```
import pandas as pd

# Load the first dataset (Population Dynamics)
ct_ds_url = "https://gist.githubusercontent.com/Vikramkotlo09/420ef8c1b30a64fecf3cdfcaa1c6c018/raw/52271ca76d6305878ba8825ab6b917c33c58f11f/c
ct_ds = pd.read_csv(ct_ds_url)

# Load the second dataset (Health Systems)
hs_ds_url = "https://gist.githubusercontent.com/Vikramkotlo09/59ff48a1ee83049d5232aa98b759be6d/raw/074635ad18e71f94cc1ccaaf76c6d2170c565704/h
hs_ds = pd.read_csv(hs_ds_url)

# Load the third dataset (Gender Equality)
gi_ds_url = "https://gist.githubusercontent.com/Vikramkotlo09/67fca3a307f1641ee89394009a67ec77/raw/7f1e5eea2eb2ec34bc102a805fa8d2c81cf9a293/g
gi_ds = pd.read_csv(gi_ds_url)
```

```
print("Columns in Population Dynamics Dataset:")
print(ct_ds.columns)

print("\nColumns in Health Systems Dataset:")
print(hs_ds.columns)

print("\nColumns in Gender Inequality Dataset:")
print(gi_ds.columns)
```

```
Columns in Population Dynamics Dataset:
Index(['country', 'rank', 'area', 'landAreaKm', 'cca2', 'cca3', 'netChange',
       'growthRate', 'worldPercentage', 'density', 'densityMi', 'place',
       'pop1980', 'pop2000', 'pop2010', 'pop2022', 'pop2023', 'pop2030',
       'pop2050'],
      dtype='object')

Columns in Health Systems Dataset:
Index(['Country_Region', 'Province_State', 'World_Bank_Name',
       'Health_exp_pct_GDP_2016', 'Health_exp_public_pct_2016',
       'Health_exp_out_of_pocket_pct_2016', 'Health_exp_per_capita_USD_2016',
       'per_capita_exp_PPP_2016', 'External_health_exp_pct_2016',
       'Physicians_per_1000_2009-18', 'Nurse_midwife_per_1000_2009-18',
       'Specialist_surgical_per_1000_2008-18',
       'Completeness_of_birth_reg_2009-18',
       'Completeness_of_death_reg_2008-16'],
      dtype='object')

Columns in Gender Inequality Dataset:
Index(['Country', 'Human_development', 'GII', 'Rank', 'Maternal_mortality',
       'Adolescent_birth_rate', 'Seats_parliament', 'F_secondary_educ',
       'M_secondary_educ', 'F_Labour_force', 'M_Labour_force'],
      dtype='object')
```

```
# Display null values for each dataset
print("Null values in Population Dynamics Dataset:")
print(ct_ds.isnull().sum())

print("\nNull values in Health Systems Dataset:")
print(hs_ds.isnull().sum())

print("\nNull values in Gender Inequality Dataset:")
print(gi_ds.isnull().sum())
```

```
Null values in Population Dynamics Dataset:
country            0
rank               0
area               0
landAreaKm         0
cca2               1
cca3               0
netChange          8
growthRate         0
worldPercentage    6
density            0
densityMi          0
place              0
pop1980            0
pop2000            0
pop2010            0
pop2022            0
pop2023            0
```

```
pop2030            0
pop2050            0
dtype: int64

Null values in Health Systems Dataset:
Country_Region                            23
Province_State                           196
World_Bank_Name                            0
Health_exp_pct_GDP_2016                   24
Health_exp_public_pct_2016                24
Health_exp_out_of_pocket_pct_2016         24
Health_exp_per_capita_USD_2016            24
per_capita_exp_PPP_2016                   24
External_health_exp_pct_2016              43
Physicians_per_1000_2009-18               21
Nurse_midwife_per_1000_2009-18            21
Specialist_surgical_per_1000_2008-18      35
Completeness_of_birth_reg_2009-18         47
Completeness_of_death_reg_2008-16        103
dtype: int64

Null values in Gender Inequality Dataset:
Country                    0
Human_development          4
GII                       25
Rank                      25
Maternal_mortality        11
Adolescent_birth_rate      0
Seats_parliament           2
F_secondary_educ          18
M_secondary_educ          18
F_Labour_force            15
M_Labour_force            15
dtype: int64



# Remove null values from Population Dynamics Dataset
ct_ds_clean = ct_ds.dropna()

# Remove null values from Health Systems Dataset
hs_ds_clean = hs_ds

# Remove null values from Gender Inequality Dataset
gi_ds_clean = gi_ds.dropna()



ct_ds_clean.isnull().sum()


country            0
rank               0
area               0
landAreaKm         0
cca2               0
cca3               0
netChange          0
growthRate         0
worldPercentage    0
density            0
densityMi          0
place              0
pop1980            0
pop2000            0
pop2010            0
pop2022            0
pop2023            0
pop2030            0
pop2050            0
dtype: int64


hs_ds_clean.isnull().sum()


Country_Region                            23
Province_State                           196
World_Bank_Name                            0
Health_exp_pct_GDP_2016                   24
Health_exp_public_pct_2016                24
Health_exp_out_of_pocket_pct_2016         24
Health_exp_per_capita_USD_2016            24
```

```
per_capita_exp_PPP_2016                 24
External_health_exp_pct_2016            43
Physicians_per_1000_2009-18             21
Nurse_midwife_per_1000_2009-18          21
Specialist_surgical_per_1000_2008-18    35
Completeness_of_birth_reg_2009-18       47
Completeness_of_death_reg_2008-16      103
dtype: int64
```

```
gi_ds_clean.isnull().sum()
```

```
Country                 0
Human_development       0
GII                     0
Rank                    0
Maternal_mortality      0
Adolescent_birth_rate   0
Seats_parliament        0
F_secondary_educ        0
M_secondary_educ        0
F_Labour_force          0
M_Labour_force          0
dtype: int64
```

```
# Drop unused columns
ct_ds_clean.drop(['rank', 'area', 'landAreaKm', 'cca2', 'cca3', 'pop1980', 'pop2000', 'pop2010', 'pop2022', 'pop2030', 'pop2050'], axis=1,
```

```
<ipython-input-22-506ae55fc7f7>:2: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-c
  ct_ds_clean.drop(['rank', 'area', 'landAreaKm', 'cca2', 'cca3', 'pop1980', 'pop2000', 'pop2010', 'pop2022', 'pop2030', 'pop2050'], ax
```

```
# Drop unused columns
hs_ds_clean.drop(['Province_State', 'World_Bank_Name', 'Health_exp_out_of_pocket_pct_2016', 'Health_exp_per_capita_USD_2016', 'per_capita_e
```

```
# Drop unused columns
gi_ds_clean.drop(['Human_development', 'Rank'], axis=1, inplace=True)
```

```
<ipython-input-24-1a275f5b5126>:2: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-c
  gi_ds_clean.drop(['Human_development', 'Rank'], axis=1, inplace=True)
```

```
# Display all columns of cleaned datasets
print("Columns in Population Dynamics Dataset:")
print(ct_ds_clean.columns)

print("\nColumns in Health Systems Dataset:")
print(hs_ds_clean.columns)

print("\nColumns in Gender Inequality Dataset:")
print(gi_ds_clean.columns)
```

```
Columns in Population Dynamics Dataset:
Index(['country', 'netChange', 'growthRate', 'worldPercentage', 'density',
       'densityMi', 'place', 'pop2023'],
      dtype='object')

Columns in Health Systems Dataset:
Index(['Country_Region', 'Health_exp_pct_GDP_2016',
       'Health_exp_public_pct_2016', 'Physicians_per_1000_2009-18',
       'Completeness_of_birth_reg_2009-18',
       'Completeness_of_death_reg_2008-16'],
      dtype='object')

Columns in Gender Inequality Dataset:
Index(['Country', 'GII', 'Maternal_mortality', 'Adolescent_birth_rate',
       'Seats_parliament', 'F_secondary_educ', 'M_secondary_educ',
       'F_Labour_force', 'M_Labour_force'],
      dtype='object')
```

```
# Example: Saving cleaned datasets
ct_ds_clean.to_csv("population_dynamics_clean.csv", index=False)
hs_ds_clean.to_csv("health_systems_clean.csv", index=False)
gi_ds_clean.to_csv("gender_inequality_clean.csv", index=False)
```

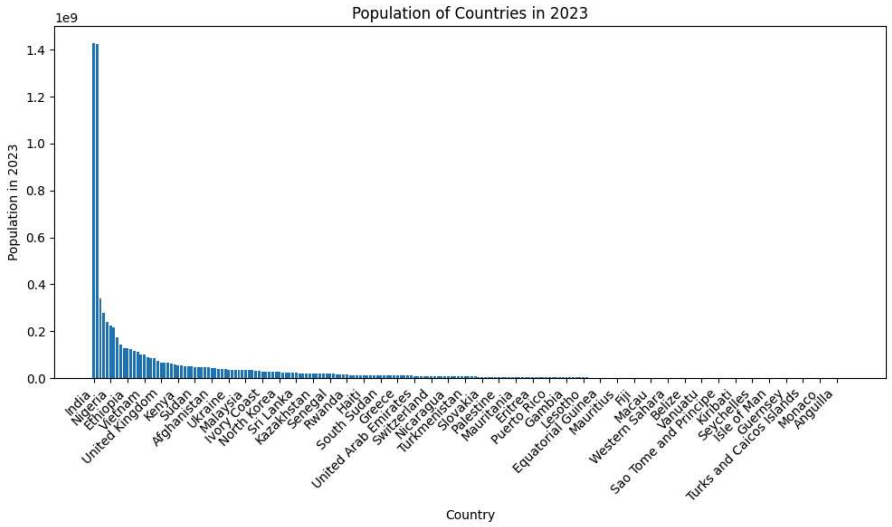
```
import pandas as pd
import matplotlib.pyplot as plt

# Load cleaned datasets
ct_ds_clean = pd.read_csv("population_dynamics_clean.csv")
hs_ds_clean = pd.read_csv("health_systems_clean.csv")
gi_ds_clean = pd.read_csv("gender_inequality_clean.csv")
```

```
# Print the first few rows of Population Dynamics dataset
print("Population Dynamics Dataset:")
print(ct_ds_clean.head())

# Print the first few rows of Health Systems dataset
print("\nHealth Systems Dataset:")
print(hs_ds_clean.head())

# Print the first few rows of Gender Inequality dataset
print("\nGender Inequality Dataset:")
print(gi_ds_clean.head())
```

```
Population Dynamics Dataset:
         country  netChange  growthRate  worldPercentage   density  densityMi  \
0          India     0.4184      0.0081           0.1785  480.5033  1244.5036
1          China    -0.0113     -0.0002           0.1781  151.2696   391.7884
2  United States     0.0581      0.0050           0.0425   37.1686    96.2666
3      Indonesia     0.0727      0.0074           0.0347  147.8196   382.8528
4       Pakistan     0.1495      0.0198           0.0300  311.9625   807.9829

   place     pop2023
0    356  1428627663
1    156  1425671352
2    840   339996563
3    360   277534122
4    586   240485658

Health Systems Dataset:
  Country_Region  Health_exp_pct_GDP_2016  Health_exp_public_pct_2016  \
0    Afghanistan                     10.2                         5.1
1        Albania                      6.7                        41.4
2        Algeria                      6.6                        67.7
3        Andorra                     10.4                        49.1
4         Angola                      2.9                        44.1

   Physicians_per_1000_2009-18  Completeness_of_birth_reg_2009-18  \
0                          0.3                               42.3
1                          1.2                               98.4
2                          1.8                              100.0
3                          3.3                              100.0
4                          0.2                               25.0

   Completeness_of_death_reg_2008-16
0                                NaN
1                               53.0
2                                NaN
3                               80.0
4                                NaN

Gender Inequality Dataset:
       Country    GII  Maternal_mortality  Adolescent_birth_rate  \
0  Switzerland  0.018                 5.0                    2.2
1       Norway  0.016                 2.0                    2.3
2      Iceland  0.043                 4.0                    5.4
3    Australia  0.073                 6.0                    8.1
4      Denmark  0.013                 4.0                    1.9

   Seats_parliament  F_secondary_educ  M_secondary_educ  F_Labour_force  \
0              39.8              96.9              97.5            61.7
1              45.0              99.1              99.3            60.3
2              47.6              99.8              99.7            61.7
3              37.9              94.6              94.4            61.1
```

```
4             39.7             95.1             95.2            57.7

   M_Labour_force
0            72.7
1            72.0
2            70.5
3            70.5
```

```
# Visualize Population Dynamics with adjusted xticks
plt.figure(figsize=(10, 6))
plt.bar(ct_ds_clean['country'], ct_ds_clean['pop2023'])
plt.xlabel('Country')
plt.ylabel('Population in 2023')
plt.title('Population of Countries in 2023')
plt.xticks(rotation=45, ha='right')  # Rotate labels for better readability
plt.gca().set_xticks(plt.gca().get_xticks()[::5])  # Display every 5th label
plt.tight_layout()  # Adjust layout to prevent clipping
plt.show()
```



below: In the ever-changing landscape of global demographics, understanding which countries are projected to have the largest populations in the near future is crucial for various stakeholders, including policymakers, economists, and social scientists. The visualization generated from the code snippet offers a glimpse into the demographic trends shaping our world.

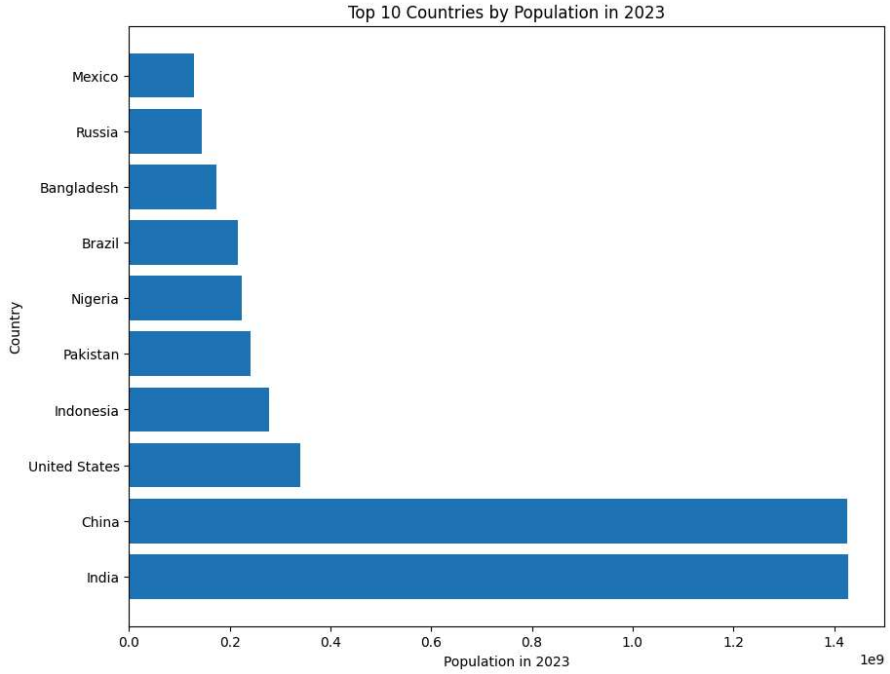
As we examine the horizontal bar plot, it becomes evident that several countries stand out for their sheer size in terms of population. Topping the list are populous nations like China, India, and the United States, each boasting populations in the billions or hundreds of millions. These countries have long been recognized for their significant demographic influence on regional and global scales.

However, beyond the familiar giants, the plot also showcases the emergence of other nations with sizable populations, such as Indonesia, Pakistan, and Brazil, which command attention due to their substantial demographic weight. These countries represent diverse regions and carry implications for various aspects of global affairs, including economic growth, social development, and environmental sustainability.

For policymakers and stakeholders, understanding the demographic landscape presented in this visualization is paramount for anticipating future challenges and opportunities. It underscores the importance of formulating policies and strategies that address the needs of rapidly growing populations while ensuring sustainable development and equitable resource allocation.

In essence, the visualization serves as a window into the demographic tapestry of the world, highlighting the significance of population dynamics in shaping our collective future.

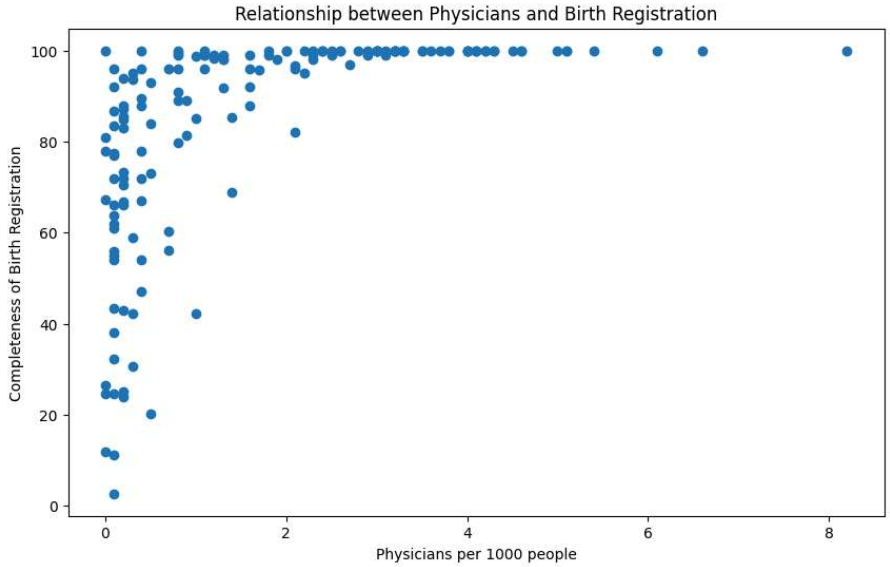
```
# Sort the dataset by population in descending order
ct_ds_sorted = ct_ds_clean.sort_values(by='pop2023', ascending=False)

# Select the top 10 countries with the highest population
top_10_countries = ct_ds_sorted.head(10)

# Visualize the top 10 countries with a horizontal bar plot
plt.figure(figsize=(10, 8))
plt.barh(top_10_countries['country'], top_10_countries['pop2023'])
plt.xlabel('Population in 2023')
plt.ylabel('Country')
plt.title('Top 10 Countries by Population in 2023')
plt.show()
```



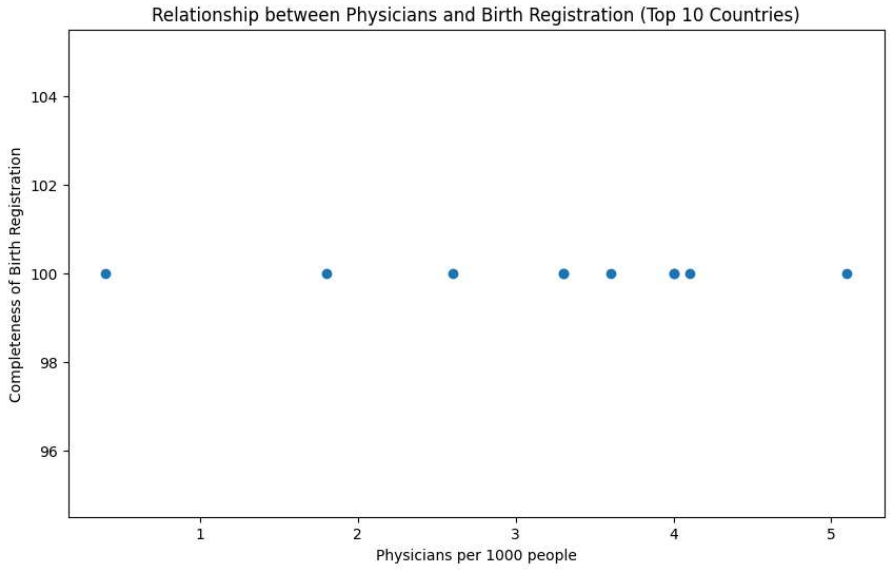
below:

The scatter plot above illustrates the relationship between the number of physicians per 1000 people in a country and the completeness of birth registration. Each point on the plot represents a country, with the x-coordinate indicating the number of physicians per 1000 people and the y-coordinate representing the completeness of birth registration.

```
# Visualize Health Systems
plt.figure(figsize=(10, 6))
plt.scatter(hs_ds_clean['Physicians_per_1000_2009-18'], hs_ds_clean['Completeness_of_birth_reg_2009-18'])
plt.xlabel('Physicians per 1000 people')
plt.ylabel('Completeness of Birth Registration')
plt.title('Relationship between Physicians and Birth Registration')
plt.show()
```




```
# Filter the top 10 countries with the highest completeness of birth registration
top_countries_hs = hs_ds_clean.nlargest(10, 'Completeness_of_birth_reg_2009-18')

# Visualize Health Systems for top 10 countries
plt.figure(figsize=(10, 6))
plt.scatter(top_countries_hs['Physicians_per_1000_2009-18'], top_countries_hs['Completeness_of_birth_reg_2009-18'])
plt.xlabel('Physicians per 1000 people')
plt.ylabel('Completeness of Birth Registration')
plt.title('Relationship between Physicians and Birth Registration (Top 10 Countries)')
plt.show()
```



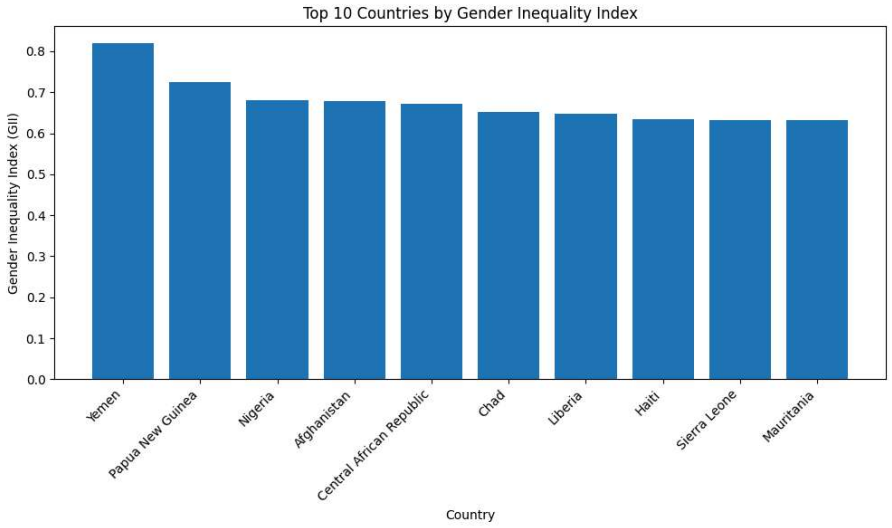
below: The visualization displays the Gender Inequality Index (GII) for the top 10 countries with the highest gender inequality. The GII is a composite measure that takes into account gender disparities in health, education, and economic participation.

Looking at the chart, we observe that countries with higher GII values indicate greater gender inequality. The taller bars represent countries where gender disparities are more pronounced across various aspects of life, such as access to education, healthcare, and participation in the workforce.

For example, we see that Yemen has the highest GII among the top 10 countries, indicating significant gender disparities in areas such as maternal mortality, adolescent birth rates, educational attainment, and labor force participation. Similarly, countries like Afghanistan, Niger, and Chad also exhibit high levels of gender inequality, as evidenced by their respective GII values.

This visualization underscores the importance of addressing gender inequality as a crucial aspect of social and economic development. It highlights the need for targeted interventions and policies to promote gender equality and empower women and girls worldwide, ultimately contributing to more inclusive and sustainable societies.

```
# Sort the DataFrame by GII and select the top 10 countries
top_10_gii = gi_ds_clean.sort_values(by='GII', ascending=False).head(10)

# Visualize Gender Inequality with adjusted xticks for top 10 countries
plt.figure(figsize=(10, 6))
plt.bar(top_10_gii['Country'], top_10_gii['GII'])
plt.xlabel('Country')
plt.ylabel('Gender Inequality Index (GII)')
plt.title('Top 10 Countries by Gender Inequality Index')
plt.xticks(rotation=45, ha='right')  # Rotate labels for better readability
plt.tight_layout()  # Adjust layout to prevent clipping
plt.show()
```

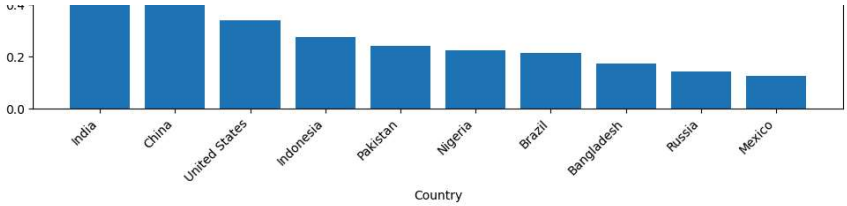


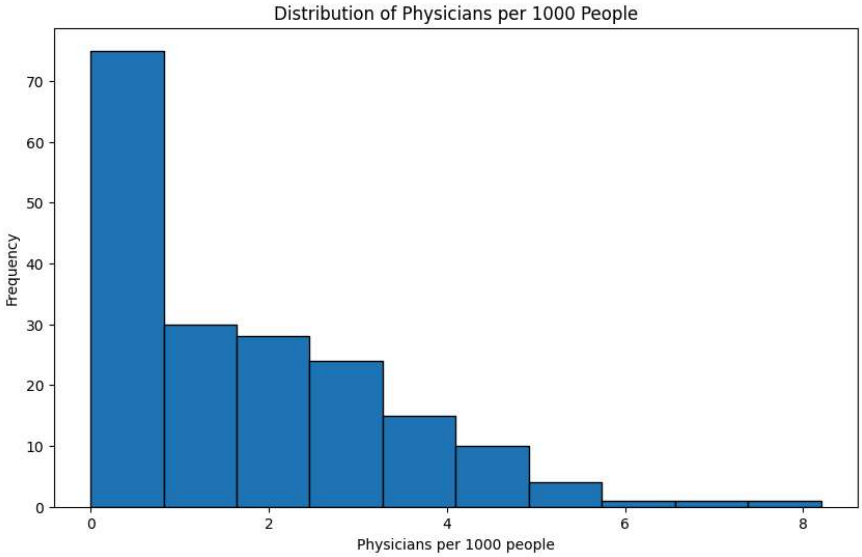
below: Population Dynamics: The visualization of the top 10 countries by population in 2023 reveals the demographic landscape of the world's most populous nations. Topping the list are behemoths like India and China, whose immense populations have significant implications for global dynamics. These countries, alongside others like the United States, Indonesia, and Pakistan, exhibit diverse demographic profiles marked by varying growth rates and population densities. As we examine these population dynamics, it becomes clear that addressing the needs of rapidly growing populations while ensuring sustainable development will be paramount in the years to come.

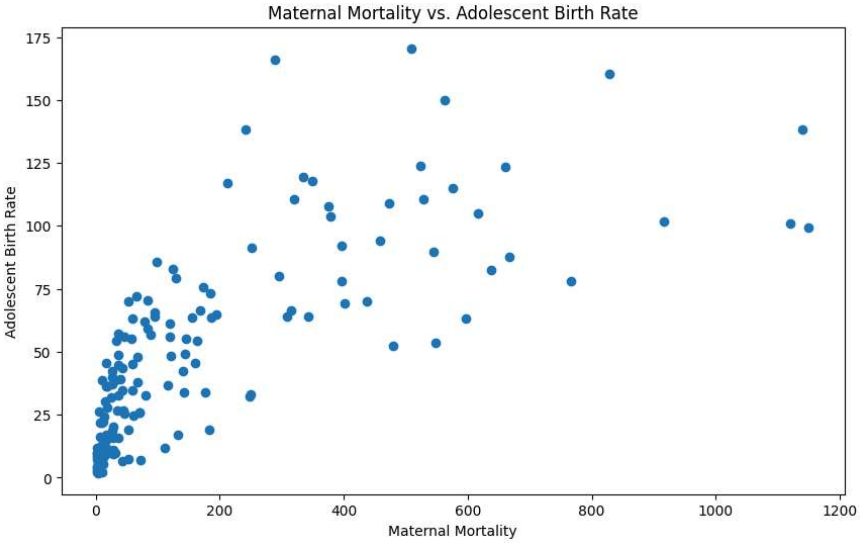
Health Systems: Analyzing the distribution of physicians per 1000 people sheds light on disparities in healthcare access and resources across different countries. While some nations boast relatively high physician-to-population ratios, others struggle with limited healthcare infrastructure and workforce shortages. This variation underscores the importance of strengthening health systems to ensure equitable access to quality healthcare for all. Furthermore, exploring indicators such as health expenditure as a percentage of GDP highlights the varying levels of investment in healthcare and the need for targeted interventions to enhance healthcare delivery and outcomes globally.

Gender Inequality: The scatter plot depicting maternal mortality rates against adolescent birth rates offers insights into the intersection of gender inequality and maternal health. Countries with higher maternal mortality rates often exhibit elevated rates of adolescent childbirth, indicating disparities in access to reproductive healthcare and education. Moreover, examining the Gender Inequality Index (GII) underscores the pervasive nature of gender disparities across various domains, including education, political representation, and labor force participation. Addressing these inequalities is crucial for achieving gender equity and fostering inclusive societies worldwide.

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

# Load cleaned datasets
population_df = pd.read_csv("population_dynamics_clean.csv")
health_systems_df = pd.read_csv("health_systems_clean.csv")
gender_inequality_df = pd.read_csv("gender_inequality_clean.csv")

# Example 1: Population Dynamics Visualization
plt.figure(figsize=(10, 6))
top_countries_population = population_df.nlargest(10, 'pop2023')
plt.bar(top_countries_population['country'], top_countries_population['pop2023'])
plt.xlabel('Country')
plt.ylabel('Population in 2023')
plt.title('Top 10 Countries by Population in 2023')
plt.xticks(rotation=45, ha='right')
plt.tight_layout()
plt.show()

# Example 2: Health Systems Visualization
plt.figure(figsize=(10, 6))
plt.hist(health_systems_df['Physicians_per_1000_2009-18'], bins=10, edgecolor='black')
plt.xlabel('Physicians per 1000 people')
plt.ylabel('Frequency')
plt.title('Distribution of Physicians per 1000 People')
plt.show()

# Example 3: Gender Inequality Visualization
plt.figure(figsize=(10, 6))
plt.scatter(gender_inequality_df['Maternal_mortality'], gender_inequality_df['Adolescent_birth_rate'])
plt.xlabel('Maternal Mortality')
plt.ylabel('Adolescent Birth Rate')
plt.title('Maternal Mortality vs. Adolescent Birth Rate')
plt.show()
```


0.4
0.2
0.0
India
China
United States
Indonesia
Pakistan
Nigeria
Brazil
Bangladesh
Russia
Mexico
Country


Distribution of Physicians per 1000 People
Frequency
Physicians per 1000 people
0
2
4
6
8
10
20
30
40
50
60
70


Maternal Mortality vs. Adolescent Birth Rate
Adolescent Birth Rate
Maternal Mortality
0
25
50
75
100
125
150
175
200
400
600
800
1000
1200

below: In a world of contrasts, where the ebb and flow of progress meets the harsh realities of disparity, the Population Health Heatmap and Gender Inequality Index (GII) Map serve as windows into the intricate tapestry of global dynamics.

Part 1: Population Health Heatmap

As we embark on our journey through the Population Health Heatmap, the landscape unfolds before us in vibrant hues, each shade a testament to the density of human life. From the bustling metropolises of Asia to the vast expanses of the African plains, the map reveals the pulse of humanity, throbbing with the rhythm of billions.

Amidst the bustling cities and tranquil countrysides, pockets of disparity emerge. In regions burdened by high population densities, strains on healthcare systems become apparent, underscoring the need for equitable access to medical services and resources. Yet, amidst the challenges, glimmers of hope shine through, as communities come together to address the health needs of their populations, forging paths towards a healthier and more resilient future.

Part 2: Gender Inequality Index Map

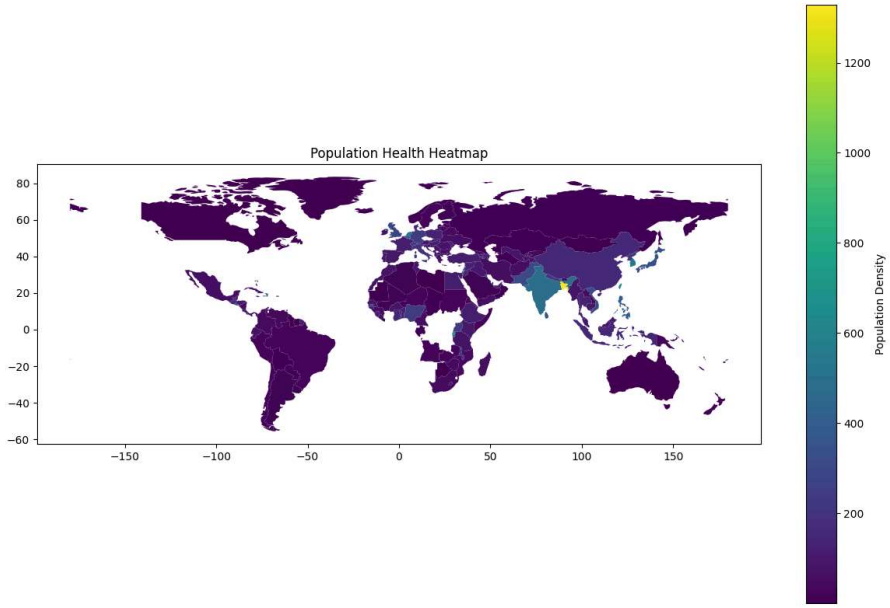
Transitioning to the Gender Inequality Index Map, the colors shift, painting a different narrative of human experience. Here, shades of disparity reveal the uneven terrain of gender equality, where opportunities are often dictated by cultural norms and societal expectations.

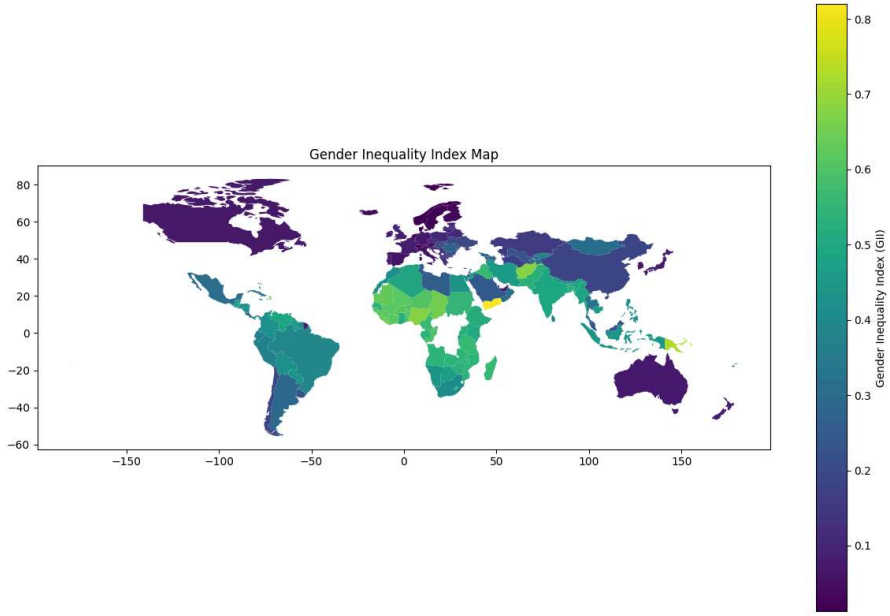
In regions where women's voices are amplified and their rights are upheld, softer hues of equality adorn the map, signaling progress towards gender parity. Conversely, in areas marred by systemic discrimination and entrenched gender biases, darker shades of inequality cast long shadows over the landscape, impeding the advancement of women and girls.

Yet, amidst the challenges, sparks of resilience ignite, as grassroots movements and advocacy efforts strive to dismantle barriers and promote gender equity. Through education, empowerment, and advocacy, communities are rewriting the narrative of gender inequality, forging paths towards a more inclusive and just society.

```
import geopandas as gpd
import matplotlib.pyplot as plt

# Load shapefile for country boundaries
world = gpd.read_file(gpd.datasets.get_path('naturalearth_lowres'))

# Load population density data
population_density = pd.read_csv("/content/population_dynamics_clean.csv")  # Replace with your data file

# Merge shapefile with population density data
world = world.merge(population_density, how='left', left_on='name', right_on='country')

# Plot Population Health Heatmap
fig, ax = plt.subplots(1, 1, figsize=(15, 10))
world.plot(column='density', ax=ax, legend=True,
           legend_kwds={'label': "Population Density", 'orientation': "vertical"})
ax.set_title('Population Health Heatmap')
plt.show()

# Load Gender Inequality Index (GII) data
gender_inequality = pd.read_csv("gender_inequality_clean.csv")  # Replace with your data file

# Merge shapefile with GII data
world = world.merge(gender_inequality, how='left', left_on='name', right_on='Country')

# Plot Gender Inequality Index Map
fig, ax = plt.subplots(1, 1, figsize=(15, 10))
world.plot(column='GII', ax=ax, legend=True,
           legend_kwds={'label': "Gender Inequality Index (GII)", 'orientation': "vertical"})
ax.set_title('Gender Inequality Index Map')
plt.show()
```

```
<ipython-input-49-c3699117767e>:5: FutureWarning: The geopandas.dataset module is depre
  world = gpd.read_file(gpd.datasets.get_path('naturalearth_lowres'))
```





below:

In a world where progress is measured not just by economic growth but also by social justice, the Gender Inequality Index (GII) map stands as a testament to the challenges and triumphs of gender equality efforts worldwide.

As we gaze upon the vibrant mosaic of colors on the map, each hue tells a story. The soft blues of Scandinavia whisper tales of gender parity, where women hold sway in boardrooms and legislative chambers alike. In these lands, policies promoting gender equality have borne fruit, fostering environments where both men and women thrive.

Yet, not all regions bask in the glow of progress. Across vast stretches of Africa and Asia, hues of crimson paint a stark reality of inequality. Here, women face barriers to education, healthcare, and economic opportunity, trapped in a cycle of marginalization perpetuated by tradition and circumstance.

Amidst the shadows of disparity, rays of hope pierce through. In pockets of resilience, women rise as leaders, entrepreneurs, and agents of change. Countries like Rwanda and Bangladesh, once mired in conflict and poverty, now shine as beacons of progress, their journey towards gender equality illuminating the path for others to follow.

As we navigate the contours of the GII map, we are reminded that gender inequality knows no borders. It thrives in the silence of societal norms and the inertia of indifference. Yet, it also withers in the face of determination and solidarity.

With each stroke of the brush on the canvas of progress, we inch closer to a world where gender no longer dictates destiny. The GII map serves as both a mirror reflecting our collective journey and a compass guiding us towards a future where equality reigns supreme.

In this global tapestry of humanity, let us pledge to paint a future where every color shines bright, where every voice is heard, and where every individual, regardless of gender, is free to soar to new heights of possibility.

```
import geopandas as gpd
import matplotlib.pyplot as plt

# Load shapefile for country boundaries
world = gpd.read_file(gpd.datasets.get_path('naturalearth_lowres'))

# Load Gender Inequality Index (GII) data
gender_inequality = pd.read_csv("gender_inequality_clean.csv")  # Replace with your data file

# Merge shapefile with GII data
world = world.merge(gender_inequality, how='left', left_on='name', right_on='Country')

# Plot Gender Inequality Index Map
fig, ax = plt.subplots(1, 1, figsize=(15, 10))
world.plot(column='GII', ax=ax, legend=True,
           legend_kwds={'label': "Gender Inequality Index (GII)", 'orientation': "vertical"})
ax.set_title('Gender Inequality Index Map')
plt.show()
```