



HFMA 2023 Winter Enterprise: Excel Training

Practical Excel for Healthcare Financial Management

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DATE: February 16, 2023



Introduction

- Presenter background
- Goals of this training
- Participant experience level?
- Common Issues?
- Why Excel?

Excel Fundamentals

- Navigation & Shortcuts
- Formulas & Logic
- Design & Formatting
- Pivot Tables
- Charts
- Other Tips
- We'll cover as much as possible today

Key Techniques

- Always Tie Out
- Reference Locking
- Text & Variable Formulas
- Top Formulas
- Date Lookup Table
- Print Setup

Good Reporting Etiquette

- Define print settings
- Break external links
- Highlight key values
- Avoid loud or high contrast colors
- Use footnotes and comments
- Use relevant file names
- Use monthly or annual column structure
- Avoid emailing image without attachment



Always Tie out

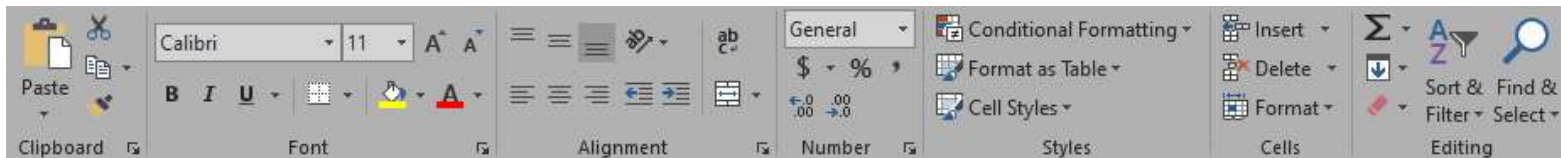
- Always tie-out to “source of truth” reports



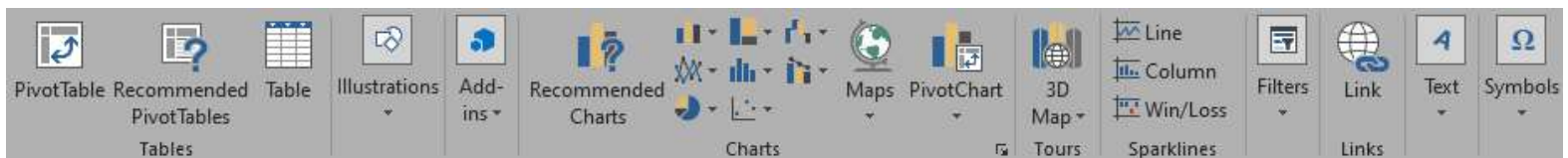
- Create tie-out formulas along columns and rows throughout reports to ensure formula or data errors pop out and can be corrected
- Link additional reports to primary tie-out report
- Use warning message to quickly identify if any of the tie-outs have been broken

Navigation: Excel Ribbon

- **File:** Loading, Saving, Recent Files, Options
- **Home:** Formatting and Basic actions



- **Insert:** Add Charts, Tables, Images, and Pivot Tables

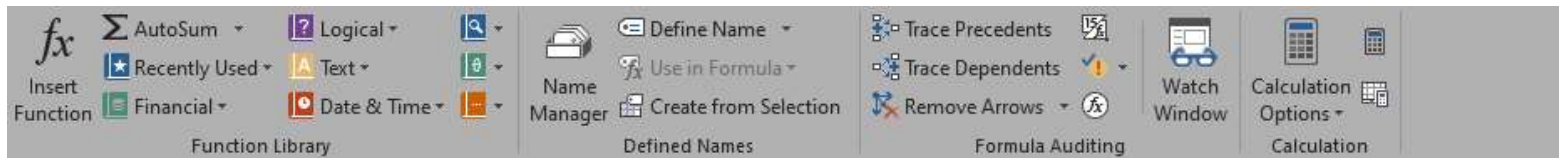


- **Page Layout:** Page Setup, Print Settings, Sheet Options

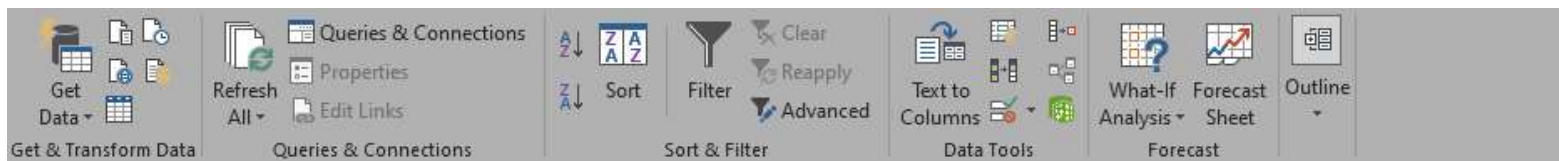


Navigation: Excel Ribbon

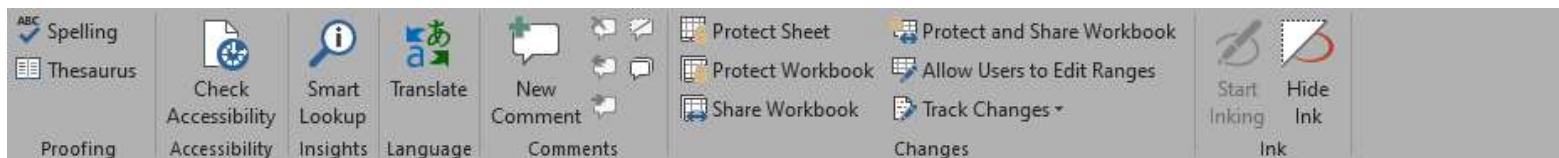
- **Formulas:** Functions, Named Ranges, Auditing



- **Data:** Filters, Connections, Data Tools, Outline, Analysis



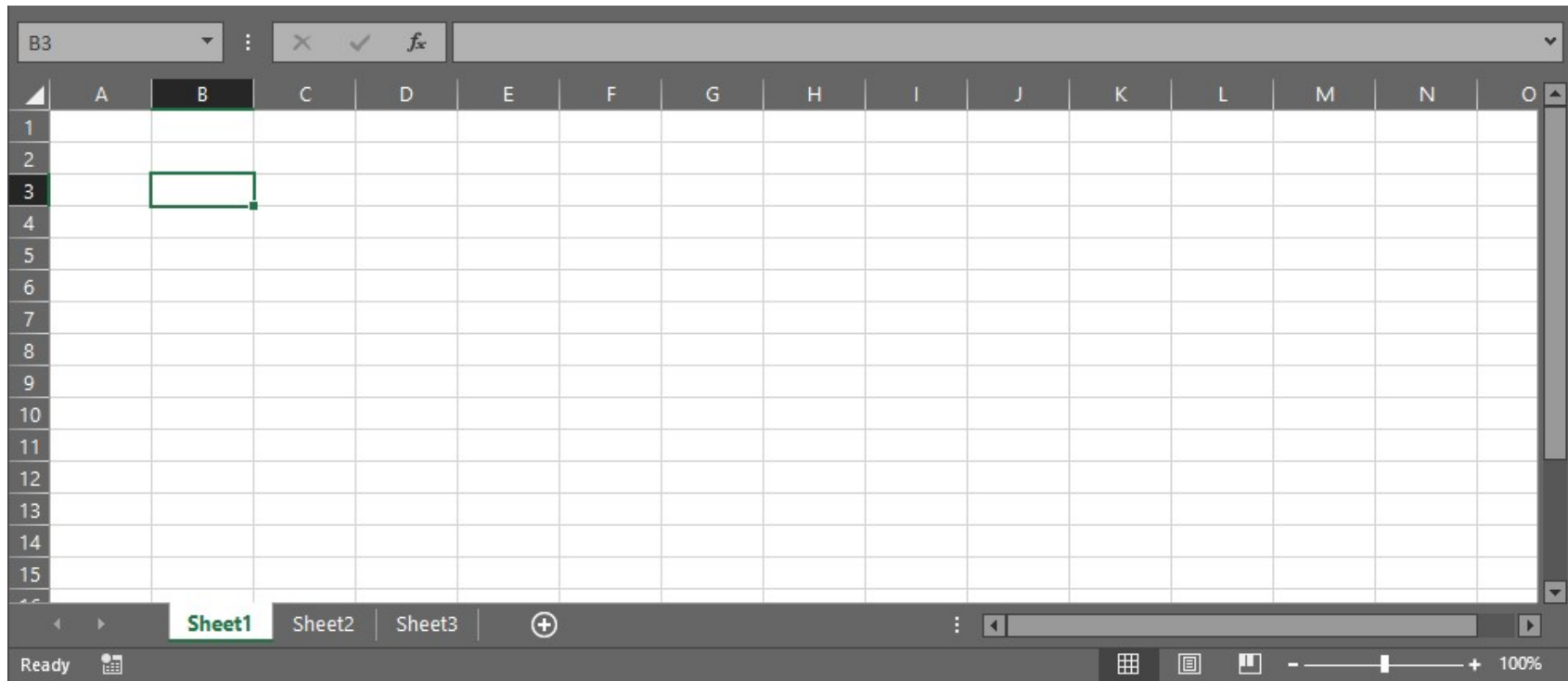
- **Review:** Proofing, Comments, Protection



- **View:** Layout, Zoom, Freeze Panes



Navigation



- Range Reference & Formula Window
- Tab Names and Order
- Zoom & Layout

Shortcuts

- **Basic Operations**

- **Ctrl + N, O, S, W, P** : New, Open, Save, Close, Print
- **Ctrl + C, V, Z, Y** : Copy, Paste, Undo, Redo

- **File Navigation**

- **Ctrl + PgDn / PgUP** : Next/Prev Worksheet
- **Ctrl + Tab** : Next Workbook
- **Alt + Tab** : Switch Window **!!**
- **Switch Windows** : Right Click Add to Quick Access Toolbar

- **Formula Editing**

- **F2** : Edit Cell
- **F4** : Lock Reference
- **Ctrl + ~** : View Formulas

Shortcuts

- **Selecting**

- **Ctrl + Click** : Multiple Cell Select
- **Shift + Click** : Select Range
- **Ctrl + Arrow** : Move to Edge of Data Region
- **Ctrl + Shift + Arrow** : Select to Edge of Data Region
- **Shift + Space** : Select Row, Horizontal Range
- **Ctrl + Space** : Select Column, Vertical Range
- **Ctrl + A** : Select Group, Select All
- **Ctrl + G** : Go To Dialog, Special Select

- **Others**

- **Ctrl + Wheel** : Zoom, also **Ctrl + Alt & +/-**
- **Ctrl + Shift + F** : Format Options, also **Ctrl + 1**
- **Ctrl + Alt + V** : Paste Special Options
- **Ctrl + [** : Open File for Linked Value

Formulas: Basic

- **SUM** : adds numbers
=SUM(number1, number2, ...)
- **COUNT** : counts cells that contain numbers
=COUNT(value1, value2, ...)
- **AVERAGE** : arithmetic mean of numbers
=AVERAGE(number1, number2, ...)
- **MAX** : largest value in set of values
=MAX(number1, number2, ...)
- **MIN** : smallest value in set of values
=MIN(number1, number2, ...)
- **SUMPRODUCT** : sum of products in ranges or arrays
=SUMPRODUCT(array1, array2, ...)

Formulas: Text

- **LEFT** : specified number of characters from start
=LEFT(text, num_chars, ...)
- **RIGHT** : specified number of characters from end
=RIGHT (text, num_chars, ...)
- **MID** : characters using start position and length
=MID(text, start_num, num_chars)
- **TEXT** : converts value to text in a specified format
=TEXT(value, format_text)
 - “0.0%” show percentage to one decimal
 - “0,0” use comma separated whole number
 - “\$0,0,K” add currency symbol and show factor by 1,000

Formulas: Text

- **VALUE** : converts text number to number value
=VALUE(text)
- **UPPER** : converts text to all uppercase letters
=UPPER(text)
- **PROPER** : converts text to proper case, 1st uppercase
=PROPER(text)
- **TRIM** : removes all spaces from text except for single spaces between words
=TRIM(text)
- **CONCAT** : joins several strings into one text string
=CONCAT(text) or just use **&** to combine cells

Formulas: Logical

- **Inequalities**
 - > , < : Greater/Less Than
 - >= , <= : Greater/Less Than or Equal To
 - = , <> : Equal, Not Equal
- **IF** : returns one value if TRUE, another if FALSE
=IF(logical_test, value_if_true, value_if_false)
- **AND** : checks whether ALL arguments are TRUE
=AND(logical_test1, logical_test2, ...)
- **OR** : checks whether ANY of the arguments are TRUE
=OR(logical_test1, logical_test2, ...)
- **COUNTIFS** : counts cells specified by given conditions
=COUNTIFS(criteria_range, criteria, ...)

Formulas: SUMIFS

- **SUMIFS** : adds cells specified by given conditions !!

=SUMIFS(sum_range, criteria_range, criteria, ...)

- Probably the most useful formula in Excel
- Best ways to create tables using only 1 formula
- Wildcards: * before, after, or surrounding; ? any character

202210					
Procedure	Procedure Name	Clinic1	Clinic2	Clinic3	Total
40001263	HB INFLUENZA ADMIN M/CARE	48,832	17,808	39,424	106,064
90003047	HB PNEUMOCOCCAL VACC,13 VAL IM	11,686	13,498	25,456	50,639
90003291	HB INFLUENZA VACC, QUADRIVALENT,PF,	23,835	5,901	16,657	46,393
90001107	HB THERAPEUTIC INJ SQ/IM	4,464	6,192	8,064	18,720
30001164	HB ROUTINE VENIPUNCTURE	2,413	14,991	-	17,404
40001264	HB PNEUMOVAX ADMIN M/CARE	2,814	3,093	5,282	11,189
90001085	HB PNEUMOCOCCAL VACCINE	=SUMIFS(Detail!\$L:\$L,Detail!\$E:\$E,Pivot2!\$B\$31,Detail!\$C:\$C,Pivot2!\$D\$24,Detail!\$A:\$A,Pivot2!\$B\$22)			
70001392	HB SHOULDER 2+ VIEWS	-	7,499	-	7,499
80002551	HBOL PROTHROMBIN TIME	4,270	2,520	-	6,790
90001010	HB IMMUNIZATION ADMIN SGL	2,259	672	3,808	6,739
Total		103,409	74,895	102,337	280,642

Lock column

Lock row

Lock cell

Formulas: Reference

- **VLOOKUP** : looks for value in leftmost column, returns value in the same row from specified column
`=VLOOKUP( lookup_value, table_array, col_index_num, range_lookup )`
- **HLOOKUP** : looks for value in top row, returns value in the same column from specified row
`=HLOOKUP( lookup_value, table array, row_index_num, range_lookup )`
- **OFFSET** : returns reference that is a given number of rows and columns from a given reference
`=OFFSET( reference, rows, cols, height, width )`
`=SUM( reference : OFFSET( reference, rows, cols ) )`

Formulas: Reference

- **INDEX** : returns value or reference of cell at the intersection of particular row and column
`=INDEX( array, row_num, column_num )`
- **MATCH** : returns relative position of item in array that matches specified value, in specified order
`=MATCH( lookup_value, lookup_array, match_type )`
- **INDEX+MATCH** : used like a VLOOKUP, but can go left
`=INDEX( ... , MATCH( lookup_value, lookup_array, match_type )`
- **INDIRECT** : returns reference specified by text string
`=INDIRECT( ref_text )`
 - Start with reference inside formula with quotes, `=INDIRECT("Data!Q17")`
 - Replace text with variable references, `=INDIRECT(F35&"!"&G35&"17")`

Formulas: Other Top Formulas

- **SUBTOTAL** : returns subtotal in a list
=SUBTOTAL(function_num, ref1, ...)
 - Tip: use function_num 9 for SUM, helpful to sum filtered array
- **ROUND** : rounds number to specified number of digits
=ROUND(number, num_digits)
 - Tip: use 2 for accounting data to avoid division rounding errors
 - Tip: use negative num_digits value to round large numbers
- **IFERROR** : returns specified value or text if error
=IFERROR(value, value_if_error)

Error	Meaning
#DIV/0!	Trying to divide by 0
#N/A!	A formula cannot find the referenced data
#NAME?	Text in the formula is not recognized
#NULL!	A space was used in formulas that reference multiple ranges
#NUM!	A formula has invalid numeric data for the type of operation
#REF!	A reference is invalid
#VALUE!	The wrong type of operand or function argument is used

Formulas

- Nested Logical Statements

- Use multiple IFs, or combine with AND/OR elements

=IF(OR(logical_test1, logical_test2), value_if_true, IF(logical_test3, value_if_true, value_if_false))

- Relative and Absolute references

- Using F4 to control Locking of Row and Column definitions
- \$A\$1 (absolute), A\$1 (row), \$A1 (column), A1 (unlocked)

- Fixed Text and Variable elements

- Use ampersand & to join or concatenate elements
- Use quotes " " to insert fixed elements

=“Text string ”&Formula&“Text string ”&Formula

=“The answer is equal to ”&A1

=“Net Income is ”&TEXT(A1, “\$0,0,K”)&“ YTD, which is favorable
“&TEXT(B1,“0%”)&“.”

Formulas: More Features

- **Named Ranges**
 - Name variables with a letter or short word in reference window
 - Update or change names in the Name Manager
- **Function Autocomplete**
- **Dragging Formulas and Values**
- **Autofill Selected Range with Ctrl + ENTER**
- **Refresh Formula F9**
- **Formula Auditing**
 - Trace Arrows
 - Error Checking
 - Circular References

Formatting: Basic

- **Format Cells Dialog**

- Launch using Ribbon Icon or **CTRL + SHIFT + F** or **CTRL + 1**

- **Number**

- Change format type, Currency, Accounting, Date, Percentage, Text, etc.

- **Font**

- Change font, size, color, emphasis

- **Borders**

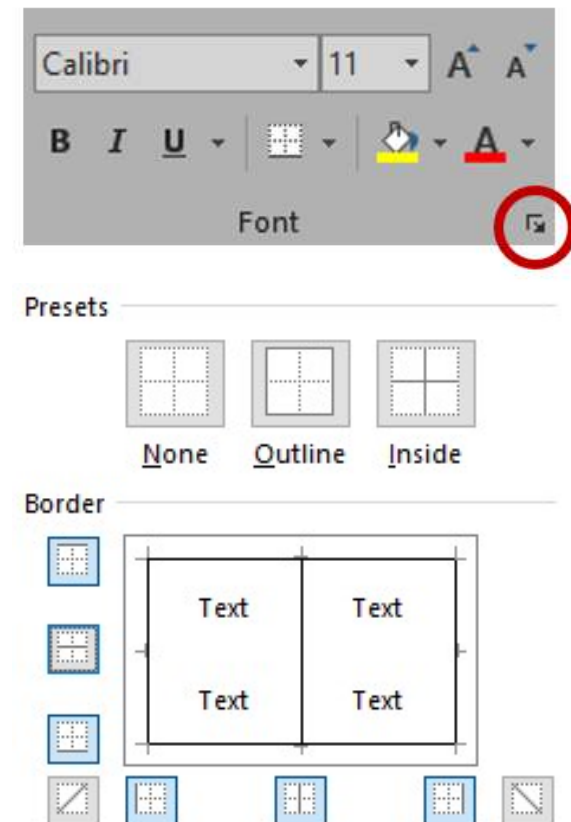
- Customize border edges, styles, colors

- **Fill**

- Customize cell colors, RGB values, gradients

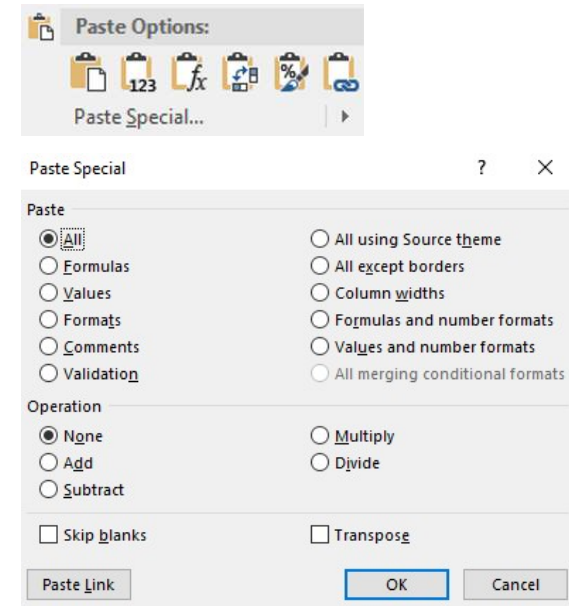
- **Alignment**

- Adjust alignment, indents, wrapping, merging



Formatting: Paste Special

- Right Click Shortcuts
- Open Dialog **Ctrl + ALT + V**
- Values
 - Eliminate formulas and/or formats
 - **Ctrl A + Ctrl C + Paste Special Values**
 - **Select Range, Right Click & Drag, Copy Here as Values Only**
- Formulas
 - Paste formulas without messing up formats
- Format
 - Paste formats only, can be easier than applying settings manually
- Transpose
 - Useful for converting column into row, or vice versa; convert to values first
- Multiply
 - Useful for converting large array of text based numbers into values.
 - Using standard 'convert to number' can create long delays or crash Excel.
 - Put a 1 in any cell, copy, select range, paste special 'Multiply'



Formatting: Page Layout

- **Gridlines**

- Generally better to turn off, and create your own borders



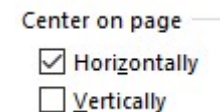
- **Print Preview**

- Use **CTRL + P**, enable margin markers in bottom right hand corner



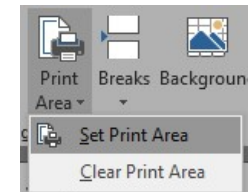
- **Margins**

- Start with Presets, then customize in Print Preview or Page Setup
 - Consider option to Center on Page Horizontally or Vertically



- **Print Area**

- Highlight area to print and then **Set Print Area**



- **Page Break View**

- Drag Print Area borders, useful to avoid orphan/widow content

- **Page Setup**

- Dialog with settings all in one place, Useful icon to bring up dialog on Page Layout ribbon, or use **CTRL + P** and select "Page Setup" link



Formatting: Page Layout

- **Scaling**

- Use **Fit to** for printing on one page, or increase tall value for multiple pages
- Use **Adjust to %** to fine tune scaling

- **Col/Row Size**

- Right Click Headings and select Row Height or Column Width to define size
- Highlight columns, click on edge of column to auto-size each column, then expand a little bit, then set value to nearest whole value

- **Col/Row Repeat**

- Sheet Options icon on Page Layout tab, or Sheet tab in Page Setup dialog
- Click in box, then select Rows or Columns to be repeated in print out
- Very useful to keep heading/label row on multiple pages of data printout

Formatting: Page Layout

- **Freeze Panes**

- View ribbon, freeze top, left, or both sections to remain visible when scrolling through large worksheet. Select row beneath top header, or column to the right of left labels

- **Zoom**

- View ribbon, can be useful to fit contents on screen with **Zoom to Selection**
- Also easy to use Zoom shortcut **Ctrl + Wheel** or **Ctrl + Alt & +/-**

- **Outline Groups**

- Data ribbon, select rows/columns, select **Group** for expandable sections
- Use corner icon in **Outline** section to open **Settings**, check or uncheck boxes to control if group icon is on right/left or top/bottom of outline group detail

Formatting: Conditional Formatting

- Highlights

- Based on cell value
- Easy way to see duplicate or unique values !!

- Color Scales

- Set minimum and maximum based on value or percentage
- Change midpoint from 50 percentile to 0 number value

- Icon Sets

- Traffic lights and arrows to illustrate variance or change values

Revenue Drivers/Volume	Actual	Budget	Variance	Var %
Admissions	2,460	2,299	● 161	7.0%
Average Length of Stay (ALOS)	6.4	5.5	● (0.9)	(16.4%)
Ambulatory Visits	78,073	75,929	● 2,144	2.8%
Emergency Department Visits	3,841	4,137	● (296)	(7.2%)
Surgical Cases	2,904	2,694	● 210	7.8%
CMI (Excluding Normal Newborn)	2.12	2.06	● 0.06	2.9%
Outpatient Share of Activity %	49.5%	50.3%	● (0.7%)	(1.5%)
Occupancy% IP/Day/Obs Non-Specialty	98.1%	85.5%	● 12.6%	14.8%
CMI/OP Adjusted Admissions	10,332	9,520	● 812	8.5%

Formatting: Conditional Formatting

- New Rule

- “Format only cells that contain”

- Tip: use “Cell Value less than 0” to format red font while using Accounting Number Format

- “Use a formula to determine which cells to format”

- Tip: use relative locking in formula to apply formatting to entire range. For example, try using =ISODD(ROW(\$A3)) and change fill color to create banded rows in table of data

- Manage Rules

- Show formatting rules for: ‘This Worksheet’

- Edit Applies to range

- Delete duplicate rules

- Tip: Use Paste Special values or Paste Special formulas to avoid duplicating conditional formatting rules.

Other Tips

- **Advanced Filters**
 - Text Filters, Number Filters, Filter by Color
- **Remove Duplicates**
 - Data Ribbon, Easy way to get unique values from data list
- **Data Validation / Dropdowns**
 - Data Ribbon, Select List from Allow dropdown, Select range in Source window or type in options manually
- **Goal Seek**
 - Data Ribbon, What-if Analysis
 - Set cell (reference), To value (value), By changing cell (reference)
- **Use data illustrations in Email**
 - Copy illustration, Paste into Email, Right click Table icon, Select Table Properties, Uncheck size options on each tab to allow adaptive sizing

Dates

- **Basic Date Formatting**

- Date serial values based on whole number of days from 1/1/1900.
- For example, the underlying value of 2/16/2023 is equal to 44,973
- Times are based on decimal values where 1 is equal to 24 hours
- Many date formats available to change look of given serial value
- Be careful not to include Date or Time cells in SUM ranges

- **Today**

- Today() to generate dynamic value equal to today's date
- Use shortcut **CTRL + ;** to generate fixed value equal to today's date
- Also can use **CTRL + SHIFT + ;** to generate current time
- Full time stamp shortcut **CTRL + ; SPACE CTRL + SHIFT + ;**

- **Customize formats further using TEXT formula**

- UPPER(TEXT(TODAY(),"mmm"))&"-"&TEXT(TODAY(),"yy") = FEB-23

Dates

- **Date VLOOKUP Table**

- Create table with various date Formats and values that can be used dynamically in your report as period changes

8 2023

1	July	JUL	31,	One	July 31, 2022	202207
2	August	AUG	31,	Two	August 31, 2022	202208
3	September	SEP	30,	Three	September 30, 2022	202209
4	October	OCT	31,	Four	October 31, 2022	202210
5	November	NOV	30,	Five	November 30, 2022	202211
6	December	DEC	31,	Six	December 31, 2022	202212
7	January	JAN	31,	Seven	January 31, 2023	202301
8	February	FEB	28,	Eight	February 28, 2023	202302
9	March	MAR	31,	Nine	March 31, 2023	202303
10	April	APR	30,	Ten	April 30, 2023	202304
11	May	MAY	31,	Eleven	May 31, 2023	202305
12	June	JUN	30,	Twelve	June 30, 2023	202306

- Use Named Ranges such as **MO** & **FY** to make formula writing easier
- `VLOOKUP(MO,Date_Table,6,false)` equals “February 28, 2023”
- `“FY”&RIGHT(FY,2)&“ YTD”` equals “FY23 YTD”

Pivot Tables

- Create a flexible table that can slice and dice a data set using various fields for rows and columns as well as filters
- **Step 1:** Go to Insert Ribbon, Select PivotTable
- **Step 2:** Select a table or range
- **Step 3:** Drag elements from Field List into sections for Columns, Rows, Values, and Filters
- **Step 4:** Adjust Report Layout and Subtotal options
- **Step 5:** Adjust Formatting and Style options

Pivot Tables

- **Select Range, Row & Column Labels, Values, & Filter**
 - Report Layout: tabular form
 - Pivot Table Options: For empty cells show 0
 - Pivot Table Options: Check Preserve cell formatting on update
 - Value Field Settings: Change from COUNT to SUM
 - Value Field Settings: Check 'Include new items in manual filter'
 - Value Field Settings: Check 'Show items with no data'
 - Change Data Source: Leave extra room if table grows over time, filter out (blank)
 - Refresh Pivot Table: **ALT + F5**
- **Value Filters**
 - Use inequalities, or Top/Bottom
- **More Sort Options**
 - Choose column, Ascending/Descending
 - Manual sorting rows by dragging label handle up or down
- **Calculated Fields**
 - Fields, Items & Sets > Calculated Field
 - Create new field name, and construct formula from existing fields

Pivot Table Data Analysis

Gross Charges by Month

Sum of Charges		YYYYMM ▼				
DEPT ▼	DEPT Name ▼	202207	202208	202209	202210	Grand Total
☐ 30001	Clinic1	55,865	73,004	71,872	133,839	334,580
☐ 30002	Clinic2	98,591	108,693	102,785	135,335	445,404
☐ 30003	Clinic3	47,853	80,067	65,348	121,013	314,281
Grand Total		202,309	261,764	240,006	390,187	1,094,265

Payer Mix by Month

DEPT Name (All) ▼

using Show Values As % of Column Total

Sum of Charges		YYYYMM ▼				
4CLASS ▼		202207	202208	202209	202210	Grand Total
Commerical		22.77%	20.98%	22.64%	15.76%	19.81%
Medicaid		22.88%	21.36%	20.53%	20.59%	21.18%
Medicare		54.19%	57.75%	56.64%	63.65%	58.95%
Non-Sponsored		0.16%	-0.09%	0.19%	0.01%	0.05%
Grand Total		100.00%	100.00%	100.00%	100.00%	100.00%

Pivot Table Data Analysis

Top 10 Procedures by Charges

YYYYMM 202210

um of Charge	DEPT Name				
Procedure	Procedure Name	Clinic1	Clinic2	Clinic3	Grand Total
40001263	HB INFLUENZA ADMIN M/CARE	48,832	17,808	39,424	106,064
90003047	HB PNEUMOCOCCAL VACC,13 VAL IM	11,686	13,498	25,456	50,639
90003291	HB INFLUENZA VACC, QUADRIVALENT,PF,	23,835	5,901	16,657	46,393
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30001164	HB ROUTINE VENIPUNCTURE	2,413	14,991	-	17,404
40001264	HB PNEUMOVAX ADMIN M/CARE	2,814	3,093	5,282	11,189
90001085	HB PNEUMOCOCCAL VACCINE	2,836	2,721	3,646	9,204
70001392	HB SHOULDER 2+ VIEWS	-	7,499	-	7,499
80002551	HBOL PROTHROMBIN TIME	4,270	2,520	-	6,790
90001010	HB IMMUNIZATION ADMIN SGL	2,259	672	3,808	6,739
Grand Total		103,409	74,895	102,337	280,642

Pivot Table Data Analysis

Net Revenue by Month and Clinic

Net Revenue = Payments + Estimate Collections + Adjustments

Collectability% = Net Revenue / Charges

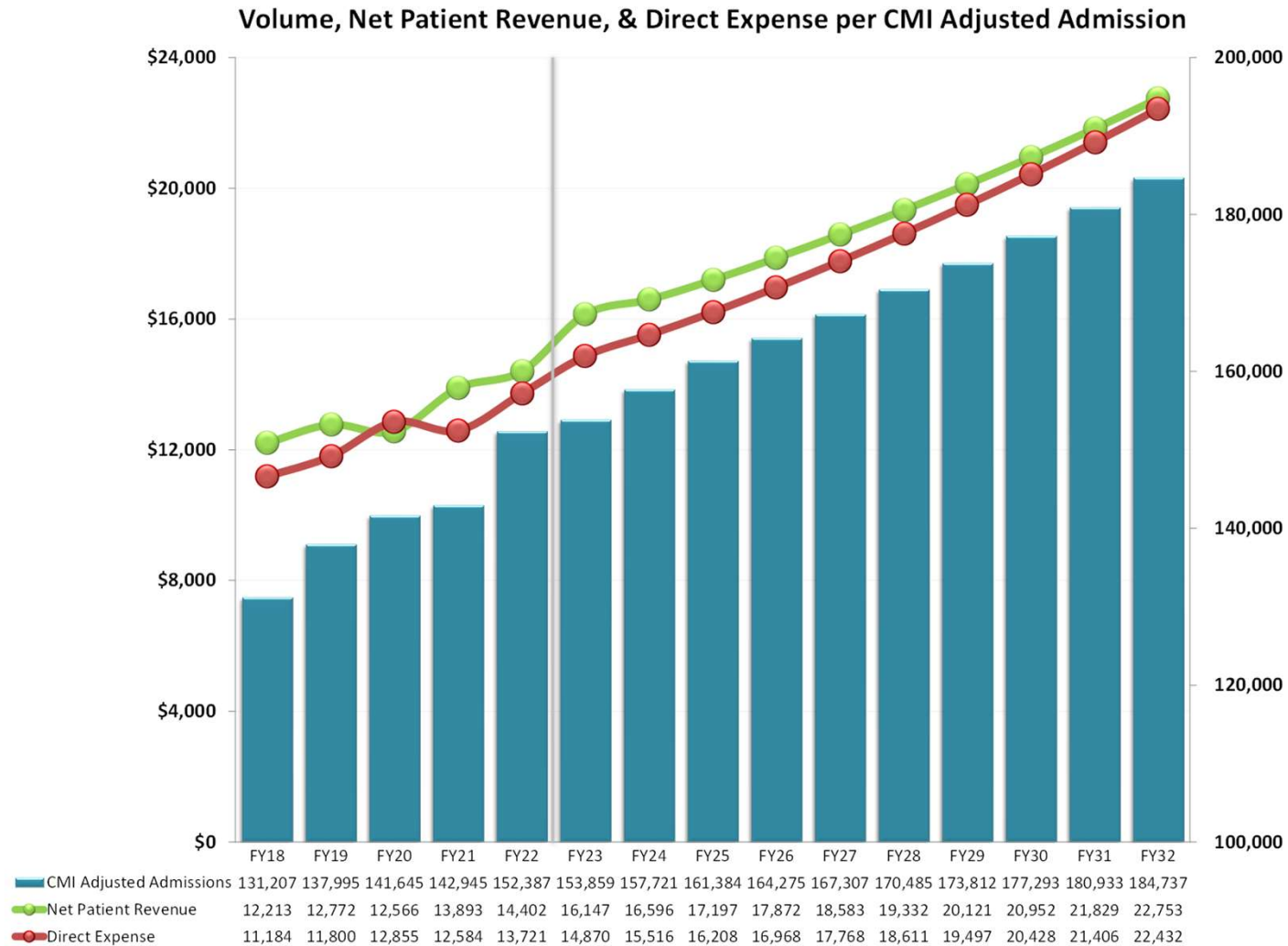
Row Labels ▼	Sum of Charges	Sum of Payments	Sum of EST COL	Sum of Adjust	Sum of Net Revenue	Sum of COL%
Clinic1	334,580	91,753	26,798	11,490	130,041	39%
202207	55,865	17,500	807	1,864	20,171	36%
202208	73,004	23,518	959	2,781	27,259	37%
202209	71,872	25,078	2,330	2,537	29,944	42%
202210	133,839	25,657	22,701	4,309	52,667	39%
Clinic2	445,404	128,730	44,993	10,612	184,335	41%
202207	98,591	34,348	3,852	2,255	40,455	41%
202208	108,693	37,347	4,875	2,820	45,041	41%
202209	102,785	33,589	7,055	1,924	42,568	41%
202210	135,335	23,447	29,211	3,613	56,271	42%
Clinic3	314,281	58,370	42,864	6,064	107,299	34%
202207	47,853	13,387	460	1,579	15,425	32%
202208	80,067	21,569	2,021	1,942	25,533	32%
202209	65,348	15,142	4,202	2,074	21,418	33%
202210	121,013	8,272	36,182	469	44,923	37%
Grand Total	1,094,265	278,853	114,655	28,166	421,674	39%

Charts

- **Select Chart Type**
 - Clustered Column, Stacked Column, 100% Stacked Column, Line, Line with Markers
- **Select Data**
 - highlight 'Chart data Range', or add individual 'Series'
- **Add/Position elements**
 - Chart Title, Legend, Data Labels, Gridlines, Analysis lines/bars
- **Format Data Series**
 - Adjust Line Chart options for Width, Color, Markers
 - Adjust Column Chart options for 'Gap Width'
 - Line Style option, try 'Smoothed' line
- **Format Axis**
 - Set Minimum, Maximum, Major unit, & Minor unit
 - Add Display Units for 'Thousands' or 'Millions'
- **Plot more than one type of chart using Secondary Axis**
- **More Tips**
 - Leave formatting dialog open while clicking various elements
 - Create dynamic titles or text box content using formula editor

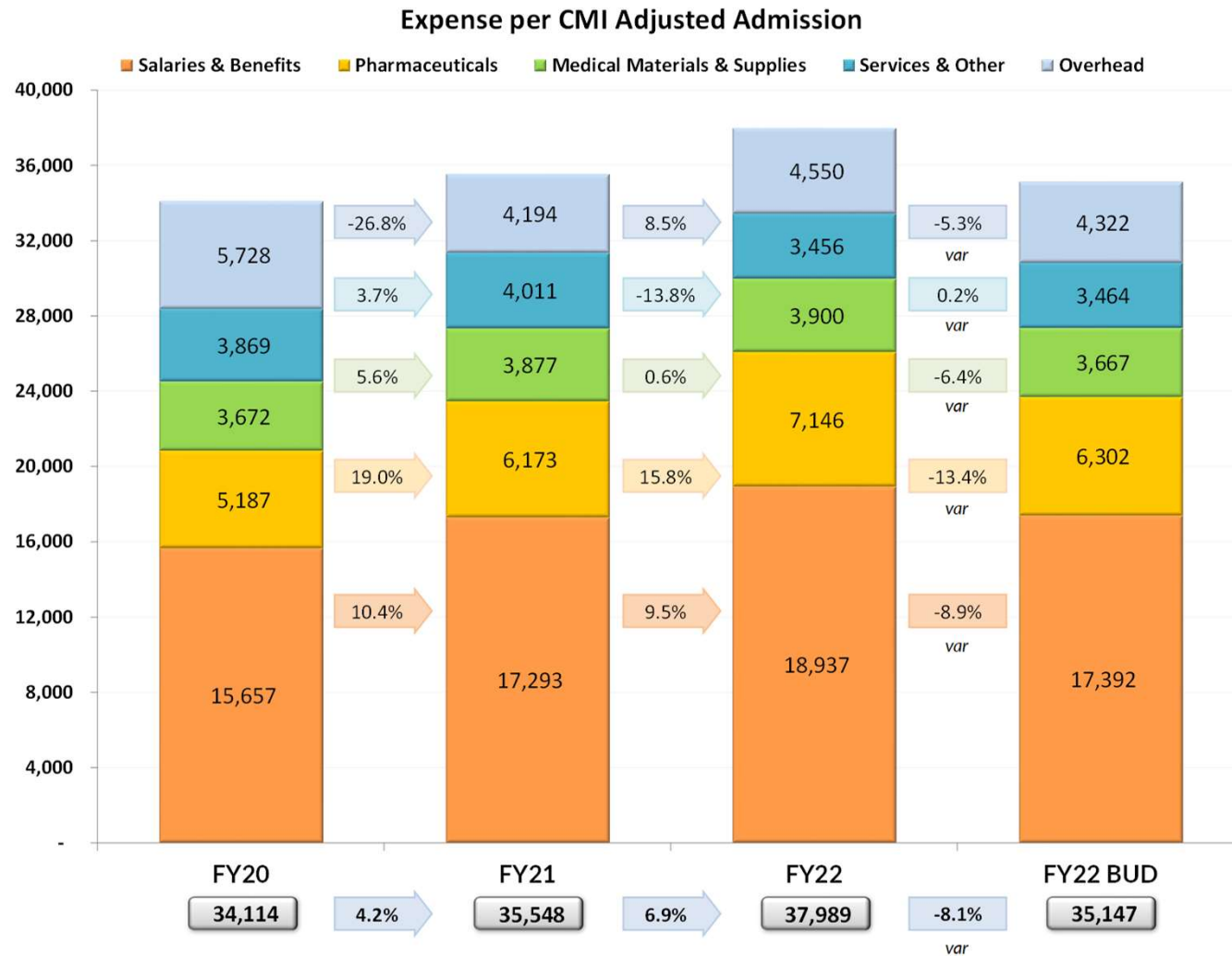
Charts

- hybrid line and column, secondary axis, shapes



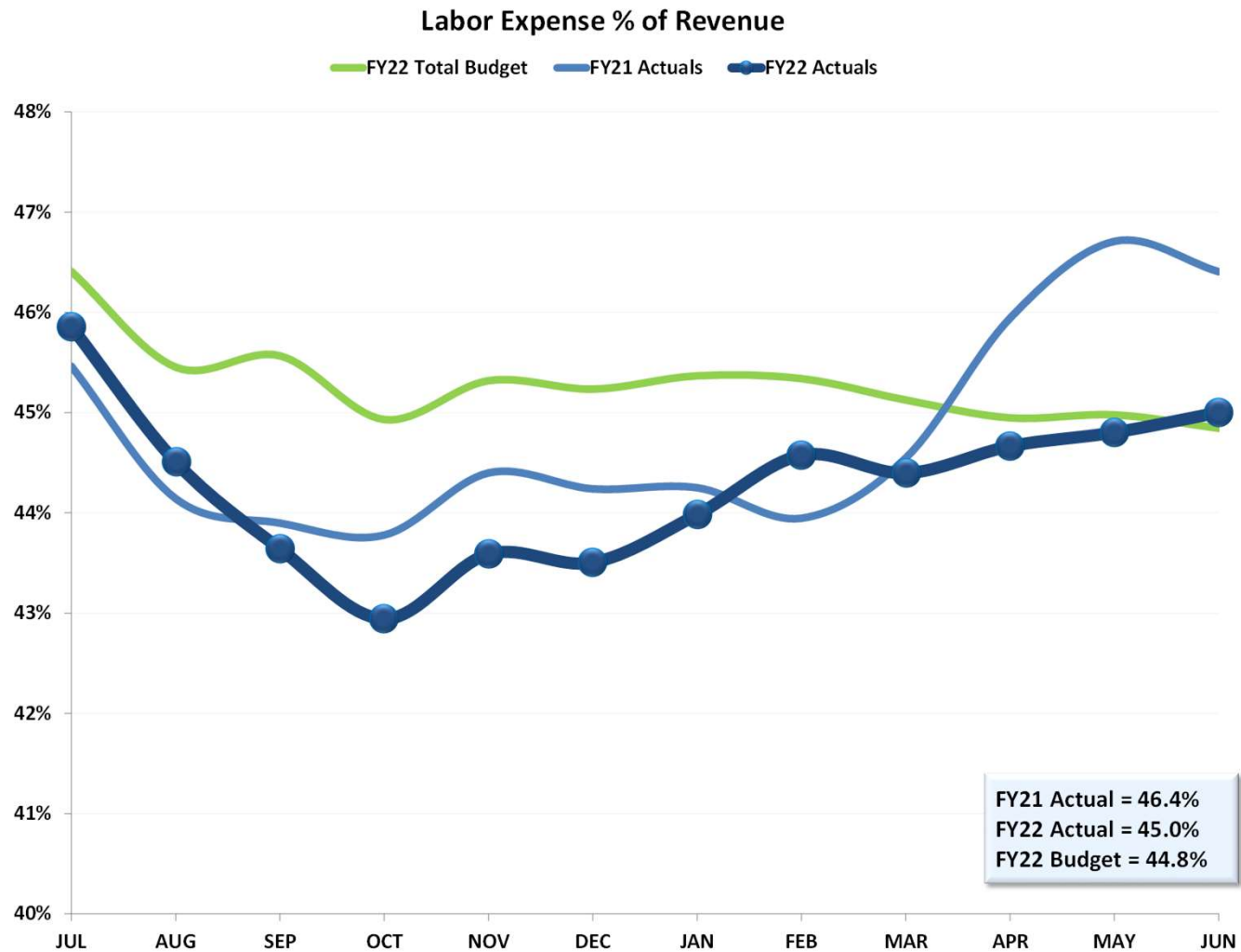
Charts

- stacked column, shapes with variables, alignment



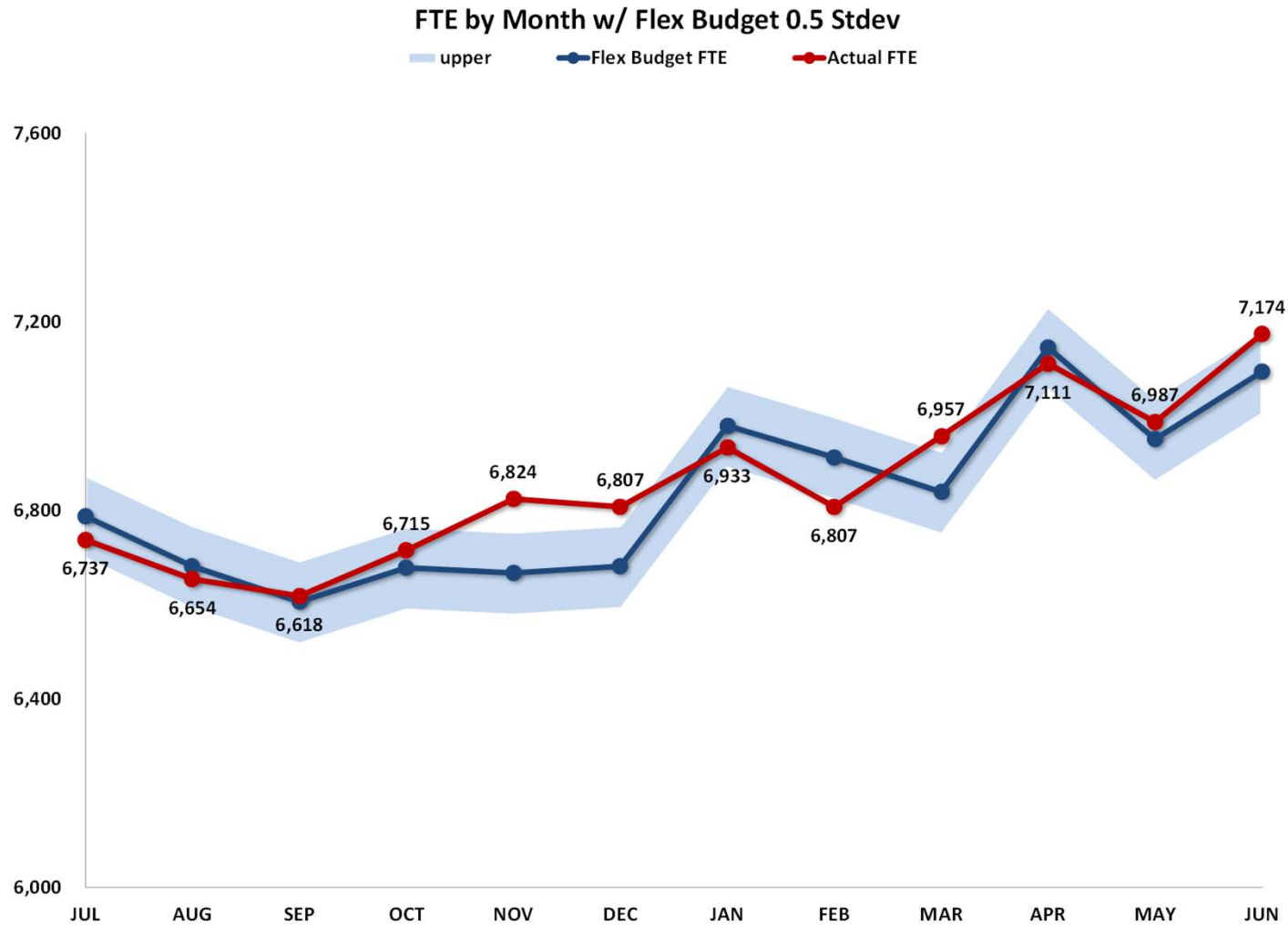
Charts

- lines, markers, smooth, shape with text/variable



Charts

- lines and layered area to create bands, data labels



Application: Profit & Loss Financials

- Building P&L from GL data using SUMIFS and VLOOKUPS

[illegible]

Application: Profit & Loss Financials

- **VLOOKUPS** – map data to account and department dimensions
- **HEADER** – create dynamic fiscal year and accounting date
- **SUMIFS** – create monthly trend sections
- **OFFSET** – reference year-to-date or monthly values
- **IFERROR** – avoid errors from dividing by zero
- **TIEOUT** – ensure accuracy and create alert message for errors
- **OUTLINE** – expand/collapse groups of rows & columns
- **COLORS** – use shading to improve readability
- **VALIDATION** – create group and month selector for SUMIFS & OFFSET
- **COND FORMATTING** – use red negatives and variance icons
- **PRINT SETTINGS** – set orientation, fit to one page, margins, alignment

Application: Profit & Loss Financials

	Monthly				Year to Date						
	Actuals	Budget	Variance	%	Actuals	Budget	Variance	%	Prior Year	Change	%
	FEB-22	FEB-22	FEB-22	FEB-22	YTD	YTD	YTD	YTD	YTD	YTD	YTD
Inpatient	193,551	190,505	3,046	1.6%	1,613,840	1,618,410	(4,570)	-0.3%	1,493,599	120,241	8.1%
Outpatient	257,000	243,528	13,473	5.5%	2,126,620	2,069,455	57,165	2.8%	1,788,960	337,660	18.9%
Gross Charges	450,551	434,033	16,518	3.8%	3,740,460	3,687,865	52,595	1.4%	3,282,560	457,901	13.9%
OP/GPR%	57.0%	56.1%	0.9%		56.9%	56.1%	0.7%		54.5%	2.4%	
Revenue Deductions	(280,565)	(267,487)	(13,078)	-4.9%	(2,322,364)	(2,274,635)	(47,729)	-2.1%	(1,998,008)	(324,356)	-16.2%
Net Patient Revenue	169,986	166,546	3,441	2.1%	1,418,096	1,413,230	4,866	0.3%	1,284,551	133,545	10.4%
Collection%	37.7%	38.4%	-0.6%		37.9%	38.3%	-0.4%		39.1%	-1.2%	
Non-Patient Revenue	18,869	16,968	1,900	11.2%	157,141	143,135	14,006	9.8%	146,329	10,811	7.4%
Revenue	188,855	183,514	5,341	2.9%	1,575,237	1,556,365	18,871	1.2%	1,430,881	144,356	10.1%
Salaries & Wages	59,981	61,960	1,978	3.2%	532,885	531,055	(1,830)	-0.3%	477,918	54,968	11.5%
Contract Labor	4,413	496	(3,916)	-788.9%	20,536	7,380	(13,156)	-178.3%	6,746	13,790	204.4%
Benefits	20,124	20,359	235	1.2%	167,427	167,210	(218)	-0.1%	153,165	14,262	9.3%
Salaries and Benefits	84,518	82,815	(1,702)	-2.1%	720,849	705,645	(15,204)	-2.2%	637,829	83,020	13.0%
Pharmaceuticals	36,339	29,469	(6,870)	-23.3%	261,569	253,748	(7,821)	-3.1%	233,936	27,633	11.8%
Medical Materials	15,721	14,263	(1,458)	-10.2%	124,555	121,164	(3,391)	-2.8%	116,423	8,131	7.0%
Other Supplies	4,572	3,205	(1,368)	-42.7%	29,096	27,514	(1,582)	-5.8%	23,667	5,429	22.9%
Services	7,823	8,019	196	2.4%	69,624	66,965	(2,659)	-4.0%	72,559	(2,935)	-4.0%
Other Expenses	7,417	8,288	871	10.5%	59,266	67,848	8,583	12.6%	64,547	(5,282)	-8.2%
Professional Fees	1,100	1,121	21	1.9%	8,725	8,966	241	2.7%	8,487	238	2.8%
Affiliates	3,829	2,482	(1,347)	-54.3%	15,517	15,130	(387)	-2.6%	12,510	3,007	24.0%
Direct Non-Labor Expense	76,801	66,846	(9,955)	-14.9%	568,352	561,335	(7,017)	-1.2%	532,130	36,222	6.8%
Direct Margin	27,536	33,852	(6,317)	-18.7%	286,036	289,385	(3,349)	-1.2%	260,922	25,114	9.6%
Direct Margin%	14.6%	18.4%	-3.9%		18.2%	18.6%	-0.4%		18.2%	-0.1%	
Non-Labor Expenses	99,111	87,908	(11,203)	-12.7%	738,056	729,083	(8,973)	-1.2%	683,362	54,694	8.0%
Total Expenses	183,628	170,723	(12,905)	-7.6%	1,458,905	1,434,728	(24,177)	-1.7%	1,321,191	137,714	10.4%
EBIDA	17,289	23,681	(6,392)	-27.0%	205,378	208,017	(2,639)	-1.3%	187,655	17,723	9.4%
EBIDA%	9.2%	12.9%	-3.7%		13.0%	13.4%	-0.3%		13.1%	-0.1%	
Operating Income	5,226	12,791	(7,564)	-59.1%	116,332	121,637	(5,305)	-4.4%	109,690	6,642	6.1%
Operating Income%	2.8%	7.0%	-4.2%		7.4%	7.8%	-0.4%		7.7%	-0.3%	

Best Practices & Course Takeaways

- Build speed and confidence by becoming fluent in main shortcuts and formulas so you can program at the pace of your ideas
- Master the fundamental technique of combining text strings and cell references within formulas “Text”&Reference&“Text”
- Practice using relative and absolute reference locking with SUMIFS to create ONE formula that can be used in many cells
- Use “Info” tab to manage commonly used variables or settings, such as Named Ranges and dynamic Date Lookup table
- Make a habit/ritual to Always Tie-Out with “source of truth”
- Always define Print Settings and check for External Links
- Use your Imagination, Have Fun and Save File Often !!

Questions?



Thank You

