Populations Project Findings

**-What does the overall population distribution between different regions of the world look like from 1970 through 2020, as well as estimates through 2050?**

Overall, about 94% - 96% of the world population is in the 8 regions any time between 1970 and 2050. For example, about 7.8 billion people are on Earth in 2020. Among them, 7.4 billion are in these 8 regions. Population in 1970 was concentrated in either Asian countries (58%) and European countries (13%). European Union was the 3rd most populated area on Earth in 1970 followed by Latin America and Caribbean. In 2020, population seems to have declined within the majority of regions except in Sub-Saharan Africa and South Asia. The proportion of the population in European Union is currently the 5th out of 8 regions. This could indicate the population European countries declined in the last 50 years. In the future (2050), Sub-Saharan African countries are expected to have about 1/4 of population. Asian countries seem to have about 1/2 of the remaining population. In other words, 3/4 of the population is expected either in Asia or Sub-Saharan African countries. Total population of the rest of 5 regions is expected to have about 25% of the whole population. European Union is one of these 5 regions, the 3rd from the least populated region and will have only about 5.4% of all people on Earth.

In the selected populations that were analyzed each region’s population annual growth rates generally decreased from 1970 to 2020 while maintaining a positive net growth rate. The only region analyzed that maintained about the same annual population growth rate of about 2.75% per year was the Sub-Saharan Africa region, and this can be seen in the 'Regions Population Annual (%) Growth 1970-2018' line chart. It is also worth observing the steep decline in population growth in the Middle East and North Africa regions between 1990-1992 and with some additional research it was discovered that there were many wars across that particular region during that time period. The final and most noticeable observation was that starting in the year 1990 the Central Europe and Baltics region experienced negative continuous annual growth rates and coincidentally from 1990 until present day there have been many conflicts involving war and countries separating due to conflicts in this region.

**-How does the population distribution among age groups differ between 1970-2020?**

We can observe in 1970 that the Middle East and African regions have some of the largest younger populations ages 0-14 while their elderly populations percent of total population are quite smaller. Another observation worth noting is that the United States, EU, and Central Europe and Baltics regions are 3 largest percentages for the 15-64 and 65 and above age groups and are also the 3 smallest percentages for the 0-14 age group. When we look at the major age groups analyzed by region in 1970 and 2020 we discovered that in the age group of 65 and above the population percent of total population increased significantly for most regions besides Sub-Saharan Africa. The two charts that showcase this observation are the ‘Populations Ages 65 and Above percent of Total Population 1970 & 2020’ bar charts. The main observations drawn from these charts are the general increase in age of all region populations over these 50 years and the regions with better access to healthcare having the biggest increase in elderly population percentage of total population. It is also worth noting that the top 3 countries with the highest elderly population percentages include the European regions along with the United States who happen to have some of the highest urban populations with easy access to healthcare.

**-How does the Urban and Rural total population distributions of the 8 regions analyzed look like along with the annual percent population growth rate between 1970-2020?**

The general trend observed is that most region populations saw people leaving rural areas to move to urban areas as time progressed. East Asia & the Pacific had the highest movement of its population total from rural areas to urban areas. The territory had its highest movement between 1978 and 2000 with its urban growth moving from roughly 27% to 41%. East Asia & the Pacific has had the greatest movement from leaving the rural areas and moving towards the urban areas. However, East Asia & the Pacific’s growth percentage towards Urban areas has been slowly declining since 1980 after the country had its biggest annual urban growth percentage between 1975 and 1979 where the territory’s annual growth percentage from its rural to urban areas rose from 2.4% to 3.9%.

**-How does the fertility rate change between regions between 1970-2020**

Looking at the ‘Global Fertility Rate Over Time’ chart we can observe that from 1970-2020 the fertility rate decreases at varying rates for each region. The fertility rate remains steady between 1.5-2 children per woman for most regions by around 2020 with South Asia not far behind. The regions that experience the greatest decline in fertility rate are Middle East and North Africa, South Asia, and East Asia & Pacific and this occurs from 1970 to 2020. East Asia & Pacific along with the Middle East & North Africa regions experience a notable rapid decline in fertility rate from 1970 to 2000 with both of their respective rates cut in half. European regions and the United States only experience a slight decline in fertility rate from 1970-2020 compared to the rest of the regions analyzed. The predicted fertility rates beyond 2020 suggest that fertility rates will continue to decline or level out as time goes but we cannot make any decisive observations because they are only estimates and this is a limitation of the data we analyzed.