Transcript for Environmental and Compliance History Online (ECHO) Intro to ECHO Webinar - How do I Search For...?

December 18, 2018

Hi, good afternoon and welcome to today's presentation. Before we get started let's review a few housekeeping items. Audio is available for this presentation through your computer's mic and speaker or by telephone. Your call-in number as well as your access code is in the control panel box on the right-hand side of your screen. All attendees have been muted to minimize background noise. If you have a question during the presentation, please type it into the questions box on the upper right-hand side of your screen. We'll have a dedicated time to answer questions during the presentation. If you are experiencing any technical difficulties, please contact us and we'll try to troubleshoot the issue. And with that I'll pass it along to Melinda Miller.

Alright, hi everyone. My name is Melinda Miller and I work for Eastern Research Group supporting the ECHO website. I'd like to welcome you to the Introduction to ECHO series of webinars, which provide basic demonstrations of searching and navigating the ECHO website. Today we're going to demonstrate a collection of examples of the ECHO Facility Search, which address common questions from new and experienced users. Please feel free to submit any additional questions into the question box and we will leave some time to answer them at the end of the webinar.

Now, I would like to take a few moments to introduce everyone to ECHO to make sure we are all starting from the same starting point. The U.S. Environmental Protection Agency or EPA provides public access to its regulatory compliance and enforcement data through the Enforcement and Compliance History Online website, which we call ECHO.

Data included in ECHO includes how a facility is regulated, when an inspection occurred, whether violations were found and whether any enforcement actions were taken.

ECHO presents the compliance history for more than one million EPA-regulated facilities. This includes three-year compliance status history and five-year inspection and enforcement history for Clean Air Act stationary sources, Clean Water Act permitted dischargers, Safe Drinking Water Act public water systems, and Resource Conservation and Recovery Act hazardous waste handlers. Data are reported by EPA and state and local environmental agencies. ECHO also includes EPA enforcement action data under other statutes.

ECHO itself is not a data system of record. ECHO pulls data weekly from several EPA program data systems, such as the Integrated Compliance Information System, the Resource Conservation and Recovery Act Information System, the Safe Drinking Water Information System, and the Facility Registry System. It also pulls select data from EPA's Envirofacts, including Toxics Release Inventory and Greenhouse Gas pollutant release data, which helps provide a more complete picture of facility activity. The About the Data page on the ECHO website provides links to the data sources themselves, as well as specific information on when data are refreshed.

ECHO provides a number of features to help you access and understand environmental data, such as the Facility Search and Enforcement Case Search. You can use these tools to search for facilities that match specific characteristics of interest and then choose specific reports to view detailed environmental information.

We would like to remind you to enter any questions you have into the question box. We will have a question and answer session at the end of the presentation.

Okay, now let's begin the live demonstration.

We're going to demonstrate how to use ECHO to answer common questions from ECHO users. So, we're going to start on the ECHO home page.

The first basic question we'll answer is how do I search for a specific facility?

The first way to search for information about a facility is by using the "Quick Search" on the ECHO home page. This takes you directly to a map and table of matching results. The home page Quick Search is a fast and easy way to run an ECHO search if you know the name or ID of a facility of interest.

Alternatively, you can perform a search by clicking on the "All Data" link to bring up the full search form. In the "Facility Characteristics" section, you can enter the facility name or ID number into the appropriate search box. The full search form has additional criteria that you can use to narrow down your search, and we will explore these in later examples. So sometimes when you run a search you may not be able to find the facility you're looking for.

So, what if I cannot find a facility by name?

Facilities are sometimes known by different names, so it is helpful to try some search variations. Here are some tips or things you can try:

You can change the Active/Operating perimeter from "Yes" to "Any"; The full search form automatically defaults to search only for facilities that are designated as Active, so removing this criterion will search all facilities in the ECHO system. This is a common reason why facilities do not show up in search results, so we always recommend trying this first.

Facilities may also go by different names or may be spelled differently than you expect. You can try to truncate the name to the first five or six letters, or if the facility has multiple words in the name, you can try searching by just one word or you might try searching by location. For example, you can enter a ZIP code or city and a state and see if the facility comes up in the results. You can also try typing in the previous name of the company if there has been a change in the name.

So, the next question we'll look into is, how do I search by geographic location using Latitude and Longitude?

For this one we'll switch to a Hazardous Waste Search. We'll go down to the Geographic Location section, and we'll click "View More". This allows us to see additional search criteria options.

For this example, we'll search for Hazardous Waste facilities near Atlanta, GA using latitude and longitude. As a note, you can also allow the site to use your location. For example, if your phone has GPS

and it will create a radius around that. The search results show a list of facilities and their locations on the map.

So, since we're looking at a Hazardous Waste search, lets answer the question - What is a Hazardous Waste Facility?

A Hazardous Waste facility is a facility regulated under the Resource Conservation and Recovery Act (RCRA) Subtitle C Hazardous Waste Program. It is a facility which handles solid waste materials known to be hazardous (meaning that it is dangerous or capable of having a harmful effect on human health or the environment). The facility may generate, transport, treat, recycle, store, or dispose of hazardous materials.

So, what do the symbols on the map represent?

The flags or map pins indicate four pieces of information using the stripe color, body color, icon numbering and icon size. You can click on the Map Legend to learn more about what the symbols and colors represent.

So, can I modify the criteria to further focus on an area?

Yes, the map initially displays results based on the search criteria entered. You can use the "Zoom to" feature to zoom in further on an area of interest. For example, we can look at North Decatur, GA. When the "Sync Map and Table" button is selected, as you adjust the zoom on the map the table will automatically update to display only the facilities currently visible on the map.

For our next example, let's look at Hazardous Waste Treatment, Storage, and Disposal Facilities. Treatment, Storage, and Disposal Facility, or TSDF, is a specific type of hazardous waste facility designation.

For this example, we'll answer the question, where are the operating TSDFs in my state?

To do this search, we need to specify the state and the designation of the facilities we are interested in. On the Hazardous Waste Search form, we can clear our previous search criteria and go to the Geographic Location section. We'll set our state as Maryland and then in Facility Characteristics section, we can set our Designation as Operating TSDFs. These results show TSDF facilities in the state of MD.

So how would I use ECHO to determine the facilities in my state that have been inspected recently by the state environmental agency?

For this we'll go back to the All Data Facility Search form. We'll go to the Enforcement and Compliance section and under Time Since Last Inspection we can choose "Within" 1 year and we can set the Agency equal to the State.

In Geographic Location section, we can choose our State as Virginia and on the right panel, we'll select "view results as data table." Note that selecting this option will return results only in a table and not display the map.

On the results page, we see the number of facilities with any inspection in the last year conducted by the state. Under customize columns, we have two additional columns of interest. These are "Days Since Last Inspection" and "Date of Last Inspection." We can check these to add them to the results table.

By sorting on "Days Since Last Inspection" we can see the facilities most recently inspected in Virginia by the state agency. To sort, you simply click on the column header. We'll answer another question continuing with this example.

How do I learn more information about a facility that appears in the facility search results?

Once you're on the Facility Search Results page, you can click on the table row associated with the facility. The "Facility Summary" panel on the right side of the screen will expand. You can click on the Facility Name or the "C" report icon to open the Detailed Facility Report or DFR. This is the first report you should look at for more information about a facility. We'll look at this report in a later example.

While we're looking at this, let's ask - What do the icons under the "Reports" column of the Facility Search Results mean?

These icons represent reports available for a facility. To see the name of a report you can hover your mouse over the icon or click on the "Reports Legend" button on the top right to see an explanation for all types of ECHO reports. Reports are specialized to display different environmental information. Generally, reports are specific to data from one environmental program, but some reports cover enforcement and compliance data across environmental statutes. Each report type is represented by an icon, so you may easily identify it throughout the ECHO website. To learn more information in specific reports, we recommend viewing the recording of a webinar we gave earlier this year entitled, "Advanced ECHO Webinar: Reports." You can find this on the ECHO Training page.

Alright, let's go back to the homepage for our next example. For this we'll go to the Water Facility Search. The Water Facility Search looks for facilities that have a NPDES permit. Any point source that discharges pollutants to a water of the U.S. is required to have a pollutant discharge permit.

So how can I search on a partial permit number?

On the Water Facility Search, we can go to the Facility Characteristics section. The Water Facility Search allows entry of partial ID numbers with at least two characters. You can type a partial ID to return facilities with ID numbers that begin with the search term.

This can be particularly helpful to search for facilities covered under a NPDES general permit, because the permit numbers often have a standard naming convention. For example, search on "DCR12" to see all facilities covered under a general permit for construction-related discharges in Washington, DC. This is EPA's 2017 Construction General Permit.

So, we'll go back to the Water Facility Search for our next example and we'll ask: How can I search for wastewater treatment plants or POTWs?

Let's clear our search criteria. So, we often receive questions about how to search for wastewater treatment plants and we wanted to share a few strategies, since users may define this universe of facilities differently. One way to search for different types of facilities is to use industry classification codes. For example, SIC Code 4952 represents sewerage systems or establishments primarily engaged in the collection and disposal of wastes through a sewer system. Let's do a search for facilities in Maryland with this SIC code.

We can use the Customize columns feature again to add different parameters including SIC Code, Facility Type, and Permit Components. The Facility Type field gives you additional information about the sewerage system. It indicates the ownership type in EPA's source database. Facilities could be classified as publicly owned treatment works or POTWs, non-POTW, federal, or state. POTWs are sewerage systems owned by state, tribal, or municipal governments. Non-POTWs that have SIC code 4952 are typically smaller, privately-owned systems, serving schools, campgrounds, etc.

As a note, the permit Component field is the third field that can identify POTWs. Furthermore, we do offer two flow fields in Customize Columns. Facility Design Flow and Actual Average Facility Flow. These are flows that were included on the facility's NPDES permit application.

So, since we looked at some wastewater examples, let's look at drinking water. We can go to the Drinking Water facility search. Let's search for larger drinking water systems with reporting violations. Note that we can approximate the size of the system using the number of people served. In the Enforcement and Compliance criteria section we can select "Monitoring and Reporting Violations" and click search.

The results show a list of systems that either failed to conduct regular water quality monitoring or did not submit monitoring results in a timely fashion to the drinking water environmental agency.

You can select the Facility Name to view the Detailed Facility Report or DFR. In the Enforcement and Compliance section, the Safe Drinking Water Act Violations and Enforcement Actions (5 Years) table may have more detailed information. The DFR presents detailed enforcement and compliance information for a facility. It is organized into six sections, with the Facility Summary providing summary information for the main statutes available in ECHO. Generally, when reading the report from top to bottom, information will flow from overall summaries to more detailed information, split out by each environmental program.

While we are looking at the DFR, we also want to point out the ability to report a data error using the button at the top of the report. If you suspect that there is an error in the data on the DFR, whether it's an incorrect date, wrong facility address, etc., you can use this button to submit a report to EPA where it will be reviewed and corrected if necessary.

Alright, let's return to the home page to start our next example.

We can start our facility search using the map to explore the data. You can do this by clicking on "Map Any Facilities with Enforcement and Compliance Data." This is a nationwide map of all the ECHO facilities. We can specify criteria directly on this page to refine these results.

So, the next question we'll answer is, how do I find facilities with recently identified violations near my community using the map?

On the Current Search panel, you can check "Facilities with Significant Violations". Data are clustered by state on the map, let's look at Arkansas for this example. Now we see pins for each individual facility. As indicated by the top stripe color on each pin, facilities may be regulated under one or more statutes. Let's use the some of the features in filter facilities panel. Let's look only at facilities with Air IDs, meaning that they're regulated under a CAA program. When we use the Filter Facilities panel, the map and table dynamically update. You can choose whether to show only those facilities matching your

criteria. If we uncheck "only show matches", we'll also see those facilities that do not meet these criteria. They are "grayed out" or dimmed in the results table and map.

Alright, we're going to take a pause here and see if we have any questions. If we have time afterwards, we'll keep continuing with examples.

Okay, thank you Melinda. Hi everyone, this is Rebecca Kane and I work in the US EPA Office of Compliance. Thank you again for joining this session. I will be here to help answer questions. So as Melinda just said we'll take a break with a few questions and then get into a few more demonstrations.

So, the first question I will take. If you could just go to one of the facility searches, it doesn't matter which one.

So, the question is: Is there a way to get a custom report built to query specific federal agencies?

And so yes. The answer is Yes. The one important tip that applies is to click this. In each section of the Facility Search form there's a "View More", "View Fewer" toggle that is intended to make the form less intimidating for users. So, if there's something, some particular way you're interested in searching for regulated facilities, the first thing to try is click that "View More" button and see everything that ECHO offers. In this case the federal facility option is under Facility Characteristics in that once you open the whole form. So, you can search based on any Federal Agency down in the middle of that section, that way you can narrow it down to the agency you're working for or interested in.

And I would just note that ECHO is relying on other EPA data systems for this information so if you see a facility in your results that is not appropriately categorized you can report errors which actually leads into our next question which is, is there a way to correct discrepancies?

And Melinda just pointed that out on the Detailed Facility Report. At the top of the report there is a Report an Error button and any potential data error you see on this report you can report to us that way and it'll reroute it to a data steward who can look into that report.

So, I will take one, let's take one more question and then get back into the demos and then we will answer the rest of the questions at the end. So, the next question was… I'll hand this back to you Eva or Melinda. Do the regulated facility information, does the regulated facility information include environmental information such as rivers, streams, lakes etc.

Thanks Rebecca. Yes, we do have some associated information about environmental location with the facility. When you're on the Detailed Facility Report itself, you go to "Environmental Conditions". Well this example doesn't have any data, but what we do have her is information about the watershed or waterbodies that are associated with the facility location. We also have if available information about how the waterbody is used and then we have information about the air quality that's also associated with the facilities location. And some of this information is also presented in the Facility Search Results, depending on which search you run there are some customized, there are some columns you can add to the search results that will include this information.

Okay, I guess we can get back into the demonstration and then we'll take the rest of the questions at the end of the webinar and just reminder in the panel, the webinar panel on the right side of the screen there is a box labeled questions and you can expand that and ask any questions you have there.

Okay, thank you Rebecca and Eva for answering those questions. Let's look at some additional examples that are focused on pollutant release information. Let's go to the Water Facility search for our next example.

So, the question we'll answer is: How do I search for facilities releasing a specific pollutant?

We can use the water facility search to find facilities in Alabama that report wastewater discharges with Chlorine. In the Pollutant section, type "chlorine" into the pollutant search box. The dropdown will automatically show matching values as you type. As a note you can also search for specific pollutants or contaminants on the Air facility search and Drinking Water Facility search.

In Search Criteria Selected, let's select "Data Table" results view and click Search. The results show facilities matching our criteria. To learn more about the specific pollutant discharge data, select the Effluent Charts Report or the "E" icon. The Effluent Charts page presents dynamic charts and tables of permitted limits, reported releases and violations over time for Clean Water Act wastewater dischargers.

On the Effluent Charts page, select "Chlorine, total residual" from the summary grid. On the corresponding chart, we can see the Chlorine concentrations reported over the last three years. The lines represent the numeric limits for chlorine specified in the facility's permit. The points represent discrete measurements of chlorine over time.

Alright so for the next example let's go back to the All Data Facility Search Form.

The question we'll answer this time is, how do I find facilities that report to the Toxics Release Inventory or TRI?

The TRI tracks the management of certain toxic chemicals that may pose a threat to human health or the environment. U.S. facilities in different industry sectors annually report how much of each chemical is released to the environment (air, water, or land disposal).

To be clear, chemical releases are not a measure of compliance. Including this information on ECHO provides context about the facility. So, on the search form, the "Pollutant" section of the form has options to search for facilities reporting to TRI and by amount of chemical releases.

If you are interested in any facility that reported to TRI, you should use the All Data search which is the form where I am on now. If you're interested in a particular environmental release such as air, water, or land specifically you can select one of the other search types. For this example, we'll do a Water Facility Search. Let's search for Water Facilities that reported "direct" discharges or discharges to surface waters, such as rivers and lakes over 10,000 pounds. We'll use the data table view.

On the results page, you can go to customize columns and select TRI Surface Water Releases. This lets you view the pounds of chemicals released to surface waters in the most recent reporting year, which right now is 2017. Note that not all facilities report to the TRI Program. You should refer to the Results Guide for more detail about TRI and any of the information presented on this page.

So, for our next example we'll use the Air Facilities search. The question we'll answer is: How do I search for releases of air pollutants?

For this example, we'll put our state as Utah, and we'll scroll down to the Pollutant section. Under National Emissions Inventory (NEI), you can select "Has EIS ID". We'll set the Year as 2014, and we'll set the NEI Emission Category to Particulate Matter or PM and click search.

So, what is the NEI? The National Emissions Inventory is a comprehensive and detailed estimate of air emissions of criteria pollutants, criteria precursors, and hazardous air pollutants from several sources. The ECHO Facility Search includes data from stationary point sources, such as industrial or commercial facilities.

So, what is Particulate Matter? Particulate Matter or PM is a mixture of small particles and liquid droplets in the air. PM can cause reduced visibility or haze in some parts of the country. Since they are small enough to inhale, exposure to PMs can lead to respiratory health issues.

On the results page, we can hide the table. We can zoom in 2-3 times to look further at the state of Utah. On under customize Map layers, Air Maps, we can check "Nonattainment Areas by Pollutant". This allows us to see several areas of nonattainment for PM (2.5 or 10 micrometers). These are the dark blue and dark green areas shaded on the map.

So, what is nonattainment? nonattainment refers an area in the U.S. that does not meet one or more of the National Ambient Air Quality Standards for six commonly found air pollutants, designated in the Clean Air Act. You can learn more about this on EPA's website.

Alright, that's the end of our examples. Do we want to get back to the question and answer?

Alright, this is Rebecca Kane again. We have a few questions if anybody thought of any questions while you're watching the demonstration please enter them in the question box and then if you think of questions later that you didn't get to ask there's a contact us link on almost every single ECHO page, in the, up there in the top right that you can send us question any time.

So the next question, which I guess I'll take this one since I've been looking that the questions. The question is how do you find FIFRA violations for a particular company?

FIFRA is a pesticides Act. So, ECHO doesn't have FIFRA violations. This website doesn't have FIFRA violations. You have to look elsewhere on the EPA website. What ECHO does provide, specific to particular companies would be like EPA enforcement actions taken at a company or facility that had violations, so you could either search… oh wait ya and inspections too. Where we're pointing right now on the screen is how you can find EPA inspections by statutes so you could look for inspections, different inspections right there done by the EPA and then you can also, on the EPA case search you can search for enforcement actions under this act taken by EPA, but we don't actually have the specific violation data in ECHO.

Ya so now we are pointing out the find EPA cases. So, this search form is similar to the facility search forms that we looked at. The facility search forms as you could see you're searching for particular types of regulated facilities in this, on the search option you're searching for just EPA cases and there you can focus on any environmental statutes that you are interested in.

Okay, so the next question is How, and I'll turn this over to Eva if you maybe you can think of it off the top of your head. How does a facility type get a major or minor classification?

Okay so this depends on the particular program but since we did several examples about water, in particular for NPDES, the facilities that are designated as major are typically larger facilities that may have larger waste water discharges or serve a large population, but it's based on, kind of a set of criteria designated by either the State Environmental agency or EPA. And then there are some similar classifications in the other environmental program and if you look at our search criteria help we do have more detailed information or linked to some information about these classifications so if you're on the search form and if you click on any of the question marks by the search criteria we have more detail descriptions of these terms and if you don't find what you're looking for here please contact us.

Okay great, thank you. So, the next question kind of follows on this one and I can take this one. Is there a place to find a legend for what TRI and other acronyms mean?

And so this is one place to look on every, every ECHO search form and Report has a help button somewhere with a question mark that will list out all of the different initials and acronyms that are used on the page. Also, we have some places on the forms where those little dotted lines, like there where you can just hover over it and not even have to go anywhere else so that you can see what that stands for. Anytime you see that little dotted line under letters then you can just hover your mouse over it. And then the last thing I'll say which I had to hunt down. We actually do have and acronyms page on ECHO under, we just have a list of help pages and the top one is called acronyms and its Echo.epa.gov/help/acronyms and it list a bunch of these initialisms that we use in ECHO and it also has a link to an EPA terminology website that you can look up anything you are curious about.

So, okay I am just looking at the questions. One second. Okay we do have a question. Can I receive these slides by email?

We actually post these on ECHO right after the, we'll post them right on the training page right after this webinar so that's linked from the home page under help and then the training page where you might have registered for this. We will have the recording of the presentation and the slides posted there.

Okay, and the next question. I am going to ask you Eva I am not sure if you'll know the answer. If you don't then we can get back to this person. It's how can this be used for pretreatment programs for wastewater?

Okay so we have. For pretreatment we have the water facility search and the accompanying map. Off the top of my head we can use the water facility search and look at that permit component to identify permits that are under the pretreatment program.

You can scroll down, if you scroll down a little bit. Eva sorry for interrupting you. You can show under facility characteristics there's a permit component that comes out of the source data system that does show, does have pretreatment. Eva I am sorry to interrupt you, but I was just thinking that we might point out that we have a what's called the NPDES, the discharge, electronic reporting rule which you can look up on the EPA website where a lot more of this type of data will be reported electronically. We don't have a ton of data about the pretreatment facilities yet, but it will be coming in over the next couple years. So, Eva if you were going to point anything else out, go for it.

I think you covered it.

One more thing. Once you're using ECHO a little bit more for this sector just let us know if you have more questions about it. And then, we have another, maybe a little easier question but a little more technical. How do ECHO and EJSCREEN work together? Can Environmental Justice Info be charted alongside Compliance Info either on a map or a report?

So I'll say it first just so everyone knows, EJSCREEN is an environmental justice indicator tool that another office of EPA manages and that's another thing you can just look up on the EPA website, but yes we do have that data pulled into ECHO and go ahead Eva I think you were going to demonstrate that.

Let's say just basically how it works together is we pull in the EPA EJSCREEN data into ECHO and then integrate it into the facility searches, so you can search by facilities that have environmental justice indicators and you can also what Eva is showing is after you run a facility search you can add on columns about this information and again if you have no idea what I am talking about with EJSCREEN, it's both in our ECHO help documents we explain what these mean and EPA has pages on it too.

Okay, great thanks. Okay Eva I'll give you an easy one since I've given you hard ones. How often is the ECHO data updated?

Okay so most data are updated weekly, with the exception of drinking water data which are updated quarterly from the source data system. And you can go to this page "About the Data" and we left the most recent refresh date for all of the data sources that are pulled into ECHO here. So, we have the date that it's last extracted and our next expected refresh.

Great, thanks. The next question is: Can ECHO be used to identify CERCLA facilities? Do you want to take that Eva or do you want me to?

Could you take this one?

Sure, so the short answer is no. We don't, right now we don't have. CERCLA is the Act that is sometimes, I should say not sometimes… often called Superfund, so ECHO doesn't have very much superfund data right now. Again, as I mentioned for FIFRA, for the pesticides act. Under "Find EPA Cases" ECHO does have EPA cases related to CERCLA, you know cleanup, and superfund. But no comprehensive search for facilities on ECHO, but EPA itself does have other websites where you can search specifically for CERCLA and superfund data if you just google that, EPA superfund sites or something like that then you can find ways to access that data pretty easily. But if you know you have trouble finding it just contact us and we can just direct you.

Okay the next question is, is there a way to query by water treatment system class?

I am not sure what class is. The person who asked this if you can give us a little bit more information of what you're looking for or Eva do you know off the top of your head know.

I am also not sure about class, but if you are looking for some sort of treatment technology information. We do have links to some information that provides a bit of summary information about treatment technologies. TRI collects a little bit of information on treatments not just for wastewater or water and then within the DMR loading tool when you get to a report on specific facilities with NPDES permits, we also have some information captured about POTWs where they report information about their

treatment systems on a clean Watershed needs survey. If this is specific to drinking water, I'm not aware of any additional information. Please let us know if we're on the right track with that.

Yes thanks, yes. Okay the next question is how do you find out more information about violations? for example when a facility is listed as being in violation for a certain number of quarters?

Okay so the best thing to do is if you're coming from the facility search results and you kind of just have a summary count, is go to the detailed facility report and look at the enforcement and compliance information. This is a very detailed section; central section of the report and it gives a lot of information about inspections or evaluations that have been done and more detail about the violations by quarter and for a particular type of violation. All of the information, we have a very detailed data dictionary to help you interpret and understand these types of violations for each program so click on these little book icons here for more information but always look once you have the number, quarters of violation come down here to three year compliance history and look at the other information that's available here. Sometimes you might need to, if you need further information than what's listed here you might need to contact the environmental agencies that administer the permit or the program if you need additional documentation for example. There's also information down here if its applicable for any informal or formal enforcement actions that were taken. Unlucky with the example again.

That figures. Okay we have a few other questions that I will answer offline. I don't have any other questions for the group. Does anybody else have, that you can think of any last-minute questions you want to put in the question box, if not we'll give you a little bit of time back.

Okay, well.

Sorry no go ahead, thank you for the presentation. Thank you, Melinda, Eva and Rebecca. Thank you for sharing your insight and your expertise and a big thank you to everyone who joined us for today's webinar. Now we'll kindly ask that you take a few moments to fill out our post webinar survey that's going to appear on your screen once we close the webinar. So, thank you again for your time an enjoy the rest of your day. Goodbye.