Transforming healthcare with AI-powered disease prediction based on patient data

Source code:

```
from google.colab import files
uploaded = files.upload()
import pandas as pd
import matplotlib.pyplot as plt
df = pd.read_csv('HRA23.20250424142430.csv', delimiter='\t')
df = df.dropna(subset=['VALUE'])
df['VALUE'] = pd.to_numeric(df['VALUE'], errors='coerce')
area_summary = df[df['Marital Status'] == 'All marital status'].groupby(
    'Health Service Executive Area')['VALUE'].sum().sort_values()
plt.figure(figsize=(10,6))
area_summary.plot(kind='barh', color='cornflowerblue')
plt.title('Total Hospital Admissions by HSE Area')
plt.xlabel('Admissions')
plt.tight_layout()
plt.grid(axis='x', linestyle='--', alpha=0.5)
plt.show()
```

```
year_summary = df[df['Marital Status'] == 'All marital
status'].groupby('Year')['VALUE'].sum()


plt.figure(figsize=(10,6))
year_summary.plot(kind='bar', color='mediumseagreen')
plt.title('Total Hospital Admissions by Year')
plt.xlabel('Year')
plt.ylabel('Admissions')
plt.grid(axis='y', linestyle='--', alpha=0.5)
plt.tight_layout()
plt.show()
admission_summary = df[df['Marital Status'] == 'All marital
status'].groupby('Type of Admission')['VALUE'].sum()
plt.figure(figsize=(10,6))
admission_summary.plot(kind='bar', color='tomato')
plt.title('Admissions by Type')
plt.xlabel('Type of Admission')
plt.ylabel('Total Admissions')
plt.grid(axis='y', linestyle='--', alpha=0.5)
plt.tight_layout()
plt.show()
```