Welcome!

CAREWare Quick Start guides will walk you through the basics of setting up, managing and using the main CAREWare functions. It is intended for non-technical users who just need to get basic information in and out of CAREWare.

About This Guide #8: Creating More Advanced Custom Reports



PLEASE NOTE: The client data you see is purely fictional.

Guides in this series:

- 1. Downloading and installing CAREWare
- 2. Creating contracts and services
- 3. Entering Clients and their Service and Clinical Data
- 4. Customizing tabs and fields
- 5. Customizing clinical data
- 6. Working with CAREWare's prebuilt reports (including the RSR)
- 7. Creating basic custom reports
- 8. Creating more advanced reports
- 9. User and System Administration

For additional information:

Please refer to the **Frequently Asked Questions** page on the CAREWare programmers' website:

http://www.jprog.com/wiki/

Or contact the help desk at <u>cwhelp@jprog.com</u>.

Revision date: September 21, 2012

First Things First What do I need to get started?

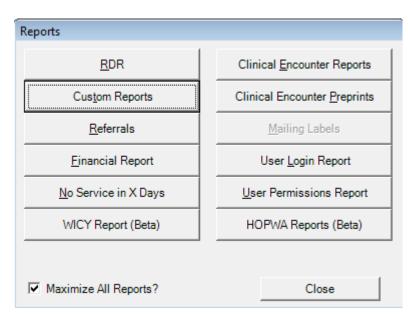
You must have the appropriate user privileges to run reports.

You should have a number of clients entered in the system so you can see how your reports will look.

Please see Quick Start guide #7, "Creating Basic Custom Reports," before moving on to this guide . This manual assumes basic knowledge on creating basic custom reports.

Creating an advanced custom report

As you get comfortable with custom reports, you can create more complex reports. We will start by creating a 'client list' report from the Central Administration domain.



1. From the **Reports** menu, select **Custom Reports**.

2. Click **New Report** to add a new report.

tom Reports				
View/Edit		Set Primary Provider	Filter by Report Type	-
Data Scope		Group by Provider		
Provider:				•
Drugs R Us				
Panama Hospital del Nino		Date Span		Clinical Review
Ryan White AIDS Care		From:	Through: -	? Year:
			▼ 	
		-	· . ·	
< III.				
14	4	Show New Clients	Sonly Show Specification	ons 🔽 Sum Numeric Fields
		1		
Report Name:	Report Type:	Cu	istom/Crosstab:	Run Report
All Drug Services	Drug Service	Cu	istom	
CUD (Grantee)	Service	Cu	istom	New Report
Ethnic distribution	Demographics	Cu	istom	Idew Report
inkedtoCare	Demographics			
			istom	
	Demographics		istom istom	<u>D</u> elete Report
ICM Numerator	Demographics Demographics	Cu	istom istom	
MCM Numerator MissingAnnualReviewData	Demographics Demographics Demographics	Cu	istom	<u>D</u> elete Report <u>E</u> dit Report
ICM Numerator MissingAnnualReviewData MissingAnnualReviewMedProv	Demographics Demographics Demographics Demographics	Cu Cu Cu Cu	istom istom istom istom	
MCM Numerator MissingAnnualReviewData MissingAnnualReviewMedProv	Demographics Demographics Demographics	Cu Cu Cu Cu	istom istom istom	<u>E</u> dit Report
MCM Numerator MissingAnnual ReviewData MissingAnnual ReviewMedProv MissingClient StatusData MissingDemographicData	Demographics Demographics Demographics Demographics Demographics Demographics	Cu Cu Cu Cu Cu Cu	istom istom istom istom	
MCM Denominator MCM Numerator MissingAnnualReviewData MissingAnnualReviewMedProv MissingClientStatusData MissingDemographicData ServiceReportDetail	Demographics Demographics Demographics Demographics Demographics Demographics Service	Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu C	istom istom istom istom istom istom	Edit Report
MCM Numerator MissingAnnualReviewData MissingAnnualReviewMedProv MissingClentStatusData MissingDemographicData ServiceReportDetail ServiceNstR(Beta)	Demographics Demographics Demographics Demographics Demographics Demographics	Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu C	stom istom istom istom istom	<u>E</u> dit Report
MCM Numerator MissingAnnual ReviewData MissingAnnual ReviewMedProv MissingClient StatusData MissingDemographicData	Demographics Demographics Demographics Demographics Demographics Demographics Service	Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu C	istom istom istom istom istom istom	Edit Report Copy Report Import From File
ACM Numerator MissingAnnualReviewData MissingCentStatusData MissingDemographicData ServiceReportDetail ServiceStat(Beta)	Demographics Demographics Demographics Demographics Demographics Demographics Service Service	Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu C	stom stom stom stom stom stom stom	Edit Report

3. Name it "Client List" and choose Report Type: Demographics.

Custom Report Add	
Report Name:	
Client List	
Report Type:	
Demographics	▼ Crosstab?
Field S	election
Repor	t Filter
	🗌 Read Only
<u>S</u> ave	<u>C</u> ancel

- 4. Click on **Field Selection** to choose the fields to display on the report.
- 5. Click **Add Field** 'Name', note we have chosen to sort this field in 'Ascending' order to display the report names alphabetically.

Custor	m Reports - Field Sele	ection						
Report T	уре:							1
Demogra	aphics			Use	Totals	A ?	Close	
Select	t Field							_
Field:		Report Column Header:	Width (in): Width	(cm): Total: Count	Sort:	Sort F	Priority: Save	
Field	Justification:	Column Header Fo	nt: 🚺 Data Fie	ld Font:				
Col#	Field Name	Column Header	Width (in)	Width (cm)	Totals	Sort	Sort Priority	
								<u> </u>
•							•	
	Templates	Add Field	Edit Field	Remove	Field	Rer	nove All	

6. The Field Dictionary for Demographics Report will appear. Narrow the field search by typing the following field names in the search bar.

Field Dictionary for Demogra	phics Report		- -	
F1: Select/Use Field	↑ Field Name		Previous Field Name	433
F2: Custom Keywords	First Name Last Name	Demographics	First Name Last Name	
F3: View Field Description	Middle Name	Demographics Demographics	Middle Name	
Esc: Close/Cancel	Name Physician name	Demographics Demographics	Name Phys. Name	
	1 ·			
	•			•

7. In order, add the fields "Name", "DOB", "Gender" and "Race/Ethnicity". Your selection will look like this:

moora	ype: aphics			Use	Totale	A ?	Close
				1 030	. 10(013		
Select							
Field:	I	Report Column Header: V	vidth (in): Width	n (cm): Total:	Sort:	Sort P	Priority: Save
Field	Justification:	Column Header Font:	A Data Fie	Id Font:			
Col#	Field Name	Column Header	Width (in)	Width (cm)	Totals	Sort	Sort Priority
0	Name	Name	1.44	3.66		Ascending	1
1	Date of birth	DOB	0.68	1.73			
	Gender	Gender	0.88	2.24			
2							
2 3	Race/Ethnicity	Race/Ethnicity	1.44	3.66			
2 3			1.44	3.66			
2			1.44	3.66			
2 3			1.44	3.66			

8. Click **Close**, then **Save** report.

View/Edit			
Data Scope	Set Prima	ry Provider Filter by Report Type	e:
Provider:			-
	Group	by Provider	<u> </u>
Drugs R Us	Date Sp		Clinical Review
Panama Hospital del Nino	Date Sp		?
Ryan White AIDS Care	From:	Through: -	Year:
	1/1/201		2012 -
	1/1/20	12 • 12/31/2012 •	2012 -
III	t C Show	New Clients Only V Show Specification	no 🔽 Sum Numorio Eioldr
,		New clients Only + Show Specification	Jins (+ Sum Numeric Freida
Report Name:	Report Type:	Custom/Crosstab:	Run Report
I Drug Services	Drug Service	Custom	
6	Demographics		
lient List	Demographics	Custom	New Peret
	Service	Custom	<u>N</u> ew Report
UD (Grantee)			
UD (Grantee) thnic distribution	Service	Custom	<u>N</u> ew Report
UD (Grantee) thnic distribution inkedtoCare	Service Demographics	Custom Custom	
UD (Grantee) thnic distribution inkedtoCare ICM Denominator	Service Demographics Demographics	Custom Custom Custom	
UD (Grantee) thnic distribution inkedtoCare ICM Denominator ICM Numerator	Service Demographics Demographics Demographics	Custom Custom Custom Custom	Delete Report
UD (Grantee) thnic distribution nkedtcCare ICM Denominator CM Numerator lissingAnnualReviewData	Service Demographics Demographics Demographics Demographics	Custom Custom Custom Custom Custom	Delete Report
UD (Grantee) thnic distribution inkedtoCare ICM Denominator ICM Numerator lissingAnnualReviewData lissingAnnualReviewMedProv	Service Demographics Demographics Demographics Demographics Demographics	Custom Custom Custom Custom Custom Custom	Delete Report
UD (Grantee) thnic distribution nkedtoCare (CM Denominator ICM Numerator iissingAnnualReviewData lissingAnnualReviewMedProv lissingClientStatusData	Service Demographics Demographics Demographics Demographics Demographics Demographics	Custom Custom Custom Custom Custom Custom Custom	Delete Report Edit Report Copy Report
UD (Grantee) thnic distribution nikedtoCare ICM Denominator ICM Numerator IlssingAnnualReviewData IlssingAnnualReviewMedProv IlssingClientStatusData IlssingDemographicData	Service Demographics Demographics Demographics Demographics Demographics Demographics Demographics	Custom Custom Custom Custom Custom Custom Custom Custom	Delete Report
lient List UD (Grantee) thnic distribution ICM Denominator ICM Numerator ItssingAnnualReviewData ItssingAnnualReviewMedProv ItssingClientStatusData ItssingDemographicData erviceReportDetail erviceVist(Beta)	Service Demographics Demographics Demographics Demographics Demographics Demographics Demographics Demographics	Custom Custom Custom Custom Custom Custom Custom Custom Custom	Delete Report Edit Report Copy Report
UD (Grantee) thnic distribution inkedtoCare ICM Denominator ICM Numerator lissingAnnualReviewData lissingAnnualReviewMedProv lissingClientStatusData lissingDemographicData erviceReportDetail	Service Demographics Demographics Demographics Demographics Demographics Demographics Demographics Demographics Service	Custom Custom Custom Custom Custom Custom Custom Custom Custom Custom	Delete Report Edit Report Copy Report

9. Set the Data Scope to a Provider (in this case, Ryan White AIDS Care), with the date span From: 1/1/2012 Through: 12/31/2012. Ensure the **Sum Numeric Fields** and **Show Specifications** boxes are checked before running the report.



PLEASE NOTE: Clients need to have at least one service visit during the date span to be included in the report. If no date span were entered, you would get a list of ALL your clients.

Data Scope:	Ryan White	AIDS Care	
Report Criteria			
Report Start		01/01/2012	
Report End D		12/31/2012	
			ing period to be counted on this report.
A Service visit in	nual exist du	ing the report	ing period to be counted on this report.
lame:	DOB:	Gender:	Race/Ethnicity:
Allen, Al	9/25/1956	Male	Black or African-American
loe, Jane	9/20/1979	Female	White (non-Hispanic)
ames, Jim k	2/20/1962	Male	Black or African-American
osephs, Joe	12/5/1945	Male	Asian
atrick, Patty	12/23/1947	Female	White (non-Hispanic)
Roberts, Rob	7/20/1967	Male	White (non-Hispanic)
Smith, John C	1/10/1947	Male	Hispanic
Stevens, Steve	2/18/1958	Male	Hispanic
Vindy, Wendy	3/19/1963	Female	Am. Indian/Alaska Native
			Number of Records 9
* 0			(Count is unduplicated across providers)
* - Restricted Field			(count is undepicated across providers)

- 10. Close the report using the "X" in the upper right hand corner.
- 11. Now we will add some filters to the report. Highlight the 'Client List' report name and click **Edit**.

Data Scope		Set Primary Provider	Filter by Report Type	e:
Provider:		Group by Provider		-
Drugs R Us Panama Hospital del Nino Ryan White AIDS Care		Date Span From: 1/1/2012	Through: -	Clinical Review Year: 2012 Sum Numeric Fields
Report Name:	Report Type:		om/Crosstab:	
		0000	om/Crosstab:	— Run Report
All Drug Services	Drug Service	Cust	om	<u>R</u> un Report
C&T	Drug Service Counseling And	Cust Testing Cust	om om	<u>R</u> un Report
C&T Case Notes	Drug Service Counseling And Case Notes	Testing Cust Cust Cust Cust	om om om	<u>R</u> un Report
C&T Case Notes Client List	Drug Service Counseling And Case Notes Demographics	Cust Testing Cust Cust Cust	om om om om	<u>R</u> un Report
C&T Case Notes Client List Combined Missing Data	Drug Service Counseling And Case Notes Demographics Composite	Cust Testing Cust Cust Cust Cust	om om om om om	<u>R</u> un Report
C&T Case Notes Client List CombinedMissingData CUD (Grantee)	Drug Service Counseling And Case Notes Demographics Composite Service	Cust Testing Cust Cust Cust Cust Cust	om om om om om om om	E Delete Report
C&T Ottes Case Notes Client List Combined Missing Data 2010 (Grantee) Diagnosis	Drug Service Counseling And Case Notes Demographics Composite Service Diagnosis	Cust Testing Cust Cust Cust Cust Cust Cust	om om om om om om om om	<u>R</u> un Report
C&T	Drug Service Counseling And Case Notes Demographics Composite Service Diagnosis Drug Service	Cust Testing Cust Cust Cust Cust Cust Cust Cust	om om om om om om om om om om	E Run Report
C&T	Drug Service Counseling And Case Notes Demographics Composite Service Diagnosis Drug Service Demographics	Cust Testing Cust Cust Cust Cust Cust Cust Cust	om om om om om om om om om om	E Delete Report
C&T	Drug Service Counseling And Case Notes Demographics Composite Service Diagnosis Drug Service Demographics Immunization	Cust Testing Cust Cust Cust Cust Cust Cust Cust Cust	om om om om om om om om om om om	E Report
C&T	Drug Service Counseling And Case Notes Demographics Composite Service Diagnosis Drug Service Demographics Immunization Lab	Cust Testing Cust Cust Cust Cust Cust Cust Cust Cust	om om om om om om om om om om om om om	E Run Report
C&T	Drug Service Counseling And Case Notes Demographics Composite Service Diagnosis Drug Service Demographics Immunization Lab Demographics	Cust Testing Cust Cust Cust Cust Cust Cust Cust Cust	om om om om om om om om om om om om om o	E Report Delete Report Edit Report Copy Report
C&T	Drug Service Counseling And Case Notes Demographics Composite Service Diagnosis Drug Service Demographics Immunization Lab Demographics Demographics	Cust Testing Cust Cust Cust Cust Cust Cust Cust Cust	om om om om om om om om om om om om om o	E Report <u>N</u> ew Report <u>D</u> elete Report <u>E</u> dit Report <u>Copy</u> Report <u>Import From File</u>
C&T	Drug Service Counseling And Case Notes Demographics Composite Service Diagnosis Drug Service Demographics Immunization Lab Demographics	Cust Testing Cust Cust Cust Cust Cust Cust Cust Cust	om om om om om om om om om om om om om o	E Report Delete Report Edit Report Copy Report

12. Click on the **Report Filter**, then **Add Criterion**.

\$	Custom	Reports	- Filter							
	port Type	· [Demographics		C)perator:	📩 🗆 Advan	ced	?	Close
-C	riterion-									
Γ	Ŧ				Not =	>=	<=		Null	Save Cancel
-	Opera	Par	Field Name	Is Not	=	>=	<=	Null	Par	
ŀ										
ŀ										
ŀ										
ŀ										
l										
	Temp	lates	Ren	nove All		Criterion	Edit Criterion		Remove	Criterion

- 13. The Field Dictionary will appear as shown above.
- 14. Add the field "Gender." In the drop-down box choose Male, then **Save** the filter selection and **Close**. Click **Save** again to apply the report changes and click **Run Report**.

eport Type: Criterion	Demographics				Operator:	Advanced	?	Close
Opera Pa	Gender ar Field Name	Is Not	Not	=	 Female Male Refused to Report	•	Par	Save Cancel
					Transgender FtM Transgender MtF Transgender Unk Unknown			

15. The report now only lists the 6 male clients.

Client List

Data Scope: Ryan White AIDS Care

	Report Criteria	:			
	Report End Date:		01/01/2012		
			12/31/2012		
			Male		
	A service visit i	must exist du	iring the repo	rting period to be counted on this report.	
am	e:	DOB:	Gender:	Race/Ethnicity:	
llen	n, Al	9/25/1956	Male	Black or African-American	
ame	es, Jim k	2/20/1962	Male	Black or African-American	
ose	phs, Joe	12/5/1945	Male	Asian	
obe	erts, Rob	7/20/1967	Male	White (non-Hispanic)	
mitł	n, John C	1/10/1947	Male	Hispanic	
	ens, Steve	2/18/1958	Male	Hispanic	

Num	ber of	Record	ls (6

* - Restricted Field

(Count is unduplicated across providers)

- 16. We will now use the AND / OR operators in our filter.
- 17. Open the Report Filter and click on the **Advanced** checkbox. If you use the Operator: instead, all your statements will be OR statements or AND statements. Using Advanced allows you to combine/mix them.
- 18. Click Add Criterion and choose "Race/Ethnicity."

Custom Repo	orts - Filter								
leport Type: Criterion	Demographics				Operator:		Advanced ?		Close
AND 🔹 (Race/Ethnicity		Not =	-	Black or African-A	merican	•	□ Null	Save Cancel
Opera Par	en.	Field Name	ls I	Not	=	>=	<=	Null	Par
		Gender			Male				

- 19. The AND/OR drop down menu will be activated. Choose the **AND** statement.
- 20. Next to the AND statement, insert a beginning parenthesis.
- 21. From the drop down menu, choose **Black or African-American**. The content of these menus will reflect the options for the field selected.

22. Click Save.

iterion -					,	🔄 🔽 Advan		?	
Ŧ			Г	Not =	>=	<=		nu Nu	II Cancel
Opera	Par	Field Name	Is Not	=	>=	<=	Null	Par	
		Gender		Male					
AND	(Race/Ethnicity		Black or African					

- 23. Add another criterion by selecting **Race/Ethnicity** again.
- 24. Then, choose the **OR** statement from the drop down, select "Asian" as the criteria, and enter the closing parenthesis in the last box on the line. The parenthesis lets CAREWare know the criteria to look for in the 2nd and 3rd parts.

🚸 Custom Reports - Filter			- • •
Report Type: Demographics Criterion	Operator:	▼ ✓ Advanced ?	Close
	Not = Asian	▼ Null	Save Cancel
Opera Par Field Name Is No	= >=	<= Null Par	
Gender AND (Race/Ethnicity	Male Black or African		
			Ť
			Ŧ
Templates Remove A	Add Criterion	Edit Criterion Remove C	Criterion

25. Click **Save** to see the final product.

-Criterion-											
Not >= <= Null Save Cancel											
Opera	Paren.	Field Name	Is Not	=	>=	<=	Null	Par			
		Gender		Male							
AND	(Race/Ethnicity		Black or African							
OR		Race/Ethnicity		Asian)			
										Т	

26. The result is a search for <u>all</u> Male clients who have received a service visit in 2012, AND are <u>either</u> Black/African American OR Asian. Here are the results:

Cli	ent List				
I	Data Scope: R	tyan White	AIDS Care		
	Report Criteria:				
	Report Start D)ate:	01/01/2012		
	Report End Date: Gender: AND Race/Ethnicity:		12/31/2012		
			Male		
			Black or Afric	can-American	
	OR Race/Ethnicity:		Asian		
	A service visit m	ust exist du	uring the reporti	ng period to be counted on this report.	
Nam	ie:	DOB:	Gender:	Race/Ethnicity:	
Alle	n, Al	9/25/1956	Male	Black or African-American	
Jam	es, Jim k	2/20/1962	Male	Black or African-American	
Jose	ephs, Joe	12/5/1945	Male	Asian	
				Number of Records	3
*-	Restricted Field			(Count is unduplicated across providers	5)

Using Totals

NOTE: This and following sections assume you are now comfortable creating field selections and filters. We will show you what your field selections and filters should look like, but we'll now skip walking through each step to create them.

If you need to sum certain values, or group the report in a specific way (e.g. over clients or service categories), you can check the **Use Totals** button box at the top of the Field Selection screen. Use Totals also includes new functions to calculate the minimum or maximum or average of a group of observations, such as CD4 counts or viral loads.

We'll do two examples of the Use Totals function, one for a *service* report where there are often multiple services per client, and one for a custom *lab* report, where there are often multiple lab tests per individual.

Service Report:

Here's the top portion of a basic service report (fields "Name", "Srv Category", "Srv Short Name", and "Srv Date"), sorted by client; *Use Totals* was checked. You can see that some clients appear multiple times because they've received multiple services in the date range.

Service Report

Data Scope: Ryan White AIDS Care

Report Crit	teria:							
Report S	tart Date:	01/01/2012						
Report E	nd Date:	12/31/2012						
Srv Date	:	between 01/01/2	between 01/01/2012 AND 12/31/2012					
A service v	isit must exis	t during the reporting	period to be counted on this re	port.				
Name:	Srv Cat	egory:	Srv Short Name (Group By):	Srv Date (Group By):				
Allen, Al	Medica	I Case Management	MCM Face-to-face	2/5/2012				
Allen, Al	Medica	I Case Management	MCM Face-to-face	3/8/2012				
Allen, Al	Medica	I Case Management	MCM Non Face-to-face	2/3/2012				
Allen, Al	Outpati Care	ent/Ambulatory Medical	Labs	3/7/2012				
loe, Jane	Outpati Care	ent/Ambulatory Medical	Labs	5/30/2012				
lames, Jim k	Medica	I Case Management	MCM Face-to-face	1/1/2012				
ames, Jim k	Medica	I Case Management	MCM Face-to-face	3/8/2012				
lames, Jim k	Outpati Care	ent/Ambulatory Medical	Labs	3/7/2012				

Now we change the **Use Totals** option, to **Count** for the **Subservice name** and **Service date** fields:

ervice				🔽 Use T	otals	?	<u>C</u> lose
Select	t Field						
Field: Report Column Header: Width			h (in): Width (cm): Total:	Sort:	Sort Pric	Cancel
Field	Justification: Left	Column Header Font:	Data Field	Font:			
Col#	Field Name	Column Header	Width (in)	Width (cm)	Totals	Sort	Sort Priority
0	Name	Name	1.44	3.66	Group By	Ascending	1
1	Service category	Srv Category	1.8	4.57	Group By		
2 3	Subservice name	Srv Short Name (Count)	1.8	4.57	Count		
3	Service date	Srv Date (Count)	1.08	2.74	Count		

The report now returns the total subservices a client receives within a service category. Notice for the client Al Allen, there's now only one line for Medical Case Management, with the number 3 in the column indicating how many of those services he received in the date span.

Service Report

Data Scope: Ryan White AIDS Care

Report Crite	ria:						
Report Sta	art Date:	01/01/2012					
Report En	d Date:	12/31/2012					
Srv Date:		between 01/01/2012 AND 12/31/2012					
A service vis	sit must exis	t during the reporting pe	eriod to be counted on this	report.			
ame:	Srv Cat	tegory:	Srv Short Name (Count):	Srv Date (Count):			
llen, Al Medical		I Case Management	3	3			
len, Al	Outpati Care	ent/Ambulatory Medical	1	1			
e, Jane	Outpati Care	ent/Ambulatory Medical	1	1			
mes, Jim k	Medica	I Case Management	2	2			
mes, Jim k	Outpati Care	ent/Ambulatory Medical	1	1			
sephs, Joe	Health	ed./risk reduction/preventior	11	1			
sephs, Joe	Medica	I Case Management	4	4			
sephs, Joe	Outpati Care	ent/Ambulatory Medical	1	1			

Lab Report:

In the next example we will select the 'Use Totals' option to show the minimum or lowest CD4 count for a client over a specified date range.

1. First, without using totals, we create a report as seen below:

Field selection:

Custom Report Add							
Report Name:							
CD4 Count							
Report Type:							
Field Selection							
Report Filter							
🔲 Read Only							
Save Cancel							

Custor leport T	m Reports - Field Sel	ection						
ab	ypo.				Use T	otals	A ?	<u>C</u> lose
Select	Field							
Field:		Report Column	Header: Width	(in): Width (cm): Total:	Sort:	Sort Pric	Cancel
Field	Justification:	Column	Header Font:	Data Field	Font:			
Col#	Field Name	Column H	eader	Width (in)	Width (cm)	Totals	Sort	Sort Priority
D 1	Name Lab Result	Name Lab Resu	t	1.44 0.7	3.66 1.78		Ascending	1
				ш				
	Templates	Add Field	Б	dit Field	Remove F	ield	Remov	ve All

Filter:

Custom I eport Type: Criterion —	-	- Filter .ab			Operator:	Advar	nced	?	Close
_				Not =	>=	~ [□ Nu	I Cancel
Opera	Par	Field Name	Is Not	=	>=	<=	Null	Par	
		Lab Test		CD4 Count					
									*
									1

We will set the date span from 1/1/2012 – through 12/31/2012:

Date Span			2
From:		Through:	£
1/1/2012	-	12/31/2012	-

2. Run the report this way and you'll get all CD4 results in that time frame:

Report Cri	teria:		
Report S	tart Date:	01/01/2012	
Report E	nd Date:	12/31/2012	
Lab Test: AND Lab Date:		CD4 Count	
		between 01/01/2012 AND 12/31/2012	
AND Tes	t Type:	Lab	
A service v	isit must exist	t during the reporting period to be counted on this report.	
Name:	Lab Re	sut	_
Allen, Al	600		
Allen, Al	450		
Allen, Al	225		
Allen, Al	300		
Doe, Jane	200		
Doe, Jane	450		
James, Jim k	510		
	325		
James, Jim k			
James, Jim k James, Jim k	650		
James, Jim k James, Jim k Josephs, Joe	210		
James, Jim k James, Jim k	210		

3. Now we'll rerun the same report, but this time we'll check **Use Totals** in the field selection screen and choose the following settings: **Group By** Name and **Min** for Lab Result:

ab				🔽 Use T	otals A	?	<u>C</u> lose
Select	Field						
				. 🖬			Cance
Field	Justification: Left	Column Header Font:	A Data Field F	ont: A			
	Justification: Left Field Name	Column Header Font:	Width (in)	Width (cm)	Totals	Sort	Sort Priority
Field Col# 0	,				Totals Group By Min	Sort Ascending	Sort Priority

4. Each client's lowest CD4 value in that time frame is shown. (The **Show Specifications** box is unchecked, so the search formula is hidden).

CD4 Count	
Data Scope:	Ryan White AIDS Care
Name:	Lab Result (Min):
Allen, Al	225
Doe, Jane	200
James, Jim k	325
Josephs, Joe	210

Using Calculated Objects in Custom Reports

The ability to analyze changes in lab results and other indicators has been expanded considerably in CAREWare with the addition of calculated objects in Custom Demographic Reports.

There is an extensive list of calculated fields. Some examples of particular interest allow you to determine:

- The highest and lowest quantitative lab value within a specified date range
- The change in lab values from one period to the next (e.g., how much did a client's CD4 count or viral load rise or fall?)
- If a client had a change in ARV drug class

Calculated objects are available in demographic custom reports, but require some additional steps not found in a typical custom report setup.

Setting up date ranges for comparison:

Say you want to look at how long your clients have been receiving services. There is a calculated object that will look at the first service date and compare that to the last service date and calculate the difference between them.

Here, in custom demographic reports, we select one of the calculated objects as one of our report fields.

1. Create a **New Report**. We have named the report 'Length of Care' in this example.

Custom Report Add	
Report Name:	
Length of Care	
Report Type:	
Demographics	▼ Crosstab?
Field S	election
Kepor	t Filter
	Read Only
<u>S</u> ave	<u>C</u> ancel

2. Create the following field selections ("Name", "1st Service", "Last Service", "Date Diff").

Re	Custon	n Reports - Field Selection							
	eport Ty	ype:					-1		- 1
De	emograp	phics			Use Tot	als A	?	<u>C</u> lose	
	Select	Field							
	Field:		port Column Header: Width): Total:	Sort:	Sort Prio		.
	<u>Date D</u>	<u>) </u> Da	te Diff 0.8	2.03	· ·		- 0	Cano	el l
				1					
	Field J	lustification:	Column Header Font:	Data Field Fo	nt: A				
	Col#	Field Name	Column Header	Width (in)	Width (cm)	Totals	Sort	Sort Priority	
0	0	Name	Name	1.44	3.66		Ascending	1	
1		First ever service date	1st Service	0.8	2.03				+ 1
2	2	Date of last service	Last Service	1.08	2.74				
	0	Name First ever service date	Name	1.44	3.66	Totals			

There is an important difference from regular custom report field selection setup. When any of the calculated objects are selected as a field, *an ellipsis appears to the right of the field* (the box with three dots...), meaning that CAREWare requires you to provide additional details.

3. After selecting **Date Diff**, click on the ellipse button next to it. The filter for this field is automatically created without parameters. (You may wish to edit the column header name from "Date Diff" to display a more descriptive name.)

custom	Reports	- Calcul	ated Field							
Calcu Date	ulated Fiel Diff	d Name:						- [Save	Field
Date		Header:							Can	cel
Criter Fi	eld:		N	lot	>=	<=			ull —	Save ancel
Pos	Opera	Par	Field Name	Is Not	=	>=	<=		Null	Par
Pos	Opera	Par	Field Name DateColumn	Is Not	=	>=	<=		Null	Par
0	Opera	Par	DateColumn DateColumn	Is Not	=	>=	<=		Null	Par
0	Opera	Par	DateColumn	Is Not	-	>=	<=		Null	Par
0 1 2		Par	DateColumn DateColumn Diff Type	Is Not	=	>=	<=		Null	Par

This calculated field draws from additional information in other fields in the record. Each of these needs to be configured as follows:

- a. Select the first **DateColumn** field, click **Edit Criterion** and select "1st Service" in the pull-down menu, then **Save**.
- b. Select the second **DateColumn** field, click **Edit Criterion** and select "Last Service" then **Save**.
- c. Select the **Diff Type**, select "Months," then **Save**.
- d. <u>For a report on a single provider</u>, select "No" for **domain wide**. (Domain wide only applies if there are multiple provider domains configured in CAREWare.)

IMPORTANT INFORMATION SECURITY NOTE:



This reporting features <u>overrides</u> your cross-provider information sharing preferences. For example, you may not be sharing clinical data between providers, but when a provider runs a report with a calculated object where the domain wide field is set to "Yes," it may include data from other providers for shared clients.

This can be solved by:

- 1. Restricting provider report permissions.
- 2. Creating reports for these providers at the Central Admin domain, marking them "read only," and copying them to the provider.

e. Click Save.

Custom	Reports -	Calcula	ted Field							
Calcu Date	ulated Field Diff	I Name:							Save	Field
Report	rt Column I Diff	Header:						_	Can	cel
Criter Fit	rion eld:		N	ot	>=		<=	n N	luli —	Save
Pos	Opera	Par	Field Name	Is Not	=	>=	<=		Null	Par
0 1 2 4	AND		DateColumn DateColumn Diff Type domain wide		1st Service Last Service Months No					
•					ш					•
					Edit Criterior	1				

5. Click **Save Field** and then **Save** again on the Field Selection.

Custor	m Reports - Field Selection	1					
leport T	уре:					-1	
)emogra	aphics			🗌 🗌 Use T	otals	A ?	<u>C</u> lose
Select	Field						
Field:	R	eport Column Header:	Width (in): Width (cm): Total:	Sort:	Sort Pric	<u> </u>
	,	,					Cancel
Field	Justification:	Column Header Font:	A Data Field	Font: A			
Field	Justification:	Column Header Font:	A Data Field	Font: A			
Field	Justification:	Column Header Font:	A Data Field Width (in)	Font: A	Totals	Sort	Sort Priority
Col#					Totals	Sort Ascending	Sort Priority
Col#	Field Name	Column Header	Width (in)	Width (cm)	Totals		
	Field Name	Column Header	Width (in) 1.44	Width (cm) 3.66	Totals		
Col# 0 1	Field Name Name First ever service date	Column Header Name 1st Service	Width (in) 1.44 0.8	Width (cm) 3.66 2.03	Totals		
Col# 0 1 2	Field Name Name First ever service date Date of last service	Column Header Name 1st Service Last Service	Width (in) 1.44 0.8 1.08	Width (cm) 3.66 2.03 2.74	Totals		
Col# 0 1 2	Field Name Name First ever service date Date of last service	Column Header Name 1st Service Last Service	Width (in) 1.44 0.8 1.08	Width (cm) 3.66 2.03 2.74	Totals		
Col# 0 1 2	Field Name Name First ever service date Date of last service	Column Header Name 1st Service Last Service	Width (in) 1.44 0.8 1.08	Width (cm) 3.66 2.03 2.74	Totals		
Col# 0 1 2	Field Name Name First ever service date Date of last service	Column Header Name 1st Service Last Service	Width (in) 1.44 0.8 1.08	Width (cm) 3.66 2.03 2.74	Totals		

- 6. **Close** and **Save** the report.
- 7. Select the report and click **Run Report**.

View/Edit				
Data Scope		Set Primary Provider	Filter by Report Type:	
Provider:		Group by Provider		•
Drugs R Us		, aroup by rionadi	1	
Panama Hospital del Nino		Date Span		Clinical Review
Ryan White AIDS Care			?	Year:
		From:	Through:	
		1/1/2007 -	12/31/2012 -	2007 👻
	•			
	,	Show New Clients On	iy] Snow Specification:	s 🔽 Sum Numeric Fields
L		-		
Report Name:	Report Type:	Custom	/Crosstab:	Run Report
	-			- null hepoit
ClientList	Demographics	Custom		
ClientList Clients by Race and Gender	Demographics Demographics	Custom Custom		New Perert
Clients by Race and Gender	Demographics Demographics Demographics			<u>N</u> ew Report
Clients by Race and Gender Ethnic distribution	Demographics	Custom		
Clients by Race and Gender Ethnic distribution Length of Care	Demographics Demographics	Custom Custom		<u>N</u> ew Report
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare	Demographics Demographics Demographics	Custom Custom Custom		
	Demographics Demographics Demographics Demographics	Custom Custom Custom Custom		
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare MCM Denominator	Demographics Demographics Demographics Demographics Demographics	Custom Custom Custom Custom Custom		<u>D</u> elete Report
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare MCM Denominator MCM Numerator	Demographics Demographics Demographics Demographics Demographics Demographics	Custom Custom Custom Custom Custom Custom		Delete Report
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare MCM Denominator MCM Numerator MissingClientStatus	Demographics Demographics Demographics Demographics Demographics Demographics Demographics	Custom Custom Custom Custom Custom Custom Custom		<u>D</u> elete Report
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare MCM Denominator MCM Numerator MissingClient Status ServiceRepot Detail	Demographics Demographics Demographics Demographics Demographics Demographics Demographics Service	Custom Custom Custom Custom Custom Custom Custom Custom		Delete Report
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare MCM Denominator MCM Numerator MIssingClientStatus ServiceReportDetail ServiceVisits(Beta)	Demographics Demographics Demographics Demographics Demographics Demographics Demographics Service Service	Custom Custom Custom Custom Custom Custom Custom Custom Custom		Delete Report
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare MCM Denominator MCM Numerator MIssingClientStatus ServiceReportDetail ServiceVisits(Beta)	Demographics Demographics Demographics Demographics Demographics Demographics Demographics Service Service	Custom Custom Custom Custom Custom Custom Custom Custom Custom		Delete Report Edit Report Copy Report Import From File
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare MCM Denominator MCM Numerator MIssingClientStatus ServiceReportDetail ServiceVisits(Beta)	Demographics Demographics Demographics Demographics Demographics Demographics Demographics Service Service	Custom Custom Custom Custom Custom Custom Custom Custom Custom		Delete Report Edit Report Copy Report
Clients by Race and Gender Ethnic distribution Length of Care LinkedtoCare MCM Denominator MCM Numerator MIssingClientStatus ServiceReportDetail ServiceVisits(Beta)	Demographics Demographics Demographics Demographics Demographics Demographics Demographics Service Service	Custom Custom Custom Custom Custom Custom Custom Custom Custom		Delete Report Edit Report Copy Report Import From File

8. The following results were obtained when clicking **Run Report**. Notice in the **Date Diff** column for client Al Allen, 26, the number of months elapsed between the first and last service dates.

Le	ngth of Care			
[Data Scope: Ry	an White All	DS Care	
	Report Criteria:		101/2012	
	Report Start Da		/01/2012	
	Report End Dat	e 12	2/31/2012	
	noport End But			
	•			riod to be counted on this report.
Nam	A service visit mu			riod to be counted on this report. Date Diff:
Nam Aller	A service visit mus	st exist durin	g the reporting pe	
Aller	A service visit mu e: n,Al	st exist during 1st Service:	g the reporting per Last Service:	Date Diff:
Aller Doe,	A service visit mus e: n, Al Jane	st exist during 1st Service: 1/1/2010	g the reporting per Last Service: 3/8/2012	Date Diff:

For a result to appear on this report, a client must have a least $\underline{2}$ services, as well as at least one service within the selected date span, in this case for the year 2012.

9. Now let's look at the same report, except changing the domain wide field to "Yes". Click **Edit Report** and highlight **Date Diff** and then **Edit Field**.

Custom I	Reports - (Calcula	ted Field							
Calcul Date D	ated Field)iff	Name:							Save F	ield
Report	t Column H	eader:							Canc	el
Date D	Diff							-		
Criterio Fie doma			Not	Yes			T		Juli ——	ave ncel
Pos	Opera	Par	Field Name	Is Not	=	>=	<=		Null	Par
0 1 2 4	AND		DateColumn DateColumn Diff Type domain wide		1st Service Date of Last Srv Months Yes					
•										•
			_		Edit Criterion					

- 10. **Close** and **Save** the report.
- 11. Select the report and click **Run Report**.
- 12. Notice the results under the **Date Diff** column for client Al Allen, now 29, and Joe Josephs, changing from 64 to 67, as the number of months elapsed between the first and last service dates, with domain wide, set to "Yes".

Length of Care

Data Scope: Ryan White AIDS Care

Report Crite Report St Report Er	art Date: 0	1/01/2012 2/31/2012		
A service vi	sit must exist durii 1st Service:	ng the reporting p	eriod to be counted on this report. Date Diff:	
llen, Al	1/1/2010	6/1/2012	29	
oe, Jane	1/1/2012	6/15/2012	5	
oe, Jane ames, Jim k	1/1/2012 9/1/2000	6/15/2012 3/8/2012	5 138	

Applying filters to calculated objects

As with any other report, you can apply a filter – for instance, restricting this report to only those clients whose last service occurred during the 2^{nd} Quarter of 2012, (April 1 – June 30, 2012).

- 1. Open the report you just created, and add a filter.
- 2. Add the same field you used when adding the Field Selections ("Last Service") for the report. Click on the 'Change to Months' option.

		Change To Months	Max days before end date:	Min. date	days before end	
□ Not	=	>=		<=		Null

3. Now click on the 'Change to Dates' option.

		Change To Dates	Max months before end date:	Min. date:	months before end
Not	=	>=		<=	Null

4. Enter the date April 1, 2012 in the >= (greater than or equal to) field, either using the date picker or manual data-entry of the date.

= Change To Days	<u> </u>					1	•	Null		
	•	1	\pri	1, 20)12		F	1		
>=	Su	Мо	Tu	We	Th	Fr	Sa	Null	 Par	<u> </u>
	25	26	27	28	29	30	31			
	1	2	3	4	5	6	7			
	8	9	10	11	12	13	14			
	15	16	17	18	19	20	21			
	22	23	24	25	26	27	28			
	29	30	1	2	3	4	5			
		То	day		Clea	ar				

5. Then enter the end date of June 30, 2012 in the <= (less than or equal to) equality field, then Close and Save.

Custom Report	ts - Filter							
	Demographics		Ope	erator:	Advance	d <u>?</u>		Close
Criterion	_							
Ţ	<u>Format</u>	□ N	ot =	>=	<=		Nul	Save Cancel
Opera Par	Field Name	Is Not	=	>=	<=	Null	Par	
	Date of last service			4/1/2012	6/30/2012			
								Ť

6. Now we will re-run the report with the filter, domain wide set to "No", obtaining the following results.

Length of Care

Data Scope:	Ryan White AIDS Care						
Name:	1st Service:	Last Service:	Date Diff:				
Doe, Jane	1/1/2012	6/15/2012	5				
Josephs, Joe	1/1/2007	5/30/2012	64				

Other similar reports can be configured, such as the length of time between a client's First Service and First Medical Visit, or the length of time between a client's Enrollment Date and First Medical Visit or Lab result.



PLEASE NOTE: For networked providers, CAREWare allows the same advanced custom reports to be run for one or ALL provider domains. This can be most helpful when analyzing specific client sub-groups and/or service utilization within a 'system of care'.