**2017 Online KT Conference:**

**Knowledge Translation Outcome Measurement**

The Approach to knowledge transfer and exchange and the measurement of research impact at the Institute for Work & Health

Ron Saunders, Institute for Work & Health

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 JOANN STARKS: We'll now move on to our next presentation which will be from Ron Saunders, director of knowledge transfer and exchange or KTE at the Institute for Work & Health based in Ontario. He will discuss the approach to knowledge transfer and exchange and the measurement of research impact at the IWH. So again if you have questions, please go ahead and ask them in the chat box and we'll address them as we can and otherwise we'll hold them until the end. Welcome, Ron. Are you ready to start?

RON SAUNDERS: I am. Thank you, Joann.

JOANN STARKS: Thank you.

RON SAUNDERS: I'll talk about our approach to knowledge transfer and exchange and measuring research impact. We are a nonprofit research portion based in Toronto, Canada. I'll talk in a moment very briefly about what we do. I just do want to say at the outset that these slides were developed in collaboration with my colleague of the institute but I'm going to be the only one speaking today. Dwayne and I have worked together on this. So what I'm going to talk about in the next little while as I said briefly just to give you a sense of who we are and what we do and then most of the time I'm going to be talking about the approach we've developed really over a couple of decades particularly in the last decade, to doing integrated -- what we call knowledge transfer exchange or what Chris referred to as integrated knowledge translation. How we've developed that approach and the key pillars of that approach at the Institute for Work & Health. And one of the features of it at the institute being a research organization that we've been able to integrate both communications function and stakeholder engagement functions in the same unit. And I'm going to explain a bit about some of the synergies we've been able to get by doing that. And then lastly given one of the themes of this conference is about measuring impact, I'm going to talk a little bit about how we have approached the measurement of reach and impact and I'll explain what I mean by those two terms and how we've approached those two things. So that is sort of just a preview of what I'm going to cover in the next 40 minutes or so. I'll try to leave some time for questions after.

So the institute is a nonprofit research organization that is really focused on two types of research. All of which related to work and health of working people, but in two separate but related areas. One of them is research and knowledge exchange around the prevention of work-related injury and illness. So looking at what are the factors that have been found to increase the risk of work injury or occupational illness. What interventions have been found to be helpful in preventing or reducing the incidence of work injury or illness.

That's one domain. The second domain that we work in is in the event of work injury, what do you do? And so we do work around return to work protocols, around Worker's Compensation systems, and we also do a little bit of research. It used to be a bigger part of the institute's work, but we do a little bit of research around issues related to the treatment of certain kinds of work injury. So those are the areas in which IWH does research. And I think it's helpful to know, before we get into a discussion of how we approach knowledge transfer and exchange, who is it that are users or potential users of our research and who are our stakeholders and knowledge users. It is quite a range of people and organizations that could be involved in worker health and safety issues. So that ranges from individual health and safety practitioners that could be in-house consultants, consultants brought in from other organizations. Certainly workplace parties themselves. So representatives of management of the workers, injured worker associations, employer associations, to all those groups that are related to the workplace parties who are on the front lines of trying to prevent work injury and illness. Policymakers, so Worker's Compensation boards. Ministries of labor, in particular in Canada that have a responsibility for the regulation of occupational health and safety in workplaces.

A little bit of work we still do related to clinical treatment, as I said, but also some of our work around return to work protocols is of interest to clinical practitioners, physiotherapists and the other ones mentioned on this slide. A variety of clinical practitioners we connect with around our work and because of our work not only in injury prevention but on disability management disability prevention we also interact with those involved in the prevention of work disability and or management of work disability in the event of work injury. There is one group that is maybe implicit in some of the individuals' names but I should have added to the slide. That is -- we do a lot of collaboration with them.

That would be what are called in Ontario, Canada, health and safety associations who are nonprofit organizations that do -- that provide consulting services and training programs for workplaces in Ontario around the prevention of work injury and illness. And, in fact, they're an important intermediary for us because although some of our work -- in some of our work we're directly connecting with workplace parties, often we are reaching workplaces through intermediaries like the health and safety association. We work with them. We hope that they find our research useful and use it to inform their advice to workplaces and we reach workplaces indirectly sometimes through intermediaries like them.

So at the institute, one of the things we try to do is integrate knowledge transfer and exchange in all of our work and promote integrated KTE in our research projects. And we have a team that is dedicated to that. So we have a team within the organization that is dedicated to the stakeholder engagement function, stakeholder relationship building functions as well as communications functions. I'll elaborate on that in just a moment. The goal -- the overall goal of our KTE program at the institute is to make relevant research evidence accessible through interactive engagement with specific audiences to help inform practice, planning and policy making. I've read all of that because we choose those words carefully. So, for example, relevant research. That speaks to one of the things that Chris McBride just talked about. That we're not interested in doing research for academic purposes only. We're primarily interested in doing research that can be used to help prevent work injury and illness or reduce the incidence of work injury and illness or help with the prevention of work disability.

So we want our research to be relevant to those who can possibly use it. And I'll talk in a moment about some of the processes we use in order to try to make that happen. So we want it to be relevant, we want it to be accessible. That means communicated in language that is usable. And we do that in part through an interactive process with our stakeholders working with them around our research processes, our development of our messages and so on, which I'm going to be coming to in more detail in just a moment.

So just to give you an idea of how we're organized, the KTE group at the institute, the key thing, as I said before, is we actually bring together the communications function and the stakeholder engagement function in the same organizational unit. So we have people who are primarily one or the other, but there is a lot of crosstalk between the two. The communications side of the shop is -- there is going to be simplifying it a bit, but is largely concerned with helping us reach broad audiences. Helping us extend our reach, increase the range of our reach, increase the number of people who are looking at our work. And we do that through a variety of vehicles, website newsletters, social media and so on. And then the stakeholder engagement part of the team is concerned primarily with building relationships, ongoing relationships with representatives of stakeholder groups who can use our work and work with us to help make our work more relevant. And to support our scientists in engaging those representatives of our key stakeholders in the research process. And again I'm going to talk about that in a bit more detail in a few minutes. So we have those two sort of functional areas in the one unit.

 There are four pillars to KTE, four areas of activity that we work in sort of at the same time and we found working in all of them helps the others. That is, each of those to some degree provides benefits in terms of the other objectives that are implicit on that list. And I'm going to be talking in a little bit of detail about each one in turn in just a moment. I should say that we talk about this as an approach, as an organizational approach and not a model. And we sort of have deliberately referred to it that way because we see that the specifics of how you would use the approach in any given project or context varies so much by the specific context of that project or that relationship that we tend to think of it not as a model but guiding approach rather than a kind of model or formula that you can follow in different contexts. So I'm just going to briefly mention each of the four and we'll look in more detail at how we deal with each of these four pillars.

 Foundational I would say is the first one. Building stakeholder relationships and networks. So I think foundational to all of our work is trying to build an ongoing relationship with influential representatives of all of our stakeholder communities. All of the ones I mentioned in that earlier slide we try to connect with representatives of those groups on a more or less regular basis. Some more frequently than others but we try to connect with them outside the confines of particular research projects. So in a moment I'm going to talk about how we try to do integrated KTE in research projects but when I talk about building relationships, what we try to do is have regular dialogue with our stakeholders that is outside the confines of a particular research project. It is a dialogue about what issues are they seeing in their work. What recent work have we done that may be across multiple projects that we think may be of use to them? So building those relationships, as I say, is kind of foundational to everything else. And it makes the other three easier to do. The extent to which we do the first piece well.

That second piece is along the lines of what Chris was talking about. You know, integrated KT or KTE, building stakeholder engagement into the research process. So you are not just engaging people at the dissemination stage but from the beginning, ideally before the beginning. But I'll come back to that in a moment, too. I have a slide that sort of takes us through the various stages of the research process and the different places in which stakeholder and ways in which stakeholder engagement in it may occur.

 The third piece enhancing capacity in our audiences to better understood and make use of evidence and to participate in our research processes and finally the communication part. The developing tool of techniques modes of communication that facilitate the dissemination and application of our research make it easy to access and apply. That's the outline and then I'll talk a bit more about these four pillars.

Oh, what do you know? I forgot this lovely animated. We'll move to the next slide. So that's just a graphical depiction of the four pillars and the fact that they kind of feed off each other to some extent. And we think of our overall approach as the combination of these four pillars. We need to be active in all of them in order to achieve our KTE goals.

 So I will talk a little bit about -- in a little bit more detail now about each of the four. So in terms of building relationships. I've talked about how that is foundational. So we try to have -- well, we have formed networks with each of our stakeholder groups so if you think of that earlier slide, workplace parties, health and safety associations, policymakers, clinical practitioners, so we have identified people in each of those communities who are champions of the use of research evidence to inform policy or practice. And we meet with each of them separately. So at separate sort of stakeholder communities.

Sometimes we bring them together to promote sort of interstakeholder dialogue, but for the most part we meet with them separately to discuss their ideas about improving knowledge exchange. Their ideas about future research topics and to present to them some of our latest research that we think may be of particular interest to that stakeholder community. So we've got a lot of these networks. As I say, they match all of our different stakeholder groups. It takes a lot of effort. It takes a lot of effort to maintain these, to organize these. It takes a lot of effort sometimes to identify the right people to participate in them. Some of our networks we built over slowly, for example, our networks with representatives of the labor community and with representatives of the employer community.

We built slowly over time to try to make sure we had people who were widely respected in those communities and were interested in promoting the use of research evidence to inform workplace practice. So it takes a lot of effort to do that well to maintain it and to grow it. But as I said, we found that it is kind of foundational to everything else and that in our experience it has really been worth the investment to spend that time on relationship building. One other comment I'll make on that before I go on is the importance of building relationships with more than one person. Sometimes at more than one level of an important stakeholder organization so that the relationships are resilient, right? So that when somebody leaves, you haven't lost the relationship because you've lost the person. So that's another reason why it takes a lot of effort because it often what you're trying to do is build some thickness to the relationship so that it is resilient.

 The second pillar engaging knowledge users in the research process. So again that's similar to what Chris was talking about from the perspective of participating as a community organization or as a knowledge user organization. And so what we try to do is consult with our stakeholders about emerging issues. Consult with them before we're writing a grant application so that we can develop ideas for grant applications that we believe will be relevant to our stakeholders and that they will want to collaborate on. And then we engage them in various stages of the research process. And I've got a slide coming up in a moment to outline that in more detail. So I'll come back to that in a moment.

 Then the communicating our findings. The key thing there is communicating in plain language using multiple vehicles, using multiple channels. So we prepare plain language articles about our research in our newsletters. We prepare one page research summaries so we have summaries of different lengths, some of them one page, some of them a couple of pages. Our summaries of our systematic reviews are about four to six pages. So we have our issue briefings are four pages. So we have different length of summary of our work in plain language that we make available in different ways, you know, through our website, through Twitter, through our LinkedIn page, through YouTube videos. Very short YouTube videos. So -- and we surveyed our readers a couple of years ago to sort of identify how they like to connect with us. And we've used that to help influence our design, our communication strategy.

 And then the building capacity to the final pillar about building the capacity to use research, so there are various ways in which we've tried to enhance the capacity of our knowledge users to apply our research and to participate in our research projects. Although I would say some of them have quite strong research skills without our help. Some of them are quite sophisticated users of research, have a lot of research skills themselves. But we do these other things in terms of trying to enhance that capacity. One very simple thing that we do that has been the most popular item on our website is a regular feature in our quarterly newsletter which is what researchers mean by a randomized control trial, for example. Pick a statistical term and explain in plain language what does that really mean?

Give some concrete examples of how we used it in our research. That has been hugely popular. More substantially what we have done is offer workshops on research methods. In particular our workshop on how to conduct systematic reviews which has been offered two or three times a year. Very popular, that takes people through the steps and methodology of doing a systematic review. And my colleagues in the systematic review program here have also developed short versions of that that can help knowledge users think about how to assess research articles that they see for quality, right? So that they are approaching the use of research as an informed reader that can look at and assess to some extent the quality of research articles that they are presented with. And, of course, our consultations with our stakeholders and our engagement of them in the research process. Our practice of integrated KT itself builds capacity, right? People who have participated in our research projects are able to participate more deeply in subsequent research projects and move along this spectrum that I'm putting up now.

 So what this slide the meant to do is convey the idea. Think of stakeholder engagement not should I or shouldn't I or yes/no but really how much? To what degree can one engage stakeholders in the research process? So you can see on this spectrum that on the one hand, you know, the kind of old-fashioned way of researchers approaching stakeholder engagement would be a focus on dissemination, right? I'm just going to put out -- I've done this great work. I'll make sure it is available. I might ask users to help me disseminate it or I might put it in a peer review journal and say you should view it and use it. That's kind of the way in which researchers in the past and probably some in the present have approached knowledge translation. But that tends not to work all that well for reasons that I probably don't need to explain to the people participating in this conference. So that's kind of at the bottom end of the spectrum. We try to stay away from that point on the spectrum.

 The next point I've got here is network members. So I talked about how we have these stakeholder networks that we need outside the confines of research projects to have a dialogue about knowledge exchange and about information gaps, research priorities and so on. And that can be very helpful in identifying future research topics. But on its own without the rest of this, isn't really integrated KTE because for integrated KTE to happen we really need to have the stakeholders participating in the research projects themselves. And so these other points on that spectrum are meant to illustrate different forms of integrated KTE that are, you know, more intense as you move to the right. So often what we will do is have multi-stakeholder advisory committees that will give advice about the conduct of our research at multiple stages of the project. So at the beginning -- ideally again they would have been involved in helping to form the research question and they would have been consulted in the development of the grant application. But once the project is underway, they would be involved, you know, in potentially -- in the early stage of the work in fine-tuning the research process. Or if it's a systematic review in helping to develop the search strategy, for example.

They would be involved mid-course in looking at how we're doing, what course corrections there might be needed. They might be helping us recruiting if it's a workplace intervention. And they would be involved near the end when we're getting ready to disseminate and we have our findings, but we're looking for their help on how to convert our finding into messages that will be well understood by the audiences that we are intending. And we found that stakeholders can be very helpful in telling us don't use this word to communicate that finding because it will be misunderstood in our stakeholder community. You need to use this other phrase instead. So that kind of specific advice can often be very helpful in terms of the effectiveness of the knowledge translation.

 So it's a multi-stakeholder advisory committee meeting at multiple stages of the project would be one example of integrated knowledge transfer and exchange. Sometimes members of our stakeholder communities will be more active collaborators. You know, helping with the conduct of the research and more active participants in all stages of the research projects partners, really, in the conduct of the research. They might be collaborators or co-investigators on a research grant. In fact, in some cases they have been co-principal investigators on a grant application where they're co-leading the team, particularly some of our stakeholders who have worked with us in the past and who have developed really the capacity to co-lead research projects. We have engaged them, worked with them as partners where they are co-leads of a grant application. That's to give you a sense of this idea of this spectrum of knowledge -- of stakeholder engagement.

 So moving on, this is another way of looking at the different ways in which stakeholders can be involved in different elements of the research. So when we talk about integrated KTE, again it's stakeholders involved in identifying the emerging issues, developing the grant applications, fine-tuning the research strategies, reviewing draft findings, helping with dissemination of results. That typically our stakeholders would be involved or almost all of these stages in most of our projects.

 But ongoing. In the center you have the stages of a particular project, but what you have ongoing all the time is our effort to build stakeholder networks and relationships and build stakeholder capacity to use to apply research evidence to use it critically.

 So I'm going to -- we should have time at the end for plenty of questions so rather than pause now for questions I think what I will do is move on to talk for five or ten -- probably more like ten minutes but that should leave us a good time for questions about our approach to measuring impact.

So we measure both reach and impact, right? Reach, you know, the numbers of people who are receiving our stuff and looking at it. That's relatively easy to measure but it is not really impact, right? But, you know, there are people -- people like numbers. Our board of directors like numbers. So we measure these things. We measure the number of people, you know, who come and look at our website. We measure the people who downloaded products from our website. The number of people who subscribe to our E-newsletters, how many Twitter followers we have and how many retweet we're getting. How many people are viewing our YouTube videos? So we measure all of that. But, of course, that on its own doesn't really tell you about impact. It tells you that yeah, there are some people that are looking at your stuff or at least getting it and some of these metrics tell you that they are looking at it. So we do all of that. But in order to really get a sense of is our work being used to influence policy or practice, to improve worker health and safety, that's what we're all about at the end of the day, right, is that we want to do research that improves outcomes for workers on worker health and safety. And to do that we frankly what we largely do is tell stories. We rarely try to quantify our impact. We rarely try to identify what percentage of knowledge users initiative to improve health and safety is attributable to our research. We don't really even try to do that.

 What we do is we try to identify examples of people who are -- organizations who are using our work to change policy or practice and then tell the story of how are they using it, what impacts are they seeing among their clients or their members or their workers? And tell that story. And there are different ways in which we find these stories. We identify candidates for these stories. Some of it occurs through the fact that we practice integrated KT, right? So because we have these multi-stakeholder advisory committees and often we have -- we're collaborating with key potential users of our research as partners in the research process, that -- when we're doing that, then that of course makes it easier to identify people who then take it up because people who participated in the process are much more likely to take it up and use it than people who have not participated in the process. There is actually even research evidence to support that, particularly around the use of research in the policy community there are a number of papers, including a systematic review of the literature on the use of research evidence by policymakers, by Oliver and colleagues, 2014 that support the idea that the extent to which you are doing integrated knowledge transfer and exchange. You are building relationships.

Engaging people in the research process, that does improve uptake. So to some extent we are able to identify stories of impact through our advisory committees and research collaborations. But sometimes it's just through monitoring reports of policymakers, monitoring bulletins, newsletters, trade magazines, you know, in our stakeholder community and looking for examples where our work is being cited as having been influential. And then we'll contact people and say we've seen your reference to our work, can you talk to us about how did you use our work, what changes do you make, have you seen any outcomes yet, what sort of outcomes have you seen? So we tell the stories. And we tell stories of three different types. But most of what we do in our storytelling is what shows up here at type two.

Type one is examples where we know a lot of people are looking at our work but we may not know yet how it is being used but we know a lot of people are looking at it. An example would be there was a social marketing campaign some years ago by the German social accident insurance organization known by the German ADGUB. They had a social marketing campaign on a certain disorder and they cited that our systematic reviews of the evidence on the prevention of the disorder was influential in the design of their social marketing campaign which then reached a lot of workplaces in Germany. So we cited that as an example of diffusion of our work, although we didn't really know how it was being used in workplaces.

 Most of what we do is in the second type where we're telling stories about people who have used our work and may be using other sources as well but used our work in an important way to make change in policies or programs or workplace practices or clinical practices. And then the third type would be where we can identify final outcomes. We identify that as a result of our work injury rates have gone down or disability duration has gone down or people are getting back to work more quickly and staying back at work. They are getting back to work in a sustainable way for quickly. But that third type we only have a few case studies on because that third type can take a very long time after the research is done in order for those kind of outcomes to happen. And, you know, it can be very difficult to track that your research at the end contributed to those changes.

Although we have had a few cases where we have been able to track that sort of outcome where one of our clients has -- or one of our user organizations has used our research, has documented outcome -- beneficial outcomes in one or more of these areas, has even quantified it and then will cite their quantification of outcomes but we won't attempt to indicate what percentage of that is attributable to our work. So in a way we're still telling the story but it may have some numbers. So those are the sort of three types of storytelling about impact that we do. And, you know, this is just another -- a graphical representation of the same thing.

 What this tries to get at is it's harder and harder to attribute as you move from people are looking at it to because of you, final outcomes from changed, right? It gets harder and harder to document that as you move to the right. So most of our work, as I said, has been on type two. We've been able to do some type three case studies. I'll give you a few examples. I'm getting close to the end of my presentation but I thought I would give you a few examples of where we've documented impact and where we've told the story.

 We have on our website summaries of these case studies and we started doing this about nine years ago. And we have 32 of these case studies posted on our website. So we have some in the area of prevention of work-related disorders. There is a recent case of a large utility in Ontario, a company providing electricity services to a large population segment in Ontario that cited some of our work on participatory ergonomics where you develop a team of people within the organization to identify ways to improve the prevention of muscular disorders and they've talked about how, in light of our work, they've been able to sustain this participatory ergonomic team over time. It is built into their organization now and how they've really driven down their rates of muscular injury through sustaining this participatory approach to the prevention of MSD. That would be one example.

 Another example is some of my colleagues have been involved in developing and testing the measurement properties of various so-called leading indicators of health and safety outcomes. So the idea here is to get beyond just injury rates. Sometimes referred to as lagging indicators. You look at them. You have the data after something bad has happened. Getting beyond things like injury rates because sometimes they can be influenced by reporting problems. And trying to get at indicators -- leading indicators of health and safety outcomes. And so my colleagues have developed and tested several possible measures that can be used to do this. One of which has become quite popular because it has only eight questions in it. It is very easy to use. It was developed in collaboration with the health and safety association that I referred to near the beginning of my presentation. Who are dealing with -- they're on the front lines of working with workplaces to prevent work injury and illness. So that tool has been sort of tested in terms of -- and found to be a reliable indicator that has predictive properties and it is now being used by some workplaces in Ontario. But it is also being used by a number of jurisdictions across Canada as one sort of measure of safety culture that is seen as a leading indicator of outcomes.

 The third one, through a colleague of mine and a team here I was involved in, developed a different way of looking at the notion of vulnerable workers in the context of occupational health and safety because a lot of the work had been looking at different demographic categories. Young people, immigrant, precarious workers, and what we tried to do is develop a conceptual framework that asked what are the factors driving the higher injury rates that we see in the different demographic categories? And we developed a framework that has a number of questions in a survey tool around exposure to hazards around the worker perception of the practices of their workplace, the worker perception of how well they are trained as part of that, the worker perception of their awareness of their rights and responsibilities, and the risks associated with their job and the worker perception of their empowerment.

Their ability to speak up and say hang on, this is not safe. So we've developed a survey instrument rooted in that concept of vulnerability that has become again popular. Some large employers are using it to better understand risks in their operation. Some jurisdictions are using it to -- as a tool to sort of try to get a profile of where vulnerability is concentrated in their jurisdiction. The fourth one we've done a lot of work around work accommodation, return to work practices. In one case there was -- the Worker's Compensation authority in Ontario had noted that workers who were injured and not able to return to their previous employer, because of the severity of their injury prevented them from doing the work they had done before. They had a program to help workers find employment in other occupations and through other employers. And the reemployment rate was very low. And so one of my colleagues did some research examining their process and those programs and identified a number of areas where that might be the reason for the low reemployment rate. That led to a redesign of that program and ultimately much better reemployment rates. And so we told the story of how our work influenced the change where you could actually document better outcomes.

The last one I'll mention is one where our work has not only changed some programs, but it's actually changed the discourse in Ontario and in some other parts of Canada, at least, because if you go back, oh, not even 10 years in Canada, there was -- and in Ontario in particular there were annual social marketing campaigns directed at young workers. And they were rooted in data that showed that on average young workers were injured more often than older workers were. There was a lot of social marketing activity on a regular basis that was targeted at young workers.

Then some of my colleagues did research better what's driving that. Is it because they're young and immature in some way or are there other things going on? And so they identified first of all that young workers tended to be in more hazardous occupations but they also identified that the injury rates were -- the higher injury rate that we were seeing for young workers were primarily driven by them being in the first month of the job. Being inexperienced. Not being young. And that people who were older, people who are age 45 but also in the first month on the job, had equally elevated risk profiles for work injury as did young workers. So that it wasn't actually about being young. It was about being new. That first month on the job was the problem. It wasn't being 20 years old or a teen. That really changed the discourse from -- and changed the social marketing campaigns here from young workers to new and young or sometimes just new workers.

So those are just some examples of where we've had impact and really for the most part what we've done is, you know, talked to people who have used our work and tried to tell the story of how they used it, what changes they made and where there is outcome data typically from them, not us, you know, what those outcomes were. So that's basically our story of measuring impact. I am going to open it up for questions in a moment but I do want to acknowledge that we operate with the support of the province of Ontario, but they don't necessarily agree with everything we say. And a couple of other things I just want to point out. These are various ways in which you can find our stuff. The best way is the first one if you aren't already getting our E-alerts. Our very brief monthly E-alert or quarterly E-newsletter you can sign up for it. There is a sign-up also on the front page of our website. Follow us on Twitter, connect with us on LinkedIn, watch YouTube videos. If you want to use our stuff please don't use it for profit or change it without contacting us.

And that is about it, I think. Yes. So I will maybe leave out that slide and open it up I guess for questions at this point.

 JOANN STARKS: Thank you very much, Ron. We actually are getting close to the top of the hour but we do have one question that was asked earlier on and let me see if I can go back to it now. Sorry about that. Lisa asks how do you insure stakeholder groups network meeting are including new members or champions?

 RON SAUNDERS: Well, that is a good question. What of the ways we try to do that is from time to time we talk to existing members of these groups about who are new people in the stakeholder communities. We do some kind of snowball type recruiting that way. We build on existing relationship to try to recruit new members.

 JOANN STARKS: Thank you very much, Ron. We have a couple more questions but we're out of time. We need to go to our break. We want to thank you very much for your presentation and look forward to bringing those questions to you when we get back to the discussion session at the end of the day. Now we are going to go for a 30-minute break. The chat box will remain open during this time so everybody feel free to keep chatting and when we return at 3:30 eastern the next presenter will be Jennifer Flagg. Thank you.