

The predictive value of fertility desires in sub-Saharan Africa

Kazuyo Machiyama and John Cleland

London School of Hygiene & Tropical Medicine (LSTHM)

International conference on the demographic dividend and fertility trends in
sub-Saharan Africa

12 May 2017, INED, Paris

Improving health worldwide

www.lshtm.ac.uk

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



OUTLINE

- Introduction
- Fertility intention study in Karonga Health Demographic and Surveillance System (HDSS), Malawi
 - Objectives
 - Methods
 - Results
 - Summary
- Desires to limit childbearing in sub-Saharan Africa (SSA)
- Conclusions



Measuring fertility intention

- Fertility decision-making is complex in first place
 - Pregnancy is not always an outcome of reasoned action
 - Multi-dimensional
 - An appreciable proportion of women report births resulting from accidental pregnancy due to discontinuation or failure of contraceptives as wanted
 - 18% of women in US are neither avoiding nor trying pregnancy (*Väisänen and Jones 2014*)
 - Fluid, tentative, or ambivalent (*Johnson-Hanks 2002, 2005, Kodzi et al. 2010, Sennott and Yeatman 2012*)
 - Sequential over time
- Doubts about the meaning and predictive power of fertility preferences are most pronounced and the relevant evidence is relatively sparse in SSA



Objective

To investigate prospective fertility intention in terms of their degree of spousal agreement and association with future childbearing



Methods

Setting

- Karonga, Malawi (patrilineal)

Data

- Fertility intention study (FIS) nested in Karonga HDSS over 3 rounds between 2008-2011
- Married women aged 15-49
- Matched couple data are used

Men provided fertility intention to each of their wives in case of polygyny



Prospective fertility intention

Women who are NOT currently pregnant **and their husbands** were asked:

- “Do you want to have any (more) children any time in the future? If YES, how long would you like to wait before having another child?”

- “If you have a child in the next year, will there be serious consequences? If YES, which consequence?” (only ONE option)
 1. Financial
 2. Woman’s health
 3. Children’s health
 4. Marriage’s Stability
 5. Own education
 6. Children’s education
 7. Don’t know



RESULTS

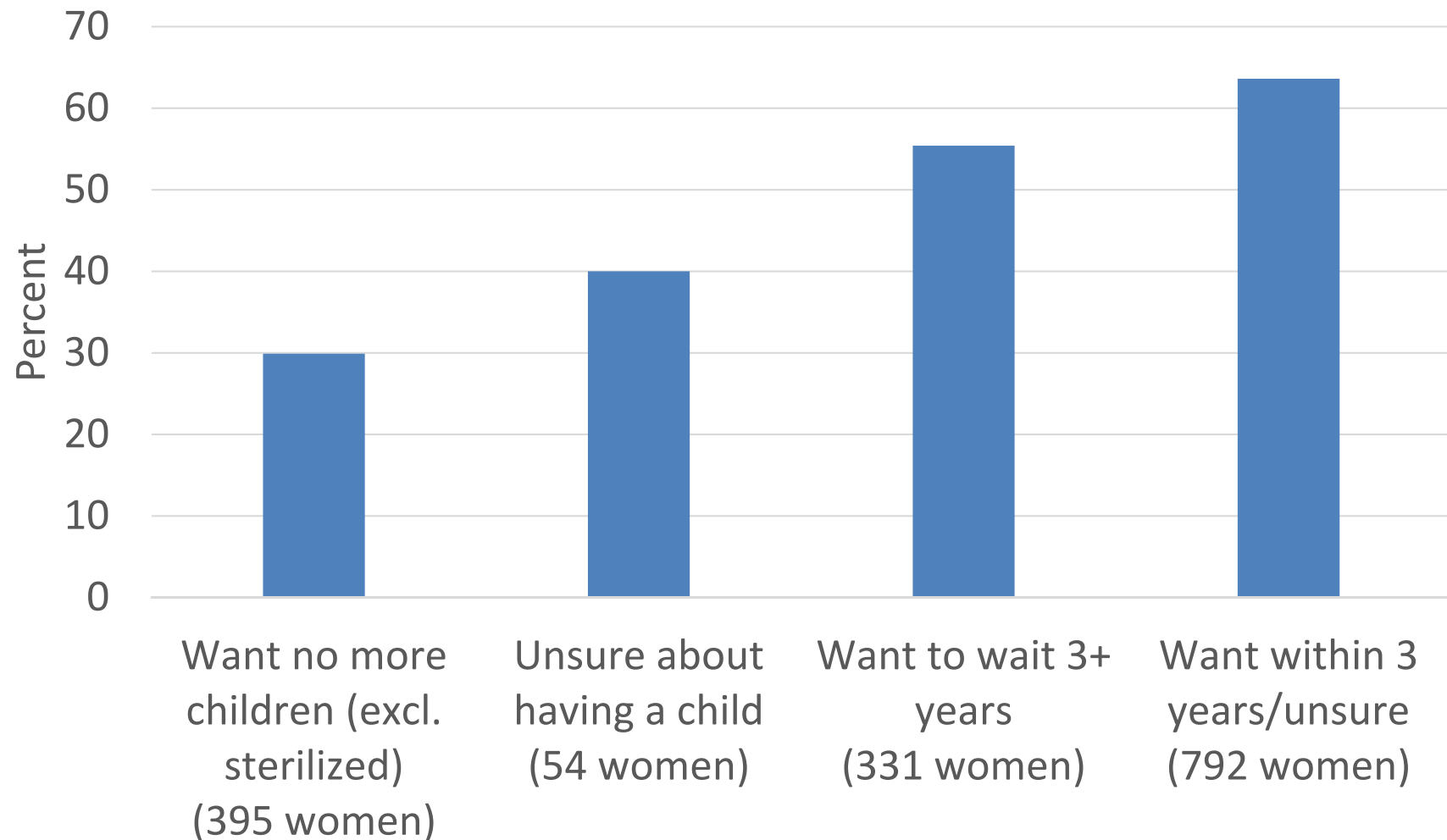
LONDON
SCHOOL *of*
HYGIENE
& TROPICAL
MEDICINE



Stability of women's prospective fertility intention between two consecutive rounds

Fertility intention at 1 st Round(%)	Fertility intention at 2nd Round(%)						Total
	Want no more child/ became sterilized	Unsure about having a child	Want to wait 3+ yrs	Want a child but unsure about the timing	Want within 3 yrs	Had birth or became pregnant between 1st and 2nd round	
Want no more child	62.4	2.2	6.2	2.2	9.3	17.6	2119
Unsure about having a child	40.0	2.5	12.5	5.6	18.8	20.6	160
Want to wait 3+ yrs	12.4	1.7	28.5	2.8	27.1	27.4	1006
Want a child but unsure about the timing	20.5	2.6	14.2	8.4	21.6	32.6	190
Want within 3 yrs	8.3	1.0	10.6	3.1	31.7	45.3	1715
Total	32.6	1.7	12.5	2.9	20.9	29.3	5190

Childbirth and pregnancy over 3 years by fertility intention



Spousal agreement of fertility intention

Wife's fertility intention	Husband's fertility intention (%)					Total (%)
	Want no more children	Unsure about having a child	Want to wait 3+ years	Want within 3 years/unsure about the timing	No intention	
Want no more children	66.6	3.2	6.3	17.9	6.2	100.0
Unsure about having a child	46.1	11.2	6.7	31.5	4.5	100.0
Want to wait 3+ years	21.7	3.9	33.5	38.5	2.4	100.0
Want within 3 years/unsure about timing	15.3	2.0	12.9	66.9	2.9	100.0
Total	39.9	3.2	13.3	39.4	4.2	100.0

N=2,071

Adjusted odds ratios for childbirth or pregnancy over 3 years

	Adjusted OR	95% CI		p-value
Wife's fertility intention				
Want no more children	1.00			
Unsure about having a child	1.30	0.814	2.083	
Want to wait 3+ years	1.59	1.179	2.131	**
Want within 3 years/unsure	2.24	1.729	2.900	***
Husband's fertility intention				
Want no more children	1.00			
Unsure about having a child	1.72	1.024	2.883	*
Want to wait 3+ years	1.55	1.134	2.125	**
Want within 3 years/unsure	2.02	1.579	2.575	***
Missing	1.26	0.754	2.100	
Wife's age				
15-29	1.00			
30-49	0.35	0.267	0.445	***

* p < 0.05, ** p < 0.01, *** p < 0.001

Adjusted for no of living children, type of marriage, wife's educational status

Predicted probabilities of birth or pregnancy within 3 years by wife's and husband's fertility intention at baseline

Prospective fertility intention	Predicted probability	95% CI	
Neither wife nor husband want another	0.33	0.283	0.370
Wife wants no more but husband wants another/undecided	0.47	0.422	0.521
Wife wants another/undecided, but husband wants no more	0.48	0.429	0.532
Both want another	0.63	0.598	0.662
N	2,063		

Adjusted for women's age, Number of living children, type of marriage and women's education

Adjusted odds ratio for childbirth or pregnancy within 3 years among married women who wanted no more child

	OR	p-value
Woman's intensity of unwantedness		
No or non-specified serious consequence	1.00	
Serious consequence for finance, or own or children's health	0.72*	
Husband's fertility intention		
Want no more child	1.00	
Unsure about having a child	1.69	
Want to wait 3+ yrs	1.59	
Want within 3 yrs/unsure about timing	2.09***	
missing	1.76	
Wife's age		
15-29	1.00	
30-49	0.21***	
N	796	

*Adjusted for women's age, Number of living children, type of marriage and women's education

Summary of findings

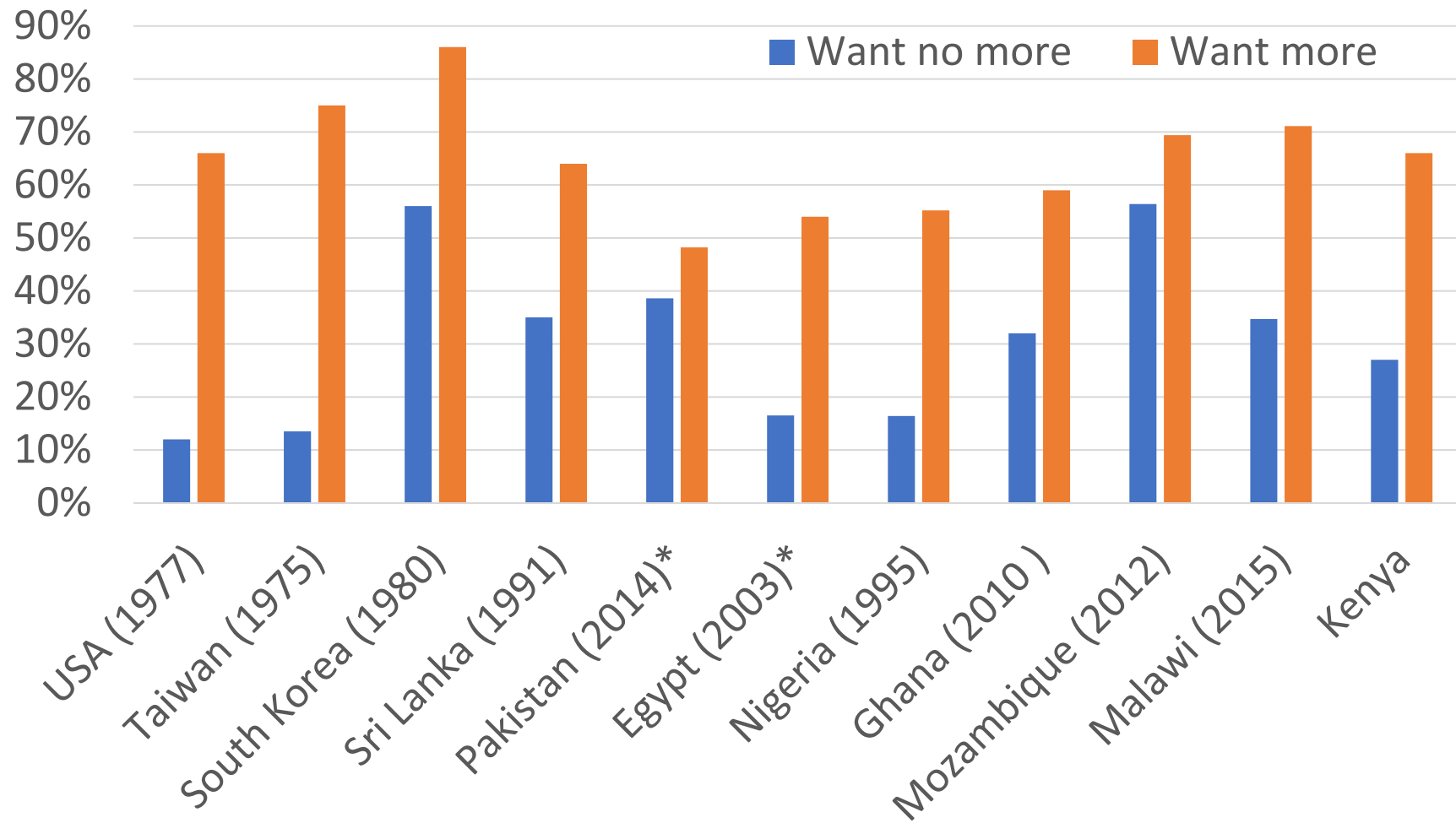
- Good stability over 12 months in prospective fertility intentions, especially among limiters
- Predictive validity of the stated intention to **stop** childbearing is high
- Weaker spousal agreement and predictive power of desire to **postpone** childbearing
- Spousal agreement on fertility intention is high among limiters and those who want to have a child soon
- The influence of the reproductive wishes of husband and wife on subsequent childbearing were symmetrical



Longitudinal studies examining predictive power of desire to limit family size

Country(Authors, year)	Follow-up length
USA (Wesoff and Ryder, 1977)	5 years (1971-75)
Taiwan (Freedman et al. 1975, Hermalin et al. 1979)	3 years (1967-70)
South Korea (Foreit and Suh, 1980)	5 years (1971-76)
Sri Lanka(De Silva, 1991)	3 years (1982-85)
Nigeria (Bankole, 1995)	2 years (1984-86)
Egypt (Casterline et al.2003)	2 years (1995-97)
Ghana (Kodzi et al.2010)	5 years (1998-2003)
Mozambique (Hayford et al., 2012)	3 years (2006-09)
Pakistan (Jain et al. 2014)	3 years (2008-11)
Malawi (Machiyama et al. 2015)	2 years (2007-2009)
Kenya (Machiyama et al. unpublished)	3 years (2006-10)

Percentages of childbirth or pregnancy in 2-5 years by fertility intention and study



*Include only women with unmet need for limiting

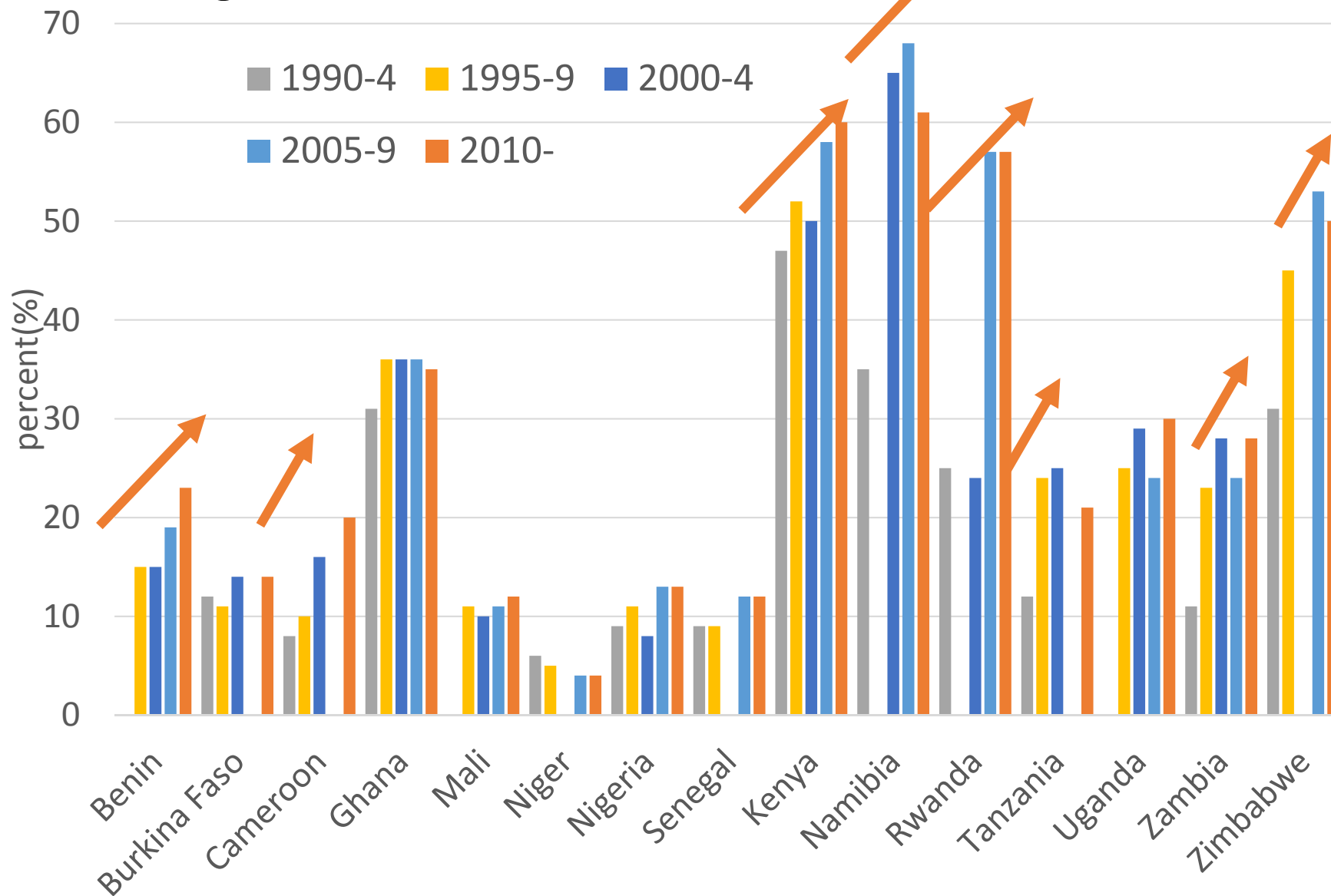


Desire to limit family size

LONDON
SCHOOL *of*
HYGIENE
& TROPICAL
MEDICINE



Trend in % of women wanting to limit among women with 3 living children in sub-Saharan Africa



Conclusions

- 16-56% of women wanting to limit childbearing conceived within 2-3 years in SSA
- The stated wishes of women to limit future childbearing have the same meaning and similar predictive validity as preferences in other regions.
- Concerns that these wishes need not be taken seriously because they are superficial and highly volatile are misplaced.



Acknowledgements

- Angela Baschieri, Judith Glynn, LSHTM
- Karonga Prevention Study
- Joint William and Flora Hewlett Foundation and Economic and Social Research Council (ESRC)
- Wellcome Trust
- STEP-UP (Strengthening Evidence for Programming on Unintended Pregnancy) Research Consortium funded by the UKaid

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



IUSSP Population Analysis for Policies & Programmes



<http://papp.iussp.org/index.html>

Page 1 of 41

Select a session...

Search

PAPP104 - S06: Measuring fertility preferences, unintended pregnancy and access to family planning

Aims and objectives

Aim

To introduce measures of fertility preferences and intentions, unintended pregnancy and access to family planning.

Objectives

After working through this module you should be able to:

- Be familiar with widely used measures of fertility preferences and intentions, and unintended births
- Articulate advantages and limitations of the measures
- Understand complexity in conceptualising reproductive decision-making and behaviours
- Appreciate ambivalence and fluidity of fertility intention and preferences

This session will take approximately 2 hours to complete.



Hide Menu

01. Aims and objectives

page 1

02. Introduction

03. Conceptualising fertility...

04. Fertility preferences and...

05. Ideal and desired family ...

06. Sex preferences for children

07. Male's and matched fertil...

08. Validity and predictive v...

09. Measuring unintended preg...

10. Access to family planning

11. Summary

12. References

13. Feedback form



Conceptualizing and Measuring Unintended Pregnancy and Birth: Moving the Field Forward



Thank you!

Contact: Kazuyo.Machiyama@lshtm.ac.uk

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE

