Health and Well-Being of Women

Introduction

Health is one of the most crucial and essential aspects of sustainable development. Ensuring healthy lives and promoting well-being is imperative to build prosperous societies. Women are the foundation of any civilization and women play the most important role in building of societies hence the objective of this analytical study is to understand the trends in health and well-being of women in Telangana by exploring relevant health indicators to provide insights for data-driven decision making.

Prompt

The aim of the study to gain insights on how health and well-being of women in Telangana can be improved by analyzing health indicators like Family planning methods Nutrition in Women, Tobacco and Alcohol consumption among adult women and other data from the **NHFS-5 dataset**.

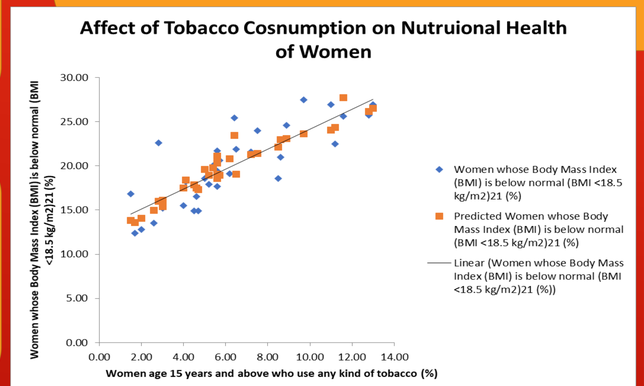
Methodology

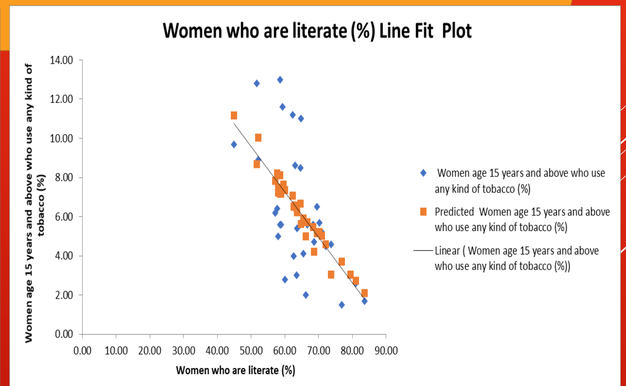
Tools used: Python and Excel
Exploratory data analysis was conducted to understand the data. Further, the to explore which factors affect birth rate, nutrition in women. the statistical technique of **multiple linear regression** was used with different response variables and predictor variables.

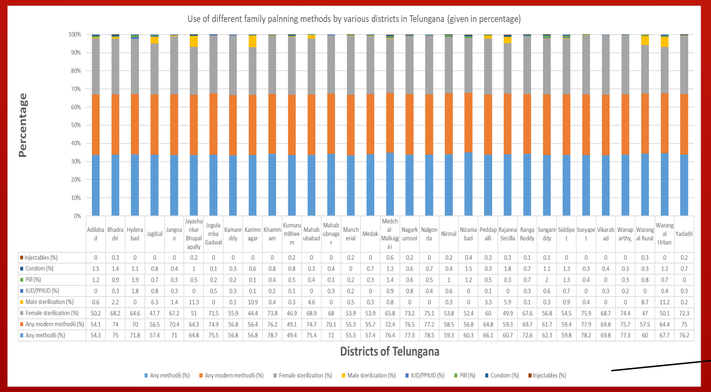
Analysis

A) To explore the question 'What is the relationship between these various family planning methods practiced in Telangana and the birth percentage of Telangana' and 'which among the various methods the birth process has strong influence on the birth percentage' Multiple Linear Regression (MLR) was carried out with birth rate as the dependent variable and various family planning methods as independent variables. MLR was done using Python.

B) To understand the affect tobacco consumption has on health of women in Telangana and explore how other characteristics like literacy and education affect tobacco consumption. Multiple Linear regression was conducted using Microsoft Excel. The percentage of women with low BMI was taken as the response variable while measure of alcohol consumption and tobacco consumption was taken as the predictor variable. In the second case the tobacco consumption measure was response variable and literacy indicators and other characteristics were predictor variables .







Results

From the above table it can be inferred that although all independent variable has impact on dependent variable, their degree and way of impact is unique. The p values suggest the following: The p value of each and every variable is greater than 0.05. That is, There is no relationship between the independent variables (various family planning methods) and the dependent variable (birth rate).

INDEPENDENT VARIABLES	TEST STATISTIC VALUES	p - VALUES
Any method (x1)	0.449	0.658
Any modern method (x2)	-0.023	0.982
Female sterilization (x3)	-0.162	0.873
Male sterilization (x4)	-0.180	0.859
IUD/PPIUD (x5)	1.196	0.244
Pill (x6)	-0.848	0.405
Condom (x7)	0.053	0.958
Injectable (x8)	-0.163	0.872

Results

From the regression analysis on Tobacco consumption (independent variable) and nutrition deficiency (dependent variable) in women in Telangana, we find the there is a significant relationship between the two quantities as the p-value less than 0.05 and R-square of 74.42%. The relationship between tobacco consumption and literacy is also found to be significant as the model shows a p-value of less than 0.05 and R-square of 41.05%

Conclusion

The study provides valuable insights on the health profile of women in Telangana. The analysis of data and visualization of results, following steps can be considered:

- As the various family planning methods does not have impact on births the government should take more initiative on educating people about on How sustainable birth control can lead to sustainable growth and sustainable living. The government can also take initiative in inculcating the awareness on birth control process to students by conducting various proper sessions on sex education.

- It is evident that nutritional deficiency (below normal BMI) in women is high in districts where tobacco consumption is high and we also see that tobacco consumption is high among women in districts with low literacy rates thus it is prudent to promote health education in basic literacy programme and also essential to ensure more cohesion between the campaigns against tobacco and efforts for good nutritional well-being of women.

By: Durgesh Kinnerkar, Barnali Das, Amirta V and Dewansh Dikshit [Team: DataBots]

Reference : https://www.un.org/sustainabledevelopment/health/