



α – network

Analysing
Longitudinal
Population-based
HIV/AIDS data on
Africa

ALPHA – INDEPTH collaboration on verbal Autopsy analysis

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INDEPTH Scientific Meeting

Maputo, 26th October 2011

Overview of presentation

- Introduction to ALPHA
- The MoVE-IT program at WHO
- Scientific aims of the collaboration
- Selected results from workshop
 - cause of death using InterVA-4 test version
 - identifying AIDS deaths with VA
 - identifying maternal deaths in HDSS & VA
 - relationship of HIV and maternal mortality
- Future plans

Introduction to the ALPHA network

Collaborative network for the Analysis of population-based HIV/AIDS data in Africa

- 10 centres in Africa, run HDSS & HIV surveillance (smaller, more specialised than INDEPTH)
- started in 2005, funded mainly by Wellcome & UNAIDS (similar funding base to INDEPTH)
- technical support for data management & analysis (more limited range of activities – no fieldwork support)
- facilitate data sharing, comparative & pooled analysis (workshop program, pooled data set, joint publications)

Overlap with INDEPTH: 8 / 10 centres

WHO: aims of MoVE-IT project

- Improved processing of VA data
 - automate CoD attribution with new version of InterVA
 - user friendly InterVA for general use
- Critical analysis of VA cause of death
 - compare deaths classified as maternal in VA with pregnancy-related deaths found in HDSS
 - compare deaths classified as HIV in VA with known HIV status of deceased
- An estimate of the proportion of maternal deaths attributable to HIV (MDG monitoring)

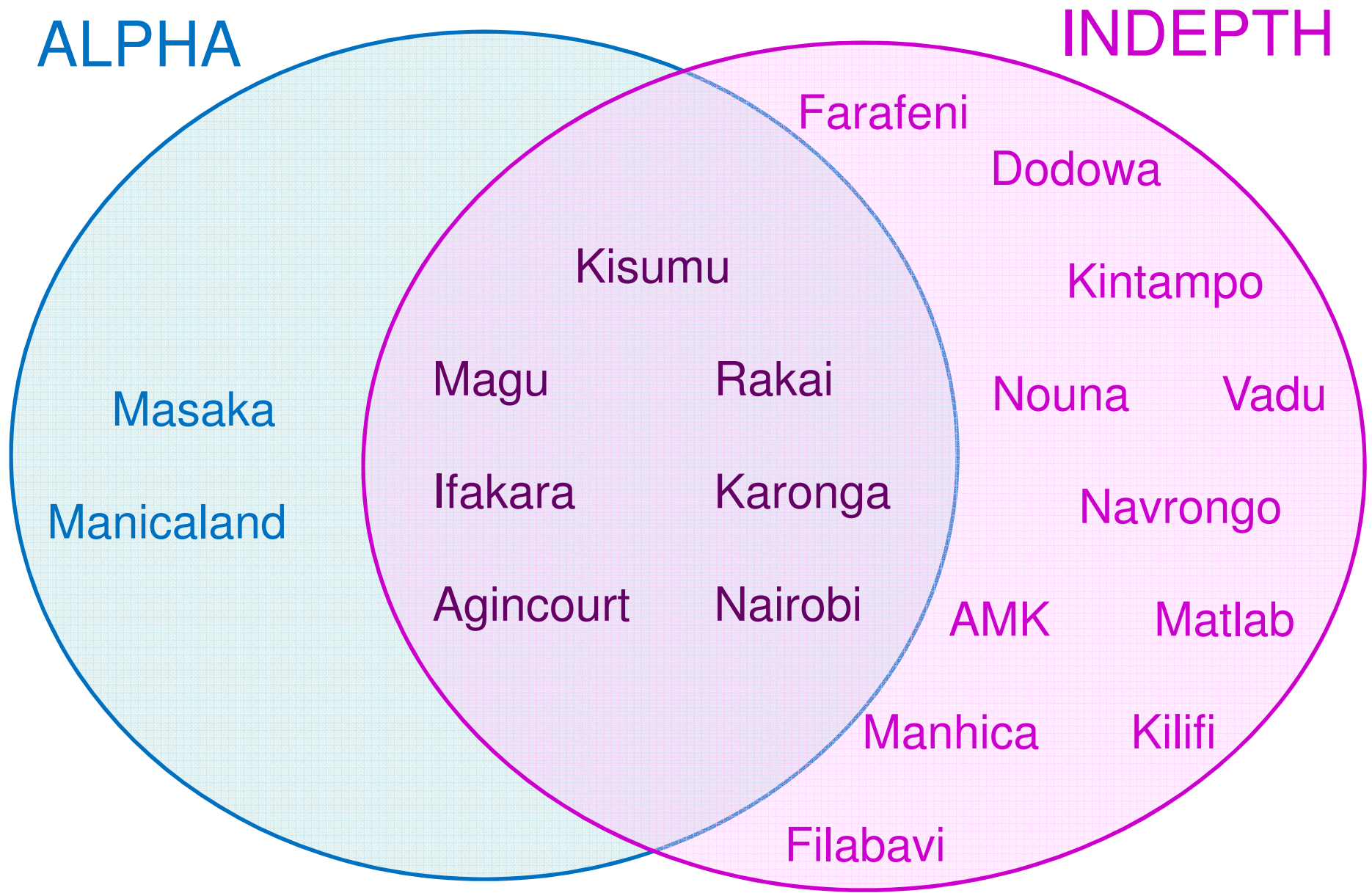
INDEPTH – ALPHA VA collaboration

- Funded by WHO “MOVE-IT” program
- Program aim: advance vital registration
 - promote verbal autopsy use outside of research centres
 - simplify and standardise analysis of verbal autopsy
 - resolve controversies about classification of cause of death (particularly maternal deaths and HIV)
 - improve confidence in official cause of death statistics, especially those that contribute to MDG
- Provide funds to INDEPTH & ALPHA centres to update VA data coding, cleaning and preparation
- Run workshop to train INDEPTH & ALPHA staff in use of interVA and analysis of results

Joint workshop, Kisumu, 3rd-7th Oct

- Theme: Verbal Autopsy
 - old topic for INDEPTH, have been involved in VA questionnaire design and CoD analysis
 - new topic for ALPHA, but have previously analysed mortality and survival post HIV infection
- Responsibility sharing:
 - workshop administration by INDEPTH & Kisumu
 - teaching content & syllabus by ALPHA
 - computerised VA results by INDEPTH (P. Byass)
 - statistical analyses & Stata programs by ALPHA

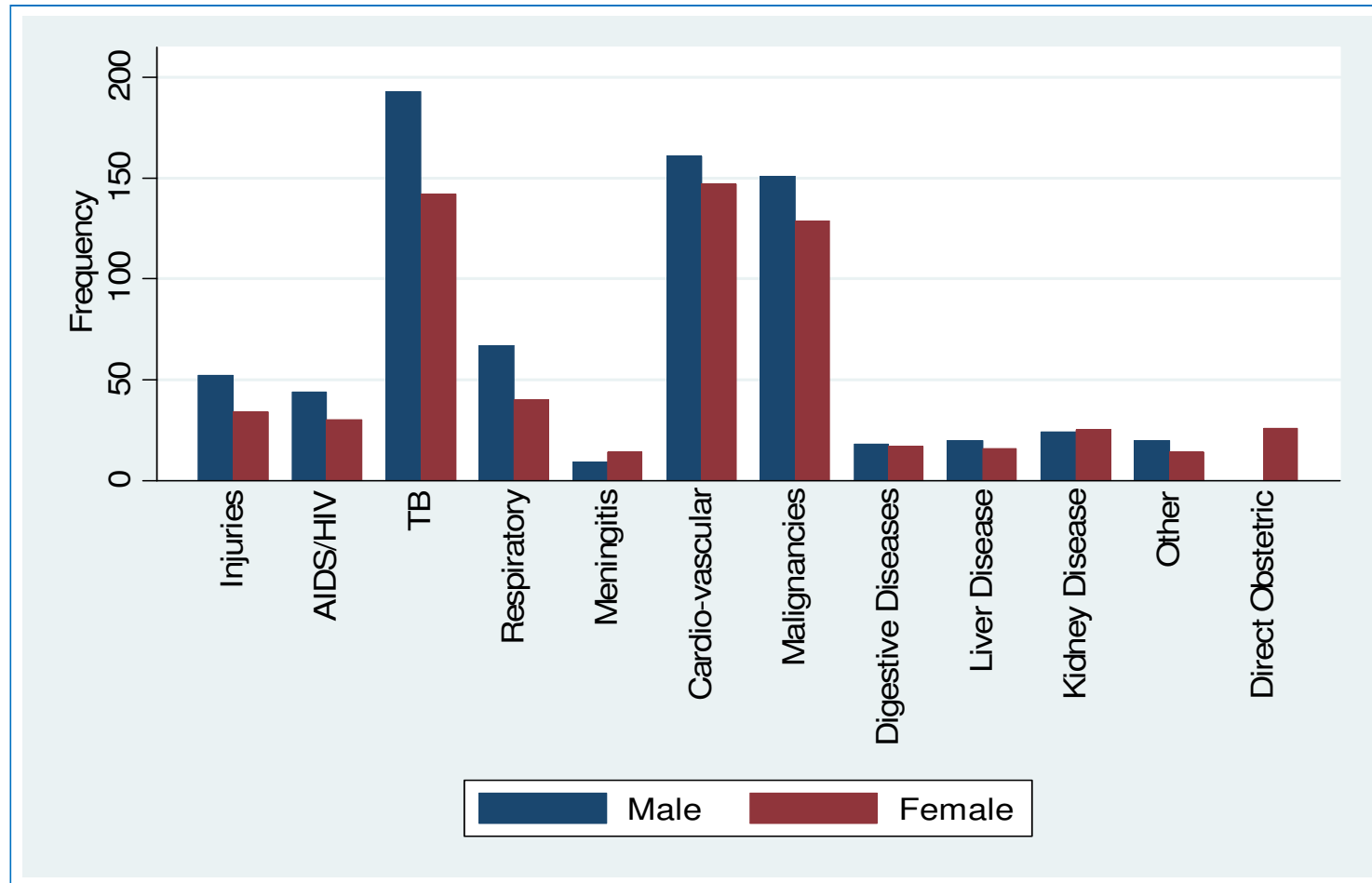
Centres attending VA workshop



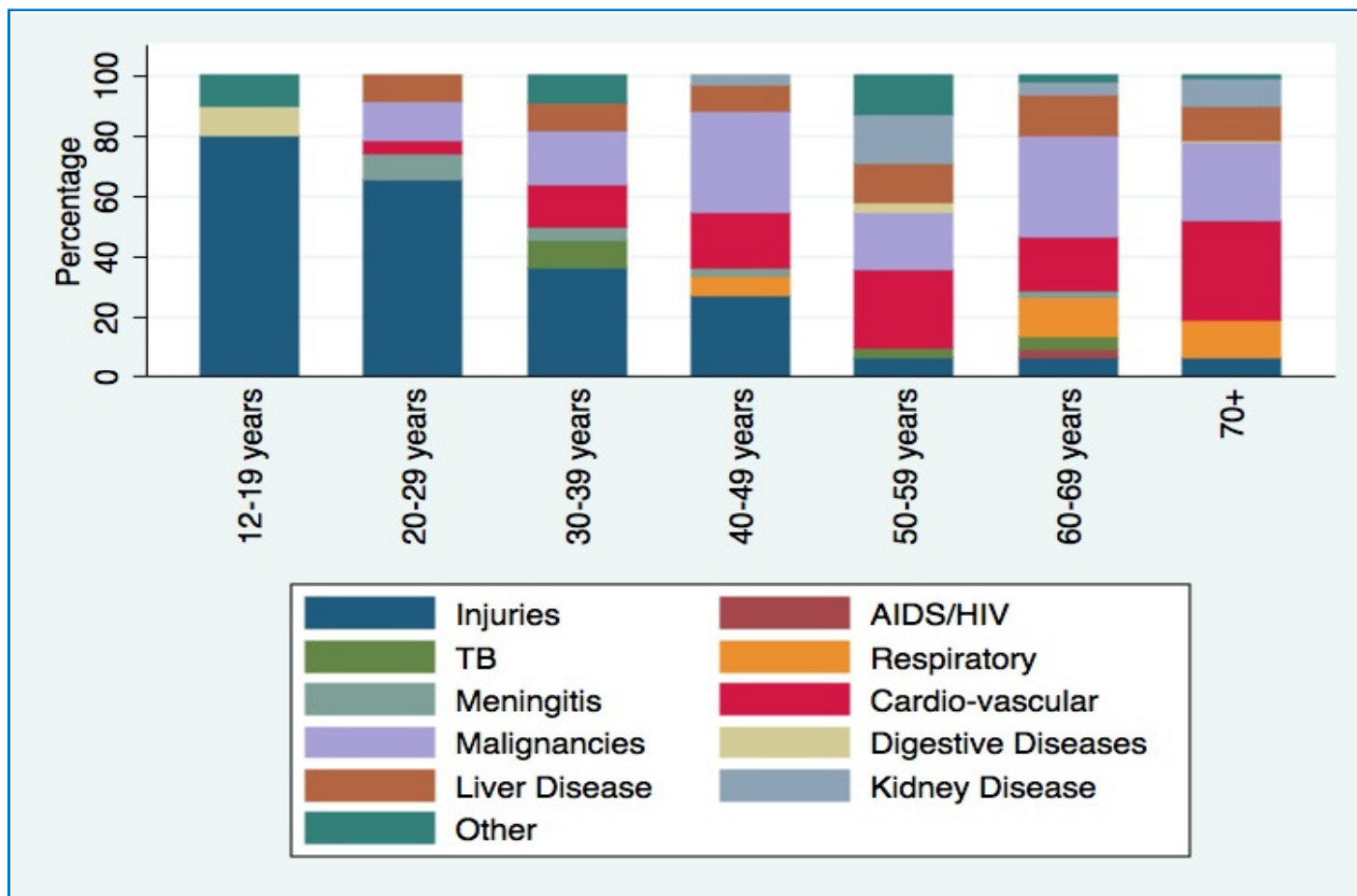
Selected results from workshop

- Both INDEPTH and ALPHA sites produced cause of death distributions by sex, age and time period
- All African sites showed trends in age- and sex- patterns of mortality showing impact of HIV
- All sites examined distribution of classic HIV symptoms in deaths classified as AIDS by interVA
- ALPHA sites compared interVA likelihood of HIV death to HIV status of deceased
- All sites compared pregnancy & post-partum (PPP) deaths identified in HDSS alone, with those identified in interVA
- ALPHA sites calculated relative risk of PPP death by HIV status of mother

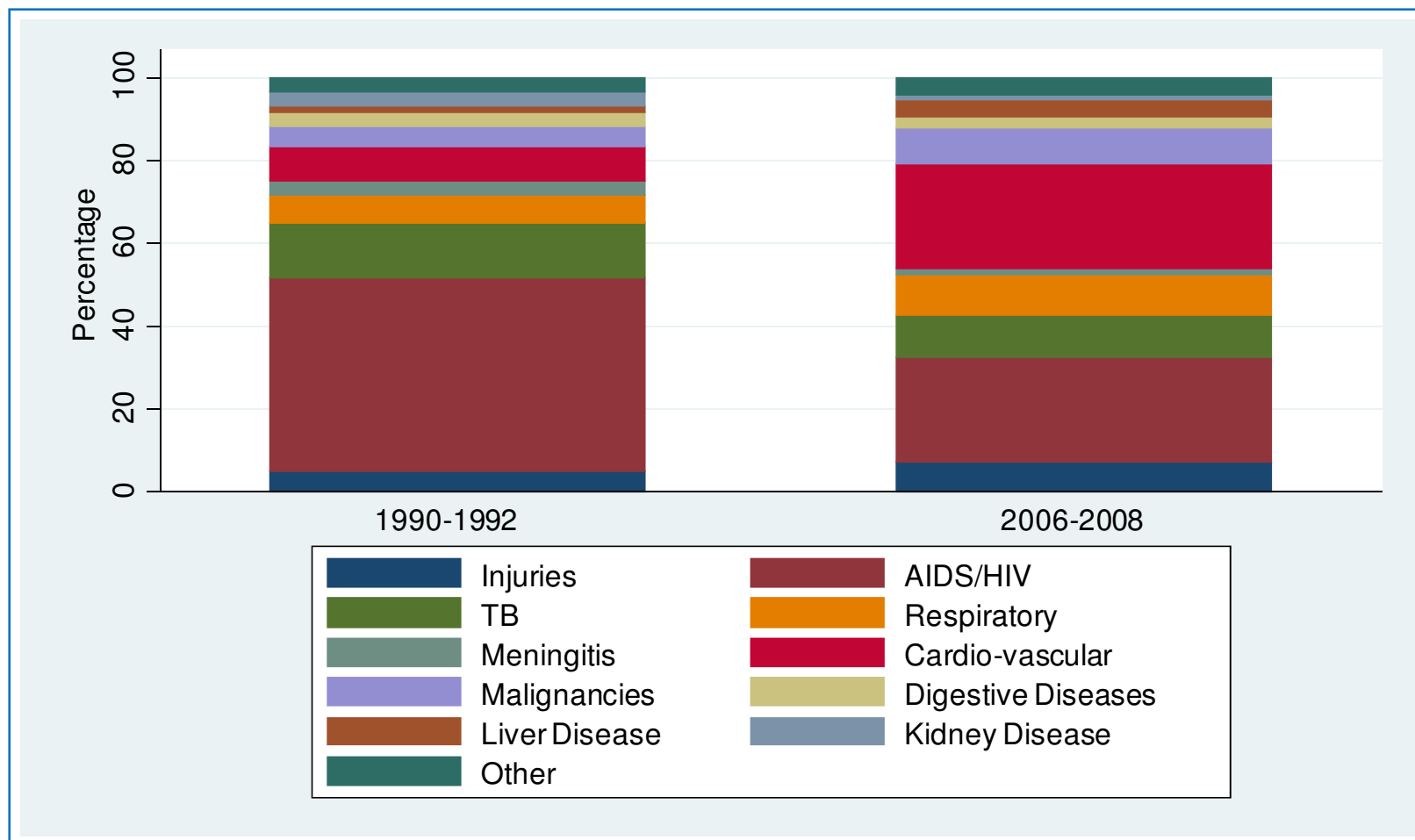
Cause of adult death (broad categories) by sex, InterVA-4β results, Farafenni, Gambia



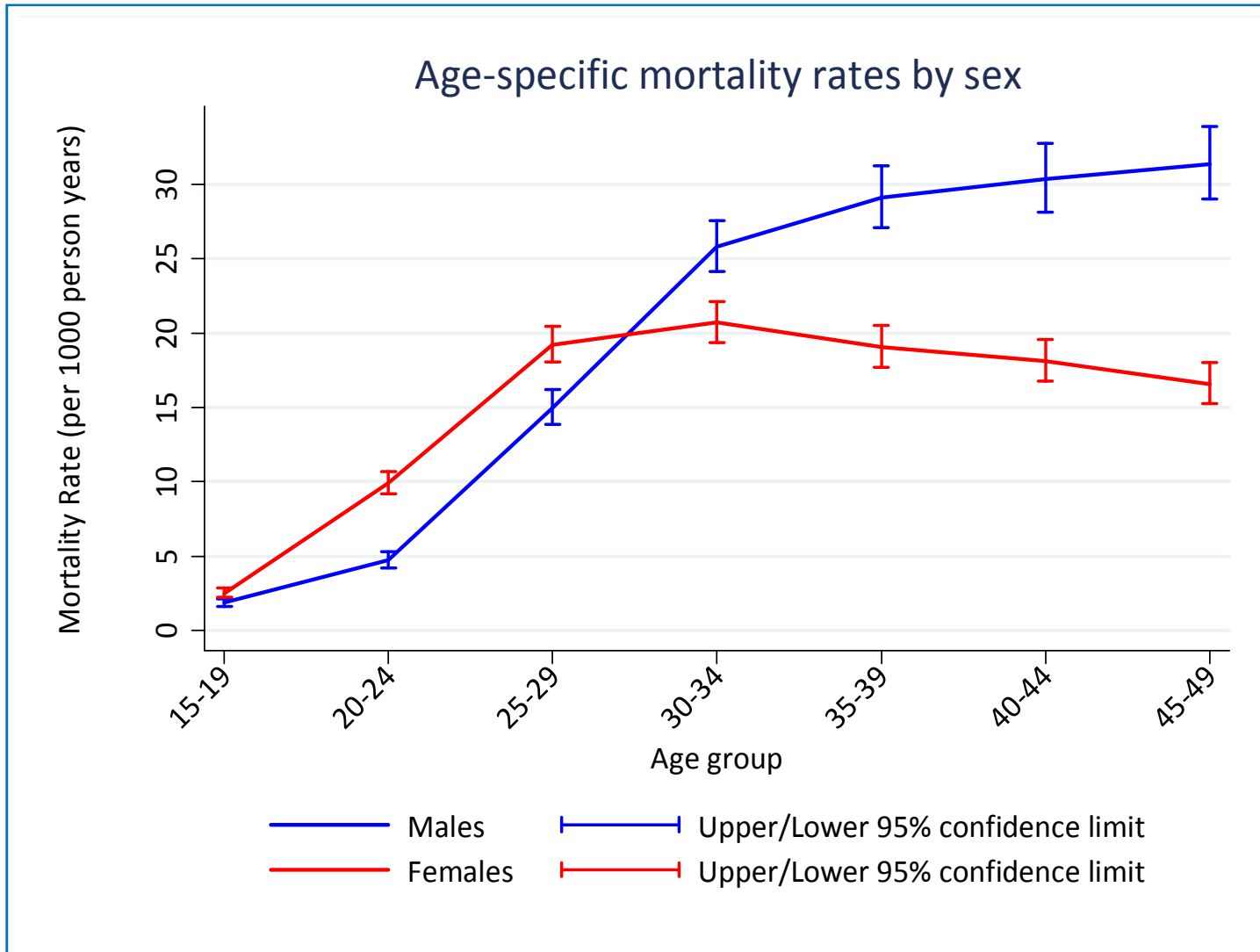
Cause of death (broad categories) by age, InterVA-4 β results, Filabavi, Vietnam



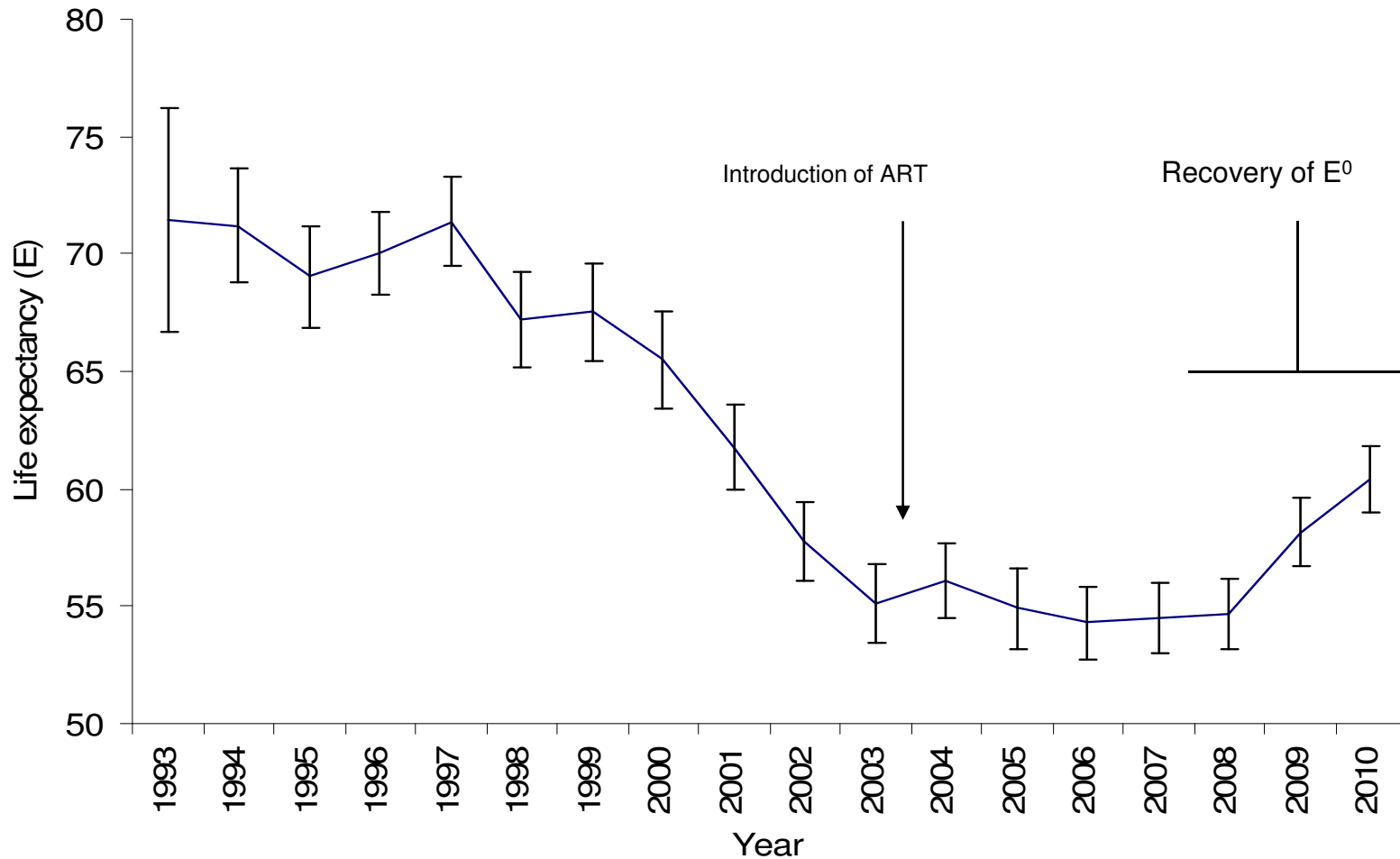
Cause of death (broad categories) time trend, InterVA-4β results, Masaka, Uganda



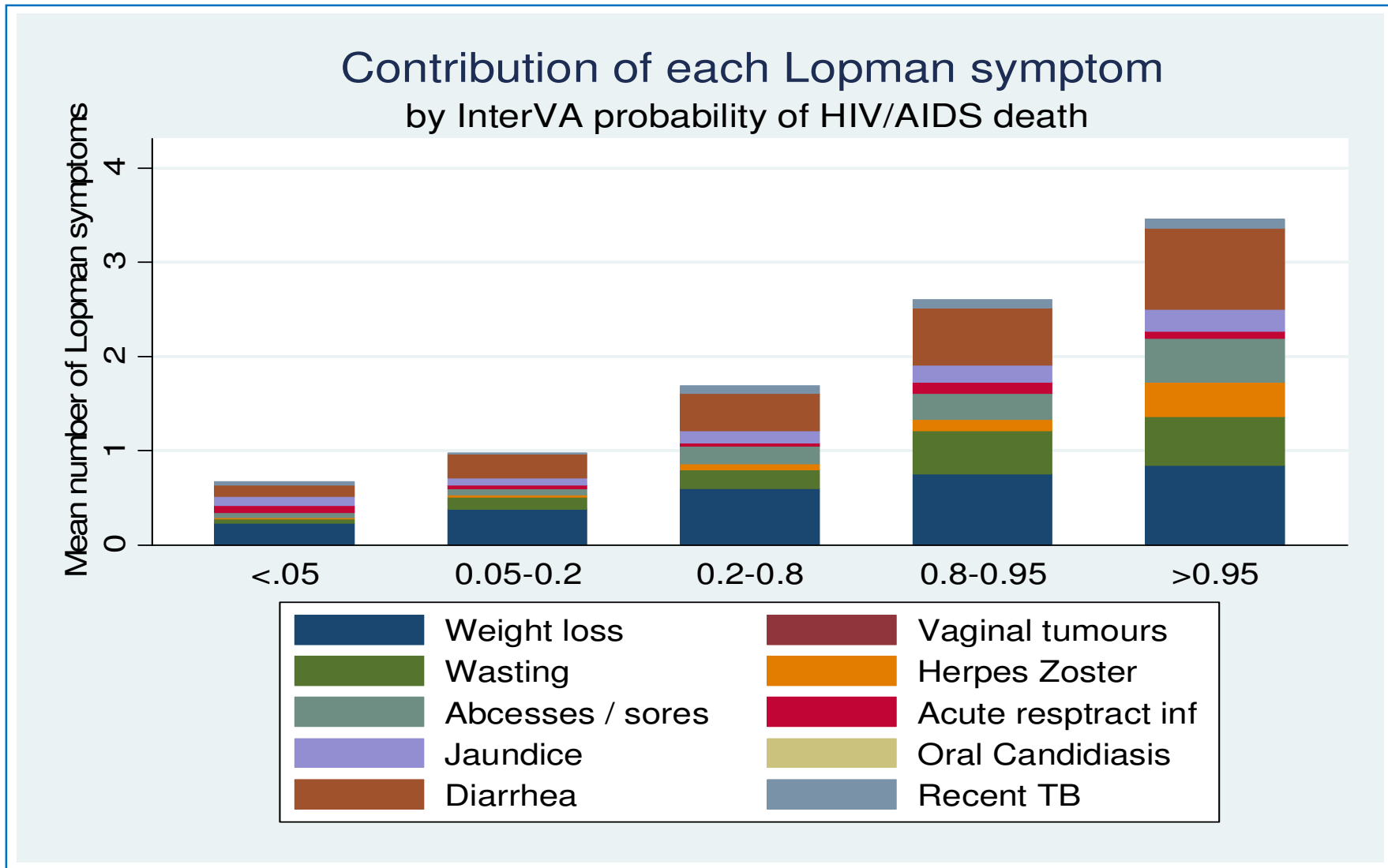
Age- and sex- specific mortality, showing typical impact of HIV, Kisumu, Kenya



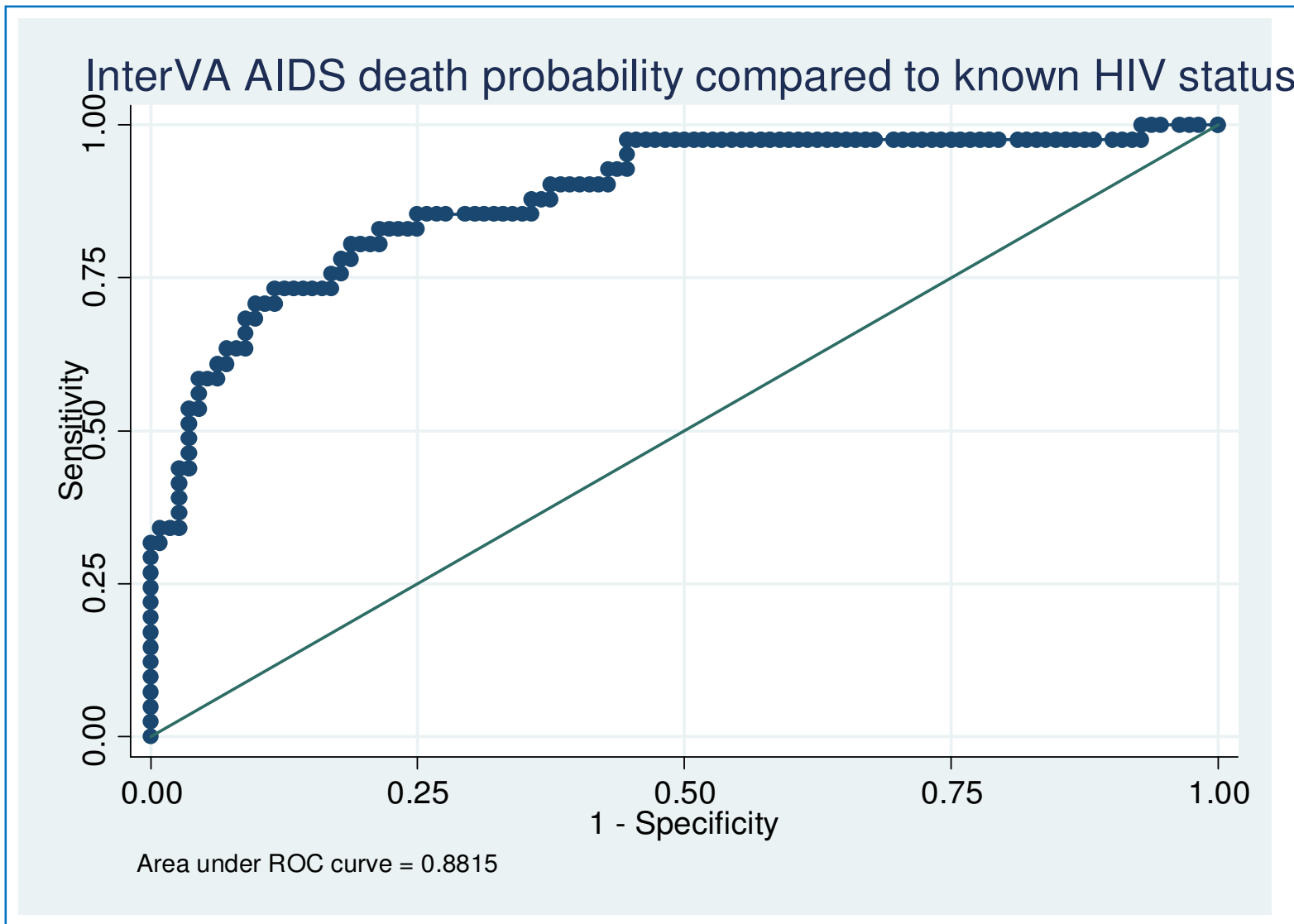
Changes in life expectancy over time, showing impact of ART: Agincourt, South Africa,



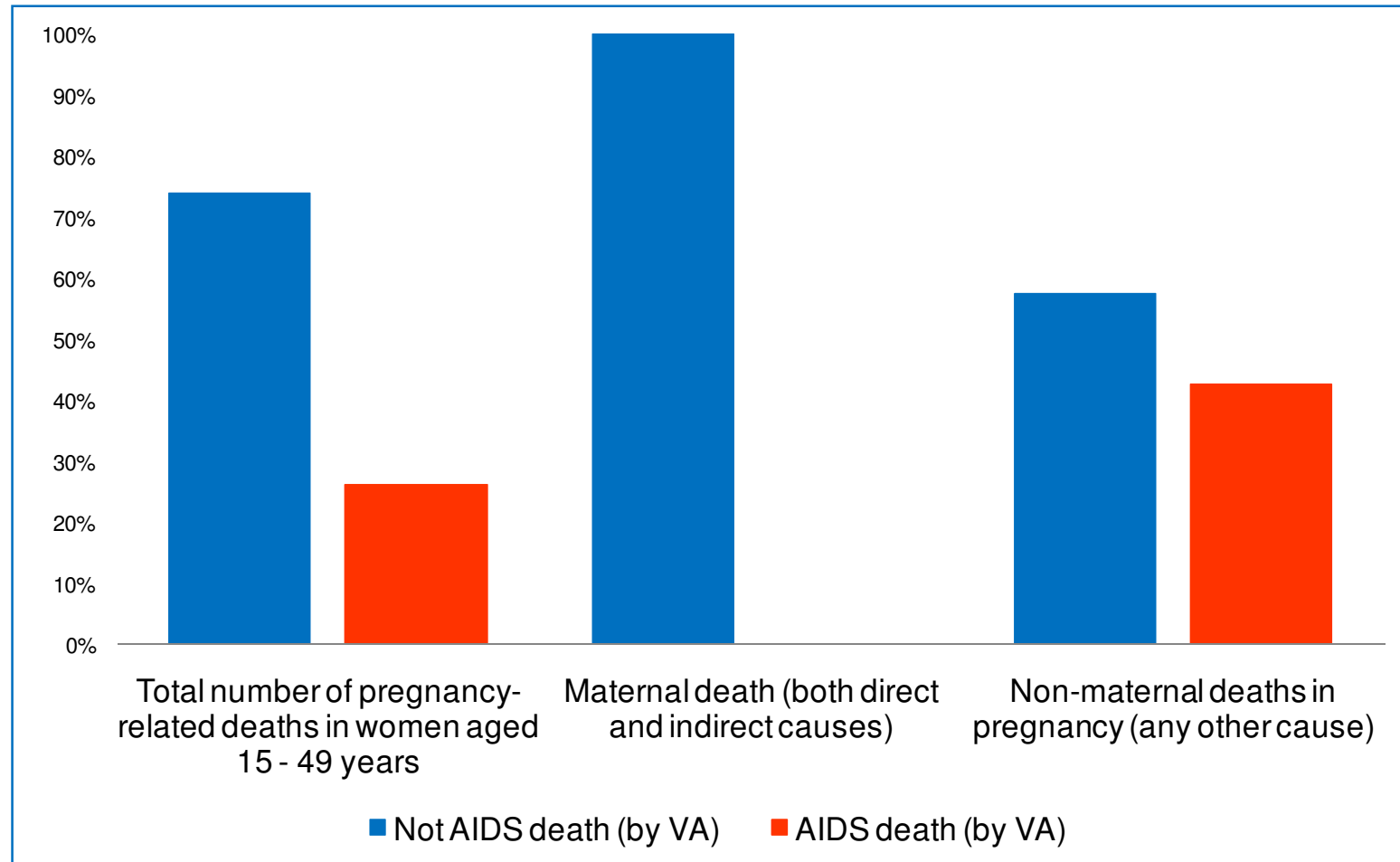
HIV symptom distribution by InterVA-4 β estimate of likelihood of AIDS death, Masaka, Uganda



HIV diagnosis in InterVA-4 β and known HIV status, ROC analysis, Karonga, Malawi



Maternal and other deaths to pregnant and post-partum women, Nairobi, Kenya



INDEPTH – ALPHA collaboration: further planned activities

- Final version of InterVA-4 available in 2012 for general use, for batch analysis and field interviews (tablet PC or smart-phone version)
- Detailed report of workshop findings to WHO, presentation of main results at ECA conference of Directors of National Statistical Services (Cape Town, January 2012)
- Journal articles on findings about association of pregnancy-related mortality and HIV, to inform global estimates and progress to MDG5