Interviewer identity & learning effects: Sources of variation in reported social networks

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Health and Aging in Africa: Longitudinal Studies of INDEPTH Communities (HAALSI)

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Motivation

Our goal

1. To elicit measures of social connections
2. To conduct valid inference relating to social connections

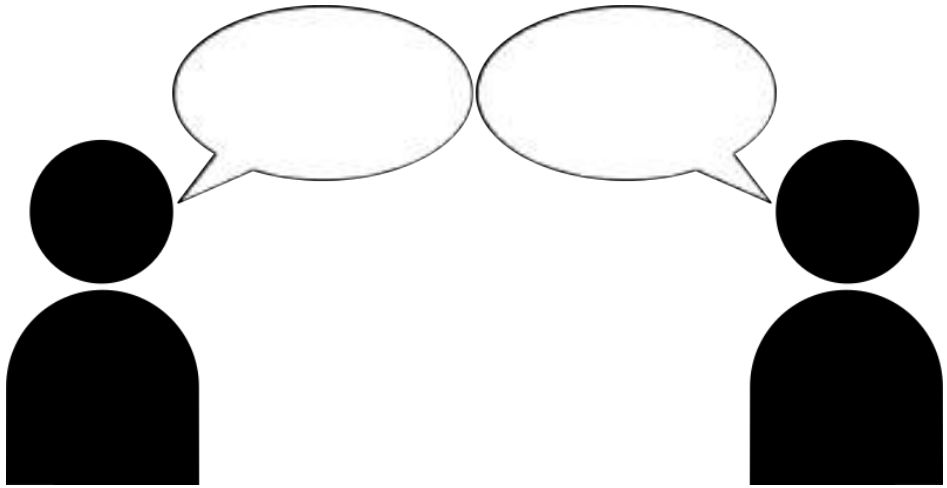
(Some of) Our concerns

1. Variation in comprehension of questions by respondent
2. Unintentional under-reporting: recall bias
3. Intentional under-reporting: burden reduction; social desirability

But don't forget...

Motivation

It takes two to interview



Motivation

Sources of interviewer influence

1. Variation in comprehension of questions
2. Unintentional variation in effort
   - Interviewer characteristics: age, gender, language
   - Dyad characteristics: differences in age, gender, language
   - Idiosyncratic variability
3. Intentional variation
   - Normative network size
   - Normative length of interview
   - Learning effects emerge over time

Marsden 2003; Van der Zouwen & Van Tilburg 2001

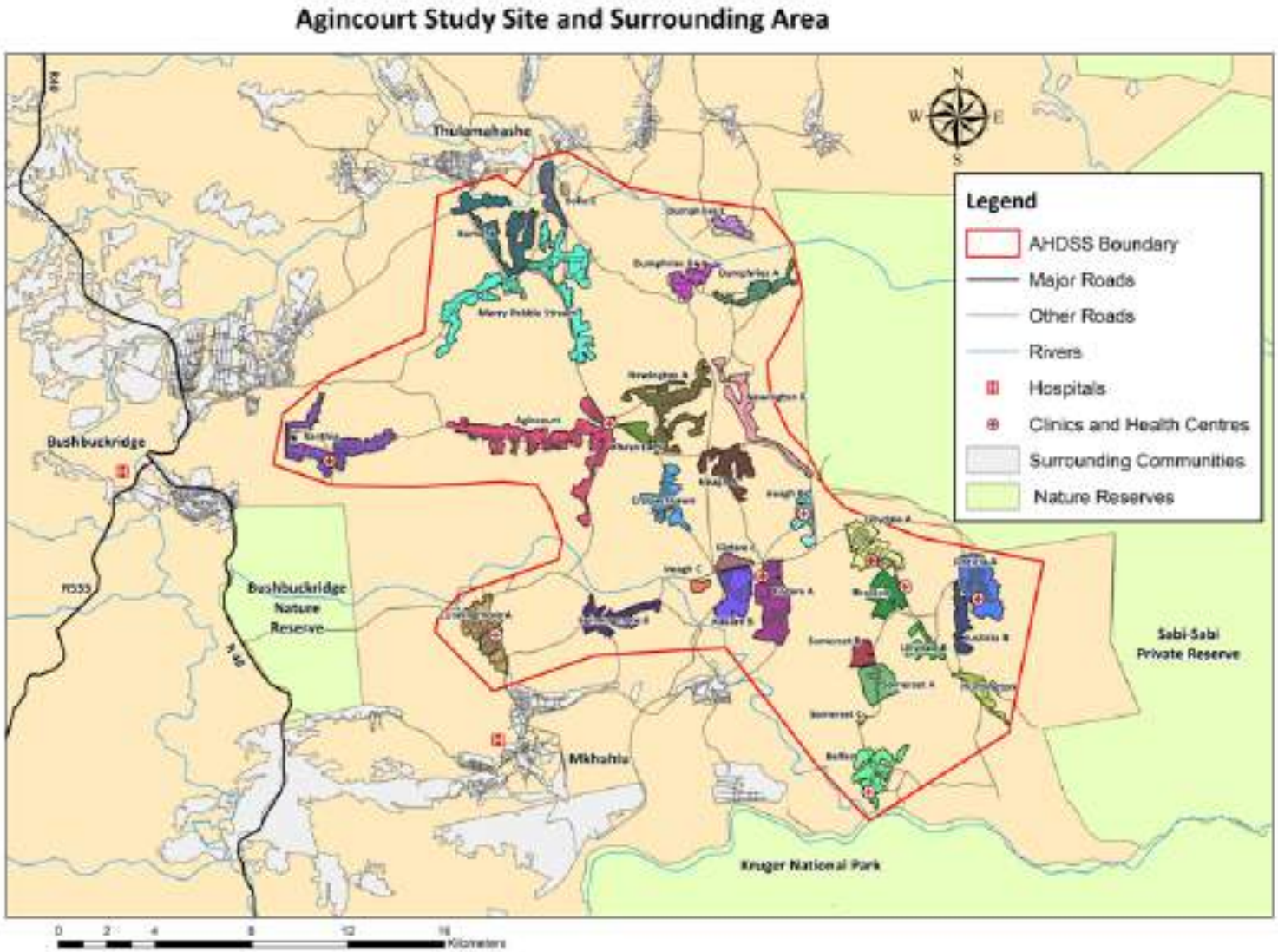
HAALSI study

Health and Aging in Africa: Longitudinal Studies of INDEPTH communities

- Baseline for a longitudinal cohort to study aging & health
- In rural South Africa

HAALSI study site

HAALSI study site



HAALSI study

Health and Aging in Africa: Longitudinal Studies of INDEPTH communities

- Baseline for a longitudinal cohort to study aging & health
- In rural South Africa
- Resident adults aged 40 and above
- Random sample of 49% of all eligible individuals
  - 5059 valid responses (80.5% response rate)
- Comprehensive interviews on health and social wellbeing
  - Approximately 3 hours to complete
- Conducted between November 2014 and November 2015

Social network module

Single name generator

"Please tell me the names of 6 adults with whom you have been in communication either in person or by phone or by internet in the past 6 months, starting with the person who is most important to you for any reason"

Social network module

Multiple name interpreters

For each person, over the past 6 months, how often you:

- interacted in person, by phone, SMS, email or the internet
- received emotional, physical, informational, financial support
- physical fought, verbally argued or were criticized by

Additionally we asked about:

- Alter age, gender, relationship and place of residence
- Alter-alter tie strength

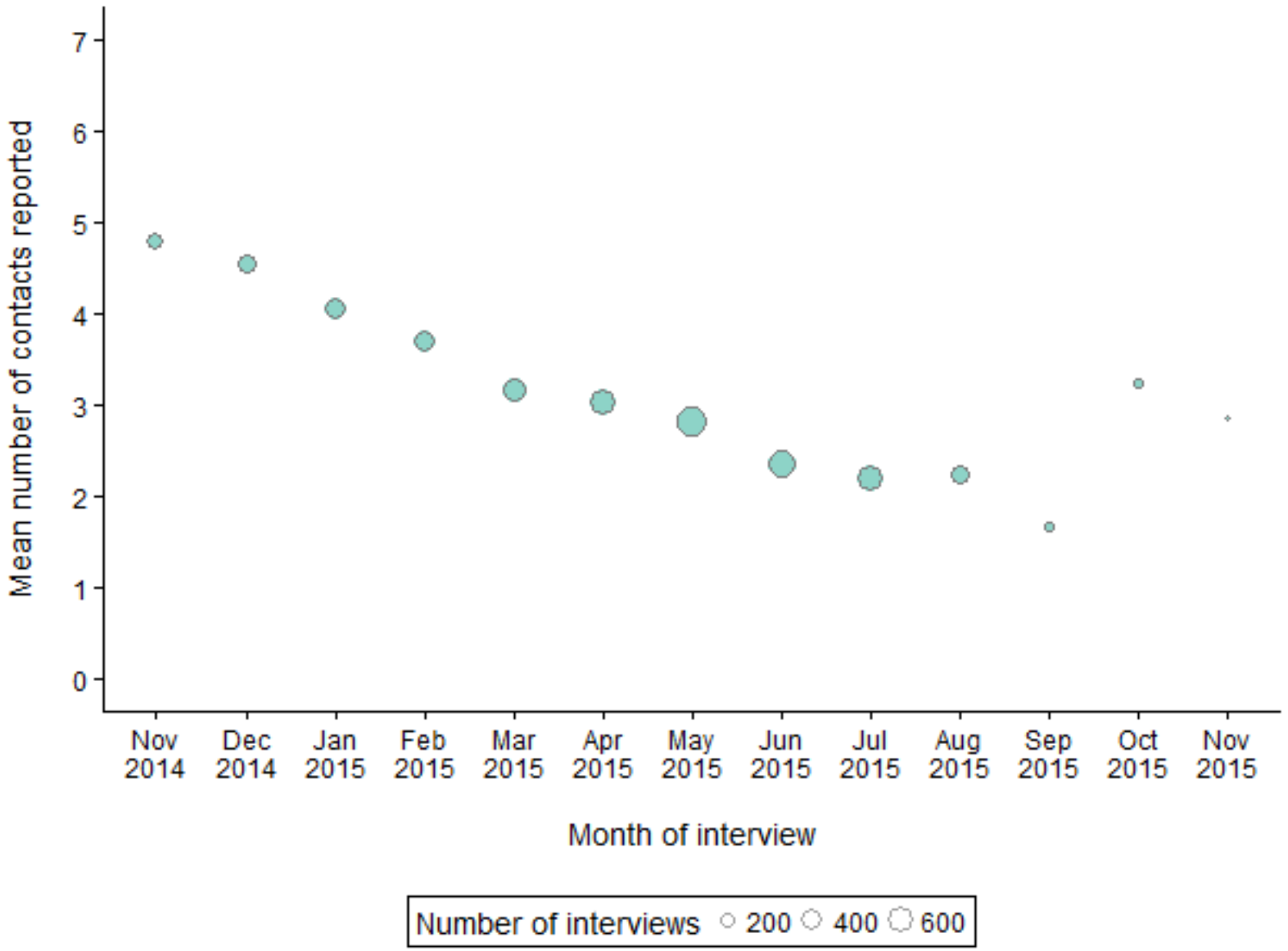
Research questions

1. Do we see variation according to interviewer?
2. Who are the alters we do not see?
3. Is variation by interviewer due to respondent characteristics?

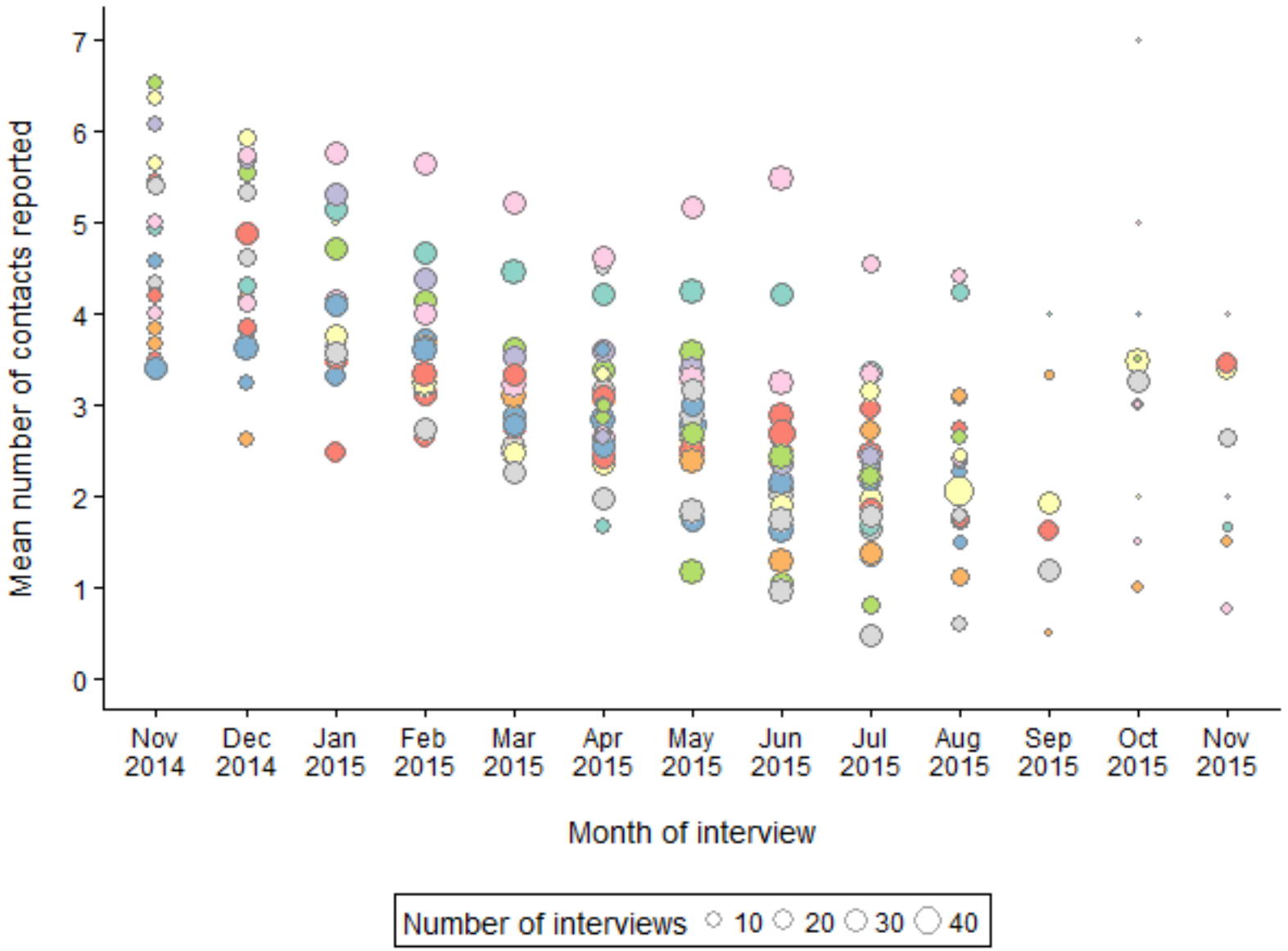
Results: interviewers

	Interviewers	%	Respondents	%	Mean Alters	95% CI	Chi sq.	
Sex								
Male	7	24.1%	1519	30.0%	3.18	[3.09 - 3.27]		
Female	20	69.0%	3540	70.0%	3.03	[2.97 - 3.08]	17.85	p <0.0001
Age								
20-29	17	58.6%	3672	72.6%	3.15	[3.10 - 3.21]		
30-39	7	24.1%	1056	20.9%	3.15	[3.04 - 3.25]		
40-49	3	10.3%	331	6.5%	1.95	[1.80 - 2.11]	159.55	p <0.0001
Experience								
<200 interviews	13	44.8%	1284	25.4%	2.32	[2.22 - 2.41]		
≥ 200 interviews	14	48.3%	3775	74.6%	3.29	[3.23 - 3.34]	323.18	p <0.0001
Total	27		5059					

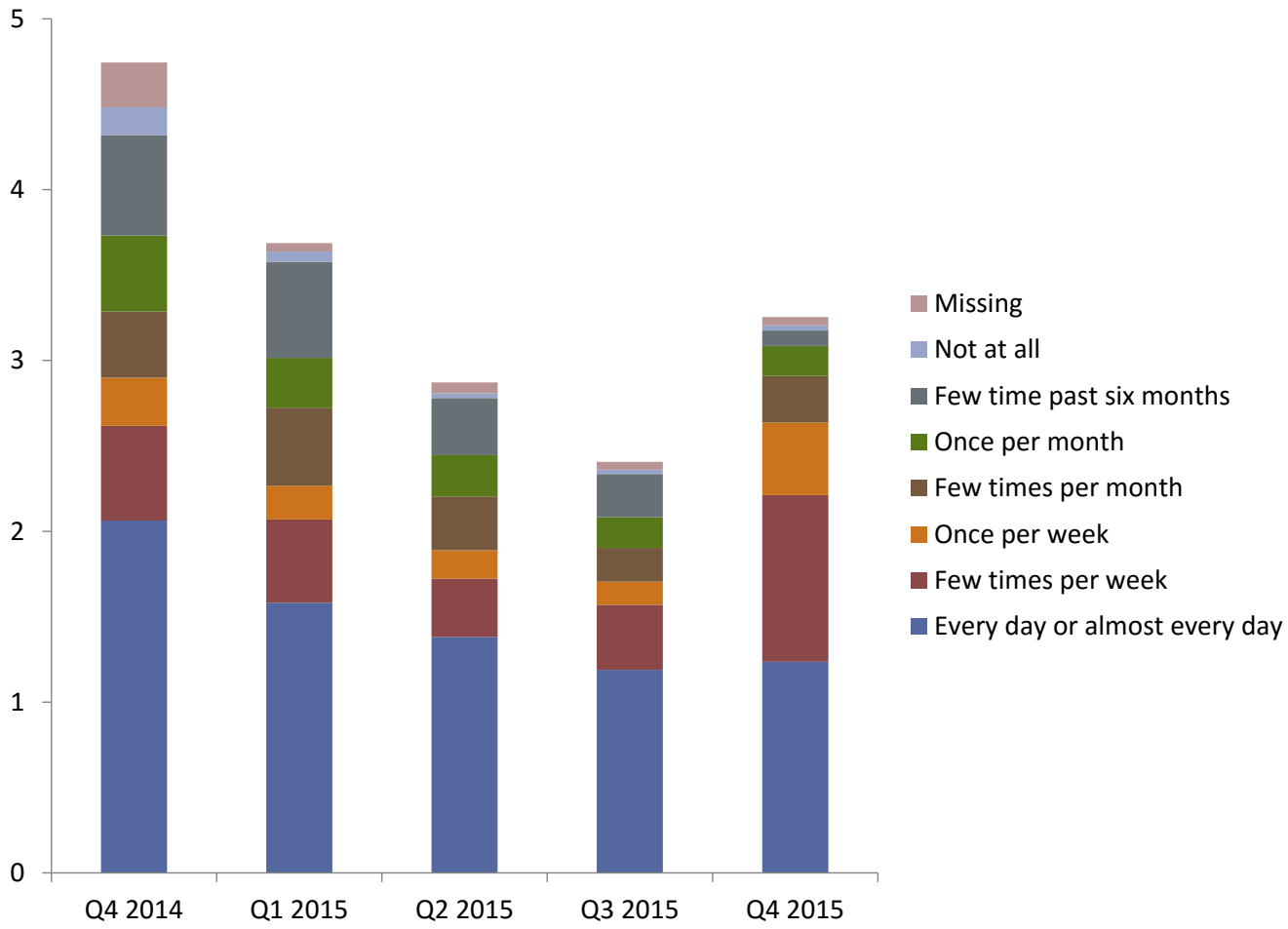
Results: survey timing



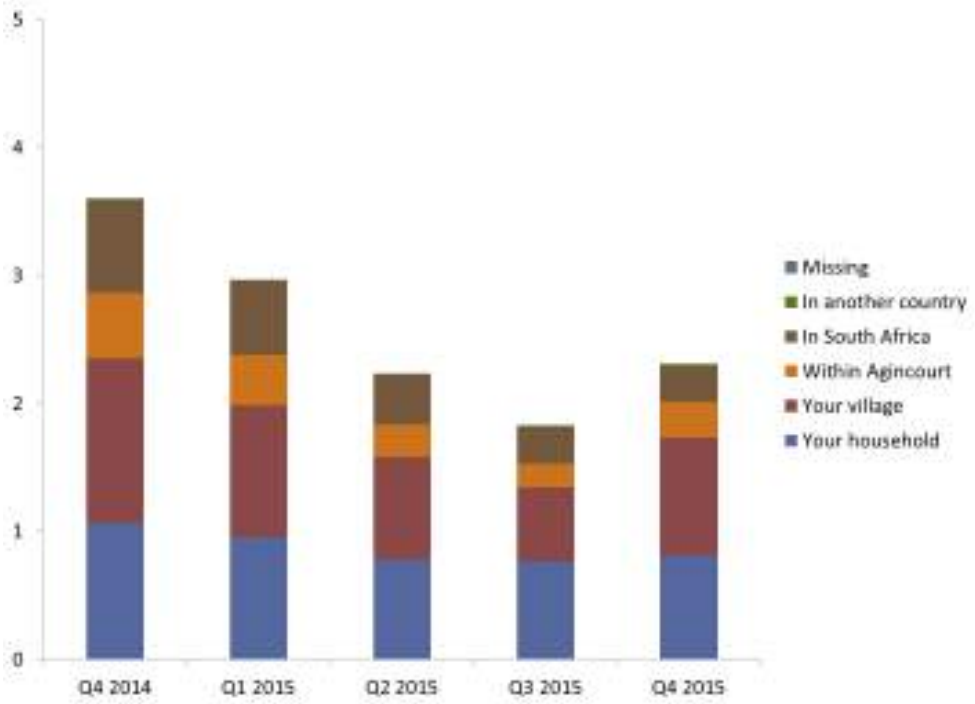
Results: interviewer



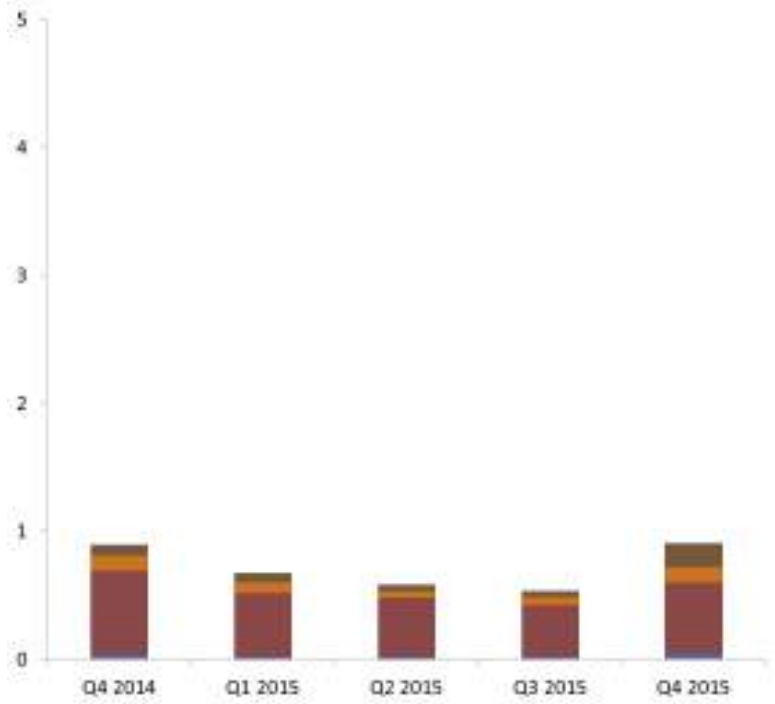
Results: tie intensity



Results: tie location



Relatives



Non-relatives

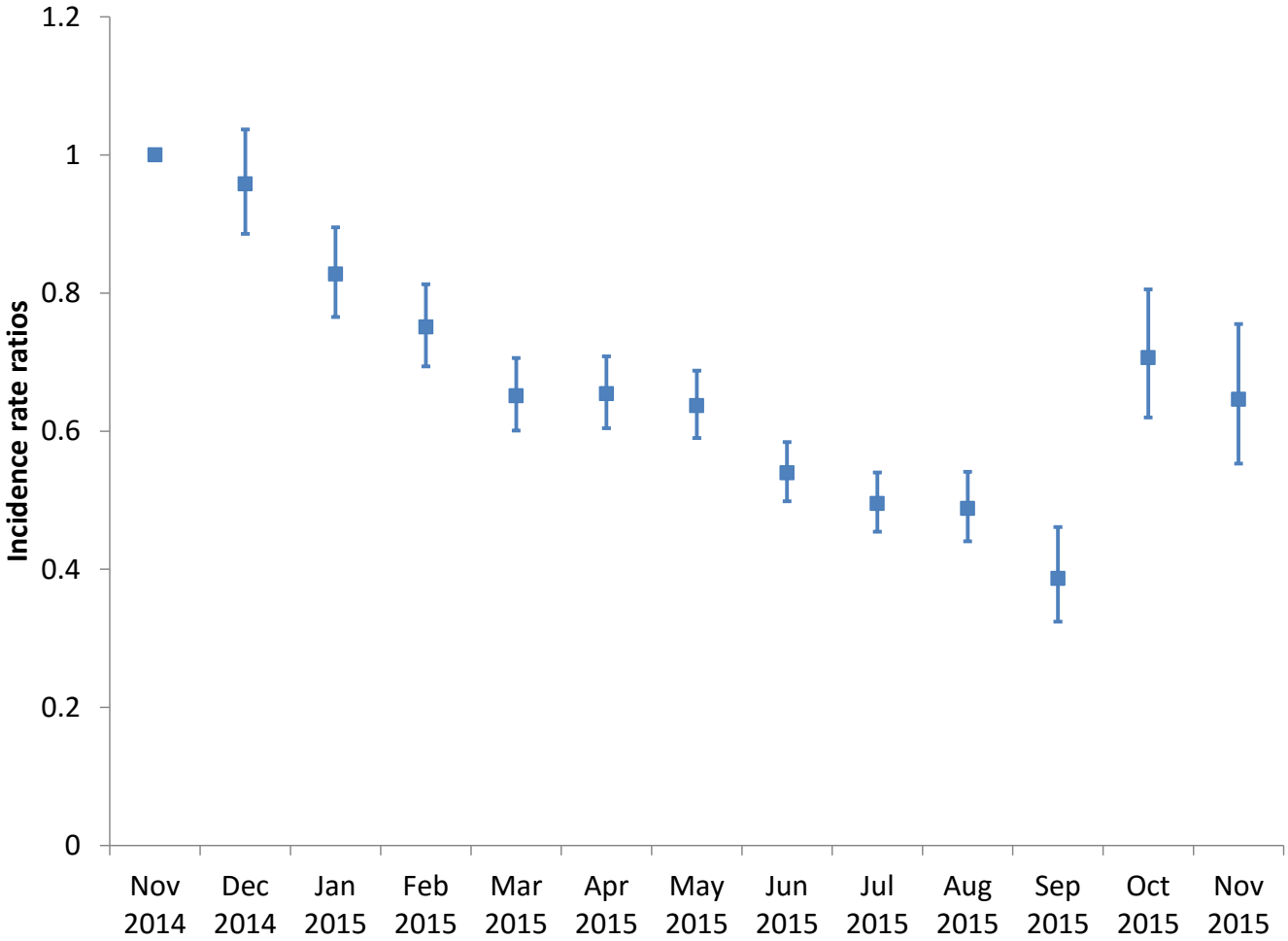
Results

Mixed effects Poisson Regression models

	Null	Months	Villages	Respondent	Interviewer	Dyad	Final
Month of interview		<0.001		<0.001	<0.001	<0.001	<0.001
Respondent: Village of residence			0.39				
Respondent: Age decade (female)				0.03	0.02	0.35	0.02
Respondent: Age decade (male)				0.02	0.01	0.27	0.01
Respondent: Education				0.04	0.01	0.01	0.01
Respondent: Country of origin				0.78			
Respondent: Marital status				<0.001	<0.001	<0.001	<0.001
Respondent: Household size				0.61			
Respondent: Employment status				<0.001	<0.001	<0.001	<0.001
Respondent: Household wealth				0.31			
Interviewer: Age					0.22		
Interviewer: Gender					0.65		
Dyad: Gender homophily						0.54	
Dyad: Age difference						0.81	
AIC	18,346.5	17,805.4	17,830.3	17,191.8	17,195.2	17,200.2	17,192.1
Interviewer variance	0.12	0.06	0.06	0.05	0.05	0.05	0.05
	[0.05 - 0.18]	[0.03 - 0.10]	[0.03 - 0.10]	[0.02 - 0.08]	[0.02 - 0.08]	[0.02 - 0.08]	[0.02 - 0.09]

Statistics are Wald tests across all categories of each independent variable

Results: survey timing, adjusted



Key findings

1. Large changes in number of alters during a cross-sectional study with random interviewer assignment
2. Independent interviewer identity and time period effects
3. Not explainable by interviewer, respondent or dyad characteristics
4. Re-training may have led to a significant rise in alter numbers

What to do?

1. Less flexibility: fix number of alters required
2. More training: improve fieldworker comprehension
3. More monitoring: and feedback results to fieldworkers

Acknowledgements

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