The state of enrolment on the NHIS in a rural Ghana after a decade of implementation.

Anthony Kwarteng
Kintampo HDSS

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Outline of presentation

- Introduction
- Overview of the Ghana NHIS
- Methods
- Results
- Discussions
- Conclusions and recommendations

Introduction

- The NHIS was established in 2003 (Act 650)
- To secure financial risk protection against high cost of health services.
- NHIS enrolment of 66% (NHIA 2012) *vrs.* Oxfam's GH 18%; equity against the poor.
- Our study assessed the level of NHIS enrolment and factors associated with its uptake.
  - Proportion of the poor
- To inform policy for effective implementation.

Overview of the Ghana NHIS

- Mandatory for all residents in Ghana
  - Benefit package covers ~95% of disease conditions
- Funding mainly by tax (over 90%)
  - Graduated informal sector premium: US $4.25
  - Registration for NHIS card at US $1.10
- Exemption policy to promote the MDGs:
  - → The poor
  - → Children <18 yrs
  - → Pregnant women
  - → Elderly >70 yrs

Methods

Study area

- Kassena-Nankana East & West (Navrongo HDSS)
- Resident population: of 153,293 in 2012
- Agrarian economy
- Poverty indicator low: Mean HH expenditure < 50% the national $1598.30 (GLSS 2008)

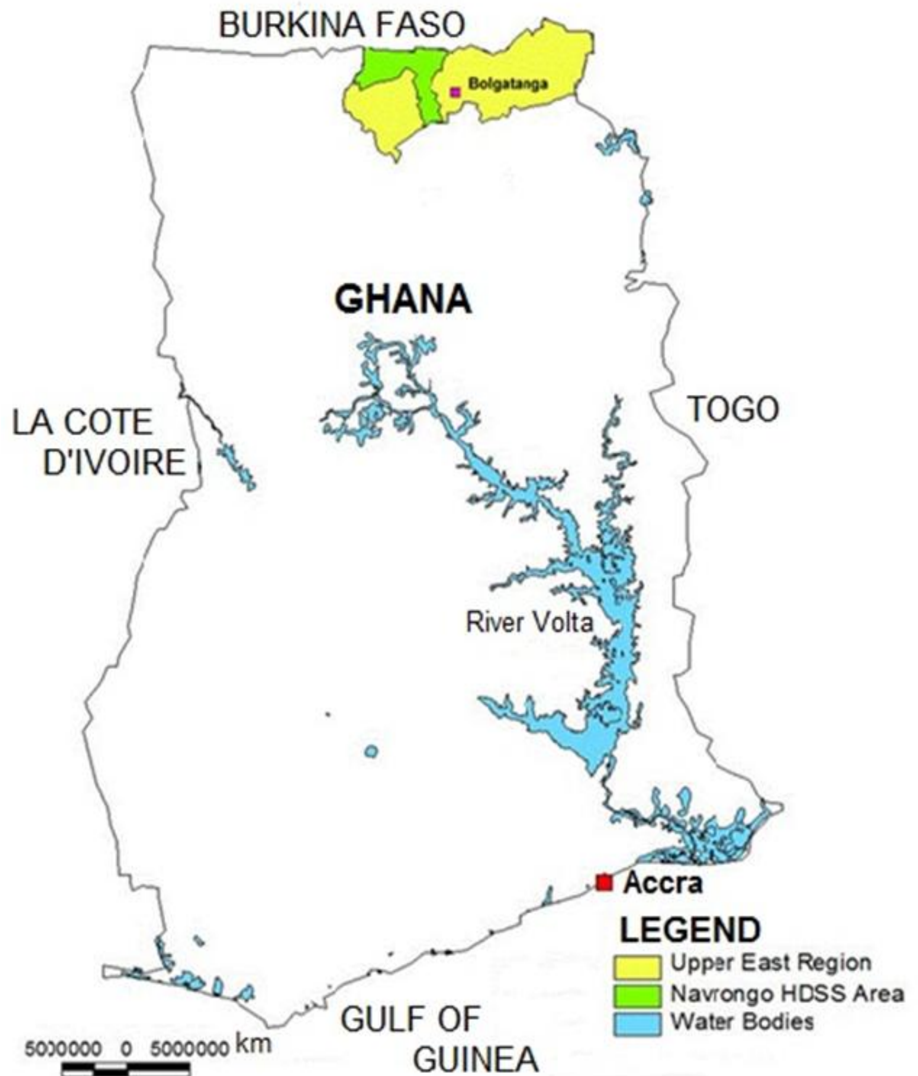

Fig 1.Map of Ghana showing the study area

Study design and procedure

- Household (HH) cross-sectional survey from July-Dec 2012
- Random selection of 11,276 HHs from the NHDSS database
- Respondent were heads of HH
  - Demographics, NHIS membership, HH assets,
- Approval by Institutional Ethics Committee of the NHRC

Data mgmt & statistical analysis

- Analysis was done using STATA, version 12
- We used principal component analysis to define the socio-economic status (SES) of households
- Primary outcome: Proportion of individuals insured (valid card seen)
- Univariate and multivariate logistic regression models

Results

Table 1. Background x'tics of HH members. N = 41,007

X'tics	n	%	X'tics	n	%
Age (yrs)			**Education***		
Median:	**21 yrs**		No formal	10,726	**32.5**
0 - 17	17,029	41.5	Primary	13,495	40.9
18-34	9,609	23.4	Secondary	7,801	23.7
35-59	9,604	23.4	Tertiary	951	2.9
60-69	2,786	6.8	**SES (Weallth quintiles)**		
70+	1979	4.8	Poorest	11,171	**27.2**
Female	21,203	51.7	Poorer	8,799	21.5
Rural	36,502	**89.0**	Poor	7,809	19.0
HH size 5+	30,610	74.7	Less poor	7,432	18.1
			Least poor	4231	10.3

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***Excludes < 6 year olds**

NHIS status and distribution of the insured

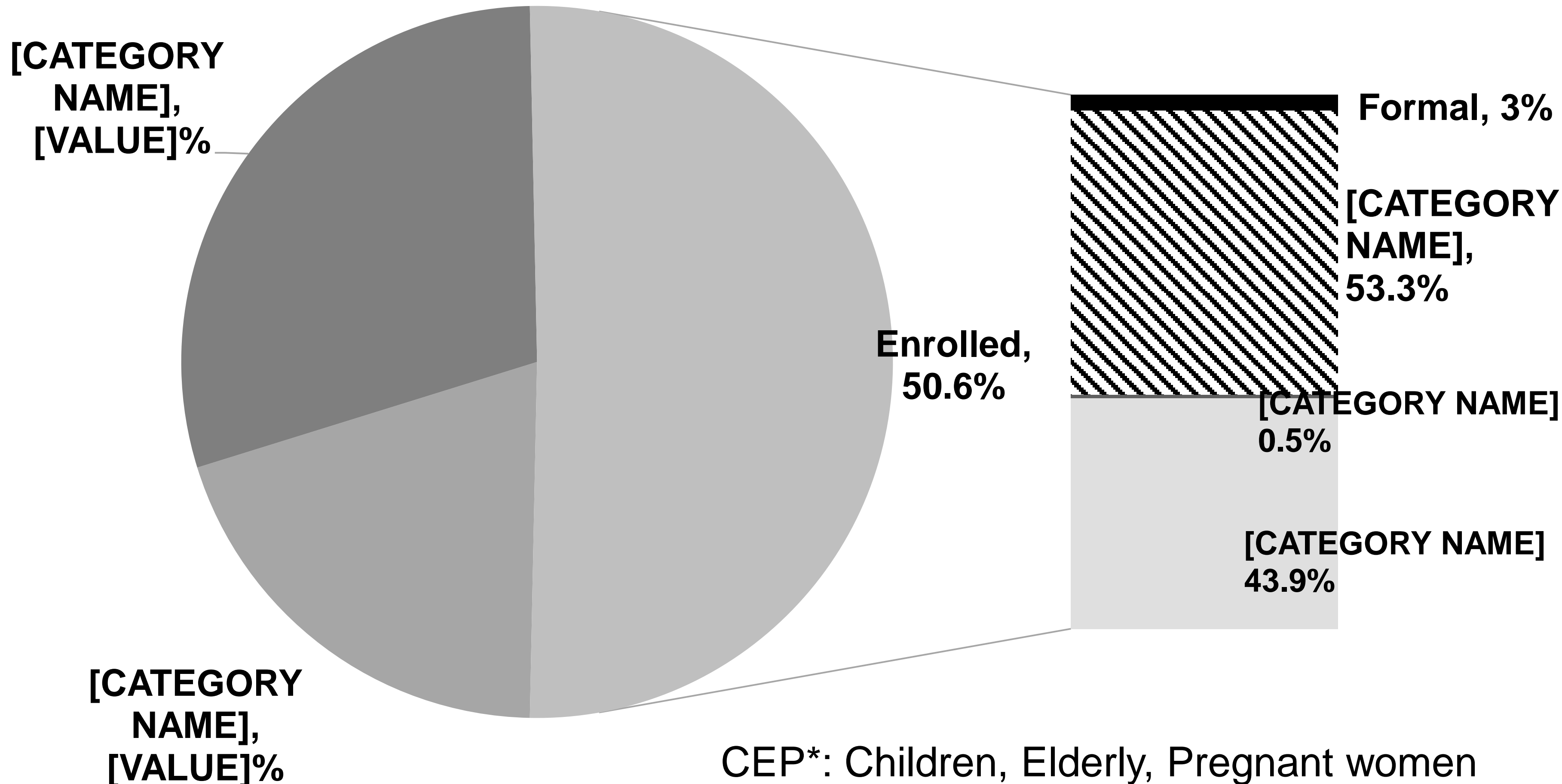

Fig 2. NHIS status and distribution of the insured

Table 2. Predictors of NHIS enrolment in the KNDs (E & W)

Factor	Attributes	% insured	Unadjusted	Adjusted
Age	0-17	53.7	1.34 (1.22-1.47)*	**1.18** (1.05-1.33)*
	18-34	49.2	1.12 (1.02-1.24)	0.80 (0.71-0.90)*
	35-59	48.1	1.07 (0.97-1.18)	0.84 (0.76-0.94)*
	60-69	47.	1.04 (0.93-1.17)	0.97 (0.86-1.10)
	70+	46.4	1 (base)	1 (base)
Gender	Female	54.0	1.33 (1.28-1.39)*	**1.39** (1.33-1.45)*
	Male	46.8	1 (base)	1 (base)
Education	Informal	43.3	1 (base)	1 (base)
	Primary	45.8	1.11 (1.05-1.17)*	0.99 (0.93-1.06)
	Secondary	56.9	1.73 (1.63-1.83)*	1.39 (1.29-1.50)*
	Tertiary	77.6	4.54 (3.88-5.32)*	**2.48** (2.07-2.97)*
Place of residence	Rural	47.2	1 (base)	1 (base)
	Urban	77.8	3.92 (3.65-4.22)*	**1.39** (1.27-1.53)*

Table 2 (continued)

Factor	Attributes	% insured	Unadjusted	Adjusted
Socio-economic status	Poorest	42.0	1 (base)	1 (base)
	Poorer	42.7	1.03 (0.97-1.09)	1.03 (0.97-1.09)
	Poor	44.4	1.10 (1.04-1.17)*	1.04 (0.98-1.11)
	Less poor	60.4	2.11 (1.99-2.24)*	**1.75** (1.64-1.86)*
	Least poor	80.6	5.74 (5.27-6.25)*	**2.90** (2.62-3.21)*
Household size	1	55.0	1 (base)	1 (base)
	2 - 4	53.5	0.94 (0.83-1.07)	1.00 (0.86-1.17)
	5+	49.5	0.80 (0.71-0.91)*	1.01 (0.87-1.18)
Self-rated health status	Poor	40.5	1 (base)	1 (base)
	Good/Ave.	51.0	1.53 (1.36-1.72)*	**1.49** (1.31-1.70)*
	Indecisive	38.7	0.93 (0.75-1.15)	0.70 (0.55-0.89)*
Recent illness	No (no need)	50.4	0.87 (0.80-0.95)*	**0.77** (0.70-0.85)*

Reasons for enrolling and willingness to renew

- Easy access to healthcare (45%), financial cover against ill-health (21%).
  - About 20% more important among the poorest SES compared to the least poor
- Good waiting time, drug availability, good quality of care, staff attitude were rarely mentioned (< 2%)
- Willingness to renew NHIS membership was 99% compared to 67% for those who had never enrolled

Cost of premium as a barrier to NHIS enrolment and retention among the wealth quintiles

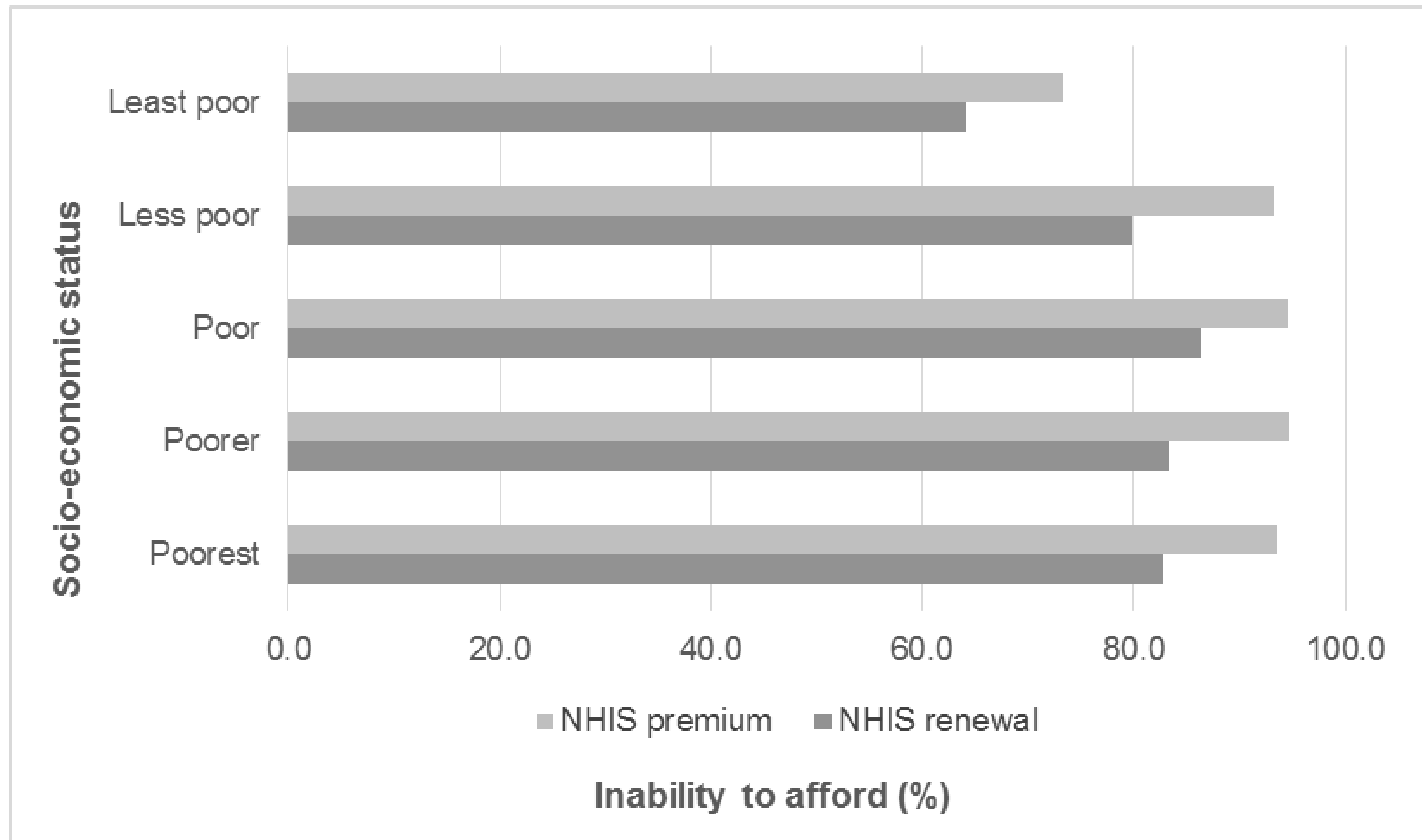

Fig 3. Cost as a barrier to NHIS enrolment and retention among SES

Discussions

- NHIS coverage (50.6%) in the KNDs
  - Higher than the national of 34.0% (MOH, 2013); Southern Ghana: C/R (23.2%) and E/R (49%) (Jehu-Appiah et al., 2011)
  - Generated benefit of research & donor inputs (NGOs)
- Only 1% of the poorest SES were exempted
  - Consistent with Derbile and van der Geest, 2013 in northern GH (1%)
  - Factors: Low awareness, lack of mechanisms (Derbile and Van der Geest, 2013); Reimbursement delays (Dalinjong and Laar, 2012); Poor HW attitude (Badasu, 2004); Charging fees more preferrable (Agyepong and Nagai, 2011)

Conclusions and recommendations

- Significant inequities in enrolment against the poor
- Appropriate mechanisms for identifying the poor are needed to operationalize the policy interventions.
- NHIA: Sensitization of the general public on overall benefit of the scheme and exemptions for the poor
- The gov't must resource the Dept of Social Welfare to identify the poor for exemption

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Thank you