

# Understanding Contraceptive Data through Data Before and During Pandemic

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## ABSTRACT

The Philippines is one of the world's fastest urbanizing countries. To provide important reproductive health services to Filipino women and their families, the Department of Health (DOH) began distributing family planning goods to regional health offices. This study was done to understand contraceptive data in Lucena City through data science. The study used descriptive and predictive analysis. The data were requested from the Philippine Statistics Authority, City Health Office of Lucena and Civil Registrar. Based on the visualization done, study suggests that the birth rate increases as the number of contraceptive dropout increases but inversely moves with the number of contraceptive users. In addition, the types of contraceptives used does not affect birth rate but the number of contraceptive users. The results of the survey suggest that contraceptives use, and nonuse is affected by childbearing and birth spacing. The study concludes that the number of contraceptive users can explain 70.08% of the birth rate and the number of dropouts can explain 67.38% of the birth rate. Contraceptive types do not affect birth rate, but the number of users do. Natural contraceptives can be used effectively in times of pandemic as it does not require someone to take pills or any medications. The study built a data staging area, in the form of a website, which can help clean, filter, visualize and predict contraceptive data. Prediction of birth rate was implemented in data staging area as this can help Lucena City manage contraceptive distribution to strategize contraceptive distribution.

*Keywords: Contraceptive, Pandemic, Birth Rate, Population, Data Analytics*

### **About the presenter:**

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