Guide to Creating Clinic Level Reports in Excel

Introduction

Microsoft Excel and Mental Health Data

The goal of this tool is to provide a basic template for how clinic data can be analyzed in Microsoft Excel to be able to see things like clinic volume, top diagnosis, etc. These methods also allow for you to be able to see trends over time.

The steps that will be covered in this guide include

1- Submitting the request from Appendix A to local M2 Account holder
2- Preparing the spreadsheet for analysis (check names, delete unnecessary columns/rows)
3- How to create/use a PivotTable and PivotChart
4- Instructions for each chart or report to build your own

Accessing your Clinic's Data

The data needed to produce these reports resides in the M2 Data Repository. There are two tables you will get information from. The first table that contains the needed information is the DC Prof Encounters (CAPER). This table contains all of the data regarding Kept Encounters within the hospital. The next table needed is the Appointment Detail (Direct Care). This table houses fields that relate to all scheduled appointments, which include appointments that were not kept (See Appendix A for a detailed request that can be provided to your local data analyst). Appendix C contains a detailed listing of the fields in this table and associated descriptions.

ACTION NEEDED: Review and submit the data request in Appendix A. Ensure proper parameters are specified. It is recommended that you use 2-3 years' worth of clinic data in order to get an accurate picture of what is occurring.

Prepare Data for Analysis

You should receive an Excel file with two tabs, one for each table from above from the M2 account holder or local analyst. There will need to be a few steps to prepare the data to ensure the report generation goes smoothly. After receiving the file, choose a secure location to store that file so that it does not have general access. Although there is no PHI/PII in the data, it should be keep in a location that does not have general access.

Remove extra columns and rows:

The extracted data should look similar to this with the Row 1 being the names of the data fields and the data starting in Column A:

CM	CY	Provider Appt, ID	Pseudo Person ID	Diagnosis 1	Procedure 1	Appointment Type, Appt	Appointment Status Code	Encounter Date	Record ID
1	2019	Provider1	016F0D9211	F1020	90837	FTR	2	01/09/2019	54719431
1	2019	Provider1	016F0D9211	F1020	90837	FTR	2	01/18/2019	54797498
1	2019	Provider1	01D48FE496	F4323	90853	GRP	2	01/04/2019	54748852
1	2019	Provider1	01D48FE496	F4323	90853	GRP	2	01/11/2019	54824631
1	2019	Provider1	01D48FE496	F4323	90853	GRP	2	01/18/2019	54899562
1	2019	Provider1	01D48FE496	F4323	90853	GRP	2	01/25/2019	54960520
1	2019	Provider1	02E77470F8	F4312	90837	FTR	2	01/04/2019	54664361
1	2019	Provider1	02E77470F8	F4312	90837	FTR	2	01/07/2019	54664366
1	2019	Provider1	02E77470F8	F4312	90837	FTR	2	01/10/2019	54664373
1	2019	Provider1	03225E3E36	F4322	90853	GRP	2	01/11/2019	54824510
1	2019	Provider1	03225E3E36	F4322	90853	GRP	2	01/18/2019	54899616
1	2019	Provider1	03225E3E36	F4322	90853	GRP	2	01/25/2019	54960733
1	2019	Provider1	0336977B58	F331	90837	FTR	2	01/16/2019	54671759
1	2019	Provider1	0336977B58	F331	90837	FTR	2	01/23/2019	54595840

When you receive the data, the first step is to inspect both tabs of the Excel sheet and ensure there are not extra rows and columns. For example if you see the following:

A	B	C	D	E	F	G	H	I
	CM	CY	Provider Appt, ID	Pseudo Person ID	Diagnosis 1	Procedure 1	Appointment Type, Appt	Appointment
	1	2019	PROV ID	016F0D9211	F1020	90837	FTR	2
	1	2019	PROV ID	016F0D9211	F1020	90837	FTR	2
	1	2019	PROV ID	01D48FE496	F4323	90853	GRP	2
	1	2019	PROV ID	01D48FE496	F4323	90853	GRP	2
	1	2019	PROV ID	01D48FE496	F4323	90853	GRP	2
	1	2019	PROV ID	01D48FE496	F4323	90853	GRP	2
	1	2019	PROV ID	02E77470F8	F4312	90837	FTR	2
	1	2019	PROV ID	02E77470F8	F4312	90837	FTR	2
	1	2019	PROV ID	02E77470F8	F4312	90837	FTR	2
	1	2019	PROV ID	03225E3E36	F4322	90853	GRP	2

Delete extra rows so that the **field names** are in **Row 1** and delete extra columns so the **data** begins in **Column A.**

Add Dx Category to DC Prof Encounters (CAPER) (Encounter Data)

The Encounter data is very useful to look at with regard to diagnosis. However, because diagnosis is coded in ICD 10 format, we need to categorize the diagnosis into different categories to make it easier to analyze. This is done by adding a column to the end of the data and pasting a formula in that column. Below are the steps needed to perform that task.

1. Locate “Diagnosis 1” in the encounters tab and identify the Column letter

M	N	O	P	Q
Ben Cat Common	Diagnosis 1	Diagnosis 2	Diagnosis 3	E&M Code 1
4	F1020	F603	F3289	99499
4	F1020	F603	F3289	99499
4	F4323			99499
4	F4323			99499
4	F4323			99499
4	F4323			99499

In this situation it is data in Column N.

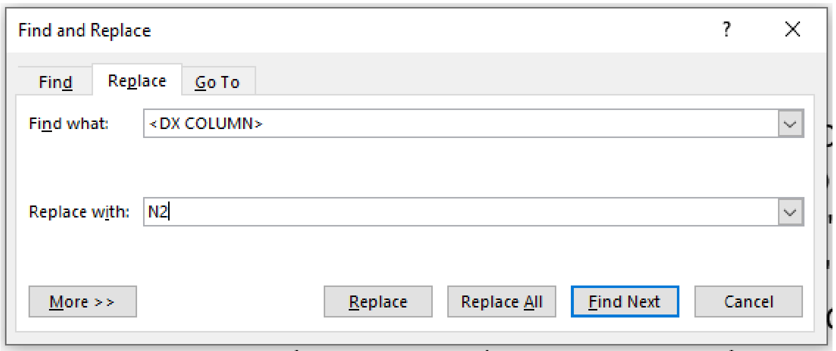
2. Update the Excel Formula with the proper column

   Copy and paste the text below into a blank Word document

   =IF(LEFT(<DX COLUMN>,3) = "F43", IF(LEFT(<DX COLUMN>,4) = "F432","Adj D/O", "Trauma"), IF(OR(LEFT(<DX COLUMN>,3) = "F33",LEFT(<DX COLUMN>,3) = "F32"), "Depression", IF(OR(LEFT(<DX COLUMN>,3)="F40", LEFT(<DX COLUMN>,3)="F41"), "Anxiety", IF(LEFT(<DX COLUMN>,2)="F1","SUD", IF(LEFT(<DX COLUMN>,3)="F60","Personality D/O", IF(LEFT(<DX COLUMN>,1) ="Z","Z Code", IF(LEFT(<DX COLUMN>,2)="F2","Psychotic D/O", IF(LEFT(<DX COLUMN>,3) = "F31","Bipolar", IF(OR(LEFT(<DX COLUMN>,3)= "F34",LEFT(<DX COLUMN>,3)= "F39"),"Depression", IF(LEFT(<DX COLUMN>,3)="G47", "Sleep D/O", IF(LEFT(<DX COLUMN>,3)="F64","Gender Idenity D/O","Other")))))))))))

   In that new Word document, press CTRL + H to open the “Replace” menu

   In the “Find what” field type <DX COLUMN>
   In the “Replace with” field type the Column Letter identified above and the number 2, N2 in our case.

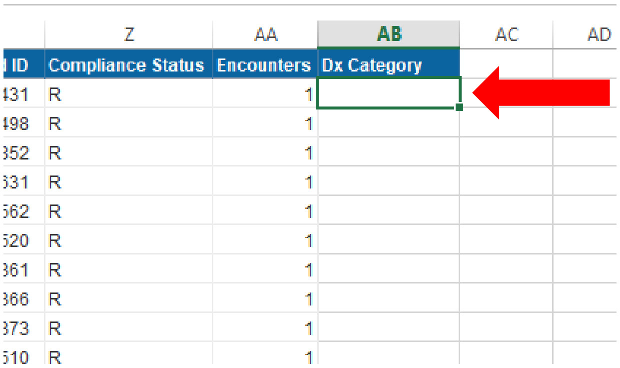


   Click “Replace All”

   This adds the proper column reference to the formula.

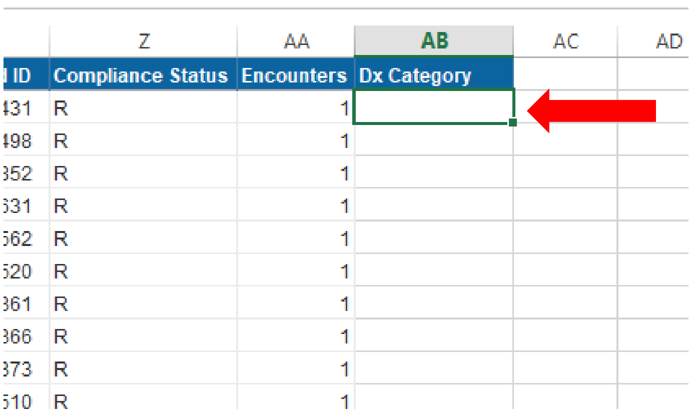
3. Add column to the encounter data in excel.

   Go to the very end of the columns in the Encounter tab.
   Type “Dx Category” in the column just to the right of the last column.

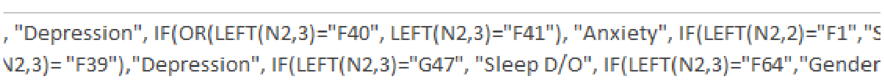


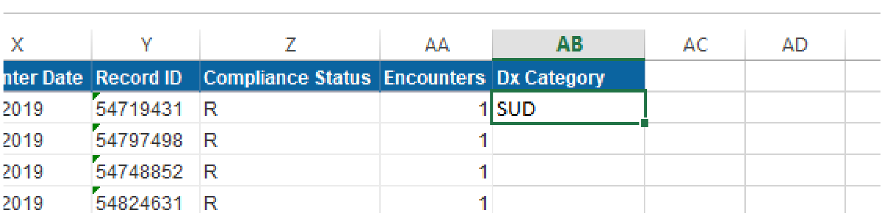
4. Paste the formula into the second row of the data.

   From the Word document you created, select, and copy the modified formula.
   Go to the encounters Tab in Excel and select the second row of the Dx Category.



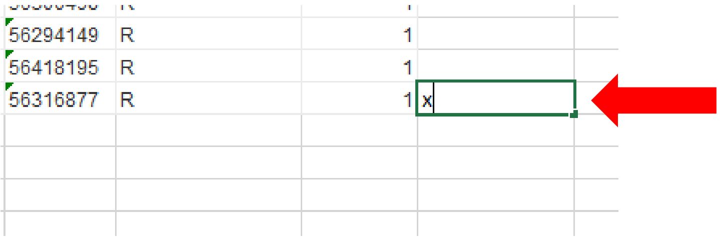
   Paste the formula into that cell (CTRL-V)





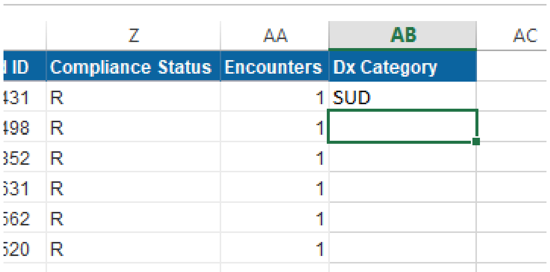
5. Copy the formula to the bottom of the data.

   Select a Cell in the column to the left of Dx Category.
   Press CTRL + <Down Arrow> to move to the bottom of the data.
   Select the cell to the right of the last data row and type an ‘X’.



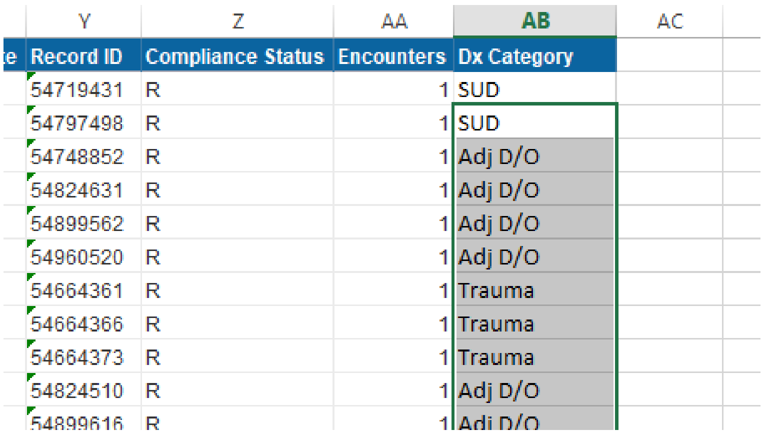
56294149	R	1	
56418195	R	1	
56316877	R	1	x

Move back to the top of the data by pressing CTRL + <Up Arrow>.
Select the first row of Dx Category and Copy the cell with CTRL + C.
Move the cursor down one cell.



	Z	AA	AB	AC
l ID	Compliance Status	Encounters	Dx Category	
431	R	1	SUD	
498	R	1		
352	R	1		
531	R	1		
562	R	1		
520	R	1		

Press SHIFT+CTRL+ <Down arrow> to move to the bottom of the data while selecting the entire column.
Press CTRL + V to paste the formula.



	Y	Z	AA	AB	AC
te	Record ID	Compliance Status	Encounters	Dx Category	
	54719431	R	1	SUD	
	54797498	R	1	SUD	
	54748852	R	1	Adj D/O	
	54824631	R	1	Adj D/O	
	54899562	R	1	Adj D/O	
	54960520	R	1	Adj D/O	
	54664361	R	1	Trauma	
	54664366	R	1	Trauma	
	54664373	R	1	Trauma	
	54824510	R	1	Adj D/O	
	54899616	R	1	Adj D/O	

Save the updated file.

Building Graphs and Reports with PivotTables (Data Analysis)

Within MS Excel, a PivotTable is a powerful tool to calculate, summarize, and analyze data that lets you see comparisons, patterns, and trends in your data. A full tutorial on PivotTables can be found at [this Microsoft support link](#).

In this section will provide a brief summary of the basic steps needed to create the reports described.

Create a PivotTable from the clinic data

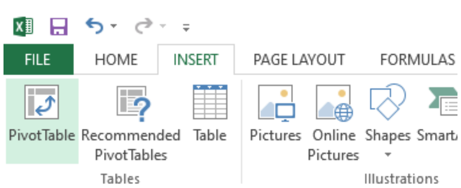
Step 1: Select the Data Range you would like to include in your analysis.

The simplest way to do this is to click in the upper right corner of the worksheet.

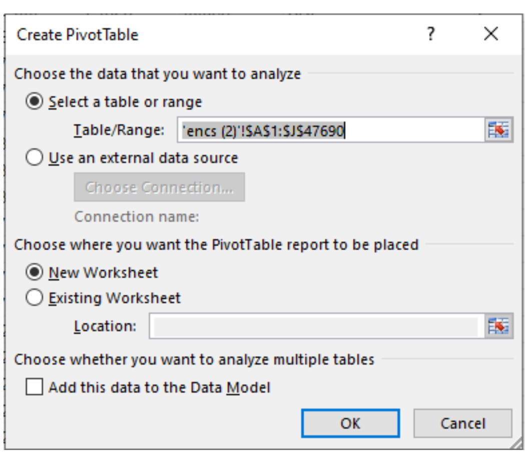
		B	C	D	E	F
1	FY	FM	CY	CM	Tmt DMIS ID Name	MEPRS4 Cod
2	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
3	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
4	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
5	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
6	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
7	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
8	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
9	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
10	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
11	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA
12	2019	4	2019	1	BMC MCAS MIRAMAR	BFDA

This selects all of the data in the worksheet.

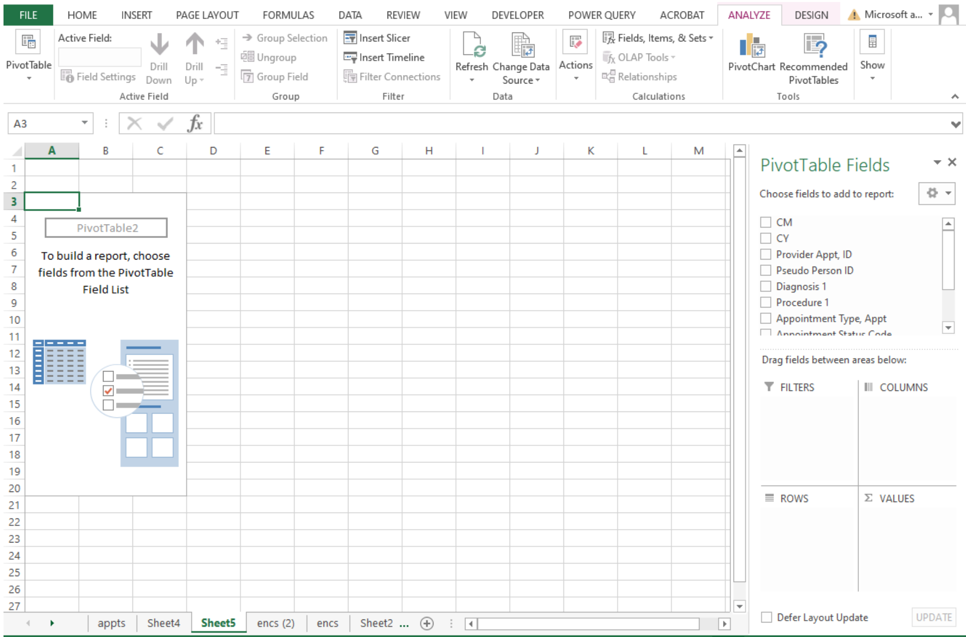
Step 2: Once you have selected the data you would like to analyze, choose the “Insert” menu and click on “PivotTable”.



Step 3: The range of data that you want to analyze will appear in the window below, select “New Worksheet” and then click OK.

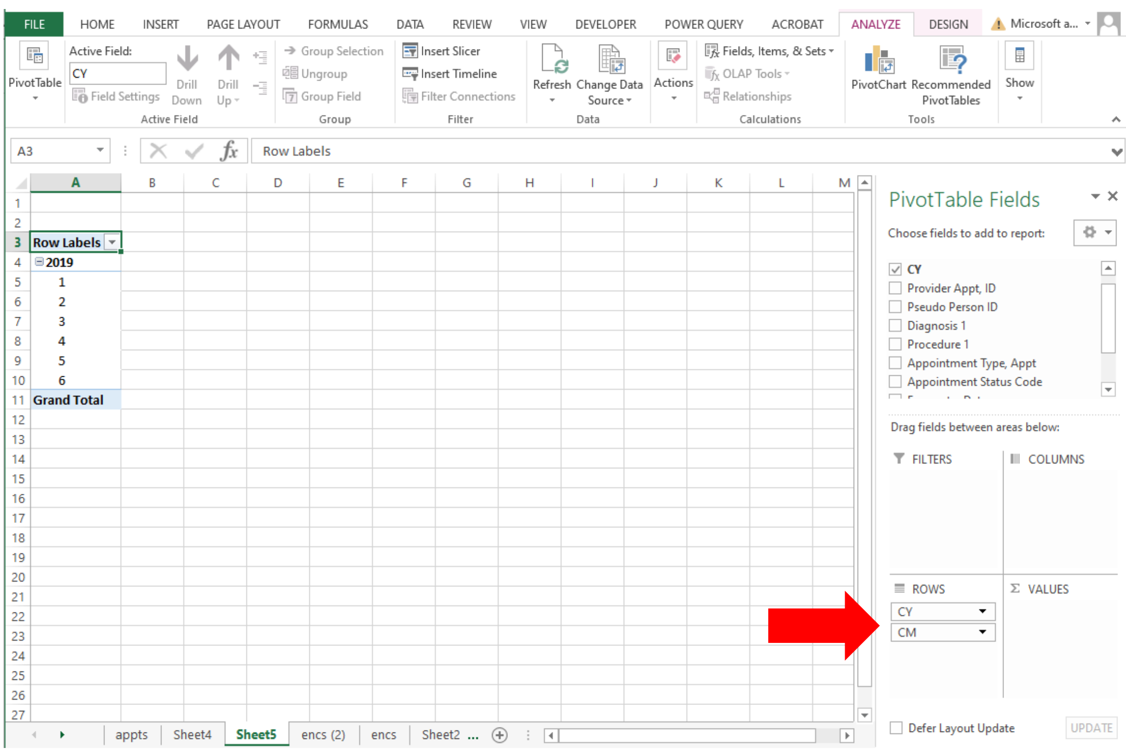


This will take you to a new worksheet that will be similar to the following:

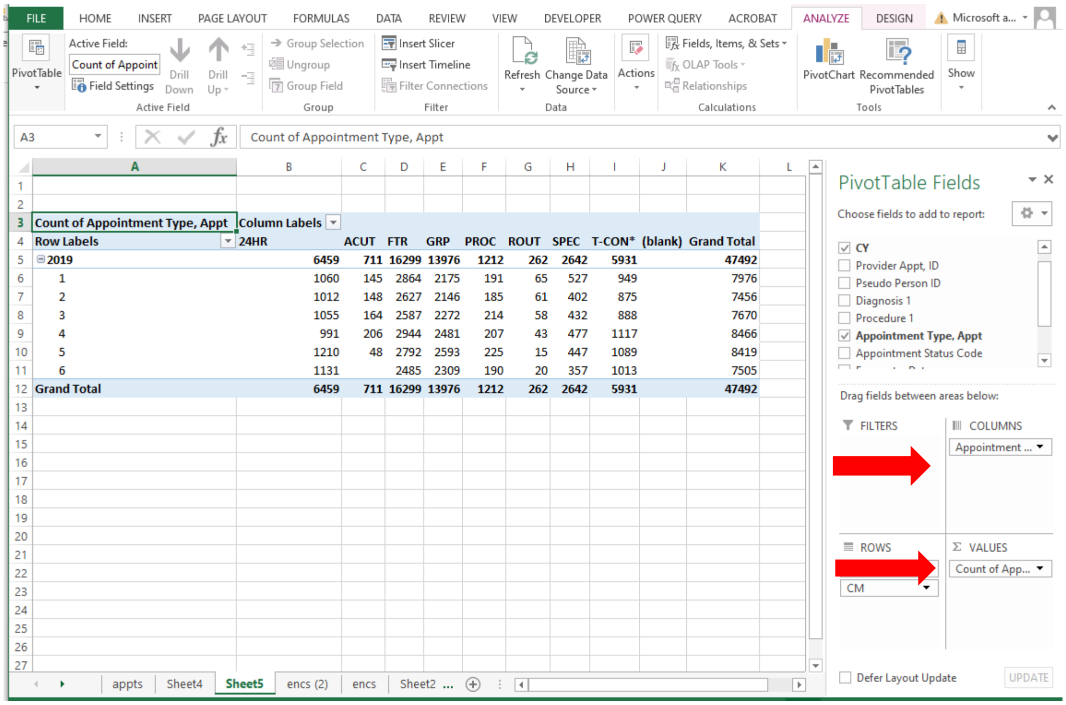


The available data fields appear in the pane to the right of the worksheet

Step 3: For the type of analysis you would want to do in a clinic, the first step is often to add the year and month to the row to allow you to look at information over time. This is done by dragging CY and CM from “PivotTable Fields” to “Rows”.



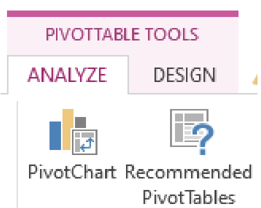
Step 4: Now that you have the time scale in place you can select the information for the columns, this will be the data you want to see charted. In this example, let’s look at Appointment Type.



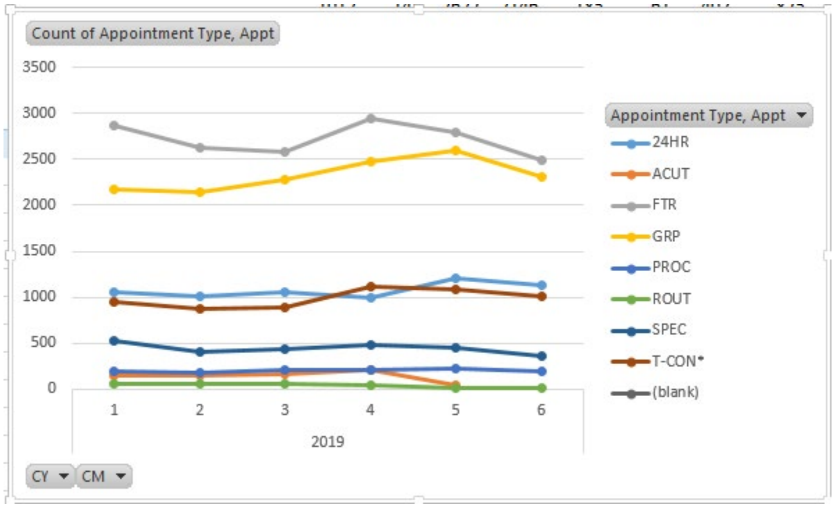
Count of Appointment Type, Appt	Column Labels									
Row Labels	24HR	ACUT	FTR	GRP	PROC	ROUT	SPEC	T-CON*	(blank)	Grand Total
2019	6459	711	16299	13976	1212	262	2642	5931		47492
1	1060	145	2864	2175	191	65	527	949		7976
2	1012	148	2627	2146	185	61	402	875		7456
3	1055	164	2587	2272	214	58	432	888		7670
4	991	206	2944	2481	207	43	477	1117		8466
5	1210	48	2792	2593	225	15	447	1089		8419
6	1131		2485	2309	190	20	357	1013		7505
Grand Total	6459	711	16299	13976	1212	262	2642	5931		47492

As you can see above, Appointment type has been added both the Column and Values section. The final step is to turn this data into a more easily readable version called a PivotChart.

Step 5: In the upper right had side, there is a "Pivot Tools" menu with the "Analyze Tab":



Select "PivotChart", and then select the appropriate chart type for the data. In this example we'll use a line graph:

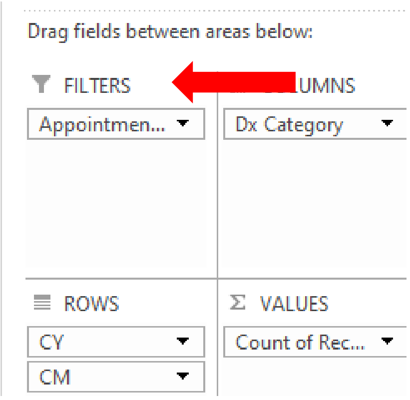


These steps have allowed you to produce an easily readable graph that depicts the number of appointments, by appointment type over a 6 month period.

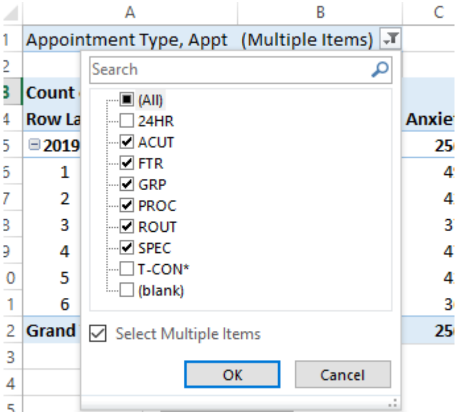
Filtering the data

The steps above created basic PivotTables and PivotCharts. The following steps will show you how to use additional features to refine the analysis of data.

There may be information that you want to eliminate or isolate in your report or chart. Filtering the data is the easiest way to do this. One way to do this is to add a field to the "Filters" section of the Field Dialog.

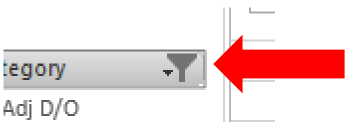


For example, by dragging Appointment Type Filters. In the PivotTable, this adds an option to filter the data at the top of the chart.

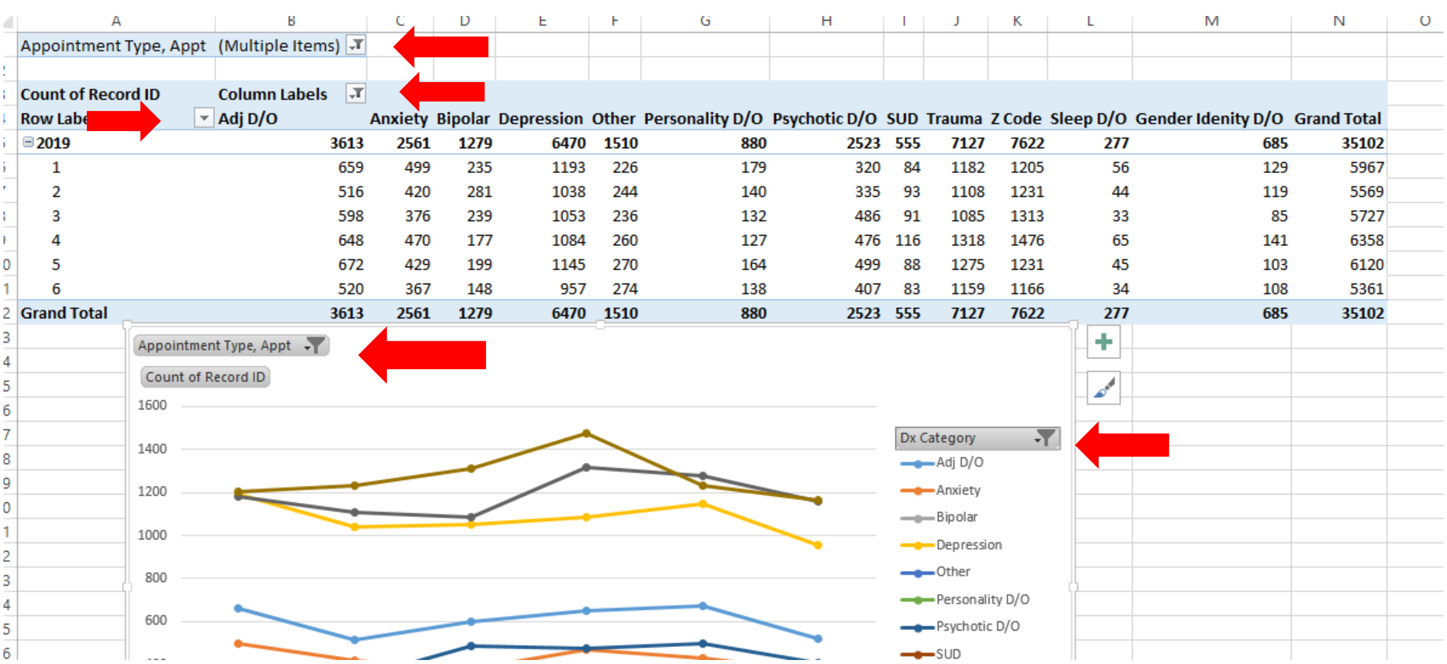


Here you can select the values you would like to Include/exclude in the chart. This will also appear in the chart in the same manner (i.e., line graph).

This feature can be used anywhere you see this next to a data field.



Clicking on this button will open the dialog that allows you to filter the data.



Appointment Type, Appt (Multiple Items)

Count of Record ID	Column Labels												
Row Labels	Adj D/O	Anxiety	Bipolar	Depression	Other	Personality D/O	Psychotic D/O	SUD	Trauma	Z Code	Sleep D/O	Gender Idenity D/O	Grand Total
2019	3613	2561	1279	6470	1510	880	2523	555	7127	7622	277	685	35102
1	659	499	235	1193	226	179	320	84	1182	1205	56	129	5967
2	516	420	281	1038	244	140	335	93	1108	1231	44	119	5569
3	598	376	239	1053	236	132	486	91	1085	1313	33	85	5727
4	648	470	177	1084	260	127	476	116	1318	1476	65	141	6358
5	672	429	199	1145	270	164	499	88	1275	1231	45	103	6120
6	520	367	148	957	274	138	407	83	1159	1166	34	108	5361
Grand Total	3613	2561	1279	6470	1510	880	2523	555	7127	7622	277	685	35102

By filtering the data you can create a more specific analysis based on what would be most useful to your clinic.

Creating Clinic Reports

This section will provide a detailed description of how to create specific reports. Below is a list of reports that will be included in this guide:

- Chart: Appointment volume-total number of appointments by appt type
- Chart: Workload by provider - number of appointments per provider, by month
- Chart: Lost appointments - number of NS/Cancelled appointment, by month
- Chart: Group utilization - number of group appointments, by month
- Chart: Intake distribution - number of intakes, by provider by month
- Chart: Patients by BENCAT - number of appointments, by BENCAT, by month
- Report: Total Appointments, by Provider, By Appointment Type
- Chart: Most common diagnoses within the clinic (sortable by year and provider)
- Report: High utilizer. All patients, sorted by number of kept appts.

Using this method, there are a wide variety of reports you can create. These are examples that may be useful to your clinic.

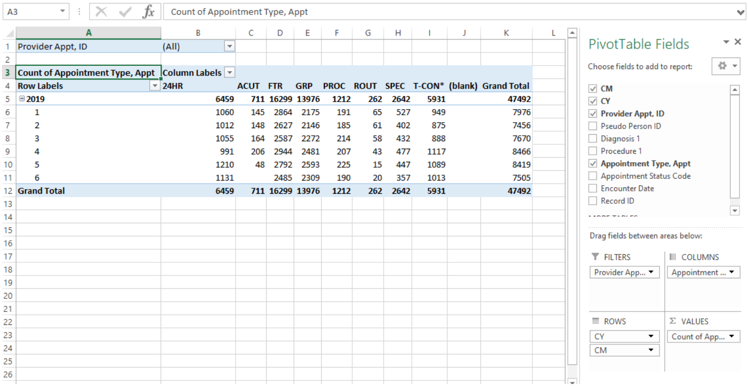
Encounters by Type by Month

Description: This PivotChart shows a count of all encounters, sorted by appointment type. Data is displayed by month to allow you to note trends over time.

Data Used: Encounters

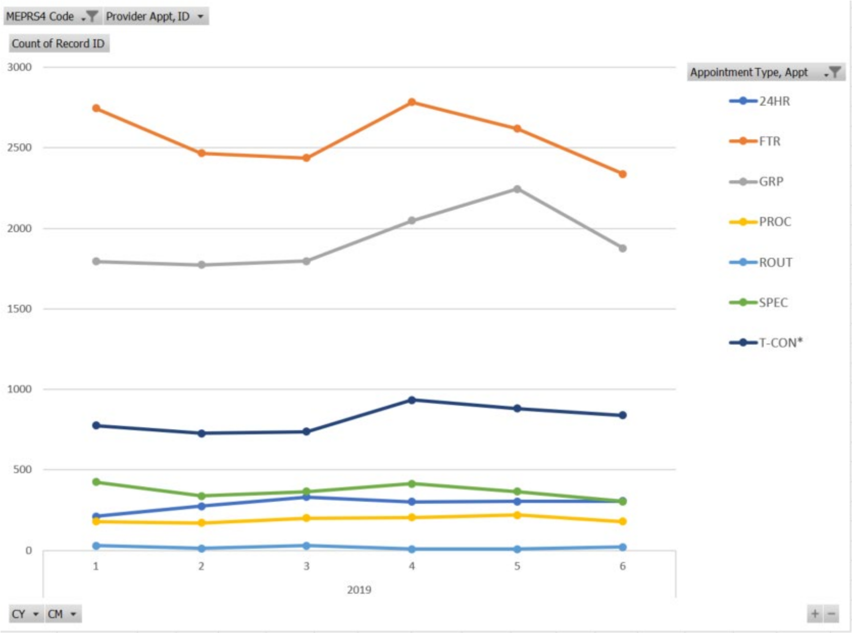
How to create this report:

1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Encounters Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add "CY" and "CM" to "ROWS"
5) Add "Record ID" to "VALUES"
6) Add "Appointment Type, Appt" to "COLUMNS"
7) Add "Provider Appt, ID" to "FILTERS"



Provider Appt, ID	(All)									
Count of Appointment Type, Appt	Column Labels									
Row Labels	24HR	ACUT	FTR	GRP	PROC	ROUT	SPEC	T-CON*	(blank)	Grand Total
2019	6459	711	16299	13976	1212	262	2642	5931		47492
1	1060	145	2864	2175	191	65	527	949		7976
2	1012	148	2627	2146	185	61	402	875		7456
3	1055	164	2587	2272	214	58	432	888		7670
4	991	206	2944	2481	207	43	477	1117		8466
5	1210	48	2792	2593	225	15	447	1089		8419
6	1131		2485	2309	190	20	357	1013		7505
Grand Total	6459	711	16299	13976	1212	262	2642	5931		47492

Graphic of Report Output:



Available Filters: You can narrow down by provider, so you could look at just a single provider's appointments, or select a subset of the clinic's providers, such as all social workers. You can also narrow down by calendar year and calendar month (i.e., you could choose to display only one year's data instead of 2-3). You can also select by MEPRS4 codes, in case you have more than one clinic in your dataset.

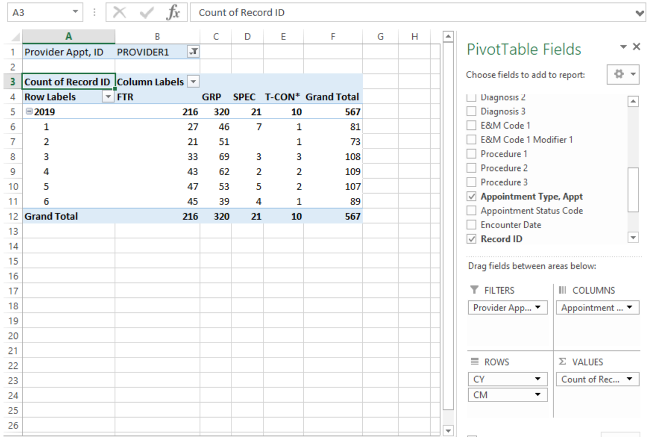
Workload by provider: Number of Appointments per Provider, by Month

Description: This PivotChart shows a count the number of appointments that a provider has by month. The report also includes Appointment type so that you are able to see the volume of intakes and follow-up appointments seperately

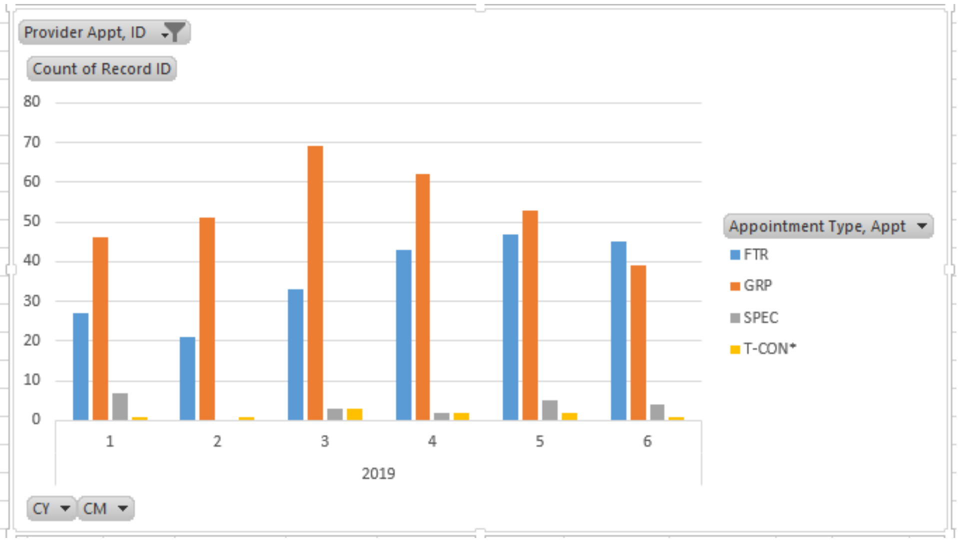
Data Used: Encounters

How to create this report:

1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Encounters Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add "CY" and "CM" to "ROWS"
5) Add "Record ID" to "VALUES"
6) Add "Appointment Type, Appt" to "COLUMNS"
7) Add "Provider Appt, ID" to "FILTERS"



Graphic of Report Output:



Available Filters: You can narrow down by provider, so you could look at just a single provider's appointments, or select a subset of the clinic's providers, such as all social workers. You can also narrow down by calendar year and calendar month (i.e., you could choose to display only one year's data instead of 2-3). You can also select by MEPRS4 codes, in case you have more than one clinic in your dataset.

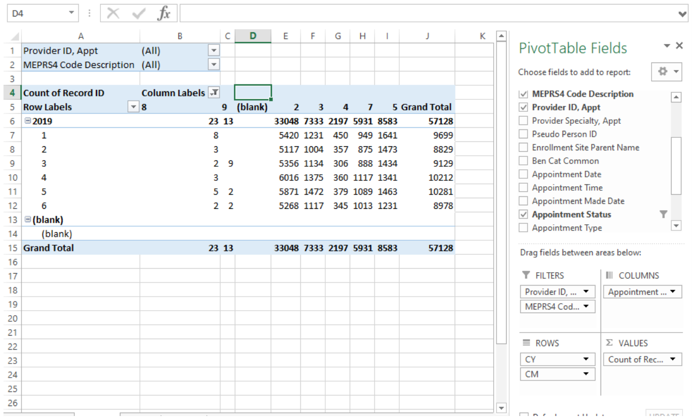
Lost Appointments- Number of NS/Cancelled Appointment, by Month

Description: This PivotChart shows a count of all appointments within the clinic, sorted by appointment status. Data is displayed by month to allow you to note trends over time. For interpretation of the Appointment Status Code number, see APPENDIX B

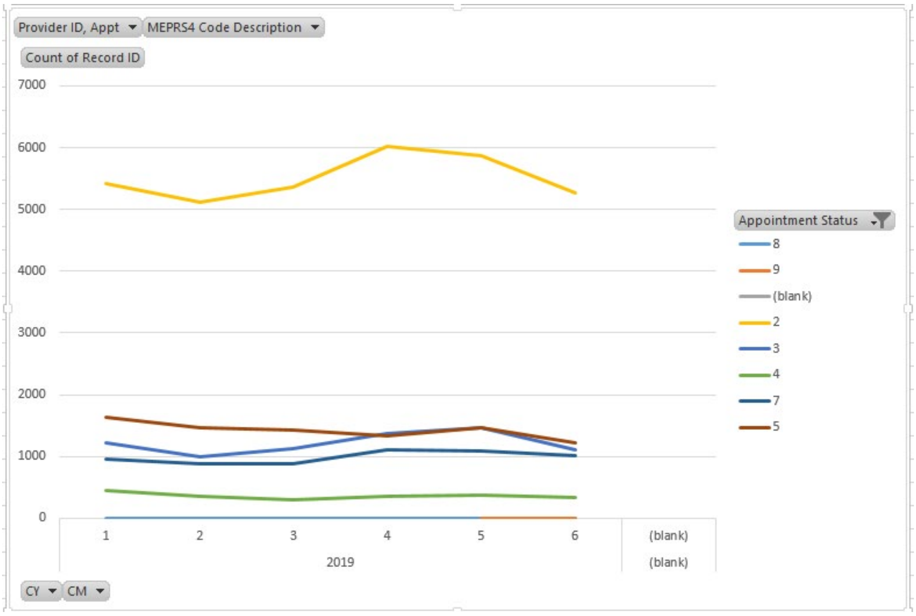
Data Used: Appointments

How to create this report:

1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Appointments Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add “CY” and “CM” to “ROWS”
5) Add “Record ID” to “VALUES”
6) Add “Appointment Status” to “COLUMNS”
7) Add “Provider Appt, ID” to “FILTERS”
8) Add “MEPRS4 Code Description” to “FILTERS”



Graphic of Report Output:



Available Filters You can narrow down by appointment type (i.e., you could choose to look at the appointment status for just SPEC appointments). You can also narrow down by calendar year and calendar month (i.e., you could choose to display only one year’s data instead of 2-3). You can also select by MEPRS4 codes, in case you have more than one clinic in your dataset.

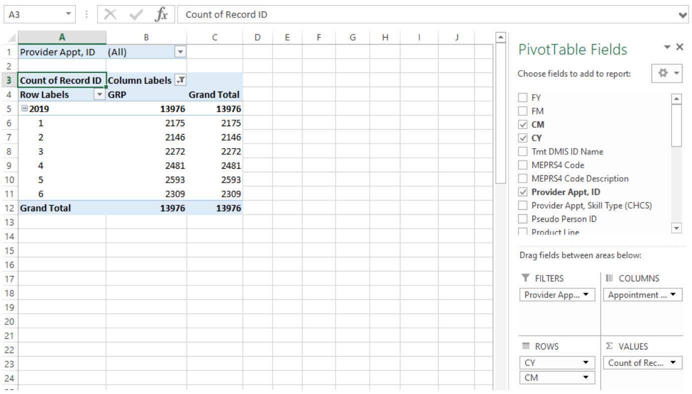
Group Utilization- Number of Group Appointments, by Month

Description: This PivotChart shows a count of all GRP encounters. Data is displayed by month to allow you to note trends over time.

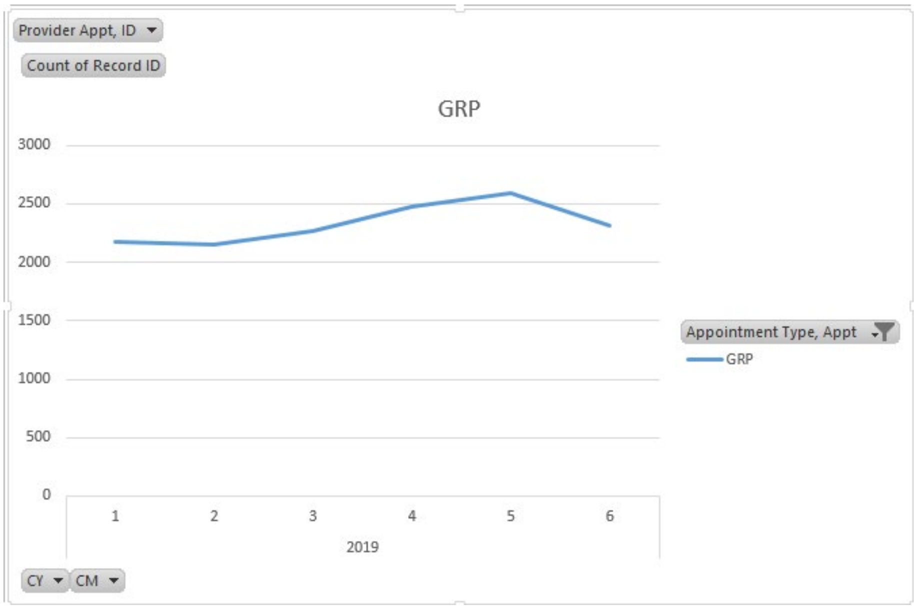
Data Used: Encounters

How to create this report:

1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Encounters Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add “CY” and “CM” to “ROWS”
5) Add “Record ID” to “VALUES”
6) Add “Appointment Type, Appt” to “COLUMNS”
7) Add “Provider Appt, ID” to “FILTERS”
8) Click the filter button next to “Column Labels” and select “GRP”



Graphic of Report Output:



Available Filters You can narrow down by calendar year and calendar month (i.e., you could choose to display only one year’s data instead of 2-3). You can also narrow down which providers are displayed. For large clinics with many providers, you may need to limit the number of providers you display at a time, as it can be difficult to pick out which provider is which if too many are included.

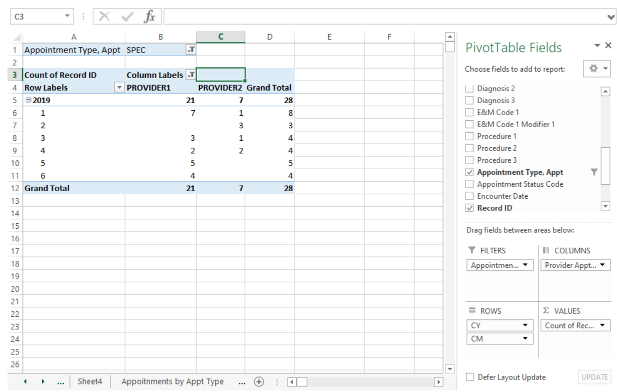
Intake Distribution- Number of Intakes, by Provider by Month

Description: This PivotChart shows a count of all SPEC appointments, sorted by provider. Data is displayed by month to allow you to note trends over time.

Data Used: Encounters

How to create this report:

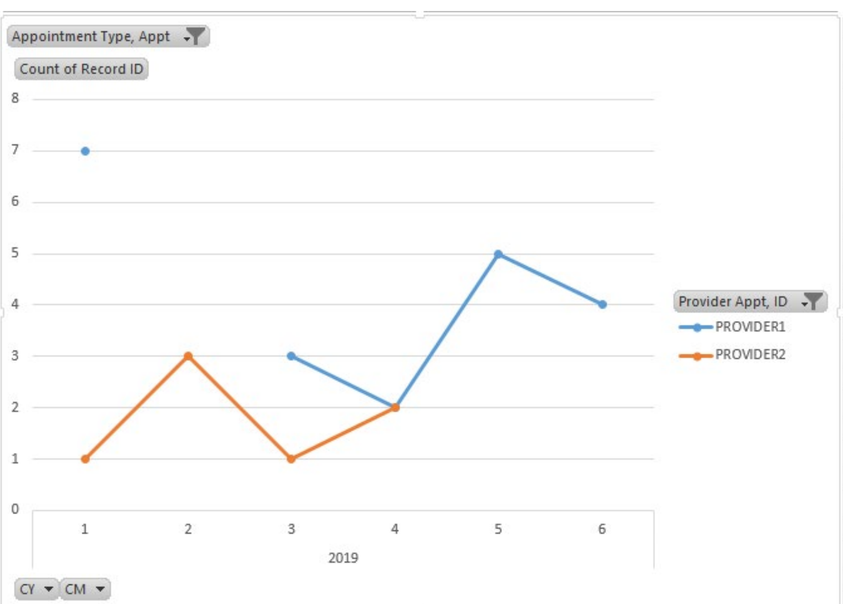
1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Encounters Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add "CY" and "CM" to "ROWS"
5) Add "Record ID" to "VALUES"
6) Add "Appointment Type, Appt" to "FILTERS"
7) Add "Provider Appt, ID" to "ROWS"
8) Click the filter button next to "Appointment Type, Appt" and select "SPEC"



Appointment Type, Appt: SPEC

Count of Record ID	Column Labels		
Row Labels	PROVIDER1	PROVIDER2	Grand Total
2019	21	7	28
1	7	1	8
2		3	3
3	3	1	4
4	2	2	4
5	5		5
6	4		4
Grand Total	21	7	28

Graphic of Report Output:



Available Filters You can narrow down by calendar year and calendar month (i.e., you could choose to display only one year's data instead of 2-3). You can also narrow down which providers are displayed. For large clinics with many providers, you may need to limit the number of providers you display at a time, as it can be difficult to pick out which provider is which if too many are included.

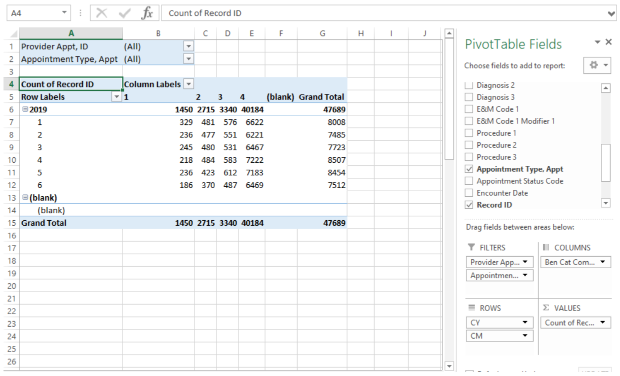
Patients by BENCAT- Number of Appointments, by BENCAT, by Month

Description: This PivotChart shows a count of all encounters by Beneficiary Category (AD, Dependent, etc.). Data is displayed by month to allow you to note trends over time. For interpretation of the Beneficiary Category Code number, see **APPENDIX B**

Data Used: Encounters

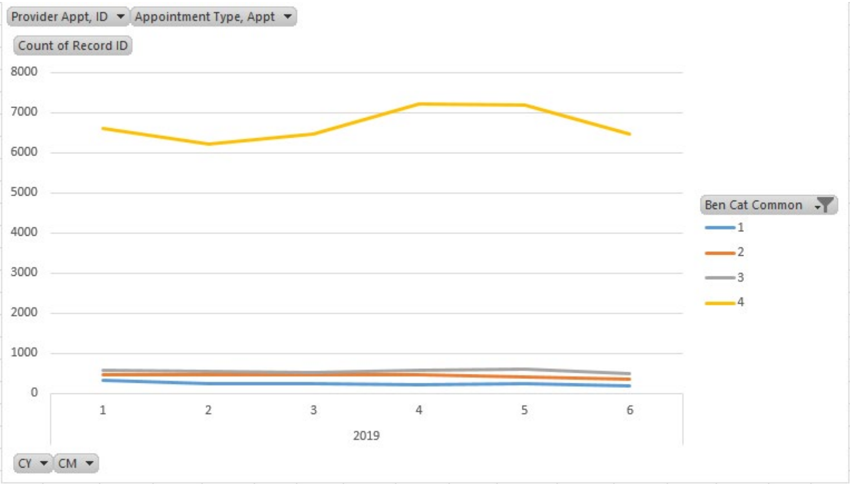
How to create this report:

1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Encounters Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add "CY" and "CM" to "ROWS"
5) Add "Record ID" to "VALUES"
6) Add "Ben Cat Common" to "COLUMNS"
7) Add "Provider Appt, ID" to "FILTERS"



Provider Appt, ID	(All)					
Appointment Type, Appt	(All)					
Count of Record ID	Column Labels					
Row Labels	1	2	3	4	(blank)	Grand Total
2019	1450	2715	3340	40184		47689
1	329	481	576	6622		8008
2	236	477	551	6221		7485
3	245	480	531	6467		7723
4	218	484	583	7222		8507
5	236	423	612	7183		8454
6	186	370	487	6469		7512
(blank)						
(blank)						
Grand Total	1450	2715	3340	40184		47689

Graphic of Report Output:



Available Filters You can narrow down by calendar year and calendar month (i.e., you could choose to display only one year's data instead of 2-3). You narrow down based on BENCAT (e.g., to see how many non-AD had FTR appointments). You can also narrow down which providers are displayed. For large clinics with many providers, you may need to limit the number of providers you display at a time, as it can be difficult to pick out which provider is which if too many are included. You can also filter by Appointment Type (SPEC, FTR, GRP etc.)

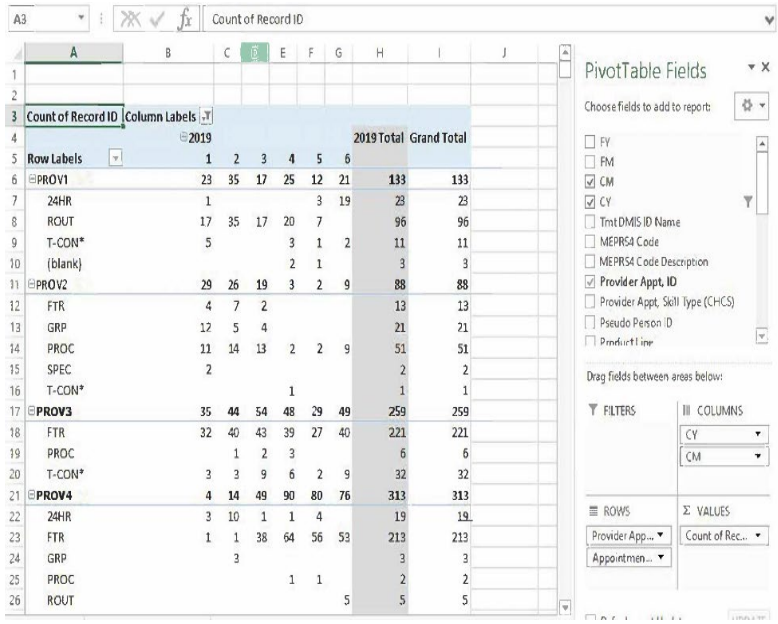
Total Appointments, by Provider, By Appointment Type

Description: This PivotChart shows a count of all appointments, sorted by provider. The Data is also broken down by Appointment Type. Data is displayed by month to allow you to note trends over time.

Data Used: Encounters

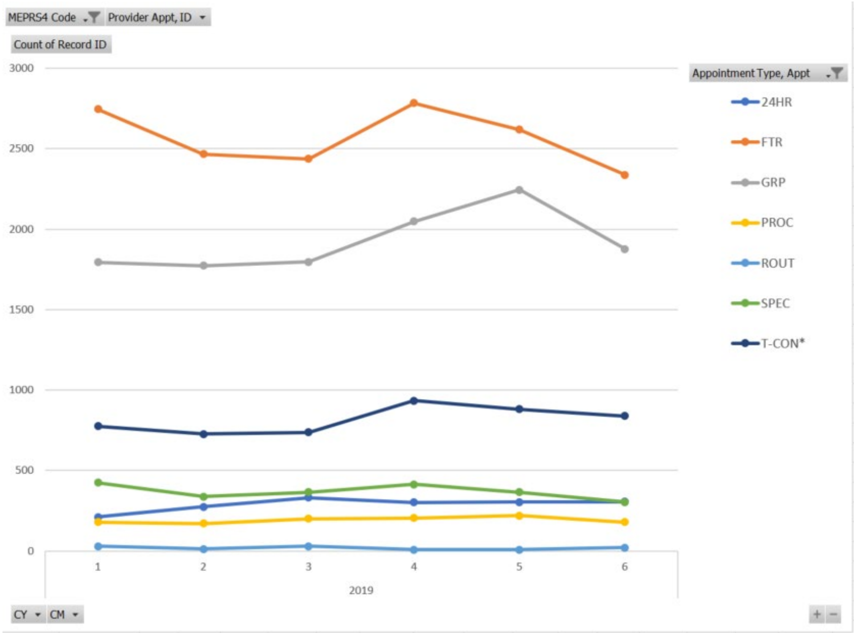
How to create this report:

1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Encounters Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add "CY" and "CM" to "COLUMNS"
5) Add "Record ID" to "VALUES"
6) Add "Provider Appt, ID" to "ROWS"
7) Add "Appointment Type" to "ROWS"



Count of Record ID	Column Labels							
	2019						2019 Total	Grand Total
Row Labels	1	2	3	4	5	6		
PROV1	23	35	17	25	12	21	133	133
24HR	1				3	19	23	23
ROUT	17	35	17	20	7		96	96
T-CON*	5			3	1	2	11	11
(blank)				2	1		3	3
PROV2	29	26	19	3	2	9	88	88
FTR	4	7	2				13	13
GRP	12	5	4				21	21
PROC	11	14	13	2	2	9	51	51
SPEC	2						2	2
T-CON*				1			1	1
PROV3	35	44	54	48	29	49	259	259
FTR	32	40	43	39	27	40	221	221
PROC		1	2	3			6	6
T-CON*	3	3	9	6	2	9	32	32
PROV4	4	14	49	90	80	76	313	313
24HR	3	10	1	1	4		19	19
FTR	1	1	38	64	56	53	213	213
GRP		3					3	3
PROC				1	1		2	2
ROUT						5	5	5

Graphic of Report Output:



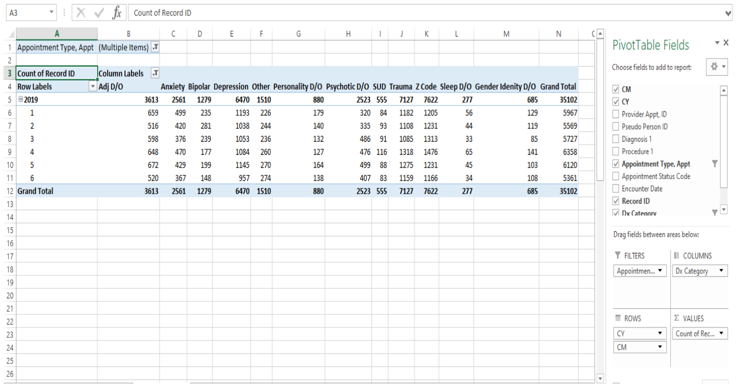
Report: Most Common Diagnoses within the Clinic (Sortable by Year and Provider)

Description: This PivotChart shows a count of all encounters, sorted by diagnostic category. Data is displayed by month to allow you to note trends over time.

Data Used: Encounters

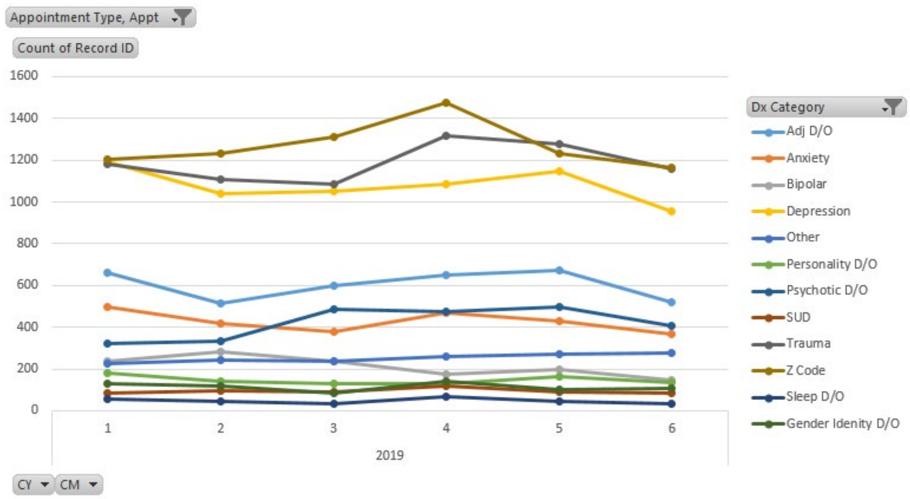
How to create this report:

1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Encounter Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add “CY” and “CM” to “ROWS”
5) Add “Record ID” to “VALUES”
6) Add “Dx Category” to “COLUMNS”
7) Add “Appointment Type” to “FILTERS”
8) Add “Provider Appt, ID” to “FILTERS”
9) Click the filter button next to “Appointment Type” and select the desired Appointment Types



Appointment Type, Appt	(Multiple Items)												
Count of Record ID	Column Labels												
Row Labels	Adj D/O	Anxiety	Bipolar	Depression	Other	Personality D/O	Psychotic D/O	SUD	Trauma	Z Code	Sleep D/O	Gender Idenity D/O	Grand Total
2019	3613	2561	1279	6470	1510	880	2523	555	7127	7622	277	685	35102
1	659	499	235	1193	226	179	320	84	1182	1205	56	129	5967
2	516	420	281	1038	244	140	335	93	1108	1231	44	119	5569
3	598	376	239	1053	236	132	486	91	1085	1313	33	85	5727
4	648	470	177	1084	260	127	476	116	1318	1476	65	141	6358
5	672	429	199	1145	270	164	499	88	1275	1231	45	103	6120
6	520	367	148	957	274	138	407	83	1159	1166	34	108	5361
Grand Total	3613	2561	1279	6470	1510	880	2523	555	7127	7622	277	685	35102

Graphic of Report Output:



Available Filters You can narrow down by calendar year and calendar month (i.e., you could choose to display only one year’s data instead of 2-3). You can also narrow down what diagnosis categories are displayed, for example, you could choose to not display categories with very low numbers. You may also want to filter by Provider as well.

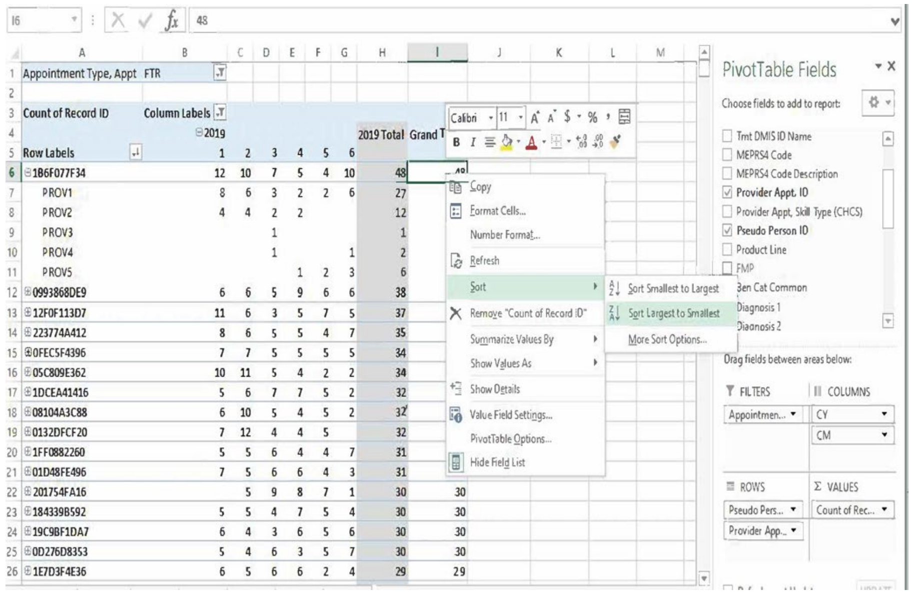
Report: High utilizer. All patients, sorted by Number of Kept Appts.

Description: This PivotChart shows a count of all appointments, sorted by Pseudo Person ID. This is a de-identified field, but by expanding the provider list you can determine who the provider is. The Data is also broken down by Appointment Type. Data is displayed by month to allow you to note trends over time.

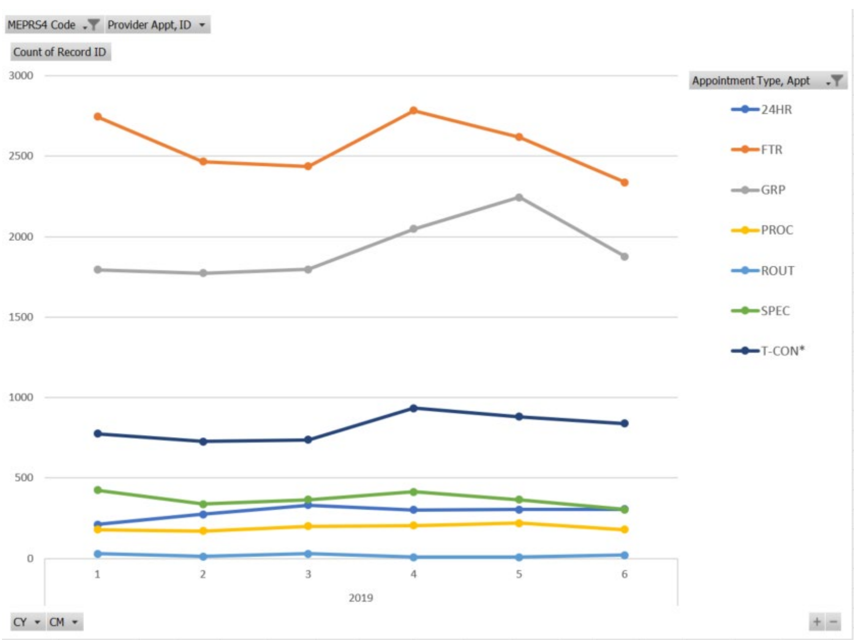
Data Used: Encounters

How to create this report:

1) Open the spreadsheet that has your clinic data
2) Go to the Tab with Encounters Data
3) Follow instructions on pages 6-10 for creating a PivotChart
4) Add “CY” and “CM” to “COLUMNS”
5) Add “Record ID” to “VALUES”
6) Add “Pseudo Person ID” to “ROWS”
7) Add “Provider Appt, ID” to “ROWS”
8) Add “Appointment Type” to “FILTERS”
9) Right click on the first row of Grand Total, Sort “Largest to Smallest”
10) Click the filter next to “Appointment Type , Appt” and select the desired value(s)



Graphic of Report Output:



APPENDIX A: M2 Data Request

Background:

The data requested here will be used in Microsoft Excel files to give Clinic Managers the ability to look at their own clinic's appointment data in new ways through a series of easily built reports and charts. The reports and charts uses locally available data from M2, which must be requested from your Command's M2 office.

The data is drawn from two different tables in M2:

- DC Prof Encounters (CAPER) – This table houses fields that relate to all kept encounters within the hospital.

- Appointment Detail (Direct Care) – This table houses fields that relate to all scheduled appointments, which include appointments that were not kept (e.g., cancellations and no-shows)

General purpose:

The clinic manager, or their designee, should send this request to the Command's M2 office. The text below has detailed instructions for the MTF's M2 account holder to pull the necessary data.

Once you receive the data, you will simply need to follow the instructions in this guide for creating each report.

Specific instructions regarding pulling the data:

In order for the reports and charts to work correctly, the data that is received must be in a very specific format. This is included in the general parameters for how the data is pulled, as well as the exact fields to be included.

General parameters for the data extraction: Field names are listed below in bold.

- **"FY"** – Specify the Fiscal years you want to be included
    - You will want between 2-3 years of clinic data, so that you can see trends in practice patterns over time.
    - Since there is a lag in the M2 data being updated, avoid requesting data from the last 2 months (i.e., if you send in request in January of 2022, have the end date for the data be end of October, 2021).
- **"Tmt Parent DMIS ID"** – This is a number that identifies your facility.
    - Note that some embedded clinics on base may have their own DMIS ID.
- **"MEPERS4 Code"**
    - Ensure you are only looking at the desired clinic
        - Include the code or codes that relate to the adult outpatient behavioral health clinic.
        - Do not include codes that encompass any IOP, Partial hospitalization, child psychiatry, or substance abuse clinics.
    - If your site has more than one clinic (e.g., the main hospital and two embedded behavioral health clinics), the embedded clinics may have their own DMIS ID, and may use a different four-digit MEPERS code for their clinic.

Specific fields to be pulled in the data extract:

The reports and charts will use data two Tabs in the excel file, each based on data coming from a different M2 table. The first tab will contain data from the Encounters table, while the second tab draws on fields from the Appointment table.

For the Encounters data: The following fields are drawn from the **DC Prof Encounters (CAPER) / (Comprehensive Ambulatory/Professional Encounter Record Detail)** M2 Table.

The following fields should be added to the data extraction. Please note that you must select the exact fields listed here, and not substitute other similar fields.

FY
FM
CY
CM
Tmt DMIS ID Name
MEPRS4 Code
MEPRS4 Code Description
Provider Appt, ID
Provider Appt, Skill Type (CHCS)
Pseudo Person ID
Product Line
FMP
Ben Cat Common
Diagnosis 1
Diagnosis 2
Diagnosis 3
E&M Code 1
E&M Code 1 Modifier 1
Procedure 1
Procedure 2
Procedure 3
Appointment Type, Appt
Appointment Status Code
Encounter Date
Record ID
Compliance Status
Encounters

For the Appointment data: The following fields are drawn from the **Appointment Detail (Direct Care) / Appointment Table** M2 Table.

** The following fields should be added to the data extraction. Please note that you must select the exact fields listed here, and not substitute other similar fields.**

FY
FM
CY
CM
Tmt DMIS ID Name
MEPRS4 Code
MEPRS4 Code Description
Provider ID, Appt
Provider Specialty, Appt
Pseudo Person ID
Enrollment Site Parent Name
Ben Cat Common
Appointment Date
Appointment Time
Appointment Made Date
Appointment Status
Appointment Type
Record ID
Assigned Appointment Duration
Number of Appointments

Appendix B: Data Code Reference

For some of the information contained in the two tables, the data is coded rather than being in text. Listed below are the codes that are used for the different fields.

Ben Cat Common	1 = Dependents of Active Duty or Guard/Reserve on Active Duty 2 = Retired 3 = All Others 4 = Active Duty and Guard/Reserve on Active Duty
Appointment Status Code	1 = Pending 2 = Kept 3 = Canceled 4 = No Show 5 = Walk-in 6 = Sick call 7 = Telephone consult 8 = LWOBS 9 = Admin 12 = Booked 14 = Unknown

APPENDIX C: Data Fields and Descriptions

DC Prof Encounters (CAPER)

Field name	Field name in M2	Description
Fiscal Year	**FY**	DoD fiscal year based on disposition date. FY begins on 01 Oct and ends 30 Sept.
Fiscal Month	**FM**	Fiscal Month: Numeric code to identify a particular month the data is valid in the DoD fiscal year. Derived from the service date. 1 = October 7 = April 2 = November 8 = May 3 = December 9 = June 4 = January 10 = July 5 = February 11 = August 6 = March 12 = September
Calendar Year	**CY**	Calendar Year: Numeric Code representing the 12 month calendar year. Derived from the encounter date.
Calendar Month	**CM**	Calendar Month: Numeric code to identify the calendar month. Derived from the encounter date. 1 = January 7 = July 2 = February 8 = August 3 = March 9 = September 4 = April 10 = October 5 = May 11 = November 6 = June 12 = December
DMIS ID	**Tmt DMIS ID Name**	Code that identifies the MTF responsible for the treatment of the patient during the episode of care.
MEPRS4 Code	**MEPRS4 Code**	MEPRS code for the clinic performing the patient care.
MEPRS4 Code Description	**MEPRS4 Code Description**	MEPRS4 Codes and definitions are unique to each MTF
Provider ID	**Provider Appt, ID**	Unique provider identifier for the provider rendering care. For CAPER sites: Entered by MTF staff, the Provider ID normally consists of eight characters of the provider's last name and first initial of first name, or some combination of last name A-numeric characters to arrive at a unique identifier (unique to the CHCS site). For MHS GENESIS sites: The Provider ID is a numeric field unique in the MHS GENESIS system.
Provider Skill	**Provider Appt, Skill Type (CHCS)**	Skill Type for the Appointment Provider based on CHCS Provider Specialty code.
Pseudo Person ID	**Pseudo Person ID**	Encryption algorithm applied to Person ID.

Product Line	**Product Line**	Product line defined by 3rd level MEPRS code.
Family Member Code	**FMP**	A DoD - define code which defines the relationship of the patient to the sponsor. 01-19 = Dependent children of sponsor 20 = Sponsor 30-39 = Spouse of sponsor 40-44 = Mother of sponsor 45-49 = Father of sponsor 50-54 = Mother-in-law of sponsor 55-59 = Father-in-law of sponsor 60-69 = Other dependents 90-95 = Beneficiary authorized by statute 98 = Civilian Humanitarian 99 = All others not elsewhere classified Not currently populated for MHS GENESIS sites.
Beneficiary Code	**Ben Cat Common**	Broadest category of beneficiaries (available for all files). 1 = Dependents of Active Duty or Guard/Reserve on Active Duty 2 = Retired 3 = All Others 4 = Active Duty and Guard/Reserve on Active Duty
Diagnosis 1	**Diagnosis 1**	For FY15 and back, it is an ICD-9-CM code; for FY16 and forward it is an ICD-10-CM code.
Diagnosis 2	**Diagnosis 2**	For FY15 and back, it is an ICD-9-CM code; for FY16 and forward it is an ICD-10-CM code.
Diagnosis 3	**Diagnosis 3**	For FY15 and back, it is an ICD-9-CM code; for FY16 and forward it is an ICD-10-CM code.
Evaluation & Management (E&M) Code	**E&M Code 1**	Evaluation & Management (E&M) Code for the encounter, based on order of entry. E&M Codes are CPT Codes in the range of 99201-99499.
Evaluation & Management (E&M) Code Modifier	**E&M Code 1 Modifier 1**	E&M Code Modifier associated with the specific E&M Code.
Procedure 1	**Procedure 1**	HCPCS/CPT Code for procedures 1
Procedure 2	**Procedure 2**	HCPCS/CPT Code for procedures 2
Procedure 3	**Procedure 3**	HCPCS/CPT Code for procedures 3
Appointment Type	**Appointment Type, Appt**	24HR = Acute appointment 24HR$ = Acute appointment ACUT = Acute appointment ACUT$ = Acute appointment APV = Ambulatory Procedure Visit DROUT = dental, routine EROOM = Emergency Room EST = Established/follow up EST$ = Established/follow up FTR = Future appointment

		FTR$ = Future appointment GRP = Group/class appointment GRP$ = Group/class appointment N-MTF = Non-MTF appointment OPAC = Open Access Appointment OPAC$ = Open Access Appointment PCM = Initial Primary Care appointment PCM$ = Initial Primary Care appointment PROC = Procedure appointment PROC$ = Procedure appointment RNDS* = Inpatient ward appointment ROUT = Routine appointment ROUTS = Routine appointment ROUT$ = Routine appointment SPEC = Initial Specialty Care appointment SPEC$ = Initial Specialty Care appointment T-CON* = Telephone consult WELL = Wellness/Health Promotion Appointment WELL$ = Wellness/Health Promotion Appointment The $ following the appointment name denotes 'MTF book only' appointments. All other values found in this field are invalid values.
Appointment Status Code	**Appointment Status Code**	1 =Pending 2 = Kept 3 = Canceled 4 = No Show 5 = Walk-in 6 = Sick call 7 = Telephone consult 8 = LWOBS 9 = Admin 12 = Booked 14 = Unknown
Encounter Date	**Encounter Date**	Date of the encounter.
Record ID	**Record ID**	The Appointment Identifier Number (which is serially assigned at the time of treatment).
Compliance Status	**Compliance Status**	I = Appointment-inferred CAPER R = CAPER
Encounters	**Encounters**	Count of records.

Appointment Detail (Direct Care)

Field name	**Field name in M2**	**Description**
Fiscal Year	**FY**	DoD fiscal year based on disposition date. FY begins on 01 Oct and ends 30 Sept.
Fiscal Month	**FM**	Fiscal Month: Numeric code to identify a particular month the data is valid in the DoD fiscal year. Derived from the service date.

		1 = October 7 = April 2 = November 8 = May 3 = December 9 = June 4 = January 10 = July 5 = February 11 = August 6 = March 12 = September
Calendar Year	**CY**	Calendar Year: Numeric Code representing the 12 month calendar year. Derived from the encounter date.
Calendar Month	**CM**	Calendar Month: Numeric code to identify the calendar month. Derived from the encounter date. 1 = January 7 = July 2 = February 8 = August 3 = March 9 = September 4 = April 10 = October 5 = May 11 = November 6 = June 12 = December
DMIS ID	**Tmt DMIS ID Name**	Code that identifies the MTF responsible for the treatment of the patient during the episode of care.
MEPRS4 Code	**MEPRS4 Code**	MEPRS code for the clinic performing the patient care.
MEPRS4 Code Description	**MEPRS4 Code Description**	MEPRS4 Codes and definitions are unique to each MTF
	Provider ID, Appt	Unique provider identifier for the provider rendering care. For CAPER sites: Entered by MTF staff, the Provider ID normally consists of eight characters of the provider's last name and first initial of first name, or some combination of last name A-numeric characters to arrive at a unique identifier (unique to the CHCS site). For MHS GENESIS sites: The Provider ID is a numeric field unique in the MHS GENESIS system.
Provider Specialty Code	**Provider Specialty, Appt**	Specialty code of appointed provider
Pseudo Person ID	**Pseudo Person ID**	Encryption algorithm applied to Person ID.
Enrollment Site Parent Name	**Enrollment Site Parent Name**	The name of the parent of the enrollment entity
	Ben Cat Common	Categorization of beneficiaries based on DEERS sponsor status and relationship to sponsor. 1 = Dependents of Active Duty or Guard/Reserve on Active Duty 2 = Retired 3 = All Others 4 = Active Duty and Guard/Reserve on Active Duty
Appointment Date	**Appointment Date**	Date of the appointment.

Appointment Time	**Appointment Time**	Time of the appointment.
Appointment Made Date	**Appointment Made Date**	Date the appointment was made.
Appointment Status	**Appointment Status**	Code indicating the status of the appointment. 1 = Pending 7 = Telcon 2 = Kept 8 = LWOBS 3 = Canceled 9 = Admin 4 = No Show 10 = Occ-Svc 5 = Walk In 12 = Booked 6 = Sick Call 14 = Unknown
Appointment Type	**Appointment Type**	"24HR = Acute Care ACUT = Acute Care APV = Ambulatory Procedure Visit DROUT = Dr Unavailable EROOM = Emergency Room EST = Established Patient FTR = Future GRP = Group N-MTF = Non MTF OPAC = Open Access PCM = Primary Care Manager Appointment PROC = Procedure RNDS = Rounds ROUT = Routine SPEC = Specialty T-CON = Telephone Consult WELL = Wellness Blank = Unknown The $ following the appointment name was (is) used to denote 'MTF book only' appointments."
Record ID	**Record ID**	The Appointment Identifier Number (which is serially assigned at the time of treatment).
Assigned Appointment Duration	**Assigned Appointment Duration**	Assigned length of appointment in minutes.
Number of Appointments	**Number of Appointments**	# of Appointments for the query. Set to 1 for all records