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 km²
• 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 age 15 & 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)
• Strategic partnership with the INDEPTH Mental Health and Neuropsychiatry Working Group
Acknowledgements

• Study participants
• Kintampo Health Research Centre
• Kintampo HDSS team
• Others