

USER GUIDE FOR THE

# Unit Cost Study Repository

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**GHCC**

## Introduction

The Unit Cost Study Repository (UCSR) is an evolving product. It currently contains data drawn from the grey and published literature, through mid-year 2016, for the following interventions:

**HIV:** Voluntary Medical Male Circumcision (VMMC), Prevention of Mother-to-Child Transmission (PMTCT), Pre-Exposure Prophylaxis (PrEP), Post-Violence Care, Post-Exposure Prophylaxis (PEP), Sexually Transmitted Infection (STI) Management, HIV Counseling and Testing (HCT), Adult Antiretroviral Therapy (ART), Pediatric ART, Retention and Adherence, Linkage to Care, Inpatient Care, and Patient Tracking.

By fall 2018, eighteen further HIV interventions with published cost data (including Service Packages for Key Populations, Opioid Substitution Therapy, and Supply Chain Management) will become available. Note that, while a systematic search for patient cost data was not conducted for HIV studies, when patient cost data were available in studies that met the UCSR inclusion criteria (e.g., the study used a societal perspective), the data are displayed in the “Cost disaggregations” section of the secondary table display.

**TB:** TB Prevention, TB treatment, Passive Case Finding (PCF), Active Case Finding (ACF), and Intensified Case Finding (ICF).

By fall 2018, results from a systematic search on Patient Costs data will also become available.

The visualization options in the UCSR will also evolve, as results from beta-testing and user feedback are incorporated. To this end, you are very much welcome to complete the “UCSR Feedback Survey” listed in the blue heading bar on the UCSR webpage, or at: <http://bit.ly/2uH3XyZ>.

## Using the UCSR

### Step 1: Getting started

To begin, go to: <https://www.ghcosting.org>, hover over “Data” and then click on **Unit Cost Study Repository**. A welcome screen with a map will be displayed; click on **Get started** to begin. In the Step 1 (Main) page, select the **Disease** and then **Intervention class** to see a shortened list of relevant interventions. Choose the intervention that you want to examine from the **Intervention** drop-down list. Note that you may only display results for one intervention at a time, so selecting from each of these first three filters is required. At this point, you may click **View Results** to see the results displayed.

If you want to filter further in Step 1, you may choose one or more options from **Units of Measurement** (e.g., per person treated per year), as well as one or more options from the dropdown lists under the filters **Regions/Countries**, **Urbanicity**, **Target group (demographic)** or **Target group (clinical)**. Please note, because the drop-down list of countries is very long, there is a white search box under each region where you can type in the country name to jump down to that name in the drop-down list. Once you are satisfied with your search filter selections, click **View Results**.

If you would like to reset ALL of your filters on this page (i.e., start afresh with a blank slate), click **Reset Filters**. At any point in the UCSR website section, **you may always go back to Step 1 by clicking on “1” at the top of the screen**, and then start afresh by clicking on **Reset Filters**.

## Step 2: Primary table display and further refining filters

After clicking on **View Results** the results of your initial filter choices are displayed in a tablet. At the top left-hand side of the table is a summary showing the filter choices made in Step 1 and the number of resulting unit costs (e.g., “Showing 97 entries for HIV, Prevention, VMMC”). It is important to note that each row represents ONE UNIQUE UNIT COST, and NOT ONE STUDY. This is because some studies reported multiple unit costs, such as unit costs by different countries, by different target populations, or by different service delivery platforms.

The columns in the Primary table display contain the most important characteristics of each unit cost as determined by the GHCC in consultation with stakeholders, advisors, and partners. Note that the “Unique trait” column contains information on the characteristic that distinguishes that particular unit cost from other unit costs in the same study. On devices with smaller screen sizes, users can use the blue **Scroll Bar** to scroll to the right in order to see the columns that are not initially visible on the smaller screen. You may reduce the number of columns displayed by hovering over the **Columns** button at the top right-hand side of the table and removing checks from the column headings that are displayed. Note that three columns are always displayed: Study, Cost, and Unit.

If you would like to sort the results of your table according to a specific column, click on that **Column Heading**, and all table results will be sorted either alphabetically or numerically, depending on the column. For example, if you would like the results sorted alphabetically from A-Z by country name, click on the column heading “Country”. Click once more on the “Country” column heading, and the results will be sorted alphabetically from Z-A by country name.

To display results containing a specific keyword, click on the **Magnifying glass** icon at the top right of the screen, type in your key word(s) and click Enter on your keyboard. For example, if you have already filtered by TB/Case Detection, Testing, and Diagnosis/Passive Case Finding, and you want to display only those unit costs that include [Gene]Xpert testing, type Xpert into the Keyword search box, and click Enter on your keyboard.

To export the results displayed in the table to an .xls or .csv file for other uses (e.g., record-keeping, analytical purposes), click on **Export** at the top right-hand side of the table and follow the prompts.

If you want to further refine the displayed results by filter characteristics that were not available in Step 1, click on **Refine**. A set of filter characteristics are displayed divided into two categories: Implementation feature (**Platform, Ownership, Technology**), and Costing method (**Cost Perspective, Economic/Financial, Year of Cost Data Collection, Scale Discussed, and Sensitivity analysis** [conducted]). You may select one or more of the drop-down options from any of these filters to further refine the display. Please note, to avoid having users scroll down long drop-down lists, the Platform and Technology filter choices may be aggregates of the displayed results; e.g., “Surgery” Technology for VMMC includes both PrePex and manual surgery technologies.

You may hide the Refine filter options by clicking again on Refine; this also turns the button back to dark blue. Click **Back** to return to the previous step.

### Step 3: Secondary table display

While the most important characteristics are shown in the Primary table display, further information for each unit cost can be found in the Secondary table display, including sections on Study attributes (Citation, Geography, Intervention [description], Timing and Coverage, Population [detail], Study Design, and Costing Methods), Cost disaggregations (Input categories [personnel, recurrent, etc.], Activity categories, and Patient cost categories), and Alerts. You may access the secondary table display by clicking anywhere within the active row, which is highlighted in yellow when you hover over it.

Within the Secondary table display, click on any **Sub-heading** at the left to access the detailed information in that Sub-heading. This detail is provided to further assist in interpretation of the unit cost. For example, two VMMC estimates on the Primary table display may seem to share all of the same characteristics (same country, same platform, etc.), but the unit costs are still quite different; the Secondary table display will provide the further details necessary to understand the differences. It may be that, for example, the details of the Intervention are different (e.g., one unit cost refers to a VMMC performed by a surgeon and includes demand generation activities, while a second unit cost refers to a VMMC performed by a surgical technician and does not include demand generation costs), or it may be that another aspect of Costing Methods is different (e.g., one unit cost included above-site costs, while a second did not).

Within the Cost Disaggregations section, the sub-heading for **Input Categories** displays disaggregated costs by both broad input categories (personnel, recurrent, etc.), and by more narrow input categories within the broad input categories (service delivery personnel, support personnel, etc.), when available in the study. Similarly, the **Activity Categories** sub-heading displays disaggregated costs by broad activity (primary service delivery, operational activities, etc.) and narrow activity (logistics, supervision, training, etc.) categories, again only when available in the study. For details of the classifications of inputs into each narrow input category, and each narrow activity category, please see Figures 3 and 4 respectively in the UCSR Methodology document. The cost disaggregation section also contains **Patient Cost Categories** (direct/medical, direct/non-medical, indirect/productivity loss due to access, and indirect/productivity loss due to illness). Please note, the input, activity, and patient cost classifications have been standardized by the GHCC for comparability across studies, and thus the input classification displayed in the UCSR for a unit cost may differ from the classification in the study as reported by the author. For example, building rent is classified as a recurrent cost (narrow category: recurrent building/space) in the UCSR, while the author may have classified building rent as a capital cost in the published study. The GHCC will be including authors' classifications in a future version of the UCSR.

### Step 4. Data Visualizations

Once you have completed any further refinement that you want, to display the results in chart form click on the **Data Visualizations** button at the top of the screen. You will then see a pop-up box that describes the two different ways to compare your results in chart form: COMPARE BY COUNTRY or COMPARE BY CHARACTERISTIC (and then by country). Additional instructions are also given in the pop-up box and are repeated below. Click **Got It** to move to the actual visualization design. If you do not want to see the pop-up box again, check the box next to "Do not show this message again."

The default setting for the visualizations is Compare by Country, using the **Map** view. In the Map view you will see the number of unit cost estimates from your Primary results table, organized by country. The heat map in the legend indicates the number of estimates available for each country; fewer estimates for a country are represented by the lighter colors in the heat map, while more estimates for a country are represented by darker colors.

You may zoom in to a specific region or country by using the “+” button at the top left of the map; click on the “-” button to zoom back out. To focus on specific locations after zooming in, click and hold your cursor on a point on the map and drag your mouse to the right or left.

To change the type of chart, click on the radio buttons at the top for either the **Box plot** or the **Bar** chart. A box will then pop up where you will select the countries to be displayed. While you could display all countries for which there are data, this may result in a visualization that is too crowded. Click on the first country drop-down menu, and you will see the list of countries for which there were data in your results table. Select a country, and then continue adding more countries with the other country drop-down menus until you are satisfied with the display.

If instead you would like to compare results by characteristic, click on **Compare by Characteristic**. While the default setting compares the unit cost by ownership characteristics for the selected countries, you may also compare other characteristics, including Platform, Target group (clinical), Target group (demographic), Technology and Urbanicity. You must first select the CHARACTERISTIC TO COMPARE, and then you may select up to three countries in the drop-down menus below. Note that, due to the added complexity of the data display from disaggregating unit costs by characteristic, you are limited to displaying data for only three countries at a time.

You may print the main chart, or download it as a .png, .jpg, .pdf, or .svg file by clicking on the **Hamburger icon** at the top right of the chart.

Once in the Bar view, you can click on any data point (e.g., one of the bars representing a unique unit cost for VMMC in South Africa) to see a pop-up box containing a visualization of the details for that data point in a secondary chart. The default view for secondary charts is a Bar chart, but you may change to a Pie chart by clicking the radio button at the bottom of the pop-up box. You may take a screenshot of the secondary chart to import into software such as Powerpoint by clicking on Screenshot.