

## SUPPLEMENTAL REFERENCE 8.1

### SETTING UP A CMAM MONITORING SYSTEM USING AN ELECTRONIC DATABASE IN EXCEL

Adapted from *Community-based Therapeutic Care (CTC): A Field Manual*, pages 207-211

The following instructions can be used to construct a database for outpatient care and inpatient care sites per district in Excel.

#### STEP 1. CREATING THE DATA INPUT SHEET (SEE SITE TALLY AND REPORTING SHEETS)

##### 1.1. Create Columns

- Create a spreadsheet in Excel with four columns titled: 'Session Week', 'Site' and 'Month'.
- Create columns corresponding to the admission and exit criteria on your site tally and reporting sheet
- Ensure each column title is written in its own cell.
- Create columns titled:

Total End Last Session (or Total end of the week/month)

New Cases 6-59 months

New Cases Other

Old Cases

Total Admissions

Cured

Death

Defaulter

Non-recovered

Total Discharged

Referral

Total Exits

Total Under Treatment (or Total beginning of week/month)

##### 1.2. Create Rows

- Write site names (e.g., names of health facilities with outpatient care or inpatient care sites) of the district in rows moving down the spreadsheet for cycle 1. (Leave some space to add extra sites as the service/programme progresses.)
- Write **1** in the each cycle number box.
- For the first row corresponding to cycle 2, write in a formula of the first box **+1**.
- Do not write site names for cycle 2. Write a formula of the appropriate cell in cycle 1.
- Make a bold line under the first cycle

##### 1.3. Enter Formulas

- Add in formulas for:
  - Total end of last session (For cycle 1, there is no formula. Put 0 in the cells. For subsequent cycles, use Total under Treatment from the previous cycle).
  - Total Admissions = New cases 6-59 months + New cases other + Old cases
  - Total Discharged = Cured + Deaths + Defaulters + Non-recovered
  - Total Exits = Cured + Deaths + Defaulters + Non-recovered + Referral
  - Total Under Treatment = Total End Last Session + Total Admissions – Total Exits

- For all formulas, click and copy formulas down the sheet to fill as many weekly cycles as required. (We recommend no more than one year's data in one database.)
- Data can now be entered by cycle from the weekly tally sheets (Optional database at national level can use monthly cycles using the monthly district reporting sheets )

## STEP 2. CREATING THE DATA REPORT

- From the input sheet under 'Data' on the top menu, select 'Pivot Table Report'.
- Click 'Microsoft Excel List or database'.
- Highlight all of the spreadsheet
- Click 'Next' to get to the Pivot Table construction.
- Into 'Page', drag Site and Month.
- Into 'Column', drag Week.
- Into 'Data', drag the following variables in the following order: New cases 6-59 months, New cases other, Old cases, Total Admissions, Cured, Death, Defaulters, Non-recovered, Total Discharges, Referral, Total Exits, Total under treatment.
- Double click on all variables in data sheet in the Pivot Table construction. Perform the following on each one:
  - Change title by removing Count of. Do not shift the title too much to the left or Pivot Table alarm will be set off.
  - Change from Count to Sum.
  - Click Number – click Number again – tick Use 1000 separator. Change decimal place to 0.
  - Click Next – click new work sheet – rename it 'Report'.
- Blank out number in grand total column for 'Total under Treatment' (the number is meaningless for CMAM data).
- Once data is added to the input sheet, the report can be updated. Place the cursor inside the report, right click and select 'refresh data'.
- Data can be viewed by cycle for the whole service/programme or, if required, for individual sites or months.

For additional guidance on the construction and use of pivot tables see: <http://office.microsoft.com/en-us/assistance/HA010346321033.aspx>

## STEP 3. CREATING THE GRAPHS

### Create Chart of Admission and Discharge Trends

- To make the bar chart, first click on the chart icon.
- In Custom Type, select 'Line – Column'.
- In Series, click 'Add'.
- Click 'Name' bar and write in 'Total Admission'.
- Click 'Values' and highlight 'Total Admission' row in report (leave out grand total).
- Click 'category x labels' and highlight distribution cycles row.
- Click 'Add' again
- Click 'Name' bar and write in 'Total Discharged'.
- Click 'Values' and highlight 'Total Discharged' row in report (leave out grand total).

- Click 'Add' again.
- Click 'Name' bar and highlight 'Total under treatment' row in report.
- Click 'Next', click 'Chart Title' and add in overall title and titles for axes.
- Put in new sheet – rename Graphs.

### **Create Pie Chart Showing Breakdown of Discharge Categories**

- Click on the chart icon.
- Click on pie chart.
- In 'Series', click 'Add'.
- Click 'Values' and highlight the data in 'Grand Total' for discharge variables (i.e. Cured, Death, Defaulter, Non-recovered). Do not include Referral or Total Exits.
- Click 'Category labels' and highlight the exit titles (i.e. Cured, Death, Defaulter, Non-recovered).
- Click Next, click Chart Title and write in title.
- Click Data label and tick percent.

See Figures in **Handout 8.14 Guidance on CMAM Reporting** an example of how the graph and pie should look.

Note: When you start to input data into the database, columns corresponding to cycles where no data has yet been entered can be hidden. This makes it easier to view the report and graphs.