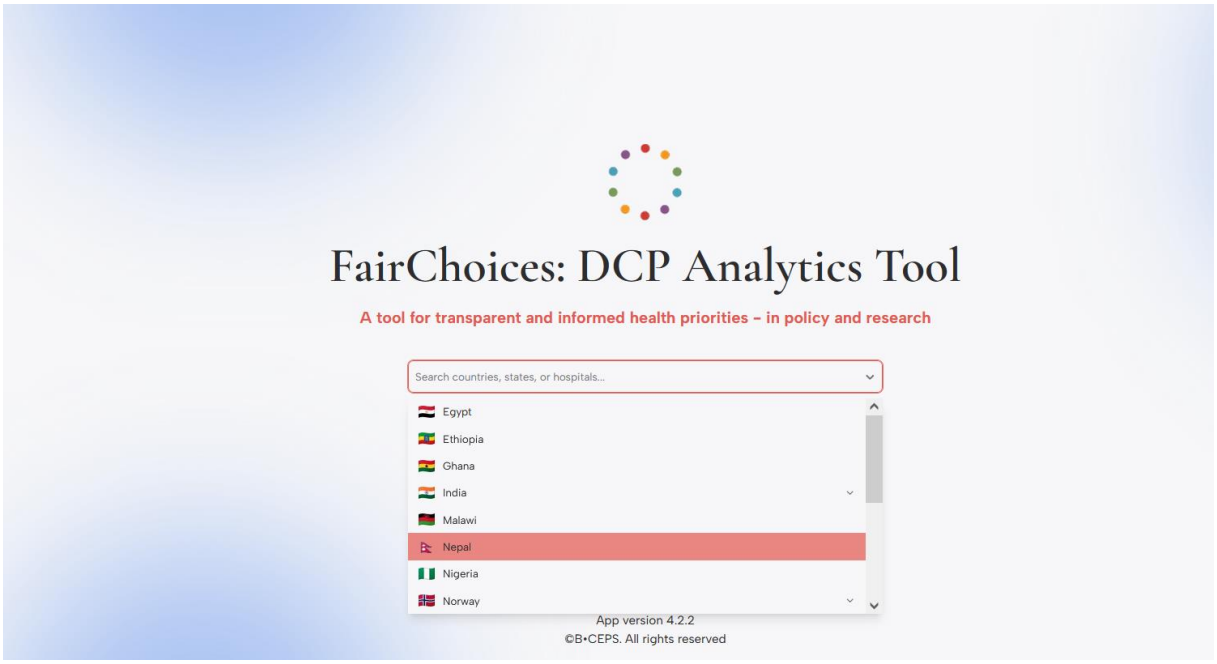
FairChoices user guide for policy makers

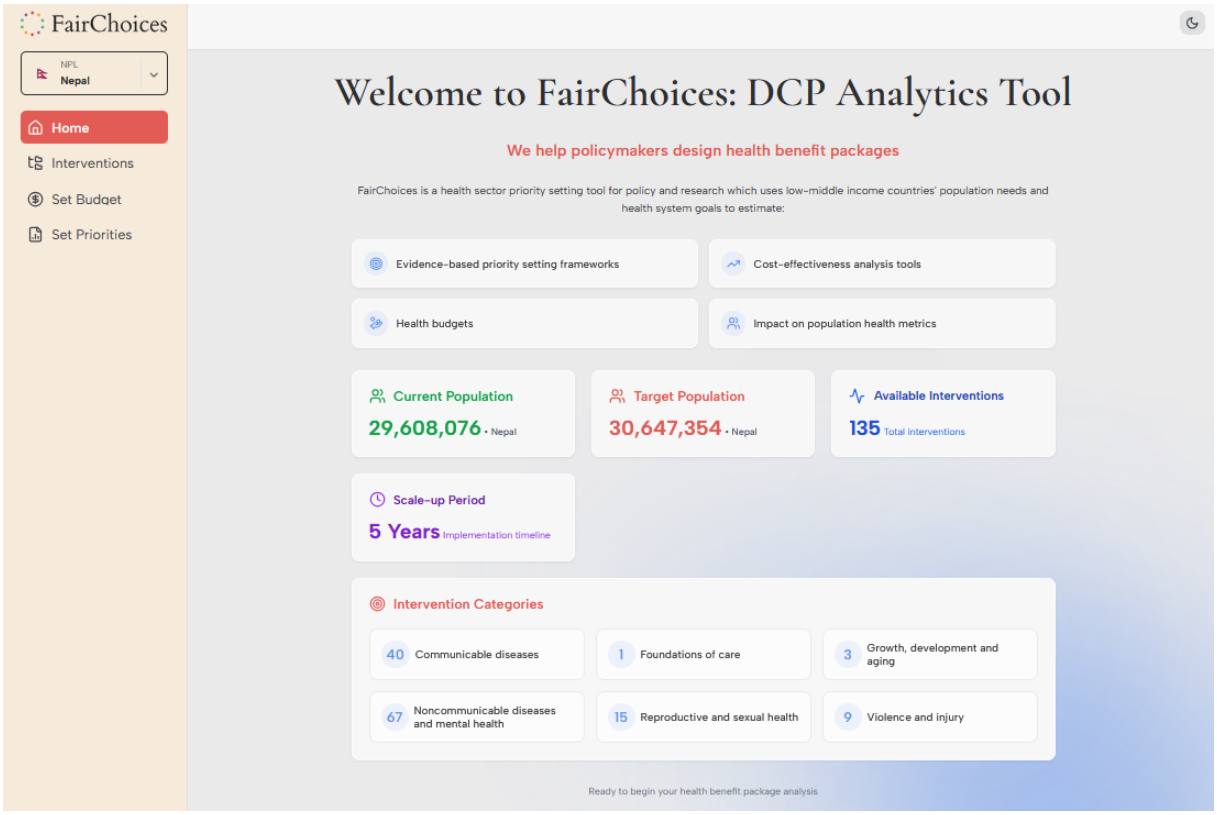
To use FairChoices for policy makers, go to our webpage, https://fairchoices.uib.no/. There, you will see the following (note that details like the version number may change):

Here, you select your location of interest. In this user guide, we select Nepal as an example. Please note that the FairChoices input is continuously updated and improved, so do not be concerned if the numbers presented in the examples of this user guide differ from your experience using FairChoices.

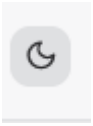


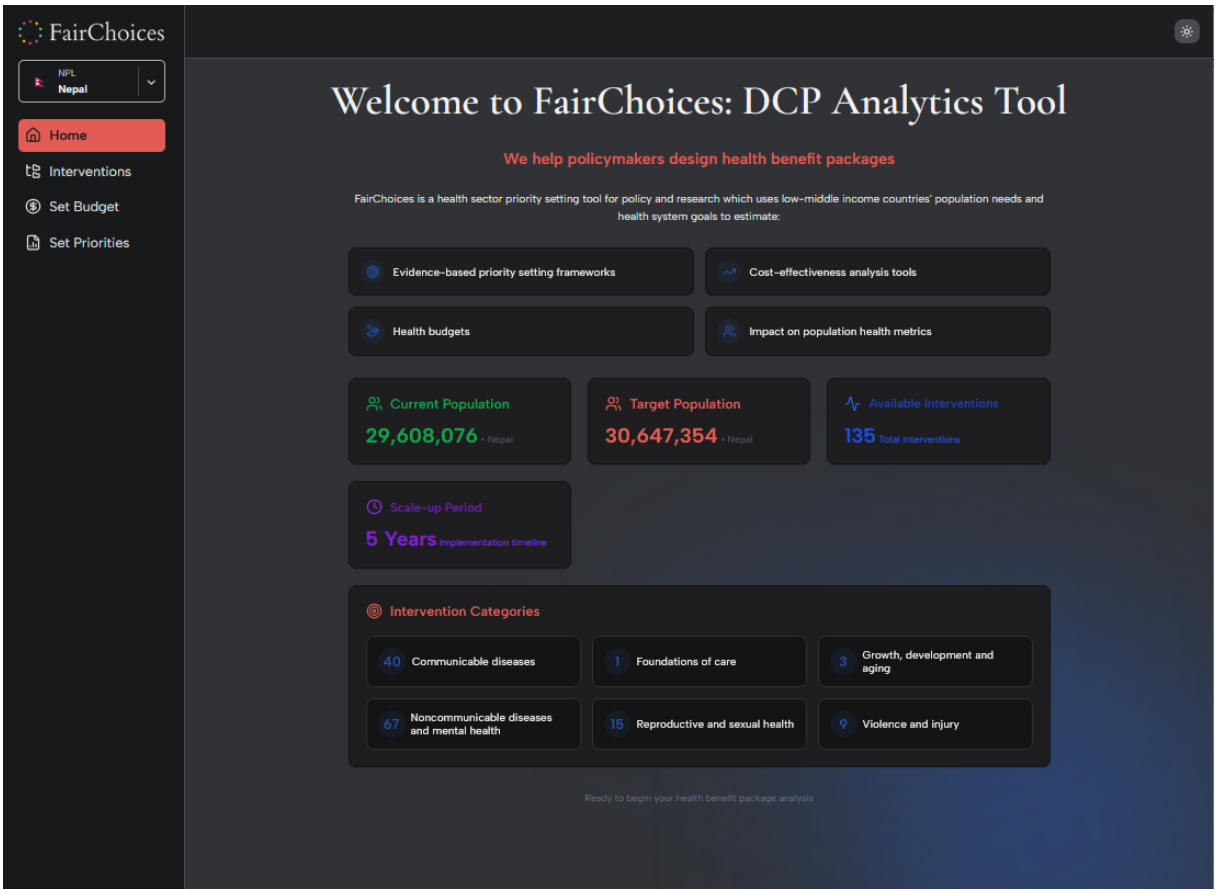
Home

Once a location has been selected, FairChoices automatically takes you to the location Home page. The location is shown above the sidebar menu on the left. The Home page also displays general information about Nepal and FairChoices.

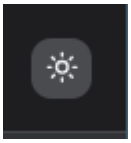


If you want to change to dark mode, click the moon symbol in the top right corner:



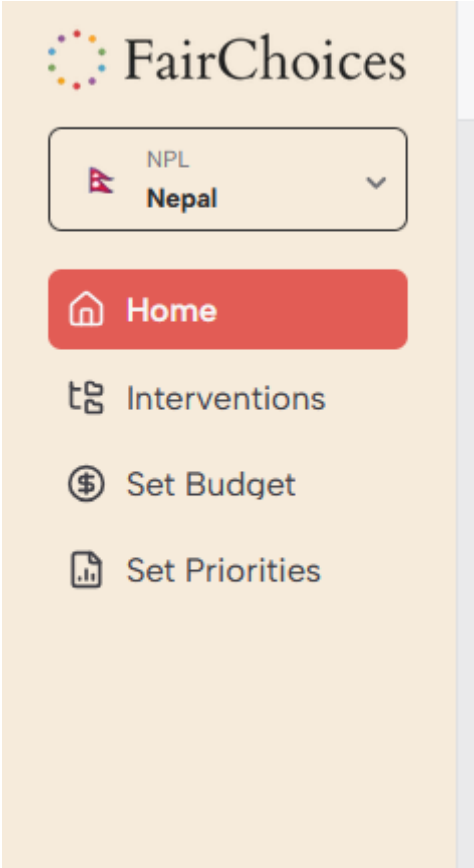


The moon symbol now changes to a sun. Clicking the sun, will change back to light mode.



Sidebar options

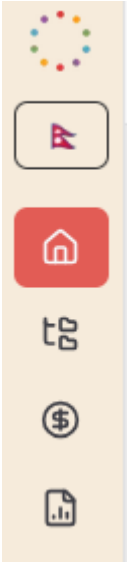
The sidebar menu on the left displays the options Home, Interventions, Set Budget, and Set Priorities.



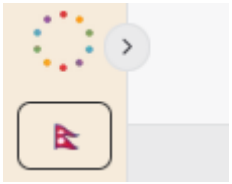
Note that the Home option of the sidebar is red, which signals that this is the sidebar option that is currently chosen.

If you want to minimize the sidebar, hover the mouse over the sidebar and click the pointer ( ) that appears next to the FairChoices logo at the top of the page.

If you click this symbol, the sidebar will be minimized as shown below. Note that the home option, which is represented by the house, is still red. This signals that Home is still the sidebar option that is currently chosen.



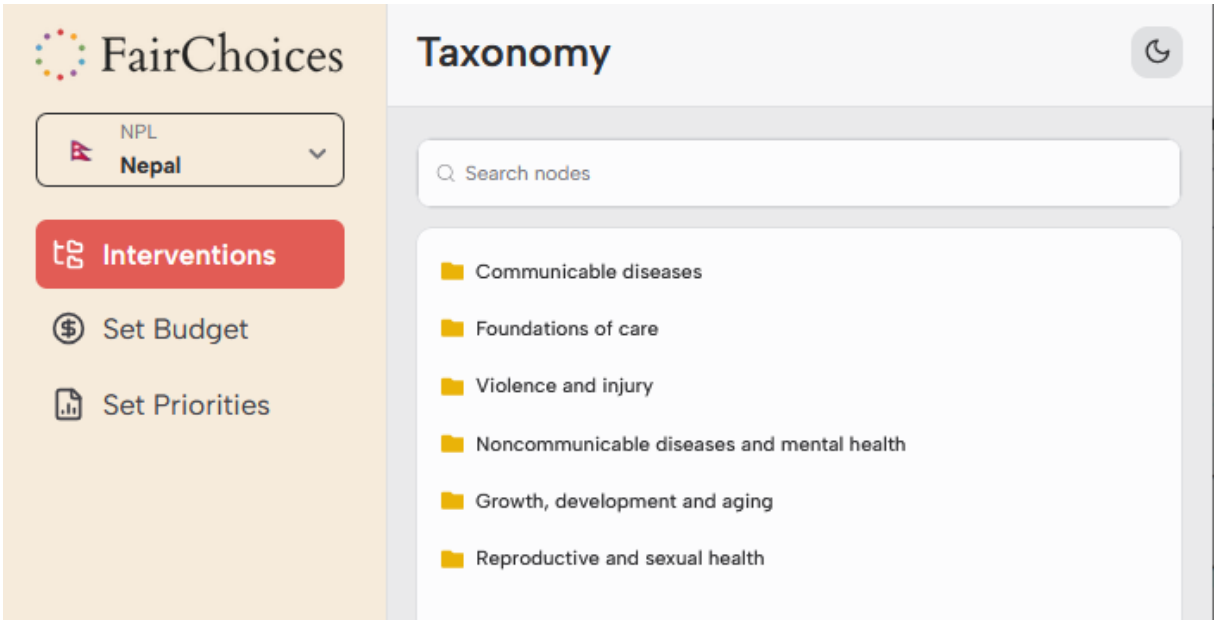
If you hover the mouse over the minimized sidebar, a pointer pointing the opposite direction appears next to the minimized FairChoices logo.



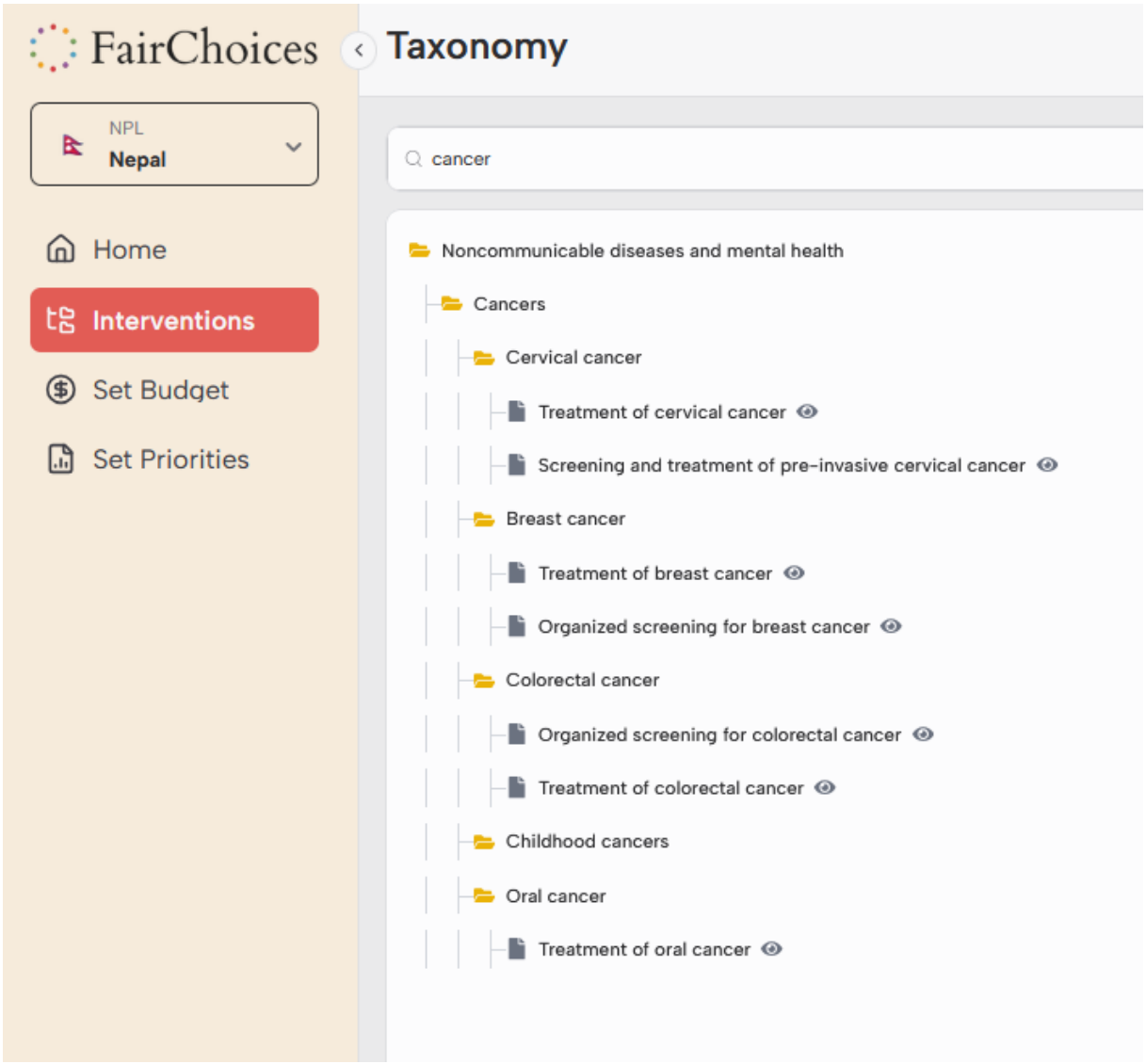
Clicking this, opens the sidebar again.

Interventions

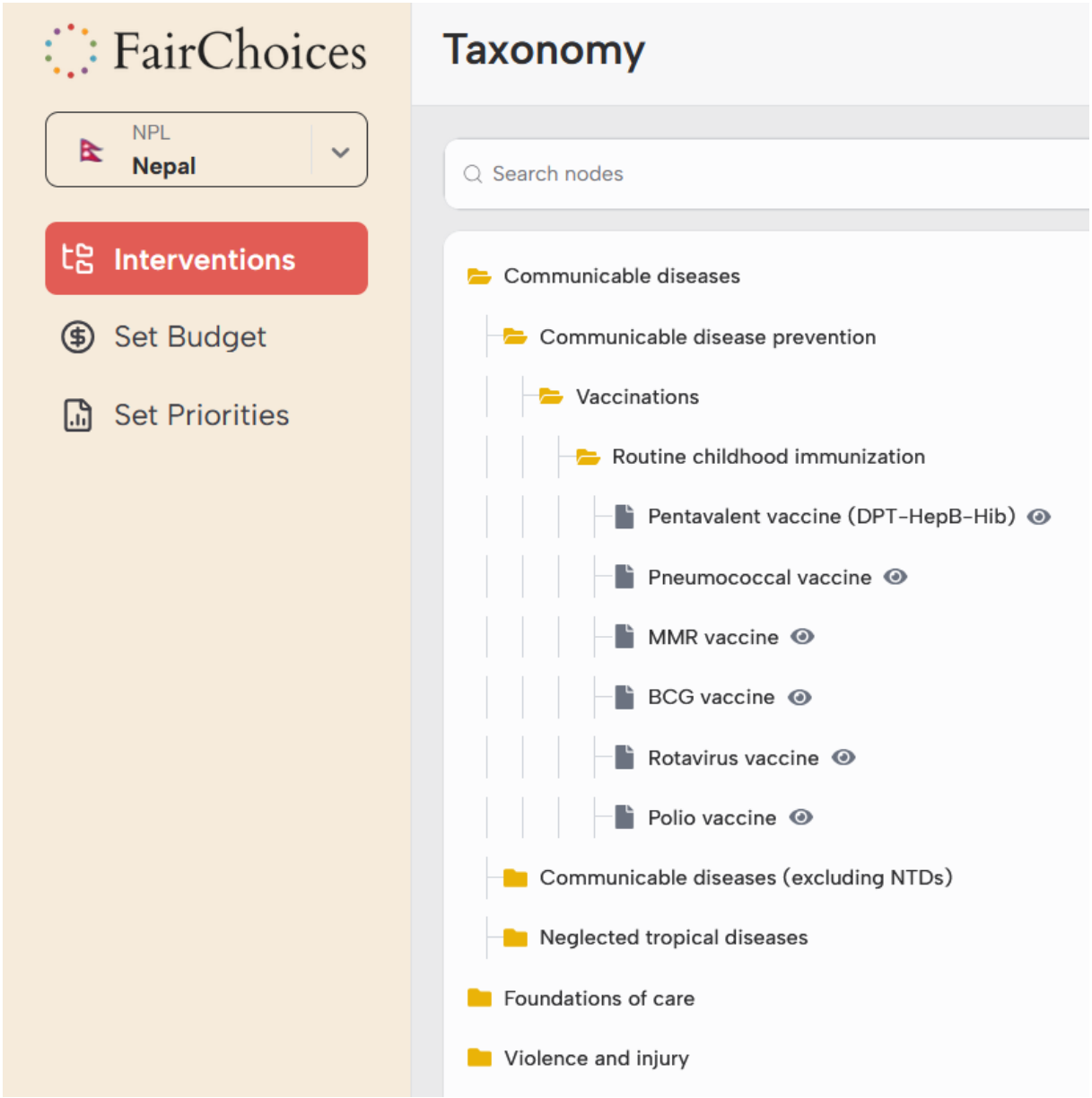
Clicking Intervention on the sidebar displays the FairChoices intervention taxonomy. This taxonomy is based on the WHO's UHC Compendium.



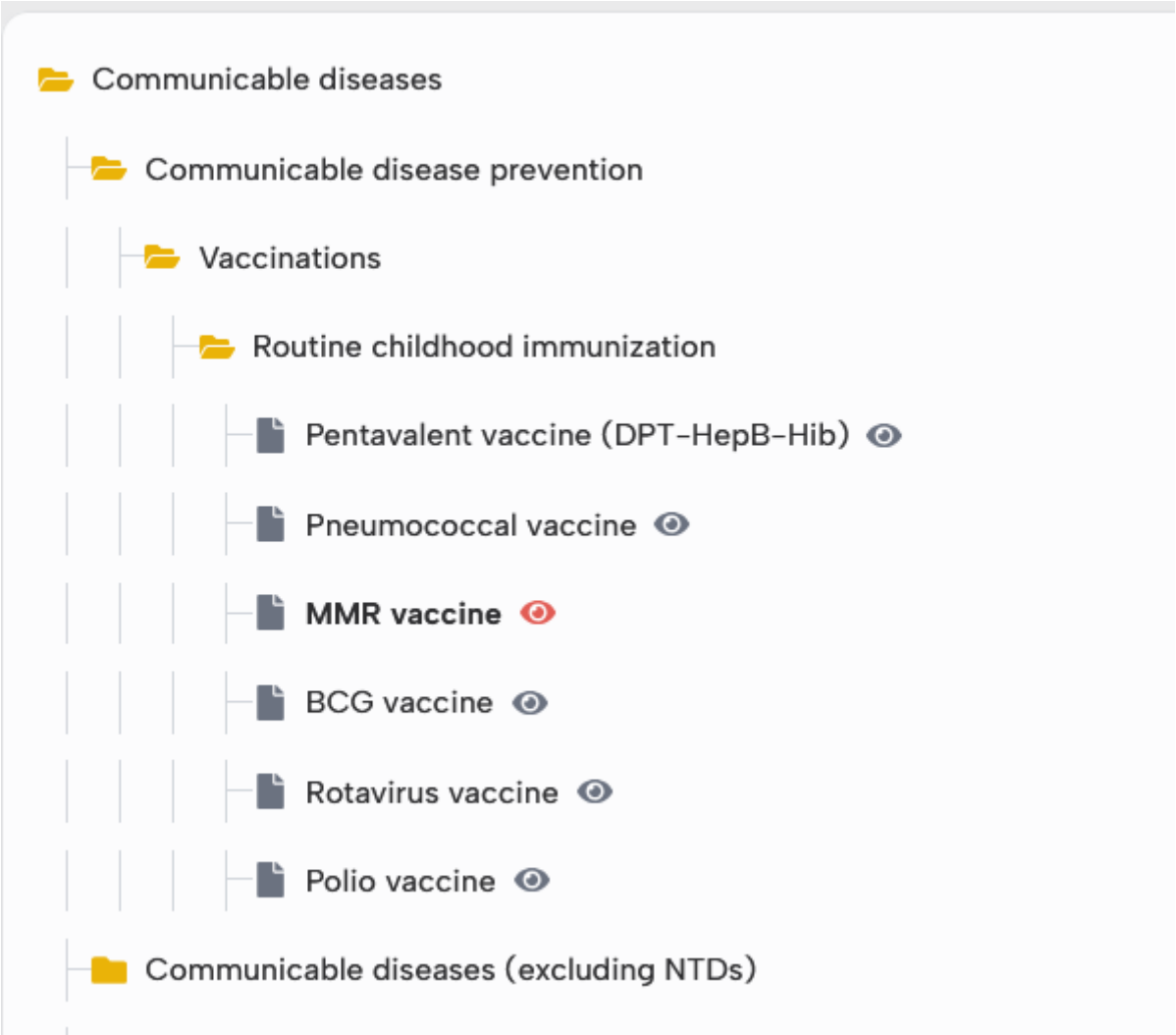
Typing text into the search field displays all interventions associated with that text. The example below uses “cancer”.



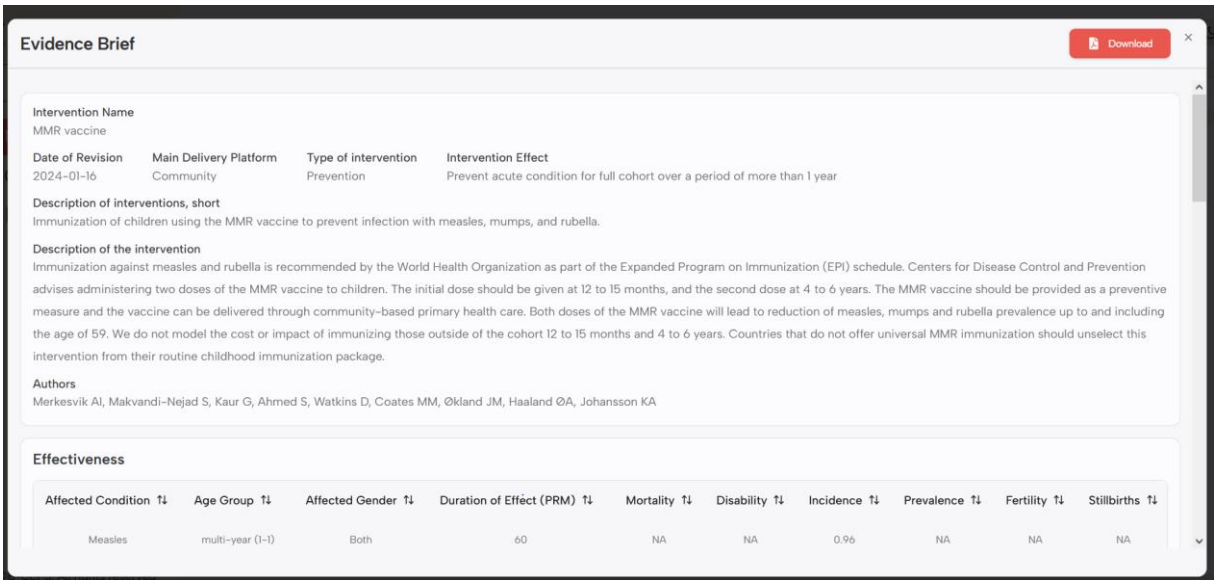
You can also get information about the interventions by clicking on the folders. For example, for childhood vaccines/immunization click Communicable diseases, Communicable disease prevention, Vaccinations, and Routine childhood immunization.


FairChoices
NPL
Nepal
Interventions
Set Budget
Set Priorities
Taxonomy
Search nodes
Communicable diseases
Communicable disease prevention
Vaccinations
Routine childhood immunization
Pentavalent vaccine (DPT-HepB-Hib)
Pneumococcal vaccine
MMR vaccine
BCG vaccine
Rotavirus vaccine
Polio vaccine
Communicable diseases (excluding NTDs)
Neglected tropical diseases
Foundations of care
Violence and injury

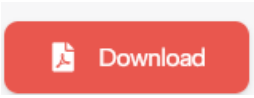
To see the evidence behind an intervention, click on the eye shaped icon at the right side of the intervention of interest, for example MMR vaccine. Hovering the mouse over the eye, it becomes red.



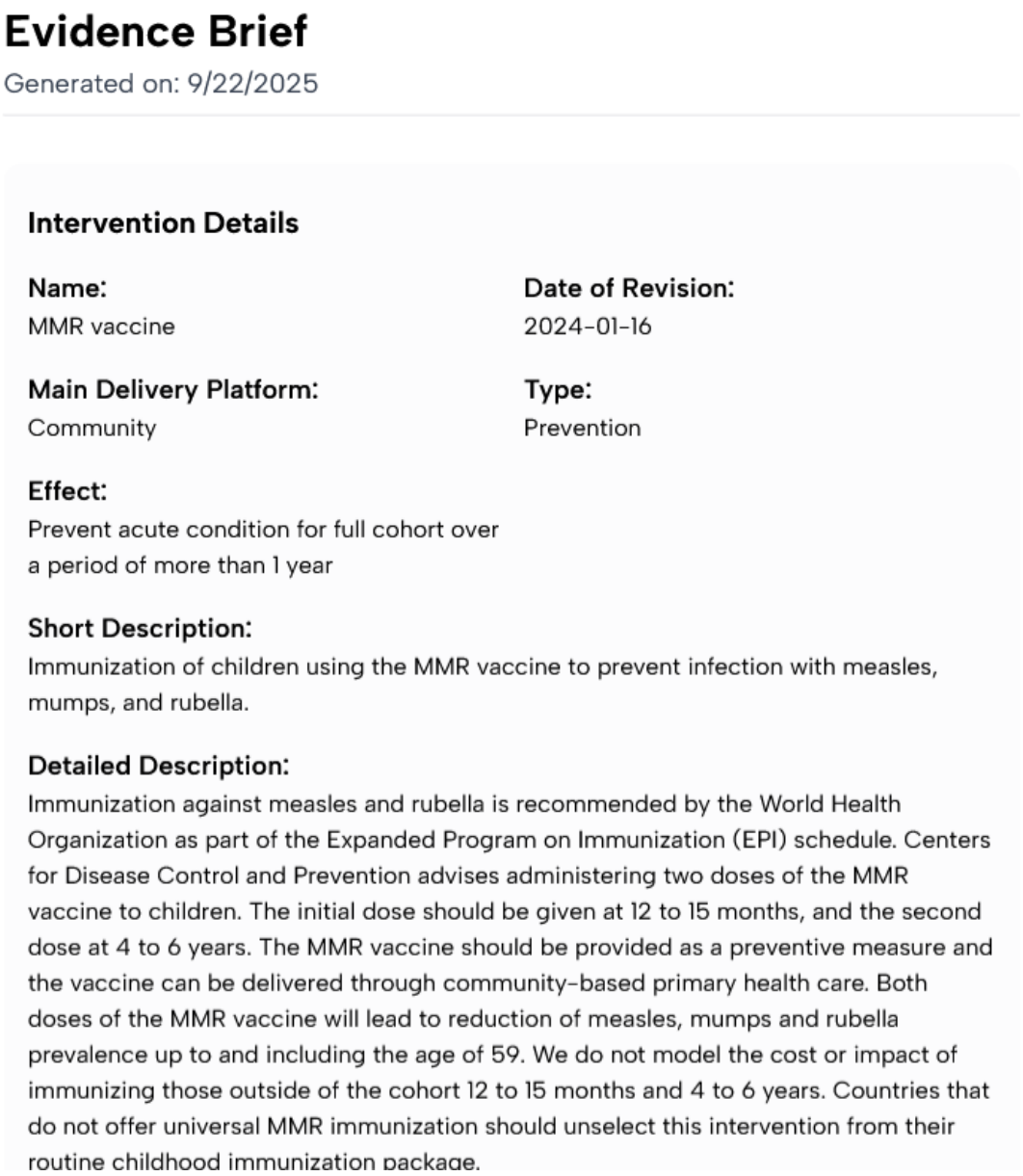
Clicking the red eye, the following evidence brief appears.



Note that you can scroll up and down in this evidence brief.

Clicking the red 

button in the top right corner opens the evidence brief as a PDF file. If the PDF is opened in a new tab, you will have to go back to the FairChoices tab to keep working with FairChoices.



Evidence Brief

Generated on: 9/22/2025

Intervention Details

Name:
MMR vaccine

Date of Revision:
2024-01-16

Main Delivery Platform:
Community

Type:
Prevention

Effect:
Prevent acute condition for full cohort over a period of more than 1 year

Short Description:
Immunization of children using the MMR vaccine to prevent infection with measles, mumps, and rubella.

Detailed Description:
Immunization against measles and rubella is recommended by the World Health Organization as part of the Expanded Program on Immunization (EPI) schedule. Centers for Disease Control and Prevention advises administering two doses of the MMR vaccine to children. The initial dose should be given at 12 to 15 months, and the second dose at 4 to 6 years. The MMR vaccine should be provided as a preventive measure and the vaccine can be delivered through community-based primary health care. Both doses of the MMR vaccine will lead to reduction of measles, mumps and rubella prevalence up to and including the age of 59. We do not model the cost or impact of immunizing those outside of the cohort 12 to 15 months and 4 to 6 years. Countries that do not offer universal MMR immunization should unselect this intervention from their routine childhood immunization package.

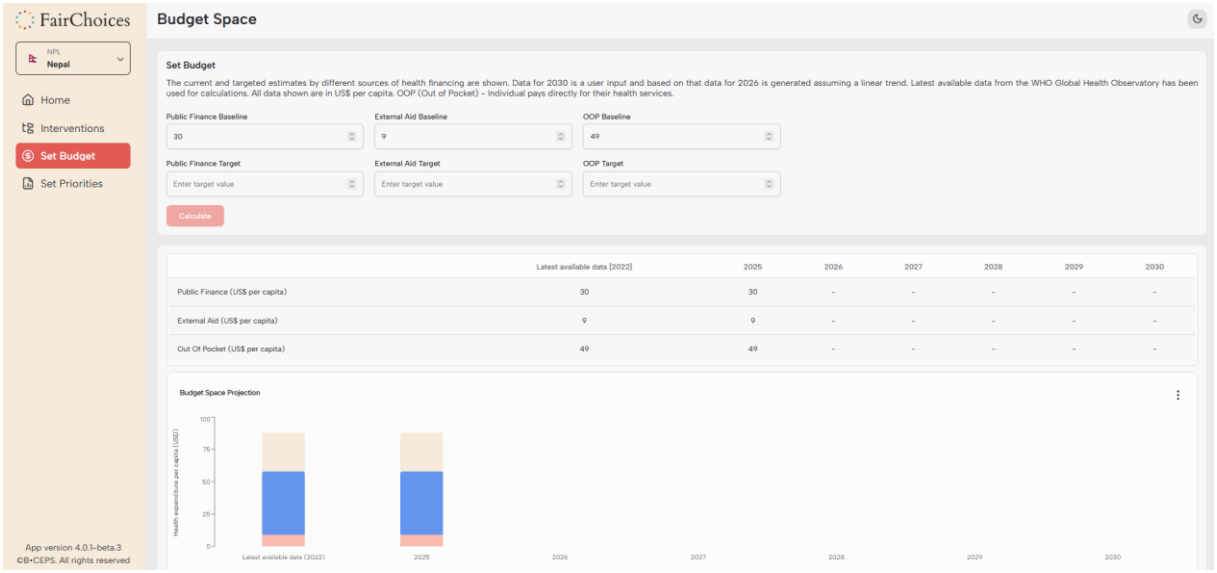
Clicking the X next to the 

button closes the evidence brief and takes you back to Interventions.

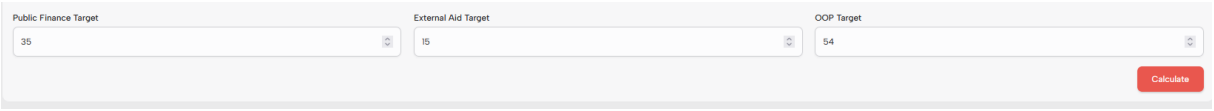
Set Budget

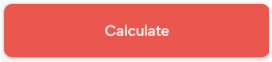
Under **“Set Budget”**, FairChoices provides a tool for projecting health financing five years into the future for Public Finance, External Aid, and Out-of-pocket expenditures. The numbers at baseline should reflect the current situation in health financing today. The default baseline values are based on data from WHO Global Health Observatory and WHO’s Global Health Expenditure database, but users should input their own up-to-date data.

To project the development in health financing in the next five years, the user must provide estimates for the target financing (i.e., financing five years from now) for Public Finance, External Aid, and OOP.



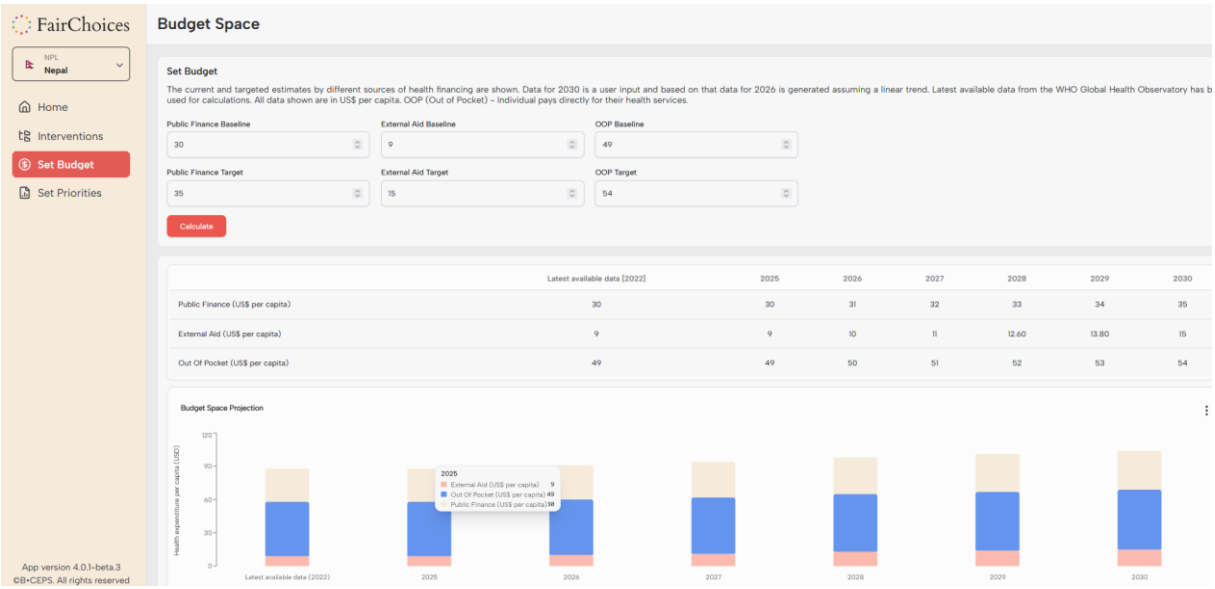
For example, we set the targets to 35 in Public Finance, 15 in External Aid, and 54 in OOP:



When these numbers are provided, click the red 

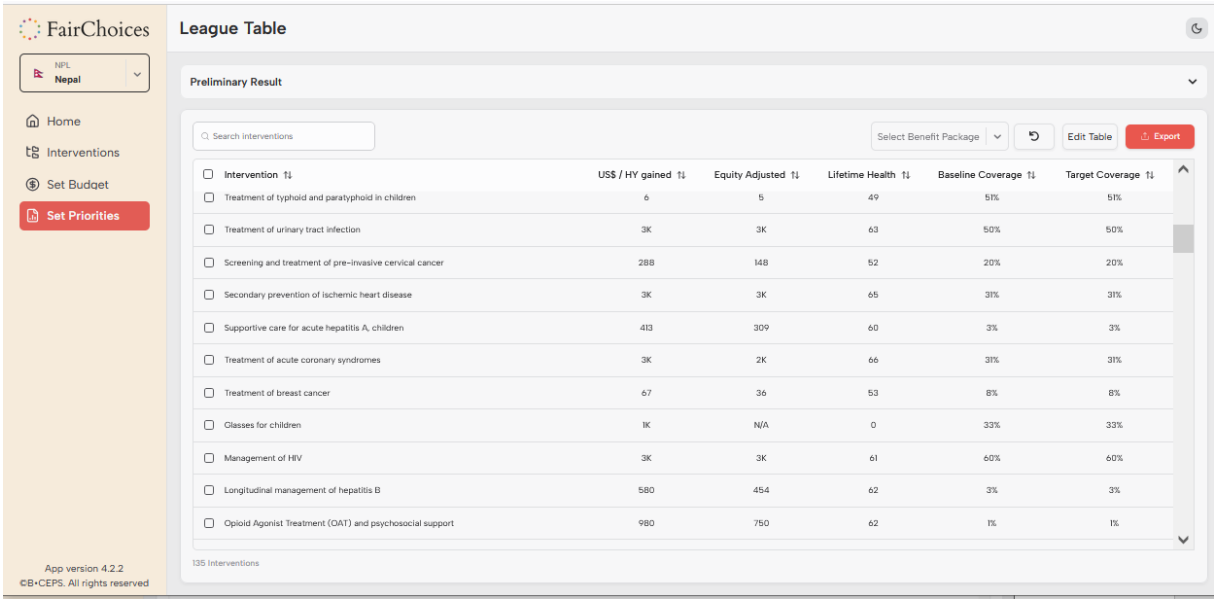
button, and FairChoices fills in the remaining cells, assuming a linear trend.

We see that at baseline we had 30+9+49, which sums to 88 dollars, and at target we have 35+15+54, which sums to 104 dollars. Hence, we plan for an increase of about 16 dollars per capita.



Set Priorities

If you click Set Priorities, a League Table appears, where each row provides information about a specific health intervention.



By default, all health interventions are included in the table, but you can also focus on a more limited set of interventions. Before we describe how to do that, we will describe the information displayed in the five default columns of the League table:

- Baseline coverage
- Target coverage
- US$/HY gained (cost-effectiveness)
- Lifetime health
- Equity adjusted cost-effectiveness

Baseline coverage is the percentage of the population in need which currently has access to an intervention. For example, if the baseline coverage of Management of HIV is 60%, this means that 60% of the population in need of this intervention currently have access to it.

Target coverage is the coverage we aim for after the 5-year scale-up period. By default, target coverage equals baseline coverage (i.e., no scale-up). If target coverage is adjusted, FairChoices projects the costs, health gains, and other policy-relevant information five years into the future.

The cost-effectiveness is calculated by the following formula:

$$\frac{\text{Cost of scaling up to target coverage}}{\text{Healthy years gained by scaling up to target coverage}}$$

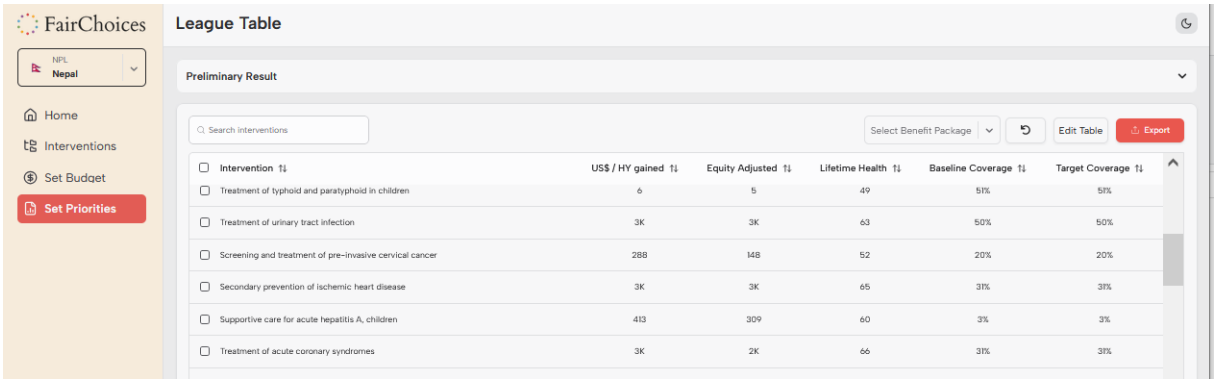
The lower the ratio, the higher the cost-effectiveness of the intervention.

Lifetime health indicates how many healthy years a person obtains over their life span if they suffer from a condition targeted by an intervention. A low lifetime health means that the intervention targets a condition that is severe in the sense that large health losses (including death) occur early in life. For example, if the Lifetime health of MMR vaccine is 7, this means that MMR vaccine targets conditions that tend to hit children, and that the average person with measles, mumps, or rubella does not get more than 7 healthy years during their life course.

Equity adjusted is a measure of cost-effectiveness that takes lifetime health into account. The lower the lifetime health, the more the equity adjusted cost-effectiveness is reduced compared to the regular cost-effectiveness (i.e., total cost divided by healthy years gained). Using equity adjusted cost-effectiveness instead of regular cost-effectiveness will therefore give higher priority to interventions providing health to children and young adults.

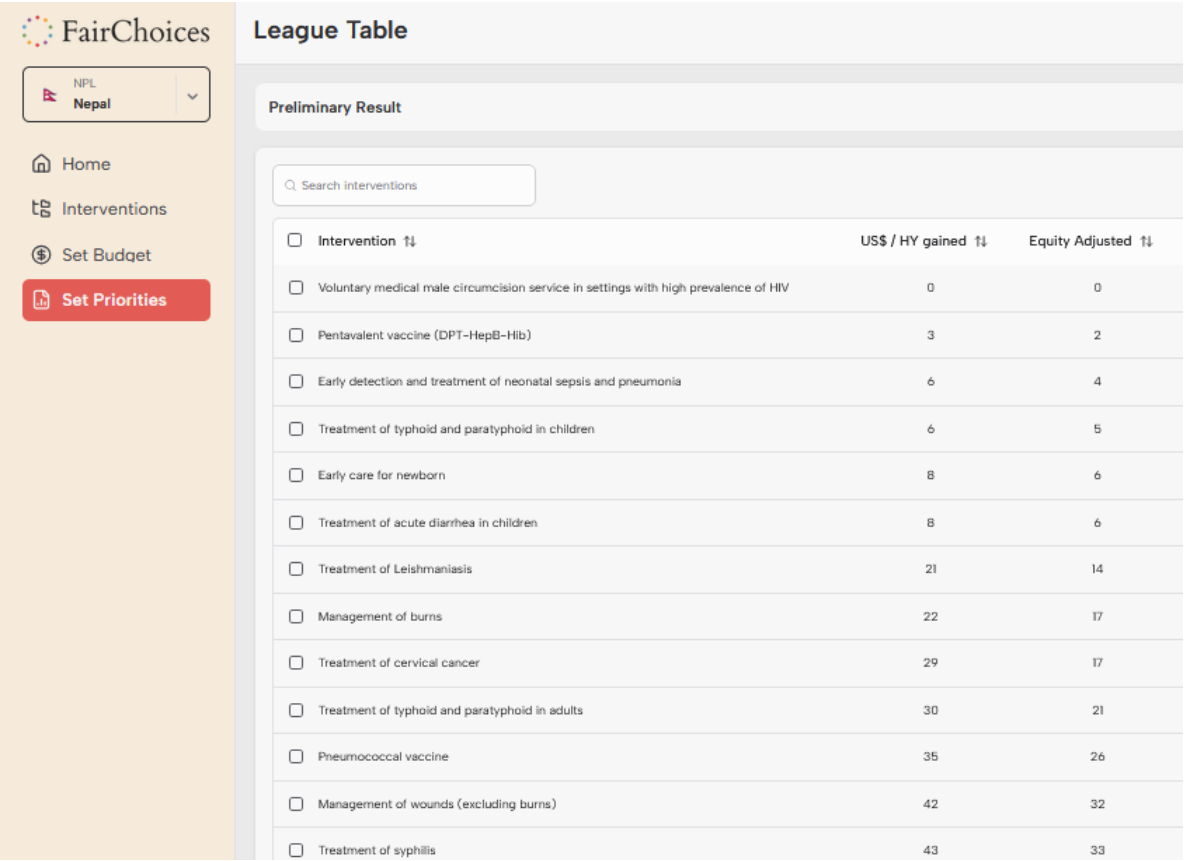
Sorting

Clicking the arrows next to any column heading one time, all health interventions in the table become sorted in increasing order. Clicking twice, they will be sorted in decreasing order. For example, the default League Table for Nepal look like this:



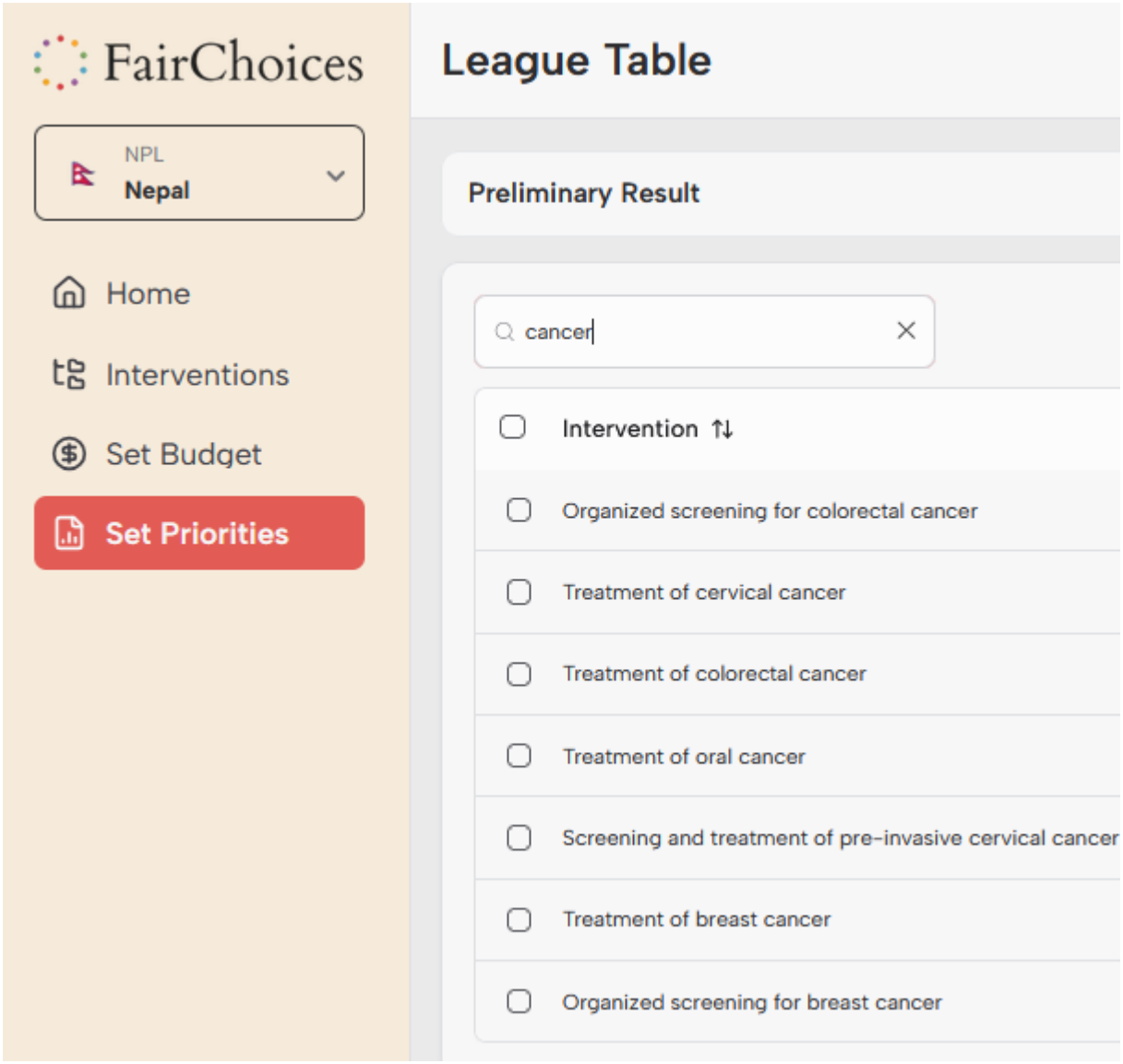
To sort the health interventions according to equity adjusted cost-effectiveness, you click the arrows next to the heading “Equity adjusted” one time:

Now, the health interventions are sorted according to equity adjusted cost-effectiveness.

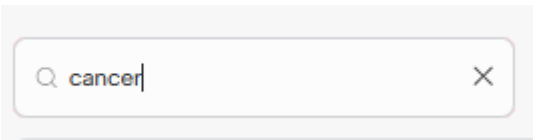


Filtering

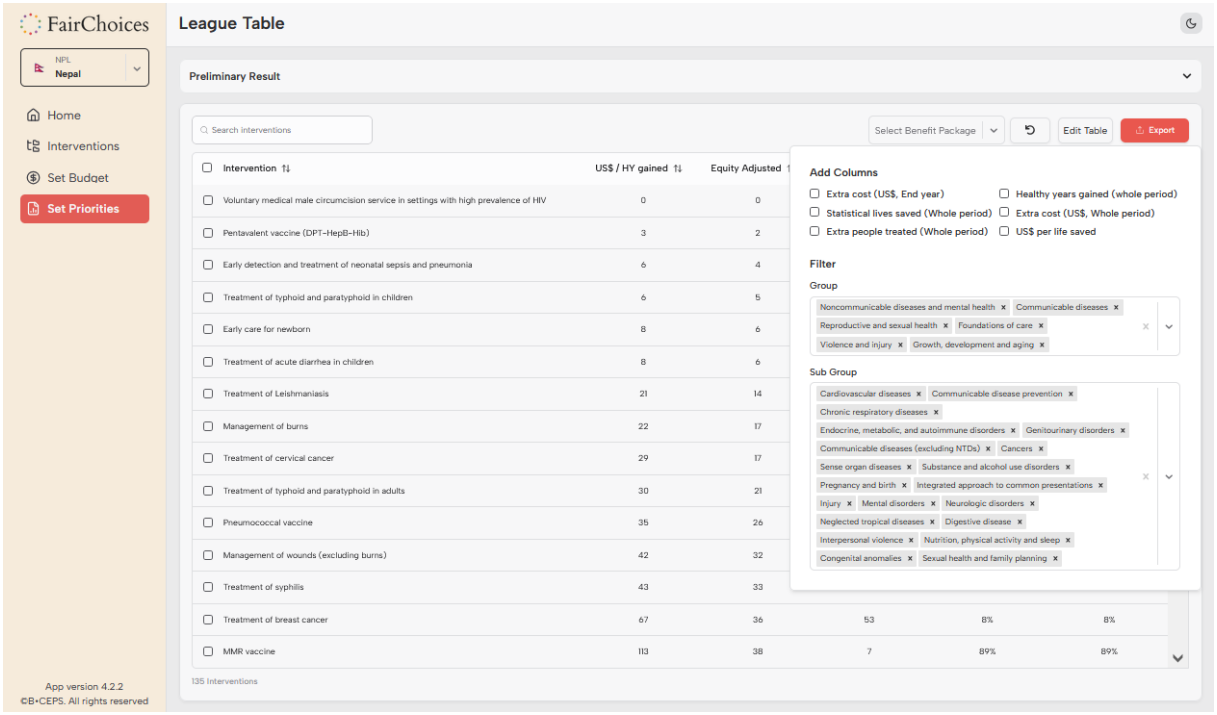
If you want to filter interventions, there are two ways to do this. The first is to type the name of the condition that is targeted by these into the search field with the text Search Interventions which you find below the Preliminary Results heading. For example, if you type “cancer”, the League Table displays only interventions containing that word:



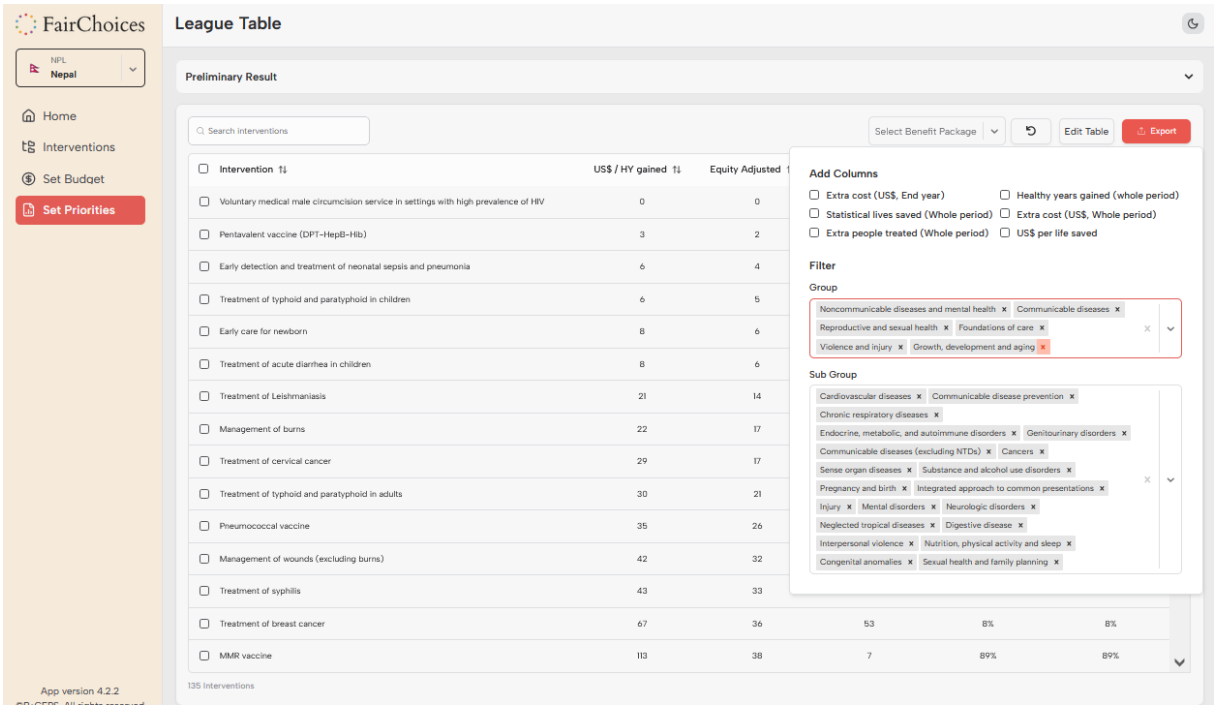
Remember to delete the information in the search box if you want the full table (click the x at the right side of the search name or delete the text).



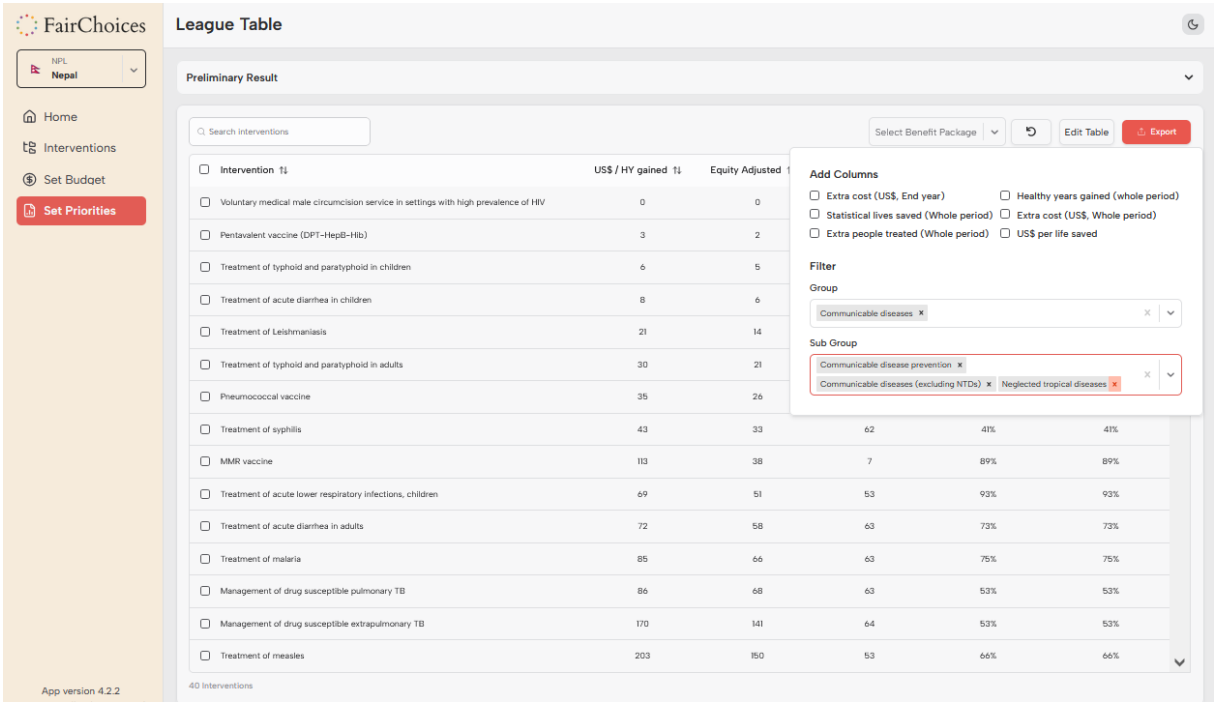
The second is to use the Edit Table button that you find top right, above the column names. Now, the following alternatives are displayed:



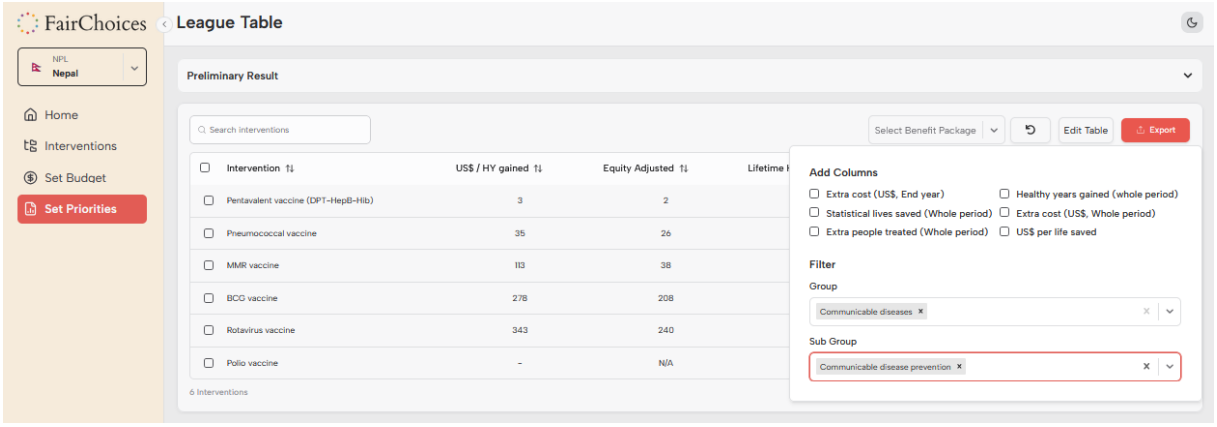
Look at the Group section under the heading filter. By default, all groups of interventions are included in this section. Click the x next to the groups that you want to exclude from a League table. In this example, we exclude all groups except communicable diseases:



When you have selected one or more groups of interventions, you can further filter by sub group under the heading Sub Group. Click on the x next to the sub groups that you want to exclude from a League table.



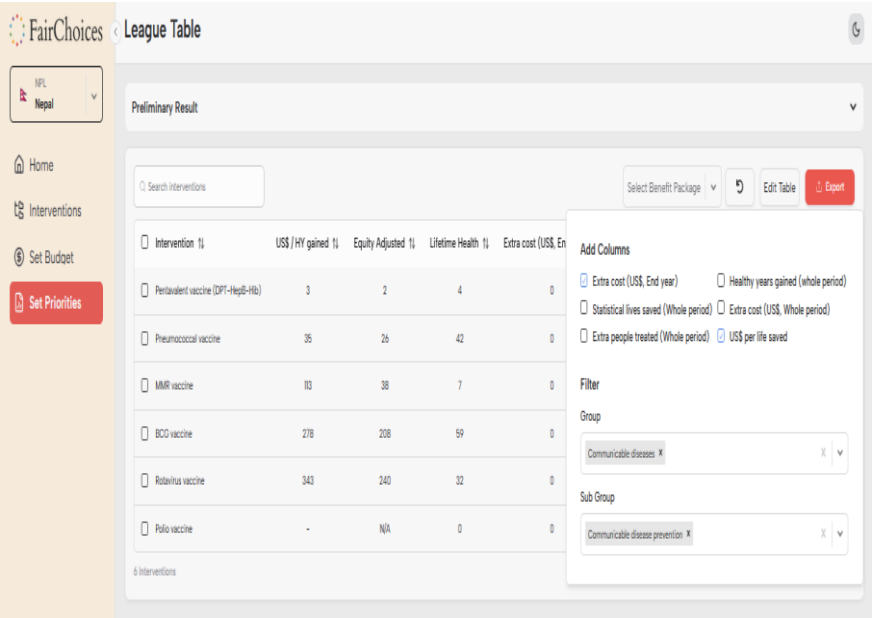
In this example, we exclude every subgroup except Communicable disease prevention:



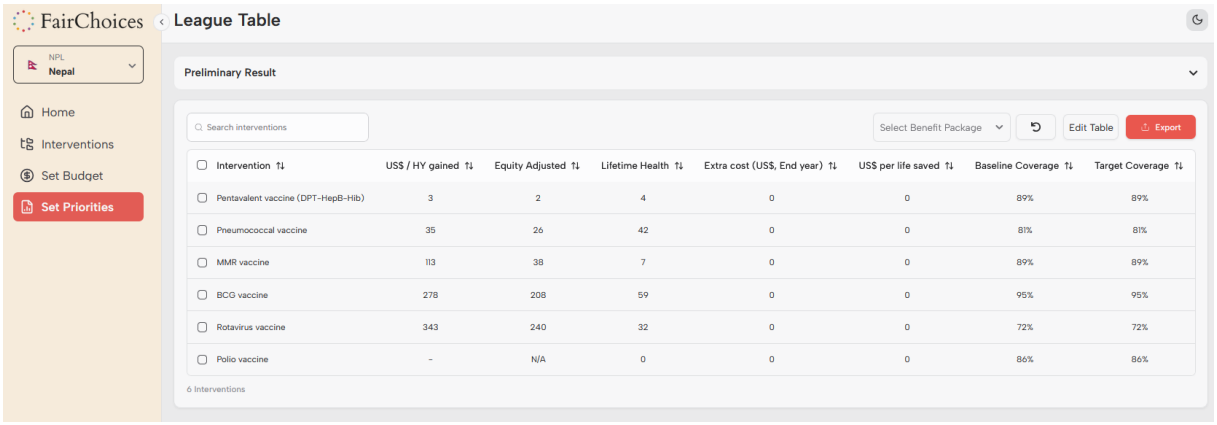
Adding columns

You can add columns to the league table by clicking the Edit Table button. Under Add Columns, the optional additional information that is displayed: Extra cost (US$ End year), Healthy years gained (whole period), Statistical lives saved (Whole period), Extra cost (US$, Whole period), Extra people treated (Whole period), US$ per life saved.

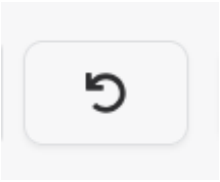
Clicking on the options will include for example Extra cost (US$ End year) and US$ per life saved:



Now, the League table automatically updates and displays the extra columns that you have chosen. You can move right and left by clicking the horizontal bar below the table. Remember to try this if you cannot find the column you just added.



When you have edited the table using filters or extra columns, you can also go back to the default League Table clicking the reset button:

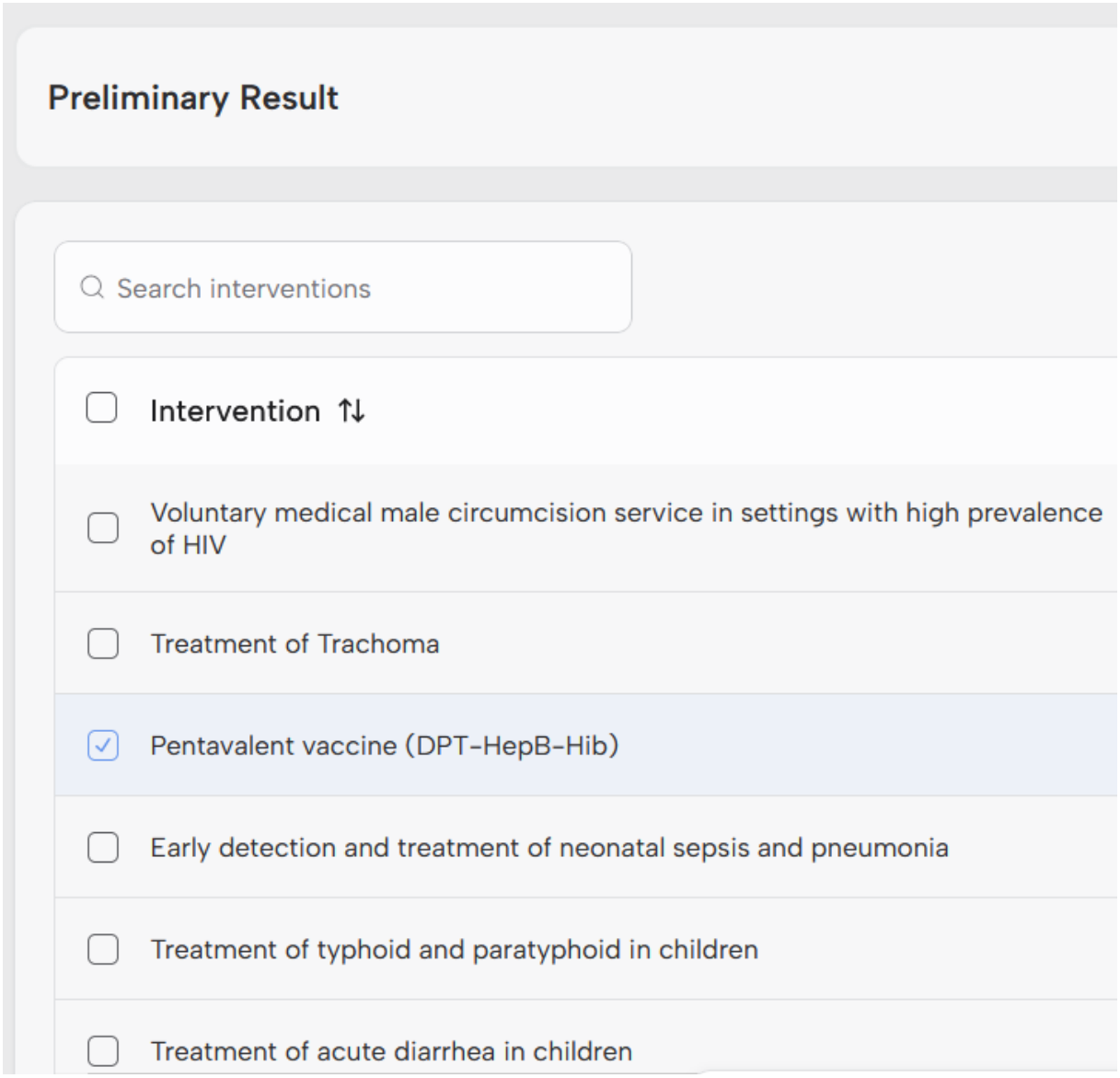


Estimating costs and health gains

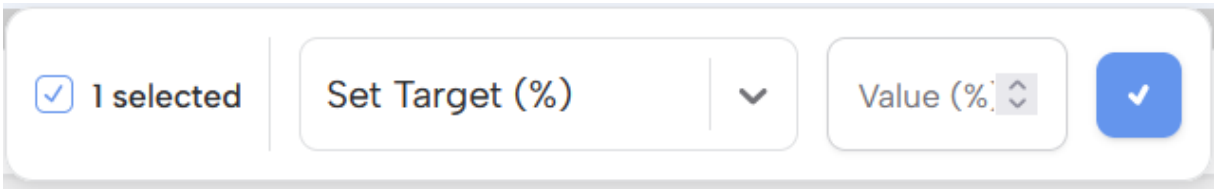
You can estimate and illustrate graphically the financial costs and health gains of scaling up interventions from baseline coverage to different levels of target coverage, including how many deaths in different age groups and categories of different health conditions one can avert the next five years if different health interventions are scaled up.

Adjusting coverage

To adjust the Target coverage, first click the little white box at the left side of one or more of the interventions of interest in the list of interventions, for example the box next to the health intervention Pentavalent vaccine (DPT-HepB-Hib):

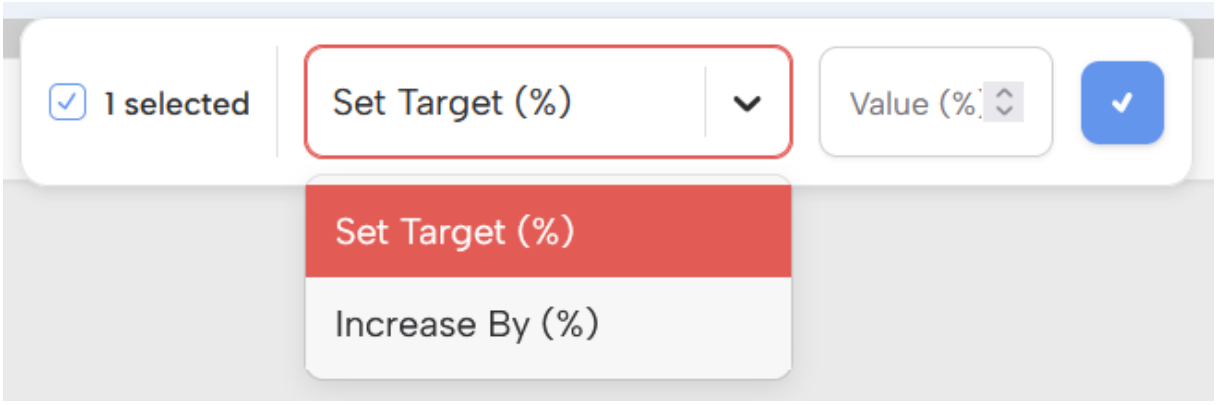


Then, boxes with new options appear at the bottom of the table:



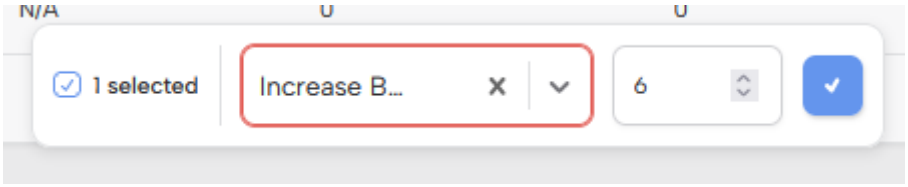
The box on the left shows the number of interventions you have selected, in this case 1.

If you want to estimate the health gains and financial costs of increasing the coverage of the selected interventions over the next five years, go to the box with the title Set Target (%) or the downward pointer at the right side of it. When you have clicked it, two different options for setting target becomes visible; Set target % and Increase by (%):



If you want to measure the upscaling of the selected intervention by filling in the absolute percentage of coverage five years into the future, click the Set Target (%) option with the mouse. Next, click the mouse to the box to the left and fill in the percentage that you would like to have as the target coverage for your selected health intervention to be five years from now. For example, you may fill in the number 95 if you want to the coverage of the health intervention Pentavalent vaccine (DPT-HepB-Hib) is being increased (from 89 % baseline coverage, which indicates the coverage of this health intervention the current year) to 95 % in five years from now.

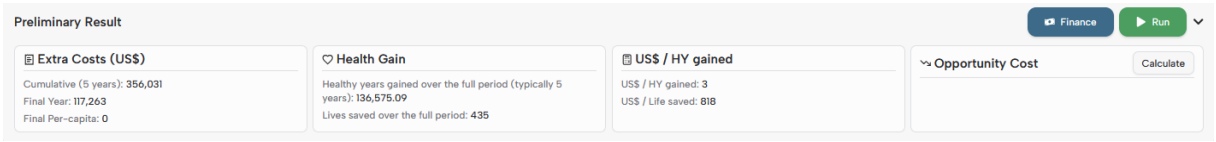
If you instead want to measure the upscaling of the selected health intervention by filling in how many percentage points you want the coverage to increase from baseline coverage the current year to the target coverage in the final year, click the Increase By (%) option with the mouse.

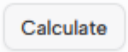


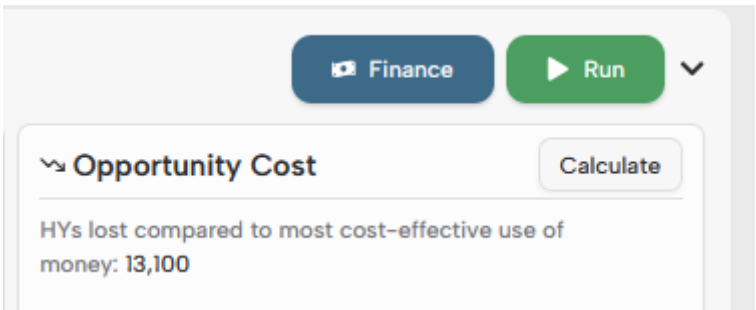
Next, click the mouse to the box to the left and fill in the percentage point increase that you would like to have as the target coverage for your selected health intervention in five years from now. In this example, the number is 6, because we want to estimate the costs and health gains following a 6% increase from 89% baseline coverage of the current year to 95% the target coverage in five years from now.

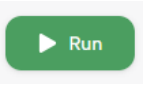
When you have filled in the future upscaling using either Set Target (%) or Set Increase (%), you can estimate the financial costs and health gains that follows from the future upscale of the intervention by click the blue button with the white mark on it to the left of the box where you just filled in the number.

To see preliminary estimates, click the at top right corner. Now you get some key estimates for the financial costs and health gains that follow from the upscaling of the selected health intervention(s):



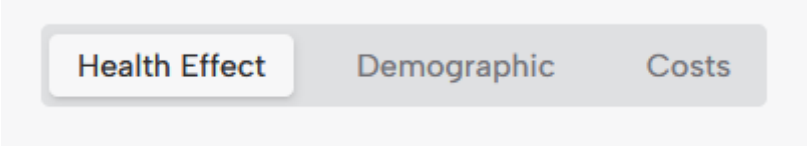
To estimate the opportunity cost for the upscaling of the intervention, click the button  , and the opportunity cost will be displayed:



Click the 

box to see more detailed estimates in graphs, including the effects of the upscaling of the selected health interventions on health, demographics and costs.

By default, the tab “Health Effect” is chosen, and the figures presented starts with the health effects, and one must actively click on the Demographic or Costs option in the following bar to turn to figures illustrating these.

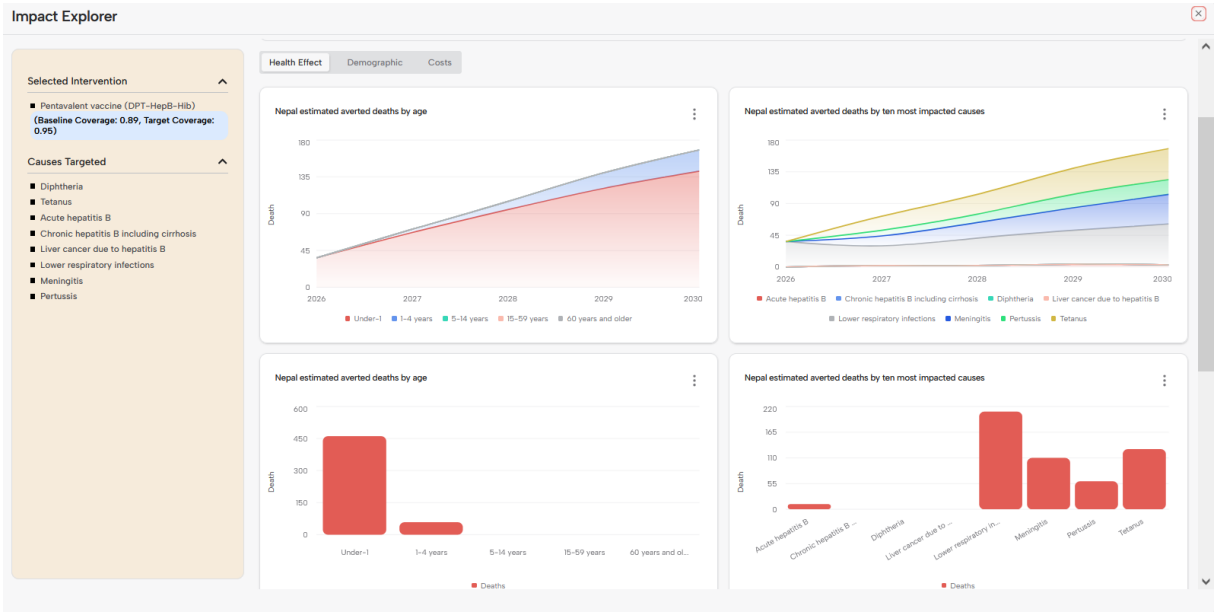


Health Effect

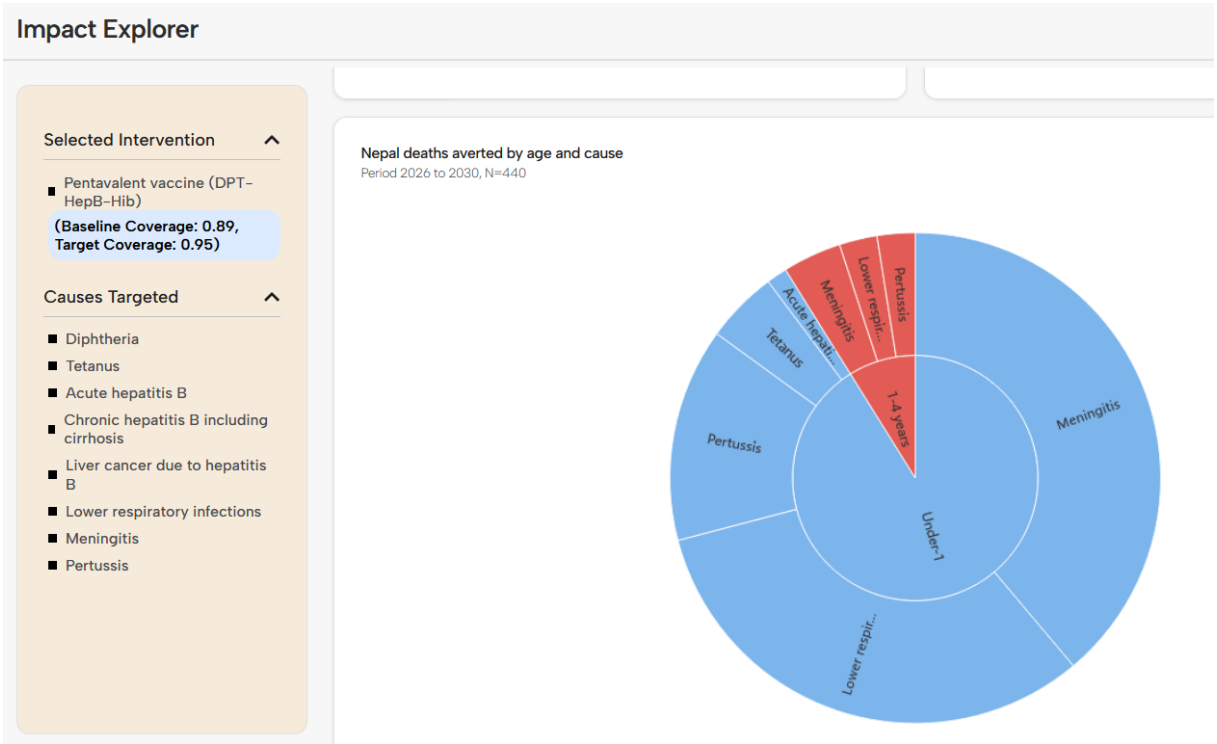
Now, we present the figures under the tab “Health Effect”, before we move to “Demographic” and “Costs”.

The top figure to the left shows the increasing number of deaths one can avert in different age groups if upscaling the pentavalent vaccine. The increase is particularly strong among those under 1 years old and those 60 years and older. The top figure to the right shows the increasing number of deaths averted in different categories of causes. Upscaling this vaccine averts deaths in all six diseases that this vaccine protects against, as well as a type of cancer that follows from one of them. The upscaling particularly lead to averted deaths due to Meningitis.

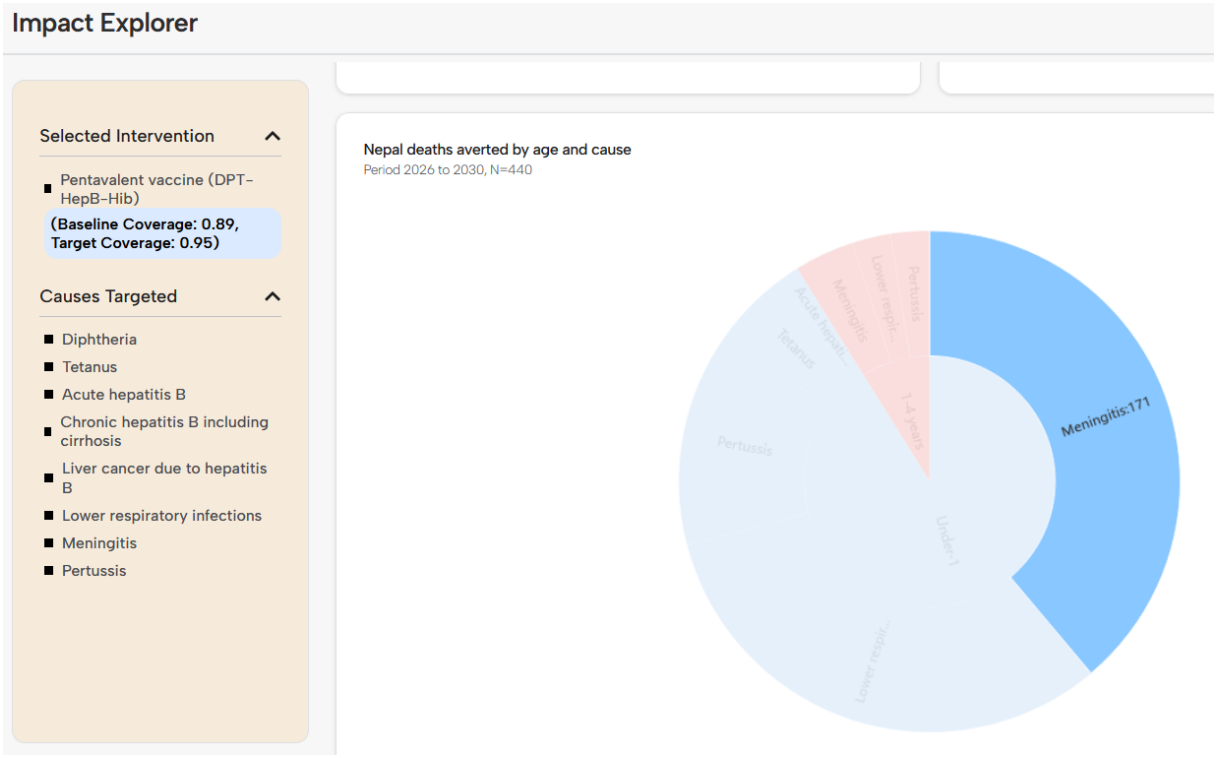
Next, the bar charts below show averted deaths according to age and causes summed up over the whole five year period. Upscaling the pentavalent vaccine particularly averts deaths among those younger than 1 and due to Meningitis.



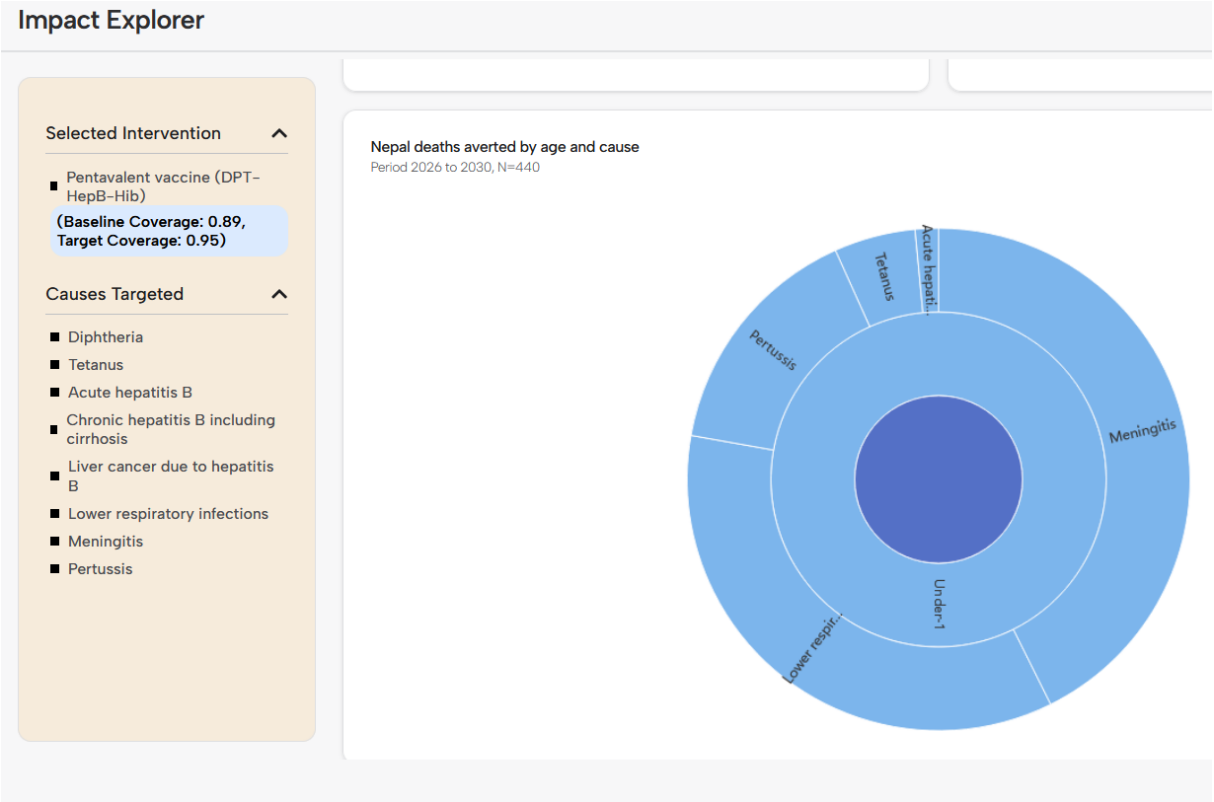
Finally, an interactive circle diagram combing age and cause category is shown at the bottom of the Health Effect tab. Again, deaths are particularly averted in children under the age of 1, and to some extent among children aged 1-4, both groups avert considerable numbers of deaths caused by among other things Lower respiratory conditions and Meningitis.



If you want to know the exact number of condition included in the figure, place the mouse over the part you are interested in, and the number shows up. In this case, the number of averted deaths due to Meningitis among children younger than 1 are 171.

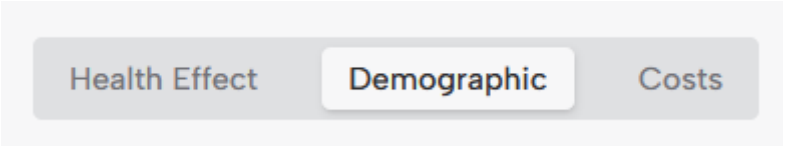


If you click twice on the part of the figure that you are most interested in, for example the part that is about those under 1, and it expands so that it covers the entire circle diagram with more details about this part.

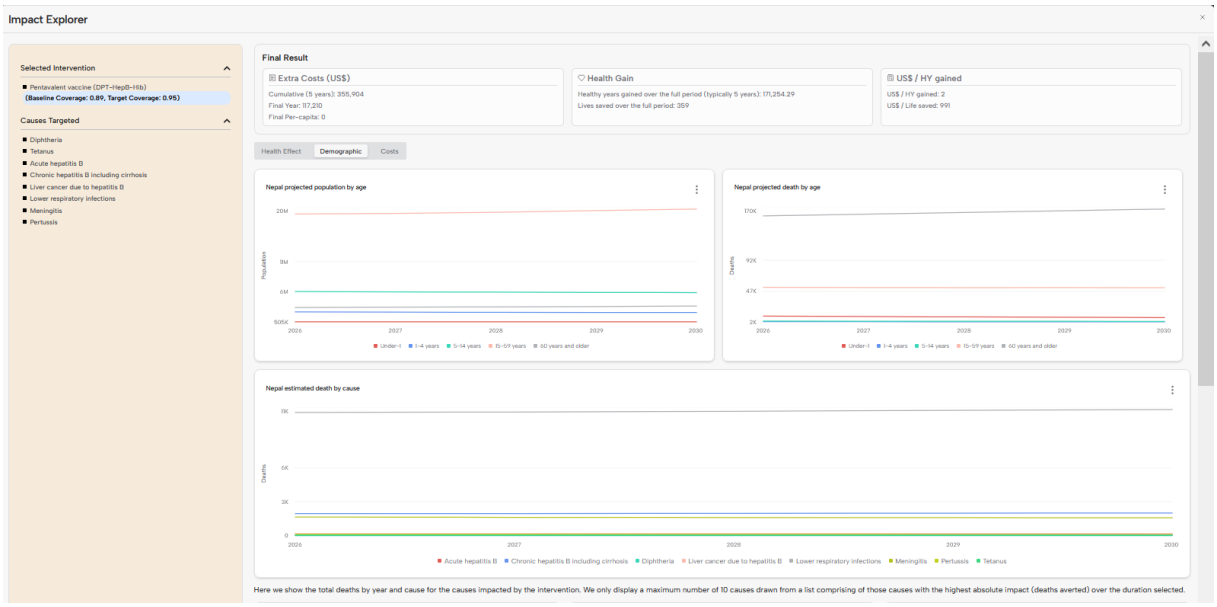


Demographic

Now, we scroll up to the overview of the tabs, and click the option “Demographic”



Then, figures that show demographic information appear:



The top left figure shows projected population by age for the next five years in the selected location, in this case Nepal, given the upscaling of the selected health intervention(s).

The top right figure shows the projected deaths by age given the upscaling of the intervention.

The graph below shows the estimated deaths by causes affected by the upscaling of the selected health intervention in the population of Nepal.

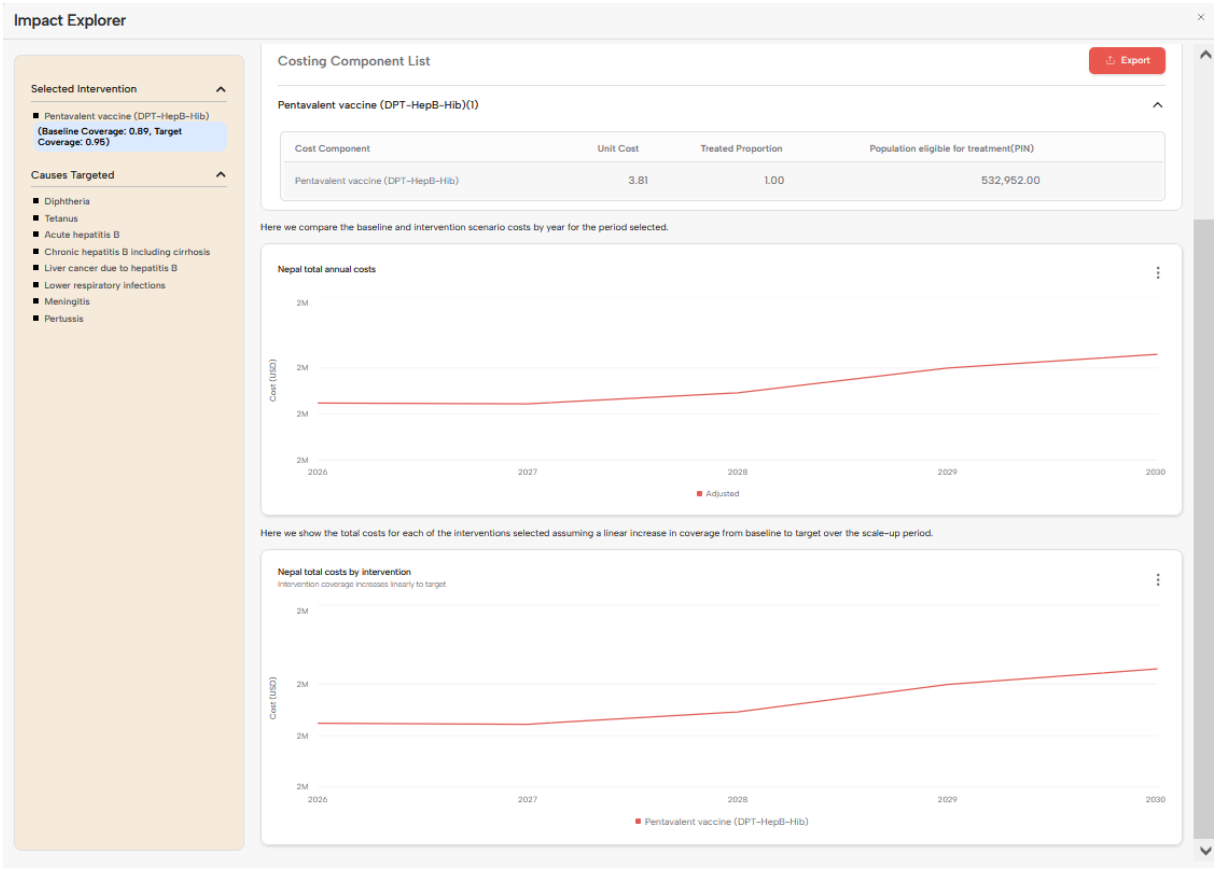
Scroll even further down to see the following graphs:

Now, the top three figures show the projected age and sex composition of the population 1 year from now (left) and 5 years from now without an upscaling of the selected health interventions (middle) and 5 years from now with such an upscaling (right).

The bottom figure to the left shows how the Total Fertility Rate (TFR) is expected to develop with and without upscaling of the selected health intervention. Since this example - upscaling of the pentavalent vaccine - does not affect fertility, the red line which shows the fertility development without the vaccine is completely the same and therefore apparently covered by the blue line, which shows the fertility development if the vaccine is upscaled. The figure in the middle shows how the Age Specific Fertility Rate (ASFR) for Nepal the next 5 years if the selected health intervention is not upscaled, while the right figure shows how ASFR will develop if the intervention is upscaled. Again, these scenarios are very similar because upscaling the pentavalent vaccine does not affect fertility.

Costs

Scroll up again and click the tab option “Costs”. Click the ⌄ symbol next to the intervention in the Cost Component List to get more detailed information about the components of the selected interventions. Below, two graphs illustrate the costs of scaling up coverage from 89% (baseline) to 95% (target) over five years. Keeping coverage at 89% would



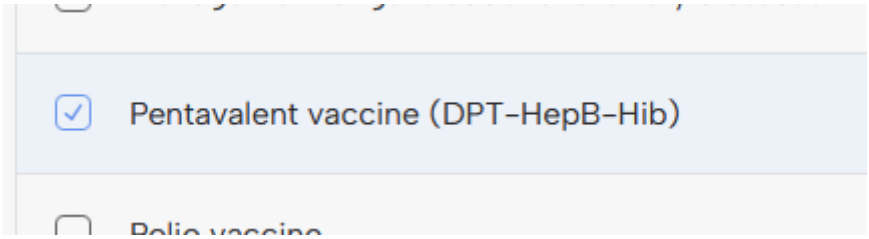
Here we compare the baseline and intervention scenario costs by year for the period selected:

The figure shows the increased cost each year in Nepal if one upscales the pentavalent vaccine from 89% in the current baseline year to 95% five years later.

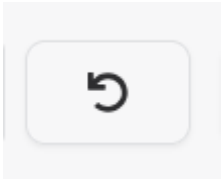
Return to League Table

If you want to go back to League Table, click the  in the top right corner.

When you return to League Table, the selected intervention is still selected:



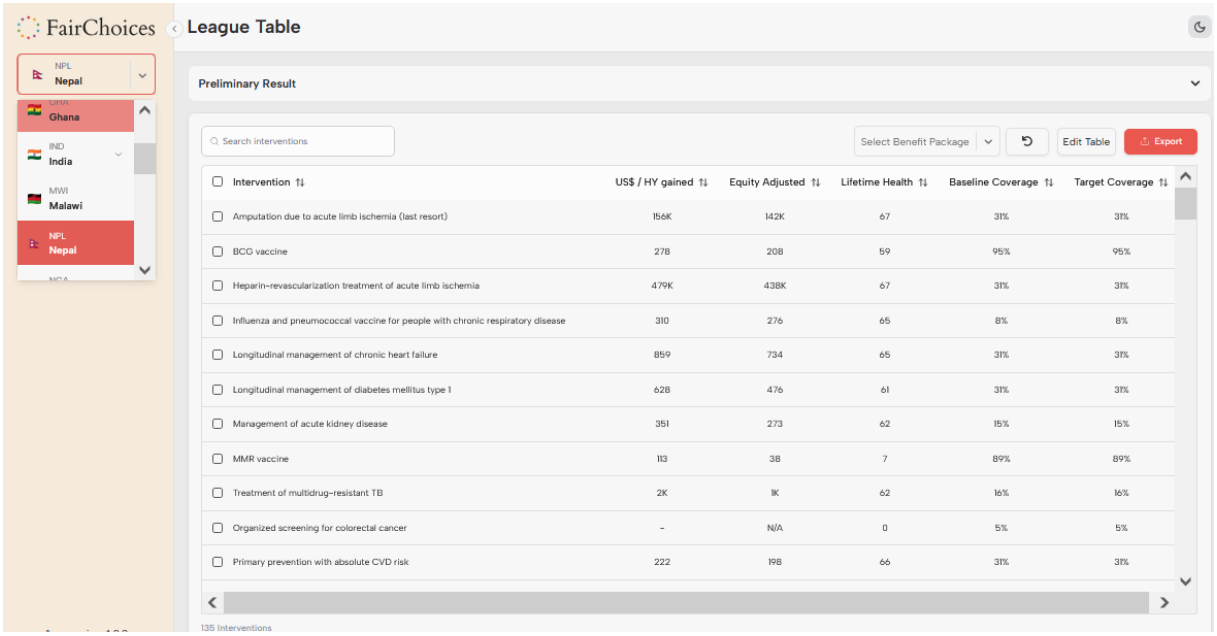
If you want to delete this selection, click the box next to the blue mark in the box, or click this button to go back to the original data:



Changing locations

You can change the location by opening the sidebar menu and clicking the selected country. This automatically changes all information in FairChoices to the new location.

For example, changing from Nepal to Ghana can be done as follows:



Now it automatically takes you to the option on the sidebar that you last chose with former location. In this example, since you last chose Set priorities option before you changed location from Nepal to Ghana, you will come directly to the Set priorities page for Ghana.