Marianne Farkas (00:00:00):
So thank you, Amanda. All right, well, good afternoon everyone. Uh, we're happy to welcome you to session two of the Knowledge to Action Cycle course. My name is Maryanne Farkas. I, along with my co-director, run the Center on, uh, knowledge Translation for Employment research. I had a blip there in my mind, and I forgot what it was, <laugh>, but its short form is CeKTER (pronounced sec-ter) and our mission is to promote the use of employment research findings and research-based products. Obviously, we're acknowledging NIDILRR funding. Most of you are NIDILRR grantees. Um, and we want to make the statement that, uh, this center stands on lands traditionally held by the Wampanoag, Massachusetts and Pouk nations. And I think that's it for the introduction. I'm going to turn it over to Dr. Ian Graham, who's going to give you an overview of what session two is about, the knowledge to action cycle, and then we'll get down to the applications, and I will see you at the end of the presentations. Over to you.

Ian Graham (00:01:27):
Thank, thank you very. Thank you very much, Marianne. Um, and I'd like to acknowledge that, uh, I live and working on, on the ancestral and unseated territory of the Algonquin Nation. So there were no, uh, treaties with the Algonquin people. The settlers simply took the land. And, uh, I'd like to, uh, acknowledge the Algonquin elders and, uh, knowledge keepers of the past, present, and future, and hope to work in terms of reconciliation and collaboration, uh, moving forward to, uh, try to do better in terms of the harms and mistakes of the past and the present. So, uh, for those of you who were here, uh, or weren't here, the, the last time I had a number of disclosures, which are mainly academic in nature. Um, the Knowledge to Action framework, which we're gonna talk about today, is one of the things I helped to, uh, uh, co-originate.

But there's also the auto model of research use and the adapt, uh, process and can implement and implementation roadmap. Um, and we have a number of books, um, that, uh, don't make many royalties except for the knowledge translation in healthcare. And all of, all of the royalties go to students at the University of, uh, Toronto. And, uh, I guess the important piece from this page is that I actually have a, a Canadian Institutes of Health Research, um, foundation grant, which are seven years, but because of, because of covid, has been extended to nine years. And we focus on what we call integrated knowledge translation in Canada. But the notion of co-creation researchers and people who aren't researchers working together collaboratively, uh, to address, uh, research issues and needs of those, um, knowledge users. And we're studying how does that work? What are the impacts of working in a collaborative kind of way?

And you'll see throughout, um, this, uh, webinar, bringing up, you know, who are those knowledge users that maybe could be helping with dissemination and implementation. So what I'd like to do is, very quickly, uh, just a few slides go over part one. So the last time, and, uh, that was very heavy on theory, today's session isn't, it's more on what can we get on with? And so it's about applying the Knowledge to Action cycle to the latter phases, which are implementation strategies, monitoring, uptake, and impact and sustainability when thinking about your end of project KT planning, so I have a poll, uh, just to give me a better sense how many of you were at the previous session.
So just take a minute to let me know so that I can adjust things as we go along. Okay, that's great. So almost everyone was, perfect. Thank you. Uh, and we can share the results of the poll. Can we? There we go. And I'll stop sharing and, uh, and now I seem to be stuck. Oh, there we go. And, um, do you have a specific project in mind as we kind of work through this session? Okay. So it looks, uh, like maybe half, a little bit more than half don't, or are not sure, and that's not a problem, uh, at all. So we'll end this poll, um, and move on. Okay. So this is the, to just to remind you, uh, the Knowledge to Action framework and what we see around the outside are those phases that came from a review of planned action models that said, people typically start with a problem or they start with a solution and determine how big that gap is between the know what they know and what should be done, and then they adapt the local knowledge or evidence to the context.

And then they assess for barriers and facilitators, like what gets in the way of using that knowledge and use that information to select and tailor implementation strategies. And then the importance of monitoring the uptake of the knowledge, and then evaluating the outcomes or impact. And then while it's listed as the last phase, it's really you need to incorporate from the very beginning, which is thinking about what's it gonna take to sustain the use of, of the knowledge. And what you see in the middle is that knowledge creation funnel, which consists of primary studies and then, which are helpful, but what do you do with dozens of studies or hundreds of studies? You synthesize them to kind of get a sense of the global evidence. And then ultimately though, what people are looking for are knowledge products and tools that would help them incorporate that, um, research and evidence and knowledge into their decision making. And so typically, uh, when using the knowledge action cycle, people are thinking of those knowledge and tools and products exist, and then how do we get people to use them, which is the outer phases. And, uh, last time it was turning it kind of on its end and saying, well, how can we think about the knowledge to action phases when we're producing those knowledge products and tools that we may be interested in disseminating or trying to encourage people to, uh, implement? So kind of tipping it on its back.

And, and so now it's for each of those phases, what are the implications when we think through them in terms of developing our dissemination, uh, tools and products. And so that was what we talked about in part one. And oh, today, oh, I'm getting ahead of myself. So a few little pieces that do become important before we get to today. So definitions, research, co-production, a model of collaborative research that explicitly responds to knowledge user's needs in order to produce research findings that are useful, usable, and used. And of course, the, the argument is, um, while it's great to be doing research, we probably really are doing it because we hope that that knowledge will be useful in some way to people, um, and not sit on a, a shelf. And as I mentioned, uh, the last time in Canada, we often use the term integrated knowledge translation, which is the same notion of a collaborative model of research where researchers and people who would use that research actually work together to identify a problem and are in a position to act on those findings.

So really, the modeler that NIDDLIR, uh, uses, it covers both of these definitions, I think really well. So putting the emphasis back on the knowledge users, the clients, service providers, um, policymakers, um, service and health system leaders, whoever are the people that would be using the research, and making sure that they're part of the research process upfront. And then I also, uh, reminded everyone the last time in terms of, uh, stakeholders and you know, that there are these three categories that we can think of. So the people who would actually use the research findings and decision makers. And so I'll refer to them as knowledge or research users in this presentation. Then there's another category of
people who, uh, are impacted by the use of research, by the decisions that are made, but they
themselves wouldn't be making necessarily the decisions. And then the third category are people who,
um, aren't using the research findings, not necessarily impacted by the use of the findings, but they are
interested in what, what is happening.

And the asterisks was to remind me that, um, that with indigenous communities, there's often a
discomfort level with the term stakeholders because of the connotations of settlers coming and staking
land, uh, that belong to the, uh, indigenous, uh, peoples and and nations. And so if, if you're working
with indigenous groups, often the preference is to refer to them as partners as opposed to stakeholders.
And then I also, uh, talk to a little bit about this kind of taxonomy that goes back quite a few years of,
uh, now we have findings, what do we do with the findings? And we can just let it happen. And so the
notion of diffusion, we typically publish it and hope somehow people will find that information and
make use of it. Um, and then the argument is, well, maybe we need to help it happen. And so that's
more, uh, kind of tailored dissemination.

Ian Graham (00:11:04):
So what's the message? What's the medium? How are you gonna get it to the specific audience? And
that you'd have different audiences, different messages for different audiences, and you might use
different mediums to get at or to those different audiences. And then if you kind of increase the
intensity of the end of grant, uh, KT activities, it would be implementation or application. So what can
you do to help make it happen? Um, and here it's really kind of moving the evidence into, uh, practice
essentially. And we also talked about, so when you're thinking about your KT plan, uh, to be mindful of
the need for judicious knowledge translation and not get kind of swept away, often funders, um, think
that, uh, any research finding you should go to great lengths to get people to know about it and use it.
Um, and the notion of judicious knowledge translation is, well, maybe we need to kind of measure that
with how reliable, valid, what's the strength of the evidence, how significant are those findings?

Ian Graham (00:12:12):
And that may give us, uh, uh, how much effort guide us in terms of how much effort we should be using.
And that not every finding, um, should you or do you need to go to great lengths to actually implement.
And the point at the bottom was to kind of acknowledge the importance of the inclusion of equity
diversion and inclusion, uh, within research itself, which has an implications for knowledge translation.
So, um, when we think about a study and findings, have the researchers thought about the extent to
which sex and gender and intersectionality considerations such as race and ethnicity, for example, um,
are actually reflected in those findings? Because if you then think about, okay, we need to disseminate
these findings, but, uh, for example, uh, I'll use a, a straightforward, uh, example. Um, we do a clinical
trial, we don't have any women in the clinical trial, and now we have the findings that the drug works
wonders while we aim on to be careful in terms of saying, you know, the drug works really well for
women when women weren't in the trials, and we don't actually know that.

Ian Graham (00:13:30):
So we know that it works really well for men, and that would be the audience that we could target, or
physicians who were treating men, but we may want to not be saying, great job, uh, in these trials, the
drug works for everyone when it actually hasn't been tested on everyone. So just kind of keeping that in
the back of our minds as well. And then, um, I also talked a little bit about what, what are the important
components of a KT plan, appreciating that what you planned in the grant application is going to
potentially be different from what's gonna happen after the grant has ended. And for good reason. When you're submitting your application, you don't know what your findings are, so you don't know what the messages are, you may have a sense of what the audiences might be, you might have a sense of what you're hoping the message would be.

Ian Graham (00:14:22):
But once you actually complete the study and you know the findings, then you need to actually go back and think about, okay, what were my KT goals? Do I need to revise them? Now I know what the findings are, so maybe I've found something I wasn't expecting, or maybe I didn't find what I was hoping to, um, look for. And so typically there's two kinds of KT goals. What you see on the left are things like increasing awareness, increasing knowledge, uh, influencing attitudes, influencing people's intentions to do things. So it's more about enlightenment and what you see on the right hand side. The goal is more about action. So we want to inform or influence behavior or clinical practice or policy or technology or inform future research. Um, and it could be, I was working with a, a charity, um, a specific disease charity. And part of the thing that they pay a lot of attention to is a lot of their work is done by volunteers and people who donate to the charity.

Ian Graham (00:15:32):
And so that became part of their KT goal, was to not only inform people, but also show them the great stuff they were doing. So it might motivate them to actually volunteer in different ways or give contributions that could then be used for more research. So you need to be really clear about, uh, what your goal is, and then you need to make sure you understand your message and for which audience, because it may be different depending on if you're talking, talking or wanting to talk versus you're a members of the public versus policymakers maybe at the federal level. So the message maybe needs to be tailored to those different, um, audiences. And then you need to think about, well, what are those implementation or dissemination strategies to get those messages to those audiences? And there's no shortage of ideas of how to reach people with messages.

Ian Graham (00:16:33):
And then we need to think about, so if we're, we're thinking we need to produce videos and that's the way we're gonna go, do you have a videographer or do you have access to a videographer? Um, who can actually make the videos? Um, for you, this becomes really important when you're submitting the grant application because the reviewers look at your budget and say, the whole strategy is about videos, but do they have anybody who knows actually how to put together a really, uh, slick, um, video? And then the, the last piece is, do you have the resources, whatever those strategies are that you're, you've decided to do, do you have the resources to actually carry it out? And you may or may not have sufficient resources from the original grant, and then you would need to make decisions of, are there other sources of funding that maybe we need to tap into or do we find other partners who could take on some of this, uh, end of grant dissemination for us if we are not able to do it ourselves?

Ian Graham (00:17:35):
And my, my, um, observation, uh, around integrated KT and co-production, all of these steps can be done in close collaboration and partnership with those end users. And so many times, um, when we're, um, getting our findings, we, we have knowledge users on our team, but we actually bring other people in as well at the stage of analyzing and interpreting the findings and starting to think about, well, what are the messages? What audiences would they be appropriate for? Sometimes it's the other way
around. We start with who might be the audiences and what are the messages for those audiences? Um, because we, we find that engaging those end users really understand their own communities and can very quickly say, from our perspective, this would be a really important message, and these would be strategies that would reach, uh, people who, who are like me, um, whatever that group might be.

Ian Graham (00:18:41):

And then at the end of the presentation last time I left you with an action map that kind of divided out, uh, and, you know, could help you think about, so for the stakeholders and audiences, you see the three categories there, the research users, those impacted in those who are interested, and what might be your KT goal? Is it an awareness goal? Is it an action goal? Then thinking about the messages, are you thinking that diffusion would be the way to go? Do you think it's dissemination? Do you think it's implementation? And then what might be the potential barriers and supports related to the messages or behaviors that you're thinking through? So that was kind of where we were at the last session, and I left everyone with these questions, which maybe, um, if you've had a chance and you are working, and I know half of you, um, don't have a specific project in mind, but for those of you who do have a project in mind, uh, and if you were here last time, I asked you to think about, well, what criteria would you use to assess the extent of effort to put towards advancing the implementation of your findings?

Ian Graham (00:19:59):

And I also suggested you think about judicious KT as it relates to your findings. And I also asked about the extent to which your efforts focus or you think you would want your efforts to focus on diffusion dissemination implementation, potentially combinations of those are all of them. And then the last question that I left you with is, if you were thinking of co-producing your KT plan with knowledge users on the team, or bringing knowledge users in who may not have been on the team at the beginning when you started the research, who needs to be involved? Who are those knowledge users for your particular project? And, um, what will the engagement or partnership look like? Do you have specific, uh, principles and roles and activities in mind? So that, uh, is our, our, um, review of what happened in session one. And I'm wondering if we could just spend maybe if anybody has, uh, any questions or would like clarification, I can uh, try to do that for you, try to answer your questions, and if you've had an opportunity to kind of think through any of these questions, would you like to, you know, share it with the group or, and so turn your camera on or leave it off if you prefer, put your hand up and we can call on you or you can put something in the chat and Marianne can read them to me.

Marianne Farkas (00:21:44):

Um, Ian, there's a question. Uh, how is the main objective and goals different one from the other? What's the difference between the main objective and the goal?

Ian Graham (00:21:57):

Oh, okay, let me go back to the table. So the, the KT goal, so you may have a number of objectives related to the project. This is focusing on the, the end of grant piece. And so in that sense, the, the KT goal or the KT objective may be the same, often are the same. And so are you with your findings trying to enlighten people, which is, you know, a totally acceptable, uh, goal or are you to, are you hoping that your findings will, will promote or prompt action? So they will use the findings to actually make decisions and follow through on it. So I think maybe I was using the term goals and objectives in interchanging them and, uh, cause some confusion there. So apologies.

Marianne Farkas (00:22:55):
Thanks, Ian. The second question in the chat box is, uh, from Ashley, who wants to know what is the difference again between diffusion and dissemination?

Ian Graham (00:23:06):
Yes. Uh, really good question. And um, as we talked about last time, right, there's it, this is all about terminology and it, and, and whose definitions are you using? And it's very confusing out there. Knowledge translation, knowledge mobilization, implementation. Often diffusion and dissemination are used interchangeably. And so in this presentation, the difference between diffusion is you just put the information out. It's not specifically tailored to anyone where dissemination is, you actually think about. So the audience is other researchers, and I'm gonna use a journal because everybody reads the journal, or I want this to reach the public. And so I'm going to, uh, work with a journalist to have an article in, in the, in the media, the mainstream media. So the, the distinction be between diffusion and dissemination is the dissemination is really targeted to the specific group. You know what the message is, you know how you're gonna get it to that group where the diffusion is, I'm just putting it, I have a report, I've put it on my website. Um, and it, it may or may not be tailored to a specific group, but I'm not doing anything to get it to them. So that example might be, I've put it, I've put my report on the website. That would be diffusion dissemination would be, I'm gonna use my mailing list and mail or email the report to everyone.

Marianne Farkas (00:24:40):
Okay. Uh, Ian, there's no one else who has listed a question on chat. I can't see anyone raising their hand. Is anyone raising their hand? And I just don't see you. Remember that at the bottom of the screen you have a tab that says reactions. And one of the reactions that's possible is also to just raise your hand. Okay. I think, uh,

Ian Graham (00:25:11):
We're good.

Marianne Farkas (00:25:12):
We're good.

Ian Graham (00:25:14):
And, and at any time, if, if you have questions, um, raise your hand or put something in the chat box. Maryanne's monitoring that for me because like it's, I'm not so good at multitasking here. Um, so today wanted to now move to the other, um, phases of the knowledge to action cycle as we're thinking about our end of, uh, grant, uh, activities. So what are gonna be the KT strategies, um, what about the uptake and impact, uh, of those findings that we hope the, the implementation strategies will prompt. And then what about sustainability? And so we're gonna cover these really quick, quickly, and then, um, we, I've built in time for you to actually think about your projects or contemplate, um, how you might use this if you were thinking through a project. So when we think of this phase of select and tailor, uh, implementation interventions, um, it's really about, you've done that assessment of, well, what are the barriers and facilitators of the uptake of the message?

Ian Graham (00:26:30):
What, so the message is, um, policy makers need to make a change in legislation, for example. So that's what the message is. So the barriers assessment would be, okay, well what's gonna get in the way of
that actually happening? So, um, the policymakers don’t know about this evidence. Um, there’s other lobby groups that, um, wouldn’t want these changes to happen because it might negatively affect the people that they advocate for. So there’s kind of a lobbying issue that is potentially there. Um, there another barrier might be it’s going to cost the government, uh, resources if they changed the policy, right? So those are are three hypothetical barriers. So now it would be, okay, what would be good KT strategies, um, to increase policymaker awareness of the findings? Cause they don’t know about them. How are we gonna get them to them? Um, so we have the challenge of, there’s other groups that might see this change in policy negatively.

Ian Graham (00:27:41):
So what do we, what would be a good strategy for dealing with that? And so maybe as a group we say, maybe we need to hold a, a meeting and bring all of these advocacy groups together to discuss the findings in the bigger context. And maybe they’re opposing it because they don’t really realize that this change would benefit everyone. Um, and it’s not, you know, uh, benefiting one group more than another. And then the third issue is it’s gonna be expensive or there’s a cost. So we’d have to think about what might be an implementation strategy, uh, that would deal with the cost issue. And it could be, well, maybe we need to talk to our legislature legislators and help them understand that if they actually made this change, yes it would cost more resources. But in the long run we’ve got good economic data to show that it would save money.

Ian Graham (00:28:38):
And so that would be the strategy to, to reach or to deal with, uh, we don’t have enough money or maybe there’s another way to raise money, uh, that we could, you know, support and, and encourage. And that would be the implementation strategy. So what becomes really important is thinking through what might be the barriers to the uptake of that new knowledge, the messages. And I’d argue this is where it becomes really good to engage some of those knowledge users on the team. And you can get knowledge users who are beyond the team to actually think through well how are, what would be good approaches to get that information to those policymakers? What is it about those policy makers? And if you had a couple of the policymakers as part of this process, they would be able to say, oh, that kind of an argument's not gonna fly.

Ian Graham (00:29:30):
This kind of an argument would be very interesting to policy makers. Also suggests that you first consider effective dissemination and implementation strategies. So do we have evidence of what seems to work to bring about change? And maybe we should think of those strategies first, but in lots of cases we may not actually have evidence, um, for different implementation strategies. So we also need to be prepared to be flexible and experiment. But you don't want to get a group of people together and say, oh, we need to do this just intuitively. Um, it's known as the ISLAGIATT, phenomenon. It seemed like a good idea at the time and it doesn't work really well. And so you actually want to have your knowledge users like, so researchers, historically, this is a kind of a inside joke in implementation science. Uh, researchers got together and said, oh, we should use audit and feedback and opinion leaders and other strategies and then they do their trial and find out that it didn't change anything at all.

Ian Graham (00:30:39):
And then they say, well, it seemed like a good idea at the time. So the barriers assessment helps prevent that from happening because you're actually looking for local data, you're engaging the local knowledge.
users and so the tailoring should work a little bit better. But as I said, sometimes we don’t have evidence on all of the strategies we might come up with. So we should, uh, be flexible and um, when we’re implementing strategies that haven't been shown to be effective, we should try to keep track of that and share it with the communities. Because often people reinvent, try the same things over and over again. They don't work, but nobody documents it. So we don't know that there's actually kind of a, a growing body of information saying, yeah, maybe that doesn't work so well. So one last poll for you. So where do you or would you first look for evidence about the effectiveness of dissemination and implementation strategies? And I know I'm probably frustrating you because I'm only letting you pick one and that in, in, in real life, uh, people would go to multiple sources. Okay. So it looks like Medline and databases and the CeKTER website and colleagues are kind of running neck and neck and Oh, other sources. Oh, okay. This is great. So would people put in the chat or come on to tell me what those other sources are?

Jade Metzger (00:32:42):
Um, hi, um, my name's Jade Metzger. I was one of the people who said other sources and that's cause I'm a communication scholar. So I would go into crisis communication literature to see what's implemented the, been implemented the best and work the best in crisis scenarios.

Ian Graham (00:33:00):
Good answer. Anyone else have, have other suggestions? Okay, let's carry on then. Um, so, uh, the Cochrane collaboration, which, uh, you may know about or perhaps not, is an international group of essentially volunteer researchers in the health sector primarily, uh, who spend their time synthesizing, um, the evidence. And it's not only randomized control trials, although a lot of the evidence that synthesize is randomized control trials, but it could be qualitative research as well. And there's one particular group, uh, which is known as the EPOC Group, which stands for effective practice and Organization of Care. And there's a second Cochrane group, the consumer and communications group. And so these two groups within Cochrane are specifically devoted to understanding, uh, the evidence base based on systematic reviews of what we know seems to work to influence change. And I realize that the, the context of, um, employment and disability is different from kind of standard health.

Ian Graham (00:34:25):
Uh, but just to give you a sense, and it might be worth going to their website and looking because you may find evidence for strategies that you think would actually work in your setting in addition to healthcare settings. And so there's 106 systematic reviews looking at how you deliver health services to bring about a change, 22 on financial arrangements, 16 on how if you change governance arrangements, how that can bring about change or support change. And then they have 95, um, systematic reviews on implementation strategies that they kind of break up in terms of interventions targeted, uh, healthcare organizations versus target at healthcare recipients. So patients and clients versus 34. Most of the this, uh, literature on implementation strategies in the EPOC group has tended to focus on interventions targeting healthcare workers, and then there’s interventions targeted at specific types of practices, conditions or settings and other 53.

Ian Graham (00:35:31):
So they really are interested in systematic reviews of professional organizational, financial and regulatory interventions. Um, and we'll talk a little bit more about some of, of the evidence. The Cochrane consumer and communication group is really focused on patients. Um, and so Jade's, uh,
comment, uh, about, you know, looking at the communications literature, this is specific to, uh, communications as it relates to patients, um, and explaining risk and those kinds of things. And so you can see there's 76, um, systematic reviews of interventions directed at the consumer for that are, uh, interventions from the consumer. So I think those ones are, um, you empower the consumer who then interacts with the healthcare provider and reminds the healthcare provider of things or asks them questions that then prompt the healthcare provider to do things slightly differently. And so both of these sites, um, are good ones to check out.

Ian Graham (00:36:38):
And if you go to, um, the Cochran website, you can find both of these groups and there's always lay summaries of, uh, all of the systematic reviews. And, um, I always go to those first because sometimes they're clearer than the scientific summaries if you're trying to figure out like, are there specific reviews that would be relevant to whatever you're interested in? And I just wanted to, uh, Maryanne reminded me, uh, to put this in if, uh, as a simple reminder that the Campbell collaboration, which is a sister organization to Cochrane, but focuses on, um, education, uh, justice, kind of all of the social sides of, uh, things, uh, as opposed to the healthcare side. They actually have a group that does systematic reviews on disability. And so while most, and you can see the bullets here under the objectives of the group, uh, tend to be about, uh, the effectiveness of primary research as opposed to the effectiveness of dissemination.

Ian Graham (00:37:50):
Um, but some of the reviews actually do get at that a little bit, right? So encourage involvement of, uh, people with disabilities, their families and other disability oriented stakeholders in the steps of the systematic review development. So, um, it's all, it's about engagement. And so if you were thinking about how do we engage people, there may be things in that review, even though the focus is on how do you engage people in doing a systematic review, which is a little bit different, or I think many people would think would be different from probably the kinds of work that you're doing. So what do we know about this evidence, the collective evidence? And so this comes from work a decade ago. I don't think the findings have changed much, although the numbers, the number of studies have. But what I want to point out is two things.

Ian Graham (00:38:44):
So one is the middle column and you can see the effect size. So median absolute effect 5%, median effect, 4.3%, 6%, 4.8% generally effective. Um, median effective 12%. What we generally know that from studies looking at, uh, dissemination and implementation strategies, they're usually effective kind of on average five to 10%. So that's essentially if you do this strategy audit and feedback, you can bump up the behavior that you're interested in median 5%. So 50% of the time it's more than 5%, 50% of the time it's less than 5%. And if we take audit and feedback, and so that's the notion of we track, um, a healthcare provider's behavior, how often they do something and then they feed that back to the person and say, here, your rate of cesarean section is X and this is what it looks like compared to all of the other obstetricians in this department.

Ian Graham (00:39:53):
You're way over the top or your're way under, and there's been 118 randomized trials, and I think it may be up to 150 now and 35 reviews that show a 5% effect size. So depending on kind of your personality type, you might say, ugh, five to 10% difference. That's really, you know, the glass is half empty, this isn't
good at all, and it's so much work to get people to change. Or you could say, wow, it's really hard to change people's behavior. We know that just from working with, uh, our parents and our, uh, partners and our kids and our pets, um, a 5% change. That's kind of interesting. And then if you kind of put on a population health lens, if we can shift the population like 5% in the population, that would have a huge effect, um, on whatever the outcomes are that we're, uh, interested in.

Ian Graham (00:41:00):
And so education meetings, there's been 81 randomized control trials, 70 reviews, medium effect sizes, 6%. And so when you're looking at this literature, also look at what were the outcomes they were interested in. So, uh, what I'm doing now, um, being a talking head, uh, doing this didactically, really not an effective way to influence your behavior. It can increase your knowledge. Um, you might take in some of the facts in the presentations, but it's likely not gonna cause you to rush out and actually write an end of grant kt plan or to execute it. But at the end of the presentation, I give you time to think about it and it, it's, it would've been so much nicer if we could have been in person and see each other, um, but this is the next best thing that we can do. And so we know that making things interactive, problem-based, uh, learning much better at increasing the likelihood of actually changing behavior, um, providing information or education to a consumer, there's been four reviews, insufficient evidence to support as the sole intervention generally in, uh, generally ineffective.

Ian Graham (00:42:27):
And so I work in the health system and, uh, our hospital is always producing printed material for people, um, hoping that that's going to, you know, cause them to change their diet and do things differently. And we've got really good evidence that probably just giving them a piece of paper with information isn't gonna make that difference to them at all. Um, uh, facilitating communication and, uh, decision making, 18 reviews, the evidence is mixed, but there's a lot of promising strategies we know with, uh, 18 randomized control trial of decision aids. It I improve, improves people's knowledge, their risk perceptions. It reduces how passive they are in decision making. It increases, uh, the percentage of people, um, making, um, evidence informed decisions that are consistent with their values. It reduces, uh, people's indecision and it reduces, uh, decisional conflict so that they made a decision and they're not happy with their decision all.

Ian Graham (00:43:32):
So we know that decision aids work in that kind of a context. Um, personalized risk communication. So Jade, um, 22 randomized control trials, weak evidence and small effects. This is in, in the health context. And that's the other thing is you're looking at the literature always, you know, what's your local context? It may be different from what were in the studies that were being synthesized. And then this paper I like, it's quite recent, uh, 2020 and I think many of you probably, um, are, uh, producing, uh, research that needs to be disseminated to, uh, policy makers. And this was a review of, um, what we know about the effectiveness of, of dissemination strategies to US policy makers. And I think they, uh, the examples or the strategies I think also apply, uh, very much, uh, in Canada as well. So start early, um, making those connections.

Ian Graham (00:44:33):
Drum up support. So create the coalition, uh, use research evidence champions and brokers. So have intermediaries, um, who kind of know the, the world of research, but also know the policymaker world and, and can help, um, communicate and share across the two worlds. Um, pay a lot of attention to
context because, uh, everyone, we all do this when we're looking at research. Does this apply to, you
know, the populations that I'm working with? Does it work in, I'm in a rural area? Does this apply in the
rural context or is this just an urban thing? Um, make research products timely, relevant, and accessible.
So this, we've got lots of evidence beyond policy makers actually and beyond US policy makers that if
you're producing things that are not timely, then they're less likely to be used. Um, if they're not
perceived to be useful or relevant, their people aren't gonna pick them up.

Ian Graham (00:45:38):
So they need to have a, a need for them and it needs to fit in with that need and they need to have
access. So often things like funders are interested in, in open access so that anybody can get it and
they're not restricted by having to, you know, buy it or pay a fee to get access to it. Um, and accessible
also means different kinds of formats because people, uh, learn and may have different types of, uh,
disabilities. So it's not just, you know, is the paper open access, um, if you're doing graphic designs and
you use are using colors, um, if people who are colorblind can't differentiate the colors, then that, you
know, that infographic isn't accessible to them. Know the players and the process. So actually, you
know, have a sense of how does the policy making work. Um, sometimes referred to as, you know, what
goes into the sausage making.

Ian Graham (00:46:43):
And then the last one, uh, that they had here was miscellaneous. So approach policy work as an
educator rather than an advocate. And we know with policymakers in particular, um, they're very
cautious if they think it's advocacy because they know that different groups will have different
preferences and, and perhaps different, uh, demands. And so wanting not to look like they're favoring
any particular group. And so going in as an educator or using the approach of an educator of, you know,
these are the findings, these are the implication, this is what it would mean if you made this kind of a
decision. This would be the, the effect of this. If you didn't make this kind of a decision, this would be
the effect of it. And that policy makers are more receptive to that approach. And as opposed to, um, if
they think the person has a particular, uh, vested interest in what it is that they're trying to, um, uh,
share with them.

Ian Graham (00:47:45):
And then we need to come back to the, the sex and gender and intersectionality, cause it also applies.
It's not just the primary research findings, it also applies to our implementation strategies, um, and
implementation research as well. So, um, do we know that different implementation strategies, so using
social media works equally well, um, with men and women and people of diverse gender. Uh, there's a
colleague in, in my school who's doing work around, um, social media advertising, um, of foods, uh, to
kids. And the companies have already figured out that the messages that you use with girls, uh, is
different from the messages if you wanna be successful is different from the messages that you might
wanna use with boys. And so, uh, a lot of marketing has actually figured these kinds of things out, but it
hasn't really caught on that well, uh, in the implementation field yet.

Ian Graham (00:48:52):
And so I know that's a, a really busy and, uh, small slide, and you'll have access to the slide, so you can
go back and look at this. But what you see on the left hand side is gender roles, gender identity, gender
relations, and institutionalized gender are often the four ways to be that you can think about, um,
gender. And then, uh, there's a description. And then the third column is how might this affect
implementation research? But what I’m really interested in pointing out is we also thought about how could this affect implementation practice. So if we think about gender roles, so those, you know, behavioral norms apply to men and women in society. And, um, we now have our implementation strategy. Have we considered gender roles and have we thought about how that might actually inform the dissemination strategy to be more effective with different kinds of audiences?

Ian Graham (00:49:51):
If we were thinking about gender identity and how people self-identify, um, will the reach of the implementation intervention extend to male and female and transgendered individuals? Should the content of the implementation intervention consider gender identity or sexual orientation? And obviously all of this depends on what those findings are and what the audiences, uh, for them are, but thinking more broadly, um, and of course with intersectionality, it takes it in another step further and you could be saying, so are there things about race and ethnicity that we should be paying attention to in our dissemination and implementation strategies? Um, and then in that paper, there’s this list and not all of these, uh, questions apply to implementation practice or dissemination practice. Um, but some of them do. And so if you’re interested in learning a little bit more, go to this, um, paper, it is open access, have a look at this, um, table and see if there’s things that make you think about, ah, we’ve never considered that before.

Ian Graham (00:51:07):
So, um, has the systematic review of the implementation interventions, which I was just talking about, Cochran, um, even the policy one, um, looking at US policymakers, did they consider, uh, how the strategies that they listed, um, might be related to sex and gender? And of course, well, it’s not, of course, most of the time the answer is no. And if you go back to the original studies, they may say X percent of the sample were men or women or people of, uh, diverse gender. Um, but then they don’t actually disaggregate the findings so that you can say, oh, um, women responded very differently. Cisgender women responded very differently than transgender women to that implementation strategy. And, uh, I’ll, I’ll share this again. I had this, uh, these couple of slides, um, last time. So Sharon Strauss, Dr. Sharon Strauss at the University of Toronto and St.

Ian Graham (00:52:09):
Michael’s Hospital in Toronto, uh, has a knowledge translation program. And they actually have a section on their website, which you can see here, which is on intersectionality and knowledge translation. And I presented this. So this is the pedal, and so you can see the individual in the center and then all of the different kinds of identities that people have, racialization, occupation, religion, education, gender, sexuality, socio, um, economic status, social capital, place of residents. And then what you see around the outside are all of the, well, not all of, sure there are more, but many of the common forms of discrimination, uh, that people have, um, who are, who have less power and less privilege, uh, in societies. And so the notion when we think about implementation, uh, practice and dissemination, you know, we need to, and we haven’t figured out there are teams that are working on how do we take implementation, uh, theories and frameworks and bring in an intersectionality lens.

Ian Graham (00:53:19):
Um, so it’s fine for me to say we all need to consider these things more. Um, but unfortunately the, there are some tools. So this is a good one, <laugh>, um, that you, that kind of walks through how you can a approach it and think about it from a knowledge translation perspective. But for the most part, I
think, um, our desire to be more inclusive and to have more diversity and ensure more equity in our KT activities has outstripped our capacity to actually know how to do that and how to do it well. So the next phase monitoring, uh, knowledge use. So this is, we need to think about, okay, so if we get people, um, are we achieving the goal that we set out the KT goal, we need to determine, uh, to what extent are those implementation interventions or strategies being successful in bringing about whatever the goals are that we set for ourselves?

Ian Graham (00:54:23):
And so in the literature, typically we think of conceptual knowledge use. And so this fits with that KT goal of awareness. So changes in knowledge and understanding and attitudes and intentions. And then the second category is instrumental knowledge use. So people actually using the findings to, to influence their decision and change their behavior. And so if, you know, are they using the recommendations in the practice guideline, have they adopted the new innovation into practice or into policy? And so those more or less address the, the KT goal of action. And then there's a, a third cate, or I've put these all together into a third category and it's sometimes referred to as strategic knowledge use or symbolic or persuasive use of knowledge. And this is when people use, uh, the knowledge or the evidence as ammunition to convince other people to do things or to get more power or potentially more profit.

Ian Graham (00:55:24):
So generally we, or, I advise avoiding that category of knowledge use, although if you're doing it for the right reasons, well power and profit wouldn't necessarily be the right reasons, but convincing people using the evidence that this is the right thing to do, then I think you're probably safe. But if you are using it for ammunition purposes, that's probably not a good way to be trying to bring about change. And then you also need to think about, um, this concept of using the knowledge, your knowledge use. And if we take the first category of conceptual knowledge use, well is it just awareness? And so there's many models like this that are slightly different in the categories, but the notion is you first need to be aware of the findings, then you need to understand the findings. Then if the findings are saying you need to do something different, do you need to develop skills to be able to actually do it?

Ian Graham (00:56:25):
Do you need positive attitudes? So you, you may know about it, you may have the skills, but you don't think it's a great thing to do. So your attitudes are kind of gonna knock out your intentions. And then on the instrumental side, so remember it's about, you know, bringing about the change. So we know that it may take a lot of effort and implementation strategies to get people to do it for the first time and they may do it and then stop. So we also need to be thinking of what do we need to be doing and measuring that they're continuing to do it. And so are they routinely adhering to whatever the change is? Is it being sustained? And then with both forms of knowledge use, it gets even more complicated because it can be complete, meaning people have changed and they continue to do it.

Ian Graham (00:57:19):
Or like in my work with practice guidelines, there may be 15 recommendations. They do three all of the time. Well, they do a few of them some of the time, but when they do it, they do it really well, then there's a whole bunch that they don't do at all. So how do we measure uptake? Because we've got 15 different things and people are doing different things with the 15 different things. And so think thinking about, so these are the me and then the uptake of, of the knowledge whether or in, well, what happens if people are actually using this knowledge? So this is why you need to evaluate the outcomes or the
impacts. And often this leads you to we're not getting the impact that we hoped. Do we need to go back? Did we have the right KT goals? Did our implementation strategies work really well?

Ian Graham (00:58:21):
If they didn't, was that because there's different barriers? What what's causing things not to happen the way we hope that they would happen? So as you're making your KT plan, you actually need to think about what, what are the desired KT outcomes that you want? And so if it's adoption or uptake of the knowledge, what would be your short-term outcomes that you might look for or your longer term outcomes, like two to five years or your long-term outcomes, which is often referred to as impact. And again, this is a semantic problem in the evaluation world, sometimes people call all of these things outcome. Sometimes people only call the long-term, uh, outcomes impact, you can call it whatever you want. You just be explicit so that people know what you are meaning and you just pay attention when you're looking at the literature not to assume that you know what people are actually talking about.

Ian Graham (00:59:14):
Look for their definitions. Um, you need to think about how will these, uh, outcomes be whatever they are. And then the other thing, uh, we know from implementation is you need to be ready and anticipate that there may be unintended impacts or consequences of using that knowledge. And so because they're unanticipated, you can't necessarily measure it or have measures in place to measure it. So you do need to kind of be listening for you made, you were effective in bringing about a change, everybody's happy about that, but it, it had a different impact somewhere else in the system. And that may be a good impact. It may be a bad impact, but you need to anticipate that sometimes unexpected things are going to happen because you've been successful bringing about a change or not for that matter. And then you also need to think about, well at what level are you gonna measure these outcomes and impacts?

Ian Graham (01:00:16):
And it can be at the level of the client, the consumer, the patient, the public, whatever the term is. The person. It can be at the level of the provider, it can be at the level of a team. If there's a team supporting, uh, the client or consumer. It could be at the dyad level between the client and the provider. It could be a third sector organization or a healthcare organization level. Uh, it could be a community, an entire community. Often with indigenous research, it's the entire, uh, community. Um, and then it could be at the, the system. So the health system, uh, the socioeconomic system, but at that higher kind of more abstract level as well. And you need to make decisions cause you probably don't have resources to measure all of these things at all of these levels. So what levels are the most important and how are you gonna measure them?

Ian Graham (01:01:13):
And then I love this quote, not everything that counts can be counted and not everything that can be counted counts. And so it's not just a numbers game. You actually do need to put a lot of thought into what's important to us, what should those measures be? How are we going to collect that data? How confident are we that we're actually going to understand what those uh, indicators mean? And then the last step, and as I've mentioned I think twice in this presentation, and I know I did the last time as well, while it's presented here at the end, the sustainability thinking needs to start at the very beginning. It's too late if you've gone through this whole process and then say, now what are we gonna do to keep people using this knowledge or this evidence? It needs to be built into, you know, how are we, uh, thinking what, what needs to change?
Like the adaptation, how can we change it so it's gonna be more sustainable, our process for doing barriers assessment, is that gonna be sustainable? Cause probably we need to do that at multiple points in time. Maybe, maybe not. Our implementation strategies. Are they sustainable or are they really expensive? We can do them once and that's it. And then we know that when they wear off and there's no booster, people tend to drift back to the way they did things before. So maybe we need to be selecting, uh, implementation interventions that can be continued and, and bolstered with booster shots. For example, how we measure monitor, uh, how we measure, uh, uptake and evaluate impact. Are those sustainable or do we need to send people in and collect data by hand, which is very expensive and time consuming. So thinking through the sustainability of the whole, um, action cycle becomes important from the very beginning.

So anticipate sustainability issues from the beginning, build it into adaptation, the KT interventions, the monitoring and the evaluation phases. So to sum up, um, when you're thinking of your KT plan, how will the knowledge users be involved in the KT planning? What is or are the KT goals? Who needs to know what which is related to the message from your findings? What actions or behavior or changes should be taken by whom under what, uh, circumstances or conditions when? And last time I was explaining how the more precise you can be at defining the behavior, the more likely people are actually to, to um, make the change because they know exactly what they need to do, how they need to do it, um, when do they need to do it, all of those things as opposed to well just do this. And then people aren't sure exactly how that would play out.

What are the barriers to the KT goals? When you've got the barriers, what strategies would it will address them or you hope will address them? How will you measure, um, or monitor the awareness and intentions and decision making, um, and actions and the behavior and the sustainability? So lots of measurements potentially. How will you measure the impact of the awareness or the action depending on what your goals are and what’s the timeframe for change? And so we know that the larger the group, the longer it takes, it's like infection. So if it's, we've got 16 people on the call, if we were trying to bring about a change amongst the 16 of us, it might be way quicker than if we're working in a community that has 10,000 people and we need to bring about a change. Not necessarily harder, but the more people that need to be touched by the KT intervention, usually the longer it will take.

And then of course, what are the resources that you need to bring about these, uh, changes? And I completely acknowledge the, the whole measurement piece is a problem with our funding system because we often don't get funding passed. So we get funding to develop the research and maybe there's money in there to, uh, disseminate a little bit, but typically there isn't money to track forward to find out how successful were the dissemination strategies. And so, and then it become, it can become difficult to actually get funding to do that. So what I'm presenting is the ideal, uh, kind of notion as opposed to, you know, and ideally I think we should be measuring the impact of what we do. It, it's, it's good for those on the research team to know that, you know, what they had set out to do has actually come to fruition or more work is needed.
It would be good for funders so they can actually say, look at the great stuff that, uh, the funding that we, uh, what we fund actually makes a difference and we can prove that. Um, but unfortunately many funding agencies don't actually put money into the after piece, the aftercare. So, um, that's it for me in terms of, uh, what I wanted to tell you. You can see now the action map has those next phases in from the last time. So the potential KT strategies, the knowledge use and impact, and then thinking about sustainability by those three groups. And so I'll leave this with you and then I'm wondering, since many of you actually did have projects, if you wanted to take maybe, we'll, we're a smaller group, um, would you like to talk about your, your KT plan and, and some of the ideas that I've presented, um, and whether they make sense to you or you think maybe they're not so helpful.

Marianne Farkas (01:07:31):
Ian, we have about 10 minutes to do this discussion, so I would encourage folks on the line to start thinking about the projects to which you are applying these ideas, and, um, see if having a discussion about the KT plans that you could be developing would be a helpful start to what you're trying to do.

Ian Graham (01:08:04):
Or maybe we could just have a little discussion for a few minutes if, if people were willing to put comments into the chat or to actually come on and, and speak.

Dalia Shaywitz (01:08:20):
Hi. Ian, this is Dalia Shaywitz. I'll just jump in. Um, I have a comment in the chat, uh, but it, it, you said something very correct. Uh, there's usually not money for anything past dissemination when people think about dissemination, it's, it's usually pretty, um, uh, the typical publisher journal and then you're done. Um, and I'm wondering if you have seen or have experienced any post research strategies to track those kinds of dissemination outcomes, or have you seen any, no cost or low cost options or what would, uh, cause a stakeholder to buy into the idea of continuing to follow up on those KT outcomes, uh, beyond the research study?

Ian Graham (01:09:01):
Yeah, of course, it, it always depends on, on context, but one of the things that we're finding, so things like you have a website and so you can actually measure traffic to the website if you've created specific, um, tools or worksheets or those kinds of things, you can actually see if people have downloaded them. So you, you, you may not be able to know how they use them other than people have accessed them. So that's a little, that's kind of pushing it a little bit further, which is good. Um, we have a project now where we were really keen on, we, we created a, uh, an implementation guide for community groups, um, who were implementing stroke, um, exercise programs. So for people who've had stroke and they're back in the community and they need to exercise and they don't wanna go to, um, uh, fitness facilities cause they don't feel comfortable there.

Ian Graham (01:09:57):
And so there are actually really strong evidence-based exercise programs. So it was to, you know, what could we do to get community organizations to implement them? And we curated this planner in the March of Dimes and we handed the planner over to them and so they asked people to register so it's freely accessible and they asked people to register to say, you know, give us a, a link, uh, an email link for you. And then they've gone back and surveyed people about, so you, you know, you downloaded this, uh, was it useful? Did anybody look at it? Have you made any progress in making any plans? Did
you, you know, has it led to, uh, you setting up, uh, an exercise program so that it it's still pretty low
intensity. Um, but that, you know, advantages of the internet and social media and tracking things,
some things are a little bit easier.

Ian Graham (01:10:54):
Um, we had other groups, and this is on the healthcare side and it depends on your jurisdiction. So all in
Ontario, all of our health data. So, um, doctor billing, hospitalizations, discharges, all of the data is in a
central repository and you need to, to have special access to get it, but you can actually track population
level changes. Um, and if the people are over 65, they, they track medication. So you can actually see if
there was something about a medication and there was an implementation strategy, uh, in a certain
part of the province or the whole province, they can actually see, did that translate into, you know,
more prescriptions being filled, for example. And then they have, they connect that link that data to
actual outcomes to see that, you know, the people getting the prescriptions seem to be better than a
matched cohort. So that's kind of, I think, um, really cool and, and kind of a rare thing. But if there are
other databases that can be linked to, you can do kind of ecological analysis of, you know, we, we use
these strategies in, in this part of the province and we've actually been able to show a, an uptake or a
reduction in hospital visits, for example, emergency department visits.

Ian Graham (01:12:19):
Your bigger question is, I'm not sure how we get funders and governments, which typically fund our
public funders to really get their heads around it's to their advantage to fund post dissemination. Like
it's good for everyone. Um, and especially for the funders and the governments who are wanting, who,
who are sometimes under pressure because segments of society say research is a waste of money. They
need to be able to come back and say, oh, well these are the projects that we funded and this is the
difference. And one of my disclosures was, I was on a National Academy of Science panel for NIDDLR
looking at the outputs. Part of it was looking at the outputs, um, and what could be done with
discoveries, NIDDLIR funded discoveries to show greater impact. And I think I used this example the last
time, and so a really big deal was a team that got funding and they developed, um, I guess it was a
railing that could go on, um, examination beds so that people with, uh, mobility, uh, problems, uh,
wouldn't fall off the examination table.

Ian Graham (01:13:41):
And, and so they were selling these things that could be adapted and it like a huge impact in terms of
people having better experiences, being examined, uh, and not falling off, uh, tables and becoming
injured and whatever. And, and so in terms of a, a simple technology, huge potential for impact, um, and
what the team said was, well we, you know, they published a paper and I think they were, there was
a company that was making these things, but then their job stopped and they didn't really know, you
know, how many of these things were sold or how they were used or how many injuries were prevented
or anything like that.

Marianne Farkas (01:14:26):
Ian just, sorry, Dalia, just to that point, I think one of the difficulties that Dahlias question points out is
that even in NIDDLR, the National Institute of Independent Living and Disability Research that um,
sponsors this particular webinar and has been doing knowledge translation for more than 45 years as a
regular part of its research, has a difficult time parsing money to do that dissemination and
implementation because every dollar you use for that, according to the researchers anyway, is a dollar
taken away from the pot of doing the actual research. So there's often this inherent tension, unanticipated and unintended between the people who are sort of charged with making the research make a difference and the people actually doing the research. But the reason for having both those things in all grants is because neither is very committed to not having research stay on the shelf. So it's just one of those interesting conundrums.

Ian Graham (01:15:40):
Yeah. And we need to work on it. And so when I was at the Canadian Institutes of Health Research, part of that was to help researchers better understand that it's really in their, to their advantage to have their discoveries, their findings, um, making a difference. And, and they can claim, um, contribution to those impacts. And that can be good for them in their tenure in promotion to actually say, not only did I discover this great thing and I published a high impact factor, we actually know this is the difference that it's making in the lives of people or the healthcare system or the social system or wherever those impacts are having. And so I like we need to work on the culture change on the, on the part of researchers. At the same time, we shouldn't be expecting researchers to be doing everything cause that they haven't been trained in knowledge translation, they haven't been trained to think more broadly than the great research that they're doing. And, and so we also need to be supporting them and finding partners who can help with on the knowledge translation side, um, as well. So it's kind of a system challenge and we need, I think, to take a systems perspective.

Marianne Farkas (01:17:01):
Well, with that, unless there are any questions, um, that people want to ask, I, uh, I think we should wrap up and draw your attention to the fact that we do a survey at the end of our courses that help us both plan other courses and also get a, a sense of how you feel about the courses that you've had. So if you could take a look in the chat, you'll see the link to the course. If you click on that and just spend a couple minutes giving us your input and feedback, that would be very valuable. And Ian, I wonder did we have the, um,

Ian Graham (01:17:42):
And and while they're doing that, if they have another minute they could put in the chat, is there one thing, uh, that from the webinar you've are thinking you can take away, um, in a positive way, but if there's also something that you think was totally not helpful that would be good for me to know too, so positive or negative, but just one takeaway, um, that you've got and you can, anybody wants to email me, there's my email address, um, and the website for our Integrated Knowledge Translation Network.

Marianne Farkas (01:18:26):
Okay. And I'll just leave you with this one last word and then give you some space to answer Ian's questions in the Qualtrics link that, um, is in the chat. The Center on Knowledge Translation on Employment Research has a number of services that it provides, particularly for NIDSLIR grantees, which include this, uh, KT academy. Uh, a number of courses that are live like this one or archived at the link that you see on your screen. You can also make technical assistance requests. There's an online request form. Um, the one thing that I did want to draw your attention to was the Communities of Practice. We are going to establish a community of practice as the outcome of this particular webinar series. So, uh, these are meetings with people who are interested in the topic, in this case of knowledge to action and how to apply it to the work that you're doing.
Marianne Farkas (01:19:30):
And we run it for somewhere around six to nine months, depending on people’s interest levels. So if you have any interest in joining the community of practice, that will begin in February of 2023. Please sign up online as shown on screen or contact Marsha Ellison at the email that’s there or you can contact me as well and just let us know. Thank you. Um, Ian, someone said, Pam said that she really liked the action cause it helped to formulate a cohesive knowledge, uh, to action plan. Just an answer to your question about what’s one thing that was beneficial. One takeaway.

Ian Graham (01:20:21):
Thank you.

Marianne Farkas (01:20:23):
Any other takeaways that you would like to share? Either put your hand up or put it in the chat. Either we have a quiet group or else I can't see you <laugh>. Well, as you're thinking about that, there is a question in the, um, survey at the end that asks you for, uh, what, what you found beneficial. And so it gives you another opportunity to share with us what you thought the takeaway message is. Uh, Rebecca answered Ian and said it's all so helpful, and Rebecca says she's already started to work with the research team about the partners that they could be engaging to get more uptake with supporters and detractors.

Ian Graham (01:21:27):
That's super.

Marianne Farkas (01:21:31):
Megan says the action map is very useful and practical and it was a good reminder to check out Cochrane as well. That's great. Any other takeaway messages that you'd like to share? Okay. So again, a reminder that if you're interested in joining a community of practice that will run for about six to nine months, starting in February of 2023, please let us know and I give it back to Ian to give any final words of wisdom as we leave you today.

Ian Graham (01:22:23):
Well, thank you for the opportunity, the two opportunities who have three opportunities actually, um, to present on the knowledge to action cycle. Um, we are very, um, there's lots of, uh, knowledge translation and implementation frameworks and models. So the knowledge to action cycle is just one of literally hundreds. Um, but um, many people have told us that intuitively it kind of makes sense. Um, and so we've had really good luck with it and if you're using it, I hope you have good luck too.

Marianne Farkas (01:23:00):
Thank you very much, Ian, for sharing your expertise and us your time, and we look forward to perhaps seeing you again in the future and certainly seeing everyone who participated today at future courses check out the archives. So thank you. Have a good afternoon everyone, or evening, depending on your time zone.