroxychloroquine. We knew there were some studies starting up, so we

were able to make some fairly strong recommendations around that medication. It should really just be used in study settings right now – in the context of a study.

I mean, another example would be there's been huge concerns around healthcare worker safety, but actually when you distill down to what the evidence tells us, I think that should be somewhat reassuring to our healthcare workers.

Another example is the Cargill outbreaks. There was a lot of questions around should they be setting up quarantine or isolation centres? And if so, who should go into them? Just the people who are infected? How about people who are close household contacts? One of the medical officers of health just called us in the context of these outbreaks and the question is: somebody who's had COVID-19: Do they have immunity? Can they get it again? And actually, this question has come up before and we had just finished a report about ten days ago on this. Because there's been discussion around this COVID passport. If you've had it, does that mean you're immune? And you're able to go back into society and interact normally? And you can go back to work without any fear of getting COVID-19. And we do think that it probably gives you some short-term immunity, but it's not clear how long that lasts for. And certainly, if you've had COVID-19, you should still be wearing personal protective equipment if you're in the hospital setting, probably you still need to be taking care when you go back to work. So the workers that go back to Cargill, it's somewhat reassuring for those people who've recovered fully that they're less likely to get it again.

So it's really rewarding to get a question that's really important to people and be able to answer it really quickly to inform how they move forward.

HOST: So how does the work SAG's involved with fit into AHS' overall COVID-19 planning and strategy?

BM: SAG is sort of brought in by the groups that are making the decisions to advise them. And so we're not in the trenches making those decisions on a day-to-day basis, but we're definitely informing them. And through all of the reviews that we've done now – probably well over thirty – we are starting to recognize some of the really important unanswered questions that actually, even though they're not fully answered, they can still inform how we move forward. Like can a person who tests positive for COVID-19 but they're asymptomatic, can they transmit that virus? Are they actually a major reservoir of transmission? And although that's not fully answered, I think we can say that they're probably not a major reservoir. But that has implications for who do you test? If you're positive but you have no symptoms. How do we deal with those people? Should we be wearing full personal protective equipment? Healthcare workers rightly are concerned about their safety, so how do we deal with healthcare worker safety and using personal protective equipment when we're not certain if someone's got COVID-19? They

haven't been tested, they're low risk, but of course, viruses can present in strange ways. So we've been able to just inform the response sitting as an independent group.

HOST: At the end of the day, what is the SAG team hoping to find out?

BM: You know, we're not doing research per se. We're combing through all of the research that's been done, trying to find the best answer to inform the question that was asked. So we pull together information from media sources. We pull together information from old studies. We're looking at a question right now around does singing – essentially speaking very loudly – can that cause transmission of COVID-19? And we've had to go back into data that came out of the 1960s around tuberculosis….has felt to be transmitted through singing. There's case reports of that. So we're not just pulling information from the usual published sources. We're looking at information that are called pre-prints, so an article has been submitted to a journal. It hasn't been reviewed yet but it gets put up online. So we're having to look at the quality of that, and we're also going back to this old literature from other, similar viruses or other, similar infectious agents and how they're transmitted. And we're trying to tease that all together, and as you can imagine, we're lacking really high quality studies, and so we sift together the knowledge and limitations and make the best recommendations that we can. And we highlight clearly where there's still remaining uncertainties.

HOST: So this is less about new research and more about investigating existing research?

BM: That's absolutely right, although I will say that now, as we're getting further and further down the road, we are recognizing that there are some key uncertainties that we don't know how to manage outbreaks because of the following couple of reasons. And now we are starting to get involved in not doing research ourselves, but working with groups who are doing the research. To clarify these are the answers we need, and to help them design studies that really can effectively inform Alberta Health Services about how we keep Albertans safe.

HOST: Is SAG doing this work autonomously or, given that this is a pandemic, is there collaboration with other similar groups across the country or around the world?

BM: So that's a really good point. So the review actually starts by looking at what other groups around the world that are doing similar functions have already found. So we do that, but the one thing we've really learned is our committee has expertise on it, but we don't have all the expertise we need. So when we start a review, we reach out to groups within Alberta Health Services and outside within Alberta who do have that expertise. So we're often reaching out to Infection Prevention and Control, the provincial program. We're often now reaching out to Workplace Health and Safety. We're often reaching out to people within Connect Care who create order sets and we're saying 'we've got this question – do you think it's exactly the right question or would you tweak it slightly?' And 'can you work with us on this review so we can

take into account our expertise, but more importantly, your expertise?'. And that also helps us when we're making recommendations to ensure our recommendations actually align with the other provincial programs like Infection Prevention and Control to make sure we're coming up with one consistent message.

And yes, we do work with research groups within the universities because sometimes they've already started doing a review of an area and we can tag onto that. And if we're aware of people in other parts of the world that are doing something, we've worked in that situation as well.

HOST: Are you finding there's an openness and willingness to collaborate?

BM: Absolutely. We've learned a lot. Not myself personally, but colleagues working within the Strategic Clinical Networks know physicians in Italy and they've been able to garner information just based on their experience from caring for patients. And while you might say, well, that's not really evidence. That's a description. Well actually a lot of the evidence we're dealing with is the collective expertise that comes from managing patients with these types of illnesses. So it's been helpful in terms of strategies for ventilation. So, yes, that collective network of individuals globally has been really important.

HOST: And what about SAG's work – has it been able to be shared and support the work of other communities?

BM: Yeah, so great point. We're aware of a couple of groups that have been doing similar types of things, collating information. I would say not many groups are doing it as quickly and adding recommendations, and updating as frequently as we are. So now on the Canadian Agencies for Drugs and Technologies in Health, they do reviews of technologies. They've actually got our reviews posted on their web site. We've linked with a group at McMaster [University] in Ontario. We've shared this with Ministries of Health, particularly in the smaller provinces where they just don't have the capacity and the resources to do this type of thing. We've been in touch with a group in BC. So one of the real advantages of having a single health system – Alberta Health Services in Alberta – is that each zone isn't having to do this, each hospital isn't having to do this. They can all feed their questions up to the Alberta Health Services ECC Scientific Advisory Group and we can answer questions for them and send that back to them.

HOST: How challenging is it to shift from normal research timelines, which are generally measured in weeks, months and years, to the immediacy SAG requires?

BM: It's a massive shift. It's a massive shift, and we assign essentially…we've probably got six people, six full-time equivalents doing reviews for us on a constant basis. And we tire them out. So when they're finished a review, we leave them alone for a little bit to recover. But we've got our assistant scientific directors, we've got PhD-level scientists helping us. We have reached out to the Veterinary faculty at the University of Calgary, we've reached out to Public Health at

the University of Alberta. So these are really well-trained scientists that are doing these reviews for us, and that just wouldn't happen outside of the context we're in. So we're engaging experienced researchers to help with the reviews, and then we have committee meetings that are booked into busy people's calendars twice a week. And we essentially…the one job that I have as the Co-Chair is to force us to come up with recommendations in the context of a meeting. We often come to close consensus, can't quite get there, so we send out a survey and a vote later on that night. And Lynora and I, you know, we just finish it off by the end of the night. So I'm not sure how long we can keep this pace up for, but the one thing that's interesting that we've observed is within two days, you can pull together a pretty darn good report that may include…you know, you may be 95% of the way there. If you give people five days, they can get 97% of the way there. If you give them two weeks, they can get 98% of the way there, but actually you can produce very good results in a couple of days.

HOST: As a senior medical leader watching all of this happen before your eyes, how does that make you feel about the commitment and dedication of your teams?

BM: I mean, it's absolutely amazing. When I approached people over a weekend to ask them whether they'd be willing to add onto their work weeks, to meet twice a week for two hours - no one said 'no'. And these are busy clinicians often, who are on call, covering in the hospital, and the attendance at the meetings has been amazing. And when we approach people as reviewers, it's amazing how willing people are to help out in this situation. And again, the reviewers are spending hours and hours and days and days, and they're very proud of the product and rightly so. The product they bring forward is amazing given the time constraints. And the willingness of others - the provincial programs like the Infection Control, Workplace Health and Safety, people who create the order sets – just everybody says 'yes, we're willing to help.' So you're absolutely right – it is amazing what we can accomplish together.

HOST: What's the message Albertans should take from all of this work?

BM: Albertans should take heart in the fact that their healthcare system has said 'it's really important that evidence drives how our healthcare system acts.' And as we've seen, that hasn't always been the case for other countries. And so the fact that we're sticking to what the evidence tells us, and we're making the best decisions that we can following the evidence, that should really give some comfort to Albertans.

HOST: Ultimately, how is all of this work helping to support patient care in Alberta?

BM: So the Scientific Advisory Group is really informing those order sets that help physicians care for patients with COVID-19. So remember, two months ago, we'd never seen a COVID-19 patient in the hospital, so now they've created order sets to help physicians who are just learning – there's been a steep learning curve, but I think we've been really…the health system

has been able to skill-up its employees to really effectively deal with patients with COVID-19. So in fact, we're informing the policies that come out around use of personal protective equipment, we're informing the order sets that help physicians care for patients. There's new continuing medical education activities going on multiple times per week, and we've got regular slots at some of these, and the speakers that are speaking at these are often referring to these reports because nobody – no busy clinician has time to go out and curry through all of the information, so it's sort of a one-stop shop we're creating to help inform clinicians and help inform Alberta Health Services and the zones how to care for – in the broadest sense – care for an individual, but care for a population, deal with outbreaks, all of the things that COVID-19 has been throwing at us.

HOST: So what's the takeaway? What do you want Albertans and staff to really understand about the work SAG is doing?

BM: I guess the most important thing is that Alberta Health Services has recognized that getting evidence into care is their commitment. And they've set up the Scientific Advisory Group to ensure that we can get evidence into care within days – compared to the years or decade that sometimes it takes. The other thing is that the commitment to setting up the Scientific Advisory Committee shows how committed we are to patient safety, but actually, staff safety and keeping our staff skilled up, supporting them – this is also part of the commitment and the reason why the Scientific Advisory Group was set up. It's that Quadruple Aim, it's improving patient care and outcomes, it's improving the health of the population, but it's supporting our staff and trying to ensure that the staff feel supported and have as best an experience as possible during what is really a very trying time.

HOST: Thanks Dr. Manns.  You have been listening to the Alberta Health Services COVID-19 podcast. For the latest information on COVID-19, please visit alberta.ca/covid19. Thanks for listening.