



Future Health Systems
Innovations for equity

Does splitting districts harm public health system performance? Evidence from Uganda

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District Splitting from 2000-2010 Uganda

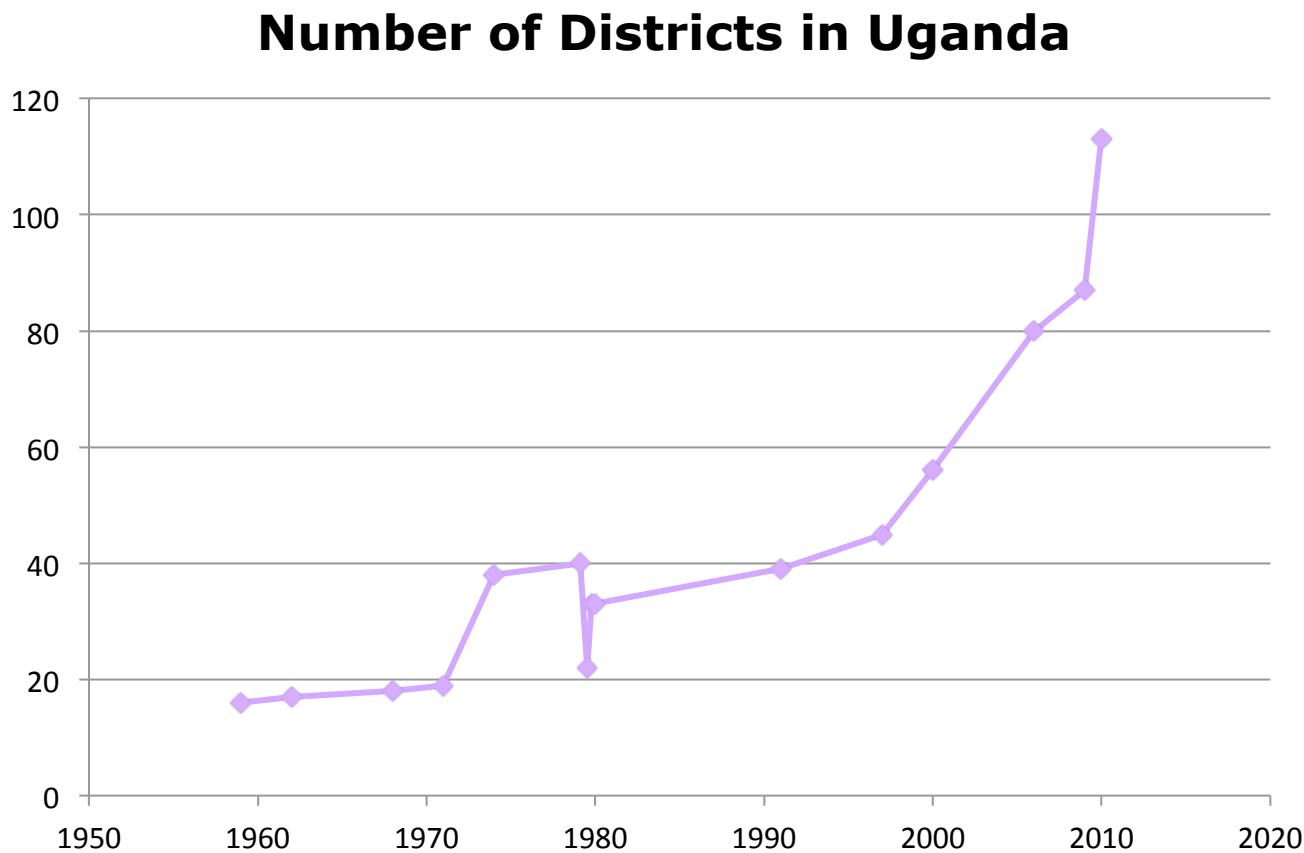
56 Districts in July 2000



112 Districts in July 2010



History of district splitting in Uganda



Why more units of administration

Reasoning For

- Localization of services
- Accountability of government
- Equity of resources
- Public sector job creation

Reasoning Against

- Inefficiencies in system
- Duplication of services
- Complex layers of beauracracy
- Lack of capacity at local level



Central question of this research

- What has been the effect of more district creation on health system performance?

Methodology

- **Quantitative data:** HMIS data was collected from 112 districts for the period 2005-2010.
- **Key indicators:** Antenatal care (4th visit recorded), Inpatient admissions, New outpatient visits, Total outpatient visits, and Human Resources –all per 100,000 population.
- Stratification selected as **created districts versus original** - or 'parent' - districts



Data Analysis

- Used a population average model with robust standard errors to account for heteroscedasticity in the data
- Regressed performance against having been created as a new district vs always being the original district, controlling for population and present health system infrastructure (health centers II, III, IV)



Findings: Statistically significant

- Being a new district as compared to being an original district has shown statistically significant differences of decreases in the following:
 - Inpatient admissions
 - New outpatient visits
 - Nurses per population



Findings: No statistical significance

- The following indicators showed no significant difference between created districts as compared to original districts:
 - Antenatal care (4th visit recorded)
 - Total outpatient
 - The number of clinical officers, midwives, non-medical staff, and community health staff per population



Adjusted for population and health center infrastructure: Utilization and health system difference between created and original districts

Utilization of Health System	Created vs. Original Districts (n=259)	95% Confidence Interval	P value
Antenatal Care: 4th visit attended	-0.172	(-0.384, 0.041)	0.113
Inpatient Admissions	-0.606	(-0.880, -0.333)	<0.001
New Outpatient (5yrs+)	-0.267	(-0.484, -0.050)	0.016
Total Outpatient (5yrs+)	-0.217	(-0.441, 0.007)	0.057

Adjusted for population and health center infrastructure: Utilization and health system difference between created and original districts

Human Resources of Health System	Created vs. Original Districts (n=259)	95% Confidence Interval	P value
Nurses	-0.250	(-0.497, 0.004)	0.047
Clinical Officers	-0.151	(-0.338, 0.029)	0.098
Midwives	-0.200	(-0.456, 0.056)	0.126
Non-Medical Staff	-0.151	(-0.361, 0.060)	0.162
Community Health Staff	-0.066	(-0.206, 0.074)	0.353

Study limitations

- Gaps in reported health utilization data during the 5 year time span of the study
 - Newly created districts face challenges in developing reporting systems and monitoring health system indicators
 - Poor record keeping in some facilities
- Longitudinal study of the data was complicated by district splitting
 - Any district could split into 2 new districts, and any “new” district may split again in later years.
 - Original districts that have full five years of data may impact the model more than districts that only appear in the data set for one year.



Conclusions

- The disruption effect of becoming a newly created district significantly impacts health system performance as compared to original districts although this may vary across lines of service.

Lessons learnt

- We encourage input from both district health leaders and health workers to describe mechanisms used for coping.
- Need for further qualitative work is being done to understand more of the coping and adaptation mechanisms.
 - More attention to the processes used to cope will reveal how much they have responded to the needs of the community



Policy relevance

What should MOH do to help improve things?

- Request government to give more time before the splitting can occur and give extra assistance to ease the split with minimum disruption.
- Make sure competent staff are in place and know their jobs before the split.
- Investing in monitoring effects of district-splitting on performance in order to identify/anticipate weak areas of performance and target them for improvement.
- Also, to identify successful coping/adaptation.

