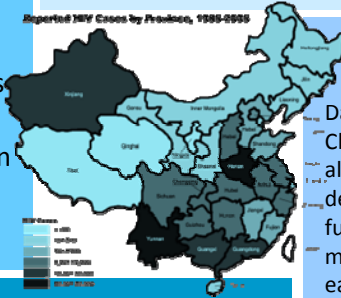


## Background

- Estimated **700 000** people living with HIV/AIDS (PLWHA) in China
- **150 million internal migrants** in 2008, many lacking access to government services due to mandatory household registration system
- **Migrants** thought to be at **increased risk of HIV** infection due to social and economic marginalisation, lax social controls and other psychological factors
- Knowledge, Attitudes, Beliefs and Practices (**KAB/P**) Studies are a common tool used to assess HIV risk worldwide



## Aims of the Study

- To apply latent trait modelling to HIV survey data in China, exploring how well standard KAB/P questions measure what they are supposed to
- To explore whether migrants are at greater risk of HIV than non-migrants in China

## Methods

Data from a 2008 KAB/P survey of migrants and non-migrants from 6 Chinese cities (n=6382) was analysed using latent trait analysis – a novel, although well-indicated approach for data of this sort. Scales were developed based on individuals’ survey responses. We tested the functioning of each item in the scales to assess whether they were measuring what they were designed to measure. Individuals were scored on each scale. These scores were then entered into multiple logistic regression analysis, with condom use as response variable to test what role KAB/P play in predicting safer sex. We also tested whether migrants had significantly lower levels of KAB/P as the models predicted, and if they had significantly different levels of condom use.

## Research Questions

1. How well do KAB/P survey items function in measuring what they are designed to measure and to what extent is latent trait an improvement on sum scoring?
2. To what extent do migrants' KAB/P differ from those of non-migrants?
3. What effect do the KAB/P levels in the sample have on individual likelihood of using condoms?
4. Does the theoretical framework (below) hold with regards to migrants? Are there intermediate variables that play a role in their HIV risk, such as socio-economic variables, or are migrants inherently psychologically different to non-migrants?

## Results

Research Question 1: largely the survey questions *did* measure what they were designed to, although several exceptions indicate that there may be issues with the validity of some of the KAB/P questions in the Chinese context. Several questions also appeared to discriminate poorly between otherwise very different individuals. This indicates that these questions could be omitted in future. Research Question 2: migrants demonstrated significantly different levels of KAB/P (1% level) relative to non-migrants. Surprisingly, migrants showed higher levels of protective behaviours, and some types of knowledge. They also however showed poor knowledge of sexual routes of HIV transmission and poorer attitudes towards PLWHA. Research Question 3: higher scores on knowledge, beliefs and practices were all significantly associated (5% level) with greater odds of using condoms. More positive attitudes towards PLWHA was not associated with significant increase in odds of condom use. Research Question 4: mixed results – migrants do appear to be significantly different to non-migrants, but not always in the way the model would suggest. The predicted link between attitudes and behaviours does not appear to hold in this sample, implying there are intermediating factors at play. Once KAB/P was controlled for, there was no significant difference between migrants and non-migrants, implying that they are not psychologically more predisposed to sexual risk taking.

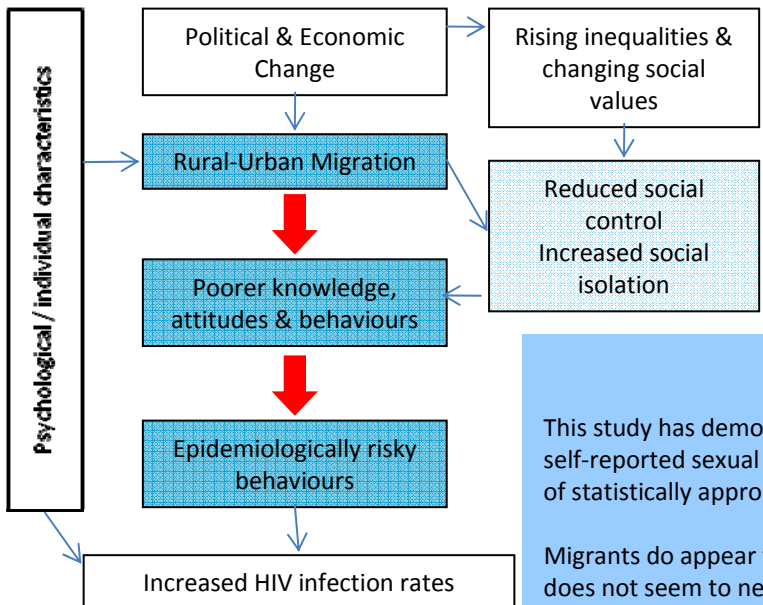
## Discussion

This study has demonstrated the potential viability of latent trait modelling for the analysis of self-reported sexual behaviour data, both in testing item functioning, and in the development of statistically appropriate scales for discreet data.

Migrants do appear to have poorer levels of some types of knowledge and attitudes, but this does not seem to necessarily translate to poorer condom use.

Migrants would be a good group to target to improve attitudes towards PLWHA and HIV testing, as there is evidence that there is room for improvement in these areas.

Further work is needed to explore the intermediating factors that place some groups at greater risk of engaging in unsafe sexual practices. Only with more evidence can stronger and more effective interventions and policies be put in place.



**Figure** showing theorised paths of socio-economic and individual factors thought to impact on HIV risk for migrants. The **red arrows** indicate relationships tested in this study: how migration might be linked to greater levels of ‘risky’ behaviours.