Slide 1 Video of Dr. Birnbaum

Hello. I'm Linda Birnbaum, Director of the National Institute of Environmental Health Sciences. I'm glad you could join our training on this exciting new resource we've developed called the PEPH Evaluation Metrics Manual. Our goal is to show you how to apply the principles laid out in this manual to your own projects. After completing this training and becoming more familiar with the material, you should have a better understanding of how to identify meaningful evaluation metrics which in turn will help showcase your activities to stakeholders.

Before we get started, let me take a moment to tell you a little bit about NIEHS. The mission of our institute is simple: To discover how the environment affects people in order to promote healthier lives. Ultimately, we want to find ways to prevent diseases and disabilities from environmental causes. NIEHS has a long-standing commitment of engaging community groups as partners in environmental health science research that addresses public health issues of greatest concern to them.

In 2008, we establish the Partnerships for Environmental Public Health Program to bring our many grantees and programs together around common themes of capacity building, research, communication, and evaluation. PEPH is a virtual network of scientists, community members, educators, health care professionals, and others who have the shared goal of enhancing the impact of environmental public health research. By fostering these partnerships, vital information about the linkages between exposures and disease can be discovered and used to promote health and reduce the risk of disease. Given the unique nature of the PEPH program, we discovered that we needed to broaden our approach for demonstrating success, one that goes beyond publication counts and citation analyses. The Evaluation Metrics Manual is designed to help you go a step further to understand how to map out your programs and identify measures that document your achievements in environmental public health research; for example, you can collect information about the number of community members who are involved in leadership positions in the project; or you can report on the changes of the number of partners as a project evolves; or you can document additional research and funding opportunities that have resulted from your partnerships.

Hopefully, with a small investment of time and applying the concepts in the manual, you'll be able to better demonstrate the influence of your amazing programs. Thank you for tuning in and for all you do to improve health in your communities. Keep up the great work. Thank you.

Slide 2 Video of Dr. Collman

Dr. Collman: Hi there from NIEHS. We're really excited that you're taking this training. After you're done today, I hope that you have a better understanding of the benefits of evaluation and some helpful guidance about strategies for evaluating your projects. So you might be thinking? Why should I think about valuation? That's a great question, and here are some reasons: To identify program highlights and successes; to determine if a project worked; to design better projects; improve program outcomes and build stronger partnerships; and describe expenditures and obtain additional funding.

At NIEHS we've found that the logic models are a useful way to identify metrics of program success. The goal of this training is to help you identify metrics to measure progress and achievements by using these logic models. Logic models provide a way to identify key components of your program, including the specific impacts you want to achieve, and the activities that you want to conduct in order to get those impacts. We'd like to think of a logic model as maps that help you figure out where you want to go and how you are going to get there. Having conversations with all your partners about research objectives
and research processes and writing them down together help groups identify what is most important to them. We have found that the process of writing it down helps us learn about what we think a program is supposed to do, and sometimes it illuminates key differences in how people think about that project. Once you have your logic model on paper, you can examine each component to identify metrics that help you document progress towards your goals. Metrics are the descriptions, characteristics, or measurements of the program that provide a systematic way to report on program achievements. As you are thinking about your program logic model, don’t forget to include all the key program partners, such as community members, decision-makers, policymakers, clinical professionals, and academic researchers. These partners will likely have different ideas and perspectives that you will want to consider in mapping out the program activities, outputs, and impacts. Thanks for watching this training, and good luck with the evaluation of your important research projects.

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-- maybe meetings because they'd be different sort of types of meetings we'd be leveraging. Another activity would be creating idle-free zone signage. And that's -- and that's what the next thing is all about. Sort of -- and here we're just trying to map out that we want to go to Washington, D.C.

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There's a step where you might want to develop your messages and figure exactly what you want to say to people. You might want to develop your -- you might want to do that research that everyone was talking about earlier, sort of thinking about unpacking or understanding why people are behaving the way they are and then [inaudible]. So there's all sorts of activity, you know, action words that you would come up with.

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So they came up with some very specific goals for their anti-idling campaign. The group decided that what they -- you know, there's lots of things that they can try and address. There's lots of things that affect air pollution. But they decided to focus in on the bus idling. And in fact I think they really didn't even worry to much about the car pool lanes. They were really worried about the buses. And one of the reasons was they felt like that could -- that was an area that they could really make some change. So they -- the goals were sort of first to determine and really demonstrate the role of the traffic related air pollution at the schools and in relationship to asthma rates.

And then to develop a community driven and really a community implemented anti-idling campaign. Coming up with the materials and things like that. And then to actually measure the impact of the campaign on different behaviors and different health outcomes. So children's exposure to air pollution and to the actually idling practices of the buses. You know, how long were they idling after this campaign. And then they wanted to, again, look at again the impact of the idling campaign on the health outcomes so on the asthma rates. So what we want to do now is -- and you have all of that information and a little bit more in your handout A. What we want to do now is have you work on a logic model. We want you to build your own logic model, just as an example, and from that we will then go on to develop specific metrics based on the logic model that you developed. But what we want you to do is to take a look at page three and look at those goals that we just went over. And then at your table come up with one activity, one output, and one impact that will address that goal. And then what we're going to do is have you report out and we're going to put the examples up on the wall and we will talk about it. We will see what folks think and walk through it.
Slide 23 Discussion of Goal 4
So we did the fourth goal which was determining the impacts of an anti-idling campaign on asthma morbidity. And then to determine our activities, outputs, and impacts, we started with what we hope is an impact and then worked backward from there. And so we said that our impact was going to be tracking a change in missed days due to asthma. So that then we would actually be able to determine the impacts of an anti-idling campaign -- put that here for our impact -- and then from -- I guess we continued to work backward a little bit and think about what might visually allow us to see that. And so we determined that a graph or chart of missed school days over several year periods would be pre- and post-campaign would really allow us to see if there was a change in asthma morbidity, and if it was due to the campaign and not some other maybe social determinant in the community or air quality or something like that to get a better sense of the trend in asthma. And the the hard part was I -- was finding an activity that we thought would do that, because we didn't know who had, you know, robust data that would give us that information. So our activity was I guess twofold: First to identify sources and then collect data on missed school days. And we weren't sure if, even though you guys had mentioned that they worked with the nurses, we weren't sure what the quality of the data would be and how accurate it would be and for how many years the school nurses would have data for children. And then you also have the problem of children moving between school systems and knowing the data well and how informative it was. And so I guess then the overall picture is that we've got several years of data, we track that over a time series and are able to see if before and after the campaign there is a drop in missed days for -- due to the campaign.

Slide 23 Discussion of Goal 5
We chose Goal 5, which is the measuring the impact of an anti-idling campaign and what the impact that it has on idling practices, which are the school buses and the passenger vehicles. So that's kind of the framework from kind of where we started. And we had activities -- we actually went more linear starting from the activities' side.
So one of the activities we said, was to hold meetings and educate the bus drivers. We assume that there were, like, monthly meetings, or at least regularly scheduled meetings that you can inform them, and we saw those being different than meetings we have with the parents through the PTA in getting the message out. We talked about how those meetings could help us create an idle-free zone signage that was effective in terms of the placement and the color and the design of that signage that would be most effective for those audience to kind of see it and reflect on their practices. And then we actually thought that one of the activities could actually be creating those -- the signage and the stickers. So this is more the -- the concept and idea of where do you place them, is it a good idea, where would the bus driver need to see them type thing. And this is actually, I guess, getting more into having it done and having the place there. Right? As we got to the outputs, we thought that the outputs were the existence now -- after we've had this discussion, the existence of those signs, those stickers, that they are actually in place. And then another output would be, well, is there now, as a result of that, increased awareness - - the number of drivers and parents that even attended the meeting, and there increased awareness. We thought that you could capture that through -- depending on your resources, through focus groups or interviews or even direct observation in terms of awareness type thing. No, not in terms of awareness, but attendance records from the meetings. And then we were trying to -- with the same thing about language, we were trying to keep from getting too far, because we were already talking about the actual metrics, and so we just truncated that discussion and said. All right, then we think that these things will lead to us at least making a claim that reduced idling in bus and passenger vehicles, and then we were beginning to say that, well, you're going to measure those differently. And then we'd stop there.
Slide 23 Discussion of Goal 5 Another Perspective

So our group also chose to do goal #5, measuring the impact and anti-idle [phonetic] campaign has on idle practices by school busses. And so we had a lot of discussion around this [chuckles]. And we were trying to figure out, okay, this is our goal, but what is the impact going to be? And we kept going back and forth, but I think we decided that our goal actually is our impact in this case. So we kind of started backwards. So here we have -- we will know or we want to know if there actually is less idling. And then we have our activity. And we decided to focus on the data part. Because everything that we kept talking about was, okay, well what is the data going to say? And what is the information going to say? And are we actually going to have good stuff. So we've got collecting data on the amount of idling in the parking area. And then our output is the actual data. So censor data, and like a parent/volunteer checklist, because then we were like, well if they don't have the money to have these high-tech devices, you know, what's another way that they can get the actual data? We're like, well PTA volunteers can have a great checklist. And then, you know, we said, we could actually have data by bus drivers.

And thinking about what we talked about with impacts and sort of making sure, that the language that you use to frame your impact is [break in audio] is attained, how -- and excuse me -- you know, you can answer this or we can open it up. How would you change your impact?

Well, we have a [chuckles] -- we went back and forth on a lot of this also, because I think what the gentleman was saying before is that I think we were kind of thinking of our goal as the actual overall goal of the program. And so I think the first thing we have written down was less idling. And then we had less idling as determined by the number of minutes [chuckles]. We went through a lot on that. So I think our -- it's -- our impact is probably more like the second one here, you know, reduced idling in the buss and passenger pick up.

I want to just see if you guys -- we did write this one down, use data to assess program. But maybe in fact that would feed back around this really needs to be on green. You'd get [background comments]. Okay. Okay. Than this becomes your new active thing. And then you just keep going in circles.

And what Elizabeth has -- right. What Elizabeth has just said is another -- you'll see it in just a minute when we sort of wrap up the discussion of logic models. But that point is key. And that your logic model is dynamic. You're not going to do it just once and then let it be. You're going to end up with -- you're going to reach an impact and you're going to have to come back around and what you've gotten out of your impact is going to inform sort of your next stage of operations [chuckles]. And so those -- that's why we say that the logic models are really living things. They are going to change and they are going to morph as your project progresses.

Slide 23 Differences Between Goals and Impacts

[Inaudible] approach and starting with the end, I know you're thinking about sort of how you work up to that is exactly the kind of planning again I think we're trying to promote. One of the questions I think it was Kimberly asked me is what's the difference between a goal and an impact and often the answer is not much but really, you know, you turn your goals into the impacts that you're trying to talk about. So one of the things that we had tried to do with Emmanuel is to have both the impacts and the output not be verbs because that's something that you're doing. So just the one slight edit I might make to this for a logic model would be to have it be, you know, missed days, a change in missed days so you're reducing the number. And in fact, to define which direction you're trying to go, you're trying to reduce the number of missed days.
Slide 23 Outputs and Impacts
You know, we talked about the idea that impact is a change in something and so when I see increased awareness, to me that's a change and so I would suggest that increased awareness is actually more of an impact but that if you are trying to think about that as an output, the way that we capture that and this came out a lot in our training section so it was like okay, we've done these trainings and we've increased knowledge, you know, what's our output? You know, we've got our materials but there's some other output so our thought was this -- that the output there is actually knowledgeable parents, knowledgeable bus drivers, those -- it's the individuals themselves and their increased knowledge.

Slide 23 Scoping your Work
Part of it is just scoping your discussion and we gave you 10 minutes to come up with some stuff and so I think that's, you know, obviously there needs to be -- when you're actually doing this, you know, more conversation and so there are -- there's lots of different scopes that you could think about and there's always this tension between -- you can do things that are activities that feed more than one impact or output. And so that's part of the dynamic piece of this which is nice. One of the other points that I -- and I love this exercise because it's so easy to make points 'cause you're coming up with such fun stuff so the -- I love the way that you have the activities make [inaudible] and then you outputs are [inaudible]. It's that simple, right? And we -- you want it to be -- in the manual, I would say we struggled some to make the outputs different from the activities but really they're...

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How we could even determine if the quality of the data were okay, so what are your metrics for good data? What you care about. Well, so first, we went into, it doesn't matter if you have health data, it doesn't have any information about asthma in it. Right, so it had to be asthma specific data and have a significant sample size and not just the number of students but having multiple time points per student so that followed them over several years. The reliability of this source and I guess you would then have to have a separate metric for what reliability is.

Uh, huh. Good.

And then, I don't, we talked about this, but I don't know where it necessarily fits in, so the capacity of the school to even be able to monitor or have this data was something that we needed to look at because if we try to find this data and school doesn't have it and nobody else does, then that's a problem, but I don't know where that might fit into. No, I think those are all really great kind of concepts around good quality data that you would want to think about and even just listing those concepts is a form of a metric, it's a, you know, it's a descriptor, it's a qualitative descriptor and that's great. Like part of the message that we want to get across here is that those qualitative categorical descriptions are often as far as you need to go.

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There are metrics where the numbers of sheets that were filled out also were anecdotal feedback from the volunteers on the tool itself how easy it was to use, you know, could they count ten buses at one time or maybe one person could do two buses and that sort of thing, how complete the information was, you know, how well they used the tool, how easy it was for them to use and understand and that sort of thing and also how willing they were to continue the activity, you know, how [inaudible] was it.
Some of the other things that come to me is how many volunteers actually stayed, how long did you have people come back repeatedly because they thought it was fun, you know, were you able to get a variety of volunteers or was it just one solid group of parents, you know, and you could measure all those things over time to, again, extrapolate to the strength of your partnership.

42 Revisiting the Logic Model
This actually helped because I had read some prior work from the CDC. They have a lot of logic model information. This kind of reiterated and more or less brought it home for me. Gave me more clarity because I was like, OK...my activities, my outputs, my impacts – that was new for me. That was an overwhelming type of experience for me to be kind of thrown into a logic model aspect. And then to actually see how... because you create the logic model before you begin the workshop. And then to go back and re-evaluate some of the things that I had written and see, OK – I didn’t really accomplish this, but I really did accomplish that. And so it just allowed me to see OK, so it’s OK if I didn’t accomplish all my goals. I can go back. Some things I didn’t account for during workshop that actually happened, so it allowed me to go back and change these. And then also, it just made me realize that...Ok.. it’s OK to have...everything’s not perfect and in order. I’m allowed a few mistakes. It just gave me more clarity. Not to overthink it. I think after a while if you get caught up in it and second guess yourself.  This just reiterated to me... OK, I did a pretty good job.

42 Developing a logic model by working backwards
I would have worked backwards. So when I did my logic model I worked forwards, feeling like you had to do it in order. I would have worked backwards, because it made more sense, once I got my impacts.. of what the overall...just of what the workshop was about. It would have been easier to work backwards. Instead of trying to line up the activities, do the outputs, then the impacts. The activities and the impacts were kind of, almost the same. So I was like, do I have to have this category? But at that time I didn’t have anyone to help me yet because Eileen was out of town. So, once I met with her, she was like, you really don’t have to have this, because some of these things may be the same and you have the option to change them at the end. So yeah – if I had known in the beginning that I could work backwards, it would have made my journey a lot easier.

43 Using a logic model to keep project on track
So I’m definitely thinking of it as living model. And the value of working backward. One thing we are working on is our overall center communication strategy. So it’s all of our stakeholders and audiences. What are our goals and our impacts that we want to see. And we so often have people contacting us with these different opportunities or ideas for activities and that we’re like that sounds great. We want to do that. But we can’t do everything. And so in having the flexibility to add activities to our logic model that fit with our impacts and goals. And then having those impacts and goals established so that when other activities come up, we can look at this logic model and say this activity doesn’t fit in. It doesn’t contribute. Maybe it doesn’t have a product that is valuable to us. Or maybe it has a product that is valuable, but it doesn’t really achieve an impact that we are looking for in our work. And so just the value in that...in really thinking through the breadth and depth of the logic model that we create for work is going to be very useful.