Case Study - US Healthcare - III

Talking Header to talk about the business objective / findings

Sub- Header provides additional details about the objective, solution

Insights Header (eg. "Key Observations")
- Important Insights 1
- Insights 2
- Insights 3
- Insights 4

Insights Header
- Key points to consider
- Key mappings
- Other trends
- etc.

Points scored

Callouts to highlight important chart elements

Points scored

<< Mean

Details about the chart above

Details about the chart above

Takeaway Box concludes the entire slide with actionable insights and recommendations

Key highlight about data | Data time | Data source | Data caveats | …   Key information about the analysis | Mappings | Assumptions | etc..

Demographic In	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity
Young-Female	=COUNTIFS(					
Young-Male	COUNTIFS(**criteria_range1**, criteria1, …)					
Middle-Male						
Middle-Female						
Senior-Male						
Senior-Female						

HARMEAN | ✗ ✓ *fx* | =COUNTIFS(Main!$Q$2:$Q$9977,Insights!$A53,Main!$E$2:$E$9977,Insights!B$52)

COUNTIFS(criteria_range1, **criteria1**, [criteria_range2, criteria2], [criteria_range3, …])

	Demographic In	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity
51							
52	Demographic In	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity
53	Young-Female	$A53,Main!$E$2:	330	153	203	225	205
54	Young-Male	135	331	164	132	274	197
55	Middle-Male	262	253	255	261	559	238
56	Middle-Female	303	174	359	281	286	460
57	Senior-Male	368	221	392	215	482	175
58	Senior-Female	382	237	323	338	324	347

Count of Name	Column Labels						
Row Labels	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity	Grand Total
Young	267	661	317	335	499	402	2481
Middle	565	427	614	542	845	698	3691
Senior	750	458	715	553	806	522	3804
Grand Total	1582	1546	1646	1430	2150	1622	9976
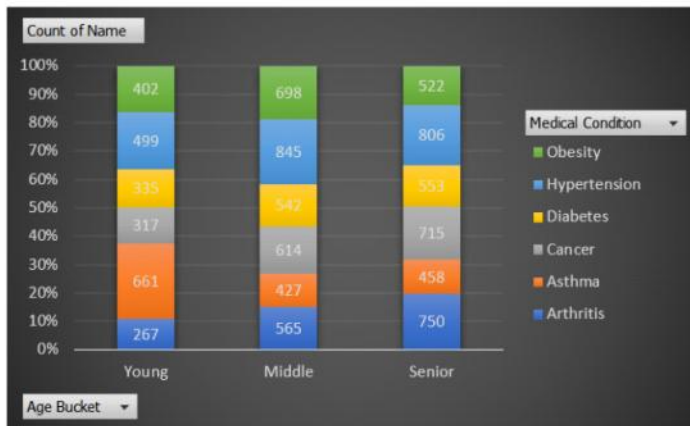
Insights >>

1. Seniors are more prone to diseases like arthritis, cancer and hypertension.
2. Middle age people have more obesity and hypertension as compared to young and old age
3. Asthma is more common in young people than in seniors.
4. Young People are less prone to diseases
5. Young people are less impacted by arthiritis

Chronic conditions like **Hypertension**, **Arthritis**, and **Cancer** increase with age.

Asthma is predominantly a **young-age issue**.

Middle age is a transitional health phase with high exposure to lifestyle and metabolic diseases.
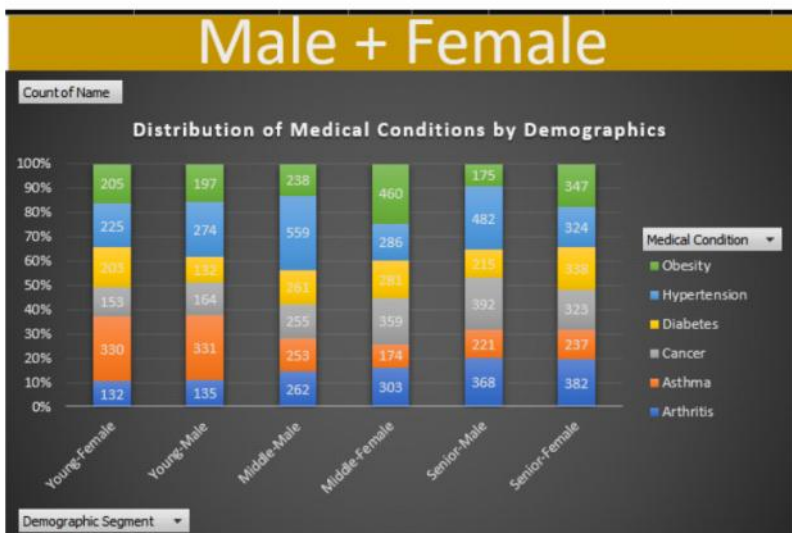
Insights >>

Middle and senior male are more prone to hypertension
Asthma is more prominent in young age people irrespective of gender
Cancer and Arthritis increases with Age
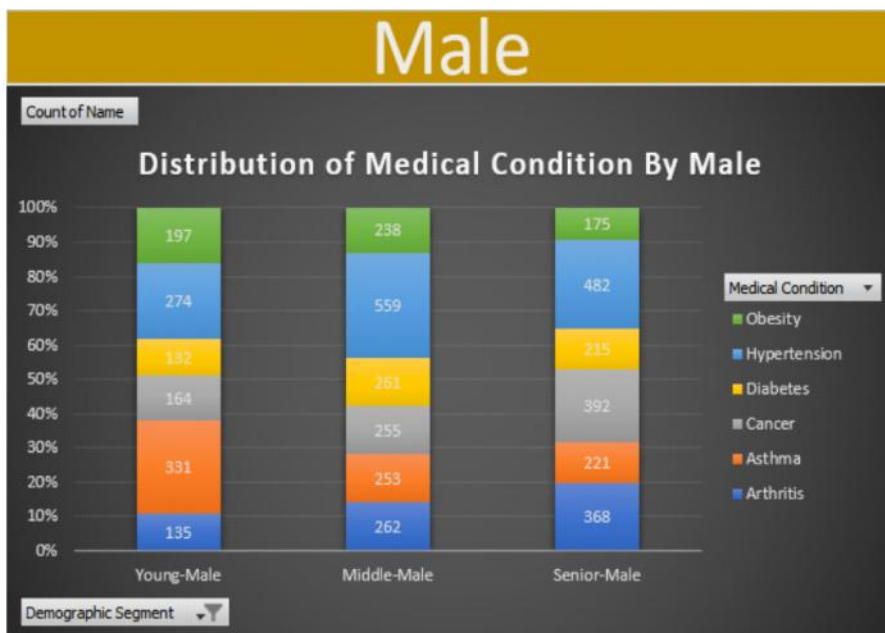females have high chances of diabetes at senior age
Obesity is more in female than male in middle age and senior age

`B53` `=COUNTIFS(Main!$Q$2:$Q$9977,Insights!$A53,Main!$E$2:$E$9977,Insights!B$52)`

Count of Name	Column Labels						
Row Labels	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity	Grand Total
Young-Female	132	330	153	203	225	205	1248
Young-Male	135	331	164	132	274	197	1233
Middle-Male	262	253	255	261	559	238	1828
Middle-Female	303	174	359	281	286	460	1863
Senior-Male	368	221	392	215	482	175	1853
Senior-Female	382	237	323	338	324	347	1951
Grand Total	1582	1546	1646	1430	2150	1622	9976

Demographic Ins	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity
Young-Female	132	330	153	203	225	205
Young-Male	135	331	164	132	274	197
Middle-Male	262	253	255	261	559	238
Middle-Female	303	174	359	281	286	460
Senior-Male	368	221	392	215	482	175
Senior-Female	382	237	323	338	324	347

Male

Count of Name

Distribution of Medical Condition By Male

Medical Condition
- Obesity
- Hypertension
- Diabetes
- Cancer
- Asthma
- Arthritis

Demographic Segment

Insights >>
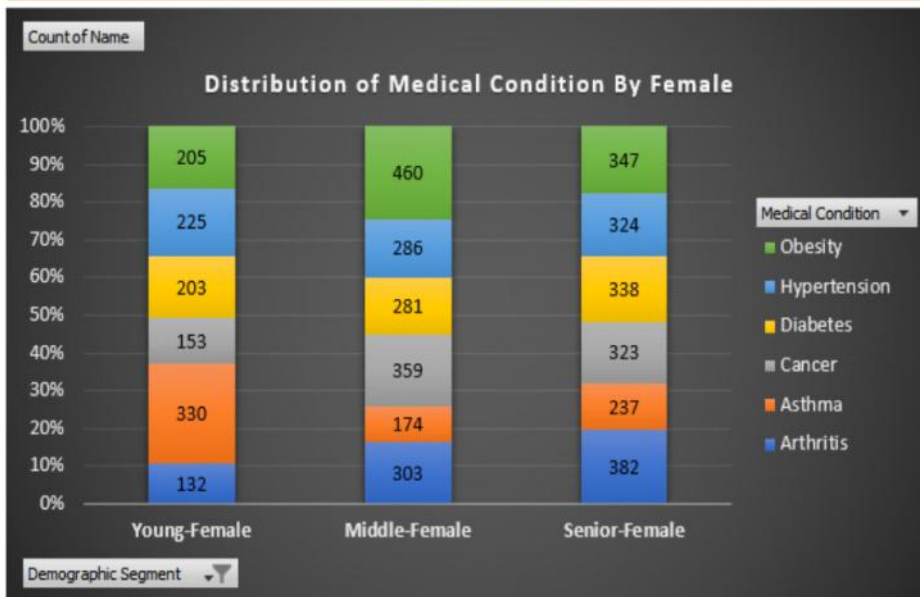
Cancer & Arthritis increase in males as age increases

Hypertension is more common among males, starting early in middle age.

Asthama is decreasing as age increases.

Count of Name	Column Labels						
Row Labels	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity	Grand Total
Young-Male	135	331	164	132	274	197	1233
Middle-Male	262	253	255	261	559	238	1828
Senior-Male	368	221	392	215	482	175	1853
Grand Total	765	805	811	608	1315	610	4914

Female

Distribution of Medical Condition By Female

Insights >>
Middle Women are more prone to Obesity & Cancer
Arthritis is high on Senior Female
Asthama is decreasing as age increases.

Count of Name	Column Labels						
Row Labels	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity	Grand Total
Young-Female	132	330	153	203	225	205	1248
Middle-Female	303	174	359	281	286	460	1863
Senior-Female	382	237	323	338	324	347	1951
Grand Total	817	741	835	822	835	1012	5062

Distribution of Medical Condition by Each Gender

Count of Name	Column Labels	
Row Labels	Female	Male
Arthritis	817	765
Asthma	741	805
Cancer	835	811
Diabetes	822	608
Hypertension	835	1315
Obesity	1012	610
Grand Total	5062	4914

Distribution of Medical Condition by Each Gender
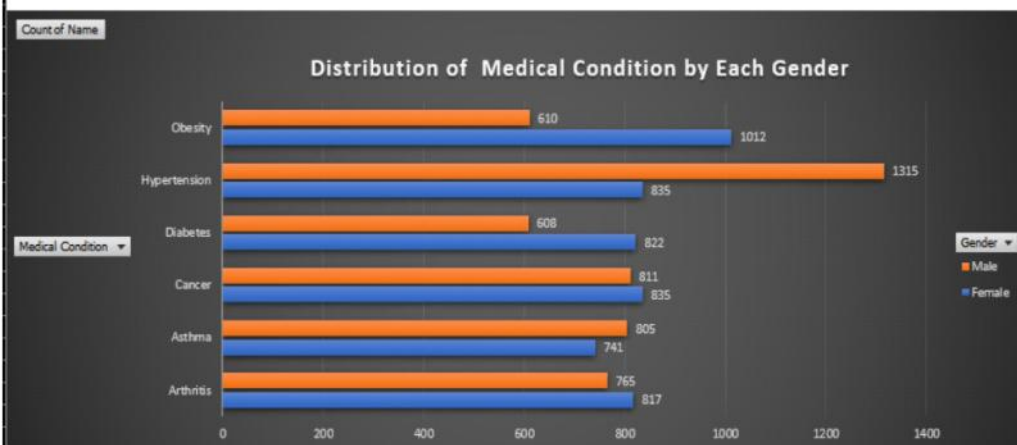
Distribution of Medical Condition for Each Blood Group Type

Count of Name Column Labels	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity	Grand Total
Row Labels							
A-	11.88%	12.87%	12.27%	13.01%	12.05%	12.33%	12.37%
A+	12.26%	13.58%	12.21%	11.96%	12.28%	12.21%	12.41%
AB-	12.26%	11.84%	11.42%	13.36%	12.88%	14.67%	12.74%
AB+	13.72%	11.51%	12.15%	12.66%	12.42%	12.95%	12.56%
B-	11.44%	12.48%	13.06%	13.78%	12.00%	12.70%	12.53%
B+	12.45%	12.29%	13.06%	12.24%	13.07%	11.22%	12.43%
O-	13.15%	11.84%	12.58%	12.17%	12.84%	11.96%	12.45%
O+	12.83%	13.58%	13.24%	10.84%	12.47%	11.96%	12.51%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Insights >>
medical conditions are not related to blood group

"Average Billing Amount By Admission Type"

Admission Type	# of Admission Type	Total Billing Amount	Average Billing Amount	% change
Elective	3070	70748877.79	23045.23706	-1%
Emergency	3578	85281411.4	23834.9389	2%
Urgent	3328	77337439.19	23238.41322	-1%
Grand Total	9976	233367728.4	23372.86306	

Do the Admission Type have any relation with Age Bucket

Age Bucket	# of Admission Type	Total Billing Amount	Average Billing Amount	% change
Senior	3804	90026342.86	23666.23103	1%
Middle	3691	85505804.44	23166.02667	-2%
Young	2481	58922401.66	23749.45653	1%
Grand Total	9976	234454549	23527.23808	

Row Labels	Count of Name	Average of Billing Amount
Aetna	1920	24133.55637
Blue Cross	1870	22778.89147
Cigna	1934	24236.03362
Medicare	2421	22950.63768
UnitedHealthcare	1831	22913.97162
Grand Total	**9976**	**23388.5746**

Insurance Provider	Count of Patient	Average of Billing Amount	% of Change
Aetna	1920	24134	3%
Blue Cross	1870	22779	-3%
Cigna	1934	24236	4%
Medicare	2421	22951	-2%
UnitedHealthcare	1831	22914	-2%
Grand Total	9976	23403	

Recommend
Opt for Blue Cross, Medicare, UnitedHealthcare for 2-3% of Savings

Formula bar: `=(C28-$C$33)/$C$33`

	A	B	C	D
27	Insurance Provider	Count of Patient	Average of Billing Amount	% of Change
28	Aetna	1920	24134	=(C28-$C$33)/$C$33
29	Blue Cross	1870	22779	-3%
30	Cigna	1934	24236	4%
31	Medicare	2421	22951	-2%
32	UnitedHealthcare	1831	22914	-2%
33	Grand Total	9976	23403	

"Understanding Insurance Provider by Medical Condtion"

Average of Billing Amount	Column Labels						
Row Labels	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity	Grand Total
Aetna	19636.14065	22089.96648	41587.07425	31838.48775	18074.06175	13137.55706	24133.55637
Blue Cross	20322.59912	23012.13543	37814.06378	32196.82269	18630.79651	10075.87963	22778.89147
Cigna	19604.23823	23837.02557	43061.03833	30541.40761	17441.07356	13221.4295	24236.03362
Medicare	19781.19546	22236.80875	36090.08606	30871.76502	17101.94812	13066.81277	22950.63768
UnitedHealthcare	21075.68618	21890.00593	40834.90019	24849.0569	17167.65945	13314.13104	22913.97162
Grand Total	20054.3539	22650.72687	39688.32777	30097.45646	17637.156	12511.82054	23388.5746

Insurance Provider	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity
Aetna	19636	22090	41587	31838	18074	13138
Blue Cross	20323	23012	37814	32197	18631	10076
Cigna	19604	23837	43061	30541	17441	13221
Medicare	19781	22237	36090	30872	17102	13067
UnitedHealthcare	21076	21890	40835	24849	17168	13314

Insurance Provider	Arthritis	Asthma	Cancer	Diabetes	Hypertension	Obesity
Aetna	19636	22090	41587	31838	18074	13138
Blue Cross	20323	23012	37814	32197	18631	10076
Cigna	19604	23837	43061	30541	17441	13221
Medicare	19781	22237	36090	30872	17102	13067
UnitedHealthcare	21076	21890	40835	24849	17168	13314
Average of Billing Amount	20084	22613	39877	30060	17683	12563
Min of Billing Amount	19604	21890	36090	24849	17102	10076
Maximum Saving Possible	2%	3%	9%	17%	3%	20%

Middle age men comes for the recommendation on insurance provider

Middle Age Men is suffering from hypertension? What insurance you recommend

Does Duration of Stay impact the billing amount

Row Labels ▾	Count of Name	Average of Billing Amount
0	102	23587.98063
1	418	22077.99078
2	396	24363.29114
3	445	23030.29875
4	425	23547.99516
5	428	22785.27887
6	459	22643.37028
7	366	24850.75715
8	354	24560.7767
9	326	24026.02278
10	328	23942.39196
11	307	22793.52884
12	331	23406.1266
13	331	24245.56649
14	344	24703.48951
15	328	23842.25988
16	347	22331.38151
17	327	24576.87034
18	331	23734.89797
19	267	21705.57716

Duration of Stay	Count	Average Billing	% change
0	102	23588	1%
1	418	22078	-6%
2	396	24363	4%
3	445	23030	-2%
4	425	23548	1%
5	428	22785	-3%
6	459	22643	-3%
7	366	24851	6%
8	354	24561	5%
9	326	24026	3%
10	328	23942	2%
11	307	22794	-3%
12	331	23406	0%
13	331	24246	3%
14	344	24703	5%
15	328	23842	2%
16	347	22331	-5%
17	327	24577	5%
18	331	23735	1%
19	267	21706	7%