# THE LANCET Global Health

## Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

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#### Flowchart to show exclusion of surveys

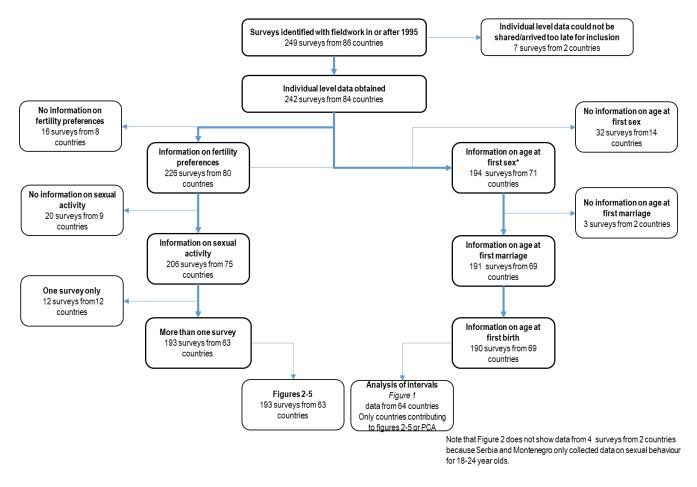


Figure S1: Flow chart to show exclusion of surveys from analysis

## Summary of data available by country

Country	Surveys	Number	N female	N male	Ever	N female
		of	respondents	respondents	married	respondents
C & C Asia & Ossania		surveys	15-49	15-49	samples	aged 15-24
C. & S. Asia & Oceania	2015 DHS	1	29461	10760	1	7912
Afghanistan Bangladesh	2015 DHS 2011 DHS, 2014 DHS	2	35612	3382	2	10551
India	2006 DHS, 2015 DHS	2	246736	173359	0	89674
Kazakhstan	1995 DHS, 1999 DHS	2	8571	1272	0	2686
	1995 DHS, 1999 DHS 1997 DHS, 2012 DHS	2	12056	2413	0	4484
Kyrgyzstan Maldives	2017 DHS, 2012 DHS		7699	4342	-	2133
	2017 DHS 2001 DHS, 2006 DHS, 2011	1 4			0	
Nepal	DHS, 2016 DHS		45055	13899	1	17045
Pakistan	2012 DHS, 2018 DHS	2	28626	6825	2	5563
Tajikistan	2012 DHS, 2017 DHS	2	20374	0	0	7751
Uzbekistan	1996 DHS, 2007 DHS	2	11256	3178	0	3566
Vanuatu	2008 DHS, 2014 MICS	2	5550	4342	0	2137
E. & S.E. Asia						
Cambodia	2000 DHS, 2005 DHS, 2010 DHS, 2014 DHS	4	68506	20160	0	25303
East Timor	2009 DHS, 2016 DHS	2	25744	8135	0	10739
Indonesia	1997 DHS, 2002 DHS, 2007 DHS, 2012 DHS, 2017 DHS	5	186422	31668	3	43592
Mongolia	2010 MICS, 2013 MICS	2	21592	9417	0	5657
Myanmar	2016 DHS	1	12885	4737	0	3728
Philippines	1998 DHS, 2003 DHS, 2008 DHS, 2013 DHS, 2017 DHS	5	82439	4424	0	30063
Latin America & Caribbean						
Bolivia	1998 DHS, 2003 DHS, 2008 DHS	3	45780	13559	0	17719
Brazil	1996 DHS	1	12612	2616	0	4528
Colombia	1995 DHS, 2000 DHS, 2005 DHS, 2010 DHS, 2015 DHS	5	146409	27480	0	51359
Cuba	2010 MICS, 2014 MICS	2	18068	0	0	5082
Dominican Republic	1996 DHS, 1999 DHS, 2002	5	44039	15809	0	16914
Dominican Republic	DHS, 2007 DHS, 2013 DHS	5	44039	10009	0	10914
Guatemala	1995 DHS, 2015 DHS	2	38317	9822	0	15818
Guyana	2009 DHS	1	4996	3522	0	1791
Haiti	2000 DHS, 2006 DHS, 2012 DHS, 2017 DHS	4	49574	23656	0	21363
Honduras	2006 DHS, 2012 DHS	2	42705	6190	0	17699
Nicaragua	1998 DHS, 2001 DHS	2	26694	2652	0	11348
Peru	1996 DHS, 2000 DHS, 2009 DHS, 2012 DHS	4	192006	2242	0	67910
N. America & Europe						
Albania	2009 DHS, 2017 DHS	2	18444	7542	0	5629
Estonia	2004 WHS, 2014 WHS	2	5085	0	0	2727
France	2010 Fecond	1	5265	3369	0	1298
Moldova	2005 DHS	1	7440	1996	0 0	2548
Montenegro	2005 MICS, 2013 MICS	2	5751	0	0	1631
Netherlands	2006 SHN, 2009 SHN, 2011 SHN	3	7179	6626	0	2191
Republic of Serbia	2005 MICS, 2010 MICS	2	12901	0	0	3157
United Kingdom	2011 natsal	1	6448	4484	0	2140
United States of America	2002 NSFG, 2007 NSFG, 2013 NSFG	3	31222	24652	0	10855
Sub-Saharan Africa						
Angola	2015 DHS	1	14379	5377	0	6423
Benin	1996 DHS, 2001 DHS, 2006 DHS, 2012 DHS, 2018 DHS	5	62031	19474	0	22650
Burkina Faso	1999 DHS, 2003 DHS, 2010 DHS	3	36009	12055	0	14269
Burundi	2010 DHS, 2016 DHS	2	26658	10512	0	11449

Cameroon	1998 DHS, 2004 DHS, 2011 DHS	3	31583	13630	0	14052
Chad	1997 DHS, 2004 DHS, 2015 DHS	3	31258	8551	0	12522
Comoros	1996 DHS, 2012 DHS	2	8379	2687	0	3702
Democratic Republic of the Congo	2007 DHS, 2013 DHS	2	28822	12032	0	11973
Ethiopia	2000 DHS, 2005 DHS, 2011 DHS, 2016 DHS	4	61635	32254	0	25555
Gabon	2000 DHS, 2012 DHS	2	14605	6803	0	6256
Gambia	2013 DHS	1	10233	3522	0	4564
Ghana	1998 DHS, 2003 DHS, 2008 DHS, 2014 DHS	4	24846	13797	0	9119
Guinea	1999 DHS, 2005 DHS, 2012 DHS, 2016 MICS	4	33512	7761	0	12357
Ivory Coast	1999 DHS, 2012 DHS, 2016 MICS	3	24880	10837	0	9842
Kenya	1998 DHS, 2003 DHS, 2009 DHS, 2014 DHS	4	55599	21849	0	21918
Lesotho	2004 DHS, 2009 DHS, 2014 DHS	3	21340	8110	0	9455
Liberia	2007 DHS, 2013 DHS	2	16331	10127	0	6225
Madagascar	1997 DHS, 2004 DHS, 2009 DHS	3	32384	9858	0	12780
Malawi	2000 DHS, 2004 DHS, 2010 DHS, 2015 DHS	4	72500	19947	0	30942
Mali	1996 DHS, 2001 DHS, 2006 DHS, 2012 DHS	4	47560	12663	0	18022
Mozambique	1997 DHS, 2003 DHS, 2011 DHS, 2015 DHS	4	41888	12771	0	17220
Namibia	2000 DHS, 2007 DHS, 2013 DHS	3	25735	10593	0	10406
Niger	1998 DHS, 2006 DHS, 2012 DHS	3	27960	9691	0	10534
Nigeria	2003 DHS, 2008 DHS, 2013 DHS	3	79953	33283	0	30526
Republic of Congo	2005 DHS, 2011 DHS	2	17870	7587	0	6987
Rwanda	2000 DHS, 2005 DHS, 2010 DHS, 2015 DHS	4	48910	18226	0	20527
Senegal	1997 DHS, 2005 DHS, 2011 DHS, 2016 DHS	4	64872	16983	0	28102
Sierra Leone	2008 DHS, 2013 DHS	2	24032	9538	0	9197
South Africa	1998 DHS, 2016 DHS	2	20249	3179	0	7372
Swaziland	2006 DHS	1	4987	4156	0	2292
Тодо	1998 DHS, 2014 DHS	2	18049	7532	0	6558
Uganda	1995 DHS, 2001 DHS, 2006 DHS, 2011 DHS, 2016 DHS	5	50027	11527	0	21780
United Republic of Tanzania	1996 DHS, 1999 DHS, 2004 DHS, 2010 DHS, 2015 DHS	5	45883	13913	0	18864
Zambia	1996 DHS, 2002 DHS, 2007 DHS, 2013 DHS	4	39236	23240	0	16988
Zimbabwe	1999 DHS, 2005 DHS, 2010 DHS, 2015 DHS	4	33940	24460	0	14508
W. Asia & N. Africa						
Armenia	2000 DHS, 2005 DHS, 2010 DHS, 2016 DHS	4	25034	7385	0	7925
Azerbaijan	2006 DHS	1	8444	2253	0	2838
Jordan	2002 DHS, 2007 DHS, 2012 DHS, 2017 DHS	4	42923	5684	4	5898

*Table S1:* Summary of data available for men and women aged 15-49 by SDG region and country

## Surveys excluded from analysis of sexual activity, demand for contraception and modern method use:

Surveys from Australia, Botswana, Britain (2000), Finland, France (2016) and South Africa (2002, 2005, 2008, 2012) had no information on fertility intentions and DHS from Bangladesh (1997-2007), Cote d'Ivoire (2005), Egypt, India (1999), Jordan (1997), Maldives (2009), Morocco (2003), Pakistan (2006), Turkey, Vietnam and Yemen (2013) had no information on timing of last sex. All surveys contained information on the use of modern methods of contraception.

#### Samples with restricted eligibility for questions relevant to this paper:

Four countries only surveyed ever-married women (Afghanistan, Bangladesh, Jordan, Pakistan) and four changed from ever-married samples to samples of all women (India, Indonesia, Maldives and Nepal) and the early ever-married samples were not used for this analysis. In two countries, Serbia and Montenegro, in the earliest survey the relevant questions were addressed only to women aged 15-24.

In addition, in surveys in Bangladesh, India 1998, Indonesia, and Jordan 2002-2017, formerly married women were not asked about their fertility intentions and in Senegal 1997 never married women were not asked; in these surveys we assumed no unmarried women were trying to conceive.

### Harmonisation of information on fertility intentions and contraceptive use

#### **Fertility intentions**

DHS	Q803/4, var 604: To all women NOT STERILISED OR PARTNER STERILISED: After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children? OR Would you like to have (a/another) child, or would you prefer not to have any (more) children?
	<ul> <li>Responses: Yes, no, says can't get pregnant (if not currently pregnant), undecided/don't know</li> </ul>
	Q805, var 605: If Yes, followed by: How long would you like to wait from now before the birth of (a/another) child? OR After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?
	• Responses coded into categories <12m, 1year, 2years, 3 years, 4 years, 5 years, 6+ years, non-numeric, don't know
MICS	To women who are not currently pregnant and not sterilised: UN6 Would you like to have (a/another) child, or would you prefer not to have any (more) children?
	<ul> <li>Responses: Yes, have a/nother child, no more/none, says cannot get pregnant, undecided/don't know</li> </ul>
	If yes to UN6, asked: UN7: How long would you like to wait before the birth of a/nother child? Responses: Coded in months and years, or soon/now, says cannot get pregnant, after marriage, other, don't know To women who are not currently pregnant and not sterilised: UN6 Would you like to have (a/another) child, or would you prefer not to have any (more) children?
	• Responses: Yes, have a/nother child, no more/none, says cannot get pregnant, undecided/don't know
	If yes to UN6, asked: UN7: How long would you like to wait before the birth of a/nother child? Responses: Coded in months and years, or soon/now, says cannot get pregnant, after marriage, other, don't know
National surveys USA 2002, 2007, 2013 NSFG	EH-1: Is the reason you are not using a method of birth control now because you, yourself, want to become pregnant as soon as possible?
Estonia 2014 WHS	Q79. If you did not use contraception during your last sexual intercourse, what was the reason? <i>Please choose one main reason</i> . <i>If you did use contraception during your last sexual intercourse, then please proceed to</i>

question 80.

	I wanted to get pregnant I am/was pregnant I was breast feeding a less than 6-month-old baby I was not aware of available contraceptive methods I was afraid of the side effects of contraceptive methods My partner didn't want/didn't allow me to use contraception For religious reasons I am/my partner is infertile Other reason ( <i>please</i> <i>specify</i> )
Estonia 2004 WHS	
	Q72. If you did not use a contraceptive method during your last sexual intercourse, what was the reason? (choose a maximum of three answers) I was not aware of available contraceptive methods I didn't want to use contraception My partner didn't want/didn't allow me to use contraception We do not need contraception as we are planning a pregnancy We do not use contraception for religious reasons 141 We do not need contraception as i am pregnant at the moment We do not need contraception as i / my partner is infertile Other reason, what?
Netherlands 2006 SHN	V410 Are you currently trying to conceive? Responses: Yes/No
Netherlands 2009 SHN	Q125 Are you trying to get pregnant now? Responses: Yes/No
Netherlands 2011 SHN	F02. $[A2 = 2]$ Are you trying to conceive now? / $[A2 = 1]$ Are you trying to get pregnant now? Responses: Yes/No
France 2010 FECOND	C11: Asked to all women NOT STERILE AND PARTNER NOT STERILE, but different wording depending on whether has children, has no children or is pregnant: Do you want [more] children [after this one], whether that is now or at a later date? Responses: yes, no, don't know, not answered If answer yes and NOT PREGNANT OR TRYING, then asked C15: when would you like a/your next child? Responses: Now, in the next two years, between two and give years, later, not answered, don't know

	Contraceptive use
DHS	Q303: Are you or your partner currently doing something or using any method to delay or avoid getting pregnant? Which method are you using? RECORD ALL MENTIONED. Example list of responses (varies by country): Female sterilization Male sterilization Iud Injectables Implants Pill Condom Female condom Emergency contraception . Standard days method Lactational amenorrhea method Rhythm method Withdrawal Other modern method
MICS	CP2: To all women who are not currently pregnant: Couples use various ways or methods to delay or avoid a pregnancy. Are you currently doing something or using any method to delay or avoid getting pregnant? CP3: What are you doing to delay or avoid a pregnancy? RECORD ALL MENTIONED Example list (varies by country): Female sterilisation Male sterilisation IUD Injectables Implants Pill Male condom Female condom Diaphragm Foam / Jelly Lactational amenorrhoea method (LAM) Periodic abstinence / Rhythm Withdrawal Other (specify)
National	

surveys

USA 2002, 2007, 2013 NSFG	Applicable if R had at least 1 sexual partner in the past 12 months and last partner in past 12 months was not the first partner or was the first partner but R had sex with him more than once EF-1 : Looking at Card 33, the [time / last time] you had intercourse with [LAST PARTNER], in [DATE OF LAST SEX WITH LAST PARTNER], did you or he use any method? EF-2 : Which method or methods on Card 33 did you or he use? Birth control pills Condom Partner's vasectomy Female sterilizing operation, such as tubal sterilization and hysterectomy Withdrawal, pulling out Depo-Provera, injectables Hormonal implant (Norplant, Implanon, or Nexplanon) Calendar rhythm, Standard Days, or Cycle Beads method Safe period by temperature or cervical mucus test (Two Day, Billings Ovulation, or Sympto-thermal Method) Jelly or cream Suppository, insert IUD, coil, or loop Emergency contraception Other method specify Respondent was sterile Respondent was sterile Respondent vas sterile Respondent vas sterile Name and the sterile respondent vas sterile Contraceptive patch Vaginal contraceptive ring Don't know
Netherlands 2006 SHN	V441 How have you mainly protected yourself against pregnancy lately? Response list (multiple responses possible): The pill or the mini pill The puncture pill The plaster pill (Evra) Nuvaring (contraceptive ring) Implanon (contraceptive staff) Mirena (hormonal coil) Spiral (copper IUD) Sterilization partner Sterilization partner Sterilization itself Condom Pessary (rubber dome) Periodic abstinence or other 'rhythm' methods (no sex during fertile period) Coitus interruptus (man pulls the penis out of the vagina before cumming) I have not protected myself I don't have to protect myself

Otherwise, namely

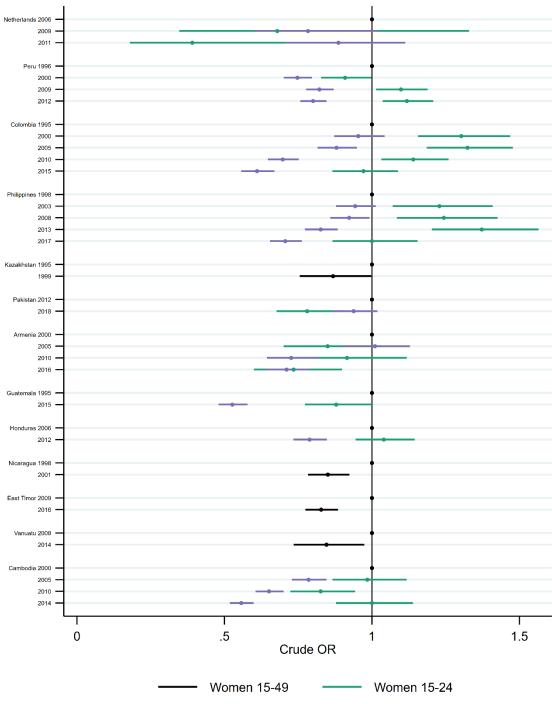
Netherlands 2009 SHN	Q129. Are you currently using a method of not getting pregnant? If so, what have you been using (especially) lately? Note: sterilization is also included.
	Response list (single response possible):
	I do not use a contraceptive method The pill or the mini pill Condom The pill and condom at the same time The puncture pill The plaster pill (Evra) Birth control (Nuvaring) Implant (Implanon) Hormone IUD (Mirena) Spiral (copper IUD) My partner has been sterilized I have been sterilized Pessary (rubber dome) Periodic abstinence or other rhythm methods (not making love during a fertile period) Retreat (man pulls the cum before penis back from the vagina)
Netherlands 2011 SHN	F08. Are you currently using a method of not getting pregnant? If so, what have you been using (especially) lately? Note: sterilization is also included. Response list: the pill or the mini pill the condom the pill and the condom at the same time pessary ( rubber shield in the vagina) the puncture the plaster pill (Evra) the contraceptive ring (Nuvaring) the implant (Implanon) the hormone IUD (Mirena) the IUD (copper IUD) my partner is sterilized I am sterilized periodic abstinence or other rhythm methods (no sex during the fertile period) withdrawal (the man withdraws the penis from the vagina before cumming) I do not use a contraceptive method

Estonia 2004 WHS	<ul> <li>70. Which contraceptive method did you use during your last sexual intercourse? (you can choose several alternatives)</li> <li>1a we did not use any contraceptive method as we are trying to conceive</li> <li>1b we don't need/use any contraceptive method as we are not able to conceive</li> <li>2 contraceptive pills</li> <li>2a contraceptive patch</li> <li>3 intrauterine device ("spiral")</li> <li>4 condom</li> <li>5 spermicide (vaginal ovules, creams)</li> <li>6 diaphragm</li> <li>7 contraceptive implants</li> <li>8 sterilisation: own, partner (please underline)</li> <li>9 rhythm method (calculating "risky" days)</li> <li>10 withdrawal (a man does not let the sperm into the vagina)</li> <li>11 vaginal douche (with what agent?)</li></ul>
Estonia 2014 WHS	<ul> <li>78. Which contraceptive method did you use during your last sexual intercourse? (<i>you</i> can choose several answers)</li> <li>1 I did not use a contraceptive</li> <li>2 Hormonal contraceptive method (pills, patch, vaginal ring)</li> <li>3 Progesterone-only injectable (Depo-Provera)</li> <li>4 Hormonal intrauterine system (hormonal IUD Mirena)</li> <li>5 Intrauterine device (copper coil)</li> <li>6 Condom</li> <li>7 Spermicides (vaginal ovules, creams)</li> <li>8 Implants</li> <li>9 Sterilisation</li> <li>10 Rhythm method (calculating "risky" days)</li> <li>11 Withdrawal (the man does not let the sperm into the vagina)</li> <li>12 Vaginal douching after intercourse</li> <li>13 Emergency contraceptive pills (SOS-pills)</li> <li>14 Some other method (please specify)</li></ul>

Table S2: Questions used to ascertain fertility intentions and contraceptive use.

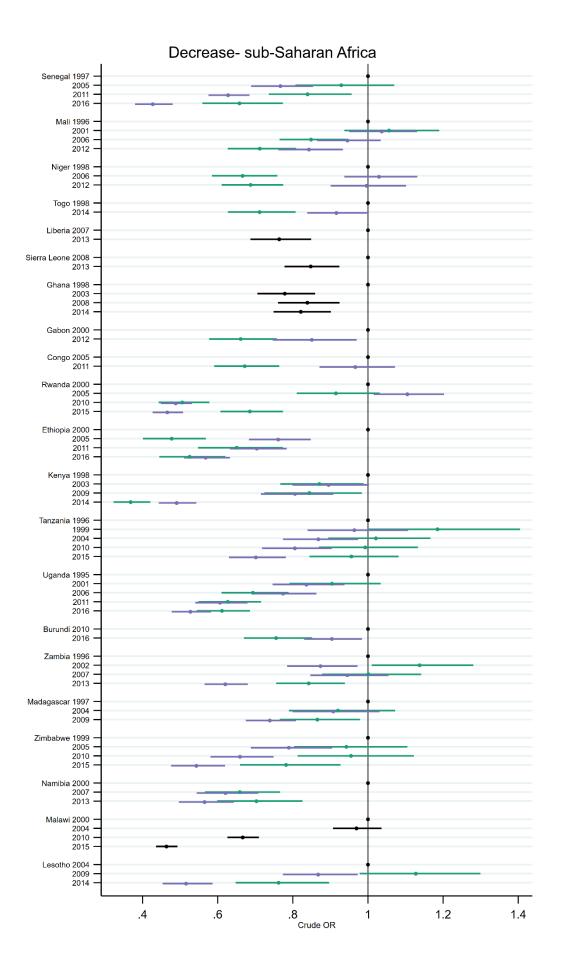
#### National estimates of odds ratios for trends over time in the proportions, of all women, who are sexually active, do not want to conceive and are not using a modern method of contraception.

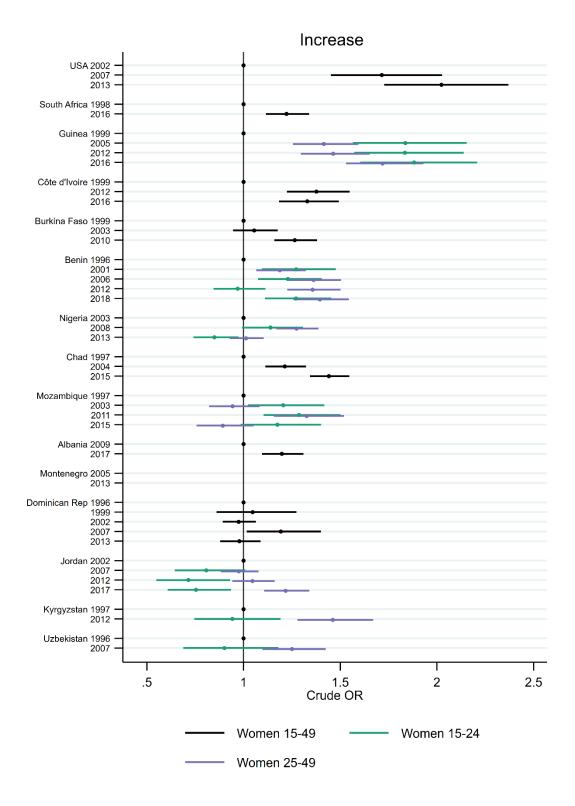
Figure S2 shows the crude odds ratios, for all women in each country, comparing between surveys the odds of being sexually active, not wanting to conceive and not using contraception. It is shown in three groups: those countries that have shown a decrease over time, the countries with an increase and countries where there has been no overall change. We grouped the countries based on the OR for all women; we then looked for an interaction between age (15-24 and 25-49) and change over time and, in the 39 countries where that was important, we present the age stratified ORs. Divergent trends in the two age groups were seen in Bolivia, Colombia, Peru, Haiti, Philippines, Jordan, Cameroon and perhaps also India, Comoros, D.R. Congo and Mozambique. In India, Cameroon, Haiti, DR Congo, Comoros and Bolivia these divergent trends produced not change in the overall proportion of women sexually active, not wanting to conceive and not using a modern method. In Jordan the overall increase was despite a decrease in this proportion among young women.

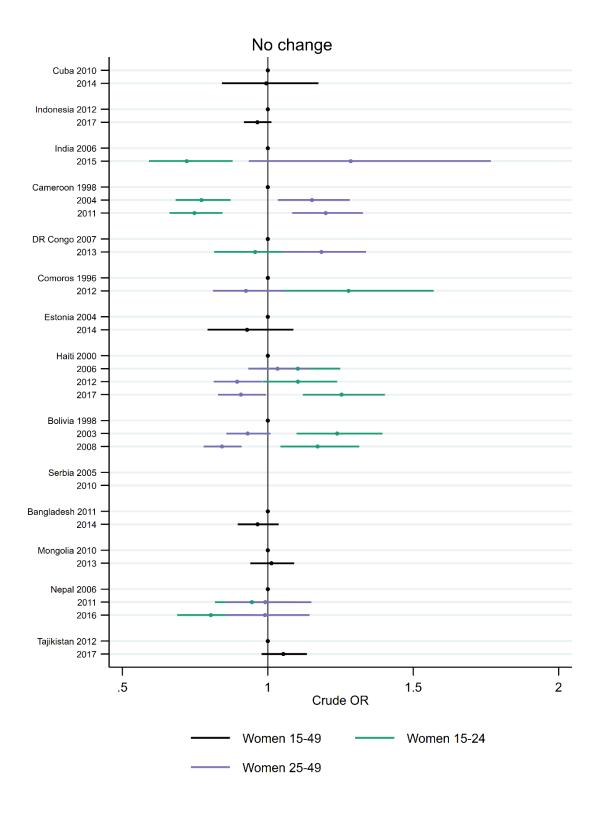


- Women 25-49

Decrease







*Figure S2:* Crude odds ratios, for each country, for changes over time in the proportion of all women who are sexually active, not wanting to conceive and not using a modern method of contraception.

#### Surveys used in ecological analysis

Gender Development Index

А

Afghanistan, Albania, Armenia, Australia, Azerbaijan, Bangladesh, Benin, Bolivia, Britain, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Colombia, Comoros, Congo, Côte d'Ivoire, Cuba, Dominican Rep, DR Congo, East Timor, Estonia, Ethiopia, Finland, France, Gabon, Gambia, Ghana, Guatemala, Guinea, Guyana, Haiti, Honduras, India, Indonesia, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Lesotho, Liberia, Malawi, Maldives, Mali, Moldova, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tajikistan, Tanzania, Togo, Uganda, USA, Vietnam, Zambia, Zimbabwe

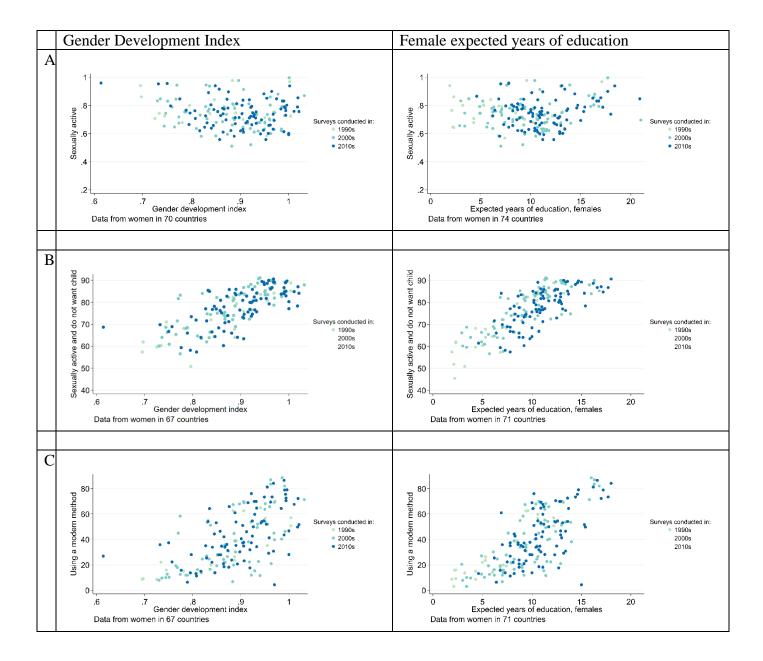
- B Afghanistan, Albania, Armenia, Azerbaijan, Bangladesh, Benin, Bolivia, Britain, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Colombia, Comoros, Congo, Côte d'Ivoire, Cuba, Dominican Rep, DR Congo, East Timor, Estonia, Ethiopia, France, Gabon, Gambia, Ghana, Guatemala, Guinea, Guvana, Haiti, Honduras, India, Indonesia, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Lesotho, Liberia, Malawi, Maldives, Mali, Moldova, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tajikistan, Tanzania, Togo, Uganda, USA, Zambia, Zimbabwe
- C Afghanistan, Albania, Armenia, Azerbaijan, Bangladesh, Benin, Bolivia, Britain, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Colombia, Comoros, Congo, Côte d'Ivoire, Cuba, Dominican Rep, DR Congo, East Timor, Estonia, Ethiopia, France, Gabon, Gambia, Ghana, Guatemala, Guinea, Guyana, Haiti,

Female expected years of education

Afghanistan, Albania, Angola, Armenia, Australia, Azerbaijan, Bangladesh, Benin, Bolivia, Britain, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Colombia, Comoros, Congo, Côte d'Ivoire, Cuba, Dominican Rep, DR Congo, East Timor, Estonia, Ethiopia, Finland, France, Gabon, Gambia, Ghana, Guatemala, Guinea, Guyana, Haiti, Honduras, India, Indonesia, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Moldova, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tajikistan, Tanzania, Togo, Uganda, USA, Uzbekistan, Vanuatu, Vietnam, Zambia, Zimbabwe

Afghanistan, Albania, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bolivia, Britain, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Colombia, Comoros, Congo, Côte d'Ivoire, Cuba, Dominican Rep, DR Congo, East Timor, Estonia, Ethiopia, France, Gabon, Gambia, Ghana, Guatemala, Guinea, Guvana, Haiti, Honduras, India, Indonesia, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Moldova, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tajikistan, Tanzania, Togo, Uganda, USA, Uzbekistan, Vanuatu, Zambia, Zimbabwe

Afghanistan, Albania, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bolivia, Britain, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Colombia, Comoros, Congo, Côte d'Ivoire, Cuba, Dominican Rep, DR Congo, East Timor, Estonia, Ethiopia, France, Gabon, Gambia, Ghana, Guatemala, Guinea, Guyana, Haiti, Honduras, India, Indonesia, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Lesotho, Liberia, Malawi, Maldives, Mali, Moldova, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tajikistan, Tanzania, Togo, Uganda, USA, Zambia, Zimbabwe Honduras, India, Indonesia, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Moldova, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tajikistan, Tanzania, Togo, Uganda, USA, Uzbekistan, Vanuatu, Zambia, Zimbabwe



## Correlation between behavioural outcomes and national estimates of gender inequality and female education

*Figure S3:* Scatter plots showing the correlation, for survey level estimates of A) proportion sexually active B) the proportion of sexually active women who do not want to conceive and C) the proportion of women who are sexually active, not wanting to conceive and using a modern method of contraception with both GDI and expected years of female education.

Countries used in	I CA allu Figures 2		
		Contraceptive	
Country	Life events (Fig.1)	demand and use (Figs	РСА
Country Albania	Life events (Fig 1)	2-5)	PCA
	•	•	•
Angola	•	_	
Armenia	•	•	•
Azerbaijan	•		
Bangladesh	•	•	
Benin	•	•	•
Bolivia	•	•	
Britain	•		•
Burkina Faso	•	•	•
Burundi	•	•	•
Cambodia	•	•	•
Cameroon	•	•	•
Chad	•	•	•
Colombia	•	•	•
Comoros	•	•	•
Congo	•	•	•
Côte d'Ivoire	•	•	•
Cuba	•	•	
Dominican Rep	•	•	•
DR Congo	•	•	•
East Timor	•	•	•
Egypt			
Estonia		•	
Ethiopia		•	•
Gabon	•	•	•
Gambia	•		•
Ghana	•	•	•
Guatemala	•	•	•
Guinea	•	•	•
Guyana	•		•
Haiti	•	•	•
Honduras	•	•	•
India	•	•	•
Indonesia	•	•	
Jordan		•	
Kazakhstan		•	
Kenya	•	•	•
Kyrgyzstan	•	•	•
Lesotho	•	•	•
Liberia	•	•	•
Madagascar	•	•	
Malawi	•	•	•
Maldives	•		
Mali	•	•	•
Moldova	•		
-			

### **Countries used in PCA and Figures 2-5**

Mongolia	•	•	•
Montenegro	•	•	
Mozambique	•	•	•
Myanmar	•		
Namibia	•	•	•
Nepal		•	
Netherlands		•	
Nicaragua	•	•	
Niger	•	•	•
Nigeria	•	•	•
Pakistan	•	•	
Peru	•	•	
Philippines	•	•	
Rwanda	•	•	•
Senegal	•	•	•
Serbia		•	
Sierra Leone	•	•	•
South Africa	•	•	•
Swaziland	•		
Tajikistan	•	•	
Tanzania	•	•	
Тодо	•	•	•
Tuvalu	•		
Uganda	•	•	•
USA	•	•	•
Uzbekistan	•	•	
Vanuatu	•	•	
Zambia	•	•	•
Zimbabwe	•	•	•

Table S3: Countries used in PCA and analyses underlying Figures 2-5.

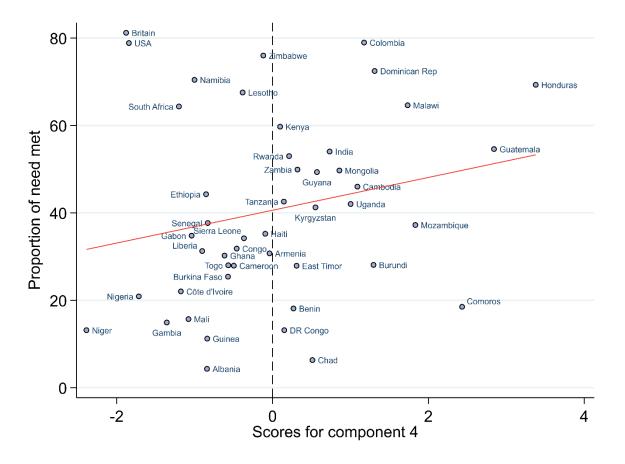


Figure S4: Linear relationship of PC4 score with met need for modern contraceptive methods