Document to Upload MGMA Benchmark

Step1:

I mentioned the below link for the reference file. A user can download the sample file from the below links. I filter the sheet based on the category

Category Type:

We have 2 categories in our software 1: Academic and 2 private.

1: Academic & Private

Below sheet, sample works for Charges, collections, WRVUS, and Encounters or Visits.

Sample File for academic category

https://docs.google.com/spreadsheets/d/1iHihFhVSfjbI5xUzVg6GMbUmjRzbkpPq/edit?usp=sharing&ouid=107837635511309760205&rtpof=true&sd=true

2: Total Compensation

A sample file for compensation academic category

https://docs.google.com/spreadsheets/d/1q2wVls4BoutXoj19aY8Hv6pu84as1TBN/edit?usp=sharing&ouid=107837635511309760205&rtpof=true&sd=true

A sample file for compensation private category

https://docs.google.com/spreadsheets/d/1Vl9qWnWlNn7d-U-3yXKauyHtBp5rx6_p/edit?usp=sharing&ouid=107837635511309760205&rtpof=true&sd=true

Step2:

Step 2 will be done by our technical team and he will load the numbers into the system by using this sheet. Technical steps are below:

1. Cleanse the data on the sheets for uploading integer numbers that were stored as text with commas etc.
2. Data Import for each file.
3. Validation of each sheet individually.
4. The benchmarks which were excluded for import due to multiple reasons (such as extra spaces with spec name or hyphen inclusion) were filtered out and imported back again.
5. Adding Benchmark Year to appear on the UI for selecting the data.
6. Running the data for productivity report and cross verifying for all the benchmarks of a given sub-specialty.
7. Deployment to Test server - Taking the current production data snapshot (backup file) from the production server and restoring it to the test server.
8. Deployment to Test server - Creating a single query file for all the benchmarks import for 2021 and executing them on the test server.
9. This script is production-ready. When a client approves the test of the server, it will take a complete day for me to push the MGMA changes to the production server.
10. Create the backup of the production server before upload the benchmark numbers.
11. Last step is to start to upload the MGMA number to the production server.

Step3: MGMA Number Testing

The testing completed in 3 phase
1: Find out the New Subspecialty
2: Uploaded Benchmark Number Validation
3: Production PPR vs Demo PPR

1: find out the New Subspecialty: Every year new subspecialty is added to the MGMA benchmark. The first and the main task is to find these new subspecialties. These sub-specialties are not available in last year's benchmark data but these are available in MGMA RAW data and validate the numbers of these new subspecialties with the raw data numbers.

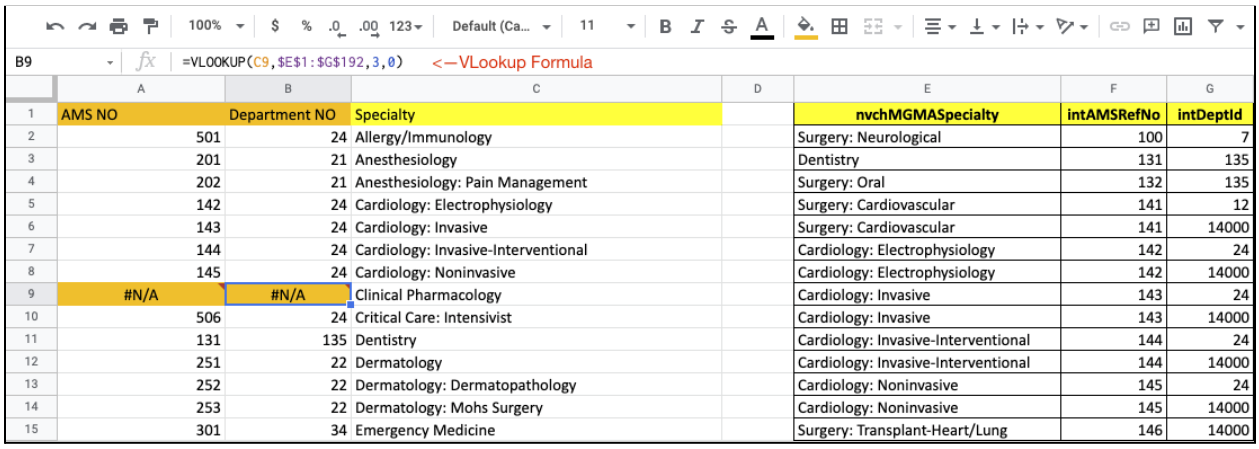
We find the new subspecialties with the help of the VLookup formula and AMS number and validate the numbers with the true-false using the IF condition formula

Step1: In the RAW datasheet, Paste the only AMS No and Dept no from Imported Sheet(Paste no should be in ASC order by AMS No)

Step2: Apply the below-mentioned VLookup formula. And find few subspecialties. Add the dummy row in the place of missing AMS no and highlight those rows.

Reference VLookup Formula

```
=VLOOKUP(C9,$E$1:$G$192,3,0)
```



B9 | =VLOOKUP(C9,$E$1:$G$192,3,0) <—VLookup Formula

	A	B	C	D	E	F	G
1	AMS NO	Department NO	Specialty		nvchMGMASpecialty	intAMSRefNo	intDeptId
2	501	24	Allergy/Immunology		Surgery: Neurological	100	7
3	201	21	Anesthesiology		Dentistry	131	135
4	202	21	Anesthesiology: Pain Management		Surgery: Oral	132	135
5	142	24	Cardiology: Electrophysiology		Surgery: Cardiovascular	141	12
6	143	24	Cardiology: Invasive		Surgery: Cardiovascular	141	14000
7	144	24	Cardiology: Invasive-Interventional		Cardiology: Electrophysiology	142	24
8	145	24	Cardiology: Noninvasive		Cardiology: Electrophysiology	142	14000
9	#N/A	#N/A	Clinical Pharmacology		Cardiology: Invasive	143	24
10	506	24	Critical Care: Intensivist		Cardiology: Invasive	143	14000
11	131	135	Dentistry		Cardiology: Invasive-Interventional	144	24
12	251	22	Dermatology		Cardiology: Invasive-Interventional	144	14000
13	252	22	Dermatology: Dermatopathology		Cardiology: Noninvasive	145	24
14	253	22	Dermatology: Mohs Surgery		Cardiology: Noninvasive	145	14000
15	301	34	Emergency Medicine		Surgery: Transplant-Heart/Lung	146	14000

1.0-How to find new subspecialties

2: After Elementing the new sub spec from uploaded a raw data sheet we will get the records of the remaining subspecialty and validate them with the RAW data using the If condition.

Steps in Above Process

1: Sort the Sheet in ASC order by AMS no

2: Re-arrange all columns in the same order on both sheets

3: Create 3 sheets for validation with the same column name and order

4: Apply the If formula to check all values are true or not

5: After that Apply CMD+F to find False Values.

6: If any false values find then highlight those values in both sheets and ask for the Technical team? It may be a bug or not.

A1:M1 intFinancialYear

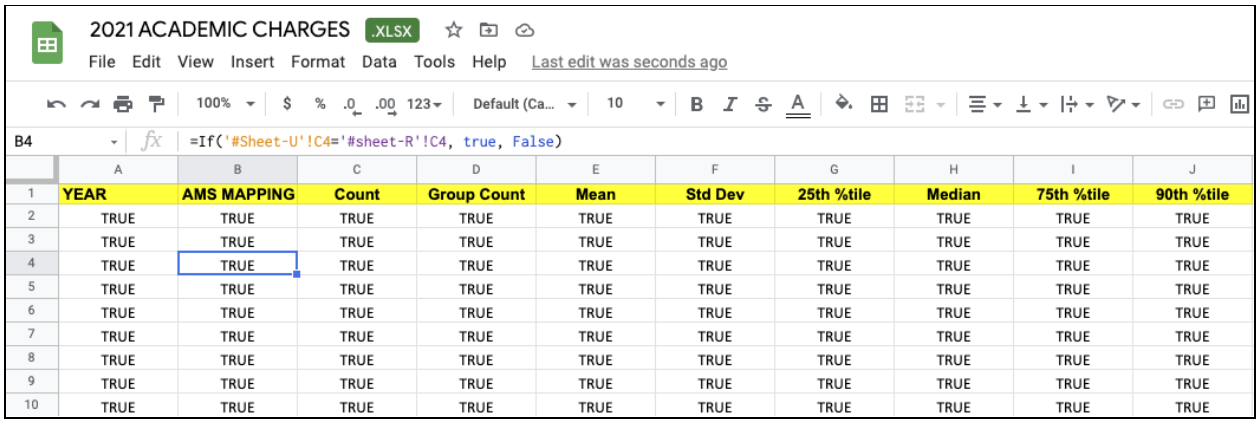
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	intFinancialYea	intDeptId	intAMSRefNo	Subspecialty	intFacultyCoun	intDeptsCount	decMean	decStdDev	10th percentile	dec25thPercent	decMedian	dec75thPercent	dec90thPercentile
2	2021	14000	141	ACTAT: Cardiov	41	11	4048401	2266923		2459335	3379575	5825184	7455484
3	2021	14000	142	ACTAT: Card El	52	13	3098756	1490350		2054979	2396021	3740031	5618461
4	2021	14000	143	ACTAT: Card In	8	3							
5	2021	14000	144	ACTAT: Card In	64	13	2605621	1251112		1686484	2376219	3179982	4648712
6	2021	14000	145	ACTAT: Card N	211	18	1743992	830247		1161941	1569515	2129158	3000909
7	2021	14000	153	ACTAT: Surgery	29	11	2896111	1863500		1320718	2243841	4641980	5875691
8	2021	23	351	FAM: Fam Med	22	5	624400	433089		112743	825286	1040216	1083298
9	2021	4	352	CBC BAYSHOR	160	14	932397	388734		660424	859171	1161974	1486203
10	2021	23	353	FAM: Ambulato	59	7	1072214	345019		814106	1108860	1272316	1480535
11	2021	23	354	FAM: Sports Me	20	9	1464575	905370		739000	1023917	2477623	2966831
12	2021	24	506	IM: Critical Car	41	13	1942630	892879		1461607	1842920	2178049	2911920
13	2021	24	513	IM: Hematology	31	5	846039	342785		689180	836298	947373	1183864
14	2021	34	515	EM: Hospitalist	544	23	540530	228896		373602	511880	685494	851487
15	2021	24	518	IM: General	298	20	783006	395999		535669	758945	1026169	1268677
16	2021	14000	522	ACTAT: Pulmor	18	4	1569856	721834		1076285	1320339	1727790	3083634
17	2021	24	523	IM: Pulm Med C	49	7	1500204	760445		1111013	1392454	1824828	2379575
18	2021	14000	524	ACTAT: Pulmor	91	8	1288340	526130		816960	1143454	1760238	2098219
19	2021	24	525	IM: Radiation O	81	11	3219843	1990241		2034784	2598791	3742531	6035122
20	2021	24	526	IM: Rheumatolo	53	12	1117291	923630		650986	867861	1103861	2513981
21	2021	7	551	NS: Pain Manag	3	3							
22	2021	9	552	PMR: Pedi Physi	91	16	1344658	994510		745969	1020469	1641432	2420699
23	2021	26	602	OBGYN: Genera	165	16	1519958	780883		1078508	1428388	1826708	2441353
24	2021	25	651	NEU: RAD Inter	61	12	3155354	1376803		2064465	2919020	4149588	5125381
25	2021	30	652	RAD: Abd/Body	311	13	2405926	1360770		1519845	2185400	2794474	4277619
26	2021	14000	706	ACTAT: Pediatr	102	11	1742249	1030692		944112	1491420	2435335	3345139
27	2021	28	707	PEDI: Child Dev	14	8	525564	301696		361234	405552	597248	1146733
28	2021	14000	709	ACTAT: Pediatr	80	9	1433062	981963		859128	1148463	1585167	3396022
29	2021	28	721	PEDI: Radiology	15	5	2323879	842854		1774987	2686379	2939973	3051662

2.0-Imported Benchmark

G7 2896111

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	YEAR	UTP DEPT#	AMS MAPPING #	Specialty	Count	Group Count	Mean	Std Dev	10th %tile	25th %tile	Median	75th %tile	90th %tile
2	2021	14000	141	Surgery: Cardiova	41	11	$4,048,401	$2,266,923	$1,212,226	$2,459,335	$3,379,575	$5,825,184	$7,455,484
3	2021	14000	142	Cardiology: Electr	52	13	$3,098,756	$1,490,350	$1,814,583	$2,054,979	$2,396,021	$3,740,031	$5,618,461
4	2021	14000	143	Cardiology: Invasi	8	3							
5	2021	14000	144	Cardiology: Invasi	64	13	$2,605,621	$1,251,112	$1,395,616	$1,686,484	$2,376,219	$3,179,982	$4,648,712
6	2021	14000	145	Cardiology: Nonin	211	18	$1,743,992	$830,247	$854,896	$1,161,941	$1,569,515	$2,129,158	$3,000,909
7	2021	14000	153	Surgery: Thoracic	29	11	$2,896,111	$1,863,500	$1,161,838	$1,320,718	$2,243,841	$4,641,980	$5,875,691
8	2021	136	351	Family Medicine (	22	5	$624,400	$433,089	$64,680	$112,743	$825,286	$1,040,216	$1,083,298
9	2021	2	352	Family Medicine (	160	14	$932,397	$388,734	$443,978	$660,424	$859,171	$1,161,974	$1,486,203
10	2021	136	353	Family Medicine:	59	7	$1,072,214	$345,019	$643,689	$814,106	$1,108,860	$1,272,316	$1,480,535
11	2021	136	354	Family Medicine:	20	9	$1,464,575	$905,370	$509,604	$739,000	$1,023,917	$2,477,623	$2,966,831
12	2021	24	506	Critical Care: Inter	41	13	$1,942,630	$892,879	$867,897	$1,461,607	$1,842,920	$2,178,049	$2,911,920
13	2021	24	513	Hematology/Onco	31	5	$846,039	$342,785	$415,563	$689,180	$836,298	$947,373	$1,183,864
14	2021	34	515	Hospitalist: Intern	544	23	$540,530	$228,896	$274,450	$373,602	$511,880	$685,494	$851,487
15	2021	24	518	Internal Medicine	298	20	$783,006	$395,999	$221,984	$535,669	$758,945	$1,026,169	$1,268,677
16	2021	14000	522	Pulmonary Medic	18	4	$1,569,856	$721,834	$1,003,734	$1,076,285	$1,320,339	$1,727,790	$3,083,634
17	2021	14000	523	Pulmonary Medic	49	7	$1,500,204	$760,445	$565,121	$1,111,013	$1,392,454	$1,824,828	$2,379,575
18	2021	14000	524	Pulmonary Medic	91	8	$1,288,340	$526,130	$708,889	$816,960	$1,143,454	$1,760,238	$2,098,219
19	2021	24	525	Radiation Oncolog	81	11	$3,219,843	$1,990,241	$1,499,297	$2,034,784	$2,598,791	$3,742,531	$6,035,122
20	2021	24	526	Rheumatology	53	12	$1,117,291	$923,630	$394,471	$650,986	$867,861	$1,103,861	$2,513,981
21	2021	7	551	Pain Management	3	3							
22	2021	9	552	Physiatry (Physica	91	16	$1,344,658	$994,510	$591,349	$745,969	$1,020,469	$1,641,432	$2,420,699
23	2021	26	602	Obstetrics/Gyneco	165	16	$1,519,958	$780,883	$639,575	$1,078,508	$1,428,388	$1,826,708	$2,441,353
24	2021	25	651	Radiology: Interve	61	12	$3,155,354	$1,376,803	$1,159,146	$2,064,465	$2,919,020	$4,149,588	$5,125,381
25	2021	30	652	Radiology: Diagno	311	13	$2,405,926	$1,360,770	$988,684	$1,519,845	$2,185,400	$2,794,474	$4,277,619

2.0- RAW Data MGMA Benchmark



	A	B	C	D	E	F	G	H	I	J
1	YEAR	AMS MAPPING	Count	Group Count	Mean	Std Dev	25th %tile	Median	75th %tile	90th %tile
2	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
3	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
4	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE

2.0- MGMA Benchmark Validation Using If and Else Condition

3: After uploading the benchmark data into the server we have to run the productivity report on both servers with the same parameters and compare the productivity report and check every column has True Value.

After completing the steps we push the numbers into production.

Reference

Sample validated FIle link(Elemneting the New Subspecs)

https://docs.google.com/spreadsheets/d/1QR4dbIxXn75ivxDZ4tZz8Y4UF4iMTAxX/edit?usp=sharing&ouid=107837635511309760205&rtpof=true&sd=true