

## Reproductive Health Research Policy Brief

Number 21, December 2015

Sex-selective abortion in Nepal is highly prevalent in some regions, with as many as 1 in 10 girls births “missing” in the last 5 years in some districts. It is very likely that the use of sex-selective abortion will continue to spread without intervention.

### Background

Evidence that sex-selective abortions (SSAs) are occurring in Nepal has only recently become available. However, evidence on the issue is scant and the issue has received little attention so far.

Within this brief we provide the first estimates on the true extent and geographical spread of sex-selective abortion using the 2011 population census. We then outline the main findings from a qualitative study of key informants within the Kathmandu Valley alongside a range of possible interventions derived from these interviews.

Twentytwo interviews were carried out with key informants in the Kathmandu Valley. These included policy makers, lawyers, journalists, and INGO/NGO staff in relevant areas. We were particularly interested in the process by which a woman might obtain information about the sex of her foetus, and then how she might procure a sex-selective abortion. We also asked about interventions or policies, which might effectively reduce the prevalence of sex-selective abortions.

### Analysis of 2011 Population Census Data

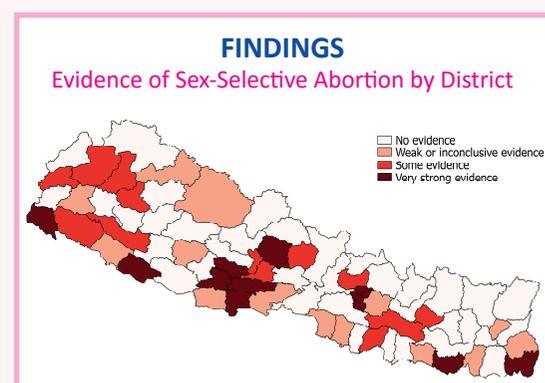
Three different methods were used to establish whether sex-selective abortions (SSAs) were likely to be occurring in a specific district:

1. The sex ratio at birth (SRB) was reported directly in the Census. A high SRB is defined as 110 or above, while a moderately high SRB is defined as 108-110.

2. We calculated the percentage of missing girl births using a life table approach and the reported distribution of girls and boys aged under 5, as well as sex specific mortality rates. This was defined as being high if the estimated percentage of missing girl births exceeded the national average of 2%.
3. Reconstructed birth histories were then used to calculate parity specific sex ratios at birth, conditional upon the sex of previous children.

The conditional sex ratio we are specifically interested in is the sex ratio of the second born child where the first was female. This was defined as high if it was significantly above 110 at the 99% level.

All approaches are subject to under reporting of girls, while the second two methods are subject to additional errors. A SRB elevated substantially above the expected level of 105 is the strongest evidence of SSAs. However, when fertility is higher or use of SSA is in its early stages the sex ratio at birth might appear normal, while the conditional sex ratio could be substantially elevated.



The sex ratio at birth (SRB) is elevated, at 110 or above in 12 districts. It is almost certain that SSA is prevalent in these districts, and they are defined as having “very strong evidence” of SSAs.

A further 13 districts are identified as having “some evidence” of SSAs. In these districts there is evidence of SSAs on the basis of two out of the three measures outlined above, where evidence of an elevated SRB now includes districts where the SRB is 108 or more.

A further 14 districts were identified as having weak or inconclusive evidence of SSAs, where just one indicator was defined as high. These districts may be at risk from increasing levels of SSA in the future.

**Key Findings of Interest:**

*22,540 girls are estimated to have been aborted in the five years before the 2011 Census.*

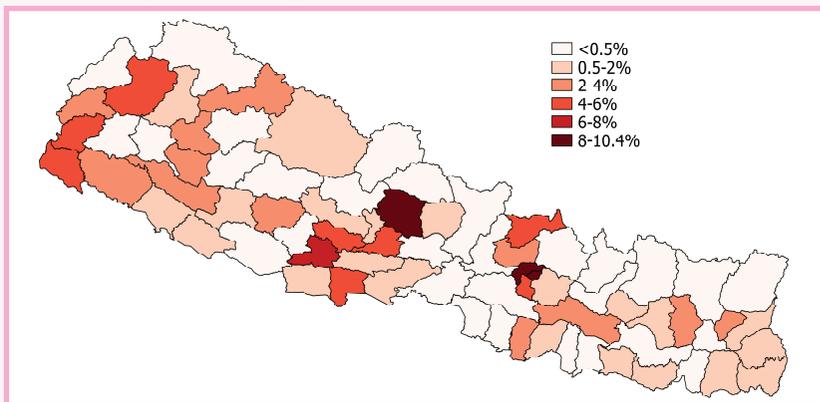
*In Kathmandu and Bhaktapur roughly 10% of girls under 5 are “missing”*

*12 districts have a sex ratio at birth of 110 or more, and over 7 million people live in these districts.*

We estimate that 2% of girl births were missing in the 5 years before the census, and 2.6% of girl births were missing in the year before the census. This equates to a total of 22,540 missing girl births in the five years before the census, 6,261 of which occurred in the year before the census. This suggests that the prevalence of SSAs may be increasing over time. Particularly notable increases in the estimated percentage of missing girls occurred in Arghakhanchi and Bhaktapur. These districts are also notable because they have the highest SRBs of any district in Nepal.

Kathmandu was estimated to have the highest number of SSAs, with over 4,700 estimated to have occurred in the five years before the census. This means that roughly 20% of SSAs occur in Kathmandu. A further 10% occurred in Bhaktapur and Lalitpur, indicating

Percentage of Missing Girls Births in 5 Years Before the Census



the strong geographical concentration of this practice.

While skewed sex ratios are restricted to certain districts, it is important to note that over 7 million Nepalese live in districts with an SRB of 110 or above. This is more than a quarter of the population of Nepal. A further 7.5 million live in districts with a moderately elevated SRB.

Districts with an SRB of 110 or above are markedly different from districts with a normal SRB, in that they have low fertility rates, high population density, high levels of literacy, larger percentages of Hindus and relatively low mortality. This evidence supports previous research suggesting that SSAs are most common amongst wealthier, more educated women living in urban areas, as well as Hindus. Interestingly, while the male infant mortality rate exceeds the female infant mortality rate for districts without an elevated SRB (as would be biologically expected), the female infant mortality rate exceeds the male one in districts with an elevated SRB. This indicates a potential problem with discrimination against the girls that are born in terms of feeding and care practices during the first year of their lives in these districts.

Selected Characteristics of Districts with Skewed Sex Ratios

	SRB below 107	SRB 107-110	SRB 110 & above	Nepal
Total population	11.9 million	7.5 million	7 million	26.5 million
TFR	3.1	3.1	2.1	2.5
Female infant mortality rate as a percentage of male infant mortality rate	82%	90%	103%	88%
Male literacy	68%	69%	79%	75%
Female literacy	44%	43%	59%	57%
Population density (per sq km)	177	231	929	180
% Hindu	73%	82%	86%	81%

## Key Findings from Qualitative Interviews

**If a woman does not bear a son, then her husband may remarry.** It was also mentioned that the woman alone cannot necessarily change things as she may be forced/pressured by her husband, mother-in-law and other family/society members. Old-age security, dowry, Hindu funeral rights, falling fertility ideals and continuing family lineage were all identified as key causes of son preference. Attitudinal change needs to occur amongst all of society, including men and older people.

**We encountered some participants who denied that there was (or ever could be) use of sex-selective abortions in Nepal.** These participants (generally service providers) said it was a problem in India or China, but not Nepal. Some argued that the quantitative data must be wrong. It is not clear if they really thought there was no problem, or if their vested interest was so high that they could not admit it. Other service providers agreed that it was a problem, but thought it was mainly an issue with the private providers. The issue of private providers being the culprits was a common theme.

**Some participants were not aware that sex-selective abortion and disclosure of the sex of the foetus are already illegal.** Those that were aware thought that the law itself was good, but that the implementation and enforcement had been weak. Given that we were talking to key informants, it is likely that knowledge of the law is very low in the general populous.

**It is very important to highlight the importance of safeguarding wider abortion rights when discussing the issue of sex-selective abortion.** Some participants mentioned that they had been accused of attacking abortion rights when they bought up sex-selective abortion. Others worried that we might be attacking abortion rights.

**Monitoring was thought to be extremely ineffective currently. It was suggested that all relevant service providers should receive updated training.** Some suggested self-monitoring, while others thought that this would be ineffective. Several suggested that well publicised, high profile police raids and prosecutions would help. However, others believed that this would simply result in the practice becoming more expensive and going underground. Some said that prosecution is hard as there is a strong incentive for all involved to

not report. "Mystery clients" were suggested as a method of monitoring.

**In some areas service providers may be making substantial amounts of money in return for disclosing the sex of a child or arranging/providing a sex-selective abortion.** Several participants bought this up and suggested that this would make it hard to enforce the current law. However, others said that finding out the sex was easy and required no money.

**Again and again participants said that if the first child is a daughter then the second must be a son.** We were also told that Sonographers often only refuse to say the sex of a foetus if it is a second child and the first was female. This potentially makes it very easy to lie and find out the sex. It must be made clear that the sex should never be disclosed, whatever the parity of the pregnancy.

**Counselling of abortion seekers was bought up as an important potential intervention.** Many participants (14) thought that counselling was a very good idea for women seeking an abortion. Some suggested only to counsel those who might be seeking abortion for reasons of sex-selection, while others suggested a broader based policy of counselling all women seeking an abortion, and potentially their families too. One service provider said that they already counselled women who came for an abortion, which might be for reasons of sex-selection, and they thought that 50% of women did not continue with the abortion after counselling. Another said that when counselled less than 1 in 10 went on to have an abortion

**Education of women and girls was mentioned by nearly everyone.** This was mainly mentioned in terms of increasing the general level of education (and maybe incentives to keep girls in school). It was thought that it would be hard to include more teaching specifically on reproductive health or abortion as very little time is currently allocated to health topics overall. It was also a common theme that real gender equality would be needed in Nepal before sex-selection could really be stopped. Another important point was that discrimination of women and girls is throughout the life course.

**Awareness in the general populous was very low.** This was mentioned by most respondents. Multi pronged media campaigns were suggested utilising radio, tv, print and social media.

## Interventions Identified by Key Informants

Intervention	Description	Advantages	Disadvantages
Improved monitoring of sonography and abortion services, and enforcement of current law	Monitor current service providers to check that they are following the current law. Prosecute those found to be acting illegally.	Targets supply side, so if effective would reduce sex-selective abortions quickly. Relies upon current structures. Agreed upon by most respondents.	Firm evidence of wrong-doing is hard to obtain. Those involved with sex-selective abortion have a strong incentive not to report and no prosecutions have occurred so far. May simply push up the cost of services and or increase unsafe abortions.
Counselling of abortion seekers	Providing compulsory counselling to abortion seekers may reduce sex-selective abortions if properly and sensitively done.	Mentioned multiple times by respondents. Some service providers already provided counselling and said that it resulted in some women changing their minds. May have positive externalities.	Need evidence of effectiveness Training of specialist counsellors would be needed, as only skilled counsellors will be effective. An additional layer of monitoring would be needed and private providers would be least likely to comply.
Training of service providers	Training on legal, ethical and social aspects of sex-selection.	Service providers may increase efforts to prevent sex-selection if fully aware of the issue, especially ethical and social aspects.	May be hard to target private providers. Ineffective unless it changes how service providers act. Many already aware of law.
Incentive schemes	Providing financial and in-kind incentives to parents of girls. These can be tied to school attendance, proper immunization, avoiding early marriage	Can be targeted at those most likely to adopt sex-selective abortion. Can change the incentive structure of having girls and boys, which could reduce the desire to have sons over daughters.	Several such schemes have been tried, especially in India. Evidence suggests that they are effective in terms of improving girl child survival and outcome once they are born. However, there is little evidence that these schemes have a substantial effect on sex-selective abortion. This lack of evidence might be due to poor quality of monitoring and data rather than a lack of an effect. Expensive, and difficult to administer.
Media and advocacy campaigns	Campaigns to promote knowledge of current law, issue of sex-selective abortion and gender inequality.	We know that there is a lack of awareness concerning the law and the issue of sex-selection, which this targets. Potentially inexpensive to reach a very wide range of people.	Evidence on effectiveness is scant. May also be slow to have a substantial effect.
Long term attitudinal change and education	Educating women and girls to the same standard as men and boys. Ensure an education for all that promotes gender equality issues.	Education was mentioned by virtually every participant as the key to removing demand for sex-selective abortion. Without removing the demand other measures are unlikely to be fully successful.	Attitudinal change is slow to occur, especially at the societal level. It may take a long time for this to result in a substantial reduction in son preference and sex-selective abortion. May be hard to include focussed teaching on relevant topics in curriculum

**Conclusions:** As fertility continues to fall, urbanization increases and access to technology such as ultrasound increases it is likely that the prevalence of sex-selective abortion in Nepal will increase. It is also concerning that female infant and child mortality exceeds male mortality in many districts as this indicates substantial discrimination against girl children that are born.

If actions are to be taken to reduce sex-selective abortion then it is important to consider how their success will be monitored. Very large sample sizes are required to accurately identify changes in the sex ratio at birth and interventions are often slow to take effect. The Demographic and Health Survey can identify broad trends, but would be unlikely to measure the effect of any targeted intervention. The 2021 Census will be able to identify district level changes, but for changes to be visible by then interventions will need to be implemented rapidly.

### Main Research Team

PI: Dr Melanie Channon, University of Oxford  
Melanie.channon@ageing.ox.ac.uk

Co-I: Dr Mahesh Puri, CREHPA  
mahesh@crehpa.org.np

Co-I: Dr Stuart Basten, University of Oxford  
Stuart.basten@spi.ox.ac.uk

### Additional Contributions

Mr Gyanendra Bajracharya, Central Bureau of Statistics  
Mr Badri Dulal, CREHPA  
Ms Smita Sharma, CREHPA  
Dr Amos Channon, University of Southampton

### Funding

Birth Control Trust, The Galton Institute