

# A seasonal variation of the three Leading diagnoses over fifty months at the Duk Lost Boys Clinic, South Sudan

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## Introduction

The Duk Lost Boys Clinic, a Primary Health Care Clinic in Duk Payuel, is the only Duk County clinic in continuous operation during the study period, serving an estimated 70,000 to 100,000 South Sudanese in Jonglei State. (Figure 1) Maternal Child Health capabilities include prenatal care, immunizations and transfusion capability, HIV/TB/Leishmaniasis testing and treatment, nutrition, ultrasound, and midwife attended delivery. Obstacles to clinic access include lack of roads and commercial transportation, political insecurity, and heavy flooding during the wet season, typically April-November. The objective of this study was to describe seasonal variation of monthly patient visits, and totals of the leading three primary diagnoses over the first fifty months of operation.

## Methods

Monthly Clinic Activity Reports were analyzed for number of total patients, and number of patients with diagnoses of malaria, diarrheal disease, and respiratory illness--the three leading primary diagnoses at the clinic. These data were analyzed for correlation with wet and dry season. A t-test ( $p < 0.05$ ) was used to determine correlation between the incidence of the three leading diagnoses and wet versus dry season.



Figure 1. The Duk Lost Boys Clinic

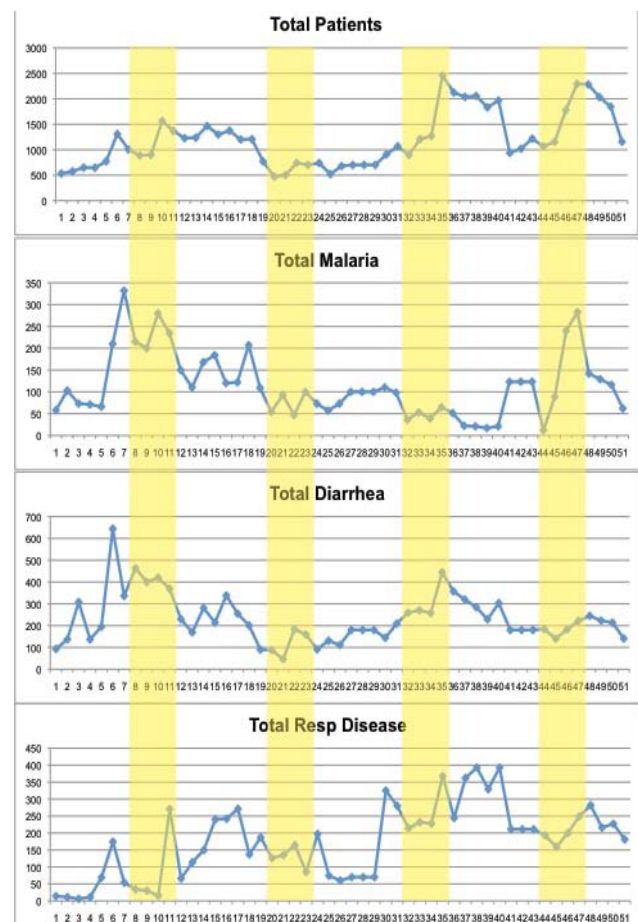


Figure 2: The percentage of all patients who presented with either Respiratory Illness, Diarrhea, or Malaria (Yellow lines = Dry season)

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Figure 3. Children playing in Duk village

## Results

Total patient visits: 59,915; monthly mean: 1198 (range 471-2457). Respiratory Illness mean: 173 (range 6-393); Malaria mean: 114 (range 12-332). Diarrheal Illness mean: 230 (range 46-644).

## Discussion

It is very likely that patients' inability to travel and access the clinic due to flooding, political instability, as well as potentially, cultural stigmas are major factors influencing how many patients present to the clinic when,

and with what disease symptoms. However, these preliminary results offer insight into complexities of planning for surge-capacity, staffing, and medication requirements during seasonal variations.

## Conclusion

Monthly data reports do not demonstrate a statistically significant seasonal difference between wet and dry season incidence of total visits or the three leading primary diagnoses at the clinic during the study period.

## Limitations

Inaccurate or incomplete data in several monthly reports required estimation and averaging to complete the data set for analysis. Varied interpretation of final primary diagnosis associated with staff turnover was also a potential confounder

## Acknowledgements

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## Research Beyond Google

This resource at <http://oedb.org/library/college-basics/research-beyond-google> provides research tools beyond searching in Google. Google, the largest search database, currently has around 50 billion web pages indexed. But Google can only index the visible web, or searchable web. The invisible web, or deep web, is estimated to be 500 times bigger and includes databases and results of specialty search engines that the popular search engines simply are not able to index. This link includes: **Deep Web Search Engines, Books Online, and Medical and Health**. Under Medical and Health it lists the following free sites:

**PubMed** — A service of the U.S. National Library of Medicine that includes over 16 million citations from MEDLINE and other life science journals for biomedical articles back to the 1950s. Includes links to full-text articles and related resources.

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