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Assignment 4 – Signature Individual Essay

By,

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**Introduction**

Adolescents are between the ages of 10 and 19 as defined by the United Nations: Around 1.2 billion people in the world come into this category, accounting for 16% of the global population. Adolescent well-being encompasses many dimensions and UNICEF monitors several indicators.

The dataset is source from data.unicef.org, UNICEF (United Nations Children’s Funds and it provides information about factors affecting adolescent’s life across the worldwide. From the dataset we have chosen Demographics, Health and Education. The data taken consist of approximately 3600 records.

**Business Questions**

The final dashboard comprised an overview of adolescents such as demographics , health, and education. My individual contribution included answering the below business questions through visualizations in Tableau.

*Demographics***:**

* Finding the top 10 adolescent-populated countries in the world and compare with its total population.

*Health****:***

* What risk factors are affecting the adolescent population the most and how is the number of deaths?

**Analysis**

*Top 10 adolescent-populated countries in the world:*

Chart, bubble chart

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I used a bubble graph to show the top 10 adolescent populated countries. I used it to differentiate between each country. The more the size of the bubble, the more the number of adolescents in that country. We can make the following inferences from the above graph:

* India tops the list with a total of 252 million adolescents and the second country with highest number of adolescents is China(166 million approx.) which is 65% of India’s adolescent population.
* Bangladesh and Brazil have almost similar number of adolescents(31 million approx.) Also, Nigeria and Indonesia have similar number of adolescents i.e.,47 million approx.
* Among other countries, Ethiopia ranks the least in our list with a total of 26 million adolescents.

*Proportion of adolescents against the total population:*

I have used a bar graph to depict the proportion of adolescents in total population for the top ten adolescent populated countries.

Graphical user interface

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From the above graph, we can make the following inferences:

* Ethiopia and Nigeria have the highest proportion of adolescents(23% approx.) with respect to total population.
* Even though India topped first with a total of 252 million adolescents, that proportion is just 18% of the total population.
* The adolescent proportion is 11% of the total population for China which is nearly half of Ethiopia and Nigeria.

*Risk factors affecting the adolescent population:*

Graphical user interface, application

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The heat map depicts the risk factors affecting the lives of adolescents. Insufficient physical activity, alcohol use, and tobacco usage are among the main factors endangering adolescents' lives. Those tiles with dark intensities show that that particular risk factor has a greater impact on adolescents in those countries. Few inferences from the above graph include:

* Pakistan has the maximum impact due to insufficient physical activities(87%).
* On an overall perspective, the usage of tobacco hasn’t affected the adolescents that much when compared to alcohol usage and insufficient physical activities.
* Also, Nigeria and Ethiopia do not have any impact due to Tobacco usage and Insufficient physical health activities.

*Number of adolescent deaths vs insufficient physical:*

Graphical user interface, text, application

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The above scatter plot shows the relationship between adolescent deaths and insufficient physical activity risk factor. Few inferences from the above graph include:

* India has the highest number of deaths(168k approx.) due to insufficient physical activities(74%) whereas Pakistan has the second highest number of deaths with just one fourth of deaths that occurred in India for the same reason.
* Bangladesh and Indonesia have almost same number of deaths due to this risk factor.
* Nigeria and Ethiopia do not have any impact due to Insufficient physical health activities.

**Summary**

Being a part of this group project, I gained experience in framing business questions and identifying key takeaways using Tableau visualizations.

**Reference**

Tableau dashboard: -

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