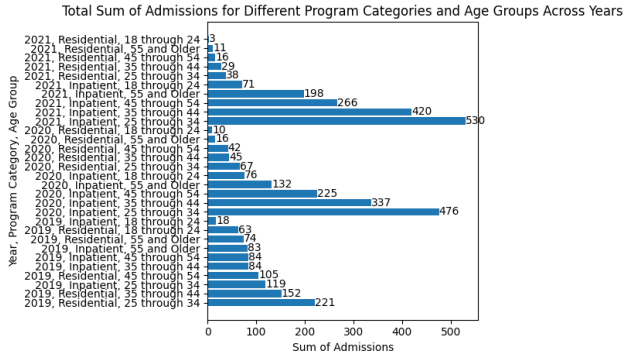
```
df = pd.read_excel('cleaned data.xlsx')
df.head(5)
```

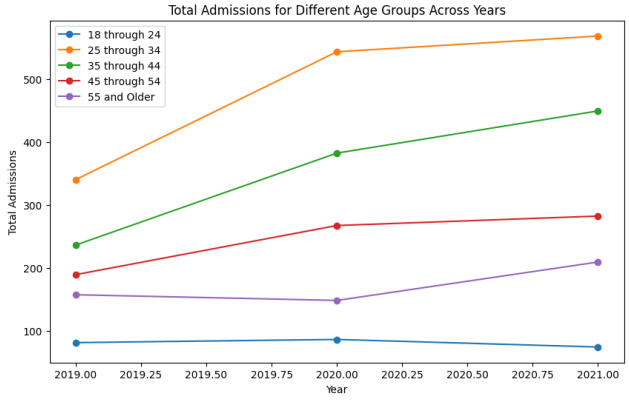
	Year	County of Program Location	Program Category	Service Type	Age Group	Primary Substance Group	/
0	2019	Orange	Inpatient	Inpatient Rehabilitation	18 through	All Others	

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the Excel file into a DataFrame
df = pd.read_excel('cleaned data.xlsx')

# Group the data by Year, Program Category, and Age Group and calculate the sum of Admissions
grouped_df = df.groupby(['Year', 'Program Category', 'Age Group'])['Admissions'].sum().reset_index(name='Sum_Admissions')

# Sort the DataFrame by Year and Sum_Admissions in descending order
grouped_df = grouped_df.sort_values(['Year', 'Sum_Admissions'], ascending=[True, False])

# Create a horizontal bar chart using matplotlib
fig, ax = plt.subplots()
bars = ax.barh(range(len(grouped_df)),
               grouped_df['Sum_Admissions'],
               align='center',
               tick_label=grouped_df['Year'].astype(str) + ', ' + grouped_df['Program Category'] + ', ' + grouped_df['Age Group'])

# Add numeric labels for each bar
for i, bar in enumerate(bars):
    width = bar.get_width()
    ax.text(width, bar.get_y() + bar.get_height() / 2, str(int(width)), ha='left', va='center')

ax.set_xlabel('Sum of Admissions')
ax.set_ylabel('Year, Program Category, Age Group')
plt.title('Total Sum of Admissions for Different Program Categories and Age Groups Across Years')

# Adjust layout to avoid label overlapping
plt.tight_layout()

# Display the bar chart
plt.show()
```

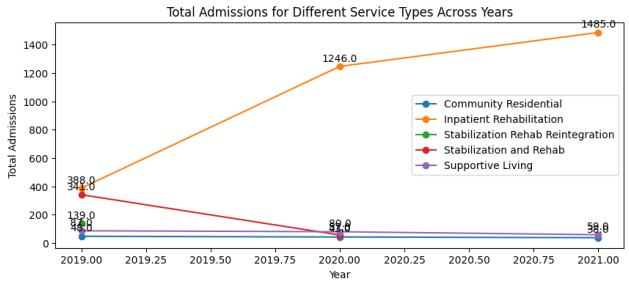



```
import pandas as pd
import matplotlib.pyplot as plt

# Read the Excel file into a DataFrame
df = pd.read_excel('cleaned data.xlsx')
```

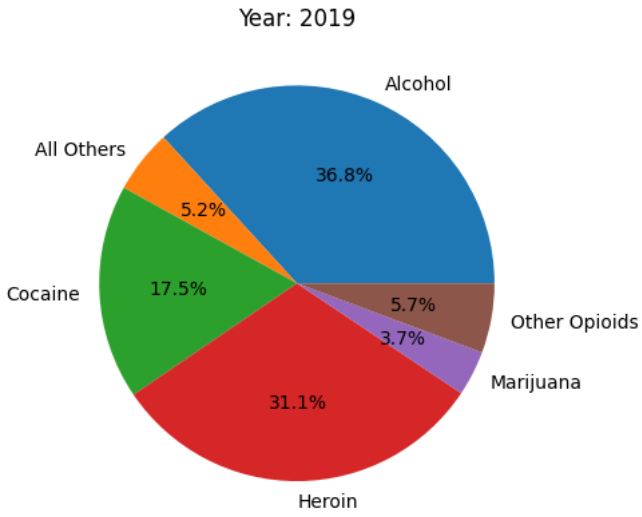
```
# Group the data by Year and Age Group and calculate the sum of Admissions for each Year-Age Group combination
grouped_df = df.groupby(['Year', 'Age Group'])['Admissions'].sum().reset_index(name='Total Admissions')

# Pivot the data to have Age Groups as columns and Years as the index
pivot_df = grouped_df.pivot(index='Year', columns='Age Group', values='Total Admissions')

# Create a line plot using matplotlib
pivot_df.plot(marker='o', figsize=(10, 6))

# Set the labels and title
plt.xlabel('Year')
plt.ylabel('Total Admissions')
plt.title('Total Admissions for Different Age Groups Across Years')

# Display the line plot
plt.legend()
plt.show()
```

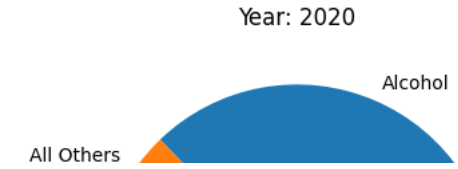



```
import pandas as pd
import matplotlib.pyplot as plt

# Read the Excel file into a DataFrame
df = pd.read_excel('cleaned data.xlsx')

# Group the data by Year and Service Type and calculate the sum of Admissions for each Year-Service Type combination
grouped_df = df.groupby(['Year', 'Service Type'])['Admissions'].sum().reset_index(name='Total Admissions')

# Pivot the data to have Service Types as columns and Years as the index
pivot_df = grouped_df.pivot(index='Year', columns='Service Type', values='Total Admissions')

# Create a line plot using matplotlib
ax = pivot_df.plot(marker='o', figsize=(10, 4))

# Add numeric labels for each data point on the line plot
for column in pivot_df.columns:
    for year, value in pivot_df[column].items():
        ax.annotate(value, (year, value), textcoords="offset points", xytext=(0,5), ha='center')

# Set the labels and title
plt.xlabel('Year')
plt.ylabel('Total Admissions')
plt.title('Total Admissions for Different Service Types Across Years')

# Display the line plot
plt.legend()
plt.show()
```

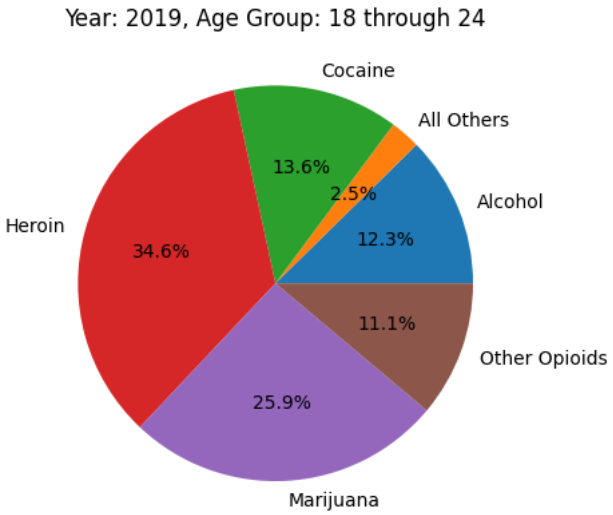


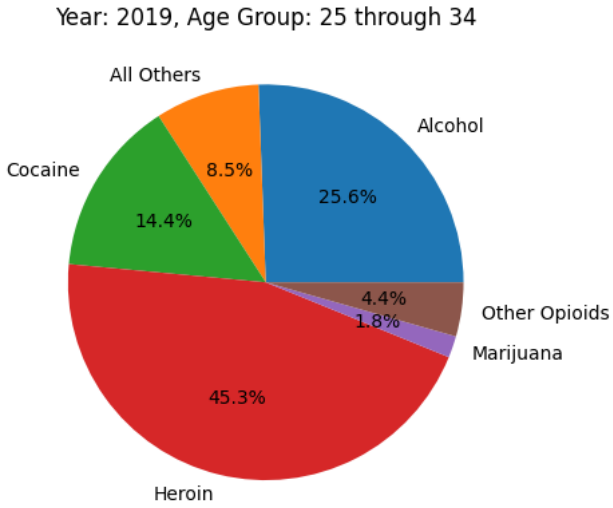

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the Excel file into a DataFrame
df = pd.read_excel('cleaned data.xlsx')

# Group the data by year and substance group and calculate the sum of admissions
grouped_df = df.groupby(['Year', 'Primary Substance Group'])['Admissions'].sum().reset_index(name='Sum Admissions')

# Plot a pie chart for each year
years = grouped_df['Year'].unique()

for year in years:
    # Filter the data for the current year
    filtered_df = grouped_df[grouped_df['Year'] == year]

    # Plot a pie chart
    plt.figure()
    plt.pie(filtered_df['Sum Admissions'], labels=filtered_df['Primary Substance Group'], autopct='%1.1f%%')
    plt.title(f'Year: {year}')

# Display the pie charts
plt.show()
```

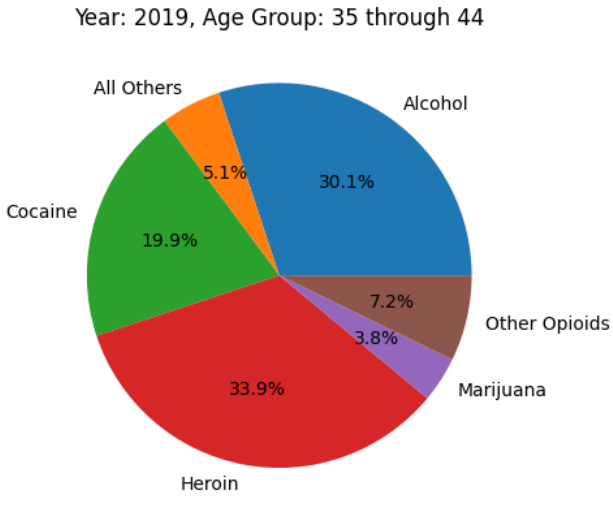


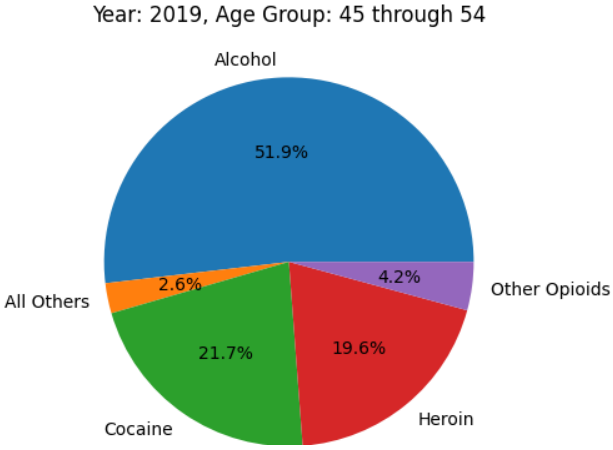



```
import pandas as pd
import matplotlib.pyplot as plt

# Read the Excel file into a DataFrame
df = pd.read_excel('cleaned data.xlsx')

# Group the data by year, age group, and substance group and calculate the sum of admissions
grouped_df = df.groupby(['Year', 'Age Group', 'Primary Substance Group'])['Admissions'].sum().reset_index(name='Sum Admissions')

# Create a pie chart for each year and age group
years = grouped_df['Year'].unique()
age_groups = grouped_df['Age Group'].unique()

for year in years:
    for age_group in age_groups:
        # Filter the data for the current year and age group
        filtered_df = grouped_df[(grouped_df['Year'] == year) & (grouped_df['Age Group'] == age_group)]

        # Plot a pie chart
        plt.figure()
        plt.pie(filtered_df['Sum Admissions'], labels=filtered_df['Primary Substance Group'], autopct='%1.1f%%')
        plt.title(f'Year: {year}, Age Group: {age_group}')

# Display the pie charts
plt.show()
```

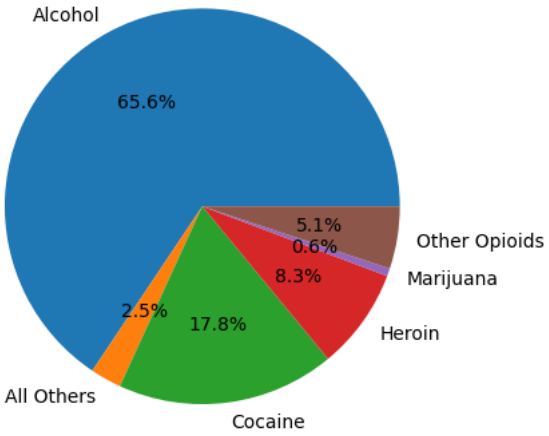

Year: 2019, Age Group: 18 through 24
Cocaine
All Others
Alcohol
Heroin
13.6%
2.5%
12.3%
34.6%
11.1%
Other Opioids
25.9%
Marijuana


Year: 2019, Age Group: 25 through 34
All Others
Alcohol
Cocaine
8.5%
25.6%
14.4%
4.4%
Other Opioids
1.8%
Marijuana
45.3%
Heroin

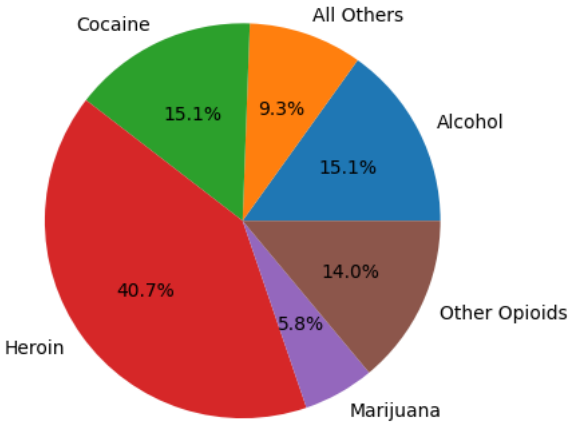

Year: 2019, Age Group: 35 through 44
All Others
Alcohol
5.1%
30.1%
Cocaine
19.9%
7.2%
Other Opioids
3.8%
33.9%
Marijuana
Heroin


Year: 2019, Age Group: 45 through 54
Alcohol
51.9%
4.2%
Other Opioids
All Others
2.6%
21.7%
19.6%
Cocaine
Heroin

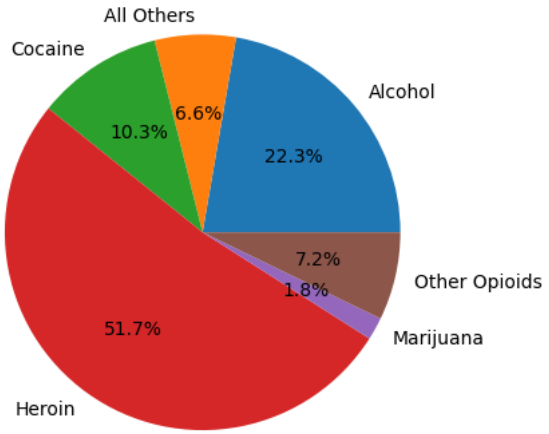
Year: 2019, Age Group: 55 and Older



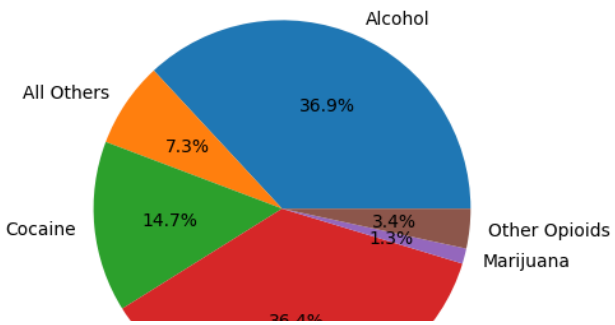
Year: 2020, Age Group: 18 through 24

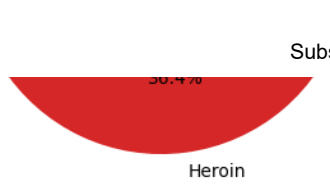


Year: 2020, Age Group: 25 through 34

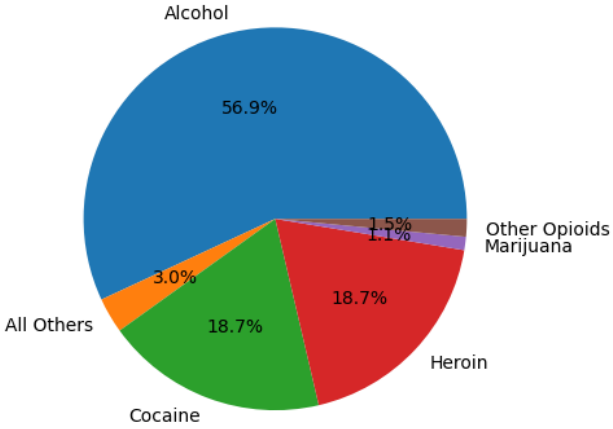


Year: 2020, Age Group: 35 through 44

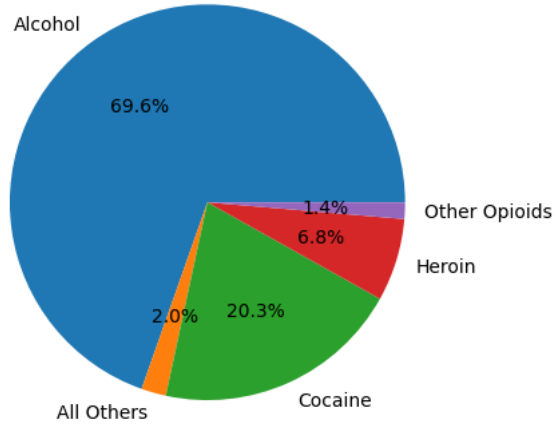




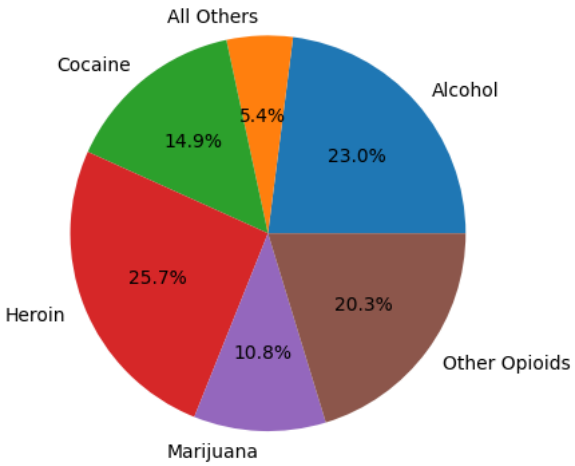
Year: 2020, Age Group: 45 through 54



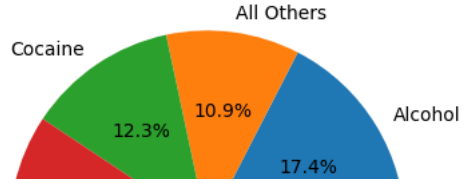
Year: 2020, Age Group: 55 and Older



Year: 2021, Age Group: 18 through 24



Year: 2021, Age Group: 25 through 34



Colab paid products - Cancel contracts here

✓ 0s completed at 3:17 PM