atmolytics

Report Definitions and Outputs

User Guide v2.60

imosphere

Contents

1 A note about terminology

Because Atmolytics is fully configurable, different organisations may use different terms to describe the individuals and events they are working with, and these will be reflected in the Atmolytics screens. For example, one organisation's **patients**, **admissions** and **reports** may be another organisation's **service users**, **involvements** and **explorations**. Your organisation may use different terminology in their implementation of Atmolytics.

In this user guide, we've used the terminology **patients**, **admissions/visits**, **Apps** and **reports** throughout. Some of the images may mention **explorations** instead of **reports** but they are referring to the same thing.

We refer to the 'start' area of Atmolytics (found by clicking on the icon) as the **Home** area. You may also see this referred to as **My Hub** in other user guides.

2 Overview of report creation

Reports are created within Atmolytics using a simple, intuitive, step-by-step process which begins once you select the **App** you wish to use:

Step 1: Who?	Which patients do you want to report on?
Step 2: Which selections?	What settings do you wish to use to produce your report?
Step 3: Which data sources?	Which sources or locations do you want the report data to be drawn from?
Step 4: Which timeframe?	Do you want to report on data from a particular period of time?

Steps 1, **3** and **4** are similar for every App and are explained in this guide.

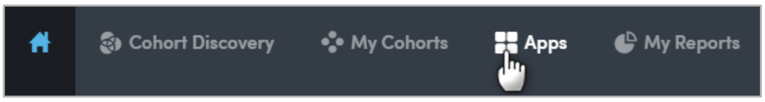
Step 2 enables you to select the specific report settings you wish to use in creating an output with the App you've selected. In contrast with the other steps, **Step 2** differs from App to App.

3 Choosing an App

There are several ways of accessing and selecting Apps in Atmolytics:

3.1 Accessing Apps via the top menu bar

The simplest way to access Apps from anywhere in Atmolytics is to click **Apps** in the top menu bar:



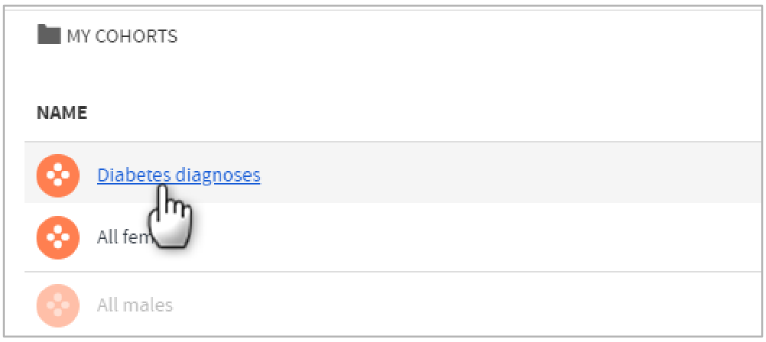
You will be taken to the **App selection** screen:

If you click the grey symbol on the top right of each App name, you can see a summary of the features and uses of that App. Click any App to open it and go to the first step of the report creation process.

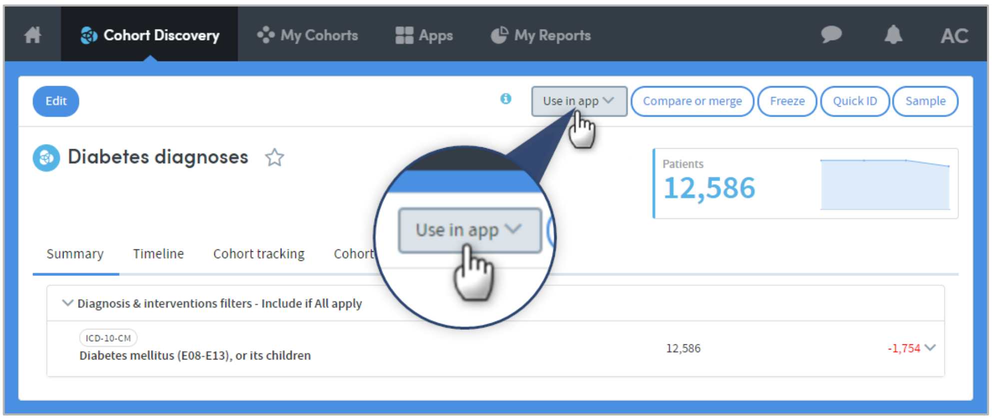
3.2 Accessing Apps via My Cohorts

If you are working with cohorts, you can select a cohort and jump straight to the App you want to use.

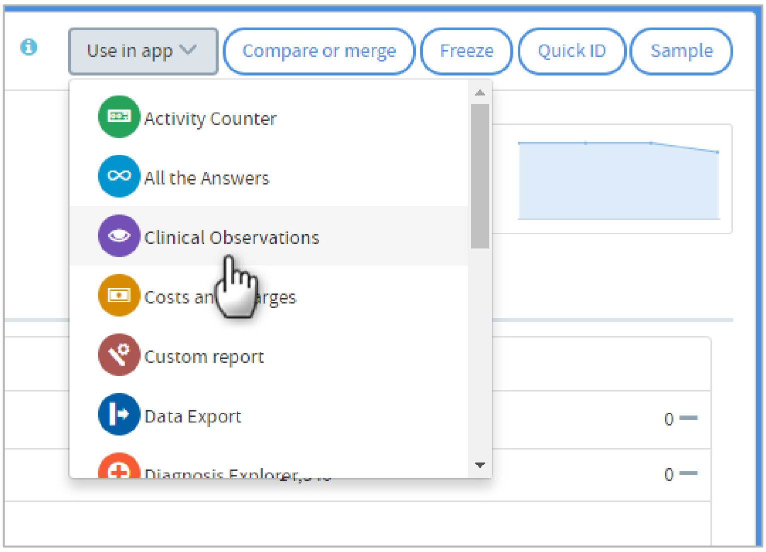
On the **My cohorts** screen, click the name of a cohort:



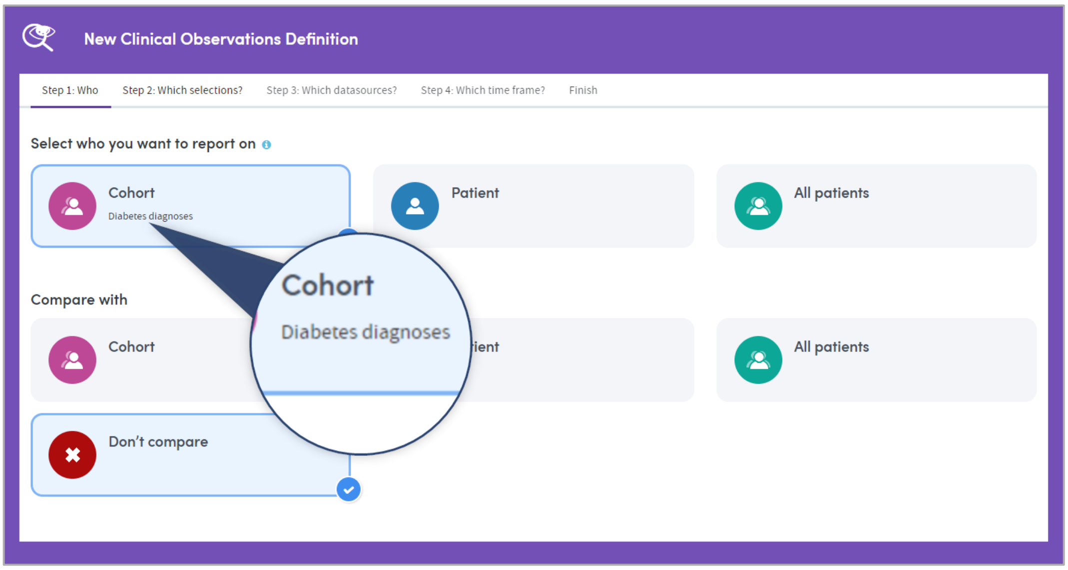
You will be taken to the **Cohort details** screen. Click the **Use in app** button on the top right:



Select the App you wish to use from the drop-down list:

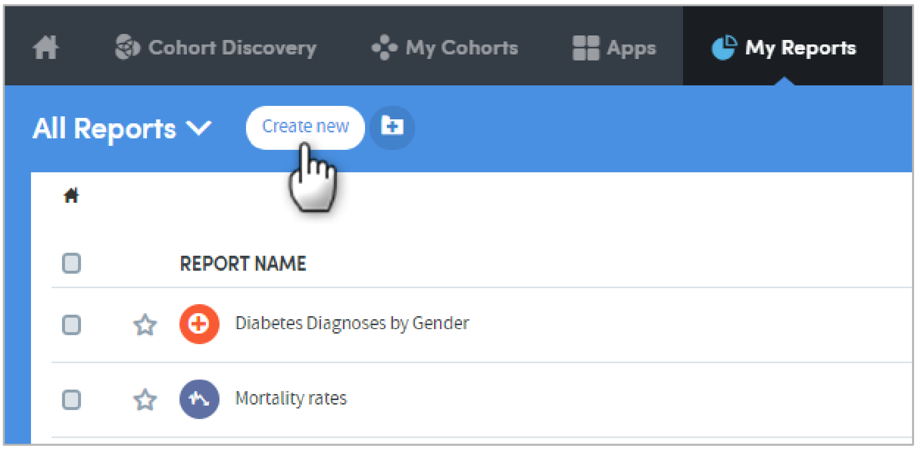


You will be taken straight to the first step of the report creation process for the App you have selected. Your cohort will already be included as part of the report:



3.3 Accessing Apps via My Reports

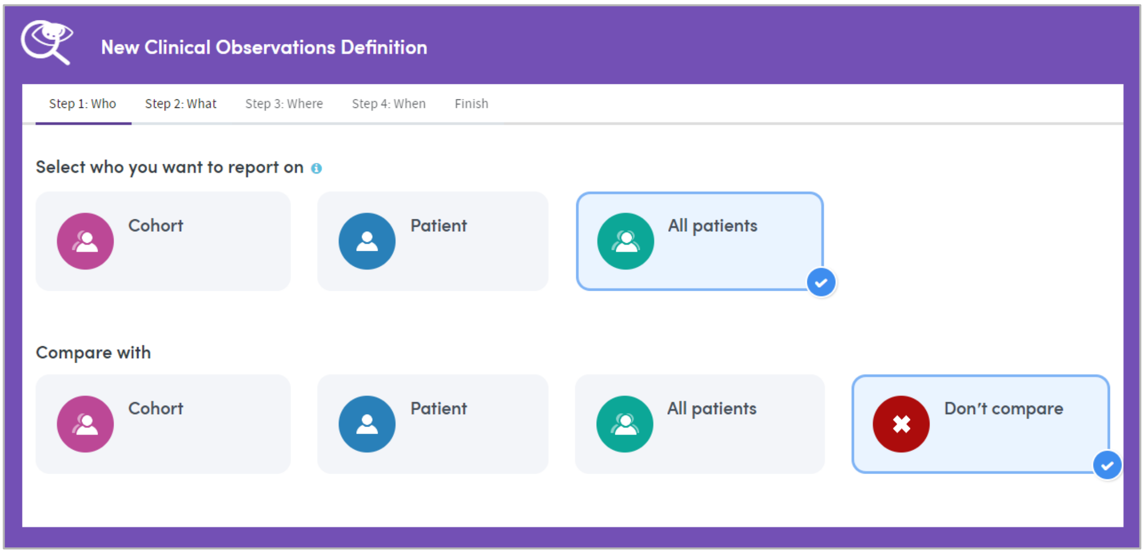
If you are viewing or working with existing reports in the **My Reports** area, you can access the Apps by clicking on **Create new** on the top left of the page:



You will be taken to the **App selection** screen:

If you click the grey ⓘ symbol on the top right of each App name, you can see a useful summary of the features and uses of that App. Click any App to open it and go to the first step of the report creation process.

4 Step 1: Who



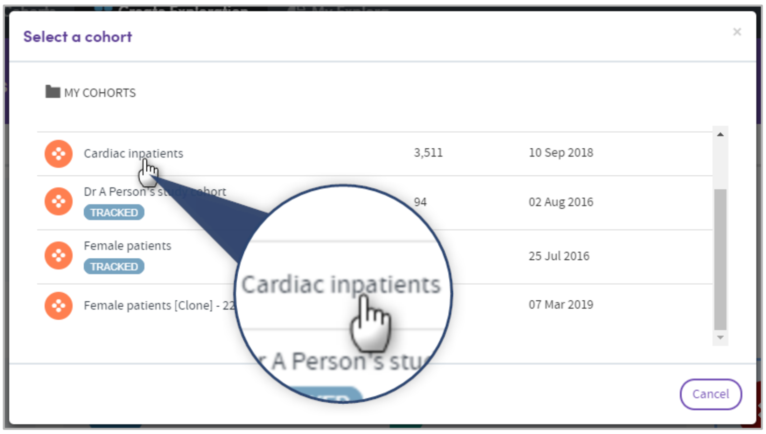
When you are selecting who to report on and who to compare data with, it's important to remember that **you can only report on patients who are included in your own base cohort**. The base cohort contains all the patients you are permitted to report on in your current role. Any other cohorts you create or receive from other users will be automatically filtered to only contain patients who are already in your base cohort.

Depending on the App you're using, you will be able to choose from **Cohorts**, **Patients** and **All Patients**, and you may be able to compare one selection with a second.

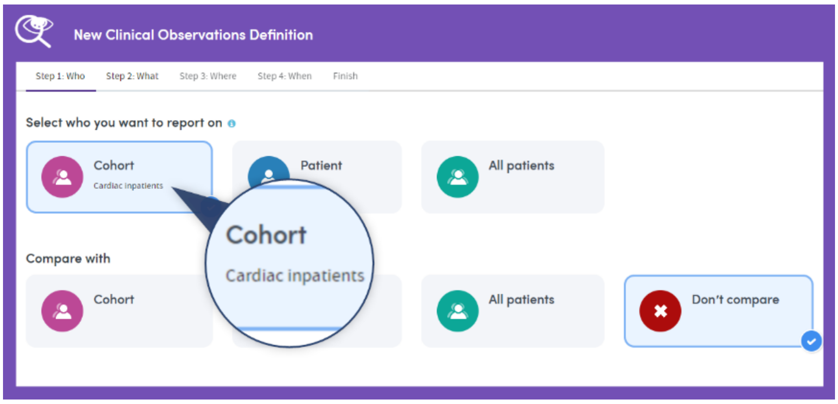
Make your selections and click **Next** to move on to Step 2.

Cohort

Click Cohort to choose from all the cohorts available to you in your **My Cohorts** area. This includes your base cohort, any cohorts you have created, and any cohorts that other users have shared with you:

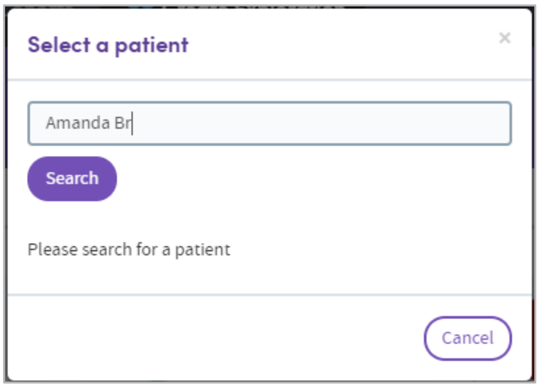


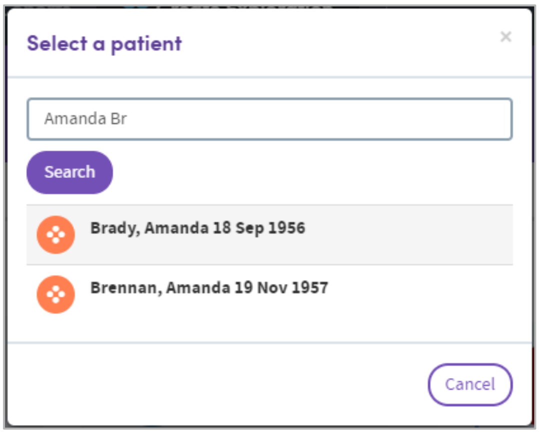
Once you've chosen a cohort, its name will be displayed on screen:



Patient

Select this option to report on a single patient. A search panel will appear:

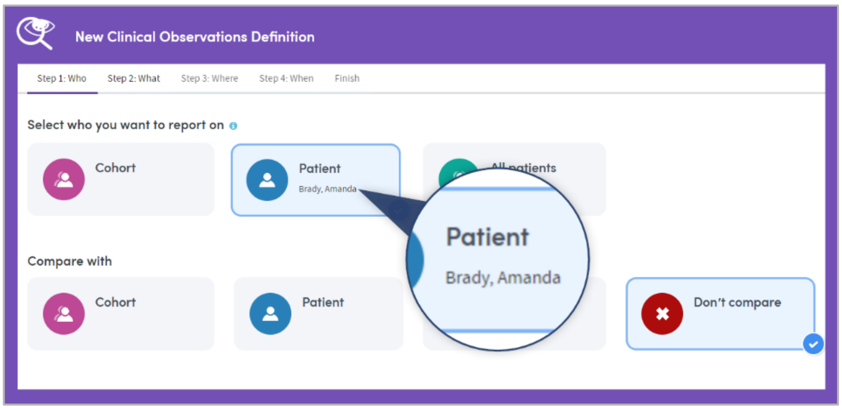




You must know the patient's name in order to search for them. Type in part or all the name and click **Search**.

The search results will only list the names of matching patients who are members of your base cohort.

Click the matching name and it will be displayed on the main **Who** Screen:



All patients

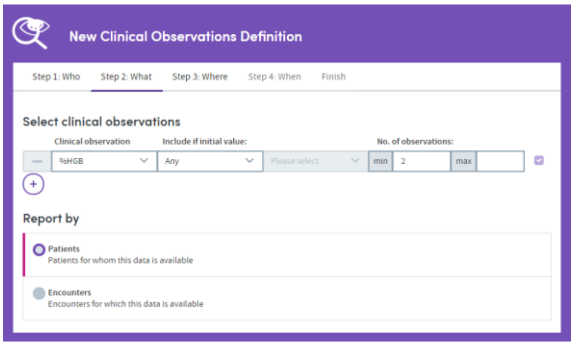
Select this option to report on all the patients in your base cohort.

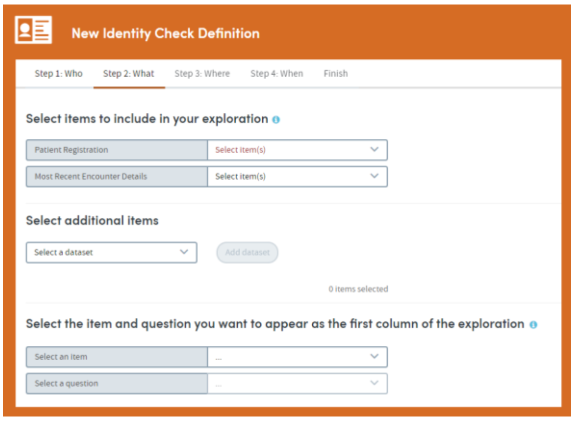
5 Step 2: What

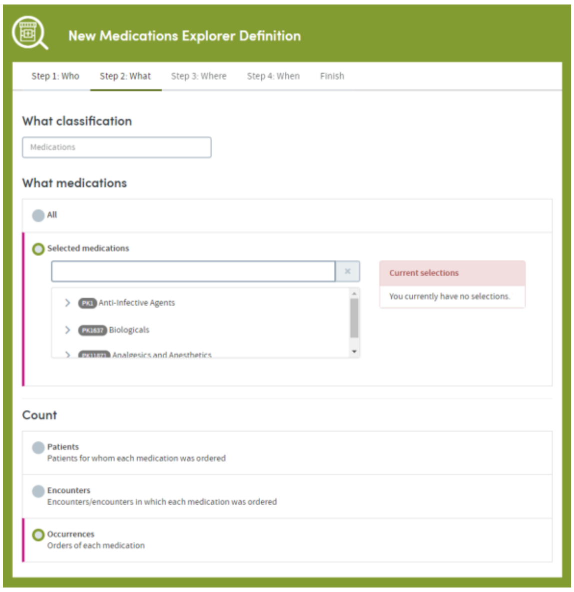
The **What** step enables you to select the settings you wish to use in creating a report with the App you have selected. In contrast with other steps in the process, the **What** step can be significantly different for every App. Report settings typically include options such as:

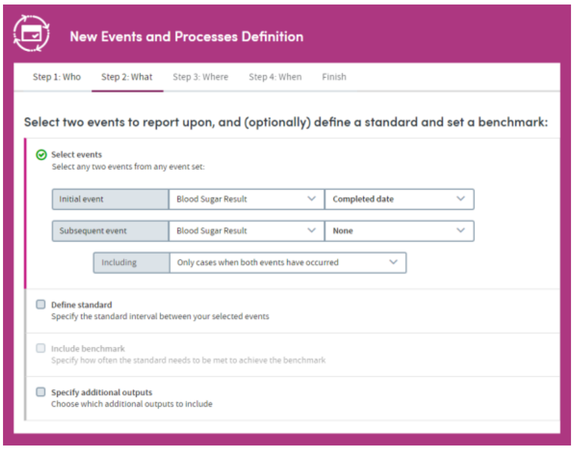
- Which data is to be reported upon?
- Should the output count patients or admissions/visits?
- Selection of items to include on the cover sheet of the report.

Below are some sample images of typical **What** screens. Make your selections and click **Next** to move on to Step 3.

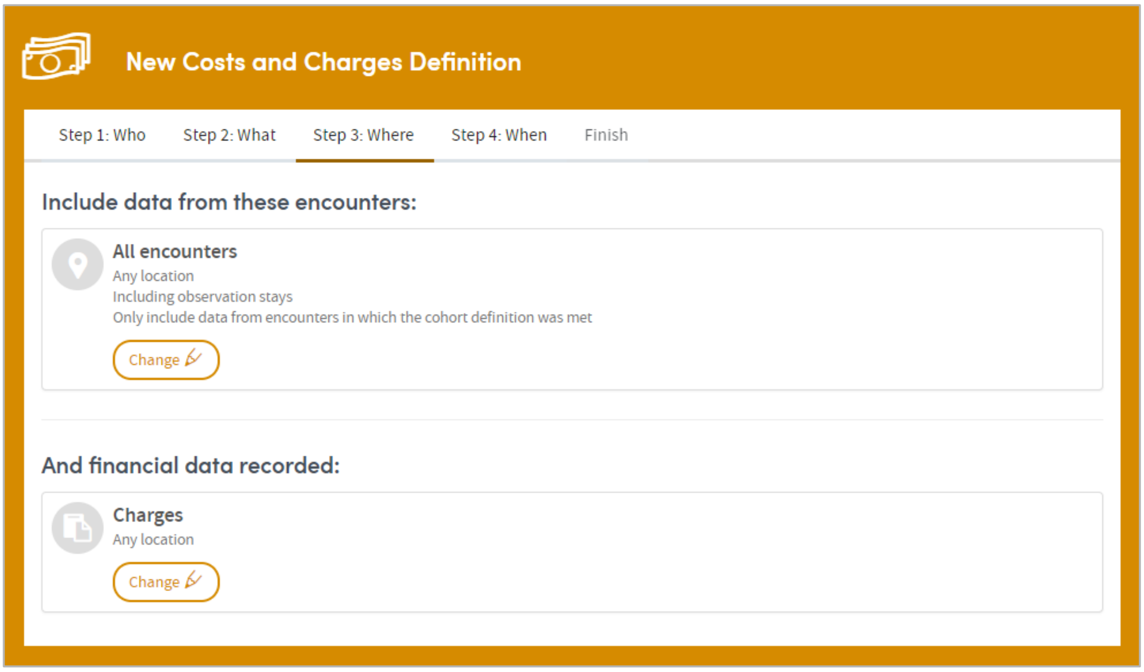








6 Step 3: Where



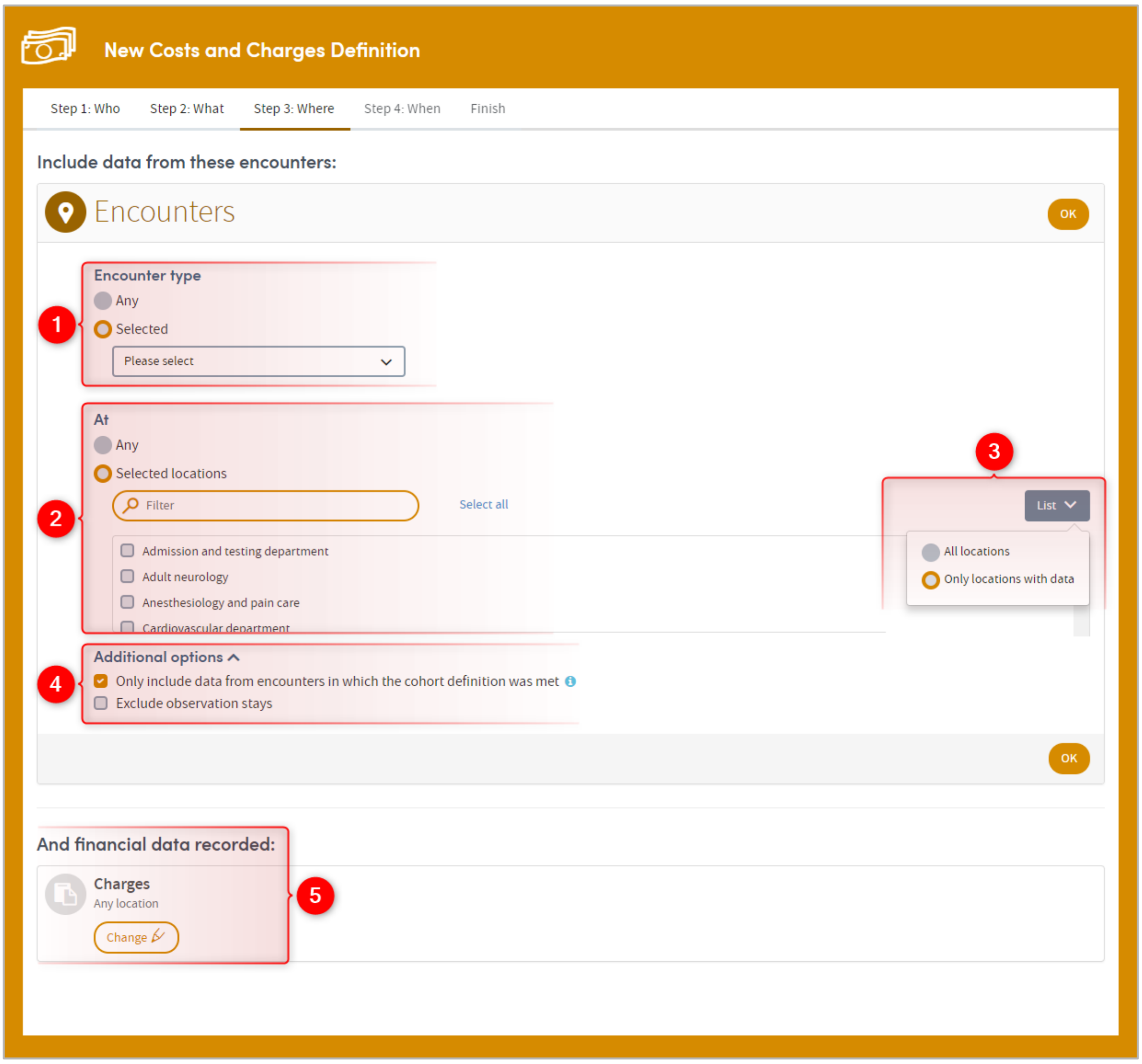
In this step, you select the data sources you want to include in the report. In most cases you'll need to choose:

- The type(s) of patient admissions/visits you want to include (e.g. **any admissions/visits**, or **inpatient** or **outpatient** admissions/visits).
- The location(s) of the patient admissions/visits you want to include (e.g. **any location**, or specific clinical departments or hospitals).
- The location(s) in which the report data was recorded (e.g. **any location**, or specific clinical departments or hospitals).

Make your selections and click **Next** to move on to Step 4.

Additional options may be available depending on the App you're using. The default setting is to include all admission types from any location, and data recorded in any location.

Click **Change** to make your own selections (this example is taken from the Costs and Charges App):



1 Click the drop-down list to choose specific admission types (inpatient, outpatient, etc.)

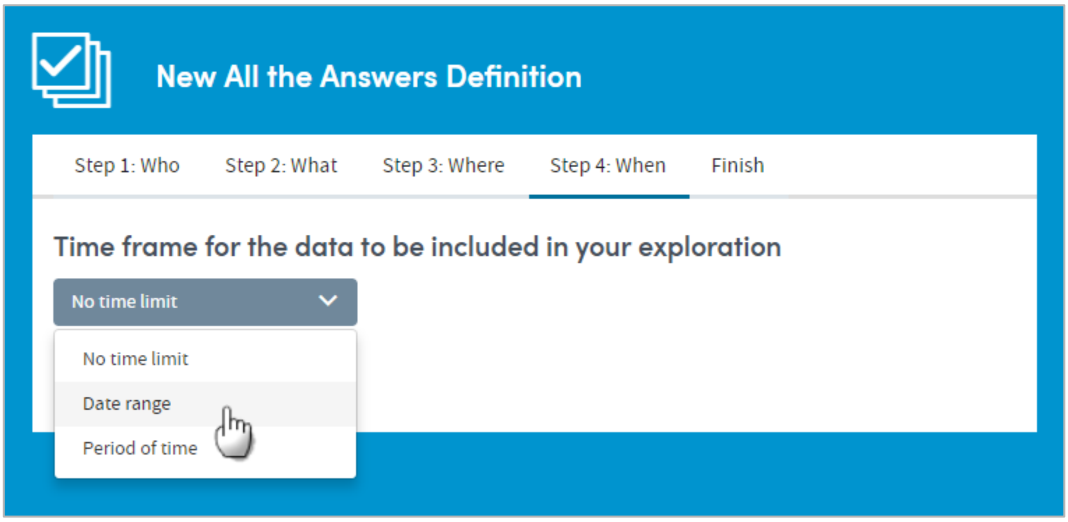
2 **Any location** is selected by default, but by clicking **Selected locations** you can choose one or more locations from the list, either by clicking the checkboxes, or by typing in the search field.

3 Click **List** to filter the list of available locations by either **All locations**, or **Only locations with data**.

4 Any additional options specific to the App you're using, will be listed here.

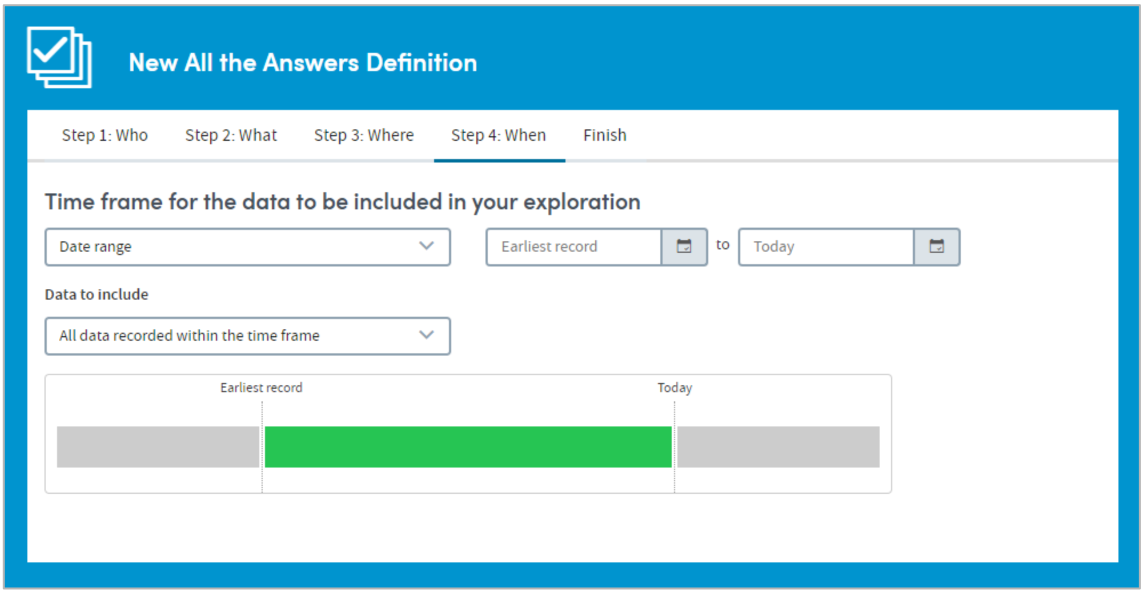
5 Data recorded in **Any location** is selected by default, but by clicking here, the screen will unfold to present you with the same search options as those in 2 above. Choose one or more **Selected locations** from the list, either by clicking the checkboxes, or by typing in the search field. You'll also have the option to click the **List** drop-down, to filter the list of available locations by either **All locations**, or **Only locations with data**.

7 Step 4: When



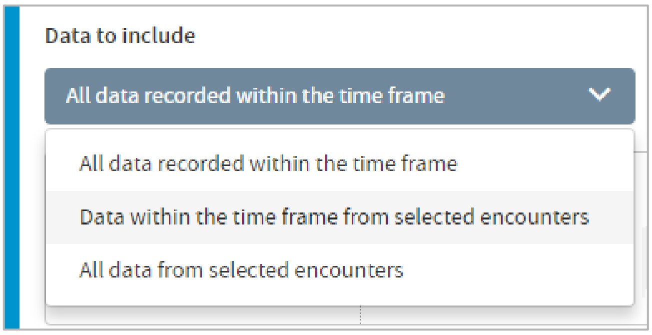
This step lets you set time limits on the data to be included in your report. You can choose to apply a date range or time period to the data from your selected sources, or you can select the **No time limit** option.

If you choose **Date range** or **Period of time**, you'll then select a date range by clicking on the calendar icons, or choose a period of time from a drop-down list (the last week, the last year, etc.).



Once a date range or time period has been selected you need to decide which data from which admissions/visits to include within the time frame. Because admissions/visits themselves have a duration, there is the potential for overlap between the duration of an admission/visit and the time frame selected.

The options are explained below:

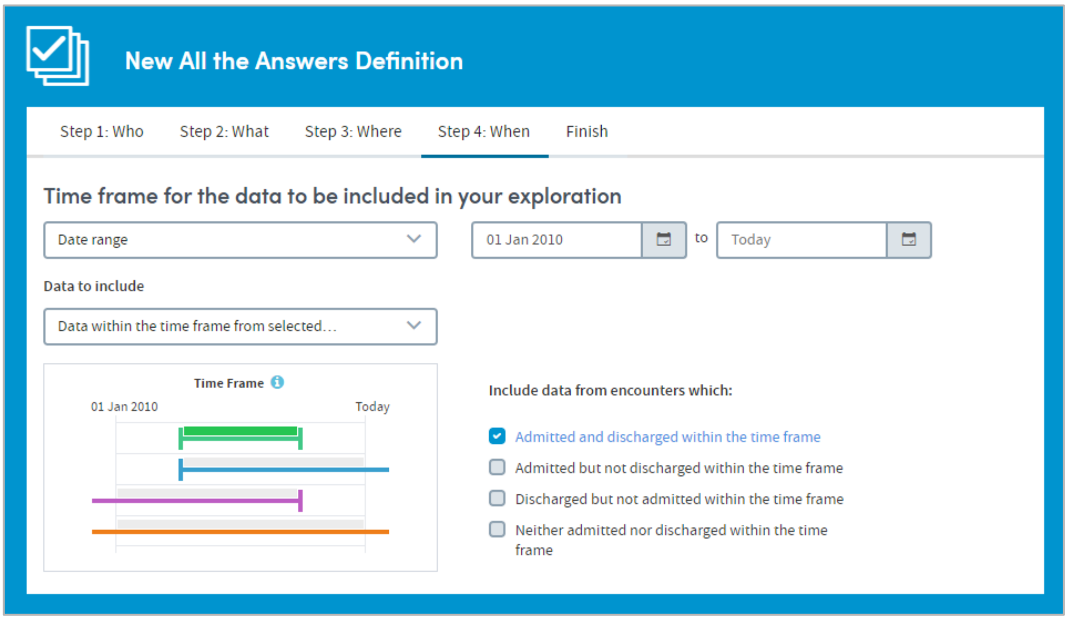


- **All data recorded during the time frame**
  The report will include any and all data which was **only recorded during the time limits you have set**.

- **Data within the time frame from selected admissions/visits**
  The report will include data which was **only recorded during the time limits you have set**, and **is also** data which was only recorded during admissions/visits meeting specific time-bound criteria (which you will select).

- **All data from selected admissions/visits**
  The report will include *all* data from your selected admissions/visits, even if some of this data was recorded **during a time which extends beyond the time limits you have set**. For example, if you have set a date range of January 1 2015 – December 31 2015 and have chosen to include data from admissions/visits that 'neither began nor ended within the time frame' (see below), then your report will include analysis of data pertaining to such admissions/visits that was recorded before January 1 2015 or after December 31 2015 (as well as the data recorded within the timeframe).

If you select either of the last two options, you will be presented with up to four specific time-bound criteria to select from. You can choose any available combination of these types using the tick boxes:



Make your selections and click **Next** to complete your report.

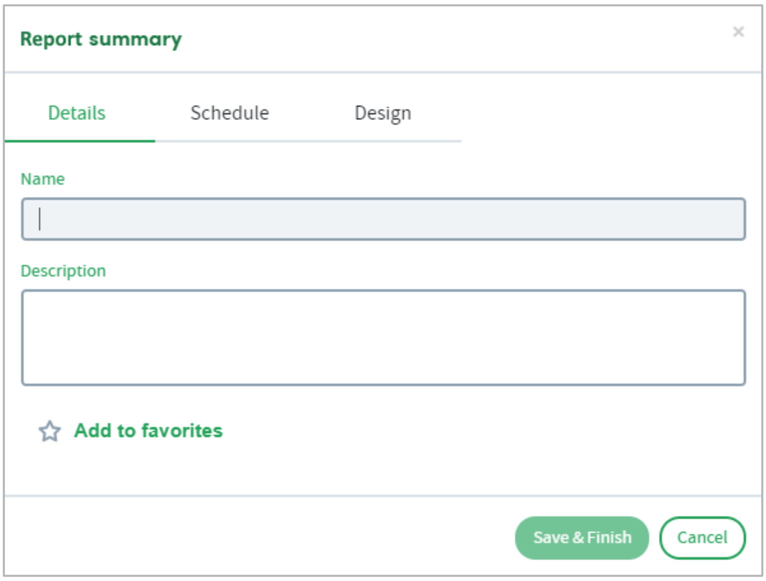
8 Report summary

After you've made your **When** selections and clicked on **Next**, the **Report summary** panel will appear. The panel has three tabs; **Details, Schedule** and **Design**. You must name your report in the **Details** tab of the Report summary, but changing the other settings is optional.

Click **Save & Finish** when you are ready to generate your report.

8.1 Details

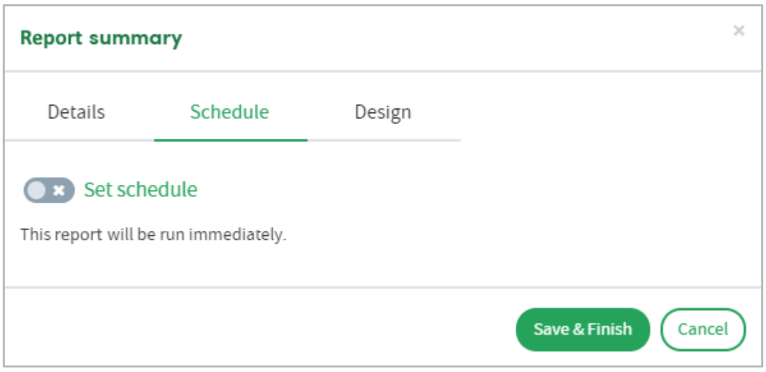
Give your report a name and a description, e.g. its purpose, and why you made the selections that you did. You must name the report, but the description is optional.



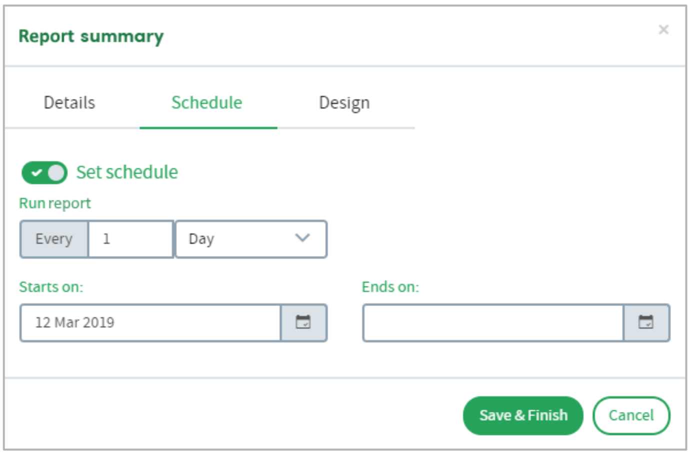
If you wish, add the report to your favourites list by clicking the star icon. You can also add the report or remove it from your favourites list after you've generated and viewed it.

8.2 Schedule report

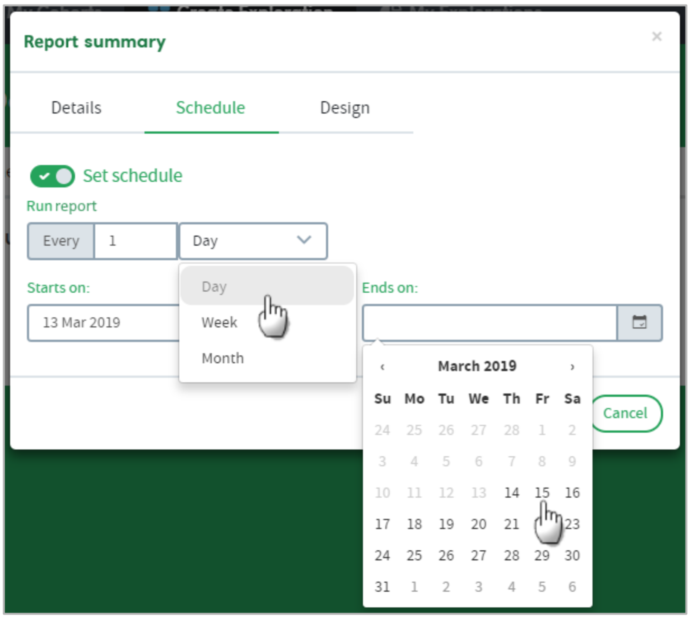
You can choose whether to run the report once only:



or schedule it to run regularly:

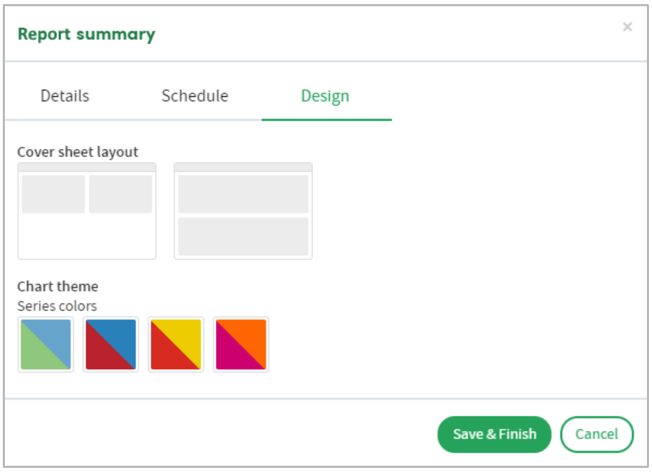


Complete the fields, using the drop-down list and/or the calendars as needed:



8.3 Report design

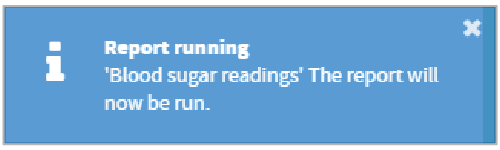
Finally, you can choose the colour scheme and layout of the cover sheet of the report. The cover sheet layout options available to you will automatically reflect the number of items you selected for inclusion on the cover sheet.

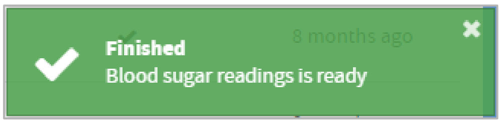


9 Generating the report

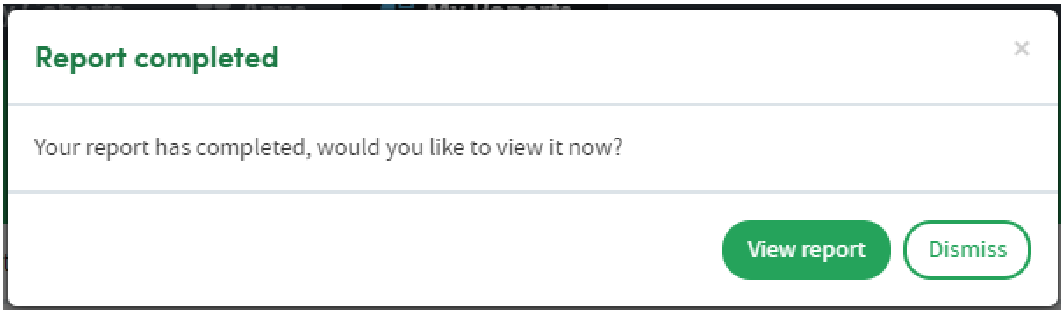
You must name your report in the **Details** tab of the Report summary (see 8.1) but changing the other settings in the summary panel is optional. Click **Save & Finish** when you are ready to generate your report.

If you wish, you can move to other areas of Atmolytics while the report is running. You'll see brief notifications in the bottom right corner of your screen, confirming that the report is being generated, and informing you when it's ready:



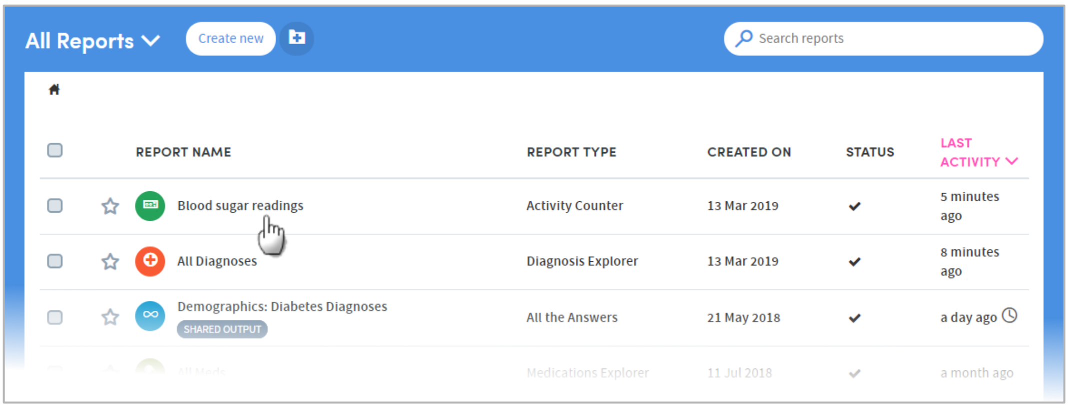


You may also see a popup panel, confirming that your report is ready, and giving you the option to view it now, or dismiss it:



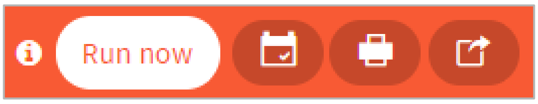
If a new report is ready to view, or a report has been shared with you, the notification bell in the top menu bar will turn orange, and a small orange dot will be visible next to **My Reports**:

Click **My Reports** in the top menu bar to see all the reports available to you. The most recent reports will be at the top of the list. Click the name of a report to view it:



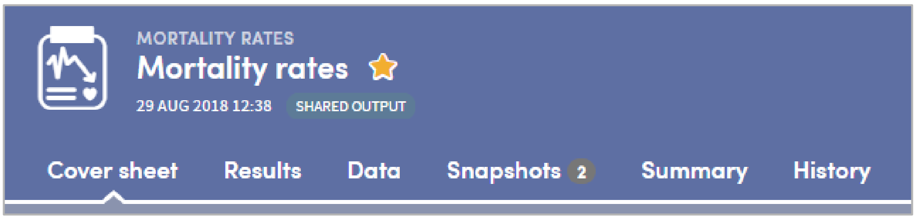
10 Report outputs

Report outputs have a standard format, including a range of standard options:



You can choose to **Run** the report again, **Schedule** the report, **Print** the data from the current tab, or **Share** the output with other users. You can choose to share either the most recent instance of the report or all instances, with other users who have the same role as you.

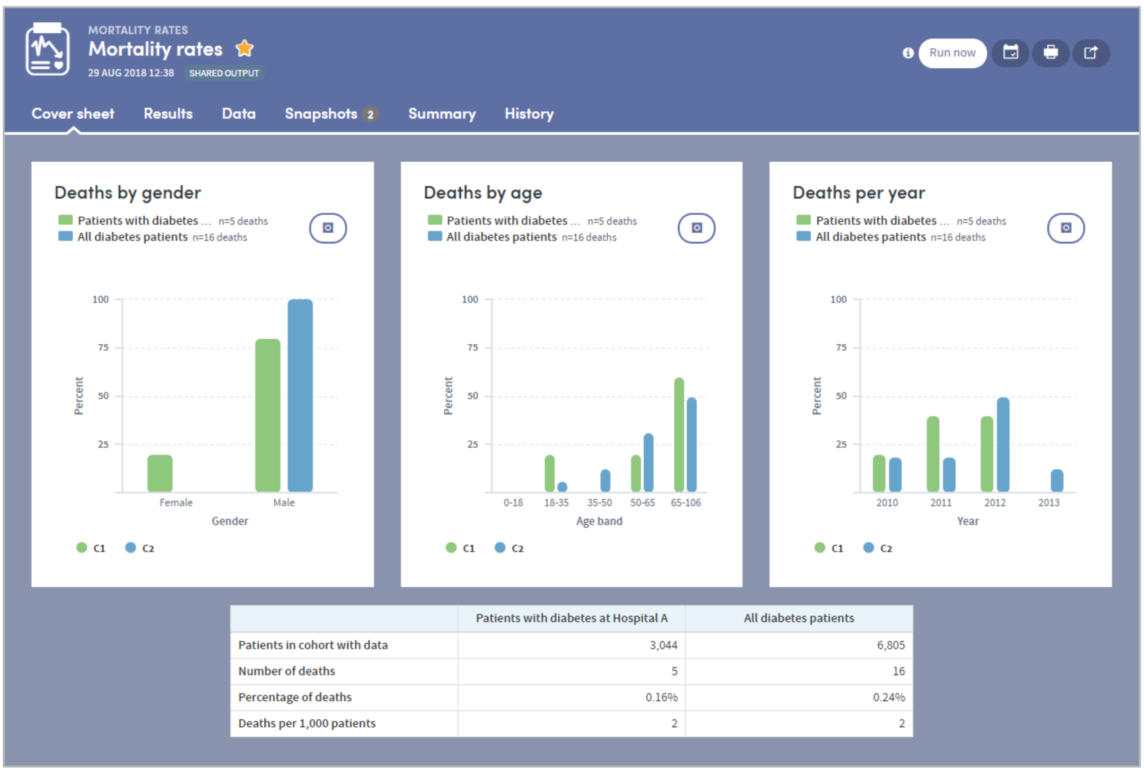
The content of report outputs depends on the type of App you're working with, but all reports contain **Results**, **Summary** and **History** tabs. Most report outputs also include **Cover sheet**, **Snapshots** and **Data** tabs:



Reports also include a range of interactive facilities designed to enable easy sorting and sifting of the data. Again, these are tailored for each App.

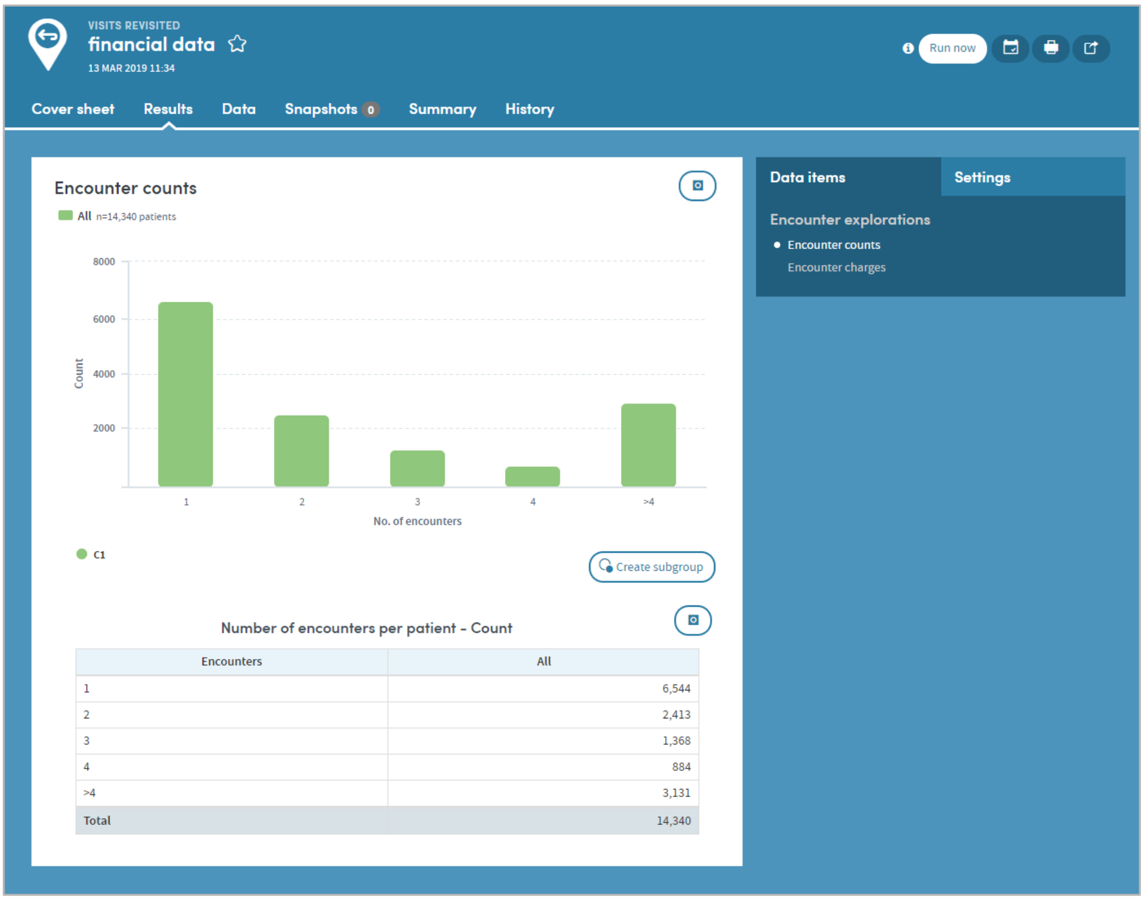
10.1 Cover sheet

The Cover sheet of a report highlights key findings from the report:



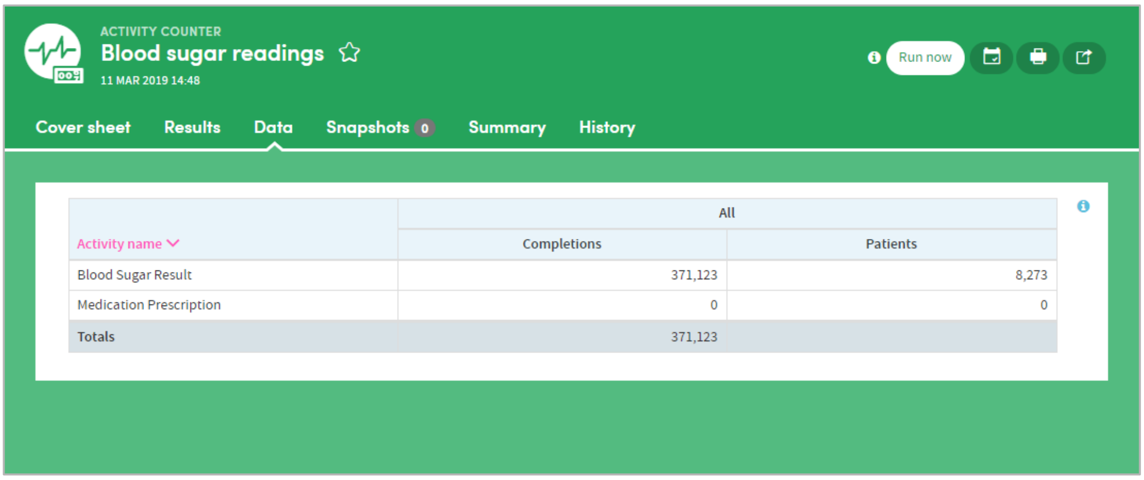
10.2 Results tab

The Results tab allows you to browse the report data in great depth, on an item-by-item basis with both graphical and tabular representations where appropriate. You'll find a range of interactive facilities designed to enable easy sorting and sifting of the data. Again, these are tailored for each App, but you can see an example below:



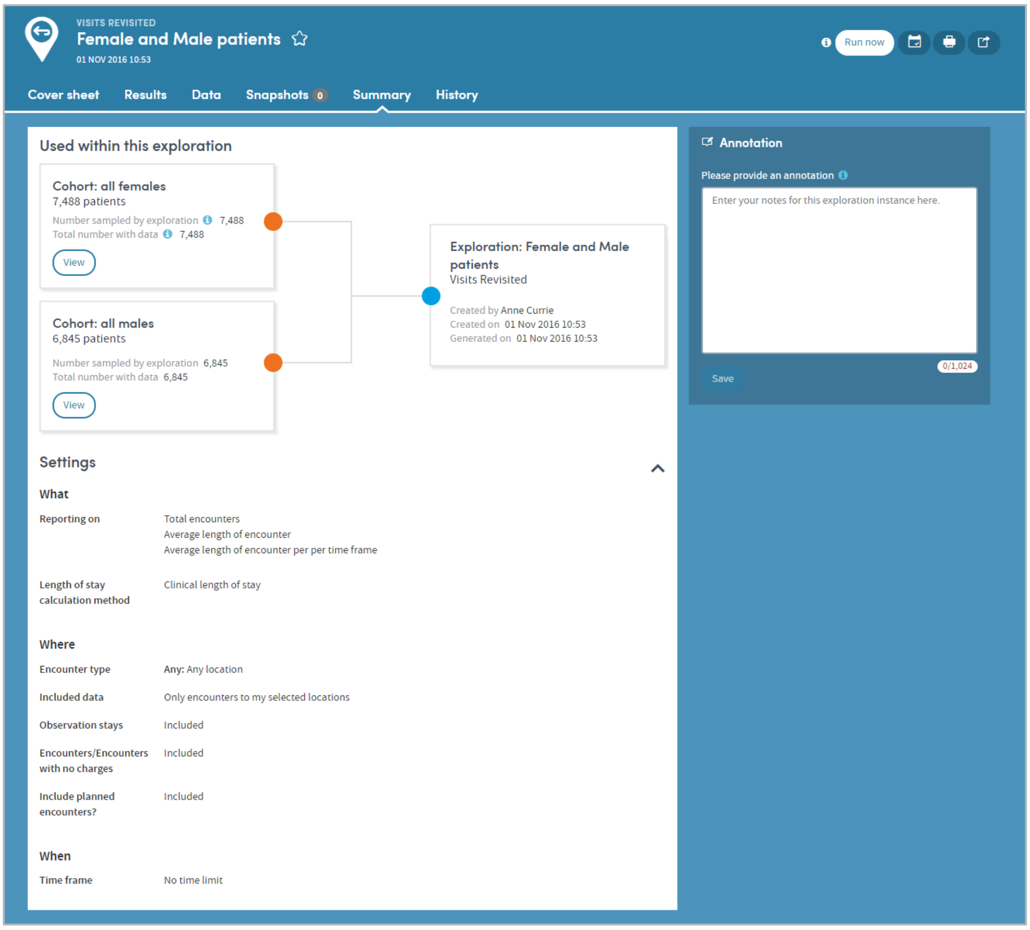
10.3 Data tab

Some types of report include a Data section which presents the report data in tabular format, with features which enable in-depth sorting and analysis:



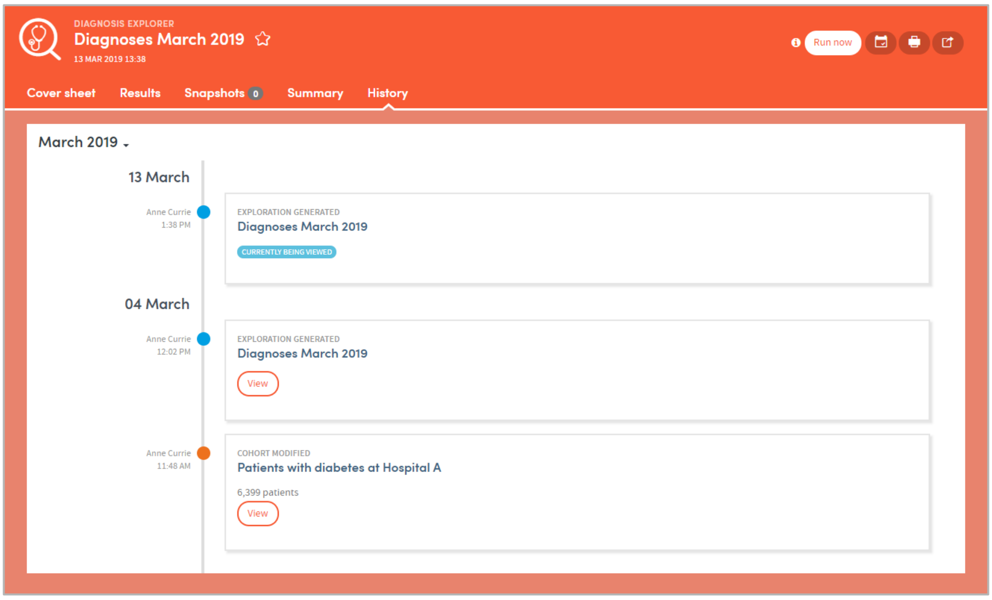
10.4 Summary tab

The Summary specifies all the options selected by the user who created the report. You can also add annotations to the Summary if you wish:



10.5 History tab

Every time a report is generated, it is saved and can be reviewed at any time. The **History** tab allows you to select and view any previous version of your report:



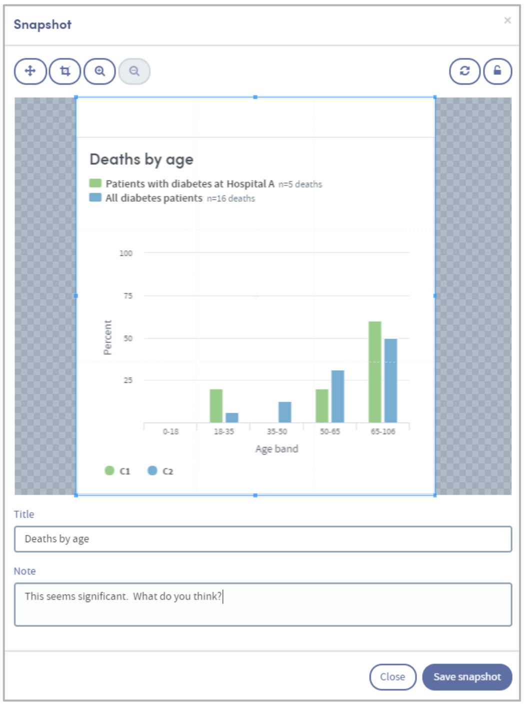
Click the **View** button to see previous versions of the report:

10.6 Snapshots

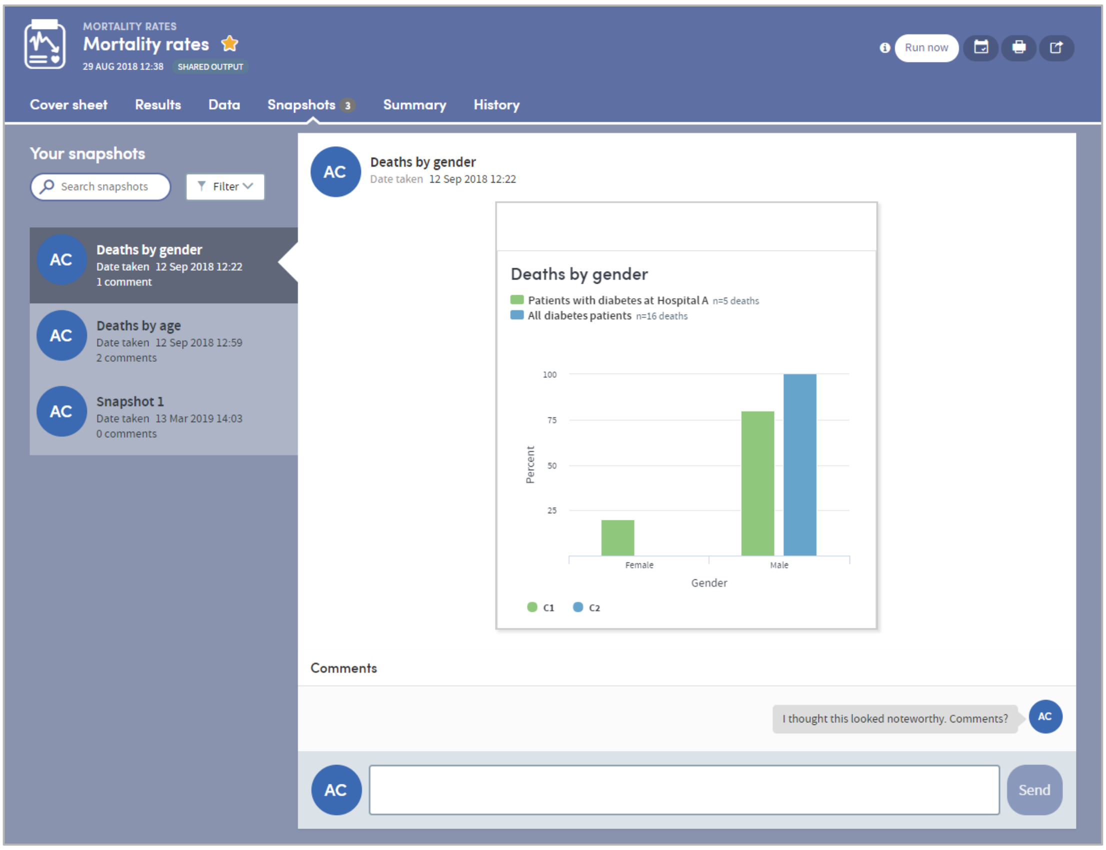
As well sharing report outputs, you can also take, share, and discuss 'snapshots' of your Atmolytics reports with other users, using a built-in chat room facility.

At various places in the **Cover sheet** and **Results** tabs of your report, you'll see a snapshot icon:

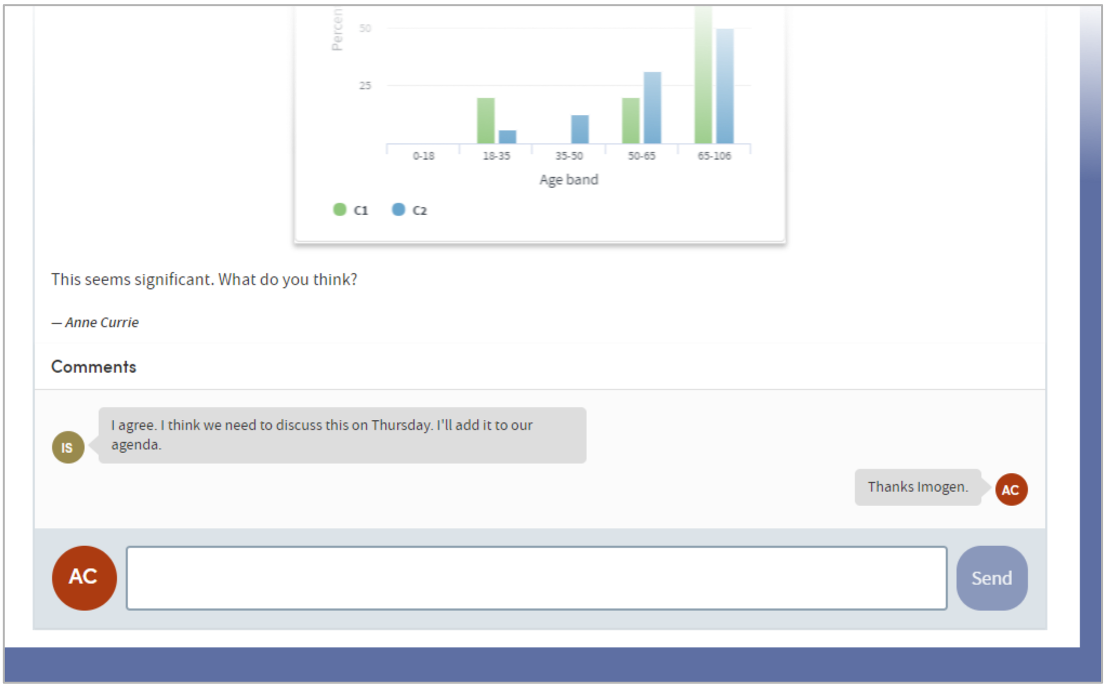
Click the icon to take a snapshot of that area of the report:



Add a title and an optional note, and click **Save snapshot**. Once the snapshot is saved, the image and comment are saved under the report's snapshot tab:



Every user who shares the report output will be sent a notification, letting them know that a new snapshot has been created. Everyone can add comments and discuss the snapshot in real time, enabling easy collaboration with your colleagues:

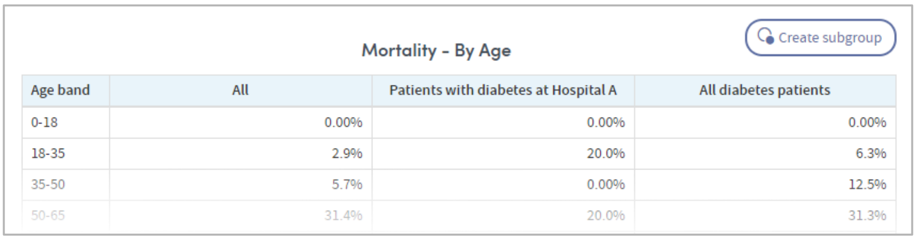


11 Subgroups

Some of the most frequently used Apps enable **subgroups** to be created within a report and saved as a new cohort.

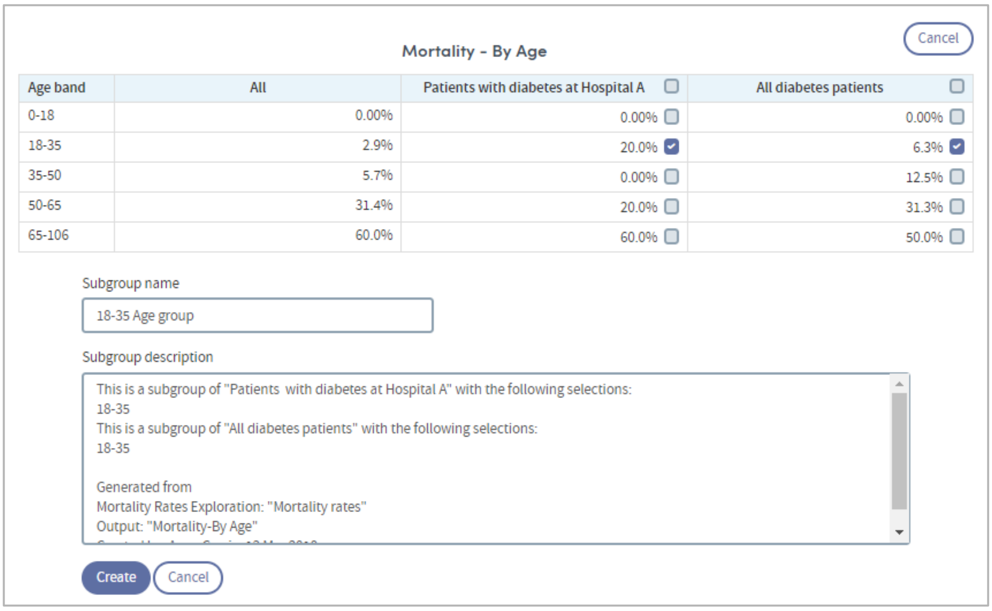
Subgroups are a special type of cohort. They are defined by the **identities** of the individuals who belong to the cohort rather than by the **criteria that select those individuals.** Because of this, subgroups are not editable in the way that standard cohort definitions are editable, since all that Atmolytics has available to it are the IDs of the individuals in the subgroup rather than a set of criteria that can easily be applied back with Cohort discovery.

The **Results** tab of your report may display the **Create subgroup** button:



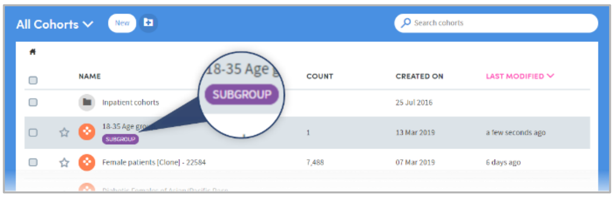
Age band	All	Patients with diabetes at Hospital A	All diabetes patients
0-18	0.00%	0.00%	0.00%
18-35	2.9%	20.0%	6.3%
35-50	5.7%	0.00%	12.5%
50-65	31.4%	20.0%	31.3%

Click the button and choose the individuals you want to include by clicking the check boxes next to the data in the table. As you do so, the **Subgroup description** field will be populated with the relevant information. You can edit this description if you wish. You also need to complete the **Subgroup name** field.



Age band	All	Patients with diabetes at Hospital A	All diabetes patients
0-18	0.00%	0.00%	0.00%
18-35	2.9%	20.0%	6.3%
35-50	5.7%	0.00%	12.5%
50-65	31.4%	20.0%	31.3%
65-106	60.0%	60.0%	50.0%

Click **Create** when you're ready. The subgroup will be created. You'll find the new cohort in the My Cohorts area, with a **SUBGROUP** tag under the cohort name:



12 Report sharing

There are two forms of report sharing: sharing **outputs** and sharing **definitions**.

A report definition is different from a report output. When you share a report output, you are also sharing the generated information which that specific instance of that report contains. When you share a report definition, you are in effect sharing the 'framework' of a report; the choices and decisions you made along the way about, for example, which cohorts, which datasets, or which period of time to include.

When you share a report definition, you also share the definitions of the cohorts included within the report. These will appear on the recipient's **My cohorts** list.

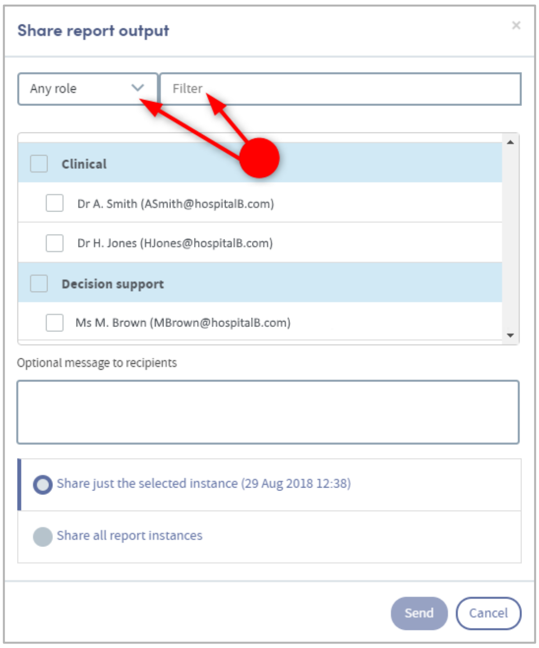
However, if the recipient has different permissions, or access to different data from you, the patients in their data who satisfy the cohort definition may differ from the patients that you can report upon. Hence, when a recipient runs a report using a definition that you have shared with them, they may generate different results from you.

This ensures that the sharing of a report definition does not allow the recipient to view sensitive data that they would otherwise not be permitted to view.

12.1 How to share a report output

To share a report output, first open the report you wish to share (you can do this by clicking on the report name in the **Home** area or in the **My Reports** area). On the top right of the report is a small menu bar. Click the **Share** icon:

A pop-up box will appear:

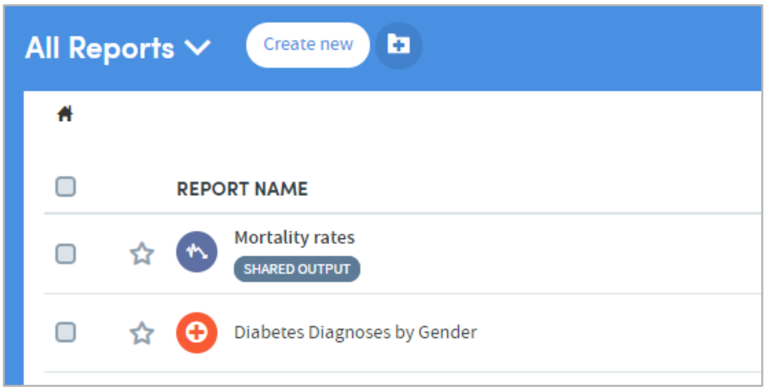


If you click the small down-arrow to the right of **Any role** you can select a specific role to narrow down the list of possible recipients. Alternatively, if you know their name, type this into the **Filter** space at the top, and the list below will display matching names for you to select from.

Click in the checkbox to the left of your chosen recipient(s). If you wish, you can add a message.

You can also choose whether to share all instances of this report or just the one that is open. When you have made all your choices, click **Send**. You will see a message at the bottom of the screen:

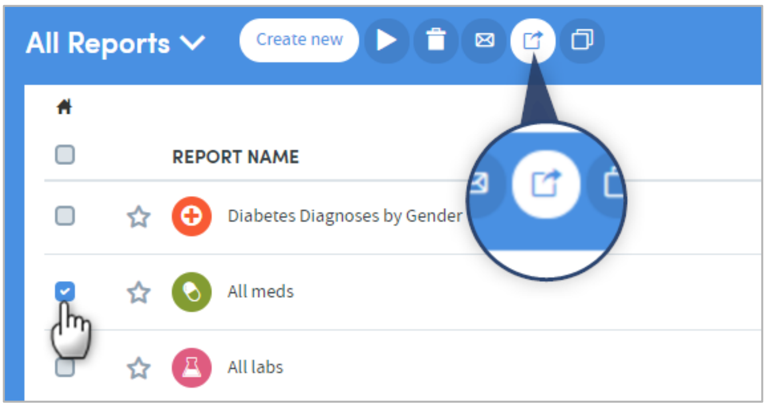
If you now go to your list of reports in the **My Reports** area, you will see that the report you shared has been tagged as **SHARED OUTPUT** in the list:



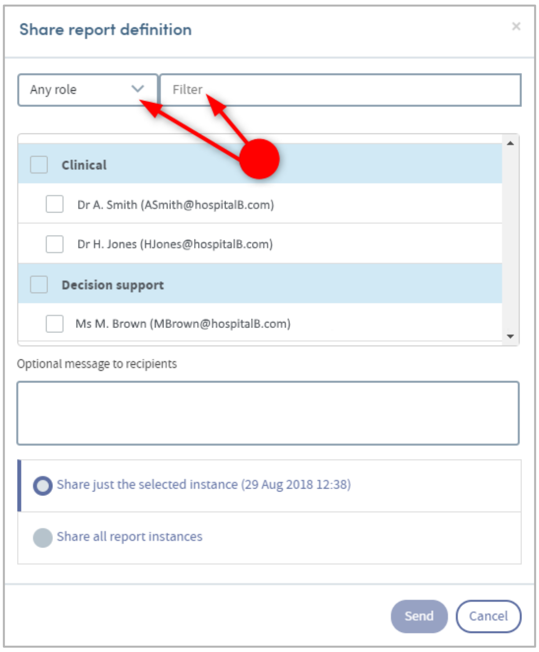
12.2 How to share a report definition

If you have been given the necessary user permissions, you may share report definitions that you have created.

Go to the **My Reports** area (accessed via the top menu bar) and click the checkbox on the left of the report whose definition you wish to share. Click the **Share report definition** icon:



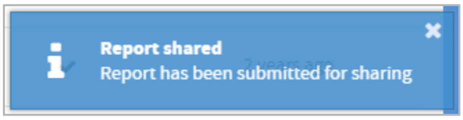
A pop-up box will appear:



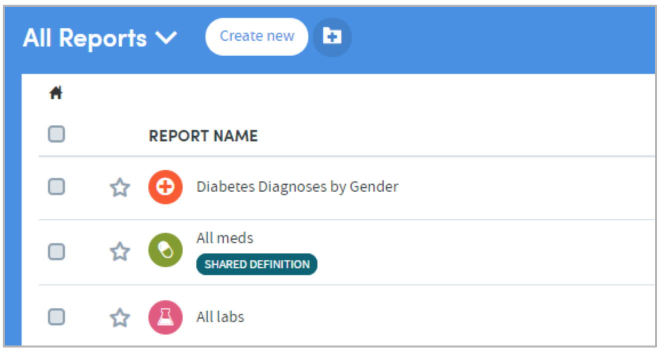
If you click the small down-arrow to the right of **Any role** you can select a specific role to narrow down the list of possible recipients. Alternatively, if you know their name, type this into the **Filter** space at the top, and the list below will display matching names for you to select from.

Click in the checkbox to the left of your chosen recipient(s). If you wish, you can add a message. Click **Send**.

You will see a message at the bottom of the screen:



If you now go to your list of reports in the **My Reports** area, you will see that the report definition you shared has been tagged as **SHARED DEFINITION** in the list:



12.3 More about report sharing rules

The principles of sharing data within Atmolytics

Users should be able to freely share information with other users who need to see it. In doing so, they should not be able to:

- Expose other users to information that they should not have access to.
- Make hidden modifications to other users' content.

There are some specific rules which Atmolytics applies when reports and report definitions are shared. Every user of the system is assigned a **Role** by their system administrator (in some cases a user may have multiple roles assigned to them). This role defines the type and level of permissions the user has when using Atmolytics.

Depending on the role they have, some users may not be permitted to share reports or report definitions. Some users may not be able to create their own reports or report definitions, but may be able to see reports that other users have created and shared with them, or generate reports from definitions that other users have created and shared with them.

These permissions can be set on an app-by-app basis, so a role may allow a user to create and share reports using one app, but in the case of another app, prevent them from creating or sharing reports, or viewing reports that another user tries to share with them.