

Population-Based Study of Burden of  
Epilepsy in Kintampo  
Health Demographic Surveillance  
System, Rural Ghana  
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# Background

- Definitions of Epilepsy
- Burden of Epilepsy – Global & SSA
- Causes of Epilepsy in SSA
- Mortality in Epilepsy
- Co-morbidity
- Treatment Gap

# Introduction

- Kintampo HDSS
- Wellcome Trust funded Psychosis study  
2002 – 2004
- Enumeration every 6 months

# Kintampo DSS

- Population ~ 160,000-**that we use 140,000 bcos the last wave results are yet to come out**
- Area ~ **7,162 km<sup>2</sup>**
- In the middle belt of Ghana: 450km interior

# Epilepsy in Developing Countries

- Common
- Can be controlled
- Co-morbidity
  - Behavioural problems
  - Psychiatric diagnoses
  - Social maladjustment
  - Stigma

# Study on the epidemiology of psychosis

- Psychosis screen- screening out epilepsy
- Definition of epilepsy used
- Active clinical epilepsy (ACE)
  - 2 or more epileptic seizures (tonic-clonic), at least 1 in the last year

# Epidemiology of epilepsy

- Current objectives
  - Prevalence of ACE
- Future objectives
  - Incidence of ACE
  - Risk factors for ACE
  - Excess mortality due to ACE
  - Risk factors for death in people with ACE

# Study designs

- Prevalence study- cross-sectional survey
- Incidence study- prospective study
- Risk factor study- case control
- Excess Mortality- monitoring death in the ACE cohort
- Risk factors for death- Verbal Autopsy questionnaire study of death in ACE persons



# Eligibility

- Residence in KDSS study area
- Age 15-65 years ( to be extended in next phase)

# Prevalence study

- Psychosis screening instrument with questions on epilepsy- Field worker screen. Phase I
- Mental Health Team screen with detailed questions. Phase II
- Note that no clinical examination conducted in this initial study

# Analysis

- Prevalence estimate:

Cases identified in Phase II

Total eligible cases in Phase I

# Results

- Total Eligible = Total adult population of KDSS=69,515-this represents age15 & above
- Screened in Phase I = 102
- Screened in Phase II = 80

## Result-2

- Unadjusted prevalence =  $80/140,000$  (95% CI \_\_\_\_\_)

# Conclusion

- Low prevalence of epilepsy in current study
- Likely to be an underestimate

# The way forward

- Specific population based epidemiological study of epilepsy at KHDSS extending age of eligibility to >6 years
- Multi-centre study of the burden of epilepsy in INDEPTH sites ([www.indepth-network.org](http://www.indepth-network.org))
- Strategic partnership with the INDEPTH Mental Health and Neuropsychiatry Working Group

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