Dataset Description

The dataset contains 9,216 rows and 11 columns, stored in Excel format. It records patients'
demographics, visit information, satisfaction scores, and referrals.

Column Description

Num	Column Name	Description
1	date	Date/Time of patient visit
2	patient_id	Unique patient identifier
3	patient_gender	gender Patient gender (M/F/NC)
4	patient_age	Age of patient
5	patient_sat_score	Satisfaction score (1–10). Missing values = not rated
6	patient_first_inital	First name initial (privacy protection)
7	patient_last_name	Patient last name
8	patient_race	Race/ethnicity of patient
9	patient_admin_flag	TRUE if patient is staff/family member
10	patient_waittime	Patient wait time (minutes)
11	department_referral	Referral type (with/without physician order)

Data Preparation & Processing

1. Column Quality activated for data profiling.
2. Null values in 'patient_sat_score' are preserved (not dropped/replaced).
3. Visit times categorized into AM/PM; datetime column converted to Date type.
4. First name initial + last name combined into a single column.
5. Separate 'Calculation' table created for custom measures.
6. Age groups and buckets created (Infancy, Early Childhood, Teenager, Adults, etc.).
7. A 'Date' table was built with Year, Month, Weekday/Weekend classification.
8. Relationships established between main dataset and Date table.
9. Extremes in line charts highlighted using markers.

Age Bucket	Age Group
0 – 10 11 – 20 21 – 30 31 – 40 41 – 50 51 – 60 61 – 70 More than 70	<= 2 : Infancy <= 6 : Early childhood <= 12 : Middle childhood <= 18 : Teenager Adults

Measuer

Num	Measuer	DAX Code
1	Total Patients	Total Patients = COUNTROWS('Patients Dataset')

2	Average Satisfaction Score	Average Satisfaction Score =
		CALCULATE(
		    AVERAGE('Patients Datatset'[patient_sat_score]),
		    'Patients Datatset'[patient_sat_score] <> BLANK())

3	Percent Not Rated	% Not Rating =
		 VAR _notRating =
		    CALCULATE(
		       [Total Patients] ,
		       'Patients Datatset'[patient_sat_score] == BLANK()
		    )
		    RETURN
		       DIVIDE(
		          _notRating , [Total Patients])

4	% Administrative Schedual	% Administrative Schedual =
		DIVIDE(
		    COUNTROWS(
		       FILTER('Patients Datatset',
		             'Patients Datatset'[patient_admin_flag] = TRUE())
		          )
		    ,[Total Patients])

5	% Non Administrative	% Non Administrative = 1 - [% Administrative Schedual]

6	CF Max Point (Month)	CF Max Point (Month) =
		    VAR _PatientsTable =
		        CALCULATETABLE(
		           ADDCOLUMNS(
		              SUMMARIZE('Date' , 'Date'[Month]) ,
		              "@Total_Patients" , [Total Patients]
		              ),
		               ALLSELECTED()
		             )
		    VAR _MinValue = MINX(_PatientsTable , [@Total_Patients])
		    VAR _MaxValue = MAXX(_PatientsTable , [@Total_Patients])
		    VAR _Total_Patients = [Total Patients]
		    RETURN
		    SWITCH(

		TRUE(), _Total_Patients = _MinValue , _MinValue , _Total_Patients = _MaxValue , _MaxValue)

7	CF Max Point (Year)	CF Max Point (Year) =
		    VAR _PatientsTable =
		        CALCULATETABLE(
		            ADDCOLUMNS(
		                SUMMARIZE('Date' , 'Date'[Year]) ,
		                "@Total_Patients" , [Total Patients]
		                ),
		                ALLSELECTED()
		            )
		    VAR _MinValue = MINX(_PatientsTable , [@Total_Patients])
		    VAR _MaxValue = MAXX(_PatientsTable , [@Total_Patients])
		    VAR _Total_Patients = [Total Patients]
		    RETURN
		    SWITCH(
		        TRUE(),
		        _Total_Patients = _MinValue , 0 , _Total_Patients =
		_MaxValue , 1)

8	Un-Referred Patients	% Un Referred Patients =
		    VAR _FilterPatients =
		        CALCULATE(
		            [Total Patients],
		            'Patients Datatset'[department_referral] = "none"
		        )
		        RETURN
		        DIVIDE(
		            _FilterPatients ,
		            [Total Patients])

9	Referred Patients	% Referred Patients =
		    VAR _FilterPatients =
		        CALCULATE(
		            [Total Patients],
		            'Patients Datatset'[department_referral] <> "none"
		        )
		        RETURN
		        DIVIDE(
		            _FilterPatients ,
		            [Total Patients]
		        )

10	Female Visit	% Female Visit =
		   DIVIDE(
		      CALCULATE(
		        [Total Patients] ,
		        'Patients Datatset'[patient_gender] = "F"
		      ) ,
		      [Total Patients]
		   )

11	Male Visit	% Male Visit =
		   DIVIDE(
		      CALCULATE(
		        [Total Patients] ,
		        'Patients Datatset'[patient_gender] = "M"
		      ) ,
		      [Total Patients])

12	Unknown	% Unknown =
		   DIVIDE(
		      CALCULATE(
		        [Total Patients] ,
		        'Patients Datatset'[patient_gender] = "NC"
		      ) ,
		      [Total Patients])

13	Average Wait Time	Average Wait Time = AVERAGE('Patients Datatset'[patient_waittime])

14	Values Max Point (Month)	Values Max Point (Month) =
		   VAR _PatientsTable =
		      CALCULATETABLE(
		        ADDCOLUMNS(
		          SUMMARIZE('Date' , 'Date'[Month]) ,
		          "@Total_Patients" , [Total Patients]
		          ),
		          ALLSELECTED()
		        )
		   VAR _MinValue = MINX(_PatientsTable , [@Total_Patients])
		   VAR _MaxValue = MAXX(_PatientsTable , [@Total_Patients])
		   VAR _Total_Patients = [Total Patients]
		   RETURN
		   SWITCH(
		      TRUE(),
		      _Total_Patients = _MinValue , [Total Patients] ,
		      _Total_Patients = _MaxValue , [Total Patients])

15	Values Max Point (Year)	Values Max Point (Year) =

```
Values Max Point (Year) =
    VAR _PatientsTable =
        CALCULATETABLE(
            ADDCOLUMNS(
                SUMMARIZE('Date' , 'Date'[Year]) ,
                "@Total_Patients"  , [Total Patients]
                ),
                ALLSELECTED()
            )
    VAR _MinValue = MINX(_PatientsTable , [@Total_Patients])
    VAR _MaxValue = MAXX(_PatientsTable , [@Total_Patients])
    VAR _Total_Patients = [Total Patients]
    RETURN
    SWITCH(
        TRUE(),
        _Total_Patients = _MinValue , [Total Patients] ,
        _Total_Patients = _MaxValue , [Total Patients]
    )
```

Visual & KPI :

Num	Type Chart	Description
1	Card	Total Patients
2	Card	Non-Administrative Appointment
3	Card	Administrative Appointment
4	Card	Average Satisfaction
5	Card	Services Not rated
6	Card	Average Waite time
7	Card	Referred Patients
8	Card	Wallk-in Patients
9	Clustered columns chart	Patients by Weektype(Weekday/Weekend)
10	Clustered bar chart	Total Patients by Age Group
11	Line Chart	Total Patients Visit by Year
12	Clustered bar chart	Total Patients by department referral
13	Area chart	Total Patients Visit(Max/Min in Month)
14	Card	Female Visit
15	Card	Male Visit
16	Card	Unknown gender
17	HeatMap	Average Satisfaction by : race / Age Bucket
18	HeatMap	Average Waite Time by : race / Age Bucket

Visual & KPI :

توضیحات چارت	نوع چارت	ردیف
Total Patients	Card	1
Non-Administrative Appointment	Card	2
Administrative Appointment	Card	3
Avrag Satisfaction	Card	4
Services Not rated	Card	5
Avrage Waite time	Card	6
Referred Patients	Card	7
Wallk-in Patients	Card	8
Patients by Weektype(Weekday/Weekend)	Clustered columns chart	9
Total Patients by Age Group	Clustered bar chart	10
Total Patients Visit by Year	Line Chart	11
Total Patients by department referral	Clustered bar chart	12
Total Patients Visit(Max/Min in Month)	Area chart	13
Female Visit	Card	14
Male Visit	Card	15
Unknown gender	Card	16
Avrage Satisfaction by : race / Age Bucket	HeatMap	17
Avrage Waite Time by : race / Age Bucket	HeatMap	18