

Introduction

The Filter Builder is a function that is currently present within the Whiteboard, Quality Measures, Patient Portal and Meaningful Use Stage 2 Statistics. Filters are used to filter information in or out of an application to get the results needed. This document will explain how to add an exiting filter to the Filter Preferences Screen, how to create a new filter, and how to edit an existing filter.

Filter Builder

Adding an Exisiting Filter

Once a custom filter is created, it will be added to the filter lookup screen and will be available for a user, group/role or facility to use. Edits may be made to an existing filter if it is one the user has already created. Users in the System Administrator role will be able to create and make changes to a global filter.

To begin creating a filter, on the Filter Preferences Screen, select **Add** from the action bar.

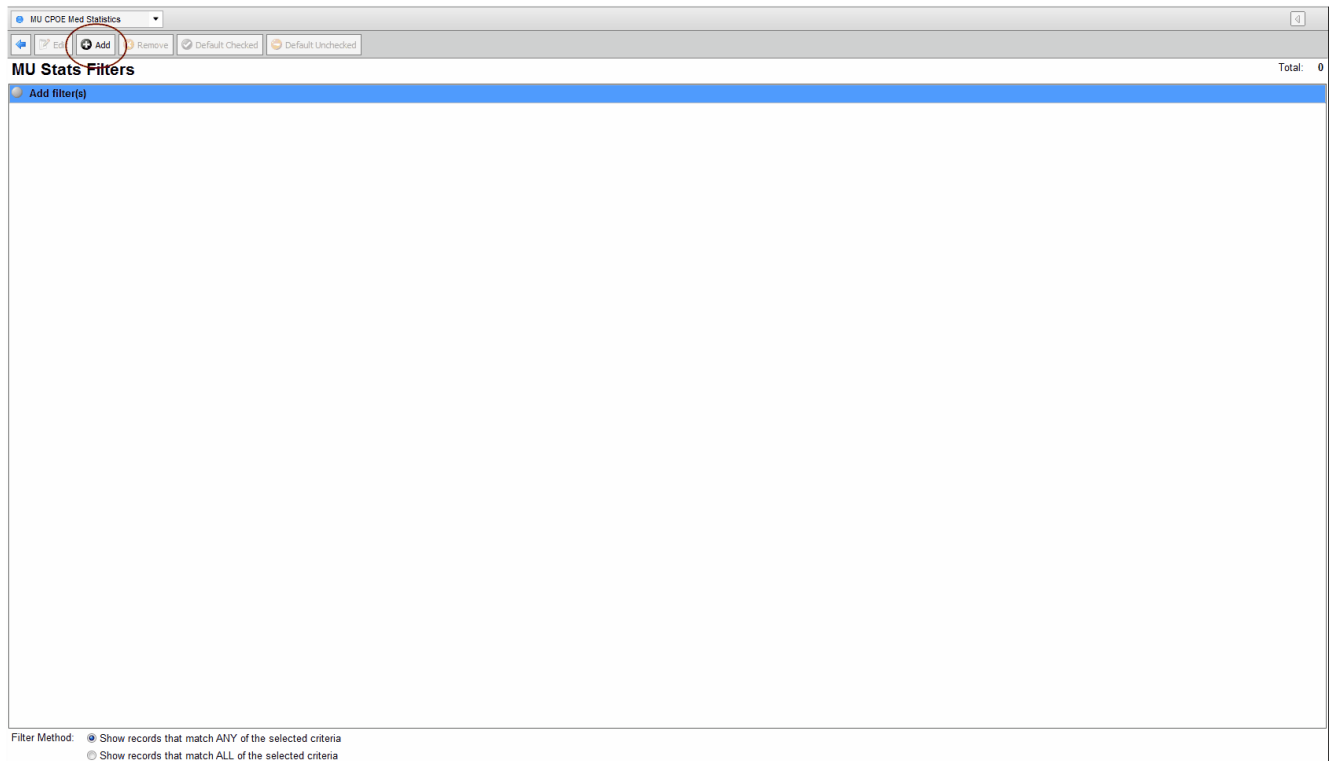
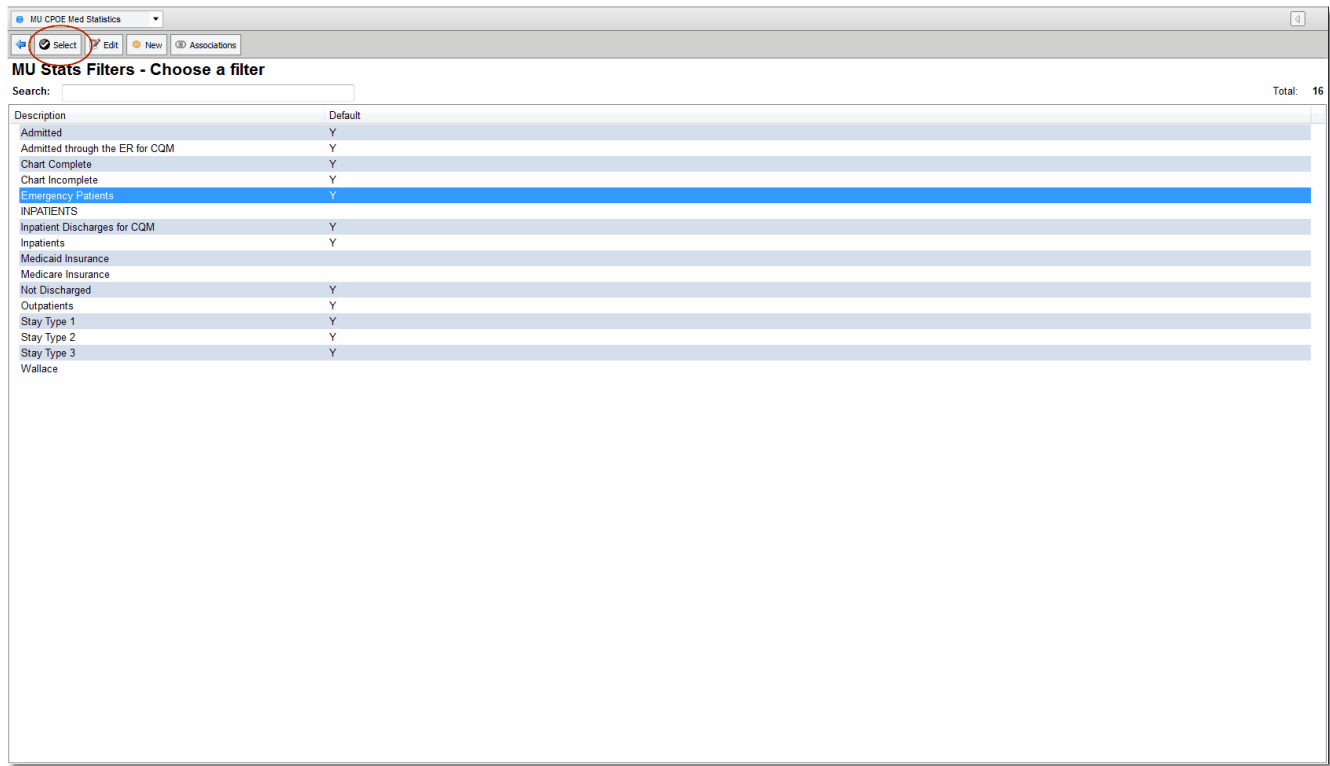


Figure 1.1 Filter Preferences Screen

To choose an existing filter, select the name of the filter from the filter lookup screen so it is



highlighted in blue and **Select** from the action bar. If more filters are needed, keep repeating this process. A search option is available at the top of the screen if needed.



MU CPOE Med Statistics





Select Edit New Associations

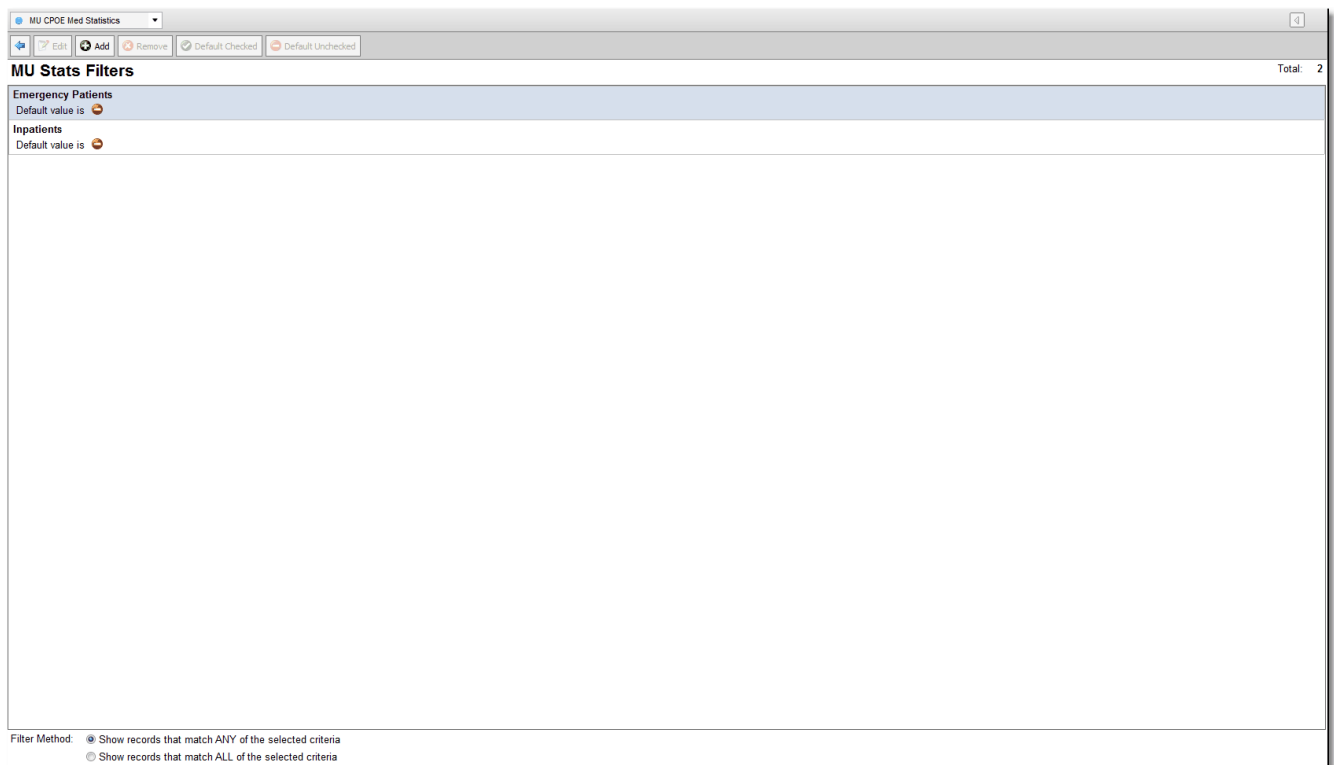
MU Stats Filters - Choose a filter

Search: Total: 16

Description	Default
Admitted	Y
Admitted through the ER for CQM	Y
Chart Complete	Y
Chart Incomplete	Y
Emergency Patients	Y
INPATIENTS	
Inpatient Discharges for CQM	Y
Inpatients	Y
Medicaid Insurance	
Medicare Insurance	
Not Discharged	Y
Outpatients	Y
Stay Type 1	Y
Stay Type 2	Y
Stay Type 3	Y
Wallace	

Filter 1.2 Filter Lookup Screen

As filters are added, they will display on the Filters screen. When the Default Value is a  red minus sign, the checkbox for the filter will default to unchecked. When the Default Value is a  green check sign, the checkbox for the filter will default to checked. To remove a filter, select the  red X next to the name of the filter. To exit the Filters screen, select the  back arrow.



MU CPOE Med Statistics

Edit Add Remove Default Checked Default Unchecked

MU Stats Filters Total: 2

Emergency Patients
Default value is

Inpatients
Default value is

Filter Method: ☒ Show records that match ANY of the selected criteria
☐ Show records that match ALL of the selected criteria

Figure 1.3 Filter Preferences

Once a filter is defined and/or added it will be available for use.

NOTE: *Adjustments to the filters may be made at any time.*

New Filter

To create a new filter, select



Add from the action bar.

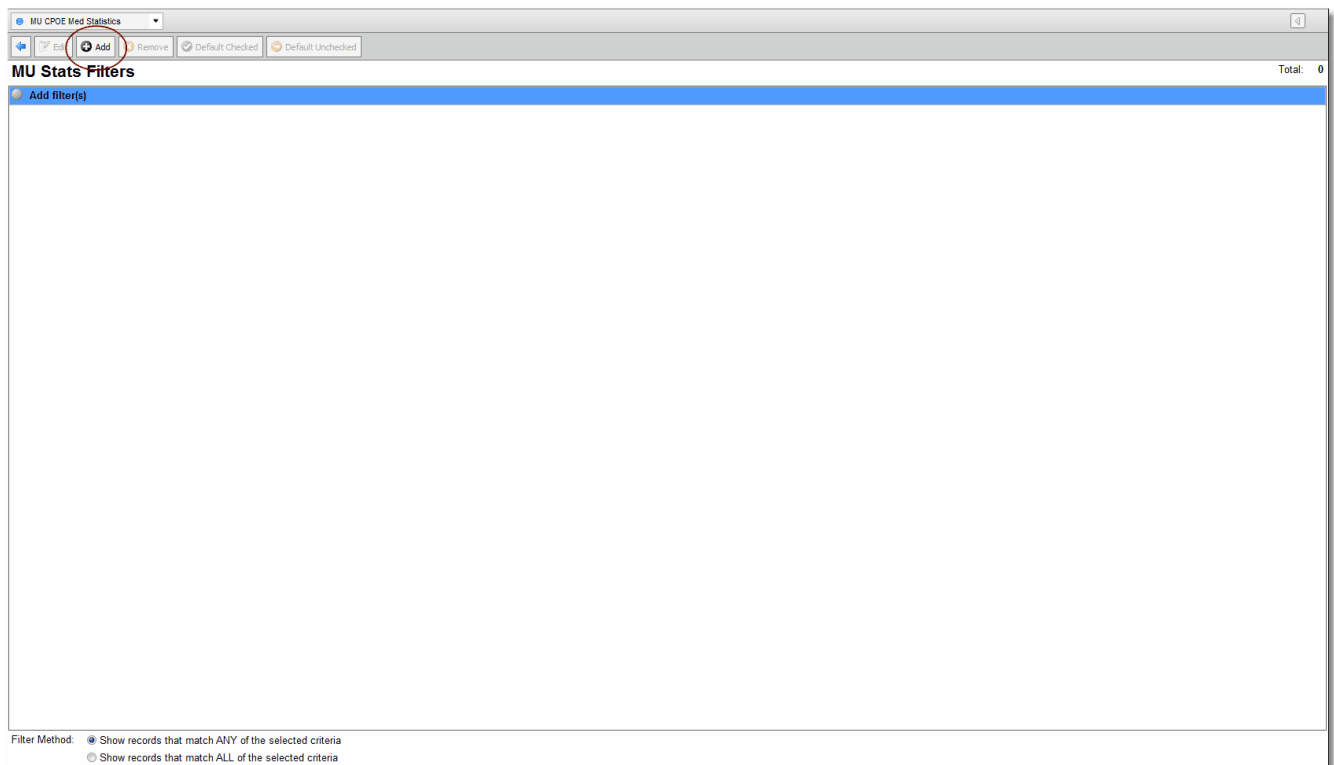

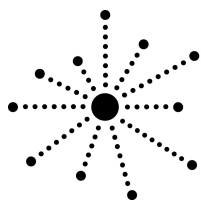


Figure 1.4 Filter Preferences Screen

Select  **New** from the action bar of the filter lookup screen.



MU CPOE Med Statistics

Select

Edit

New

Associations

MU Stats Filters - Choose a filter

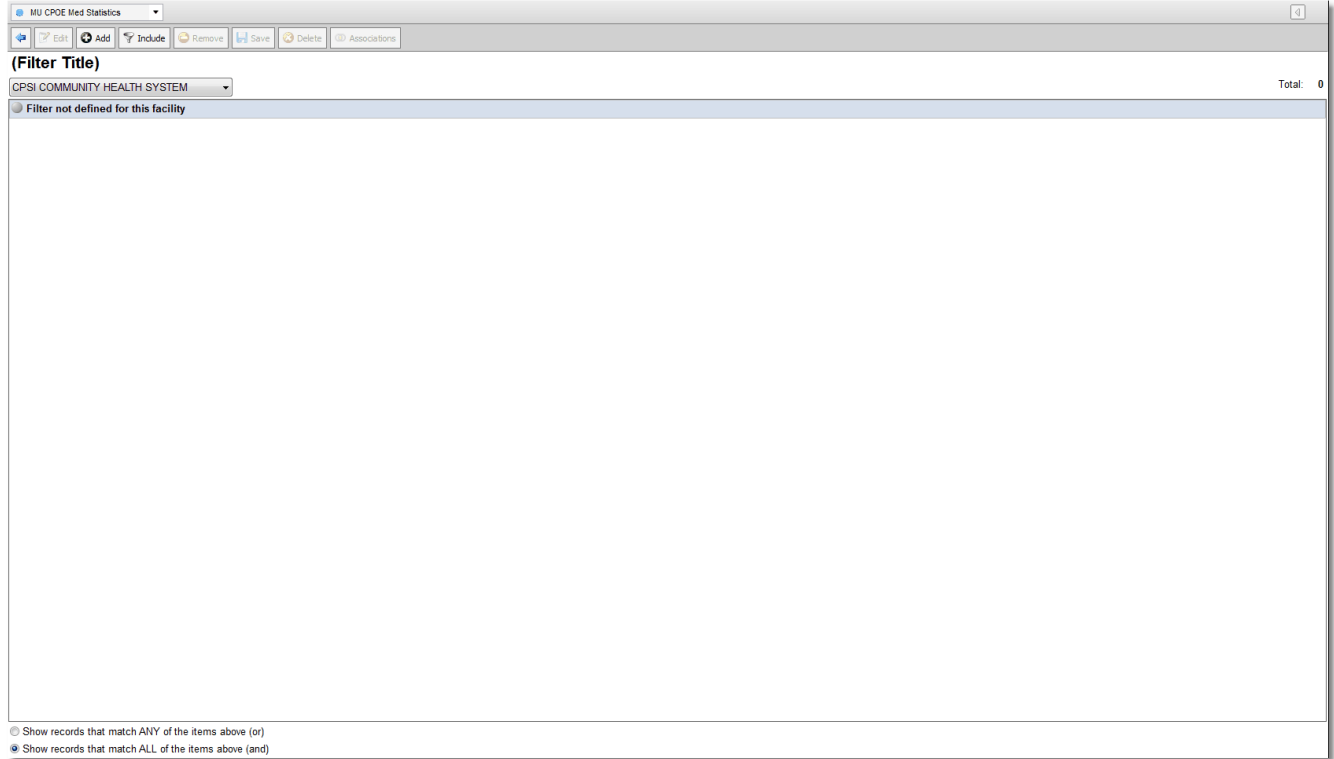
Search:

Total: 16

Description	Default
Admitted	Y
Admitted through the ER for CQM	Y
Chart Complete	Y
Chart Incomplete	Y
Emergency Patients	Y
INPATIENTS	
Inpatient Discharges for CQM	Y
Inpatients	Y
Medicaid Insurance	
Medicare Insurance	
Not Discharged	Y
Outpatients	Y
Stay Type 1	Y
Stay Type 2	Y
Stay Type 3	Y
Wallace	


Figure 1.5 Filter Selection Screen

The new filter will need to be named. To do this select **(Filter Title)** in the upper left hand corner of the screen.



The screenshot shows a window titled "MU CPOE Med Statistics". The interface includes a toolbar with buttons for Edit, Add, Include, Remove, Save, Delete, and Associations. Below the toolbar, there is a section labeled "(Filter Title)" with a dropdown menu currently set to "GPSI COMMUNITY HEALTH SYSTEM". To the right of this dropdown, it says "Total: 0". Below this, a message states "Filter not defined for this facility". At the bottom of the window, there are two radio buttons: "Show records that match ANY of the items above (or)" and "Show records that match ALL of the items above (and)".

Figure 1.6 Filter Setup

Type the name of the filter in the box provided, and select  **OK** from the action bar.

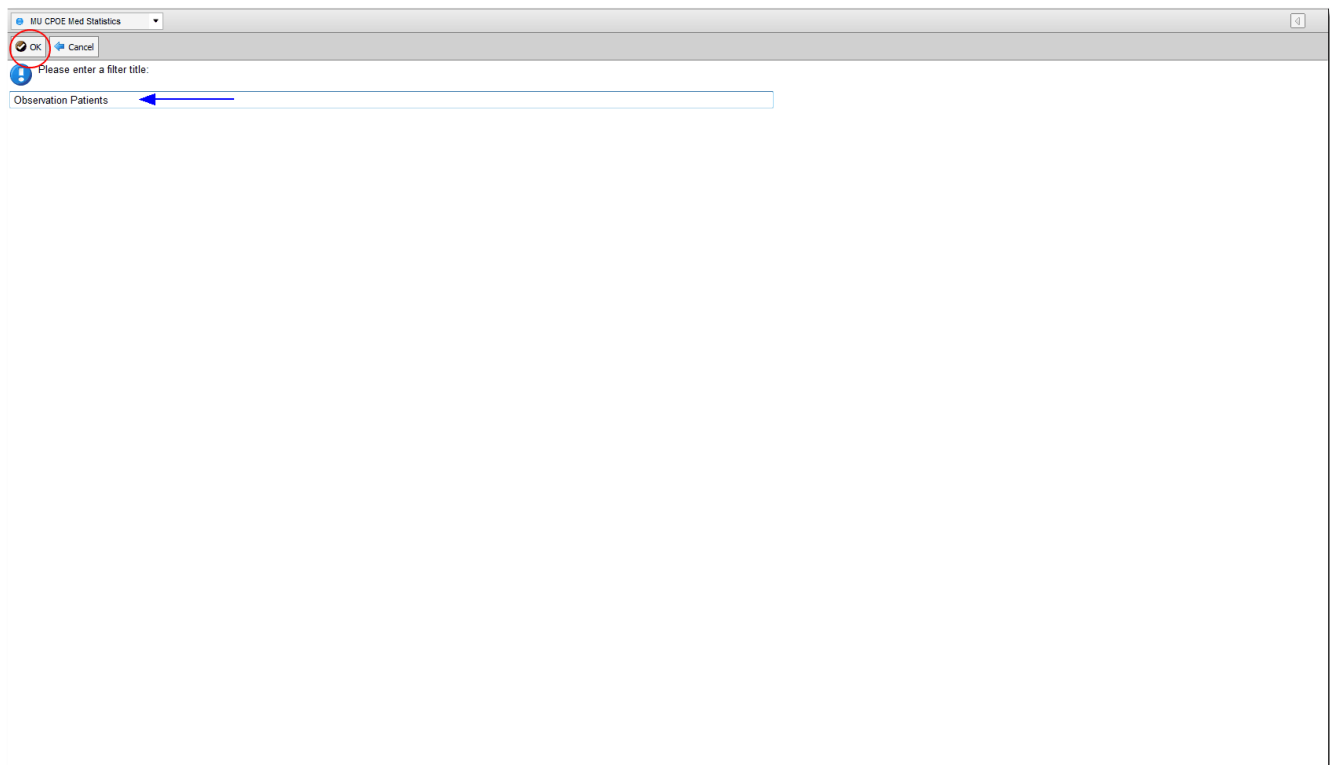


Figure 1.7 Filter Setup

Then select the level the filter will be used.

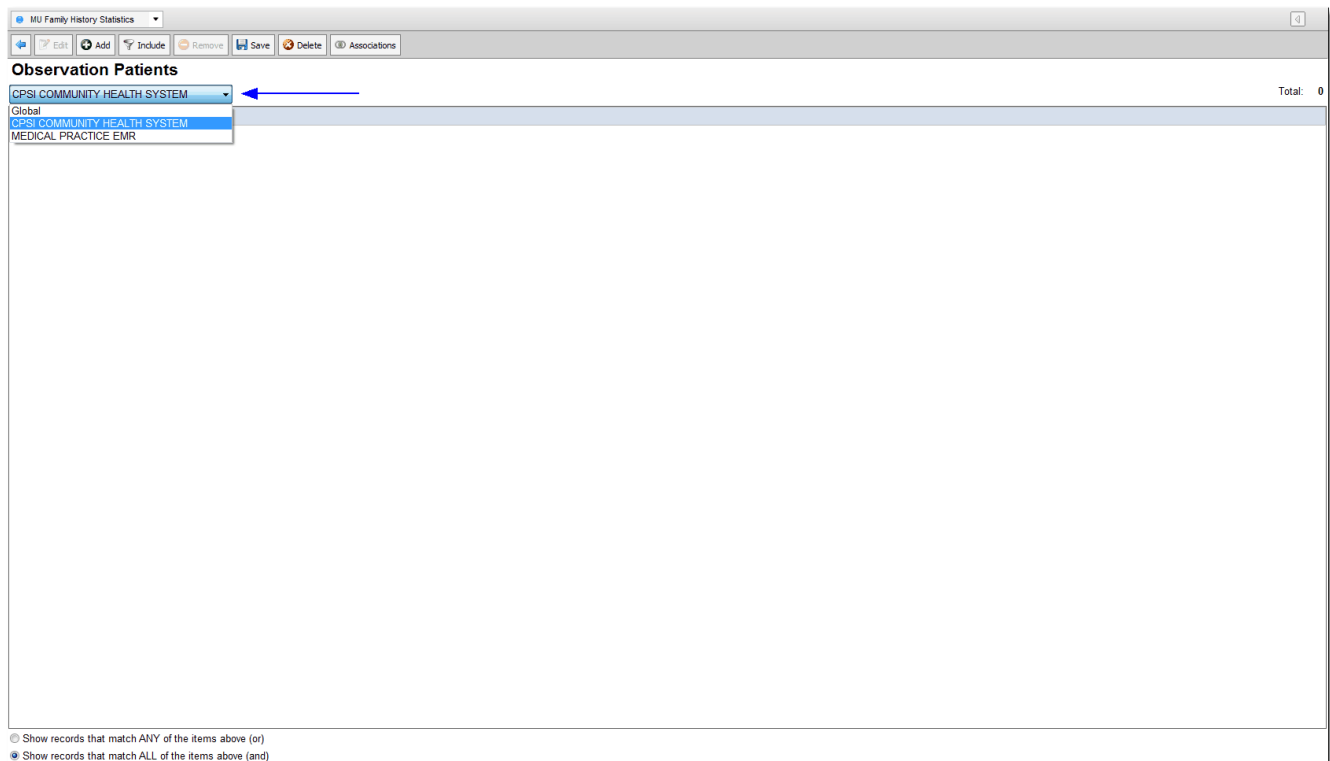


Figure 1.8 Filter Setup

Below is an explanation of each level:

- **Facility:** This is a facility-specific defined filter.
- **Global:** The global definition will be used if no facility-specific definition exists.
- **CPSI Default:** This only exists for filters set up by CPSI. This level is not able to be modified and will be used if no facility-specific or global definition exists.



Select **Add** from the action bar to define the filter for the facility.

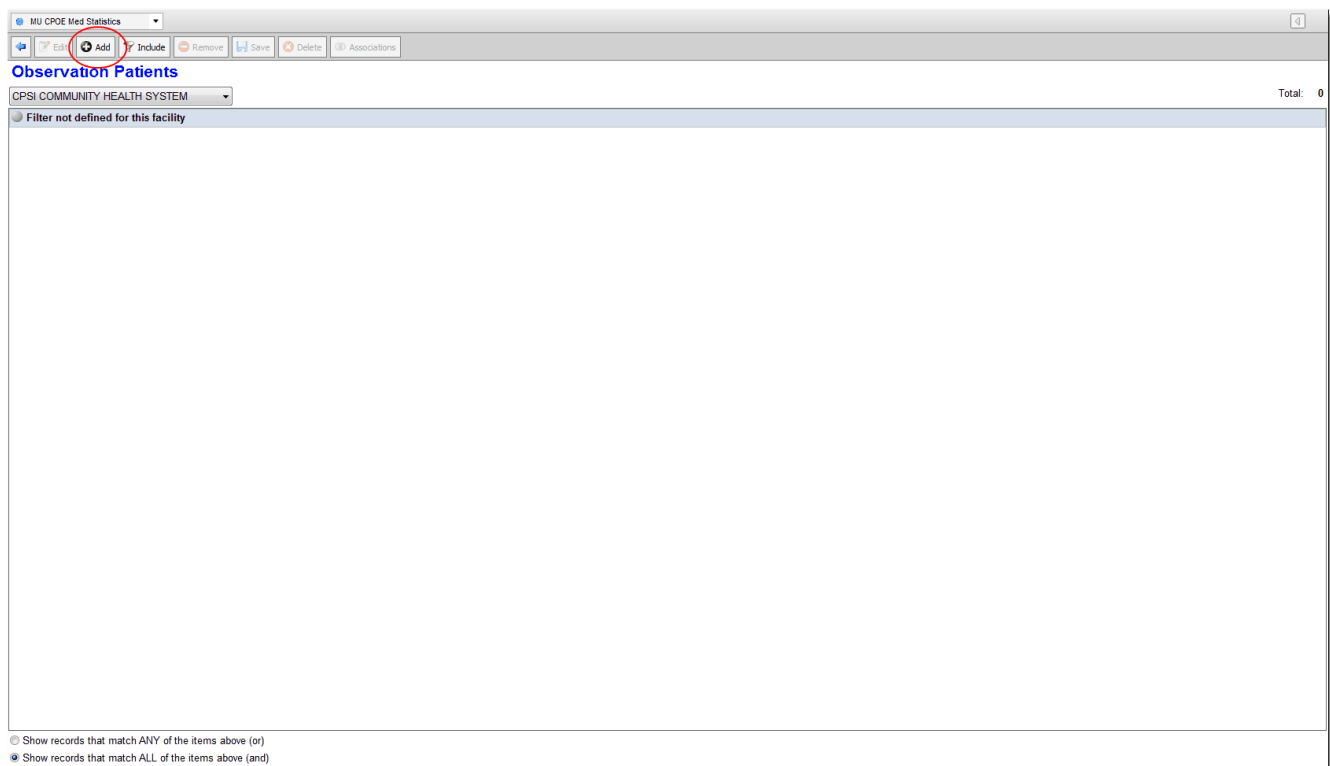


Figure 1.9 Filter Setup

A list of fields to filter will then display. A search option is available at the top of the screen if needed.



Select the field to be filtered so that it is highlighted in blue, and select **OK** from the action bar.

NOTE: When using the search option, whatever is typed will search the entire description of the field.

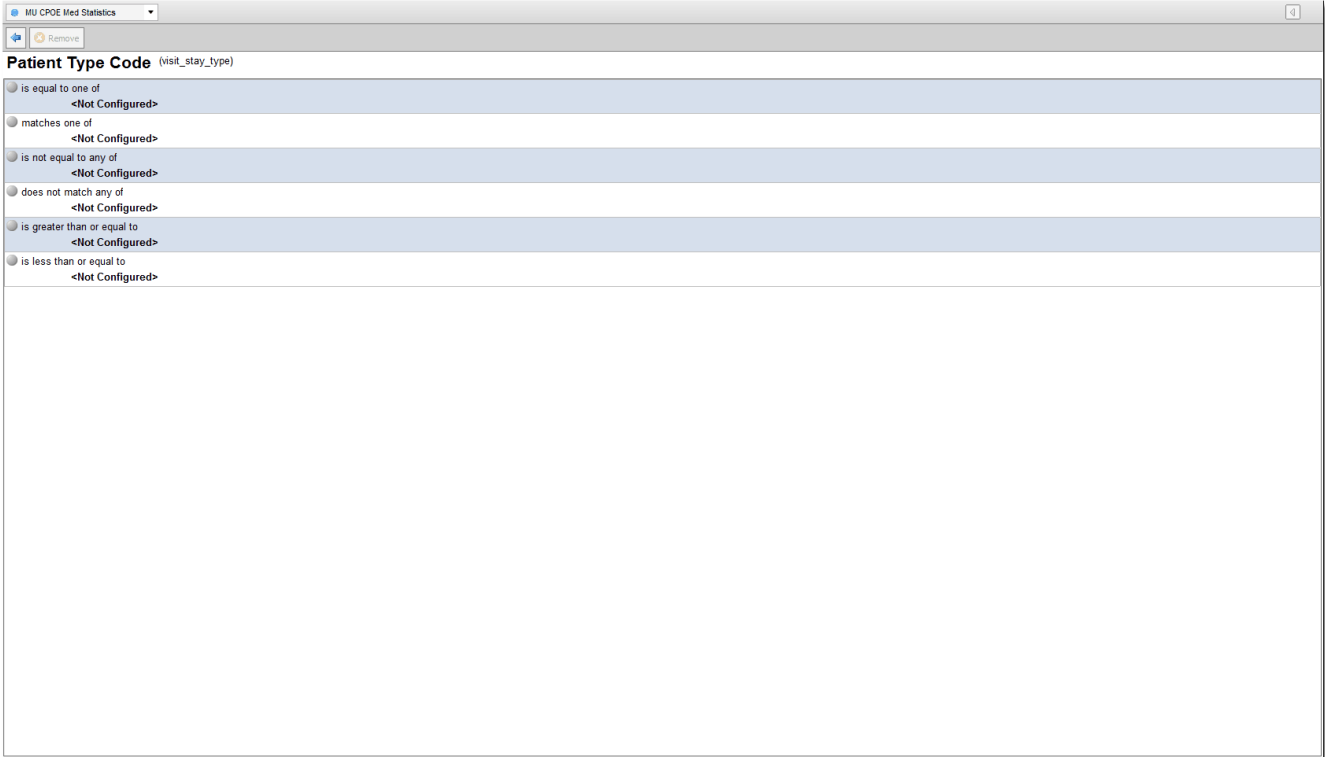
MU CPOE Med Statistics

Search: type Total: 6

Description	Type	Field
Admitting Employee Payroll Type	String	ipv1_adm_eetype
Chart Type Code	String	visit_chart_type
Miscellaneous2 Type P Record	String	visit_misc2
Patient Sub Type	Numeric	visit_subtype_key
Patient Type Code	String	visit_stay_type
Room Type Code	String	ipv1_roomtype

Figure 1.10 Filter Setup

The values for the filter will need to be set up. Double-click **<Not Configured>** for each of the value statements that are applicable. Not every statement needs to have a value but at least one will.



The screenshot shows a software window titled "MU CPOE Med Statistics". Inside, there's a "Remove" button and a section for "Patient Type Code (visit_stay_type)". Below this, there are seven radio button options, each followed by a text field containing "<Not Configured>":


- ☐ is equal to one of
- ☐ matches one of
- ☐ is not equal to any of
- ☐ does not match any of
- ☐ is greater than or equal to
- ☐ is less than or equal to


The rest of the window is a large empty text area for entering values.

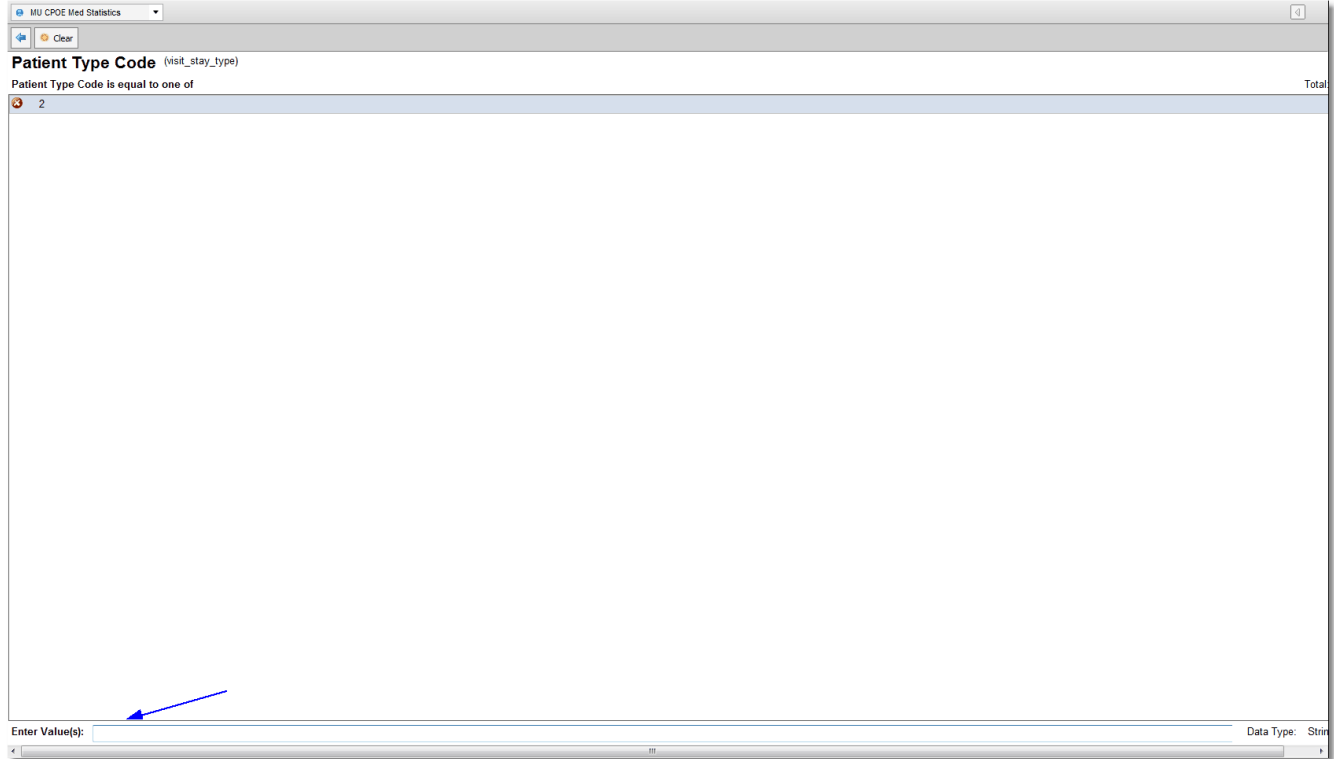
Figure 1.11 Filter Setup

The top of the screen will display which value statement was selected. At the bottom of the screen, enter in the value(s) to be configured, and select the Enter key to add it to the screen. To remove a

value that has already been added, select the  red X next to the value. To remove all values from


the screen, select  **Clear** from the action bar. After all values have been added, select the

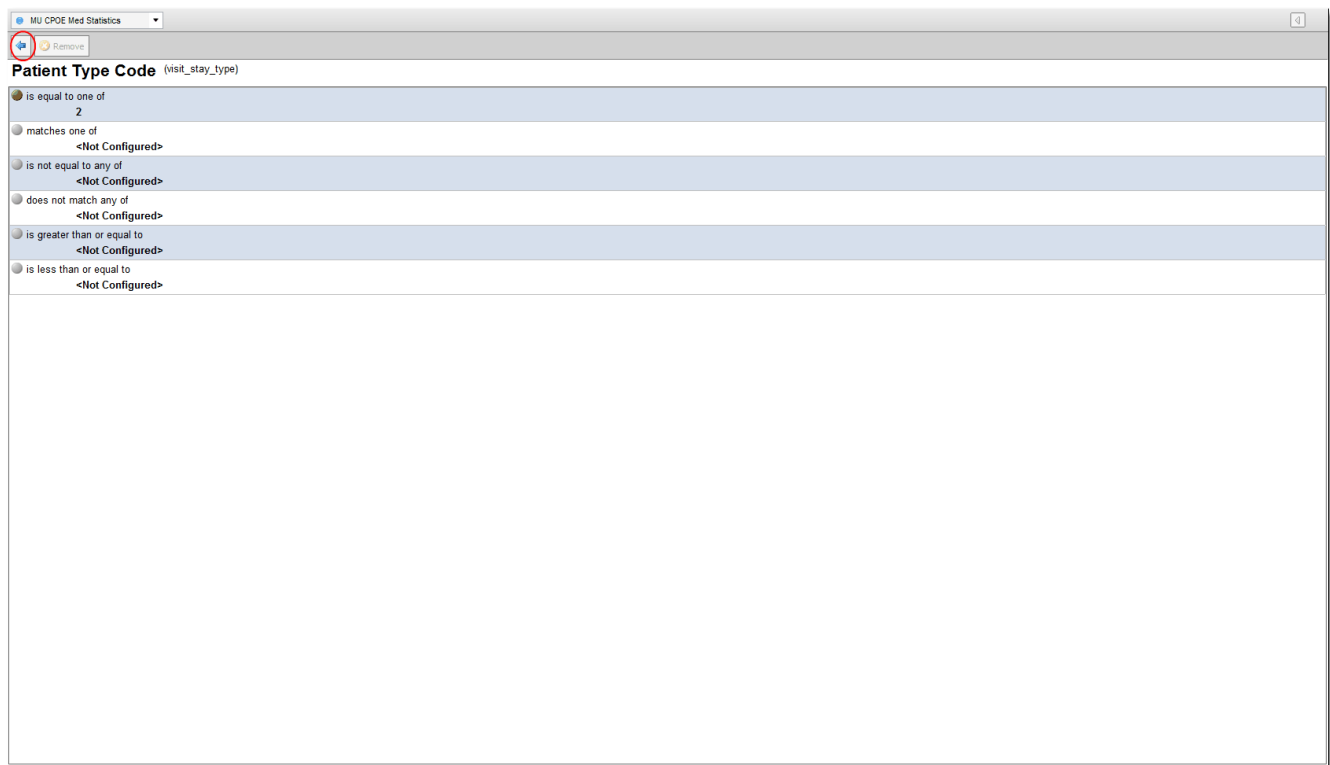
 back arrow from the action bar.



The screenshot shows a software window titled "MU CPOE Med Statistics". Inside, there's a "Clear" button and a section for "Patient Type Code (visit_stay_type)". Below this, it says "Patient Type Code is equal to one of". A large empty box is provided for input. At the bottom, there's an "Enter Value(s):" label and a text input field. A blue arrow points to this input field. To the right of the input field, it says "Data Type: String".

Figure 1.12 Filter Setup

The configured values will display for each value statement, if any were entered. Select the  back arrow at the bottom of the screen to return to the filter setup once all values have been configured.



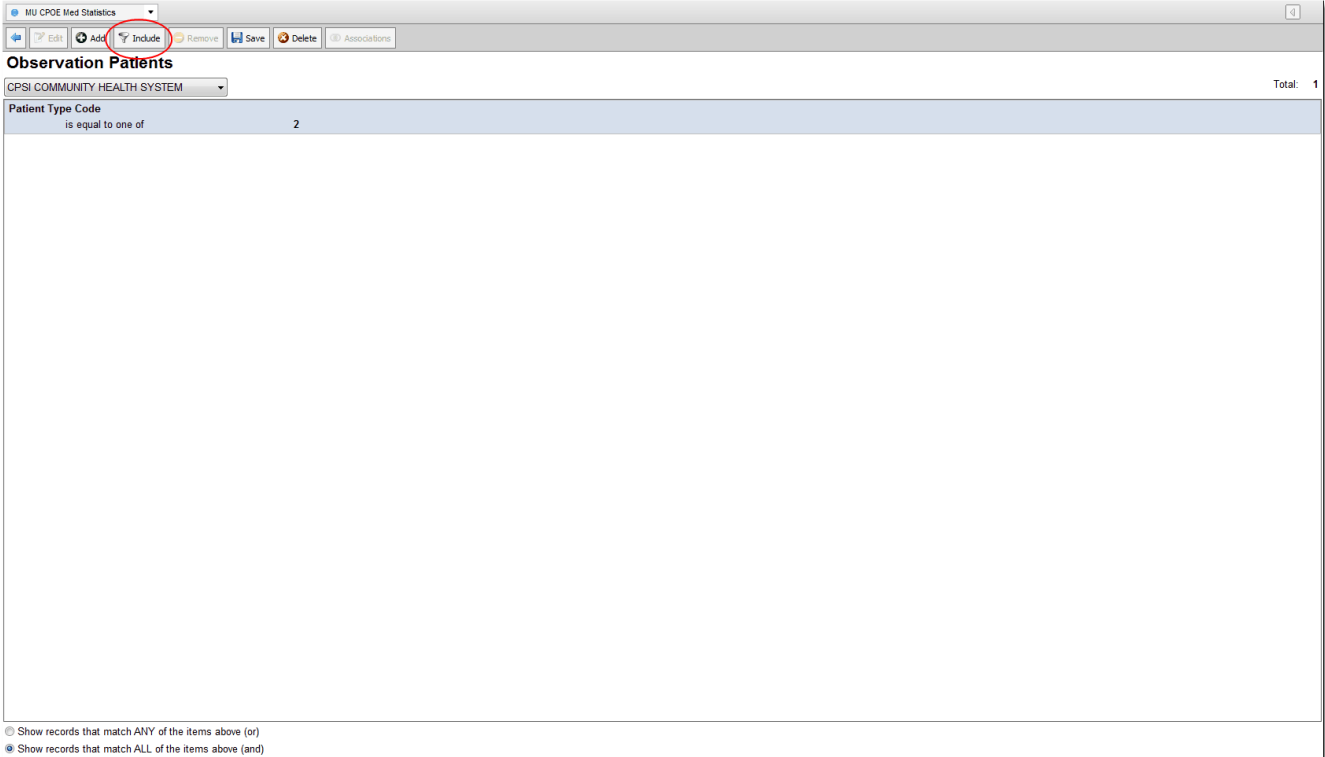
The screenshot shows a window titled 'MU CPOE Med Statistics'. Inside, there is a 'Remove' button and a list of filter options for 'Patient Type Code (visit_stay_type)'. The first option, 'is equal to one of', is selected and has a value of '2'. The other options are 'matches one of', 'is not equal to any of', 'does not match any of', 'is greater than or equal to', and 'is less than or equal to', all of which are currently set to '<Not Configured>'. A red circle highlights the 'Remove' button in the top left corner of the filter list.

Figure 1.13 Filter Setup

To include this filter along with another existing filter, select



Include from the action bar.



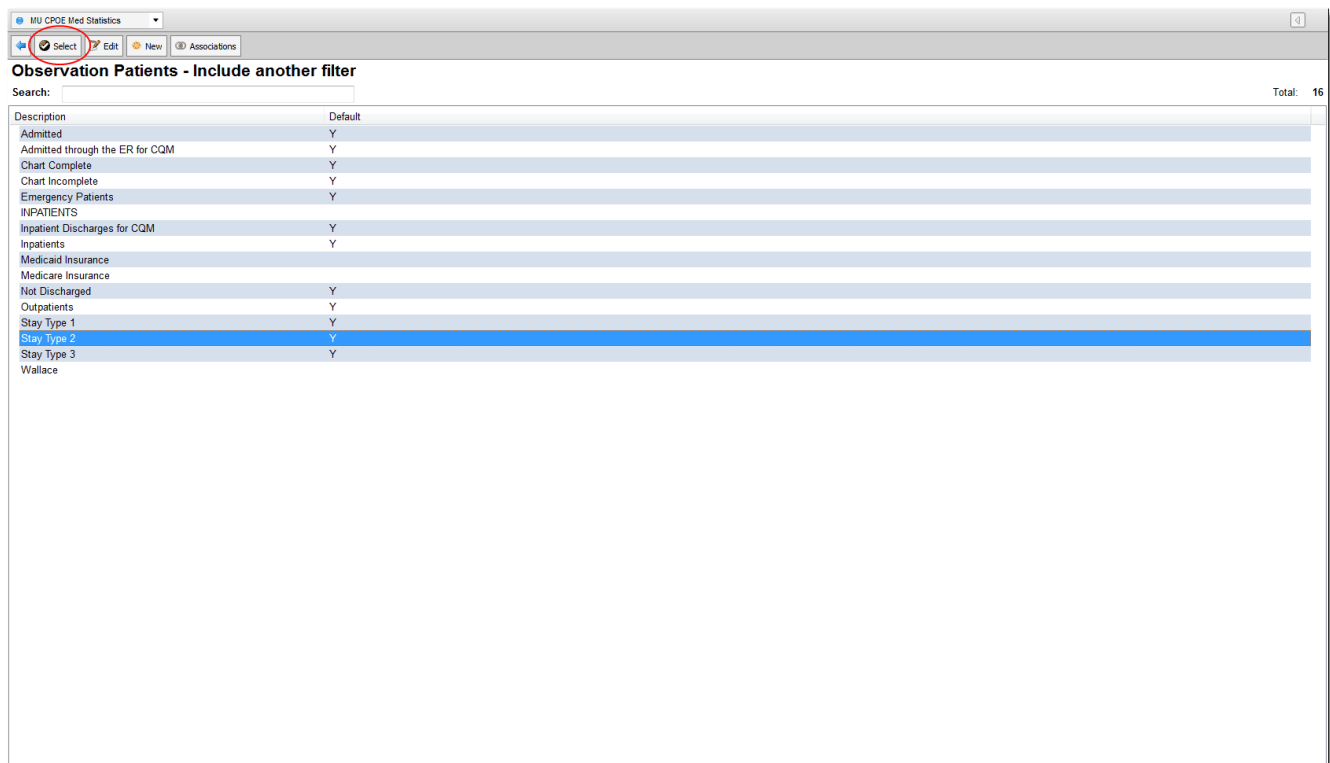
The screenshot shows a software window titled "MU CPOE Med Statistics". Inside, there's a toolbar with buttons: "Edit", "Add", "Include" (circled in red), "Remove", "Save", "Delete", and "Associations". Below the toolbar, the title "Observation Patients" is displayed. Underneath, a dropdown menu shows "GPSI COMMUNITY HEALTH SYSTEM". A table-like structure shows a filter rule: "Patient Type Code" with the condition "is equal to one of" and the value "2". To the right of this rule, it says "Total: 1". At the bottom, there are two radio buttons: "Show records that match ANY of the items above (or)" and "Show records that match ALL of the items above (and)".

Figure 1.14 Filter Setup

The filter lookup screen will then display. The title of the current filter will display at the top of the screen and "include another filter" will be after it. Select one of the filter titles so it is highlighted in



blue, and select **Select** at the bottom of the screen.



Observation Patients - Include another filter

Search: Total: 16

Description	Default
Admitted	Y
Admitted through the ER for CQM	Y
Chart Complete	Y
Chart Incomplete	Y
Emergency Patients	Y
INPATIENTS	Y
Inpatient Discharges for CQM	Y
Inpatients	Y
Medicaid Insurance	Y
Medicare Insurance	Y
Not Discharged	Y
Outpatients	Y
Stay Type 1	Y
Stay Type 2	Y
Stay Type 3	Y
Wallace	Y

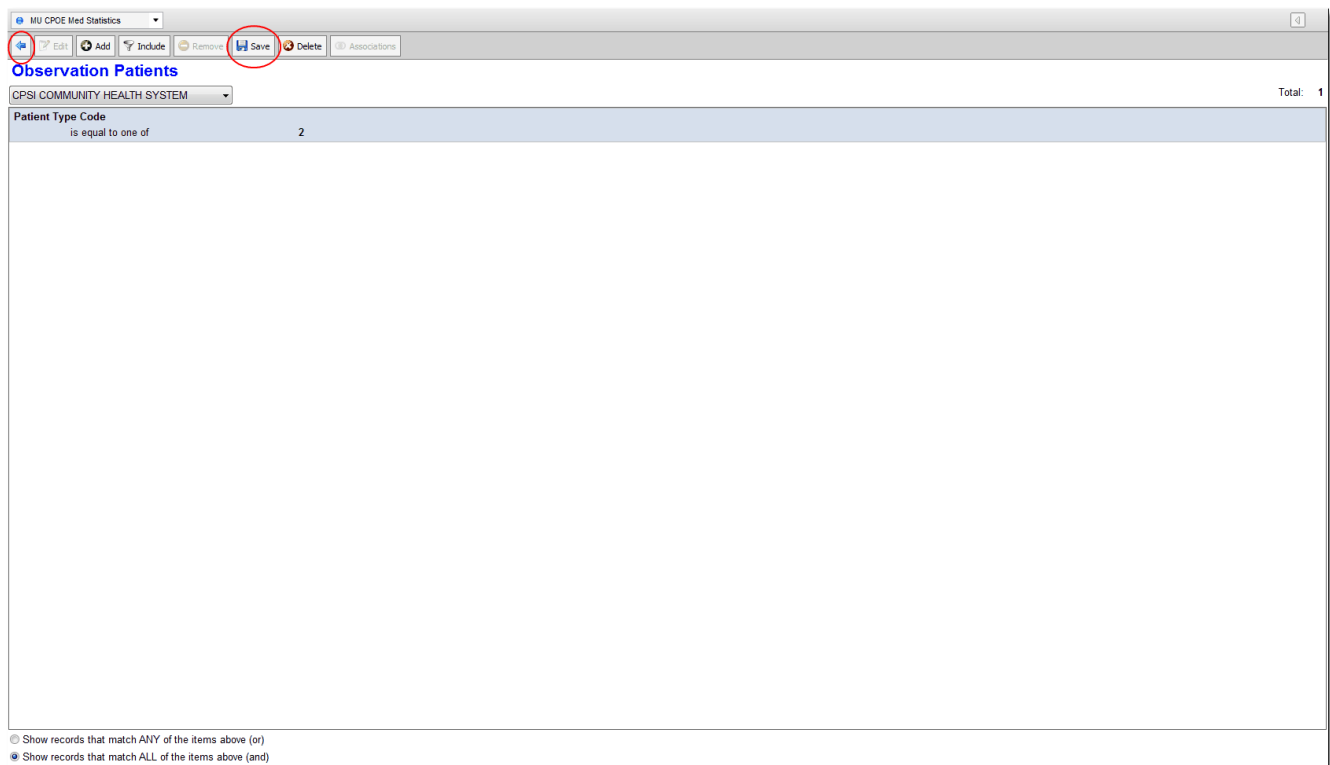
Figure 1.15 Filter Setup

If all information for the filter has been added and configured, select
bar to save all the information for the filter. To delete the filter select
bar. Select the back arrow to return to the filter lookup screen.



Save from the action
Delete from the action





The screenshot shows the 'Filter Builder' window with the title 'MU CPOE Med Statistics'. The 'Observation Patients' filter is selected. The filter criteria are: 'Patient Type Code is equal to one of 2'. The 'Save' button is highlighted with a red circle. The 'Total' count is 1.

Observation Patients

GPSI COMMUNITY HEALTH SYSTEM

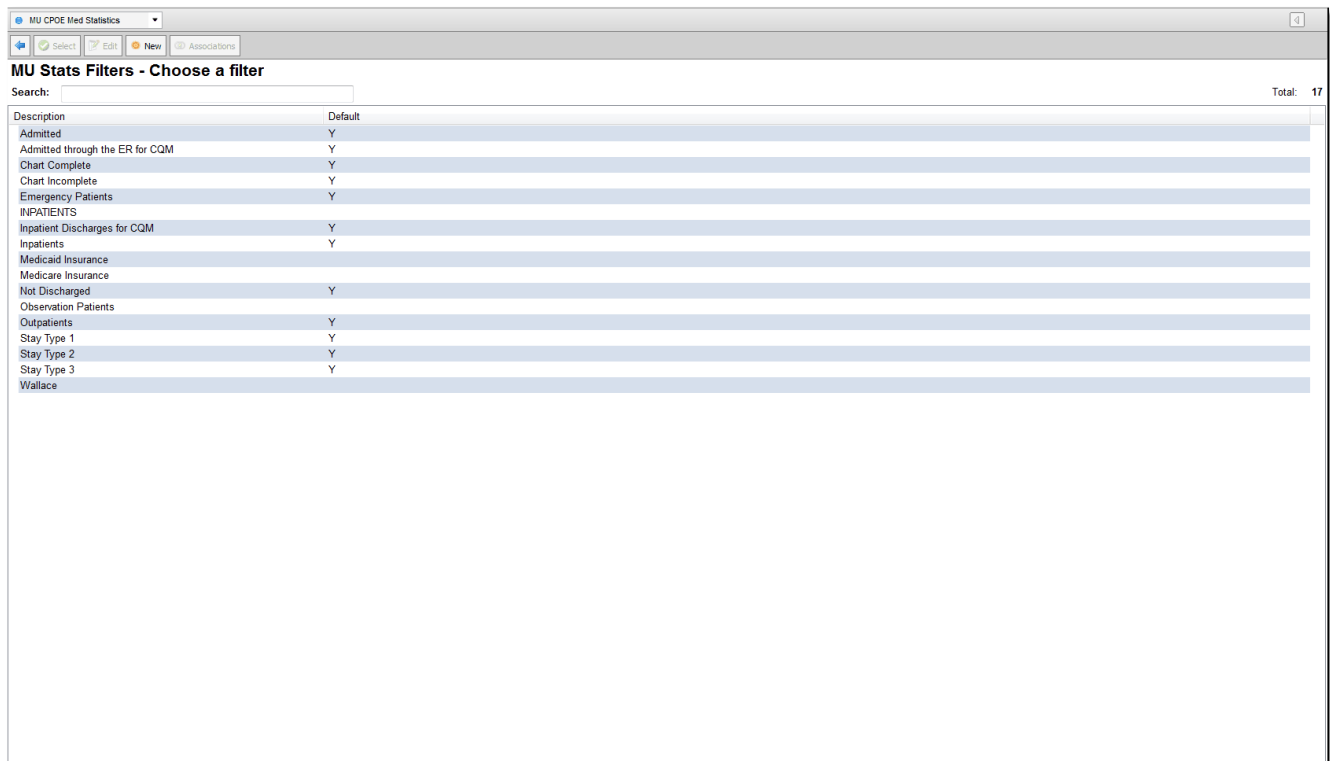
Patient Type Code
is equal to one of 2

Total: 1

☐ Show records that match ANY of the items above (or)
☒ Show records that match ALL of the items above (and)

Figure 1.16 Filter Setup

The new filter will then be displayed in the filter lookup screen.



The screenshot shows the 'Filter Builder' window with the title 'MU CPOE Med Statistics'. The 'MU Stats Filters - Choose a filter' screen is displayed. The 'Search' field is empty. The 'Total' count is 17.

MU Stats Filters - Choose a filter

Search:

Total: 17

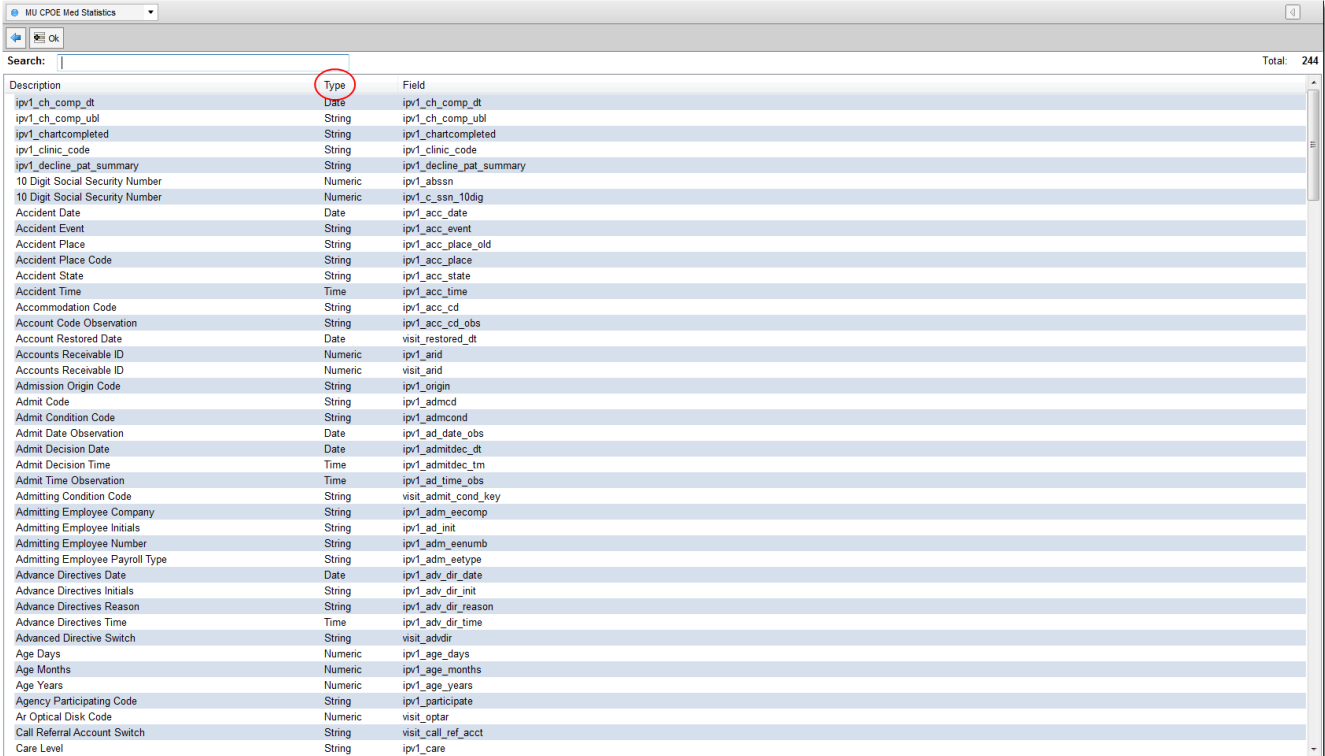
Description	Default
Admitted	Y
Admitted through the ER for CQM	Y
Chart Complete	Y
Chart Incomplete	Y
Emergency Patients	Y
INPATIENTS	Y
Inpatient Discharges for CQM	Y
Inpatients	Y
Medicaid Insurance	Y
Medicare Insurance	Y
Not Discharged	Y
Observation Patients	Y
Outpatients	Y
Stay Type 1	Y
Stay Type 2	Y
Stay Type 3	Y
Wallace	Y

Figure 1.17 Filter Setup

Relative Date Values

Filters may be set up using a relative date value. This will allow filters to be defined by years, months, weeks, days, hours, minutes and seconds. An example of this would be setting up a filter for patients who have been discharged for 90 days or more.

When selecting the values to be added to the filter, the ones that have "Date" as the type of value, will be the ones that will have relative date value abilities.



Description	Type	Field
ipv1_ch_comp_dt	Date	ipv1_ch_comp_dt
ipv1_ch_comp_ubl	String	ipv1_ch_comp_ubl
ipv1_chartcompleted	String	ipv1_chartcompleted
ipv1_clinic_code	String	ipv1_clinic_code
ipv1_decline_pat_summary	String	ipv1_decline_pat_summary
10 Digit Social Security Number	Numeric	ipv1_abssn
10 Digit Social Security Number	Numeric	ipv1_c_ssn_10dig
Accident Date	Date	ipv1_acc_date
Accident Event	String	ipv1_acc_event
Accident Place	String	ipv1_acc_place_old
Accident Place Code	String	ipv1_acc_place
Accident State	String	ipv1_acc_state
Accident Time	Time	ipv1_acc_time
Accommodation Code	String	ipv1_acc_cd
Account Code Observation	String	ipv1_acc_cd_obs
Account Restored Date	Date	visit_restored_dt
Accounts Receivable ID	Numeric	ipv1_arid
Accounts Receivable ID	Numeric	visit_arid
Admission Origin Code	String	ipv1_origin
Admit Code	String	ipv1_admcod
Admit Condition Code	String	ipv1_admcod
Admit Date Observation	Date	ipv1_ad_date_obs
Admit Decision Date	Date	ipv1_admitdec_dt
Admit Decision Time	Time	ipv1_admitdec_tm
Admit Time Observation	Time	ipv1_ad_time_obs
Admitting Condition Code	String	visit_admit_cond_key
Admitting Employee Company	String	ipv1_adm_eecomp
Admitting Employee Initials	String	ipv1_ad_init
Admitting Employee Number	String	ipv1_adm_eenumb
Admitting Employee Payroll Type	String	ipv1_adm_eetype
Advance Directives Date	Date	ipv1_adv_dir_date
Advance Directives Initials	String	ipv1_adv_dir_init
Advance Directives Reason	String	ipv1_adv_dir_reason
Advance Directives Time	Time	ipv1_adv_dir_time
Advanced Directive Switch	String	visit_advdir
Age Days	Numeric	ipv1_age_days
Age Months	Numeric	ipv1_age_months
Age Years	Numeric	ipv1_age_years
Agency Participating Code	String	ipv1_participate
Ar Optical Disk Code	Numeric	visit_optar
Call Referral Account Switch	String	visit_call_ref_acct
Care Level	String	ipv1_care

Figure 1.18 Relative Date Value Lookup

Once a value is selected, select the appropriate radio button that applies to the filter being set up and



select **Ok.**

NOTE: If a certain date needs to be entered, select the "Absolute Date" option.

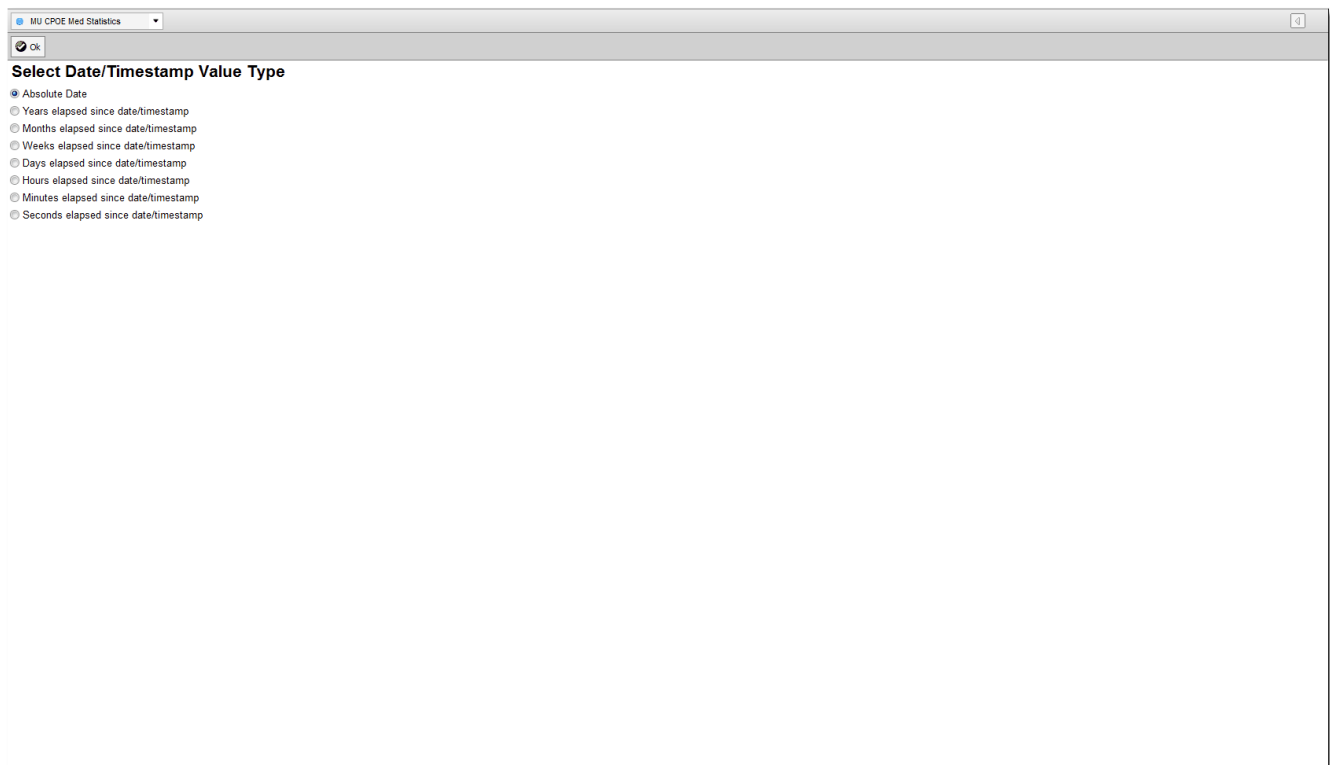


Figure 1.19 Select Date/Timestamp Value Type

Array Values

Filters may be set up using an array of values.

When selecting the values to be added to the filter, the ones that have "Array" as the type of value, will be the ones that will have array value abilities.

Search: Total: 244

Description	Type	Field
Age Months	Numeric	ipv1_age_months
Age Years	Numeric	ipv1_age_years
Agency Participating Code	String	ipv1_participate
Ar Optical Disk Code	Numeric	visit_optar
Call Referral Account Switch	String	visit_call_ref_acct
Care Level	String	ipv1_care
Cause Of Death	String	ipv1_causeofdeath
Ch Optical Disk Code	Numeric	visit_optch
Change Terminally Ill LTC Code	String	ipv1_termiltc
Chart Code	String	visit_chart
Chart Type Code	String	visit_chart_type
Chart Volume 1	String	ipv1_chvol1
Chart Volume 2	String	ipv1_chvol2
Collection Switch	String	visit_col_sw
Combine Account	String	ipv1_combineacct
Comment Date	Date	ipv1_commentdt
Consulting Physician 1	Numeric	ipv1_cslphys1
Consulting Physician 2	Numeric	ipv1_cslphys2
Consulting Physician 3	Numeric	ipv1_cslphys3
Consulting Physician 4	Numeric	ipv1_cslphys4
Consulting Physician 5	Numeric	ipv1_cslphys5
Contract Code	String	visit_contrbill
Contract Code Switch	String	visit_bill_sw
Country Code	String	ipv1_p_cntry
Credit Rate Code	String	visit_cr_rate
Critical Access State	Array	ipv1_cahstate
Current Patient Name	String	visit_cur_name
Cycle Switch	String	visit_cycle_sw
Diabetic	String	ipv1_diabetic
Digital Postal Bar Code	Numeric	ipv1_dpbc
Discharge Code	String	ipv1_discd
Discharge Condition Code	String	ipv1_discond
Discharge Condition Code	Date	visit_admit_date
Discharge Condition Code	String	visit_disch_cond_key
Discharge Date Observation	Date	ipv1_dis_date_obs
Discharge Time Observation	Time	ipv1_dis_time_obs
Discharging Employee Initials	String	ipv1_dis_init
Do Not Resuscitate Code	String	ipv1_dnr
Emergency Notify Address	String	ipv1_no_addr
Emergency Notify Address 2	String	ipv1_no_addr2
Emergency Notify Cell Phone Number	Numeric	ipv1_no_cell
Emergency Notify City	String	ipv1_no_city

Figure 1.20 Array Values Lookup

Once a value is selected, double-click **<Not Configured>** to add the data elements for the array.

MU Demographics Statistics 1

Remove

Critical Access State (ipv1_cahstate)

has an element equal to one of

<Not Configured>

Figure 1.21 Array Values Setup

Edit Filter

Edits can be made to existing filters if the need arises. Users can edit any of the filters they have set up for themselves and for their group. Only a System Administrator may make changes to the facility filters.

To edit a filter from the Filter Preferences screen, select the filter and then select



Edit from the action bar.

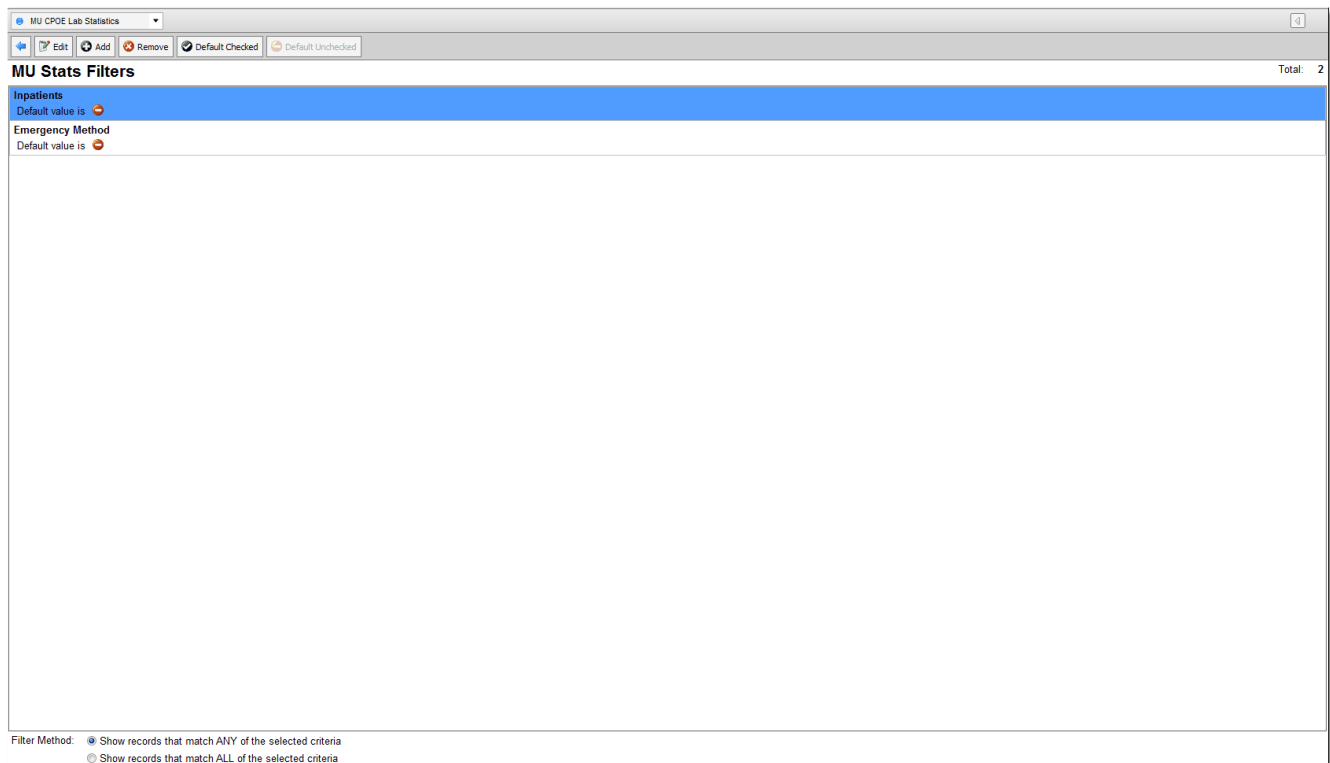
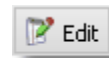


Figure 1.22 Filter Preferences Screen

Select the name of the field to be further configured and then select

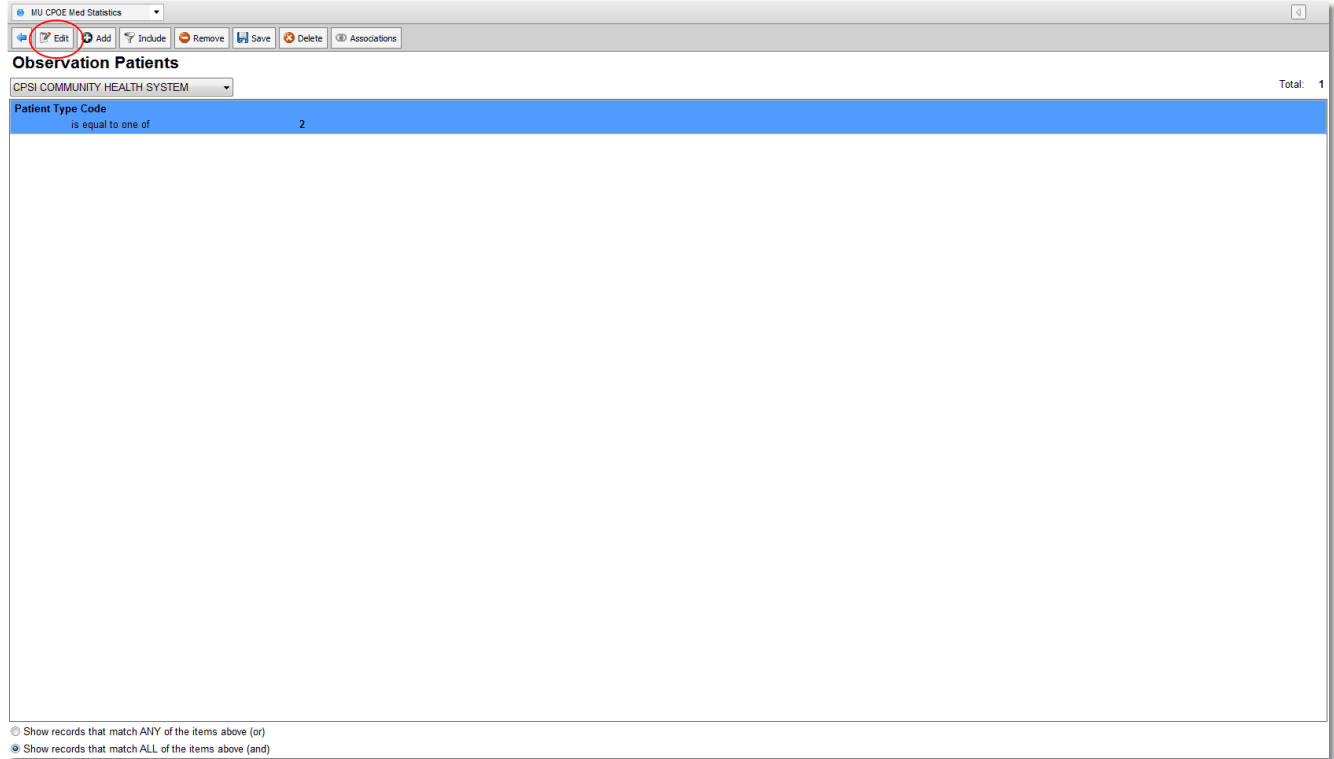


Edit from the action bar.

The



Include option may also be selected if needed to include another filter along with this one.



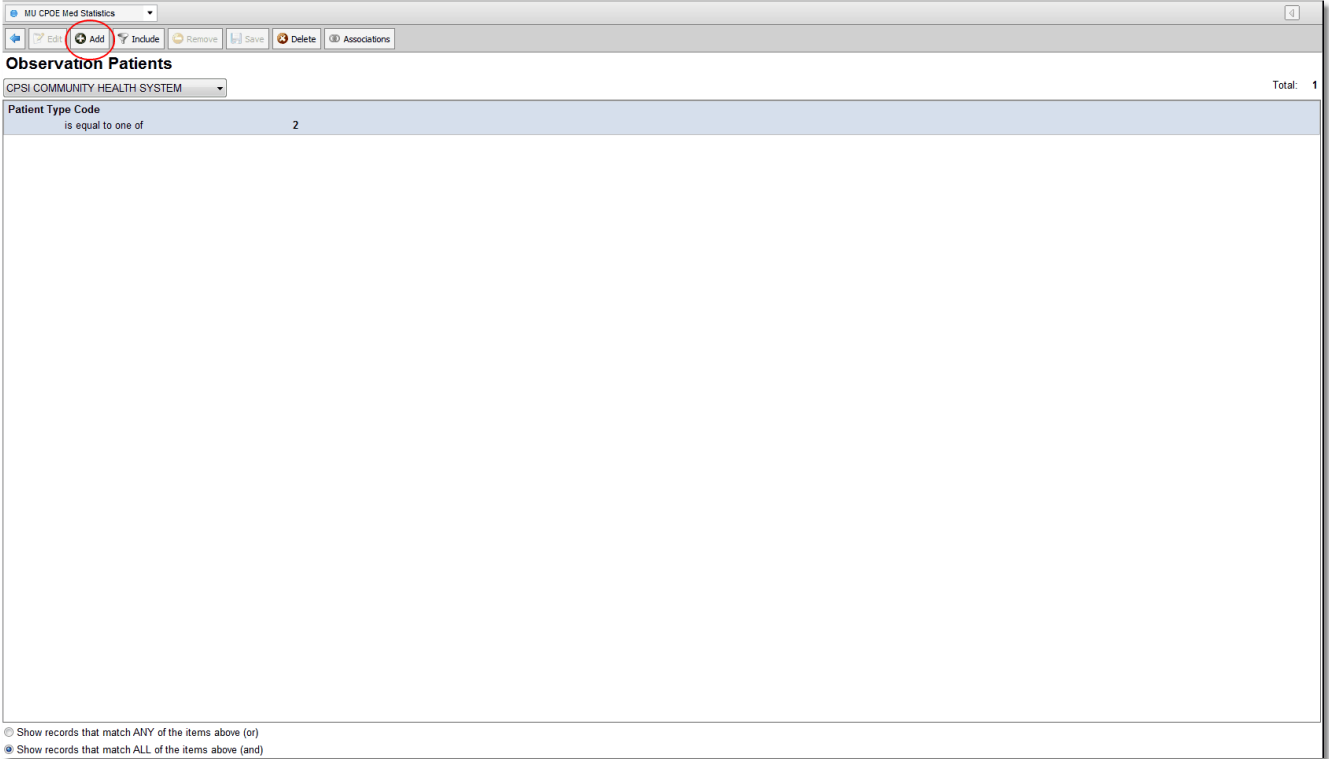
The screenshot shows the CPSI Filter Builder application window. The title bar reads 'MU CPOE Med Statistics'. The action bar contains buttons for 'Edit', 'Add', 'Include', 'Remove', 'Save', 'Delete', and 'Associations'. The 'Edit' button is circled in red. Below the action bar, the title 'Observation Patients' is displayed. A dropdown menu shows 'CPSI COMMUNITY HEALTH SYSTEM' with a 'Total: 1' indicator. The main area shows a filter rule: 'Patient Type Code is equal to one of 2'. At the bottom, there are two radio buttons: 'Show records that match ANY of the items above (or)' and 'Show records that match ALL of the items above (and)'. The second option is selected.

Figure 1.23 Filter Edit

To add more values to a filter, select



Add from the action bar.



MU CPOE Med Statistics

Observation Patients

CPSI COMMUNITY HEALTH SYSTEM

Total: 1

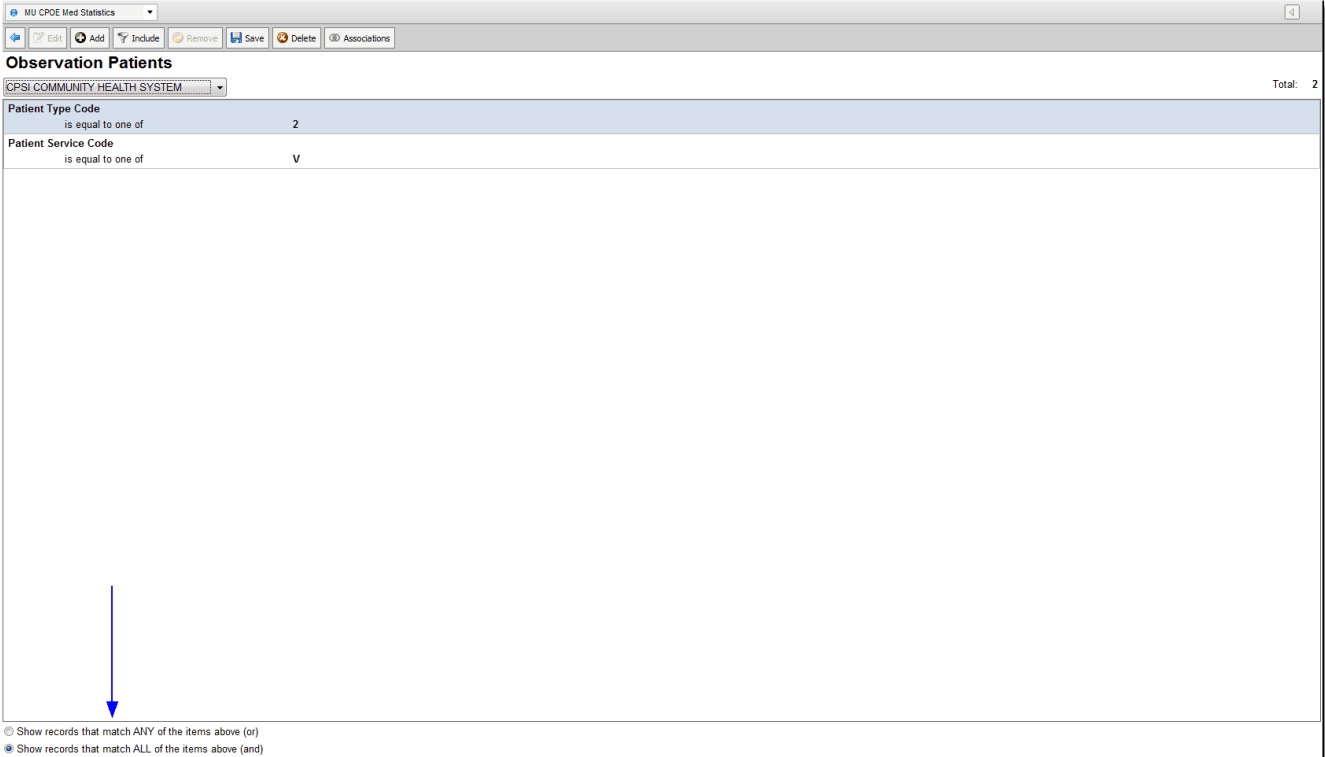
Patient Type Code

is equal to one of 2

☐ Show records that match ANY of the items above (or)
☒ Show records that match ALL of the items above (and)

Figure 1.24 Filter Edit

If more values were added to the filter, there are two options at the bottom of the screen to further define the filter.



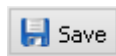
The screenshot shows the 'Filter Builder' window for 'MU CPOE Med Statistics'. The title bar includes buttons for Edit, Add, Include, Remove, Save, Delete, and Associations. The main area is titled 'Observation Patients' and shows a filter for 'GPSI COMMUNITY HEALTH SYSTEM' with a 'Total: 2' count. The filter criteria are: 'Patient Type Code is equal to one of 2' and 'Patient Service Code is equal to one of V'. A blue arrow points to the 'Show records that match ANY of the items above (or)' radio button at the bottom.

☐ Show records that match ANY of the items above (or)
☒ Show records that match ALL of the items above (and)

Figure 1.25 Filter Setup

- **Show records that match ANY of the items above (or):** If selected, any of the values on the filter may be on an account for it to generate. For example, if the filter is set up with a stay type of 2 and a service code of V, the account can have a stay type of 2 OR a service code of V to generate.
- **Show records that match ALL of the items above (and):** If selected, all of the values on the filter have to be on an account for it to generate. For example, if the filter is set up with a stay type of 2 and a service code of V, the account has to have a stay type of 2 AND a service code of V to generate.

NOTE: The Show Records option will only apply to filters that have more than one value.



Once all edits are complete, select **Save** from the action bar.

MU CPOE Med Statistics

Edit Add Include Remove Save Delete Associations

Observation Patients

CPSI COMMUNITY HEALTH SYSTEM
Total: 2

Patient Type Code	
is equal to one of	2
Patient Service Code	
is equal to one of	V

☐ Show records that match ANY of the items above (or)
☒ Show records that match ALL of the items above (and)

Figure 1.26 Filter Setup

Filter Preferences Screen

The Filter Preferences Screen will display all filters that have been selected for the user login.

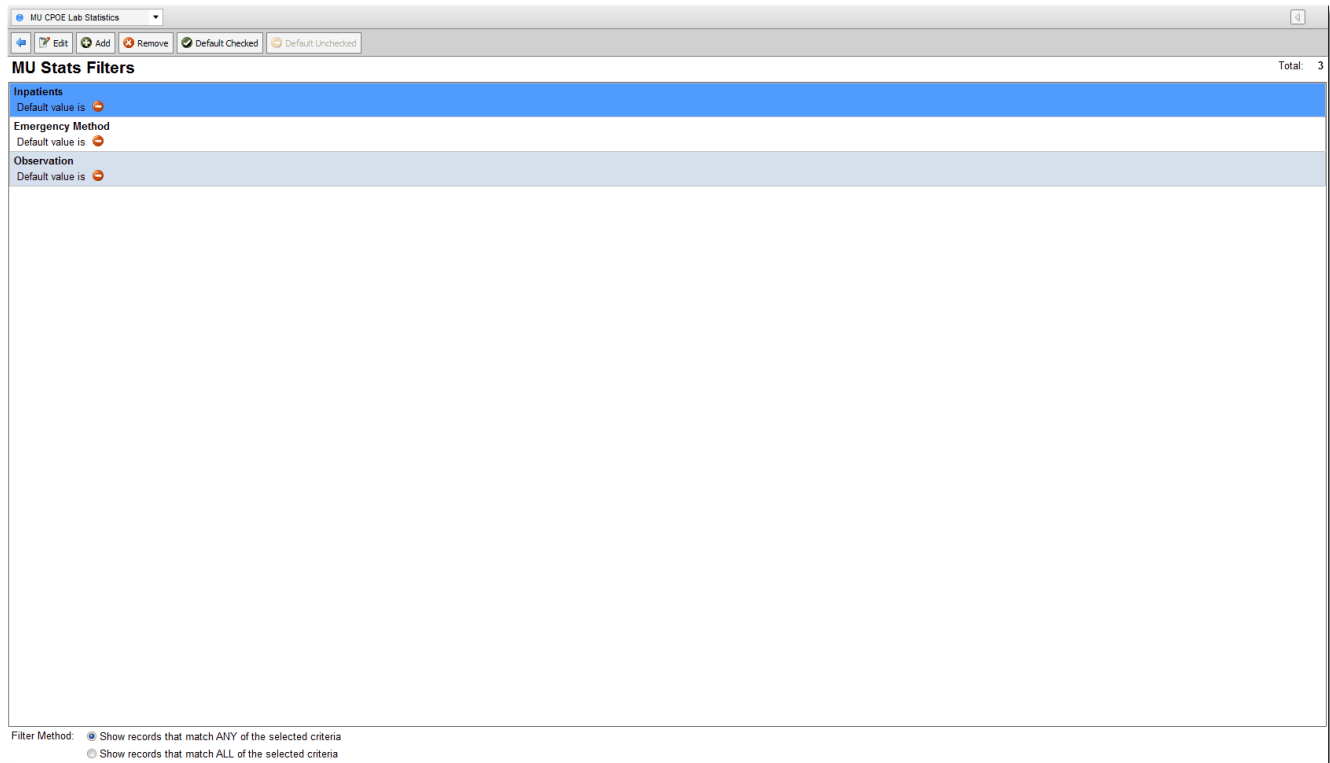


Figure 1.27 Filter Preferences Screen.

Below is an explanation of each option on the action bar:

- **Edit:** Select this option to make changes to the selected filter.
- **Add:** Select this option to add a new filter.
- **Remove:** Select this option to remove the selected filter.
- **Default Checked:** Select this option to check the selected filter. This will default the filter to checked when in an applicable filter application.
- **Default Unchecked:** Select this option to uncheck the selected filter. This will default the filter to unchecked when in an applicable filter application.

Associations

The Associations option will display all the usages for a given filter. This option is available from the filter lookup screen and the individual filter's setup screen.

MU Family History Statistics

Select Edit New Associations

MU Stats Filters - Choose a filter

Search: Total: 18

Description	Default
Admitted	Y
Admitted through the ER for CQM	Y
Chart Complete	Y
Chart Incomplete	Y
Discharges > 90 Days	
Emergency Patients	Y
INPATIENTS	
Inpatient Discharges for CQM	Y
Inpatients	Y
Medicaid Insurance	
Medicare Insurance	
Not Discharged	Y
Observation Patients	
Outpatients	Y
Stay Type 1	Y
Stay Type 2	Y
Stay Type 3	Y
Wallace	

Figure 1.28 Filter Lookup Screen

Once Associations is selected, the screen will display all users who are using the filter along with the type and application where the filter is being utilized.

MU Family History Statistics

PDF

Usages of Inpatients

Search:

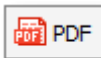
Used By	Type	Title
CPSI COMMUNITY HEALTH SYSTEM	Filter Definition	Inpatients
JOHNSON JILL	Preference	MU Stats Filters
CPSI Default	Preference	Whiteboard Patient Filters
JOHNSON RICHARD C	Preference	Whiteboard Patient Filters
John K Tolbert	Preference	Whiteboard Patient Filters
LOUIS DONALD P	Preference	Whiteboard Patient Filters
WATSON KELLY	Preference	Whiteboard Patient Filters
WILLIAMS KATHERINE ELISE	Preference	Whiteboard Patient Filters
WILSON KATHY E	Preference	Whiteboard Patient Filters

Total 9

Figure 1.29 Filter Associations

The Type column will show one of three options:

- **Preference:** This indicates that the filter is being used by a user or facility.
- **Filter Include:** This indicates that the filter is being included as part of another filter's definition.
- **Filter Definition:** This indicates that the filter itself is defined.



Selecting **PDF** from the action bar will produce the associations in a report format.