

IBADAN STUDY OF AGEING (ISA): RATIONALE AND METHODS

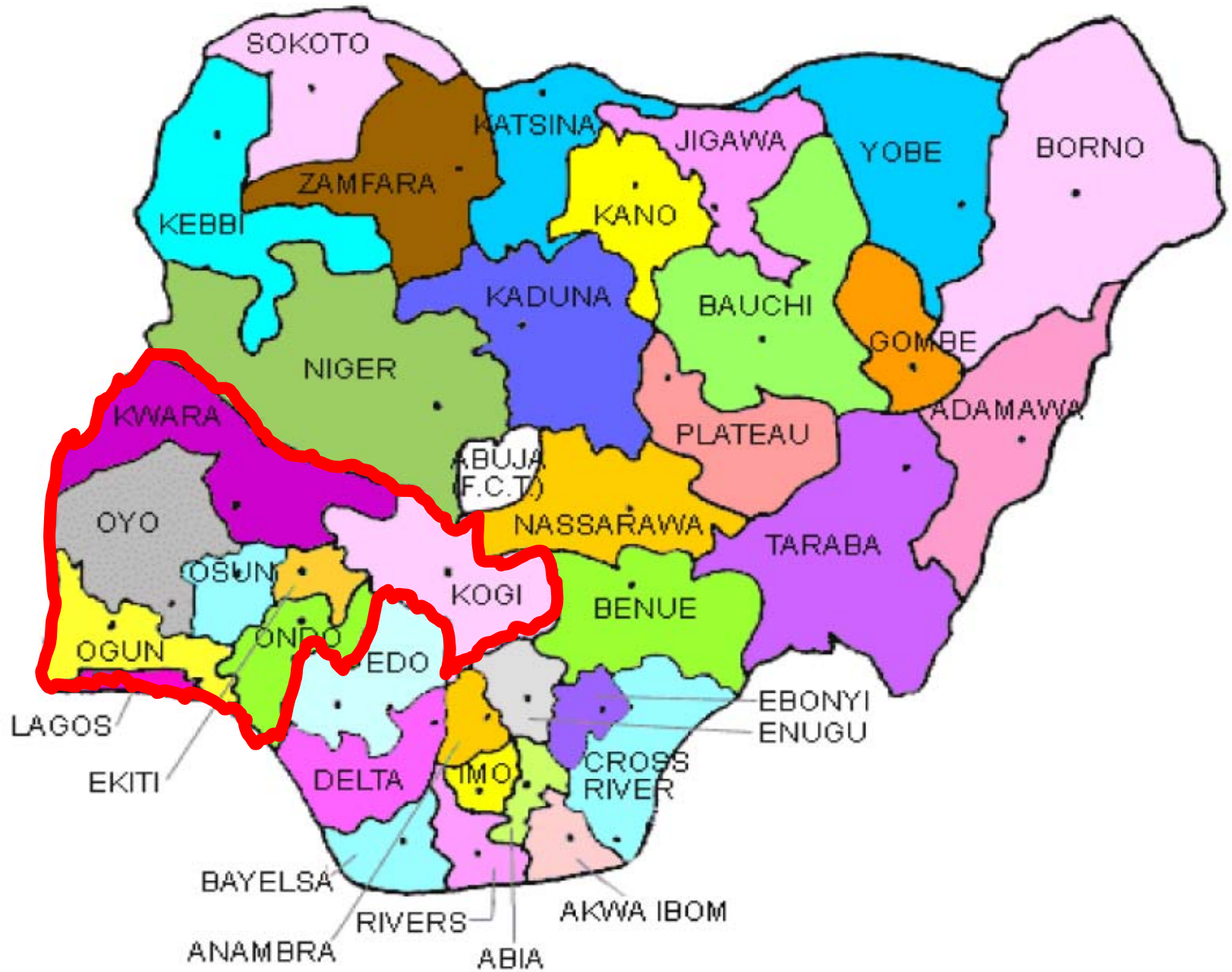
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Introduction

- *The Ibadan Study of Ageing consists of two components:*
 - *Baseline cross-sectional study: conducted in 2003/2004 to determine the profile and availability of informal care for elderly persons in need of care*
 - *A longitudinal cohort study: conducted in three annual waves (2007 – 2009) to examine profile and determinants of successful aging*
 - *Both components are supported by the Wellcome Trust*

Setting...

- Eight contiguous states in the south-west and north-central regions of Nigeria
 - Population: > 25 million (representing 22% of the Nigerian population)
 - Predominant language is Yoruba (one of the three major Nigerian languages)



Subjects...

- Persons aged 65 years and over
 - Residing in households (i.e. non-institutionalized)
 - Speak Yoruba, the study language
 - Able to undergo a face-to-face interview
 - Consenting

Sampling

- Selection of elderly respondents
 - Multistage cluster sampling
 - Local government areas
 - Enumeration areas (geographical units demarcated by the National Population Commission)
 - Households
 - (Stratification on the basis of state, size of local government areas)
 - One eligible person per household
 - Selected using the Kish method when > 1 in household
 - No replacement for refusals
- Result of selection procedure
 - Sample: 2152
 - Response: 74%

Age distribution of the respondents compared with the general population by post-stratification variables

Age, yrs	Unweighted	Weighted	National census*
65–69	747 (35%)	723 (33%)	174 240 (33%)
70–74	483 (22%)	676 (31%)	158 400 (30%)
75–79	300 (14%)	254 (12%)	63 360 (12%)
80+	622 (29%)	499 (23%)	137 280 (26%)

*Based on United Nations 2000 projections of the 1991 census

Sex distribution of the respondents compared with the general population by post-stratification variables

Sex	Unweighted	Weighted	National census
Male	995 (46%)	1129 (53%)	259 472 (50%)
Female	1157 (54%)	1023 (48%)	264 528 (50%)

Main Hypothesis

- *Social and behavioural factors reflecting social changes and adoption of “modern” lifestyles will be salient among factors associated with ageing outcomes.*

Aims

- 1. To study the cultural views about successful aging.*
- 2. Determine the proportion and profile of elderly persons who meet three different definitions of successful aging: functional independence, psychological and cognitive wellbeing, and absence of chronic health conditions.*
- 3. Determine factors predictive of each of these dimensions of successful aging*
- 4. Determine the association of aging outcomes with each other and with subjective quality of life and life satisfaction.*

Methods

- *Main Study:*
 - *Household survey*
 - *Face-to-face interviews*
 - *Physical evaluations and measures*
- *Nested sub-studies*
 - *Qualitative studies (key informant interviews)*
 1. *Lay views of informal care: informants were caregivers and elderly care recipients*
 2. *Lay view of successful ageing: informants were elderly persons*
 - *Assessment of burden among caregivers of disabled elderly*

Fieldwork

Interviewers

- The interviews at the baseline were conducted by 24 trained interviewers and 16 at the follow-up. All of the interviewers at baseline had at least a high school education. The follow-up assessments were conducted by research assistants with at least a first degree.

Training

- for both the baseline as well as the follow-up, interviewers received one week of training.

Quality control

- Strict quality control measures were implemented all through the various stages of the study
- Day-to-day implementation of the field work, including adherence to study protocol, was monitored by supervisors (1 supervisor to 4 interviewers) who had undergone the same training. At follow-up, supervisors were also responsible for conducting the physical evaluations (e.g. Blood pressure, motor and movement, etc.)
- During the fieldwork, regular debriefing sessions were held with interviewers and supervisors at the central office for review of field work procedure and experience.

Informed consent and ethical approval

- At every stage of the study, information was provided to prospective participants about the aims, scope and duration of the assessments. Only persons who provided consent, commonly done verbally, were included in the survey.
- All aspects of the study were approved by the University of Ibadan/University College Hospital, Ibadan Joint Ethical Review Board.

Domains of assessments..demographics

	Baseline	Wave 1	Wave 2	Wave 3
	2003/2004	Jan 2007- Dec 2007	Jan 2008- Dec 2008	Jan 2009- Nov 2009

Demographics √
(Age, sex, marital status, education, etc.)

Economic status √
(Household items, quality of house floor)

Residence (rural, semi-urban, urban) √

Domains of assessments...health

	Baseline	Wave 1	Wave 2	Wave 3
	2003/2004	Jan 2007 Dec 2007	Jan 2008- Dec 2008	Jan 2009- Dec 2009
Depression (CIDI and GDS)	√	√	√	√
Suicidality	√	√	√	√
Insomnia	√	√	√	√
Chronic Pain conditions	√	√	√	√
Chronic physical conditions (Self-reported)	√	√	√	√
Vision (self-reported)	√	√	√	√
Hearing: self-report and interviewer-rated	√	√	√	√

Domains of assessments...tests and measures

	Baseline	Wave 1	Wave 2	Wave 3
	2003/2004	2007	2008	2009
Mid-upper arm circumference	√	√	√	√
BMI		√	√	√
Waist hip ratio		√	√	√
Blood pressure		√	√	√
Short Physical Performance Battery		√	√	√
Word List Delayed Recall & Animal fluency	√	√	√	√
Clinician Home-based Interview to assess Function (CHIF)		√	√	√

Domains of assessments...social factors

	Baseline 2003/2004	Wave 1 Jan 2007 Dec 2007	Wave 2 Jan 2008- Dec 2008	Wave 3 Jan 2009- Nov 2009
Life events; Social support; social networks	✓	✓	✓	✓
Poverty and hunger		✓	✓	✓
Loneliness		✓	✓	✓
Quality of life (WHOQoL)	✓	✓	✓	✓
Social engagement	✓	✓	✓	✓
Self-rated quality of health care	✓	✓	✓	✓

Domains of assessment... Lifestyles

	Baseline 2003/2004	Wave 1 Jan 2007 Dec 2007	Wave 2 Jan 2008- Dec 2008	Wave 3 Jan 2009- Nov 2009
Smoking	√	√	√	√
Alcohol consumption	√	√	√	√
Physical exercise (IPAQ)	√	√	√	√
Consumption of fruits and vegetables	√	√	√	

Domains of assessment...functioning

	Baseline	Wave 1	Wave 2	Wave 3
	2003/2004	Jan 2007 Dec 2007	Jan 2008- Dec 2008	Jan 2009- Nov 2009
Mobility		√	√	√
Activities of Daily Living	√	√	√	√
Instrumental Activities of Daily Living	√	√	√	√
Self-reported overall health	√	√	√	√
Coping (Brief Cope by Carver)		√	√	√
Perception and experience of ageing		√	√	√

Death as an outcome....

- Attempts were made to conduct verbal autopsy on all cases of death

Survey statistics

Year	Sample size	Interviewed	Verbal autopsy	Not found or refused	Response rate, %
2003/ 2004	2500	2152	-	-	
2007	2149 500 (supplemental sample)	1408(66%) 469 (91%)	269(12%)	472(22%)	78
2008	1868	1474 (79%)	112 (6%)	288(15%)	85
2009	1658*	1316 (79%)	61 (4%)	281 (17%)	83

*Including persons not found in prior years

Incidence of new onset of dementia over three years
(2003/2004 – 2007) in persons aged 65 years and
over

	No. at risk	Incidence of depression, %	Hazard ratio
Total sample	1225	2.2	
Sex			
Male	587	1.3	-
Female	638	3.1	2.1
Age			
65-74	209	0.9	-
75-84	358	2.9	2.8
≥80+	240	4.5	4.1

What this actually means....

- With about 4% of the national population being over 65 years and over, this translates to about 132,000 new cases every year
- This is a huge number given the resources (human and material) currently available in the health system!

Risk factors for new onset of dementia

- Rural residence
 - Doubles the risk
- Economic status
 - A linear relationship with economic status: the poorer the elderly persons, the more likely they were to have dementia
- Reduced social engagement
 - Lack of social engagement and participation at baseline doubles risk of new onset of dementia

Caregivers sub-study

- Subjects
 - Individuals identified by disabled elderly persons as their main carer
 - Of the caregivers so identified, 210 were successfully interviewed (Response rate: 89%)
 - Assessed for burden using the Sheehan Disability Scale and GHQ-28
 - Assessed for social and emotional support (using items from Brief COPE)

Some publications from the ISA . .1

- Gureje O, Ogunniyi A, Kola L. The profile and impact of probable dementia in a sub-Saharan African community: results from the Ibadan Study of Aging. Journal of Psychosomatic Research 2006; 61(3):327-33
- Gureje O, Ogunniyi A, Kola L, Afolabi E. Functional disability in elderly Nigerians: results from the Ibadan Study of Ageing. Journal of the American Geriatrics Society 2006; 54(11):1784-1789.
- Gureje, O.; Oyewole, O. Informal care and the elderly in a changing society: a qualitative study of care recipients and caregivers. Quarterly Journal of Mental Health 2006: 56-61
- Gureje O, Kola L, Afolabi E. Epidemiology of major depressive disorder in elderly Nigerians in the Ibadan Study of Aging: a community-based survey. Lancet 2007; 370:957-964.
- Bekibele CO and Gureje O. Impact of Self-reported visual impairment on quality of life in the Ibadan Study of Ageing. Report from the Ibadan Study of Ageing. British Journal of Ophthalmology .2008;92(5):612-5.

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- Bekibele CO and Gureje O. Self-reported visual impairment and impact on vision-related activities in an elderly Nigerian population: report from the Ibadan Study of Aging. Ophthalmic Epidemiology 2008;92(5):612-5.
- Gureje O, Kola L, Ademola A, Olley BO. Profile, comorbidity and impact of insomnia in the Ibadan Study of Ageing . Int J Geriatr Psychiatry. 2009 Jul;24(7):686-93.
- Gureje O, Ademola A, Olley BO. Depression and disability: comparisons with common physical conditions in the Ibadan Study of Aging. Journal of American Geriatric Society 2008; 56(11):2033-2038.
- Lasisi AO, Abiona T, Gureje O. The prevalence and correlates of self-reported hearing impairment in the Ibadan Study of Ageing. Trans R Soc Trop Med Hyg 2010 May 10 (Epub ahead of print)
- Lasisi AO, Gureje O. Disability and quality of life among community elderly with dizziness: report from the Ibadan Study of Ageing. J Laryngol Otol 2010, Mar 23, 1-6 (Epub ahead of print)

That is it so far!!