

ePACT2 Overview Course

Participants Guide



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ePACT2 Essentials

What is ePACT2?

ePACT2 is an online application which gives authorised users access to prescription data. You can access online analyses of prescribing data held by NHS Prescription Services. Data is available six weeks after the dispensing month.

ePACT2 has high level functionality including the ability to:

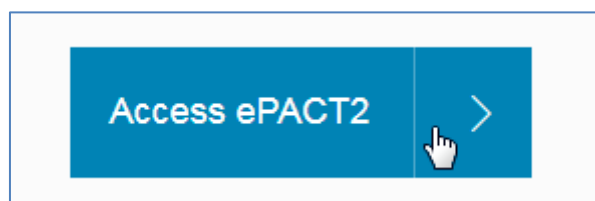
- interrogate prescription data in ways not been possible before
- easily create data visualisation using interactive reports and dashboards
- look at high level data summaries down to individual prescription item detail
- export the data from reports and dashboards
- access to whole country data
- view patterns of prescribing at patient level

ePACT2 provides easy-to-use analysis, reports and dashboards. You don't need an N3 connection as you can access the system with an internet connection.

Our website contains useful information about understanding ePACT2 data, dashboard specifications and getting more training support and it can be found at <https://www.nhsbsa.nhs.uk/epact2>

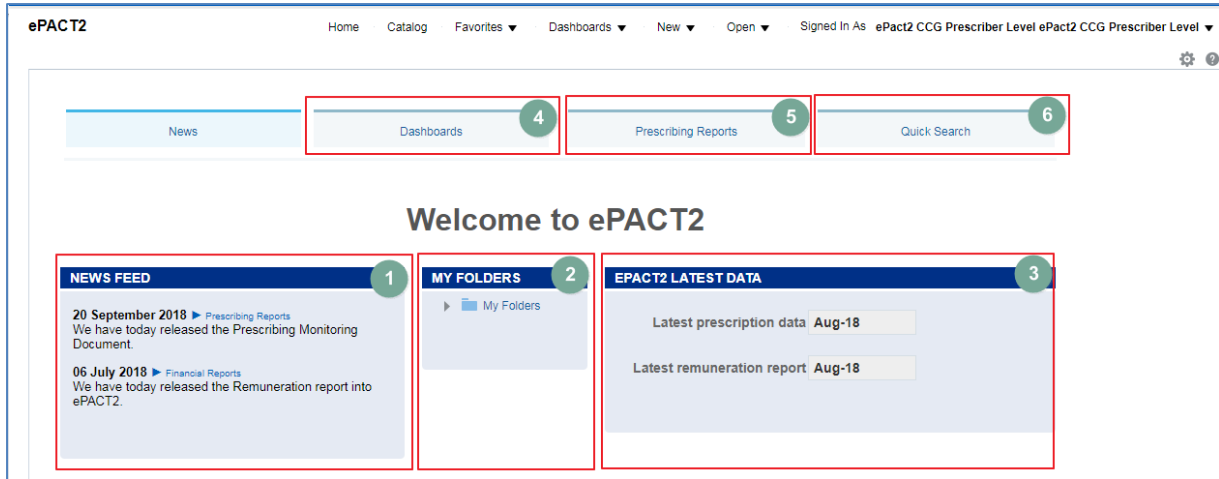
Accessing ePACT2

Many users save a link to the ePACT2 portal in their internet browser but you can also always find an up-to-date link on our website: <https://www.nhsbsa.nhs.uk/epact2>



ePACT2 Landing Page

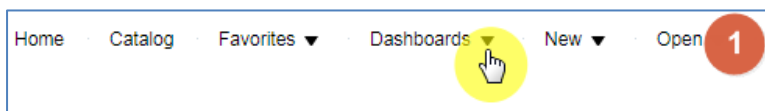
When you sign into ePACT2 you will be taken to the Landing page, the landing page enables you to quickly select the part of the system you would like to view:



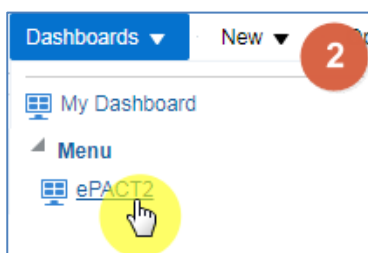
1) News feed	The News feed will display the latest news for ePACT2, it will keep you up to date when new reports are released.
2) My Folders	You can navigate to your saved content from the 'My Folders' section.
3) ePACT2 Latest Data	This section informs you the latest month's data that is in the system, and the latest month's remuneration report.
4) Dashboards	You can select this tab to view all available dashboards.
5) Prescribing Reports	You can select this tab to view all available prescribing reports.
6) Quick Search	You can select this tab to run a 'Quick Search' analysis.

If you wish to navigate back to the landing page after you have viewed other ePACT2 content complete the following steps:

- From the 'ePACT2' toolbar select 'Dashboards'

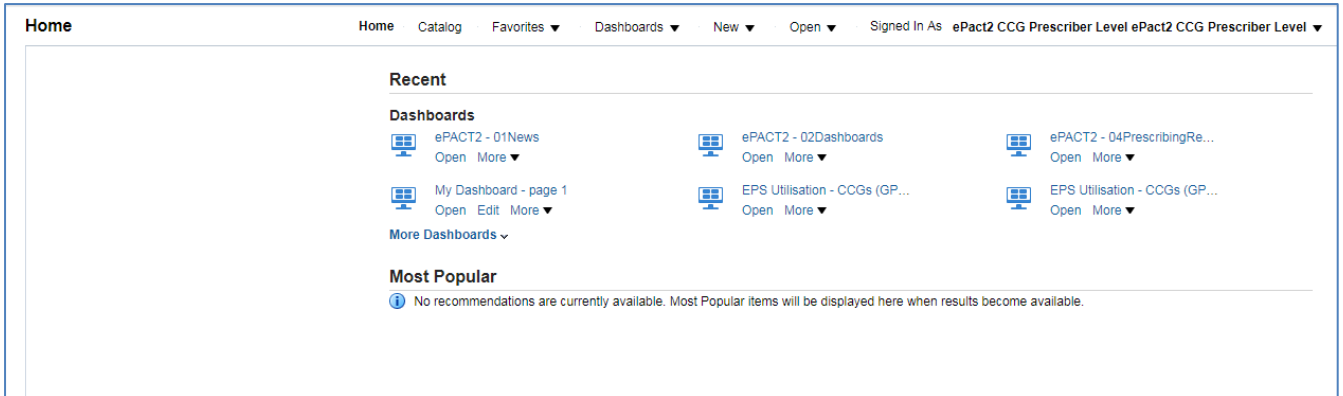


- From the available list select 'ePACT2'



Understanding the Home Page

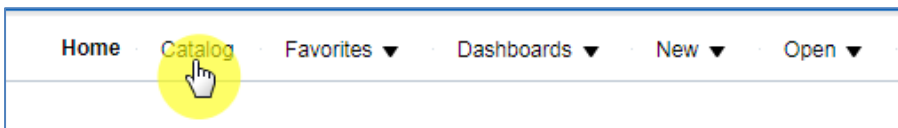
If you select the 'Home' icon from the 'ePACT2' toolbar you will be taken to the system homepage:



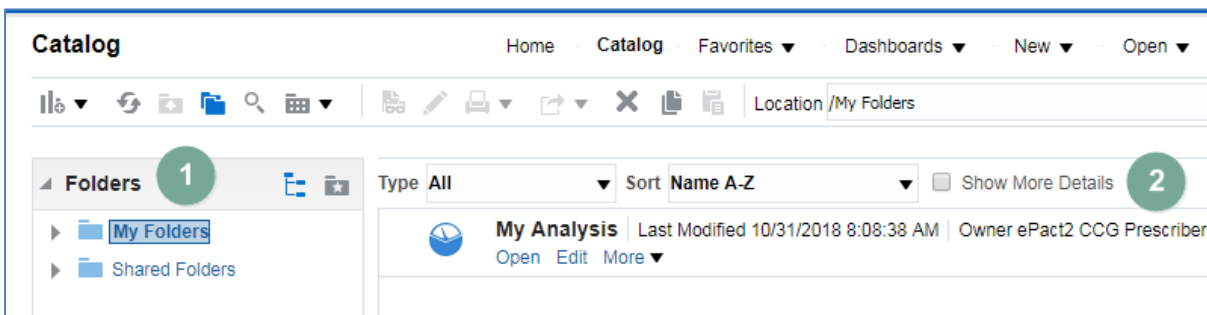
The system home page will display the most recently accessed dashboards.

Using the Catalog

To navigate to the 'Catalog' select the 'Catalog' icon from the toolbar:



You will then navigate to the ePACT2 Catalogue



1. Folders	Displays the available folders to open content from
2. Folder contents	When you click on a folder to highlight, the middle pane will show the content of that folder

There are two folders within the 'Catalog'

My Folders

The My Folder will contain all saved content for your account, this will include analysis, saved filters, saved groups and saved columns. The 'My Folder' works in the same way as the file structures on your PC you can create, delete and amend sub folders.

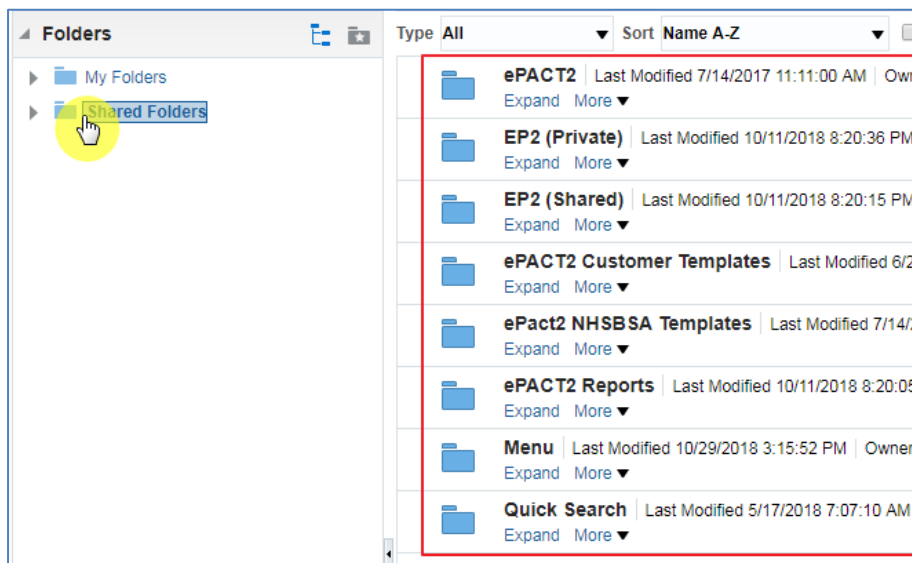
Shared Folders

The Shared Folders contains content created by the NHSBSA such as pre-set filters and prompt these can be found in the following folders:

- ePACT2
- Menu

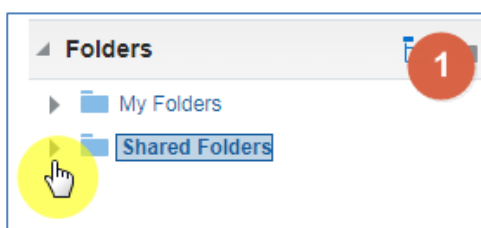
View folder content

To view the content of a folder, click on the folder to highlight, in the middle pane you will then see the content of that folder, such as analysis, filters and sub folders.

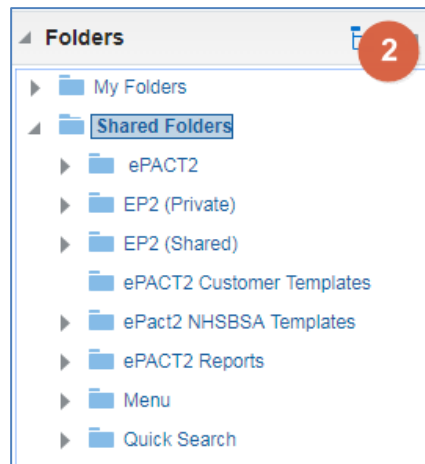


You can expand folders to view the content in two ways:

3. Select the drop down arrow next to the folder title

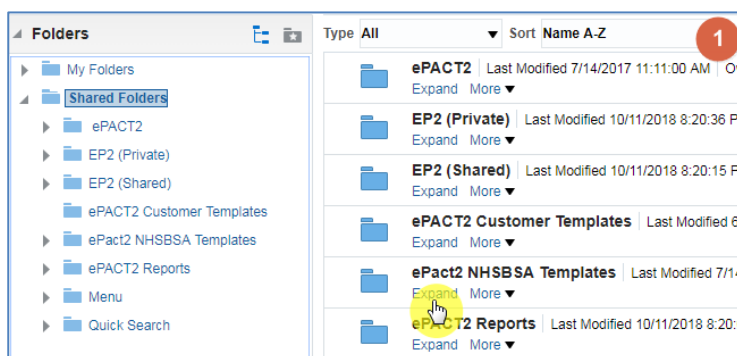


4. This will then display the sub folders available within that folder

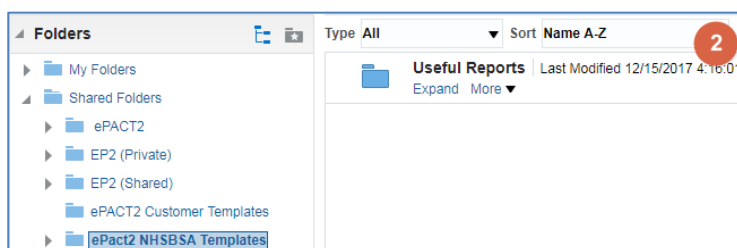


You can also open folders within the folder content pane:

1. Select 'Expand' beneath the folder you want to open



2. You will then be displayed with the folder contents:

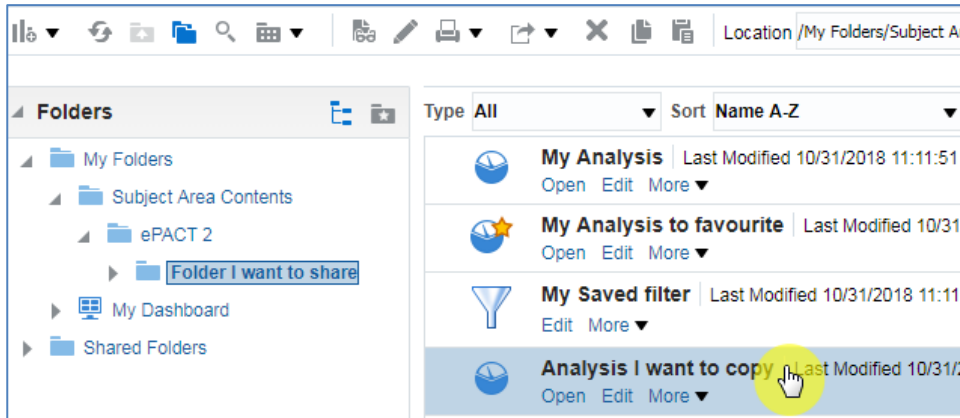


How to copy and paste content

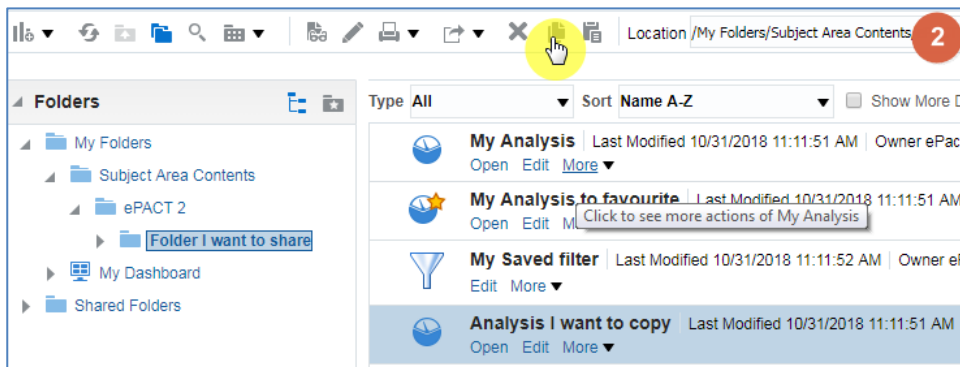
It is possible to copy content from any folder in the 'Catalog' and paste it within your own folder to save/ edit.

If you would like to copy any content, first locate the element you would like to copy, in this example I am copying an analysis, you will use the same function to copy any content, such as filter, save columns etc.

1. Highlight the content you want to copy by clicking on the content box:

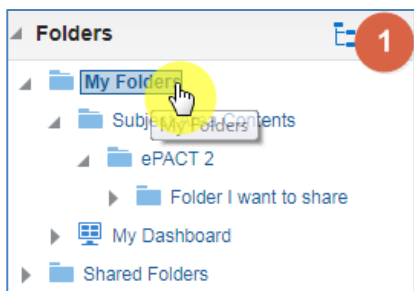


2. Select the copy icon from the 'Catalog' toolbar

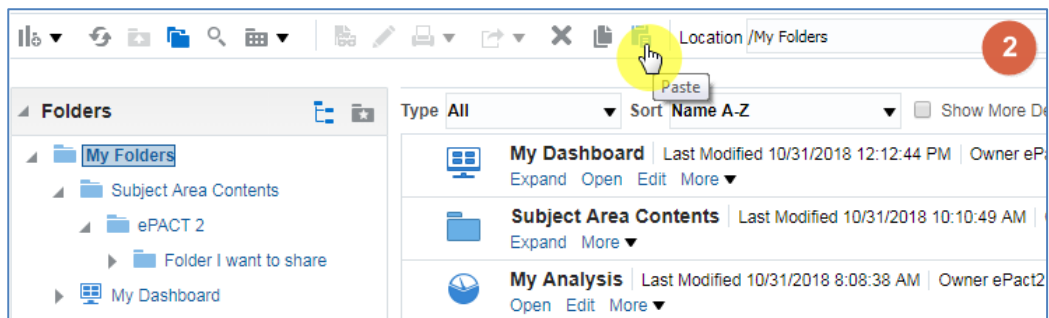


The analysis will now be copied, now locate the folder you want to paste the content into, in this example I am selecting 'My Folders'

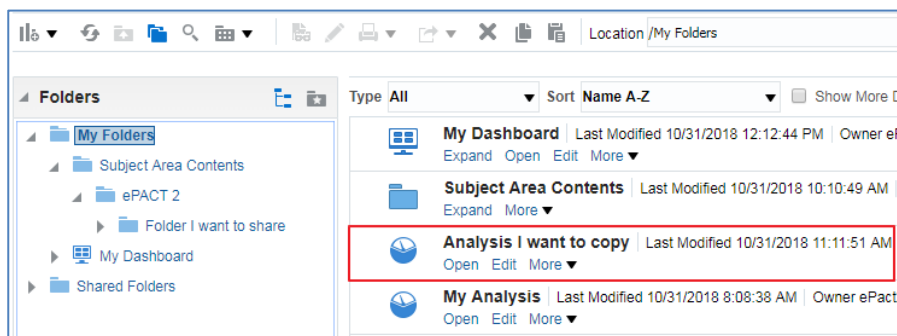
1. Select the folder you want to paste the copied content into



2. Select the paste icon from the 'Catalog' toolbar



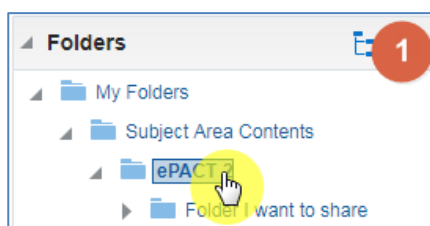
The pasted content will now appear in the folder you have selected:



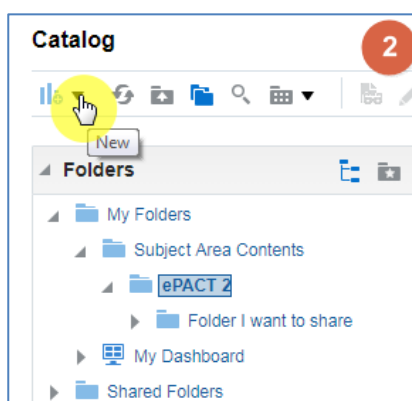
Create a new folder

To create a new folder first select the folder you want the folder to be created in, in this example I am choosing to create a new folder under the 'ePACT2' folder in 'My Folders':

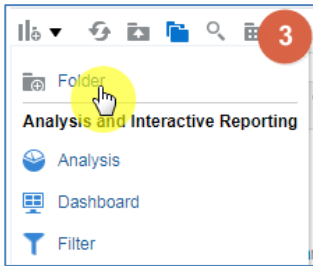
1. Select the location you want the new folder created in, click to highlight



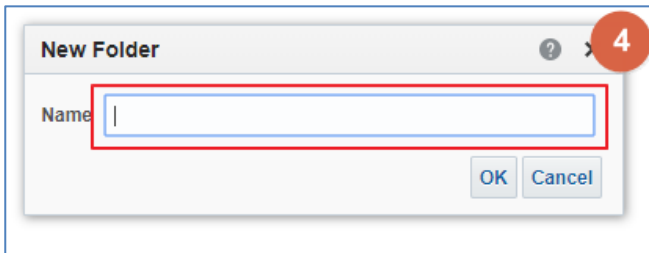
2. Using the 'Catalog' toolbar select the 'New' dropdown:



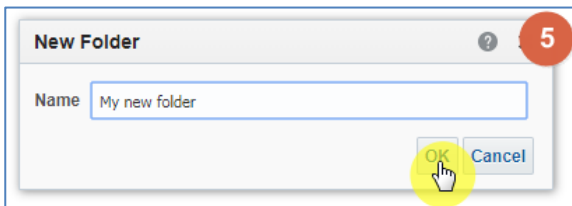
3. Select 'Folder'



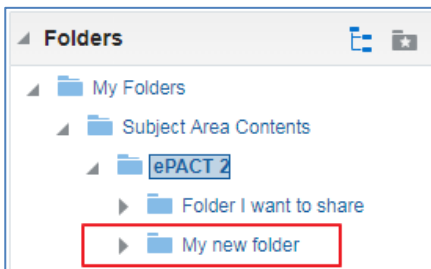
4. Give your new folder a name



5. Once named select 'OK'

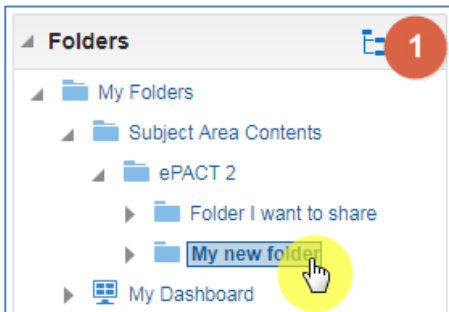


Your new folder will now be created:

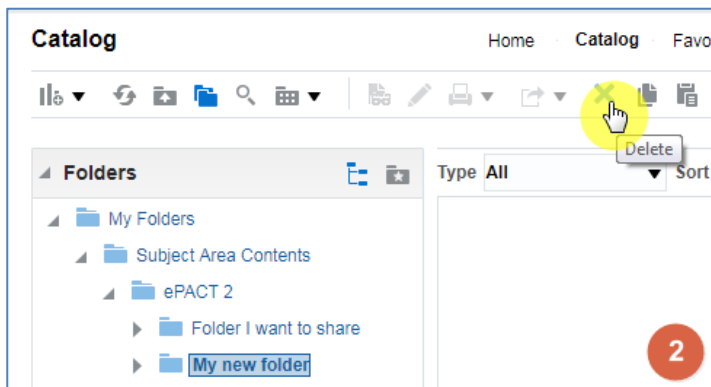


Delete folders/ folder content

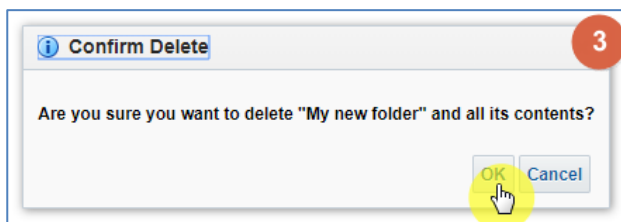
1. To delete a folder first select the folder you want to delete:



2. Using the 'Catalog' toolbar select 'Delete':



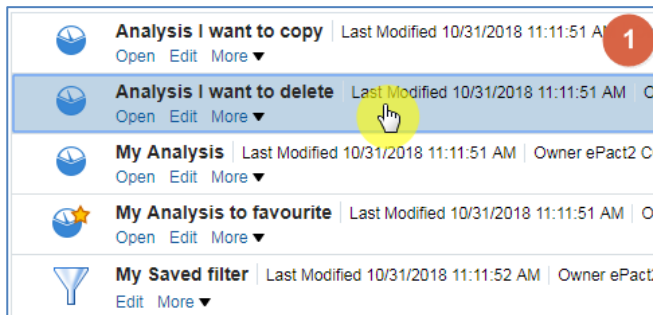
3. You will be prompted with the 'Confirm Delete' box, select 'OK' to action deletion:



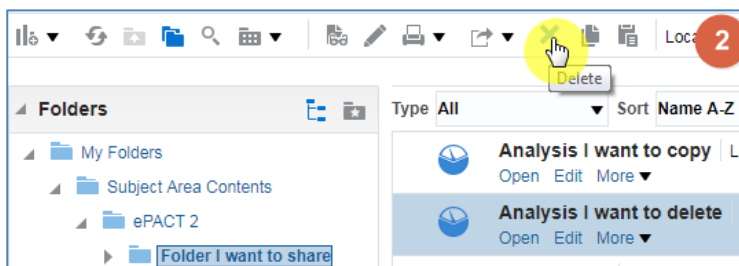
Be aware, when you delete a folder all of the contents will be deleted. It is not possible to retrieve deleted content!

To delete content of the folder:

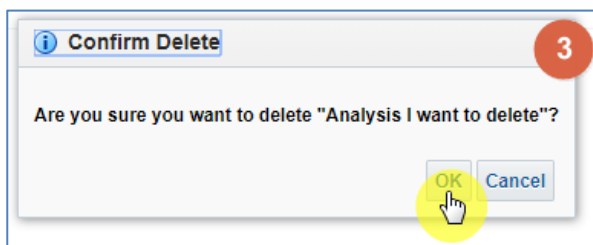
1. Select what you would like to delete:



2. Using the 'Catalog' toolbar select 'Delete'



3. Select OK to action deletion:



Be aware, when you delete content of a folder it is not possible to retrieve deleted content!

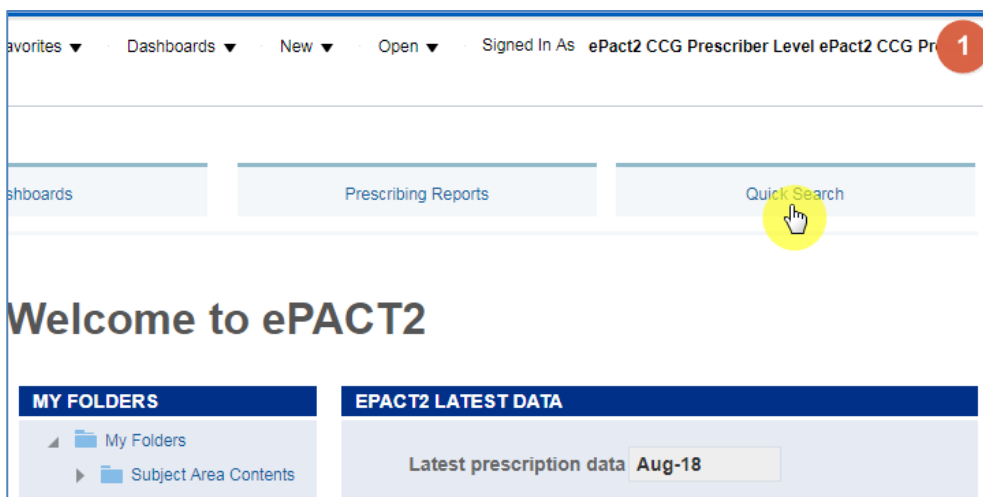
Quick Search

The Quick Search analysis is a standard report template and can be found via the landing page.

The report will allow you to quickly return data for a pre-set selection of fields. The report will be generated for any organisation or BNF level selected by you in the analysis prompts.

The additional benefit of the Quick Search is that you can see the BNF Hierarchy structure when selecting your products.


1. From the 'Landing page' select 'Quick Search'



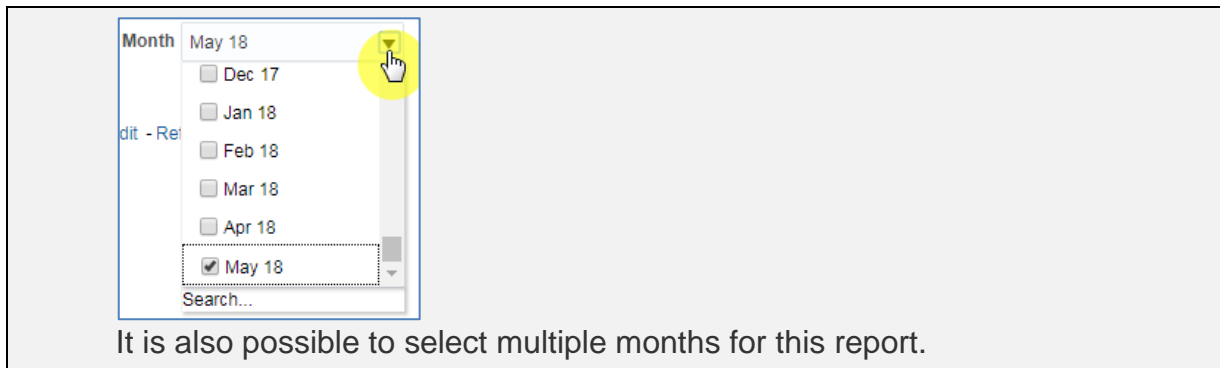
The 'Quick Search' will then open in a new tab, and you will be presented with the 'Quick Search' criteria pane:

1) Time period	Select the time periods you want the report to run for
2) Organisation	Select the organisation you want the report to run for
3) BNF	Select something from the BNF you want the report to run for

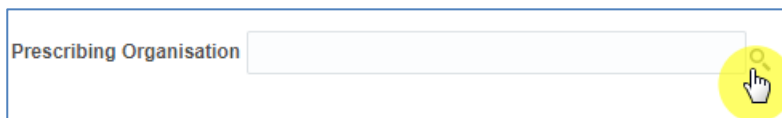
2. Leave the 'Month' as this will default to the most recent month in the system.



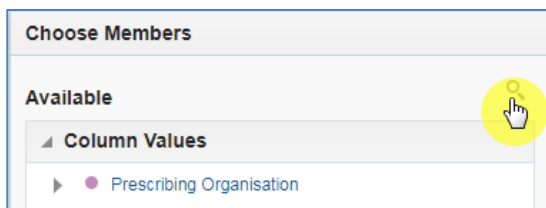
Other months can be selected by clicking on the drop down, this will display a list of available months



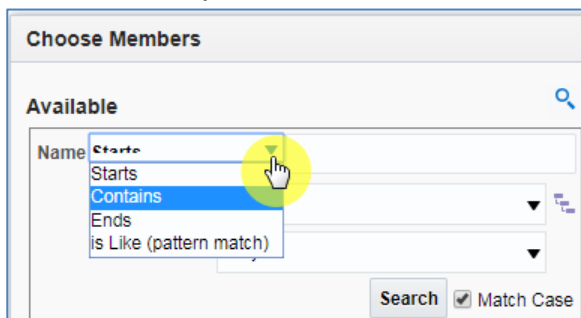
3. Select the magnifying glass icon next to the 'Prescribing Organisation' box



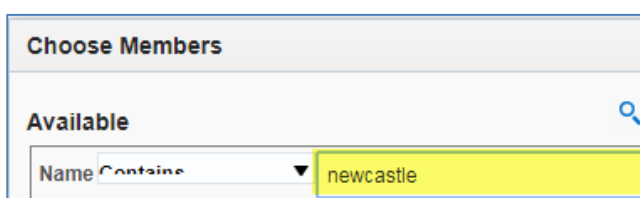
4. Now select the magnifying glass icon at the top of the 'Choose Members' box, this will bring up the search function.



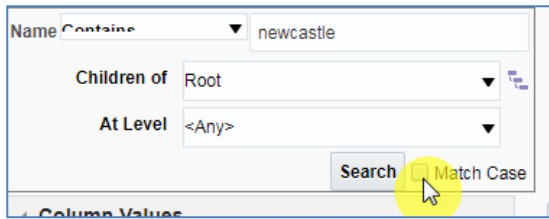
5. Select the drop down in the name box and change from 'Starts' to 'Contains'



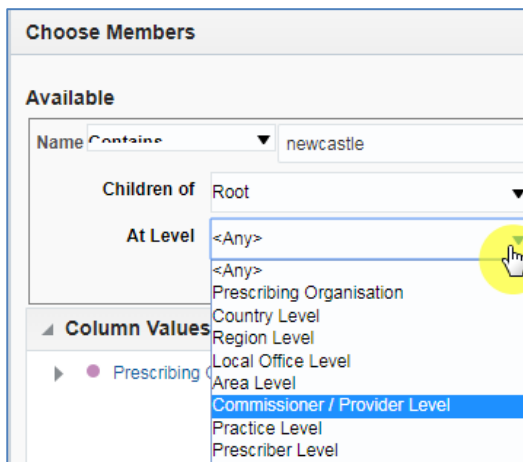
6. Type your organisation name into the 'Name' box



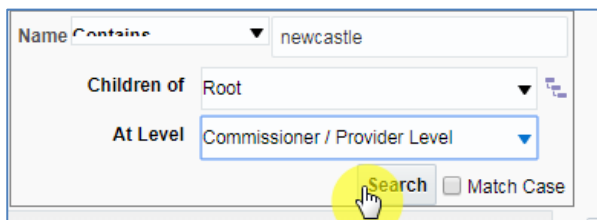
7. 'Match Case' will default to be un-ticked.



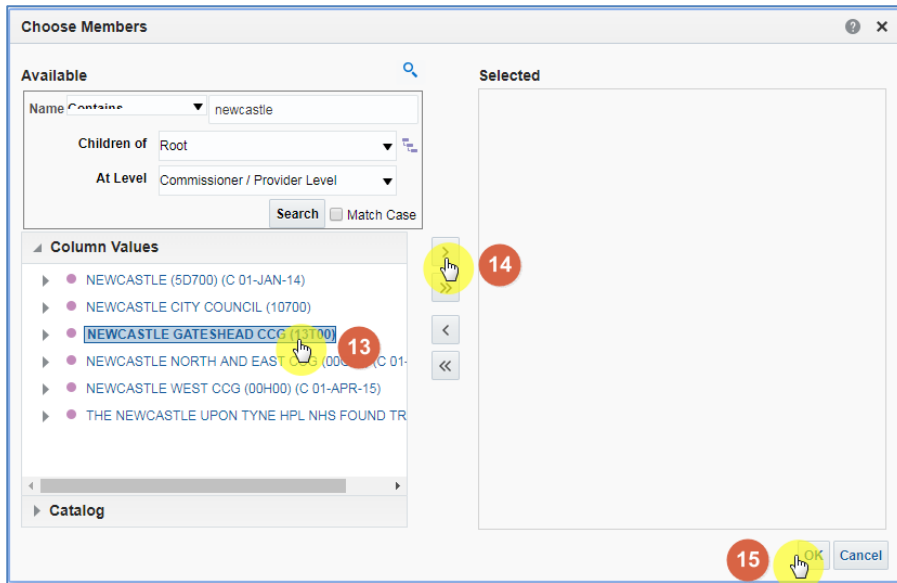
8. Select the drop down arrow of the 'At Level' box and select 'Commissioner / Provider', this will ensure your results are returned quicker, as the system is only looking for your organisation in this level.



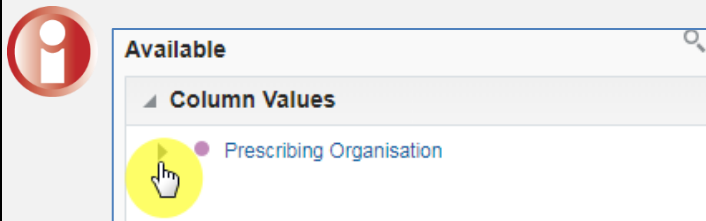
9. Select 'Search' to search for your organisation.



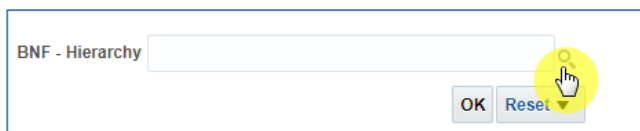
10. Click on your organisation.
11. Select the single arrow icon.
12. Select 'OK'.



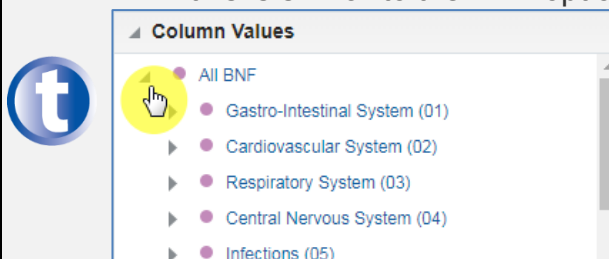
Alternatively you can navigate to your organisation by selecting on the drop down arrow titled 'Prescribing Organisation' and navigate down through the organisation structure



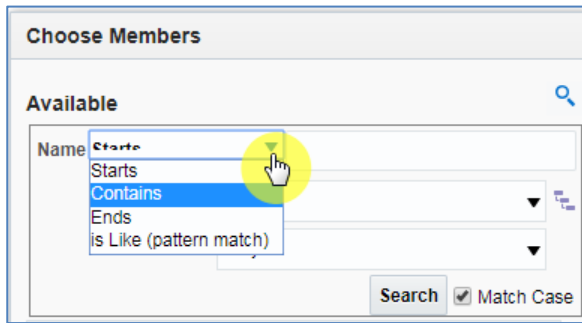
13. Select the magnifying glass for the 'BNF – Hierarchy' box



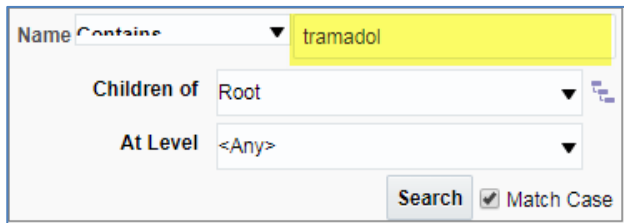
You can look through the BNF by selecting the drop down arrow titled 'All BNF' this is similar to the BNF option in ePACT.net



14. Select the drop down in the name box and change from 'Starts' to 'Contains'



15. Type the drug we are looking for (Tramadol) into the 'Name' box

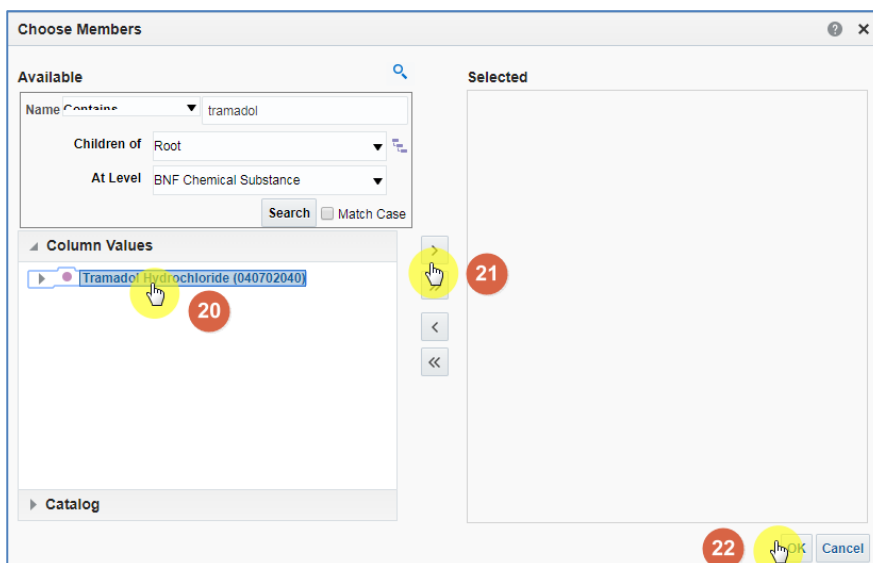


16. Change the 'At Level' to Chemical substance, un-tick 'Match Case' and click 'Search'



If you did not know the level of the product you are searching for, by leaving the 'At Level' box to 'Any' this would bring back every level of the BNF that contained the name your where searching.

17. Click on 'Tramadol Hydrochloride (040702040)'
 18. Select the single arrow, to move the item to 'Selected'
 19. Click on OK



20. Select OK, to run the analysis with the selected criteria

Quick Search

Month: May 18 Prescribing Organisation: NEWCASTLE GATESHEAD CCG (13T00) BNF - Hierarchy: Tramadol Hydrochloride (040702040)

Edit - Refresh OK Reset

Useful Reports

At the end of 2016 communications went out to all ePACT.net users, from the feedback received the NHSBSA recreated many of the templates that were available in the ePACT.net system in the form of the Useful Reports in ePACT2.

The useful reports similar to the Quick Search allow you to quickly return data for a pre-set selection of fields.

Dashboards

The system provides easy-to-use analysis, reports and dashboards, supporting patient safety, improving patient outcomes and medicines optimisation. Data contained within the system includes dashboards supporting the Medicine Value Programme such as:

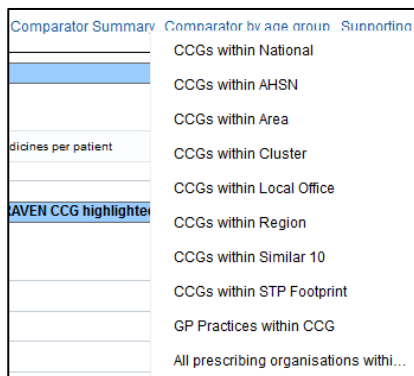
- Medicines Safety
- Medicines Optimisation: Polypharmacy
- Antimicrobial Stewardship
- Medicines Optimisation: Generic Prescribing
- Items which should not be routinely prescribed in primary care
- Electronic Prescribing Service Utilisation
- Volume & Cost
- Respiratory Prescribing

Detailed information and specifications of the dashboards are listed here:

<https://www.nhsbsa.nhs.uk/epact2/epact2-dashboardsspecifications>

Accessing and Navigating Exercise

1. Click the dashboards menu from the ePACT2 Landing Page and select 'Polypharmacy Prescribing Comparators'. The comparators will open to the first page.
2. Dashboards are navigated by means of pages. The various pages can be accessed by using the menu along the top of the dashboard.



3. Dashboards can also include prompts which permit the user to make selections for a number of pre-defined parameters. Selections made in those prompts will determine the data that is displayed. After making a selection, click the 'Apply' button to apply the selections made to the dashboard page.

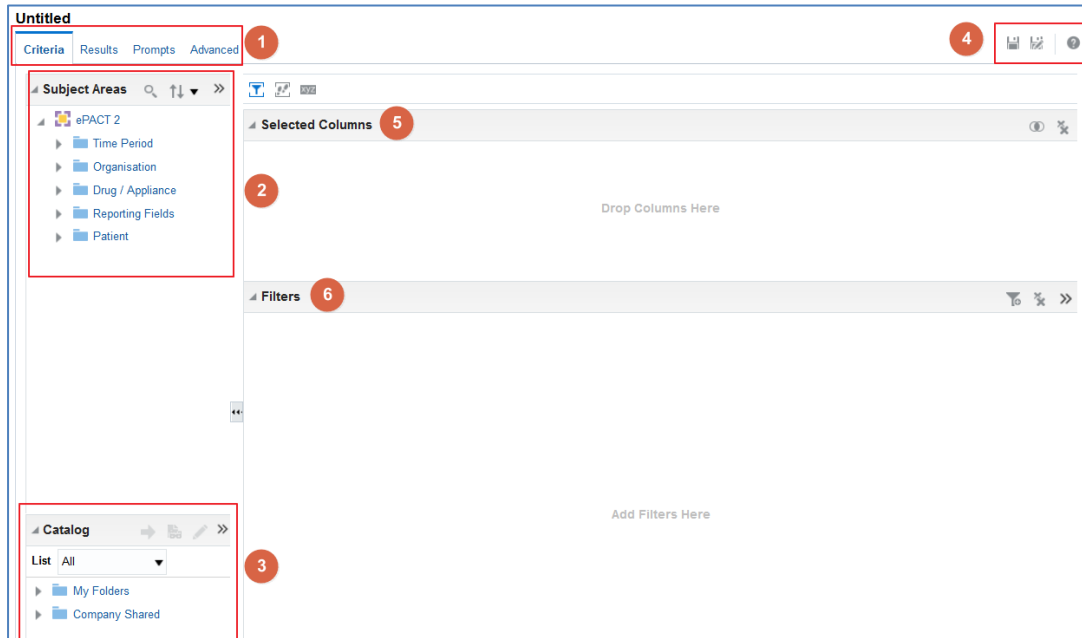
The image shows a 'Dashboard criteria selection' form with three dropdown menus and two buttons:

- * Select comparator: Average number of unique medicines per patient
- * Select month: 201703
- * Select CCG to highlight: AIREDALE, WHARFEDAILE AND CRAVEN CCG
- Buttons: Apply, Reset

4. Using the prompts on the Polypharmacy Prescribing Comparators: Comparator Summary – (CCG v National) page, find out the average number of unique medicines per patient for the latest month for your CCG (or a selected CCG).
5. Using the same page, find the percentage of patients with an anticholinergic burden score of 12 or more aged 85 or over in your CCG in February 2017.
6. Open the 'CCGs within Area' page from the 'Comparator by age group' option in the dashboard menu bar.
7. View the average number of unique medicines per patient in your CCG in November 2016 for each of the patient age groupings and see how this compares to other CCGs within the same NHS England Area.

Creating Analysis Reports

Analysis Screen



1	Links to the 'Criteria', 'Results', 'Prompts' and 'Advanced' pages	4	'Save' and 'Save As' options to save any analysis created
2	Subject Area containing the columns/fields available to select	5	'Selected Columns' pane displaying any columns included in the analysis
3	Catalogue pane allowing access to the 'My Folders' and 'Company Shared' folders	6	'Filters' pane displaying any filters attached to the analysis to limit the data returned

Basic Analysis

Demo 1 – Adding Columns, Filters and Viewing Results

You will learn how to create a basic analysis by adding columns to a report and applying filters to narrow the data down to what is required. You will then view the data the table format.

In this example, we will build an analysis to show the number of antidepressant drug items and the actual cost prescribed in April 2018 by every practice within Newcastle and Gateshead CCG.

Your results should look like this when we have completed the demo:

Practice 1

Criteria Results Prompts Advanced

Subject Areas

- ePACT 2
 - Time Period
 - Rolling 3 Months Dim
 - Organisation
 - Drug / Appliance
 - Various Attributes
 - Reporting Fields
 - Patient
 - ISP Patient
 - Patient Unit Weighted Multi
 - PAR Reports
 - BSA Logo
 - Pay Drug / Appliance

Catalog

List All

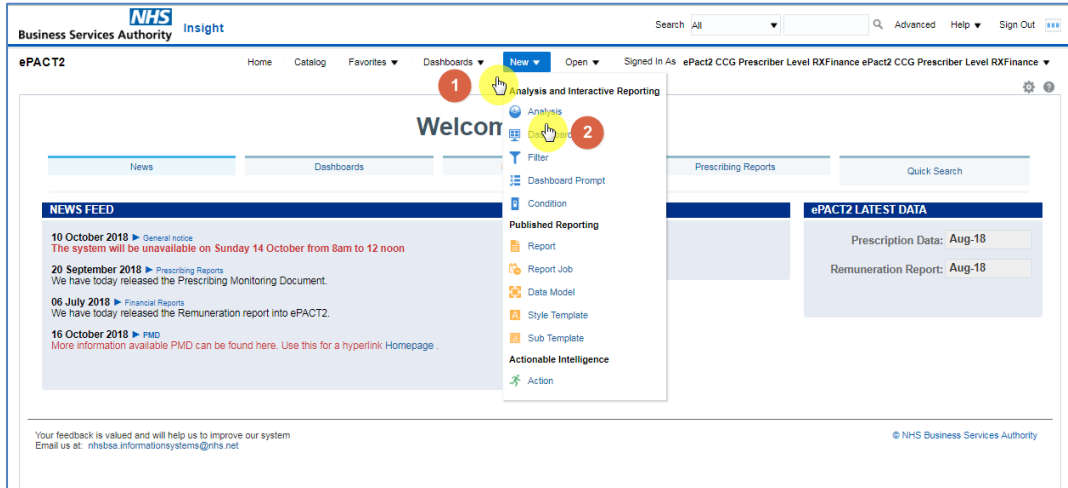
Compound Layout

Title Practice 1

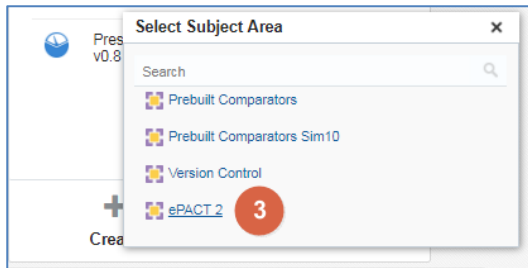
Table

Year Month	Practice plus Code	BNF Section	Items	Actual Cost
201804	OXFORD TCE & RAWLING RD MEDICAL GROUP (A85005)	Antidepressant Drugs	2,288	£ 8,882.24
201804	SAVILLE MEDICAL GROUP (A86003)	Antidepressant Drugs	1,588	£ 2,288.27
201804	BIRTLEY MEDICAL GROUP (A85006)	Antidepressant Drugs	2,877	£ 2,288.88
201804	THORNFIELD MEDICAL GROUP (A86029)	Antidepressant Drugs	2,888	£ 8,887.88
201804	WESTERHOPE MEDICAL GROUP (A86025)	Antidepressant Drugs	2,282	£ 2,288.88
201804	CRUDDAS PARK SURGERY (A86017)	Antidepressant Drugs	2,888	£ 2,288.28
201804	BETTS AVENUE MEDICAL GROUP (A86030)	Antidepressant Drugs	2,287	£ 8,882.88
201804	WHICKHAM COTTAGE MEDICAL CENTRE (A85020)	Antidepressant Drugs	1,887	£ 8,882.28
201804	HOLMSIDE MEDICAL GROUP (A86021)	Antidepressant Drugs	2,282	£ 8,882.28
201804	LONGRIGG MEDICAL CENTRE (A85004)	Antidepressant Drugs	1,887	£ 8,882.28
201804	CENTRAL GATESHEAD MEDICAL GROUP (A85019)	Antidepressant Drugs	1,288	£ 8,882.28
201804	WREKENTON MEDICAL GROUP (A85016)	Antidepressant Drugs	2,888	£ 8,882.78
201804	PARK MEDICAL GROUP (A86008)	Antidepressant Drugs	1,500	£ 8,882.88
201804	PROSPECT MEDICAL CENTRE (A86004)	Antidepressant Drugs	1,882	£ 2,288.78
201804	BENFIELD PARK MEDICAL GROUP (A86023)	Antidepressant Drugs	1,887	£ 8,882.88

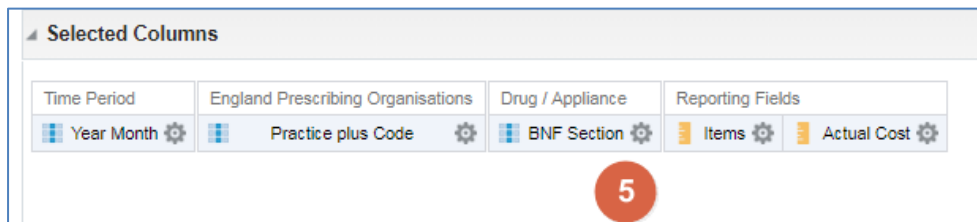
1. From the task bar at the top of any screen, select 'New'
2. In the drop down list presented select 'Analysis'



3. Select the Subject Area 'ePACT 2'



4. The analysis editor – Oracle BI Answers will open in a new internet tab
5. We will add the following columns:
 - Time Period – Year Month
 - Organisation – Practice plus Code
 - Drug / Appliance – BNF Section plus Code
 - Reporting Fields – Items
 - Reporting Fields – Actual Cost



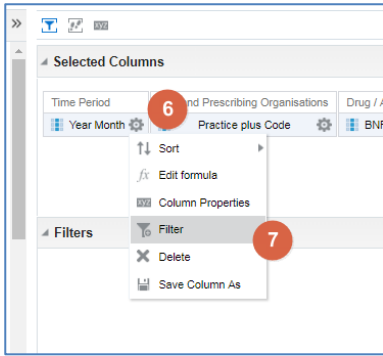
The quickest way to add columns into your analysis is to double click them from the Subject Area Folder listing



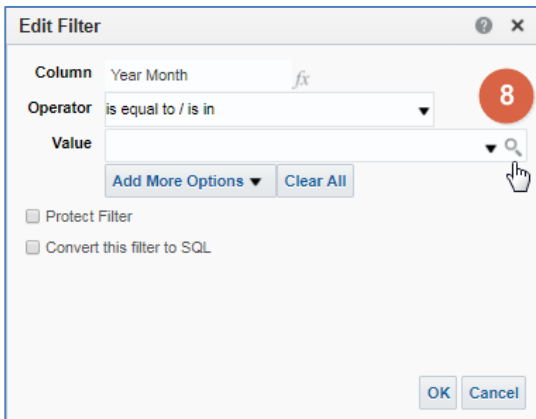
It is possible to re-arrange your columns in the Selected Columns area by dragging and dropping them

We will then apply filters to limit the report to results we want to see. Firstly, we will apply a filter to the Year Month column to so that only data from April 2018 is returned. To do so:

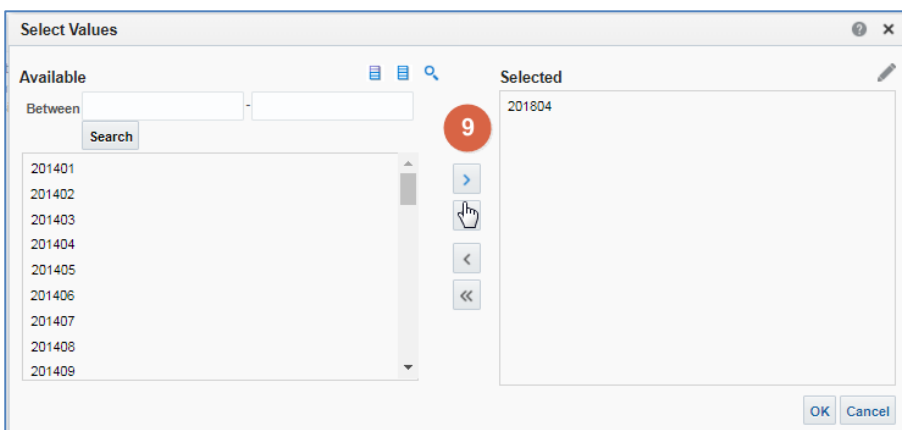
6. Click the Cog icon on the Year Month column



7. Then choose the Filter button.
8. Use the New Filter dialog box and click the small magnifying glass icon so that we can search for the time period we want to filter to – April 2018.



9. The Select Values box will open. You can either use the search boxes or scroll through a list of values to find what you would like to add to the filter. When you do find the value you require, select it by either double clicking or using the chevron arrow.



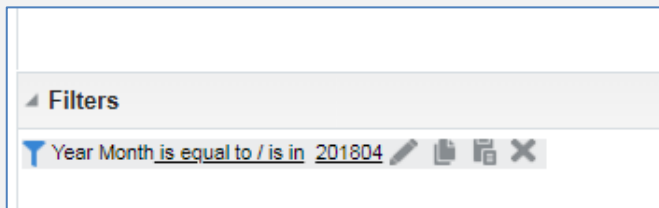
10. Click OK. The filter will be displayed in the Filters area

When you have added a filter you can:

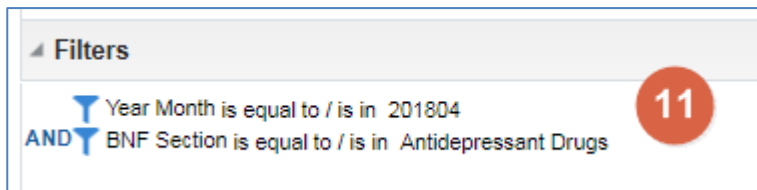
- Edit Filter
- Copy Filter
- Paste Filter
- Delete Filter



Using the buttons displayed next to the filters.

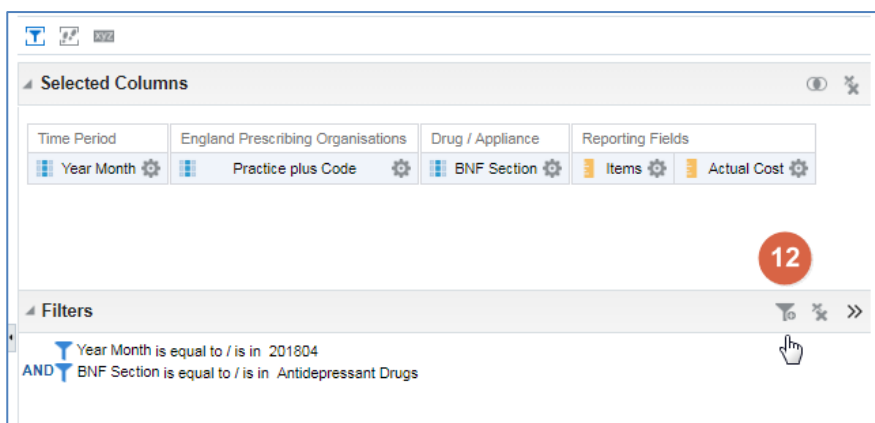


11. Apply another filter, this time to the BNF Section plus Code to limit results to only Antidepressant drugs. At this point you filters should look like:

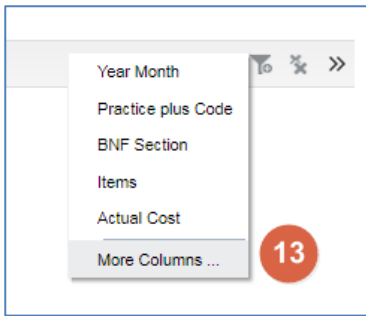


The final filter we will apply in this analysis is to restrict results to just Newcastle and Gateshead CCG. This will be done differently because we don't have the Commissioner / Provider column in our criteria.

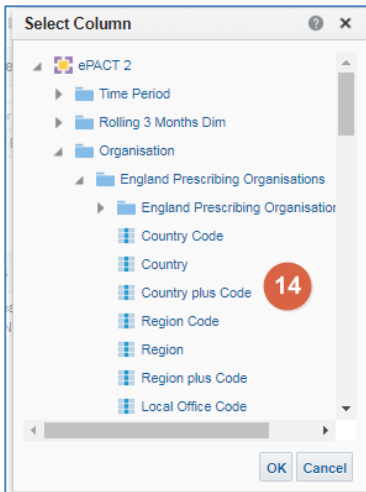
12. Click the Filter icon at the far right of the Filters pane.



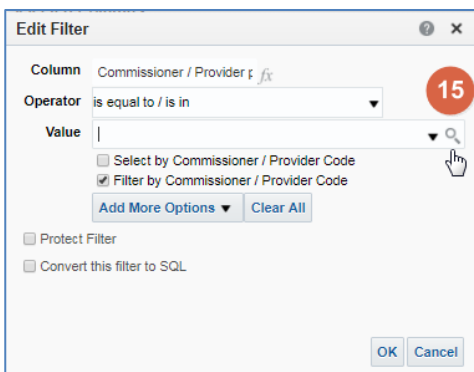
13. Choose the More Columns... option



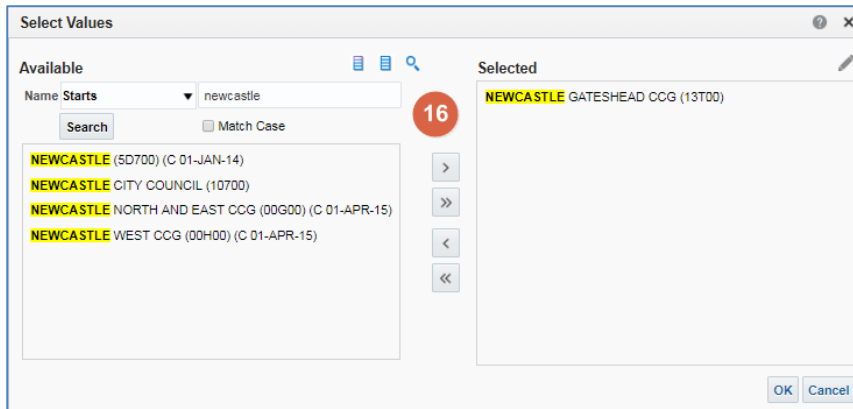
14. The Select Column dialog box will be open. This allows you to choose which columns we would like to filter on. In this example, choose Organisation > England Prescribing Organisation > Commissioner / Provider plus Code.




15. The New Filter dialog box will be displayed. Click the small magnifying glass icon so that we can search for Newcastle and Gateshead CCG.

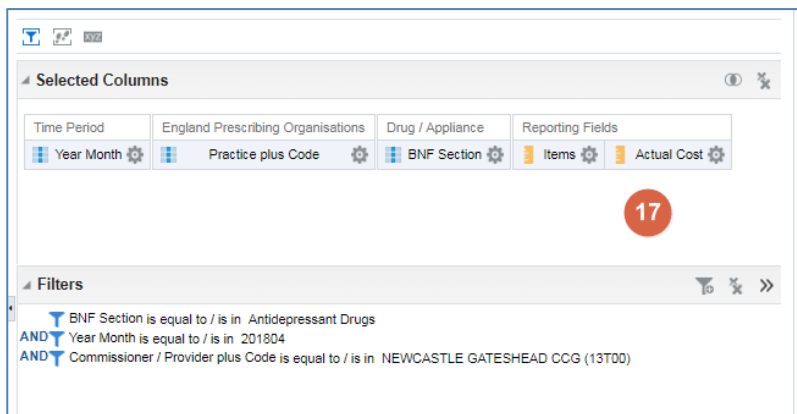


16. The Select Values box will open. Type the start of value you want to find, in this example Newcastle. Double click or use the arrows to select it. Click OK.

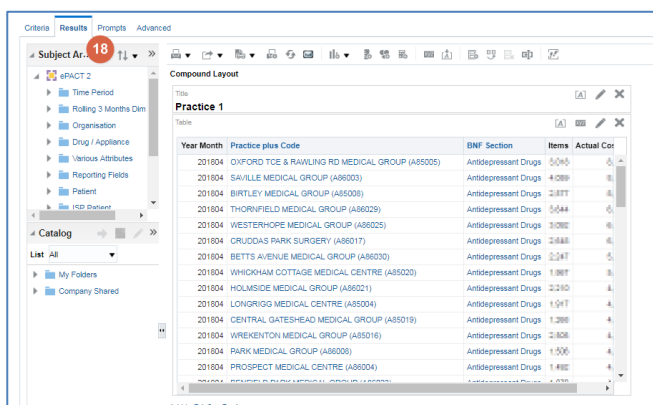


 Ensure you haven't ticked the Match Case option. This means you would have to use the correct capital letters when searching.

17. Your analysis should now look like:



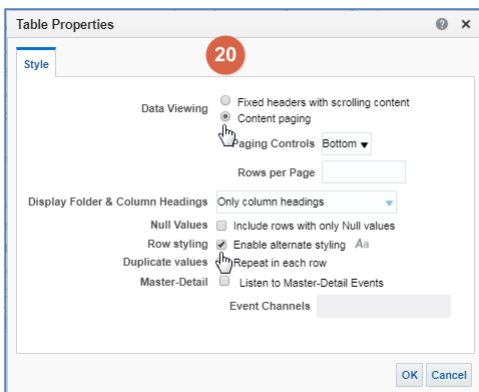
18. To view the report, click Results. This will display the default table view of the results.



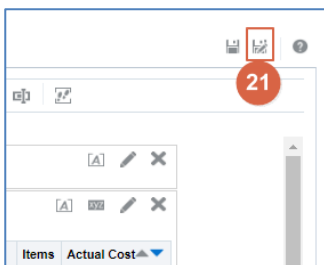
19. We will now tidy up the results using the View Properties xyz button. It is located just above your table of results

Year Month	Practice plus Code	BNF Section	Items	Cost
201804	OXFORD TCE & RAWLING RD MEDICAL GROUP (A85005)	Antidepressant Drugs	3,018	8,
201804	SAVILLE MEDICAL GROUP (A86003)	Antidepressant Drugs	4,059	8,
201804	BIRTLEY MEDICAL GROUP (A85008)	Antidepressant Drugs	2,877	8,
201804	THORNFIELD MEDICAL GROUP (A86029)	Antidepressant Drugs	3,644	6,
201804	WESTERHOPPE MEDICAL GROUP (A86005)	Antidepressant Drugs	2,800	6,

20. The Content paging option will help to ensure we can see all columns and stops too much data being displayed in rows. We could also set Row Styling to make the table easier to read. Once you have set your options, click OK.



21. Finally, we will save our report using the Save As button. Save it in your My Folders area and name it Demo 1. You can then close that tab and return to the Home Screen



Demo 2 – Using Time Period Measures and keeping filters after removing columns

In this example, we will continue from our previous analysis but look to see how we can edit, remove filters and use time measures to compare our data to previous time periods. Specifically, we will build an analysis based on antidepressant drug items and actual costs prescribed in April 2018 by every practice within Newcastle and Gateshead CCG and compare that to the previous year’s figures.

Your results should look like this when we have completed the demo:

Year Month	Practice plus Code	Items	Actual Cost	Items - PRY	Actual Cost - PRY
201804	108 RAWLING ROAD(RAWLING ROAD PRACTICE) (A85606)	18	202.71	117	262.82
201804	AVENUE MEDICAL PRACTICE (A86007)	208	408.18	204	417.81
201804	BEACON VIEW MEDICAL CENTRE (A85026)	848	1,844.23	789	1,213.64
201804	BENFIELD PARK MEDICAL GROUP (A86023)	1,878	4,181.88	1,788	3,386.12
201804	BENSHAM FAMILY PRACTICE (A85002)	828	1,038.76	484	1,183.80
201804	BETTS AVENUE MEDICAL GROUP (A86030)	2,247	8,888.88	1,887	8,811.79
201804	BEWICK ROAD SURGERY (A85017)	888	1,878.88	882	1,811.84
201804	BIDDLESTONE HEALTH GROUP (A86010)	1,072	2,871.88	1,081	2,388.88
201804	BIRTLEY MEDICAL GROUP (A85008)	2,877	8,218.18	2,842	10,342.79
201804	BLAYDON GP LED PRACTICE (Y02858)	282	814.14	28	132.72
201804	BROADWAY MEDICAL CENTRE (A86035)	281	888.88	237	842.04
201804	BRUNTON PARK (A86033)	488	1,883.21	331	734.58
201804	CENTRAL GATESHEAD MEDICAL GROUP (A85019)	1,288	4,881.84	1,281	4,811.88
201804	CHAINBRIDGE MEDICAL PARTNERSHIP (A85010)	1,818	3,732.88	1,288	3,471.84

- From the Landing Page, expand the 'My Folders' area and select Demo 1

Welcome to ePACT2

News Dashboards Financial Reports Prescribing Reports Quick Search

NEWS FEED

- 10 October 2018 - General notice: The system will be unavailable on Sunday 14 October from 8am to 12 noon
- 20 September 2018 - Prescribing Reports: We have today released the Prescribing Monitoring Document.
- 06 July 2018 - Financial Reports: We have today released the Remuneration report into ePACT2.
- 16 October 2018 - PMD: More information available PMD can be found here. Use this for a hyperlink Homepage .

MY FOLDERS

- My Folders
- Demo 1 (1)

ePACT2 LATEST DATA

Prescription Data: Aug-18

Remuneration Report: Aug-18

Your feedback is valued and will help us to improve our system
Email us at: nhsbsa.informationssystem@nhs.net

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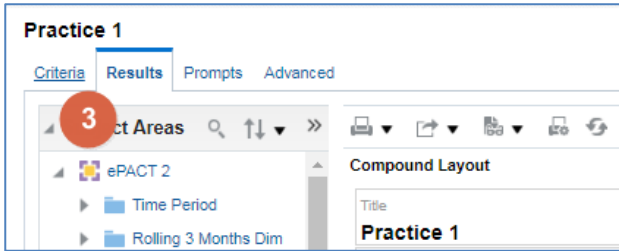
- The report will be displayed, select 'Edit' in the bottom right hand corner of the report.

201805	FELL TOWER MEDICAL CENTRE (A85001)	Antidepressant Drugs (0403)	1,132	3,733.12
201805	FENHAM HALL SURGERY (A86031)	Antidepressant Drugs (0403)	1,307	2,814.91
201805	GATDOC OOH (A85621)	Antidepressant Drugs (0403)	4	2.77

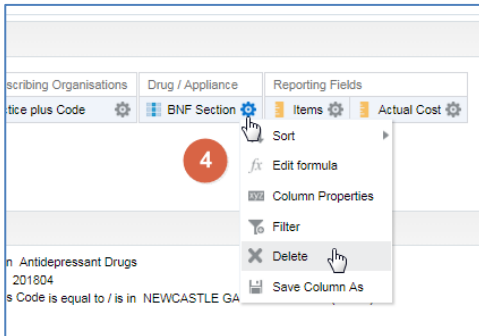
Return - Edit - Refresh - Print - Export - Add to Briefing Book - Create Bookmark Link

2


- The results page of your report will be displayed. Select Criteria so we can make our changes.



4. Remove the BNF Section columns from our report. To do this click the Cog icon and then select Delete.



Note that you can remove a column from the criteria but still keep the filter. In this example, the report will still be filtered to show only Antidepressant Drugs.



Selected Columns

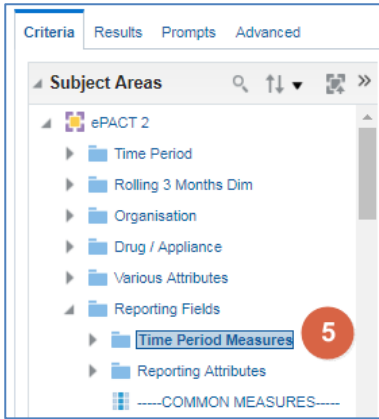
Time Period	England Prescribing Organisations	Reporting Fields	
Year Month	Practice plus Code	Items	Actual Cost

Filters

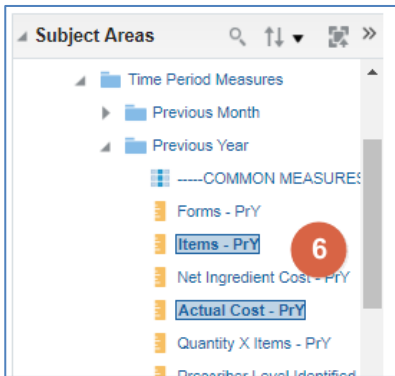
- BNF Section is equal to / is in Antidepressant Drugs
- AND Year Month is equal to / is in 201804
- AND Commissioner / Provider plus Code is equal to / is in NEWCASTLE GATESHEAD CCG (13T00)

We are now going to add two more columns to the criteria so we can see the Items and Actual cost for the same month last year as well.

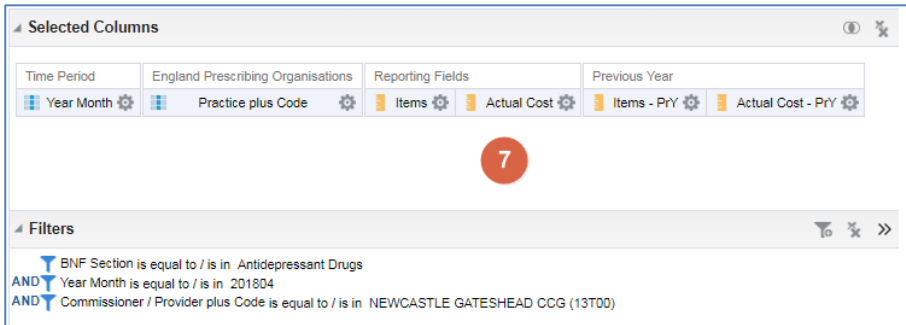
5. Go to the Reporting Fields folder in the Subject Area and select Time Period Measures.



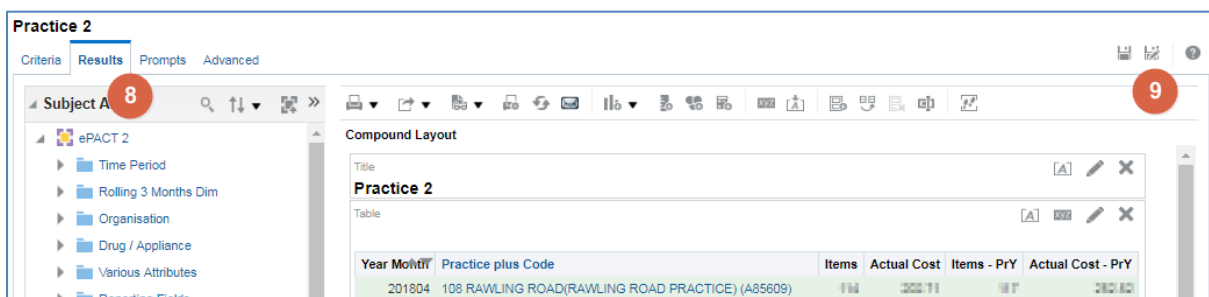
6. Choose the Previous Year folder and select Items – PrY and Actual Cost – PrY



7. Once added to your Selected Columns, your criteria should look like:



8. Select Results to view your report.
9. Save it in My Folders as Demo 2



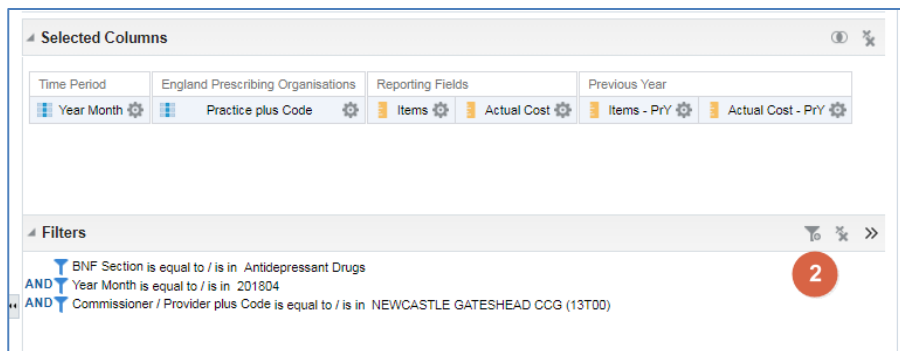
Demo 3 – Adding Patient Filters - Age bands

In this example, we will continue from our previous analysis but look to see how we can include Patient columns such as age band filtering. Specifically, we are going to filter this report to show antidepressant drug items and actual costs prescribed in April 2018 by every practice within Newcastle and Gateshead CCG and compare that to the previous year's figures for under 18's only.

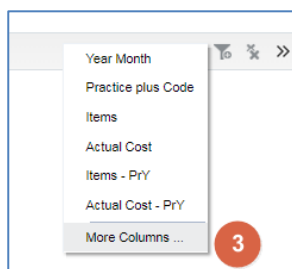
10. If you still have Demo 2 open just return to the Criteria page.

If not go to My Folders and locate the Demo 2 report we made in the previous demo. Once located, open the report and select Edit.

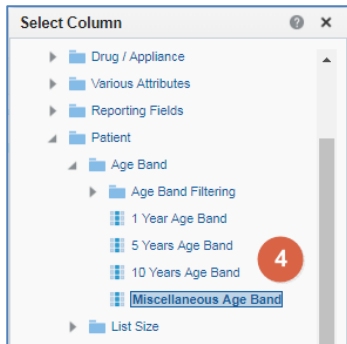
11. We are going to add a filter to limit results to under 18 year olds only. To do so, go to the filter icon in the filters section




12. Choose More Columns...

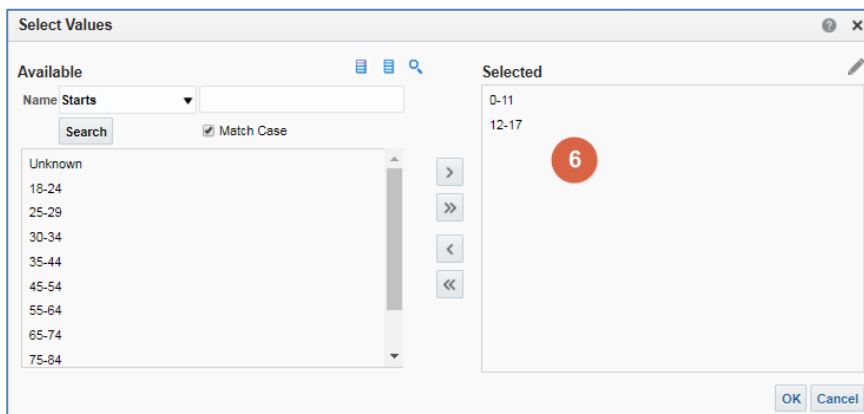


13. Navigate through the folders Patient > Age Band Filtering > Miscellaneous Age Band

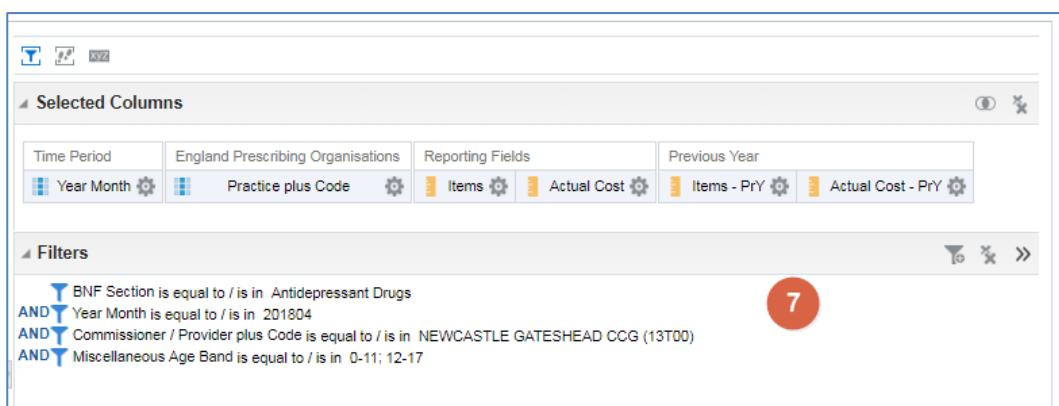


14. The New Filter dialog box will be displayed. Click the small magnifying glass icon so that we can search for under 18's patients.
15. Add both the 0-11 and the 12-17 age bands into the selected area either by double clicking or using the arrows. Click OK.

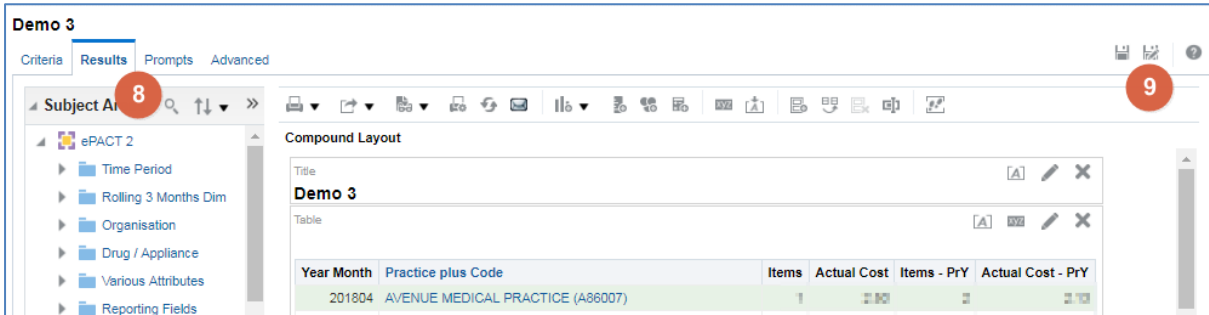
 You can add more than values at a time by either holding the Ctrl or Shift key when selecting.



16. The criteria showed be shown as below:



17. Select Results to view your report.
18. Save it in My Folders as Demo 3

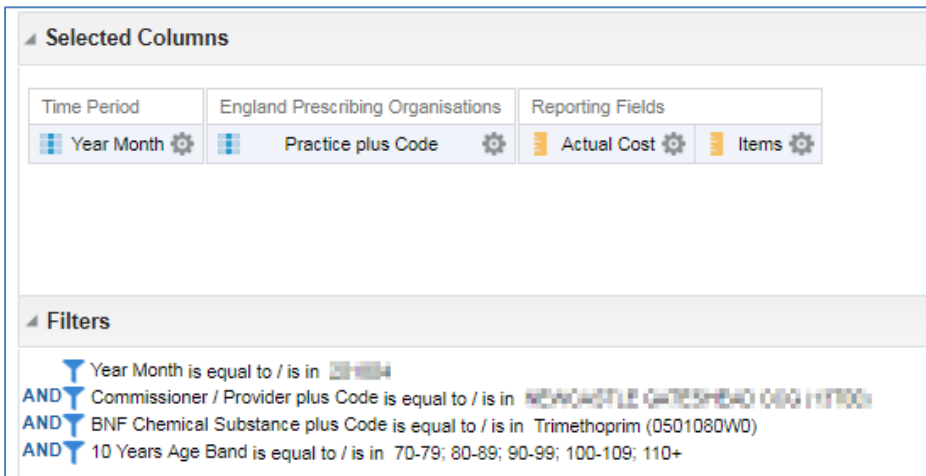


Basic Analysis Exercise

Using what you have learned over the demo sessions aim to:

Create a report that shows Actual Cost and Items for the Chemical Substance Trimethoprim for every practice in your CCG / Trust for the latest 3 months available for patients over 70.

Your criteria should look something like this:



Run the results then

- Sort the Actual Cost from High to Low
- Turn on the Content Paging option

Save your report as Exercise 1

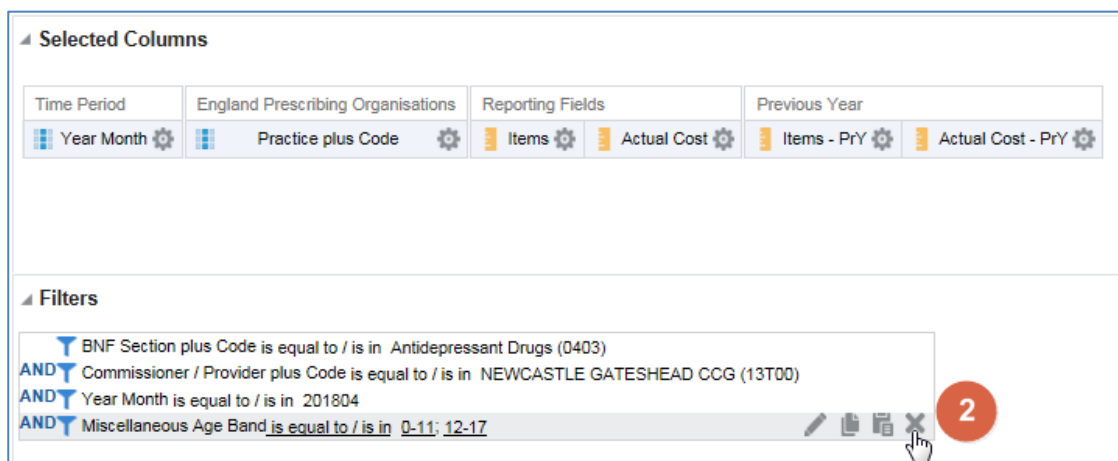
Demo 4 – Filtering results for individual columns


In this example, we will continue from our previous analysis but look to see how we can filter columns to return specific results to enable us to compare figures. We are going to include four new columns into our analysis criteria 'Items', 'Actual Cost', 'Items-PrY' and 'Actual Cost-PrY' we will then filter these columns so they only show the prescribing for the under 18's we will then be able to compare the Items and Actual Cost for the under 18's compared to the total Items and Actual Cost.

1. If you still have Demo 3 open just return to the Criteria page.

If not go to My Folders and locate the Demo 3 report we made in the previous demo. Once located, open and select Edit. The report will open on the Results Tab, click straight on the 'Criteria tab so you can edit the report.

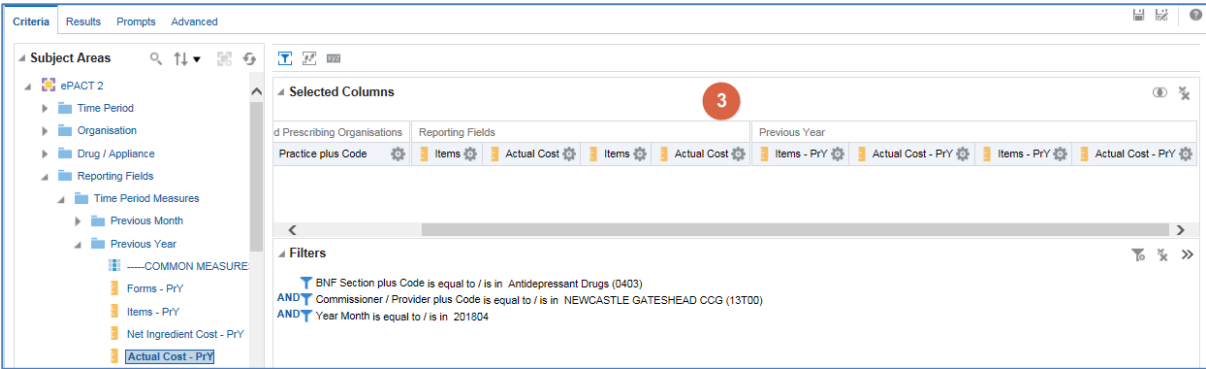
2. Remove the Miscellaneous Age Band filter by hovering over the filter until you see the dark grey box around the filter, four options will then appear, you need to select the X icon to remove the filter.



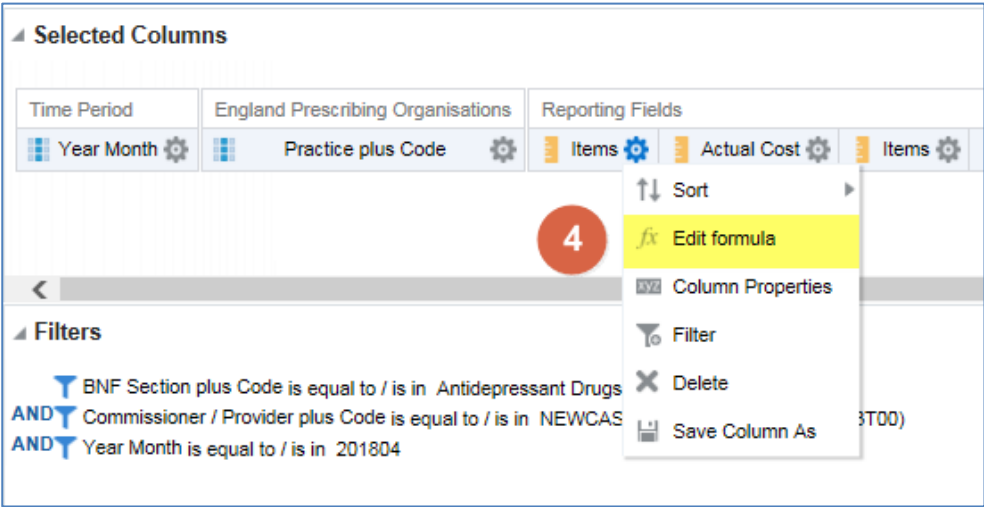
 Filtering in the filter pane restricts the results for the entire analysis, filtering a specific column restricts the results only for that column.

3. Now include two new columns 'Items' and 'Actual Cost' from the 'Reporting Fields' folder and include two new columns 'Items-PrY' and 'Actual Cost-PrY' from the 'Reporting Fields' > 'Time Period Measure' > 'Previous Year' folder.

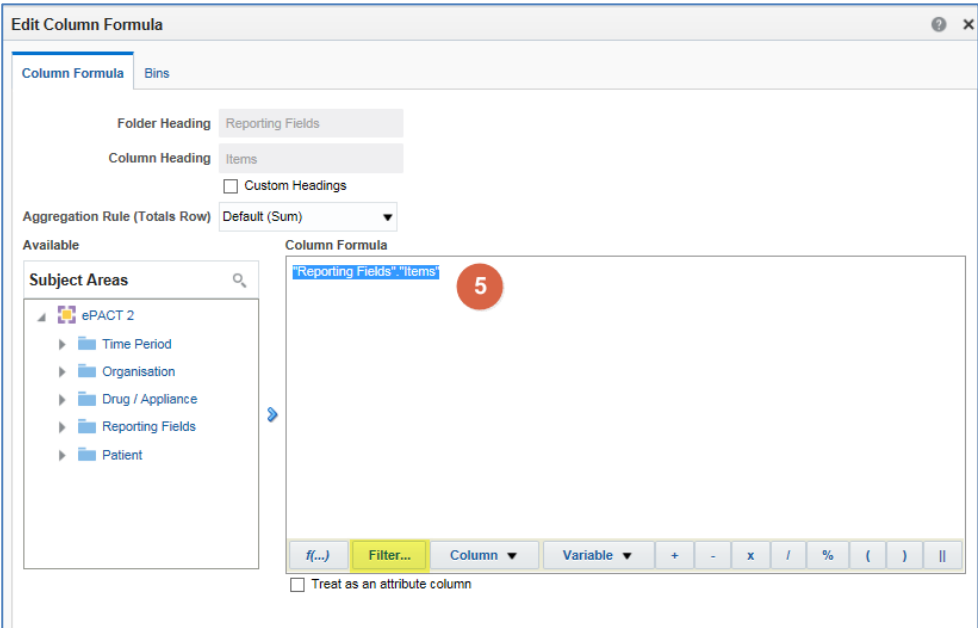
Your report should now look like the following image:



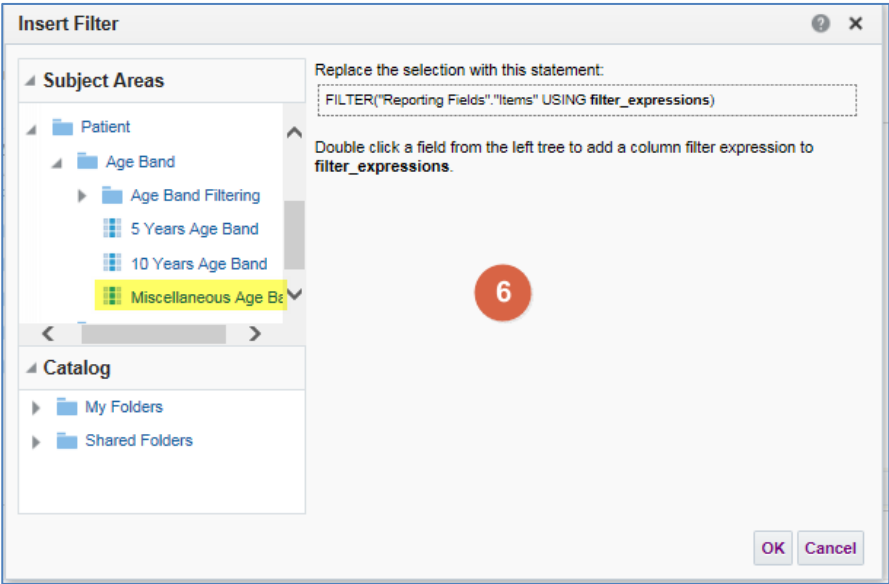
4. Hover over the cog icon on the first 'Items' column and select 'Edit formula'



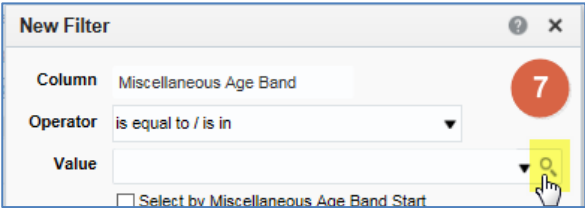
5. This will bring up the Edit Column Formula pane, ensure the column formula is highlighted and select the filter icon



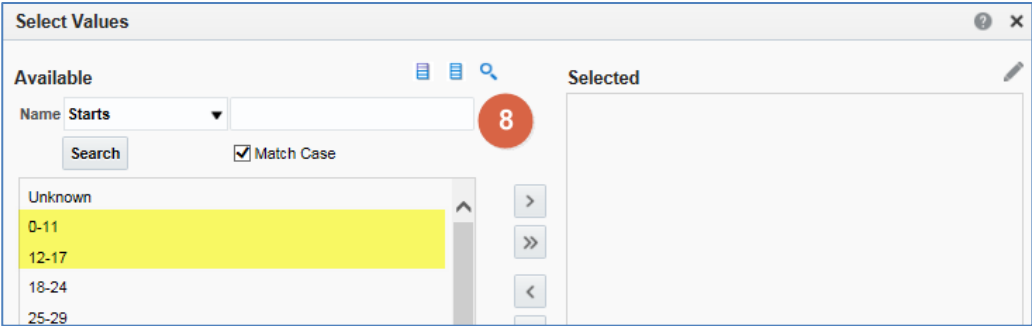
- 6. This will bring up the 'Insert Filter' pane, navigate through the subject area to the following folder 'Patient' > 'Age Band' and double click on the 'Miscellaneous Age Band' column



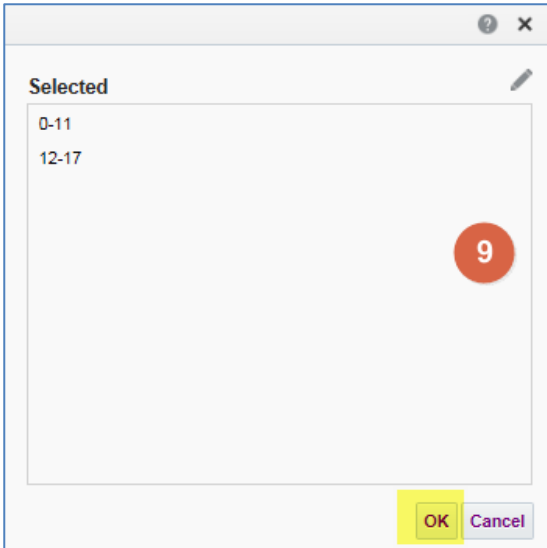
- 7. This will bring up the 'New Filter' pane, select the magnifying glass icon



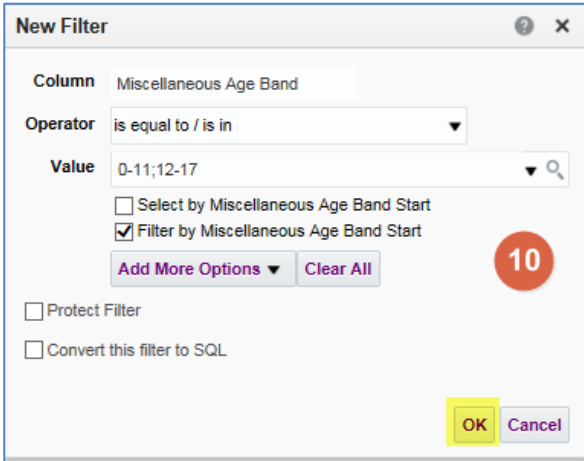
- 8. This will bring up the 'Select Values' box, double click on the 0-11 and 12-17 fields to move these into 'Selected'



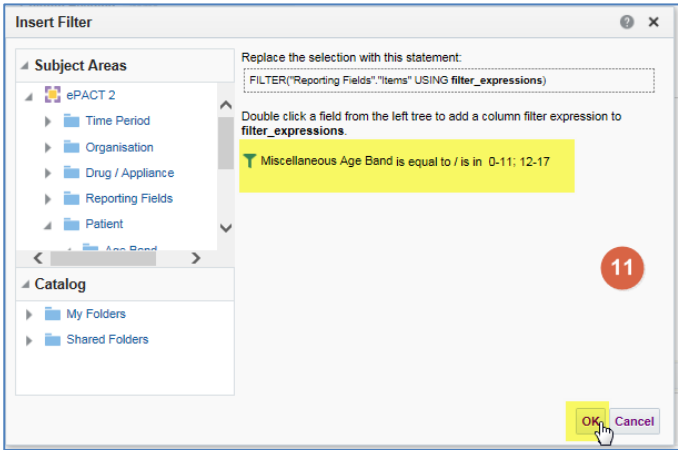
9. Now click OK



10. Followed by OK



11. This will update the 'Insert Filter' pane with the filter you are going to apply to the column, select OK to apply the filter to the column formula



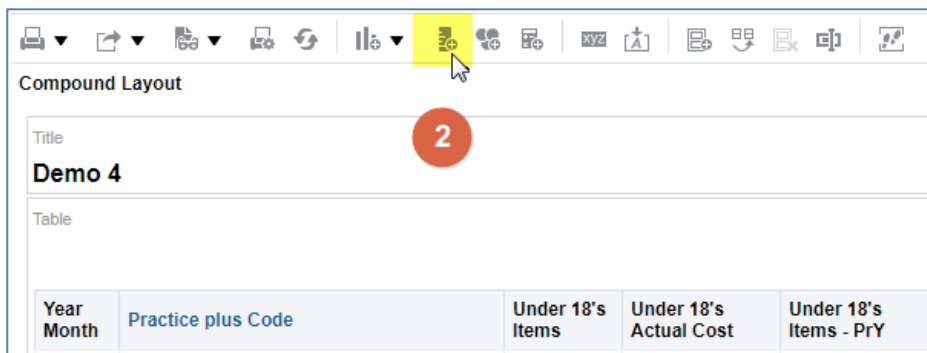
Demo 5 – Calculated Columns

In this example, we will continue from our previous analysis but look to see how we can include new calculated measures, to work out the percentage of under 18 antidepressant items and cost to the overall items and cost for the practice.

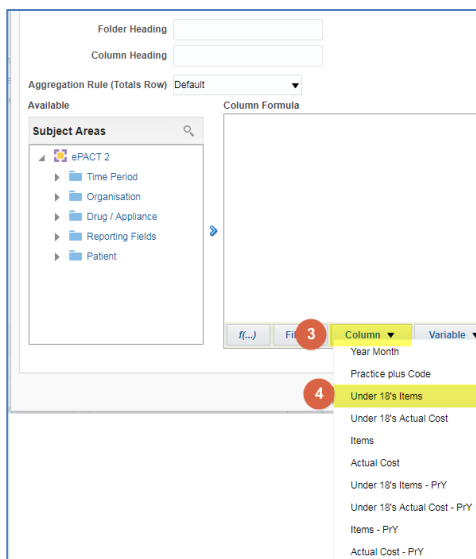
1. If you still have Demo 4 open just return to the Criteria page.

If not go to My Folders and locate the Demo 4 report we made in the previous demo. Once located, open and select Edit. The report will open on the Results Tab

2. Select the 'New Calculated Measure' icon, this will open the 'New Calculated Measure' pane

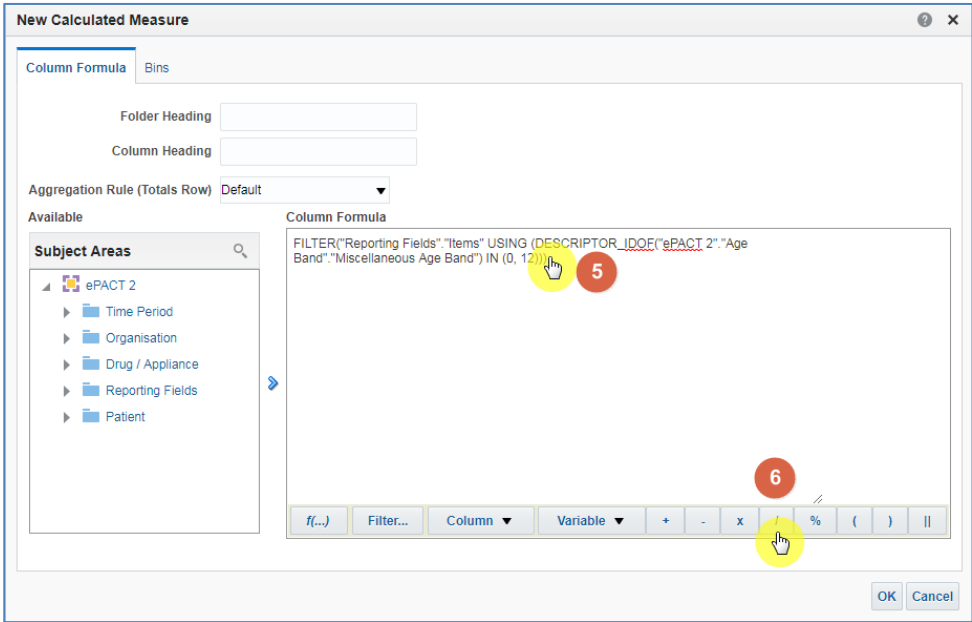


3. Select the 'Column' icon to open up the available columns to select from your analysis.
4. From the options available select 'Under 18's Items'

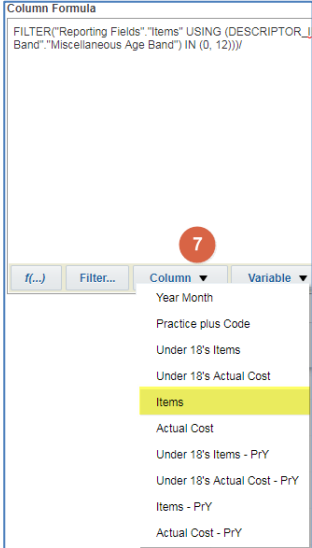


5. The formula for the column will now be included in your 'New Calculated Measure' pane, click at the end of the column formula to ensure it is not highlighted

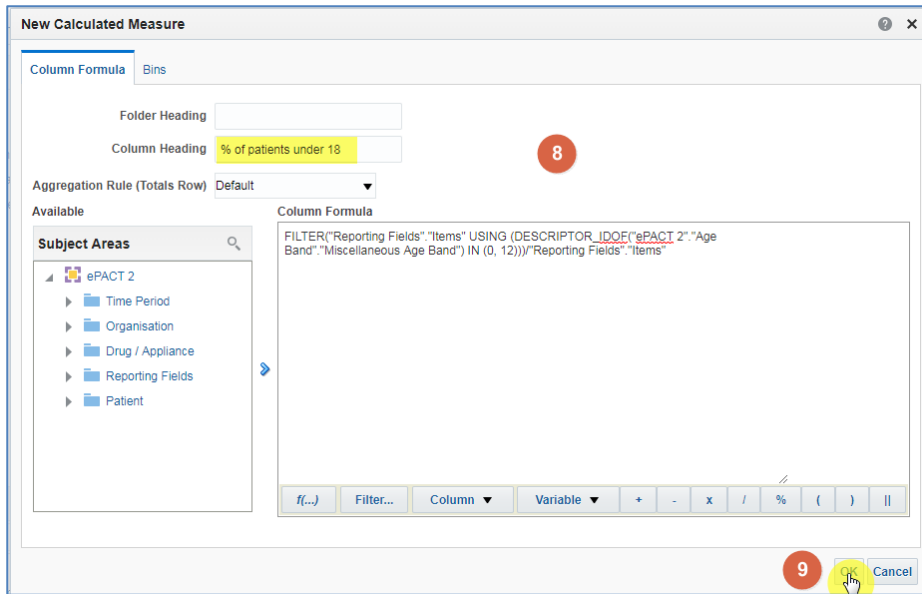
- 6. Enter the divide symbol (/) from the task bar to the end of the column formula, the divide symbol will be highlighted, click at the end of the formula again to ensure the divide symbol is not highlighted.



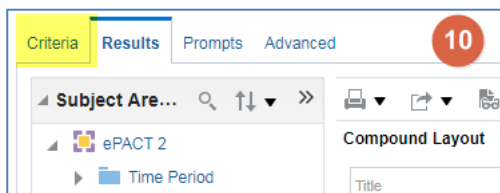
- 7. Select the 'Column' from task bar, from the available list of columns to select choose the 'Items' column



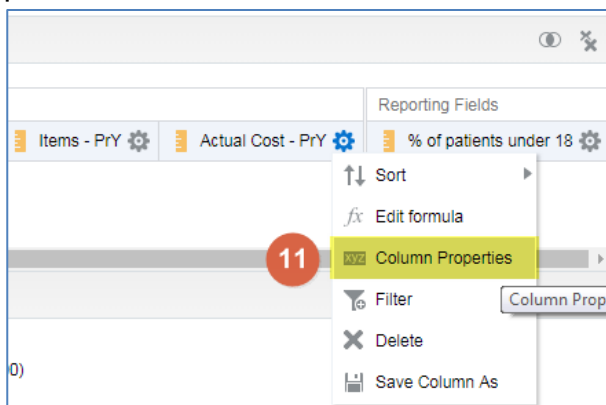
- 8. Amend the 'Column Heading' to '% of patients under 18', your column should look like this:



9. Click 'OK', you will now have a new column in your data.
10. Select the 'Criteria' Tab from the top of the page.

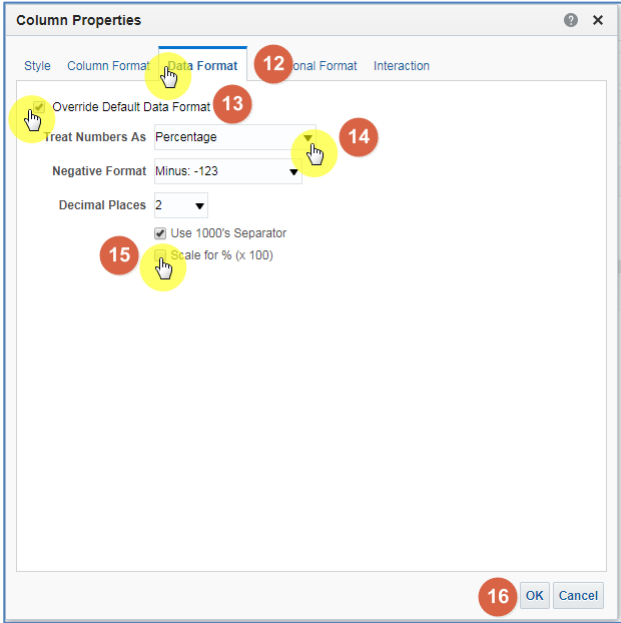


11. Use the scroll bar at the bottom of the 'Selected Columns' pane to scroll to the end of the selected columns. Hover over the Cog icon on your new '% of patients under 18' column and select 'Column Properties'




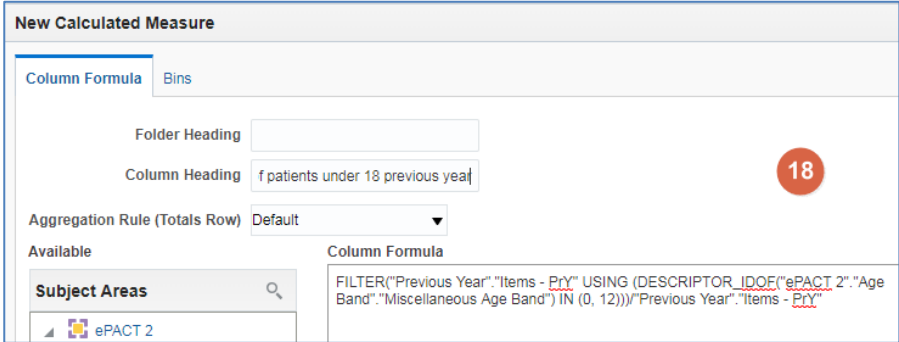
12. The 'Column Properties' box will now open, select the 'Data Format'
13. Tick the 'Override Default Data Format' box
14. Click on the Drop down arrow on the 'Treat Number As' box and change from Number to Percentage

- 15. Tick the 'Scale for % (x100)' box; this will multiply your column by 100 to give you a percentage.
- 16. Select OK to apply the changes



- 17. Save as Demo 5

Follow the same process using the 'New Calculated Measure' column  to get a percentage figure for the under 18's previous year; calculation will be 'Under 18's – PrY' / 'Items – PrY'. Name the column '% of patients under 18 previous year'



- 18. Save analysis and close

Basic Exercise 2

Using what you have learned over the demo sessions aim to:

Create a report that shows Total Items and Items for the BNF Chapter - Infections (05) for every practice in your CCG / Trust for the latest month available.

Your criteria should look something like this:

The screenshot shows a report configuration window with two main sections: 'Selected Columns' and 'Filters'.

Selected Columns:

Time Period	England Prescribing Organisations	Reporting Fields
Year Month	Practice plus Code	Items, Items

Filters:

- Year Month is equal to / is in 201806
- AND Commissioner / Provider is equal to / is in UNIVERSITY HOSPITALS OF MIDDLEHAM BMT

Filter the 2nd 'Items' column to limit the results to only items for BNF Chapter 05.

The screenshot shows the same report configuration window after modification.

Selected Columns:

Time Period	England Prescribing Organisations	Reporting Fields
Year Month	Practice plus Code	Items, Chapter 05 tems

Filters:

- Year Month is equal to / is in 201806
- AND Commissioner / Provider plus Code is equal to / is in NEWCASTLE GATESHEAD CCG (1078)

Run the results then

Include a 'New Calculated Measure' column (% Chapter 05 items) to show the BNF Chapter – Infections items divided by the total items.

Navigate back to the 'Criteria' tab and amend the data format for the new calculated measures column to

- Treat as a percentage
- Show 2 decimal places
- Scale for % (100)

Your criteria should look something like this:

Selected Columns

Time Period	England Prescribing Organisations	Reporting Fields		
Year Month	Practice plus Code	Items	Chapter 05 items	% Chapter 05 items

Filters

Year Month is equal to / is in 201808
 AND Commissioner / Provider plus Code is equal to / is in NEWCASTLE GATESHEAD CCG (13T00)

Run the results then

- Sort the % Chapter 05 items column from High to Low
- Turn on the Content Paging option

Save your report as Exercise 2

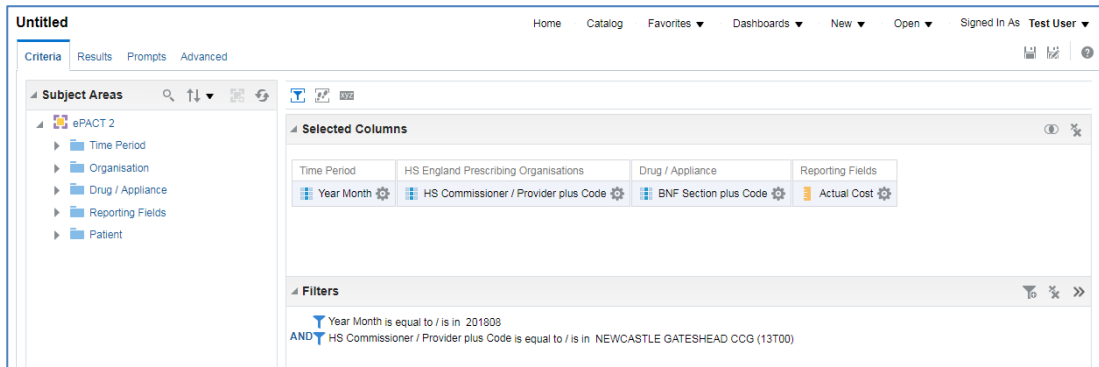
Using Patient Unit Measures

In this example, we will build an analysis to show the cost based ASTRO PUs for a selected CCG and then include a calculation to show the cost per 1000 ASTRO PUs for each BNF Section.

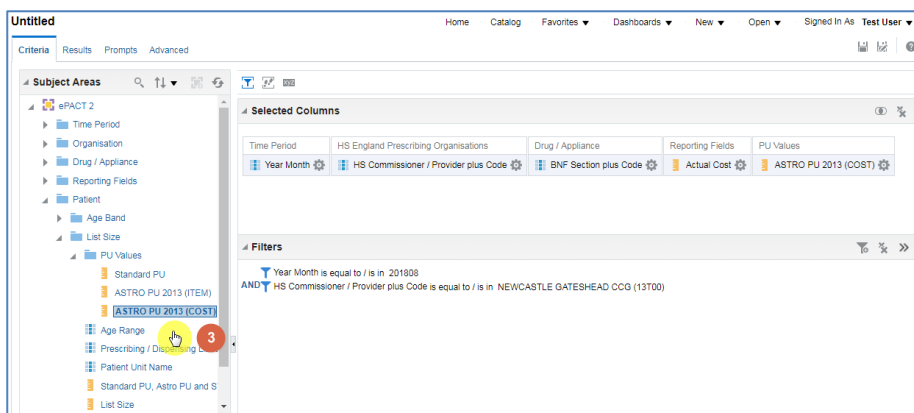
Your results will look like this when completed

Year Month	HS Commissioner / Provider plus Code	BNF Section plus Code	Actual Cost	ASTRO PU 2013 (COST)	Actual Cost per ASTRO PU 2013 (COST)
201808	NEWCASTLE GATESHEAD CCG (13T00)	Dyspep&Gastro-Oesophageal Reflux Disease (0101)	14,673.68	1,744,935	8.41
201808	NEWCASTLE GATESHEAD CCG (13T00)	Antispasmod.&Other Drgs Alt.Gut Motility (0102)	51,442.28	1,744,935	29.48
201808	NEWCASTLE GATESHEAD CCG (13T00)	Antisecretory Drugs+Mucosal Protectants (0103)	84,208.95	1,744,935	48.26
201808	NEWCASTLE GATESHEAD CCG (13T00)	Acute Diarrhoea (0104)	14,817.41	1,744,935	8.49
201808	NEWCASTLE GATESHEAD CCG (13T00)	Chronic Bowel Disorders (0105)	71,287.24	1,744,935	40.85
201808	NEWCASTLE GATESHEAD CCG (13T00)	Laxatives (0106)	109,194.72	1,744,935	62.58

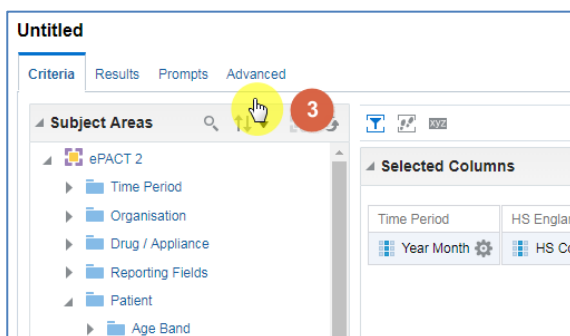
- Create an analysis including the columns and filters below.



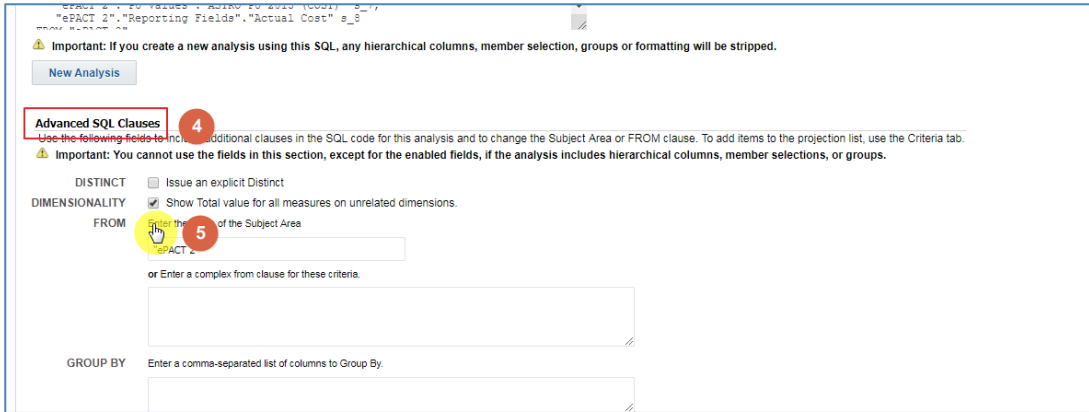
- Expand the subject area to the file path – ‘Patient’ >> ‘List Size’ >> ‘PU Values’ and add the ‘ASTRO PU 2013 (COST)’ column to the selected columns.



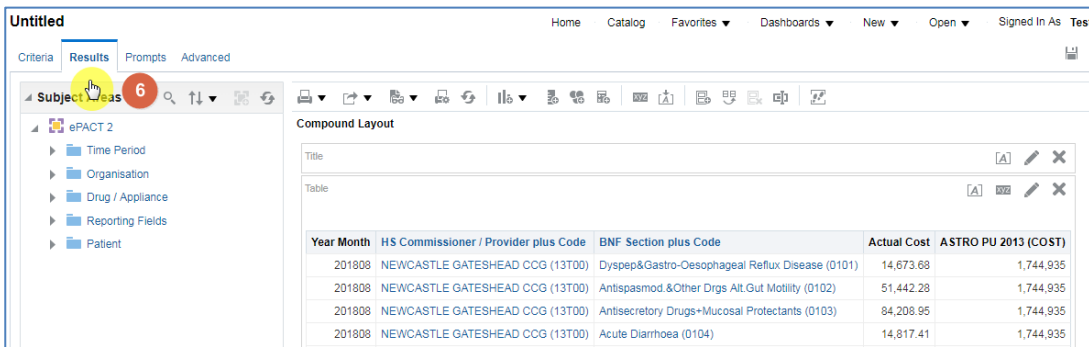
- Select the ‘Advanced’ tab from the task bar at the top of the screen



- The ‘Advanced’ page will be displayed, scroll down this page to the ‘Advanced SQL Clauses’ section.
- Check the box for ‘Show Total value for all measures on unrelated dimensions’

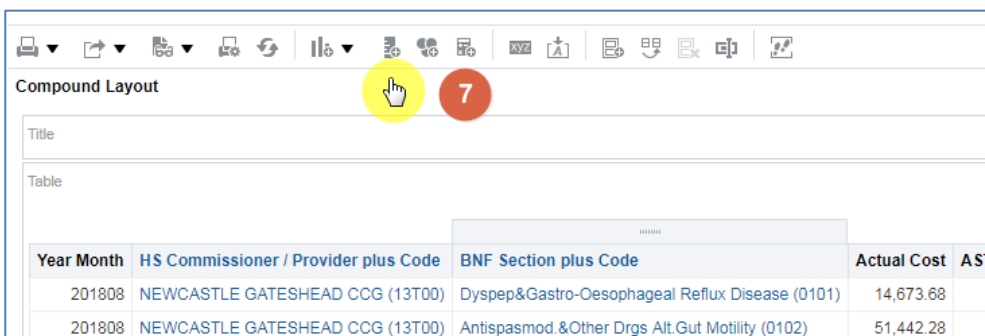


6. Select the Results Icon to generate your data



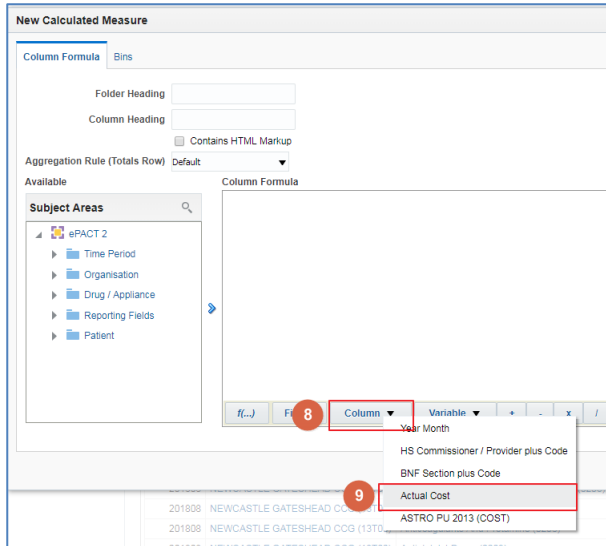
Following the process learnt in Demo 5 we will now include a 'NEW Calculated Measure' to show the actual cost per 1000 ASTRO PUs

7. Select the 'New Calculated Measure' icon, this will open the 'New Calculated Measure' pane




8. Select the 'Column' icon to open up the available columns to select from your analysis.

9. From the options available select 'Actual Cost'

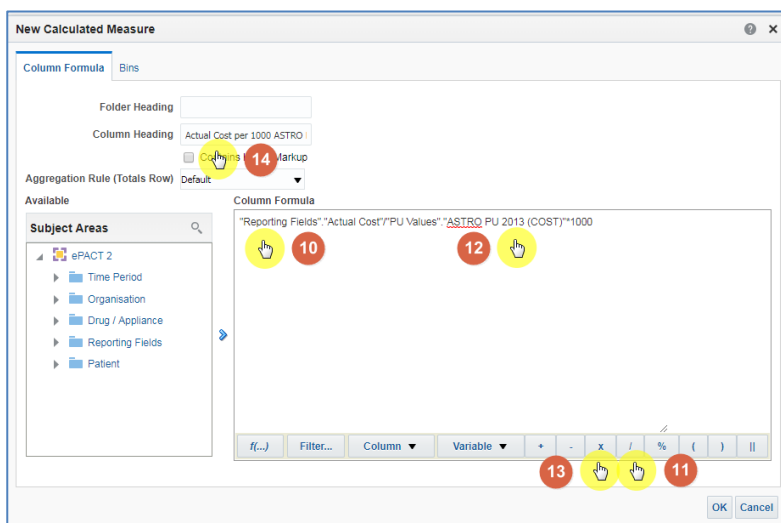


10. The formula for the column will now be included in your 'New Calculated Measure' pane
11. Enter the divide symbol (/) from the task bar to the end of the column formula
12. Select the 'Column' from task bar, from the available list of columns to select choose the 'ASTRO PU 2013 (COST)' column
13. Enter the divide symbol (x) from the task bar to the end of the column formula and then manually enter '1000'

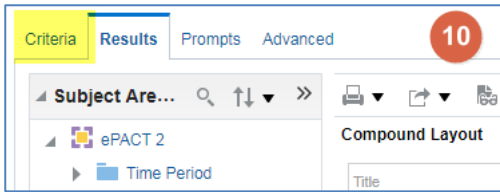


Don't forget to remove the highlight each time another element is added to the formula, if not the next element added will overwrite what is there

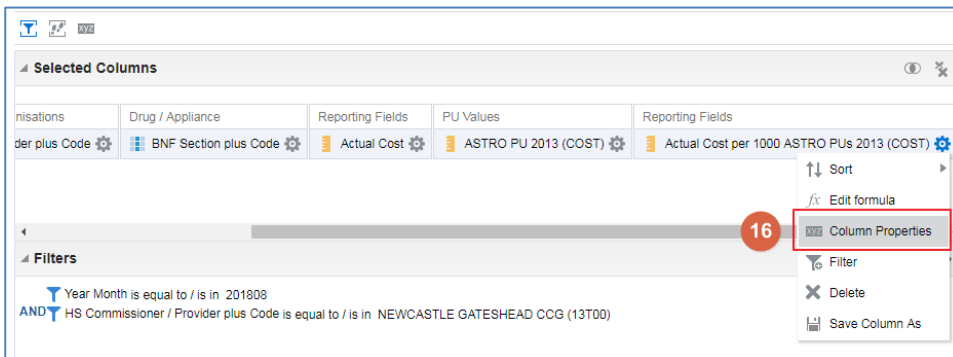
14. Amend the 'Actual Cost per 1000 ASTRO PUs 2013 (COST)', your column should look like this:



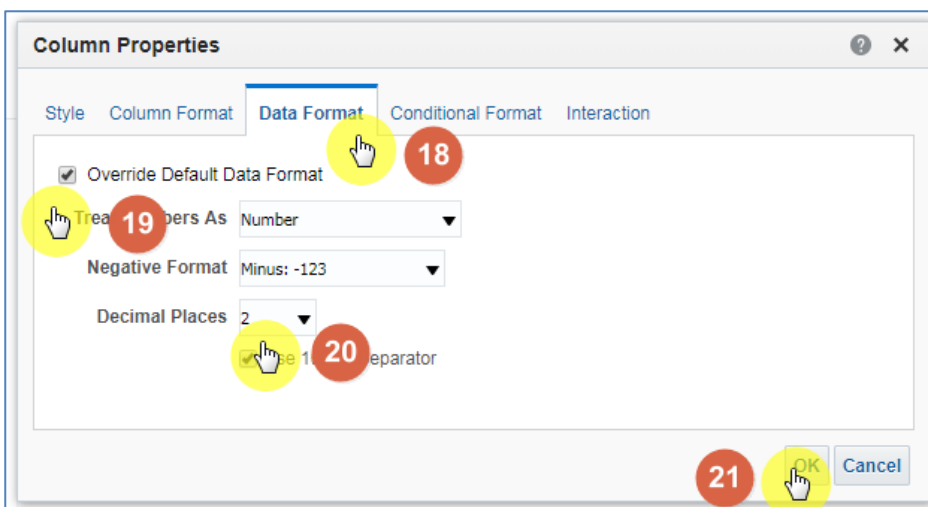
15. Click 'OK', you will now have a new column in your data.
16. Select the 'Criteria' Tab from the top of the page.



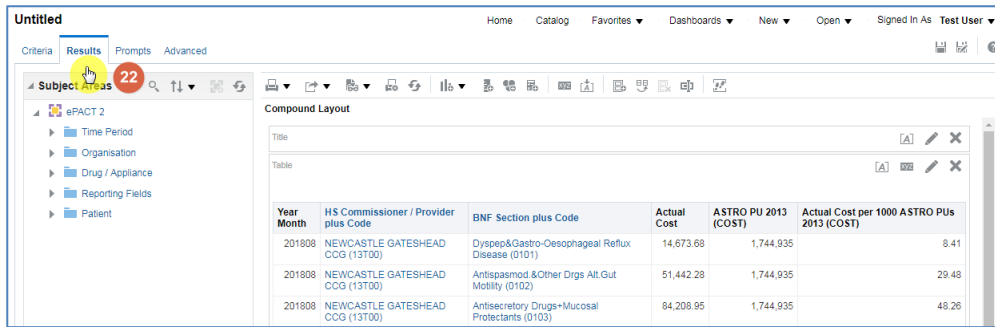
17. Use the scroll bar at the bottom of the 'Selected Columns' pane to scroll to the end of the selected columns. Hover over the Cog icon on your new 'Actual Cost per 1000 ASTRO PUs 2013 (COST)' column and select 'Column Properties'



18. The 'Column Properties' box will now open, select the 'Data Format'
19. Tick the 'Override Default Data Format' box
20. Use the 'Decimal Places' drop down list to set the number of decimal places to '2'
21. Select OK to apply the changes



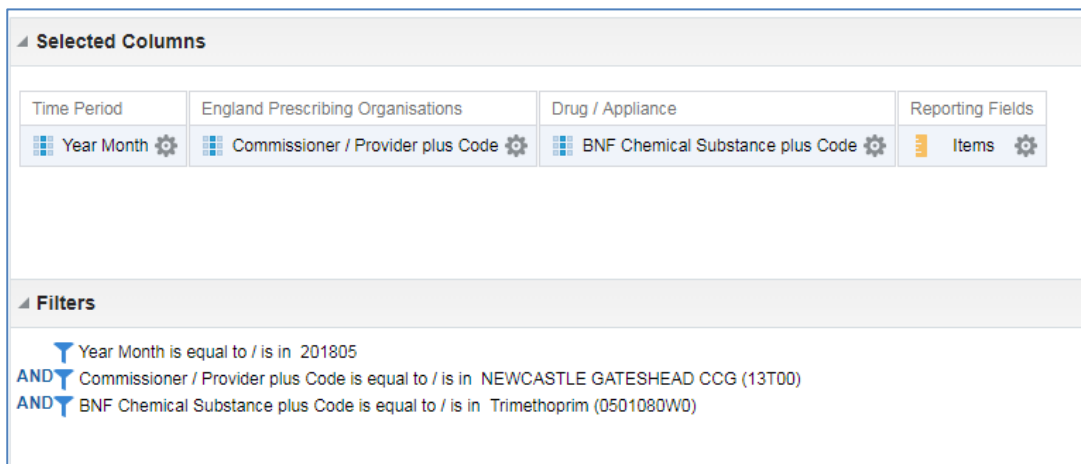
22. Select 'Results' to see the final data



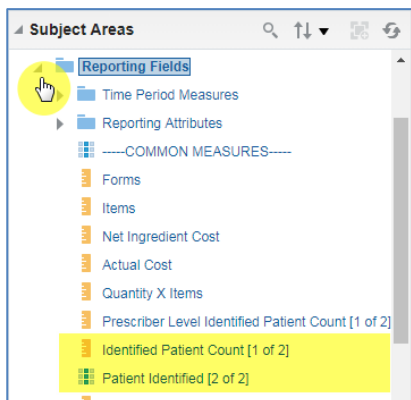
Using Patient Count

In this exercise we will explore how to include patient count fields into your data

1. Set up a basic analysis with the following columns and filters






2. Apply the Identified Patient Count [1 of 2] and 'Patient Identified [2 of 2], these can be found in the 'Reporting Fields' folder.



3. Select the results tab, your results should look like this:

Year Month	Commissioner / Provider plus Code	BNF Chemical Substance plus Code	Items	Identified Patient Count [1 of 2]	Patient Identified [2 of 2]
201805	NEWCASTLE GATESHEAD CCG (13T00)	Trimethoprim (0501080W0)	56	0	N
201805	NEWCASTLE GATESHEAD CCG (13T00)	Trimethoprim (0501080W0)	1,263	1027	Y

-  Identified Patient Count [1 of 2] – this will give the number of unique identified patients; patients are identified by the NHS number printer on the prescription. This column needs to be used when running data at practice level or above.
-  Patient Identified [2 of 2] – this will separate the results into identified and unidentified patients, N indicated not identified and Y indicates identified patients and gives the count.
-  If you are running the analysis at prescriber level and would like to bring the patient count data down you will need to include the Prescriber level Identified Patient Count [1 of 2] column.

Basic Exercise 3

Using what you have learned over the demo sessions aim to:

Create a report that shows Actual Cost and Items for the Chemical Substance Trimethoprim for every practice in your CCG / Trust for the latest 3 months available split by Identified and Non-Identified patients.

Your criteria should look something like this:

Selected Columns

Time Period	England Prescribing Organisations	Reporting Fields
Year Month	Practice plus Code	Items Actual Cost Identified Patient Count [1 of 2] Patient Identified [2 of 2]

Filters

Year Month is equal to / is in 201803; 201804; 201805
 Commissioner / Provider plus Code is equal to / is in NEWCASTLE GATESHEAD CCG (13T00)
 BNF Chemical Substance plus Code is equal to / is in Tramadol Hydrochloride (040702040)

Run the results then

- Sort the Actual Cost from High to Low
- Turn on the Content Paging option

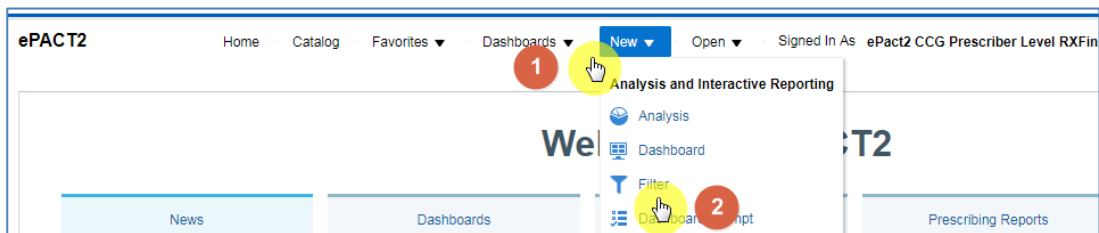
Save your report as Exercise 3

Saved Filters

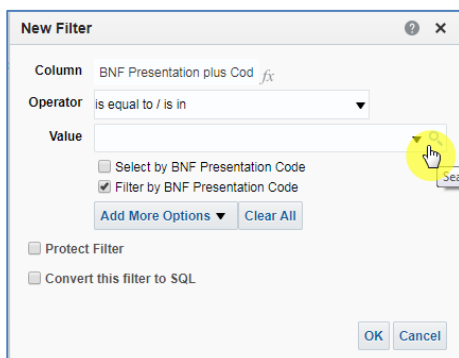
Creating Saved Filter

In this scenario you will create and save a filter for use in analyses.

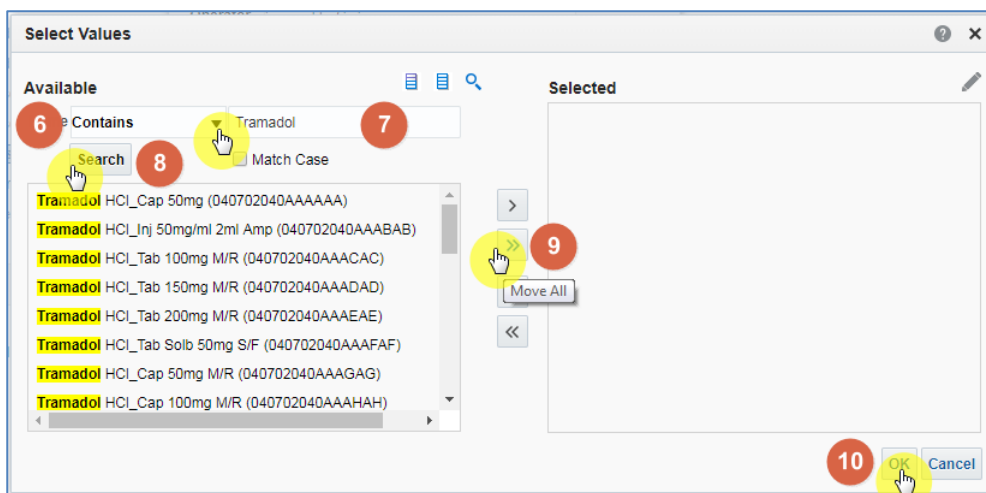
1. From any page select 'New'
2. Select 'Filter'.



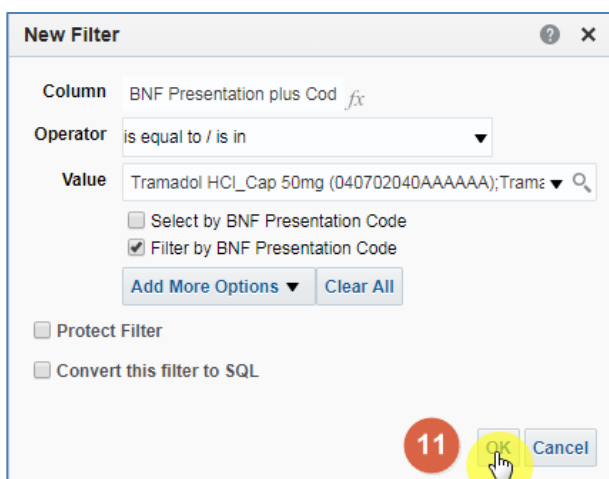
3. Select the ePACT 2 subject area. The 'Create Filter' window will open.
4. In the 'Subject Area' expand the 'Drug/ Appliance folder and double click on the 'BNF Presentation plus Code' column
5. You will now be presented with the 'New Filter' pane for the BNF Presentation plus Code' column, Select the magnifying glass icon to search for every presentation that contains 'Tramadol' in the name



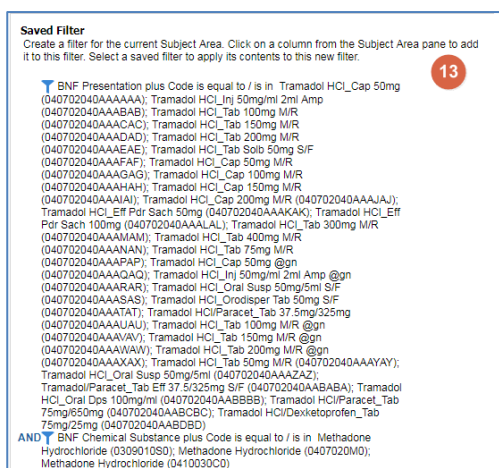
6. The 'Select Values' pane will now appear, change the operator from 'Starts' to 'Contains'
7. Type in Tramadol
8. Select the Search button
9. Select the double arrow icon to move all presentations over to the 'Selected box
10. Select OK



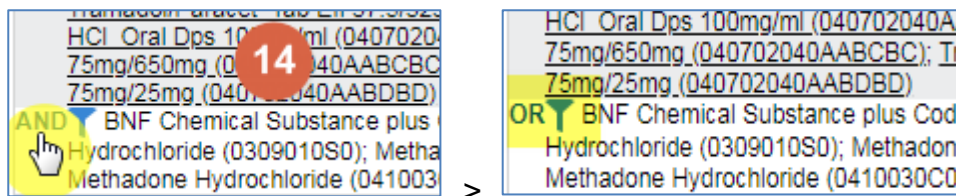
11. Select OK, on the 'New Filter' pane and this will input the presentations into your 'Create Filter' pane




12. We will now add another BNF level to our filter, follow the same process as above to include the 'BNF Chemical Substance plus Code' column and search for anything that contains 'Methadone' in the name.
13. Your filter should now look like this



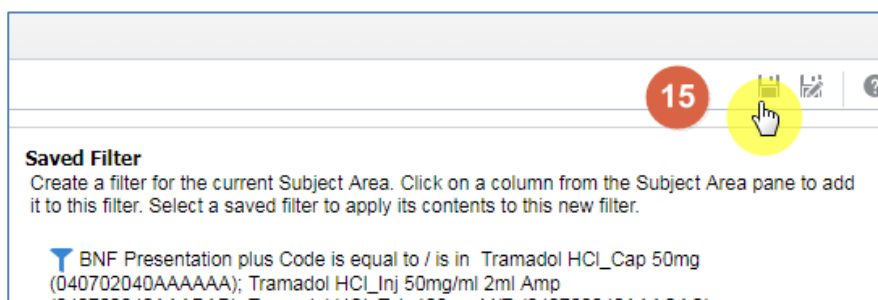
14. Select the Operator to change from 'AND' to 'OR'



 If the Operator = AND this will look for presentations that fall under the Chemical substance we have chosen, and will only return results that match both Presentations and Chemical substance

If the Operator = OR this will look for the presentations we have selected or the Chemical substance we have selected, this will return results for all presentations and Chemical substances selected


15. Save your filter by selecting the 'Save Filter' icon in the top right of your 'Create Filter' pane.



16. Name your filter 'Tramadol and Methadone' and select the 'OK' icon to save

17. Once saved, you will see the following symbol appear



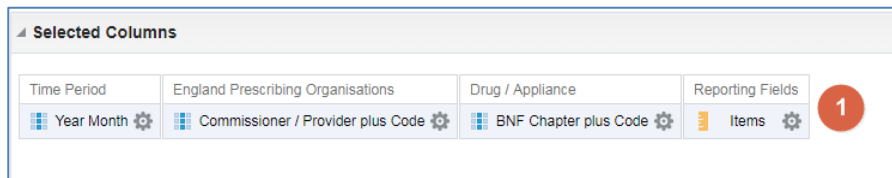
 When saving analysis or filters, the folder selected will default to the last folder you have accessed, you may need to select 'My Folder' again to ensure you are saving to your own area.

Your filter is now saved, you can use this filter in any analysis you now create.

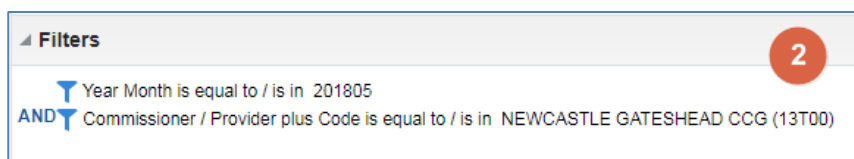
Using Saved Filters

In this scenario you will apply a previously saved filter to an analysis

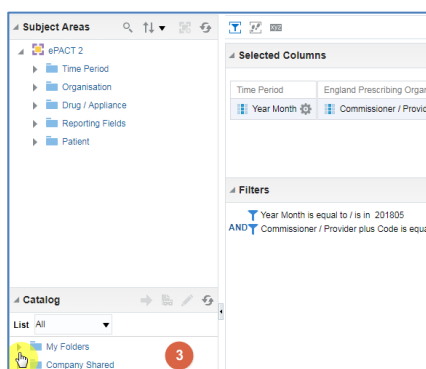
1. Create a basic analysis containing the following columns:



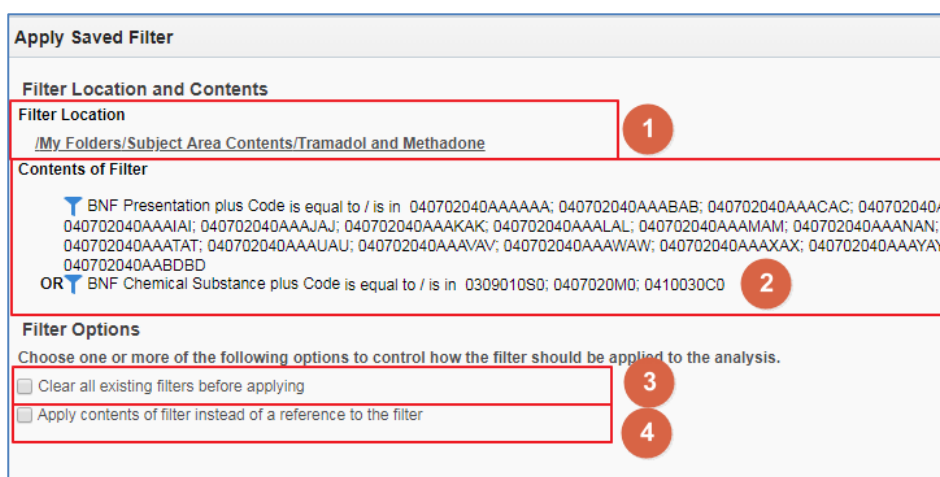
2. Apply the following filters:



3. Expand 'My Folders' from the Catalog pane and navigate to your saved filter, titled 'Tramadol and Methadone'




4. Double click on your filter and you will be presented with the 'Apply Saved Filter' pan



1.	Displays the location the filter is saved to, when leaving the 'Apply contents of filter instead of a reference to the filter' un-ticked the analysis will reference back to this location
2.	Displays the contents of the filter, when you create a filter using name, the system automatically converts to the code
3.	If you tick this box it will remove any filters you have previously applied to your analysis
4.	If you tick this box it will take the contents of the filter and apply this to your analysis. This will mean if you alter or delete the filter in the future this analysis will not be affected. If you leave the box un-ticked, your analysis will reference back to where the filter is saved. This means that if you update the filter in the future this analysis will automatically update with the changes.

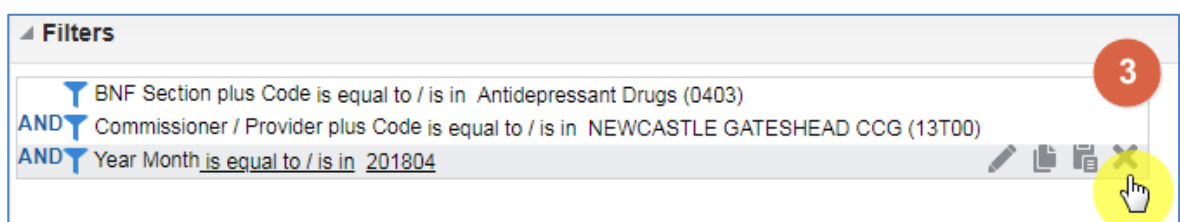
5. Leave all boxes un-ticked and select 'OK' to apply the filter to your analysis.
6. Select 'Results' to run your analysis

 You do not need to select the data to return at the same level the filter has been created at, for example: our filter was created and Presentations and Chemical Substance level, the results have been returned at Chapter level.

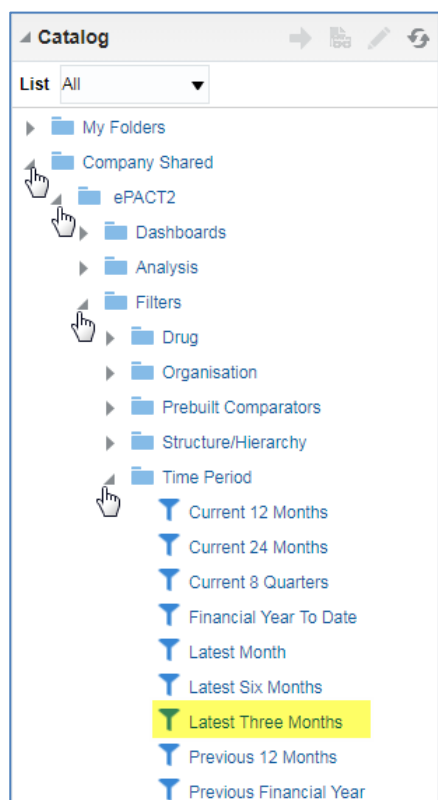
Apply prebuilt filter exercise

The aim of this exercise is to apply one of the NHSBSA prebuilt time period filters, these filters allow you to set up an analysis that will automatically update every time you open it.

1. Locate Demo 5 in your 'Catalog', select the edit icon
2. Select the Criteria tab
3. In the filters pane remove the following filter 'Year Month is equal to / is in 201804' by hovering over the filter and selecting the X icon



- Using the 'Catalog' pane on the left hand side of the screen navigate to, the time period filters and apply the 'Latest Three Months' filter



- Once applied save your analysis.

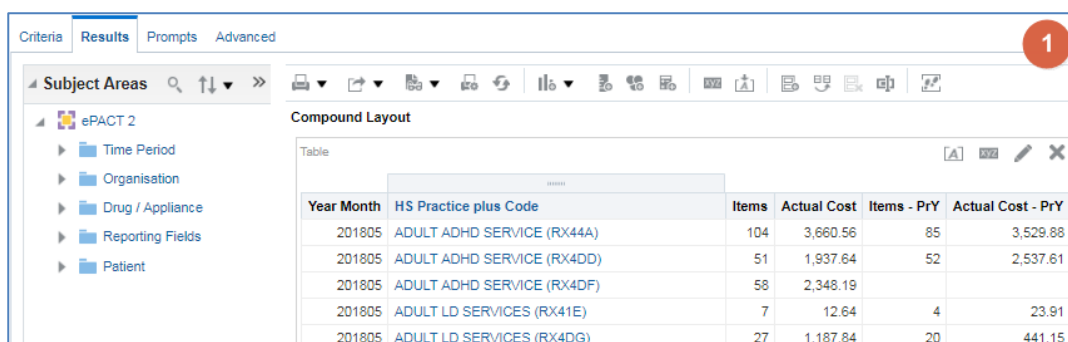
Visual Reports

Demo 6 – Building a Visual Report

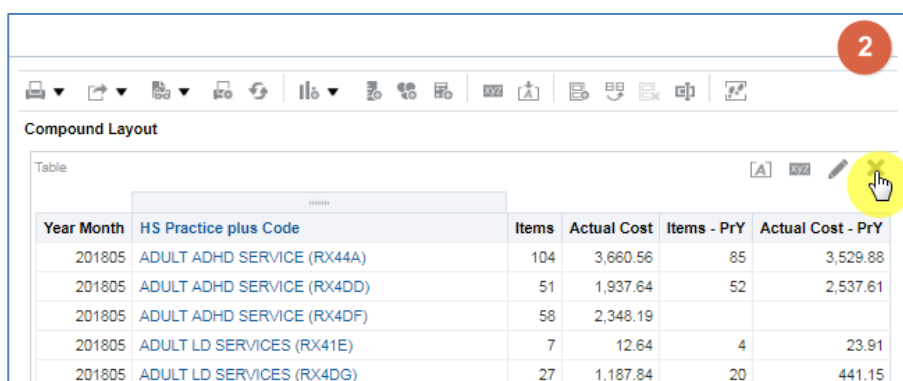
In this example, we will continue from our previous analysis created in Demo 2 but look to see how the data can be visualised in different ways to effectively present data. Specifically we are going to add Performance Tiles to show high level figures at a glance, Bar Charts and a Tree map to identify outliers.


Adding a Performance Tile

- Go to My Folders and locate the Demo 2 report we made in the previous demo. Once located, open and select Edit. The report will open on the Results Tab

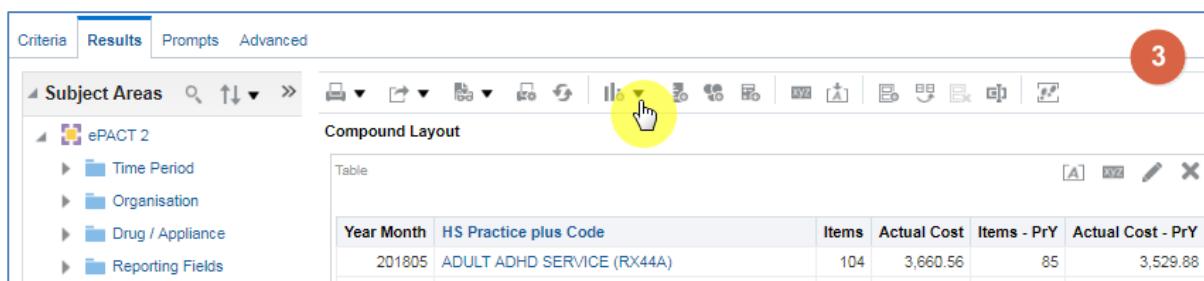


- Remove the table view from the 'Compound Layout' by selecting the 'Remove view from compound layout' icon.

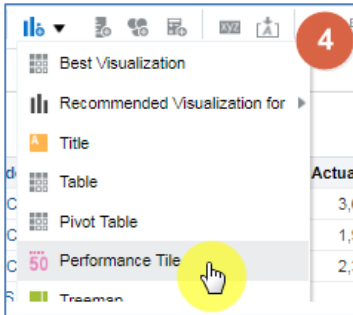


 Removing views from the compound layout does not delete the view from the analysis. Views can be added back into the compound layout by clicking and dragging the view from the 'Views' pane.

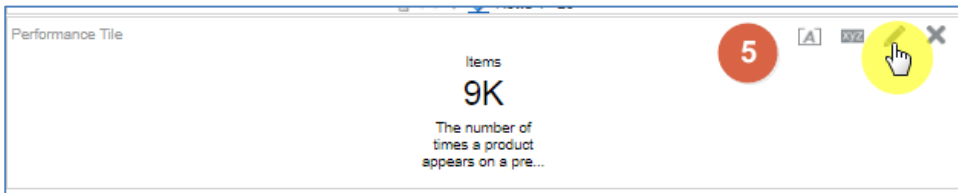
- Select the 'New View' icon from the task bar to display the views available to include in an analysis.



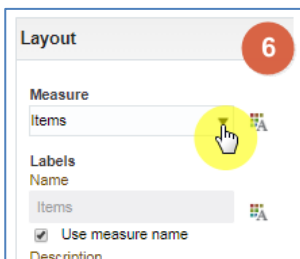
- Select 'Performance Tile' from the list available.



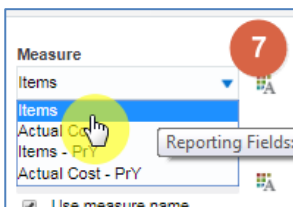
5. Select the 'Edit View' icon within the Performance Tile.



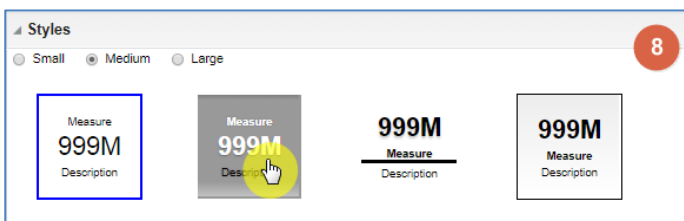
6. Select the drop down list for the 'Measures' section.



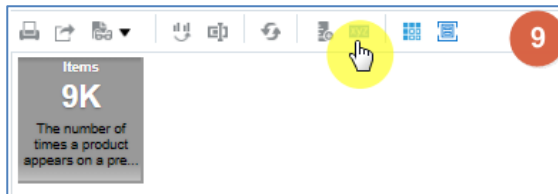
7. From the drop down list select 'Items'.



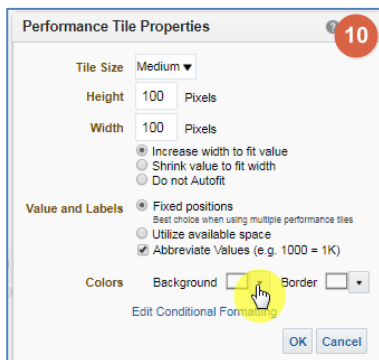
8. Select the style displayed.



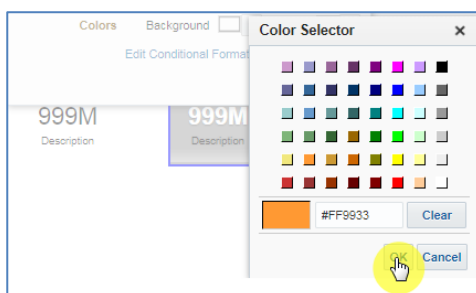
9. To change the colour used in the tile select the 'Performance Tile Properties' button.



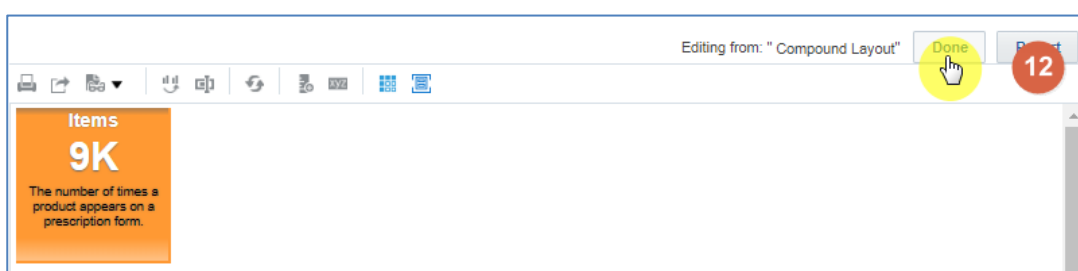
10. Within the 'Performance Tile Properties' pane select the 'Colours – Background' drop down option.



11. In the 'Colour Selector' enter the code #FF9933 and select 'Ok' to confirm.



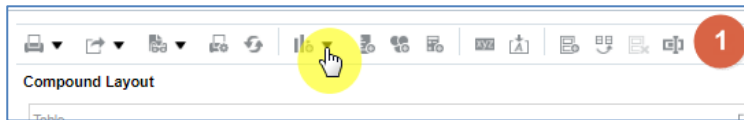
12. Select 'Done' to confirm the changes to the view.



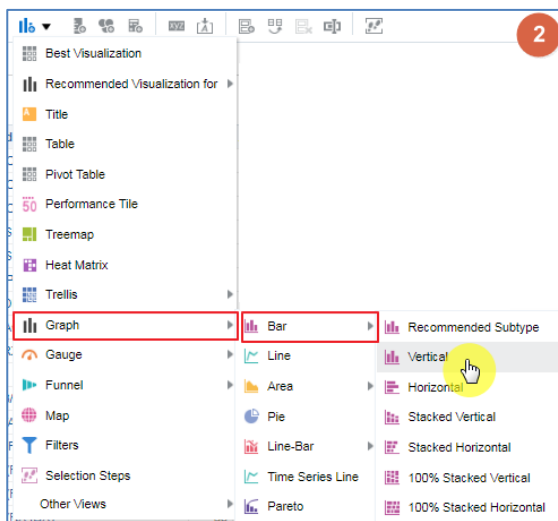
Now repeat the process above to add a Performance Tile to show the 'Actual Cost'.

Adding a Bar Chart

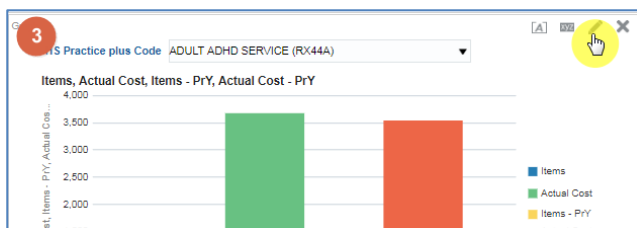
1. Select the 'New View' icon from the task bar to display the views available to include in an analysis.



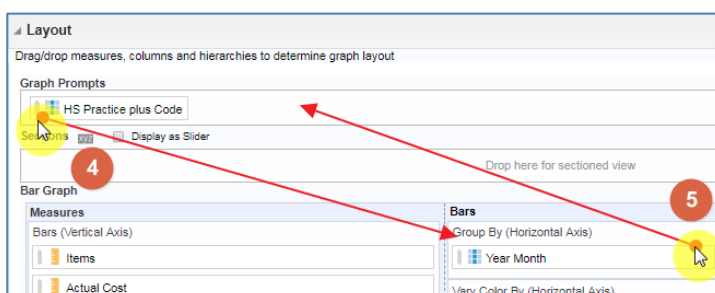
2. Expand the 'Graph' option followed by the 'Bar' option and select 'Vertical' from the list available.



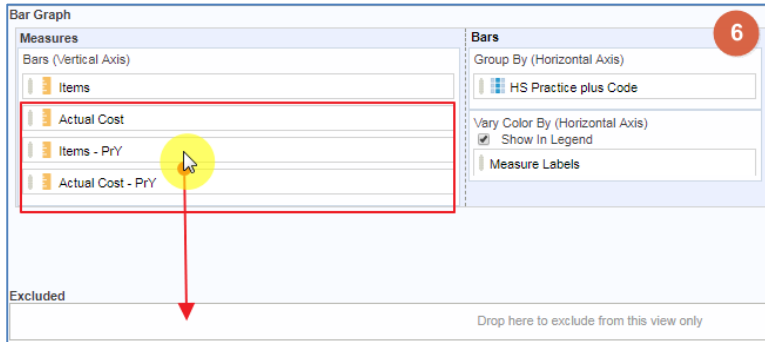
3. Select the 'Edit View' icon within the Bar Chart.



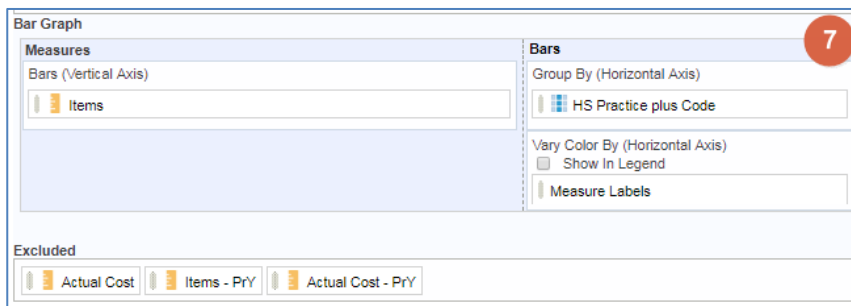
4. Click and drag the 'HS Practice plus Code' column into the 'Bars' area.
5. Click and drag the 'Year Month' into the 'Graph Prompts' area.



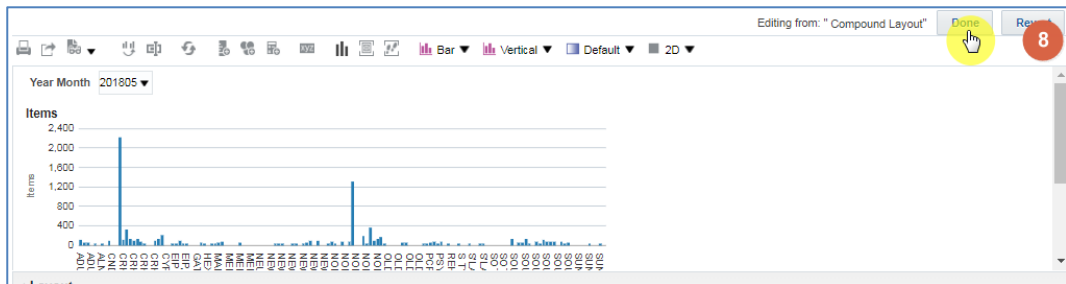
- Click and drag all columns shown in the 'Measures' section except 'Items' into the 'Excluded' section.



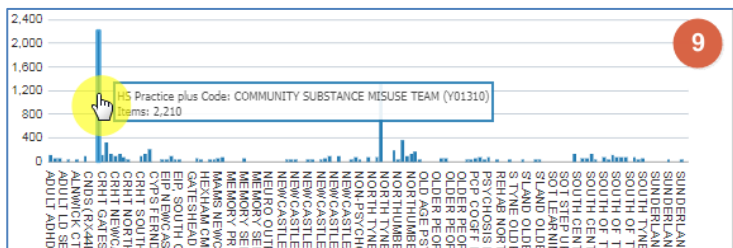
- Only the 'Items' field should be left in the 'Measures' area.



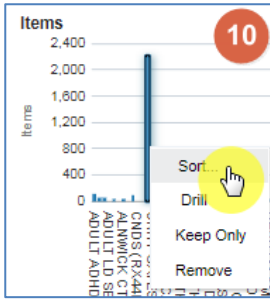
- Select 'Done' to confirm the changes.



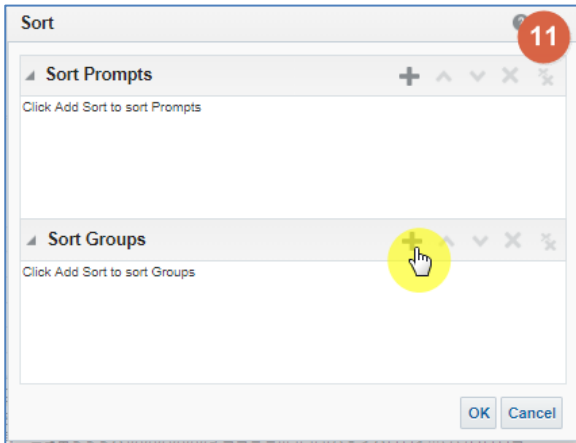
- Hover over one of the values shown in the bar chart and right click



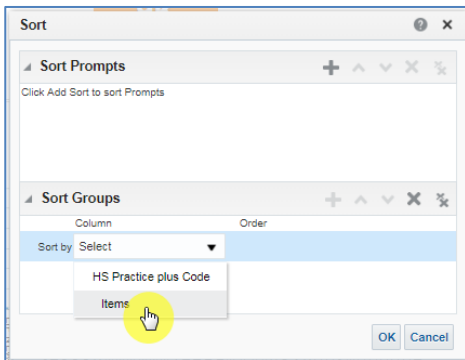
- Select 'Sort' from the drop down list displayed.



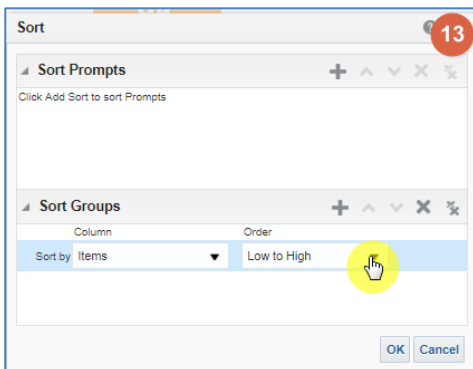
11. Select the '+' icon to add a sort.



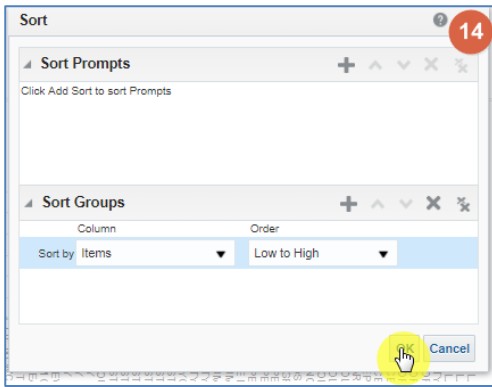
12. Select 'Items' from the 'Sort by' drop down list.



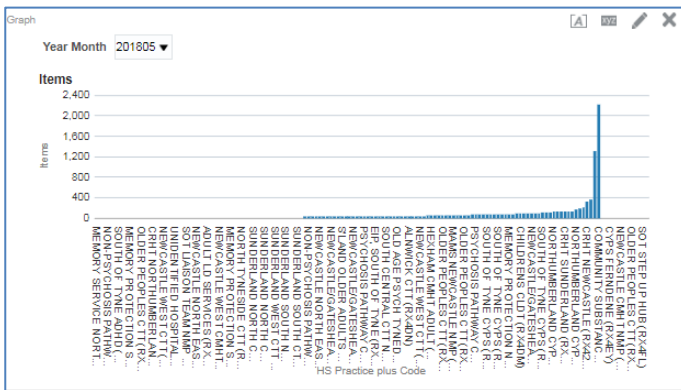
13. Select 'Low to High' from the 'Order' drop down list.



14. Select 'Ok' to confirm the changes.



Your chart will look like this

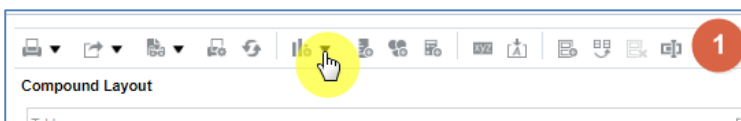


Now repeat the process above to add a bar chart to show the 'Items - PrY.

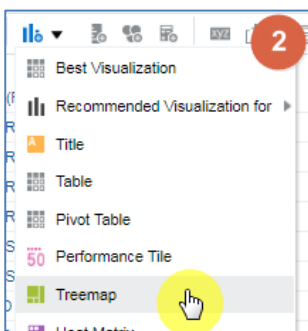
Adding a Tree map

Remove the bar chart views from the 'Compound Layout' by selecting the 'Remove view from compound layout' icon.

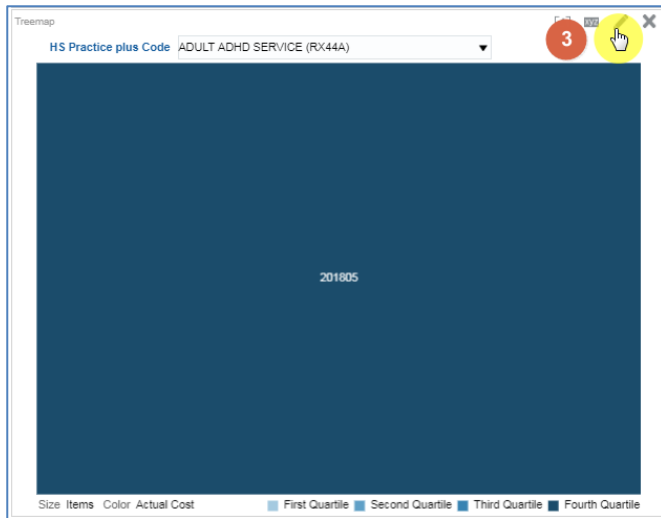
1. Select the 'New View' icon from the task bar to display the views available to include in an analysis.



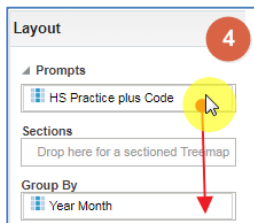
2. Select Tree map



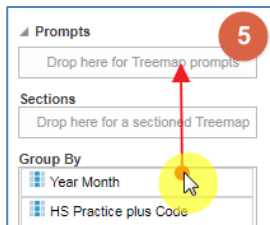
3. Select the 'Edit View' icon within the Tree map.



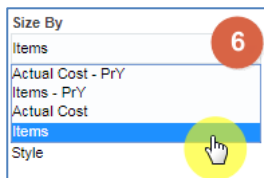
4. Click and drag HS practice plus code to the 'Group By' section



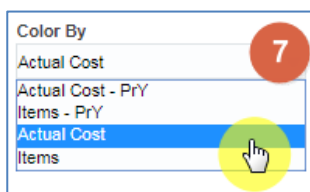
5. Click and drag the 'Year Month' to 'Prompts' section.



6. Select 'Items' from the 'Size by' options



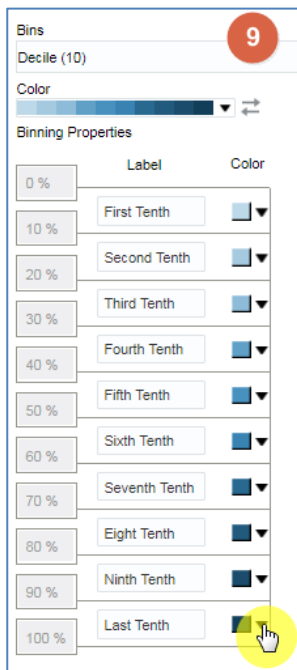
7. Select 'Actual Cost' from the 'Colour By' options.



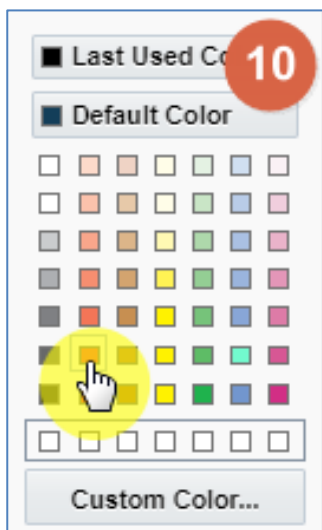
8. Select 'Decile (10)' from the 'Bins' option



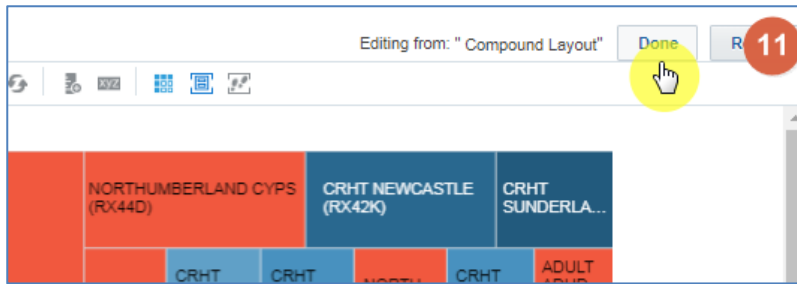
9. Click the drop down of the 'Last Tenth' decile to select a difference colour



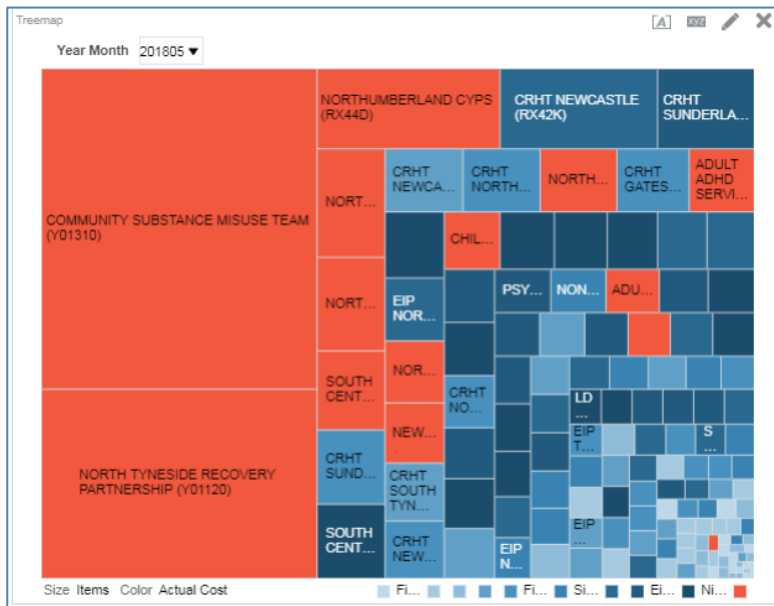
10. Choose a colour from the available options, (in this example we have chosen orange)



11. Select 'Done' to action the changes

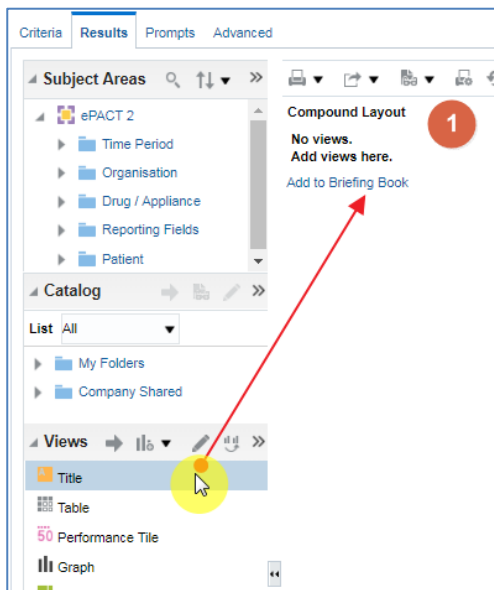


Your view will now look like this:

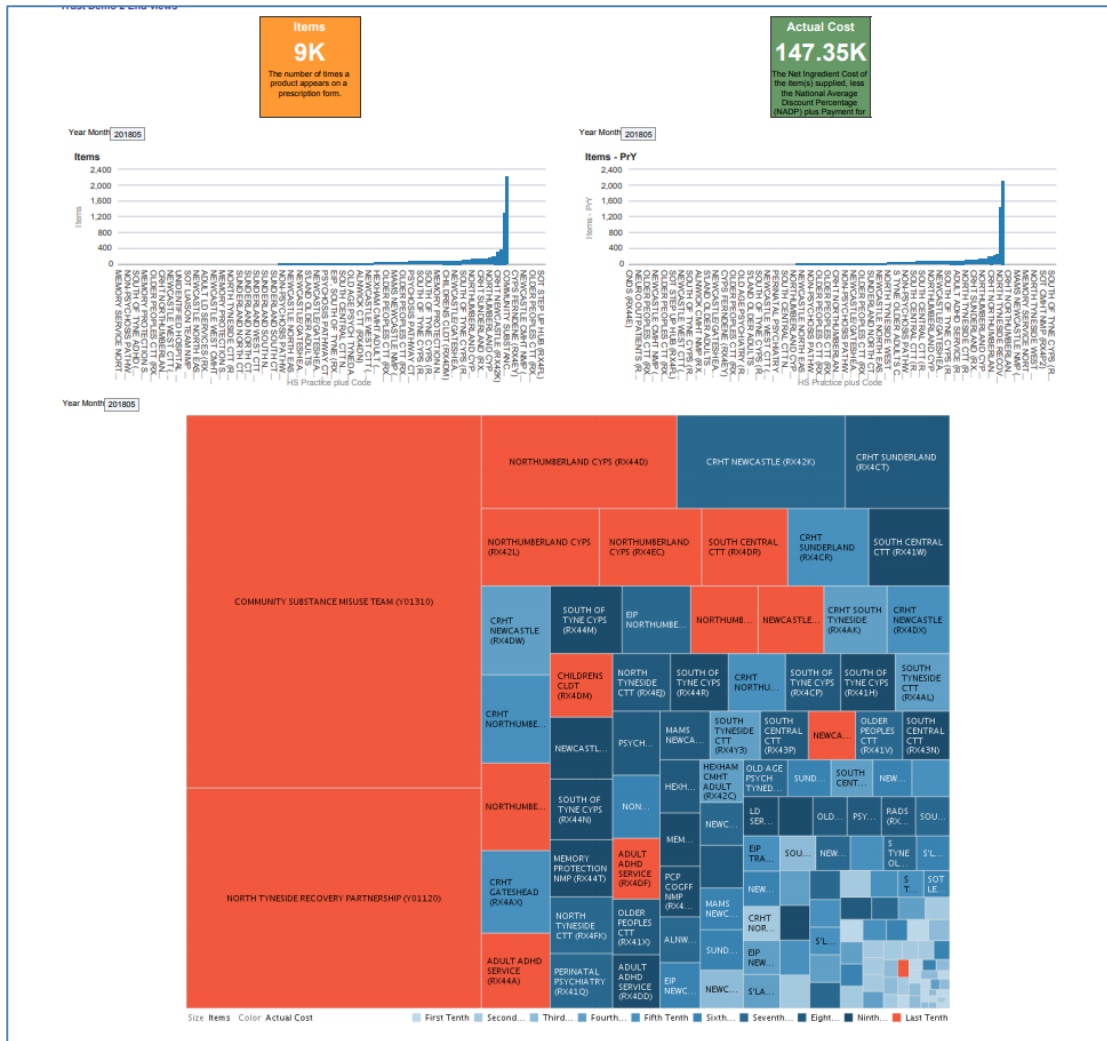


Adding the views back into the compound layout

1. Click and drag the views from the 'Views' pane into the Compound Layout.



2. The Views should be arranged as below.



Getting Help



Additional training material and user guides

The NHSBSA has developed a number of how to guides to help you get the best out of ePACT2. These can be found at: <https://www.nhsbsa.nhs.uk/epact2/epact2-user-guides>

WebEx sessions

WebEx will be provided on a number of different topics and features. More information about these can be found here:

<https://www.nhsbsa.nhs.uk/epact2/epact2-training>

Useful Contact Details

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