BACKGROUND

- Previously identified risk factors for new HIV infections in sub-Saharan African not consistent across studies.
- Different risk factor definitions and low study power may explain some of these inconsistencies.

Person & community factors

Exposure to an infected partner

Factors affecting transmission

Time and place

Prevalence among potential partners

Geographical location

Year of birth

Mobility

Mental health

SES

Religion

Education

HIV awareness

Personal Preference

Conceptual framework (Figure 1) used to identify data for harmonisation and inclusion in analysis.

RESULTS

- Consistent risks: residential mobility, number of partners in last year, new partners.
- Age/sex dependent risks: marital status, circumcision and types of partner.
- Attributable fractions largest for circumcision (men 15-24) and not being married (women and men 25-49) (Figure 3).

METHODS

- Harmonised longitudinal data from 8 African population-based observational cohorts for 2005-2016 (Figure 4)
- Analysis time starts: first negative HIV test; ends: seroconversion or right-censoring (death, out migration, untreated; constructed using HIV prevalence, treatment coverage and age mixing data).

CONCLUSIONS

- Using harmonised data, risk factors varied by sex and age group.
- PAF shows circumcision most important factor for young men; lack of effect in older men may be because older men were traditionally circumcised or because low-risk men are more likely to be circumcised.
- HR and PAF show that not being married, especially being formerly married is an important risk factor. This mainly affects populations not typically targeted by prevention programmes.
- Heterogeneity in attributable fractions between studies, and age and sex, suggests generic approaches to prevention will have variable impact.