Good morning and welcome to our session on Marvelous Metrics - analyzing your medical data to power your decisions.

Or, Measure your Many Medical records with Melissa’s Marvelous Metrics - since we like alliteration here at the summit.

This specific session is for PetPoint Enterprise users who would like to get more out of your reporting options. You don’t have to know everything about how to use the builders, but this is not a Builder 101 class, so you may need to visit the builder lab or set up a training session with your Enterprise Rep to go over how to use reports in general. I will try to help out with some basic report builder tips and tricks along the way as we have time.

I also am sending you home today with Sample Reports that you can use. In fact, you will find if you look in the sample folder, that you already have access to the reports! You just need to duplicate them into your working report folder if you want to make any changes to them. And I will show you how to do that in just a few. Or you can just run them directly from the samples folder to take a look on your screen what your data looks like using the same reports I will be demonstrating. So lets move on to get to the step by step instructions on how to do this.
So again welcome to Session 5, two more medical sessions in this track, both will be hosted by Diann Meiller later today.
So let's take a quick look at our agenda!

I want to first outline the goals that I have for you, what I want you to get out of this session and these reports. Then we will talk about the tools you have at your fingertips in the builders and PetPoint both.

The first report we are going to check out is called Average length of illness, then we will look into Most frequent and long lasting illnesses, also Treatments that resolve illnesses quickly, and finally the report This Week’s Diagnoses will be used to demonstrate how to set up a dashboard.
What are our goals today?

The agenda described this session as breaking open PetPoint Enterprise’s Reports Builder and explore the statistics needed to measure the effectiveness of your medical programs, processes and protocols. Study your organization’s average length of illness and most frequent and long-lasting illnesses. Determine which treatments resolve conditions quickly. Set up a report to automatically notify you of the current and recent diagnoses within your shelter.

We will investigate a collection of sample reports and learn how to modify these existing reports for your organization to provide valuable metrics.
For our specific reports that we will look at today, we should first quickly review where the data comes from in the system for the sample reports that you may take home.

To get the metrics we want, we are talking mostly about the items on the conditions tab, symptoms & diagnoses and how they related to the animal population. The conditions are added here, on the conditions tab of an animal’s medical record - either an exam or a surgery. When adding a condition to an animal’s record, Onset date & Resolution date are not required, but are so important!
And while we are really looking for calculations on the number of animal records, we also will need some of the animal record info. Animal number, to count the number of individual animal records in a grouping. Type, so that we can sort our report into dog, cat, and other. Also, intake and outcome information, so we can calculate and get info on the dates that surround their visit, such as how long from resolution to outcome. And Asilomar Values, which may or may not be required for you to fill in depending on your database setup.
One of our reports will contain information and filters for the Status Date/Treatment Type and Treatment name or medication name all found on the treatments tab.
Where is the data?

- If you do not have access, log into our demo database:
  - USAC05
  - summit
  - summit
The first things I am going to demonstrate to you, before we start talking about the information the report provides us with, are Specific tools for working with the reports we put together for you:

Where to find these samples
How to use the search to find reports by keywords in their description.
How to Duplicate a report, more importantly why to duplicate a report.
What you might want to change about the sample reports provided.
  How to change the date range to adjust for your specific needs.
  How to set the report up to prompt you for this date range, and how to set the report up to give you a simple Filter Execution Window that anyone, even someone who has never seen the report builder before, can operate.
So let’s start by finding our first report. I will walk you through these steps, go to the report builder, find the shared report sample folder, find the report Average Length of Illness, and select and duplicate the report into your database.

ON SCREEN DEMO - OPEN REPORT BUILDER USAC05
Sign into your PetPoint database and go to Reports > Report Builder. If you don’t see that choice it means one of two things. It means you don’t have a PetPoint enterprise database, and you are welcome to watch. Or it means your administrator has not provided you with access to the builders. If it’s the latter of these two, you might reach out to them via email and ask them to assign you a Specialty Role of Report Builder so that you can participate in this class. If they do it right now, you can just log out and back in and see that option.

The Report Builder opens in another tab. Focus on the options in the top left hand corner of this new screen.
If you open the Shared Report Samples folder, you will see all sorts of sample reports you can use.
Pick out the Average Length of Illness report. You will notice if you double click you get a “Report is Read Only” pop up. You can run it from here by doing a Right Click - Execute As, but unless you are restricted to Read Only access to the builders that is not what I am going to have you do.

Make sure the report is selected/highlighted as you see here, then click this button. It is the Duplicate Selected Report button. Pick the location where you want the
report, I will just throw it into my standard Reports folder. Then click OK. Now you have to find the report in the folder where you just placed it, and you can now double click to open it.

Duplicating reports is a trick that us here at PetPoint would love for everyone to do consistently before you change a report from a working state. Say you have a report, or a document, or a kennel card and it works and you want to upgrade it with a new feature. If you take that original report and make changes, and those changes cause problems like an error when you run the report, or all sorts of extra animals to show that aren’t supposed to be on it, you will wish you had duplicated it. It’s also a good idea to duplicate a working report into the Read Only folder. This way, you will always have a copy, even if say, a new person who is exploring the builders, goes in and changes all of the reports and hoses all of your hard work. I can only emphasize this so much but let me end with saying I HAVE BEEN THERE! Sometimes you put hours into these reports only to lose your work and that is going to be a bad day.
There are options here. But, most of the reports we will talk about today don’t need any modifications on your side to match your setup. As long as you are using the pieces we are reporting on, you will be able to generate some data.

So let’s start out by talking about some of the building blocks you have at your disposal to get this report in a format that you like. We are going to look at the filters, prompt for value options and filter execution window options.

If you have worked in reports before, you know about filters.

This report has three filters.
Animal Type - we have it set at Cat.
Medical Condition.Condition - we are running this report to query URI data. You can pick another condition here, just type it in exactly here, or copy/paste from the PetPoint window.
And finally Medical Condition Onset Date - The date range that you run the report for is going to change your averages greatly. I chose for you the option of the first day of this year through today. Update that for your self either by typing a date in directly or using this handy dandy formula button to pick the date for you. This is great because it will update itself each year going forward to start at the beginning of the year.

These filters are all preset, and do not prompt you when you run the report. What do I mean by that? Watch as set one to prompt, then generate the report. It just asks you to confirm or change what is in the filter before it shows you the report output. I
will go ahead and set this to prompt for the condition and date so you can see how that appears once I generate the report.

Now, I want to show you another option, if this doesn’t suit you. I like this other option a lot. I like it because I think about those people who aren’t familiar with report builders and need to run a report and I want to make things easier on them. There is something called a simple filter execution window. It’s found on the Options menu selection. Standard and Default refer to the full filter window, what we were looking at a moment ago. But there is another good simple option. Let’s see it.

This one is called simple without operator. I can pick a different condition or a different date and run the report. I don’t have access to add or remove filters, or change their operator, basically this middle column here. Generally, once you have a report you like the only thing you would want to change is the value, so that is why this makes it easy on you.
Go ahead and run this report on your own screen. I am going to start by pointing out some things on the slideshow for the report.

**END ON SCREEN DEMO**

Use this report to show things like URI to Recovery/Kennel Cough to Recovery - you can easily see that date difference in the final column. You pick the illness you want to show in the filter, like we saw a moment ago.

It can be used to predict how long it will take for animals to recover once they have come down with the selected illness. It takes into account all instances of this condition in your database and the dates surrounding them.
I think you will like the very last line on the report, where the Average, Min, Max, Median and Mode calculations happen.

**Average** is a very helpful number, and probably the quickest thing someone will ask for when getting a feel for your data. But the other numbers might tell the same story in a better way. Average can be greatly affected by an outlier. A quick or very long recovery.

So we have also included the **minimum** - why don’t we check that animal’s record to see what was different about them. The animal number is right here on the page.

The **maximum** is shown too, and as an important note we have built this report to calculate animals that are still here and not recovered in this report but we count up until today.
The **Median** number, in case it has been a while since you have heard that term, is defined as the number that is directly in the middle of the data set. The average is sometimes a number that isn’t even in the data set, like a fraction. But a median is the number that splits the data into the top and the bottom groups of numbers, the top arch of a bell curve. This might just be the number you are looking for if average has been skewed by those outliers.

And finally the **mode** is the number that is repeated most frequently in the data set, if most animals recover in 10 days time, you will see a ten as the mode.
OK, so I will bring this slide up again so we can see where the data has come from.
Where is the data?

- Conditions Tab - Medical Record
  - Condition
  - Onset Date/Time
    - Not Diagnosed Date/Time
  - Resolution Date/Time
Ok, now that we are familiar with the report itself, and where the information came from, let’s look at the design view and break down what the formulas mean.

The sections you see here on the left hand side are the Page Header, which just contains title and label information.

In the body or “Detail” section of the report you see mostly just data in a list with one formula. It is in a list format, where each animal that meets the filter requirements appears as a line in the report.
There is one formula here, you can open the cell by double clicking. Even better though, if you want to alter the formula or just see it in a way that will be easier to look at and understand, I always prefer the formula editor for that. You just click the cell, then click the fx button to open the Formula Editor window.
There are some great tools in this window, not to mention the color coding of the formula itself. For example, if you have an extra parenthesis it will turn red.

You can add new fields into the formula from the Select Fields list,
or pick from one of the many functions such as the Date Difference function we have used in this formula. No need to have them all memorized, they are right here.
This particular formula tells the report for each line or row of animal information, in this spot we would like to calculate the Date Difference between the onset and the resolution date, but if there is no resolution date (that’s the If Is Blank part at the beginning) then just calculate the date difference between the onset and today. This is a choice we had to make with this report, and our options were to calculate to today or leave those animals that have an unresolved condition off the list completely. If we wanted to update the formula to leave those animals off, we would just update this formula to NOT have the If Is Blank part.
Here is the really neat part. Take a look at this report footer, we have several calculations happening down there based on the answers provided by the formula...
...we used the premade functions included in the builders to get the numbers from the date difference column calculated in several different ways.

I am going to walk you through and take a look at each of the formulas we used.

ON SCREEN DEMO

Again, use the formula editor, remember click the cell then the little fx button.

The first one is the total, so we use Aggregate Sum and then reference the cell where the date difference formula is, K4

The second is the Aggregate Average of the date differences.

Then we have the Minimum, the Maximum and then the final two are the Median and Mode.

The Median and mode functions are a little bit different in the way they need to be applied. I am going to preface this by saying no need to memorize this. We have a video in our online help guide that walks you through the two easy step process. But basically we have a suppressed row in the footer where the Calculate Median and Calculate Mode functions are, with the cell reference to F4 as we saw before. Then
the function itself, all by itself, goes in the spot where you want the results shown.

Also, suppressing rows can come in handy when the report may need to just show the calculations instead of the individual animal numbers, similar to how the Reports Website has summary or detail view. So take a look when I run this report with the detail rows all suppressed.

END ON SCREEN DEMO
Average Length of Illness

- The report footer has a number of different calculations based on the contents of the date difference cell, K4.
- Used the included formulas to calculate the bottom row of numbers.
Average Length of Illness

- The report footer has a number of different calculations based on the contents of the date difference cell, K4.
- Used the included formulas to calculate the bottom row of numbers.
- Median and Mode calculations need two steps.
  1. Calculate in a suppressed row in the detail section of the report, use the function and reference the cell with the date difference.
  2. Then put the function (referencing nothing) in the spot where you want it to appear!

- More information is found in Online Help
  - video walkthrough!
So let’s wrap up, why might you use this report? Why do you care about this information?

Does the transport coming from Animal Control get URI at a higher rate due to stress, and if so how can we plan kennel space using this information.

Was the opportunity cost for treating the animals that had ringworm last year too high?

Do we tend to see a lot more long lasting illnesses during a period of time out of the year that we have to prepare for in terms of staff and space?
Let’s use another method to find our next report. We are going to search the reports in your database. Hopefully, by the time you go home, you will have the tools and information you need to make enough reports that you need a search to find the one you want.

Search by the keyword “illness”, the search option will search for keywords/phrases in the report name or in the description.

There in the search results you will see the Average Length of Illness that we just worked on, and the other report in the samples folder is the next report we need to duplicate and run. Notice that you can also read the description from this window. Again, you are welcome to just run it if you want to take a look but you can’t open a read only report in the design view. I will give you a moment to do that. (pause).
Let’s use another method to find our next report. We are going to search the reports in your database. Hopefully, by the time you go home, you will have the tools and information you need to make enough reports that you need a search to find the one you want.

Search by the keyword “illness”, the search option will search for keywords/phrases in the report name or in the description. There in the search results you will see the Average Length of Illness that we just worked on, and the other report in the samples folder is the next report we need to duplicate and run. Notice that you can also read the description from this window. Again, you are welcome to just run it if you want to take a look but you can’t open a read only report in the design view. I will give you a moment to do that. (pause).
This is a pretty report with lots of information. There is a snippit of it on the screen, but your version should contain many more animals grouped by their conditions. It is not narrowed down to one specific illness, but you can do that if you would like to using the filters as we saw before. It also contains the same types of formulas as the previous report.

This report gives you a way to compare intake to onset, How quickly did the animal fall ill or was it sick when it came in?
Onset to Resolution - so the total length of the illness,
Onset to Outcome - did they have a long stay with you after becoming ill
Resolution to Outcome - How long after it’s issue was resolved did it take for this animal to be adopted/outcomed?

You can also see the outcome type, so you know was the animal adopted or euthanized, or any other outcome type.

Outcome Asilomar Status tells us if the animal was outcomed without the issue being resolved, and if so what was the asilomar status? This especially applies to issues that cannot be resolved, or that treatment continues at home with the adopter.
Back in the design view, notice these formulas are a bit more complicated. We had to account for what happens if the record is missing information. So we said If the Resolution Date or Outcome Date is missing, then show N/A or Still Here in the case of the asilomar column.
Most Frequent & Long Lasting Illnesses

- How does this report help you?
- Are most of your animals are sick when they come in or shortly after they arrive?
- Do you have adopters who will do the treatment at home?
- How long are these animals staying with you after they get well again?

<table>
<thead>
<tr>
<th>Animal #</th>
<th>Animal Type</th>
<th>Intake Type</th>
<th>Intake Date</th>
<th>Onset Date</th>
<th>Resolution Date</th>
<th>Onset-Resolution</th>
<th>Outcome Type</th>
<th>Outcome Date</th>
<th>Onset-Outcome</th>
<th>Resolution-Outcome</th>
<th>Outcome Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A16215201</td>
<td>Cat</td>
<td>Stray</td>
<td>8/31/14</td>
<td>9/1/14</td>
<td>9/12/14</td>
<td>1</td>
<td>10</td>
<td>Adoption</td>
<td>9/16/14</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>A16215202</td>
<td>Cat</td>
<td>Stray</td>
<td>8/30/14</td>
<td>8/30/14</td>
<td>9/9/14</td>
<td>0</td>
<td>10</td>
<td>N/A</td>
<td>9/18/14</td>
<td>17</td>
<td>N/A</td>
</tr>
<tr>
<td>A16215242</td>
<td>Cat</td>
<td>Stray</td>
<td>9/9/14</td>
<td>9/10/14</td>
<td>N/A</td>
<td>0</td>
<td>N/A</td>
<td>Adoption</td>
<td>9/18/14</td>
<td>11</td>
<td>N/A</td>
</tr>
<tr>
<td>A16215203</td>
<td>Cat</td>
<td>Stray</td>
<td>9/2/14</td>
<td>9/3/14</td>
<td>9/11/14</td>
<td>0</td>
<td>8</td>
<td>N/A</td>
<td>9/16/14</td>
<td>13</td>
<td>N/A</td>
</tr>
<tr>
<td>A16215219</td>
<td>Cat</td>
<td>Stray</td>
<td>9/4/14</td>
<td>9/5/14</td>
<td>9/9/14</td>
<td>0</td>
<td>8</td>
<td>N/A</td>
<td>9/16/14</td>
<td>10</td>
<td>N/A</td>
</tr>
<tr>
<td>A16215206</td>
<td>Cat</td>
<td>Stray</td>
<td>7/22/14</td>
<td>8/1/14</td>
<td>8/16/14</td>
<td>9</td>
<td>15</td>
<td>Adoption</td>
<td>9/14/14</td>
<td>46</td>
<td>N/A</td>
</tr>
<tr>
<td>A16215236</td>
<td>Cat</td>
<td>Stray</td>
<td>8/1/14</td>
<td>8/5/14</td>
<td>8/10/14</td>
<td>4</td>
<td>4</td>
<td>Adoption</td>
<td>9/14/14</td>
<td>40</td>
<td>35</td>
</tr>
</tbody>
</table>

total animals: 7  average length: 2 9 21 20
So on top of the Condition data, this report pulls information from the animal record and intake and outcome records too. Here is where that asilomar status drop down menu is, remember it is only required for your database if you have made it required in the setup screen Add/Edit Asilomar. Everything else, though, is required.
Take a moment to locate this report in the samples folder, and duplicate it into your database, we will need to make some updates for it to work for your organization.

Really neat report. Pretty and colorful, simple too. It’s got a great description, which you can read, but basically it takes a look at the medications given and the length of time it takes for them to effectively treat the animal. It is a way to judge which of your standard protocols works best for that particular illness. The key to data showing on this report is that it is a standard protocol, so it does not take into account situations where a medication was changed because it wasn’t working. Those animals are left off of the report entirely.
So go to Report Options, Filters. Take a look at the filters as we provided them to you, you are welcome to change them, but the ones that we HAVE to change are Medical: Treatment. Treatment options. You have your own medication names and your own protocols you would like to show in this report. Remember, the best way is to copy and paste the name from somewhere within PetPoint (like the Add/Edit Items screen), rather than type it in.

Also, if you have named the condition something else, like Resp or Upper Resp, or anything else, you will need to update that too.
Here’s what we are showing you: Length until resolution - initial treatment medication date, cross referenced against the condition resolution date.

Think of all of the different ways you could use this information, not just for URI.

Kennel Cough
Coccidia
Giardia
Ear Infection
Ring Worm
Mange
### Where is the data?

**Treatments Tab**

#### Scheduled & Pending Treatments

<table>
<thead>
<tr>
<th>Treatment Type/Treatment</th>
<th>Record/Status</th>
<th>Status Date/Time</th>
<th>Provider</th>
<th>Assistant</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication</td>
<td></td>
<td></td>
<td>Melissa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleavage Drops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment Type</th>
<th>Treatment</th>
<th>Dose</th>
<th>Body Part</th>
<th>Route</th>
<th>Review Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication</td>
<td>Cleavage Drops</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Method</th>
<th>How Often</th>
<th>Frequency</th>
<th>Time of Day</th>
<th>Duration</th>
<th>Treatments Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>As-Needed</td>
<td>1</td>
<td></td>
<td>10 Days</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cleavage Drops</td>
</tr>
</tbody>
</table>

**PetPoint**

**Chicago 2014 Summit**
Our Next Report:
This Month’s diagnoses- is a super simple report with a chart on it. This example is great for any group that uses the medical Conditions tab to track diagnoses, regardless of if you go back to enter the resolution date or not. It is filtered by the onset date that was one month ago. Remember you can change those filters so if you don’t use onset date or if you want a wider or shorter range of time, those are completely up to you once you duplicate it into your database.

You are welcome to use it however you see fit, it is in the samples folder

However the real reason for showing you this report is for us to walk through to see just how easy it is to schedule a report to be emailed out, and also how to create a dashboard that could be made to appear any time the report builder is open on a computer. Both ways to make the vet’s ever busy day easier.

ON SCREEN DEMONSTRATION
**Schedule a report** - this is great for regular reporting either within your department or even outside reporting needs. Or even just to make your morning go a little smoother, so your day’s reports are in your inbox when you sit down rather than having to go run them. (demo)

Step 1 Click Schedule Report (green plus sign)
Step 2 Recurrence Tab: schedule name: weekly conditions, export type pdf, schedule time 5 am, weekly for 1 year.
Step 3 Filters Tab: Filters are left as is, must be selected for that report, can’t prompt for filters because obvious reasons.
Step 4 Recipients Tab: enter email addresses, and GO.

**Edit a Scheduled Report** - here is where you check when reports have been sent and remove scheduled reports, etc.
Dashboard Options:
Dashboards are great because you can open your report builder and have it appear, and it can contain any number of report options. Very easy to build a dashboard.

**Create new dashboard** -
Step 1 click new then create a new dashboard report.
Step 2 Add text, mention you can also add pics, websites such as a favorite vet or shelter news page
Step 3 Add report, drag to fill space.
Step 4 Save report with a name
Step 5 Report tools button in top right corner
Step 6 Add your dashboard to startup reports
Step 7 Leave Report Builder then open it again.
Need more help?

- If you signed up for a Builder Lab!
- Grill your Guru!
- Check online help!
- Reach out to your PetPoint Enterprise Representative.
- Network with one another, we can move built reports (and documents and kennel cards) between databases at the request of an administrator. Support > Contact Us!
- Check out our other Sample Reports!
Be a Medical Maverick!

Thank you for attending! Join us later for:

- **10:15am** Process Precision
- **11:30am** Lunch!
- **1:00pm** Tangible Tricks
- **2:30pm** Featured Functionality-Clinic
- **4:00pm** Featured Functionality-Enterprise
- **5:15pm** Closing Session