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A Descriptive Analysis of Reported Health Issues in Rural Jamaica

Verlin Joseph
Florida Agricultural & Mechanical University

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ABSTRACT

Objective: There are currently thousands of Jamaican citizens that lack access to basic healthcare. In order to examine the healthcare performance I collected and analyze data from two clinics in remote parishes of the island. The purpose of this trip was to descriptively analyze local health data for the Jamaican ministry of health. This poster will analyze data collected from Clarendon, Jamaica. **Methodology**: We established clinics in Portland and Clarendon to collect medical records of local residents. After collecting medical records I applied descriptive and inferential analytics to examine the data. All data analysis were conducted using SAS studio 9.4. A few of the procedures I will use include: PROC IMPORT, PROC MEANS, PROC FREQ, and PROC GCHART. **Results:** Overall, we discovered high prevalence rates of hypertension and pain. We believe the high pain prevalence rates may be attributed to an outbreak of Chikungunya.

METHODS

- PROC MEANS – This procedure can: calculate descriptive statistics, estimate quantiles, calculate confidence limits, identify extreme values, and can perform a t test. For my study I am primarily concerned with variable, mean, minimum, and maximum outputs.
- PROC FREQ – This procedure produces one-way to n-way frequency and contingency tables.
- For one-way frequency tables, PROC FREQ computes goodness-of-fit tests for equal proportions or specified null proportions.
- For contingency tables, PROC FREQ can compute various statistics to examine the relationships between two classification variables.
- The statistics for contingency tables include the following: chi-square tests and measures, measures of association, binomial proportions and risk differences for 2x2 tables, odds rations and relative risks for 2x2 tables, test for trend, tests and measures of agreement, Cochran-Mantel-Hansel statistics
- PROC GCHART – This procedure produces six types of charts: block charts, horizontal and vertical bar charts, pie and donut charts, and star charts.
- This procedure can calculate the following statistics: frequency, percentages, sums, and means.
- This procedure can also: display and compare exact relative magnitudes, examine the contribution of parts to the whole, analyze where data re out of balance.

RESULTS

The MEANS Procedure

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
Cardiac	Cardiac	4	0.5000000	0.5773503	0	1.0000000
Respiratory	Respiratory	4	2.2500000	1.8929694	1.0000000	5.0000000
Pain	Pain	4	41.7500000	13.6717470	28.0000000	54.0000000
Eye	Eye	4	3.0000000	1.6329932	1.0000000	5.0000000
Allergy	Allergy	4	6.7500000	3.5939764	4.0000000	12.0000000
Hypertension	Hypertension	4	17.7500000	8.9953692	11.0000000	31.0000000
Infection	Infection	4	15.7500000	4.9916597	9.0000000	20.0000000
Blood	Blood	4	1.0000000	1.4142136	0	3.0000000
Neuro	Neuro	4	1.7500000	1.7078251	0	4.0000000
GERD	GERD	4	3.2500000	1.2583057	2.0000000	5.0000000
Worms	Worms	4	1.7500000	0.5000000	1.0000000	2.0000000
Cough_Cold	Cough_Cold	4	8.5000000	1.7320508	7.0000000	11.0000000
Diabetic	Diabetic	4	5.0000000	2.5819889	2.0000000	8.0000000
Stomach	Stomach	4	6.2500000	2.3629078	3.0000000	8.0000000
Skin	Skin	4	7.5000000	5.4467115	3.0000000	15.0000000
Glasses	Glasses	4	7.2500000	0.5000000	7.0000000	8.0000000

The FREQ Procedure

Location

Location	Frequency	Percent	Cumulative Frequency	Cumulative Percent
MTownD1	14	19.72	14	19.72
MTownD2	11	15.49	25	35.21
PortlandC	31	43.66	56	78.87
RockyP	15	21.13	71	100.00

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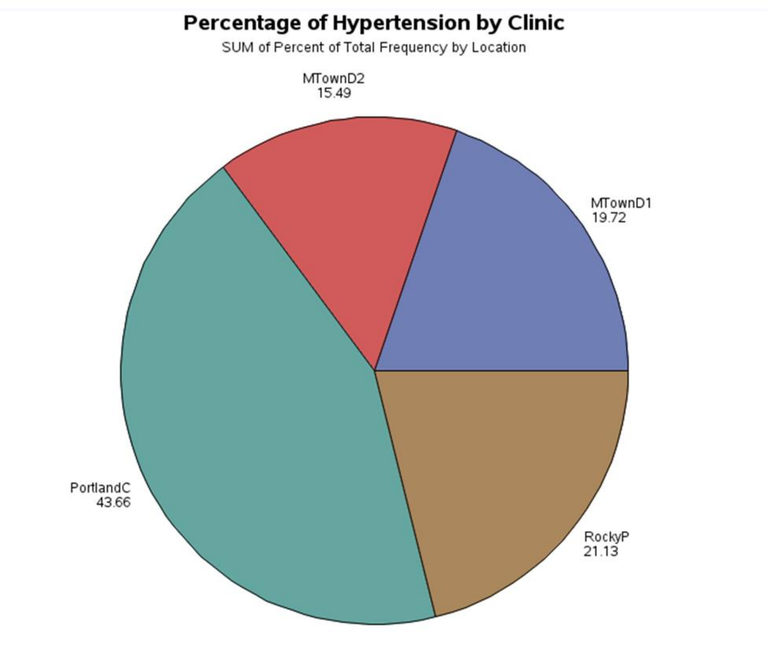
RESULTS CONTINUED



CONCLUSIONS

Prior to this study there were hundreds of Jamaicans suffering from various illness that were unable to receive treatment. Due to their remote residencies many Jamaican public health officials were unaware of their underserved population. Using SAS allowed me to conduct a report summarizing various health issues in Clarendon and Portland, Jamaica. This report was later submitted to Jamaican public health officials to help improve their healthcare delivery system.

REFERENCES

http://www.ats.ucla.edu/stat/sas/
http://support.sas.com/index.html

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