1. Total admissions by month chart-

Least number of patients were admitted in the month of February with the count of 431 and highest in the month of August with 1024

1. Wait time log chart –

After applying the parameter of target wait time of 20 minutes – only 1947 patients met that target while 7269 had to wait much longer before been able to seen by a healthcare provider. This number changes when we change the parameter.

1. ER traffic by age chart –

Maximum number of patients that came to the ER in the given year were young adults (in the age group of 18- 34) followed by children under 18 years.

1. Referral after ER by age chart=

The data reveals that maximum patients were not referred after their ER visit due to many reasons like- their condition was not critical during the initial assessment or condition was stable enough to be discharged without needing immediate specialist care or a PCP appointment would be advised, or the patients refused to go to the specialist at that time. If they were referred, maximum patients (young adults) went to see the GP followed by orthopedics were there were more children been referred.

1. Average wait time before referral in different age group chart-

The data reveals that the average wait time is for all the ages was about 35 minutes before being seen or referred. (\*Recommendation provided)

1. ER Traffic by gender chart-

The data reveals there were more males than females visiting the ER in the given year. There was a very small number of populations whose gender was not collected (NC)

1. Referral by age chart –

Similar findings were observed as the previous referral chart where majority patients fall under no referral category (about 5400 )

1. Average Wait Time before referral by gender chart-

This box plot reveals an outlier of only 10 minutes wait time for patients whose gender were not collected. Rest all the patients had to wait about 35 minutes before being referred. This might be just one/few of a case(s) or a negative value due to a system glitch or data entry error.

Further investigation of these cases can reveal best practices that can be replicated.

Or this "wait time" might be recorded for a walk-in patient who happened to arrive just as an appointment was canceled.

1. Satisfaction Score by gender chart –

This graph reveals that the sat score was lower in the group who had to wait longer than 20 minutes. The sat scores didn’t change much in the male and female group irrespective of the target wait times. In the NC group, it show a reduction of 1 point when the target wait times(20 minutes) were not met. But when the Target wait time was increased to 35 min(the average wait time), there was drastic change in the sat scores in this group. both the other group scores remain nearly unchanged.

Recommendations-

* Further investigation needs to be done for the outlier in the data and the unusual shorter wait time in the NC group.
* More information need to be collected on how to improve the sat scores of the patients and why maximum number of patients are not being referred to any department.
* Also, my advice would be to make an effort to reduce the wait times in the ER, specially for older patients(65+) and children(under 18).