

UNFPA Guidance Note on Prenatal Sex Selection

Introduction

Sex selection - in particular, the deliberate elimination of girls and women through abortion, infanticide and neglect - has historically resulted in severely skewed population sex ratios in a number of countries, especially in Asia. Thus, in 1950, the sex ratio in the total population (SRTP) was already higher in Asia (105 males per 100 females) than in the world as a whole (100 males per 100 females).¹

It was around 1980 that new technology - which allows prenatal identification and selection of the sex of fetuses - became available and spread widely. Most widely utilized is a combination of beta ultrasound for sex identification, followed by sex selective abortion. This has resulted in skewed sex ratios already at birth, reaching levels of 115 or more (compared to the 'normal' level of around 105) in a growing number of countries, including China, India, Republic of Korea (RoK), Azerbaijan, Georgia, Armenia and Albania, as well as sub populations in other countries. The number of "missing women" is high. By 1990, researchers estimated that 100 million women were missing in Asia due to deliberate elimination before or after birth (see Sen, 1990).²

Sex selection is an issue of concern for UNFPA and programmatic interventions on this issue are based on the 1994 Programme of Action of the International Conference on Population and Development (ICPD) and UNFPA's Strategic Plan 2008-2013. The Strategic Plan's three pillars of action - population for development, sexual and reproductive health and gender equality – situates this issue as an area of concern for the Fund and gives due recognition to the deeply-rooted cultural nature of the issue. Sex selection and skewed sex ratios are seen both as *symptoms* of gender inequality and as leading to further *aggravation* of inequality. The demographic imbalance between men and women in any society has farreaching social and economic impacts. A growing number of countries grapple with the issue of sex selection and have asked WHO for guidance on the subject of regulation of technology.

Over the last 15 years, UNFPA has been engaged in bringing attention to the issue - starting in China and India but now also in other countries – and is working with sister agencies such as WHO, UNICEF, OHCHR and UNIFEM in addressing it.

However, this is still an evolving area of concern and there are many quandaries and uncertainties. As is often the case with reproductive health and rights issues, stakeholders may have conflicting interests and/or rights. This not only includes individual women and their partners who are practicing sex selection but also family members including parents-in-law, health professionals (including producers and providers of technology who see sex selection as a lucrative industry) and society at large, including men who cannot find brides and women who may suffer indirect consequences such as forced marriages or trafficking. There is also a risk that the focus on the limitation of technology for sex selective abortion could lead to a general limitation of access to technologies. At times, such technologies are necessary to safeguard women's lives, including safe and legal abortion.

¹ Source: UN Population Division, World Population Prospects 2008, accessible at: <u>http://esa.un.org/unpp/index.asp</u>

² Amartya Sen: *More Than 100 Million Women Are Missing in Asia*, New York Review of Books, Volume 37, Number 20, 20 December, 1990.

This guidance note is hence intended to upgrade and harmonize UNFPA's response and to develop the knowledge of staff on the issue. Where appropriate, UNFPA can thus engage in dialogue with partners and contribute to the development of a solid knowledge base, buttressed by proven operational responses.

UNFPA is focusing on prenatal sex selection for non health reasons, based on systematic discrimination against women and girls. The agency's role and response is part of its mandate to contribute to gender equality and women's empowerment.

I. Causes and Consequences of Sex Selection and Skewed Sex Ratios

What is a Skewed Sex Ratio?

The discussions on the issue are often confused by a misunderstanding of demographic definitions and 'normal levels' of sex ratios (see Annex I). The sex ratio at birth (SRB) is usually expressed as the number of boys born per 100 girls and it is in the range of 104-106 in most populations. In addition, the sex ratio would not vary markedly according to birth order (first, second, third child). Any variation from this is therefore particularly indicative of sex selection.

After birth, mortality at all ages is usually higher for males than for females. It is, for instance, 10-30% higher for male infants in the first year. The higher male mortality rates result in a sex ratio in the total population (SRTP) which is lower than 100 (i.e. results in more females than males in the population). This is the situation in all regions of the world, except Asia.

Skewed or imbalanced sex ratios can be the result of many factors. One such contributing factor of skewed sex ratios is the gendered nature of migration. For instance, in some countries in the Gulf Region, 60-80% of all migrant workers are male. A second factor is violent conflict and natural disaster which usually affect the sex ratio through higher mortality rates of males or females. Thirdly, there are a number of biological factors which affect the sex ratio through differential mortality - such as malnutrition, stress, hormone levels or prevalence of Hepatitis B.

It is important to understand the possible impact of these factors on the sex ratio of a population. But these are not at the center of this guidance note. *The note concentrates on deliberate and consistent actions with the intention of eliminating one sex before birth, resulting in long lasting and major demographic imbalances.* In almost all cases, this means eliminating females due to a preference for sons.

Technologies and Strategies for Sex Selection

The elimination of females can be done at several stages, employing a variety of *technologies and strategies*:

1) Pre conception (for instance, sperm sorting);

2) *Pre implantation* (for instance, in vitro pre implantation genetic diagnosis, followed by implantation of an embryo of the desired sex);

3) *During pregnancy* (for instance, beta ultrasound sex identification, followed by sex selective abortion); and

4) *Post-natal methods* (for instance, selective infanticide or femicide and neglect - with respect to nutrition, vaccination, curative care, abandonment and so on).

Prior to 1980, only post-natal methods were widely accessible. Since then, the development and accessibility of prenatal technologies (1-3 above) have grown explosively. It is this phenomenon which particularly has sparked interest in the issue. Amniocentesis was one of the first of such methods to appear, but this method is technically demanding, expensive and performed mostly by medical personnel after around 16 weeks of pregnancy. Beta ultrasound is also usually used to identify sex starting at around 16 weeks of pregnancy, and is less technically demanding (non-invasive). It is increasingly offered by non-medical personnel at low cost: a machine may cost only a few hundred United States Dollars (USD) and services are often offered at a cost of 15-30 USD); this is thus currently the method most widely used for sex identification. However, new methods are becoming available at a rapid pace, including methods which can be obtained over the internet for around 30-40 USD, and can be used by pregnant women themselves starting from the 10th week of pregnancy.³ In other words, the market has adapted rapidly to what is an increasing demand, yielding major profit to producers and providers of technology.

Trends in Countries

The quality of data to measure prenatal sex selection is a problematic issue - for instance, in India, 50-60% of children are born at home and may not be registered; in China, parents may not register all children to avoid fees. However, patterns and trends are quite well established, and are based on a combination of census, survey and civil registration sources (see Annex III for references, especially, Guilmoto 2009).

In *China*, the SRTP has been documented in censuses and reconstructed populations as skewed already in the 19th century. The sex ratio in the 1953 census was 107 males to 100 females. However, the SRB rose from a level of 108 in 1982 to 120 boys per 100 girls in 2005. SRB quickly became skewed in all regions but is higher in rural than in urban populations. The SRB rises for higher birth order children: thus, in 2005, it was 108 for the first child, 143 for the second, and 156 for the third. There are preliminary signs that the ratio is declining again in some areas - especially, in the more urban/developed areas - but at the national level, it is still increasing.

In *India*, the SRTP became progressively more skewed over the last 100 years and was estimated at 108 in 1950. As in China, prenatal sex determination technology first became available in the 1980s. The first populations which utilized the technology were urban, educated elites - for instance, Mumbai city in western India - but in the last three decades, the practice has spread to almost all regions, in varying degrees. In India, data on SRB are not reliable and therefore, the ratio of children 0-6 is used (as derived from census data). That ratio has risen to 115 boys per 100 girls in some regions, whereas others - such as Kerala state in southern India - experience near normal ratios. There are a few signs of improvement in limited geographical areas, but as yet, no strong general tendency toward improvement has been seen.

The *RoK* also experienced increasing levels of SRB - from 'normal' rates in 1980 increasing to 116 in 1991. However, this is the only country which has seen a major reversal, with levels reverting to almost normal in recent years (as stated in civil registration data).

A second wave of countries has experienced high SRB starting around 1990 - including *Armenia*, *Azerbaijan*, *Georgia and Albania* – where levels have reached 115-120. Data from sources such as the Demographic Health Surveys (DHSs) show higher rates for higher order births (i.e. for the second and third child).

A third wave now seems to be developing. Thus, in *Viet Nam*, recent data point towards increasing SRBs in some regions. Provinces such as Bac Ninh have high SRBs, with 123 boys to 100 girls (according to

³ Source: <u>http://www.intelligender.com/index.php</u>

the Health Facility Survey conducted by the General Statistics Office in 2006). Aggregate national levels are recorded as 111-113 according to national surveys. What is particularly notable in Viet Nam is the very rapid rise from 108 to 111 between 2006 and 2008 (according to the annual 3% Population Change Surveys carried out by the General Statistics Office).

While the overall SRB in *Nepal* is in the normal range of 104-106 boys for 100 girls, recent surveys show it to be higher than expected in seven Terai hill districts bordering India. In Bara district for example, the SRB stands at 111.

DHS and Population Data Surveys (PDS) in *Pakistan* indicate SRB in the range of 109-112. This is particularly notable since fertility has not fallen as much as in the other countries listed.

Causes of Sex Selection

Researchers usually attribute the rise of sex selection to a combination of three factors:

1. "Son preference";

2. Rapidly declining fertility - which means that families have to accommodate their wish for sons within a smaller family size; and,

3. The accessibility of sex determination technology, especially since 1980 and onwards.

It is important to unpack the concept of "son preference" since some preference for sons may exist in many cultures without manifesting itself in prenatal or post-natal elimination of females.

One component of 'son preference' is economic. For example, farmers in China perceive that they can only remain on their land after retirement if they have a son who can inherit the land. In India, the practice of providing dowry for daughters is illegal but still practiced. This results in girls being seen as an economic burden.

Other components of son preference may be related to the tradition of sons performing funeral rites, for carrying on the family name, or for taking care of aging parents, and therefore fulfilling filial piety roles.

As with other culturally-held beliefs, son preference can change over time and lead to a more balanced SRB. Thus, the SRTP improved in China in the decades 1950-1980, correlated with the strong policy environment for gender equality under the slogan of "*women hold up half the sky*". The experience of RoK is particularly interesting since it is the only country where ratios have again normalized. Analysts note that the centuries before 1990 saw increased perpetuation of patriarchal systems (e.g. legal systems, land ownership, education and so on) but this was followed by a particularly dramatic and rapid dismantling of those systems since 1990, with rapid urbanization coupled with increased levels of women accessing education and participation in the labor market. Other analysts note that there was also a strong national campaign against sex selection, including advocacy toward the medical profession to avoid engaging in the practice.

On the other hand, son preference can be a more enduring phenomenon and continues after migrating abroad. Thus, according to the 2000 census of the US, immigrants from China, India and RoK to the US had SRB almost as skewed as in their countries of origin⁴

⁴ "U.S. Births Hint at Bias for Boys in Some Asians", article in *New York Times* by Sam Roberts, 14th June, 2009. Source: <u>http://www.nytimes.com/2009/06/15/nyregion/15babies.html</u>

The role of technology to assist sex selection has changed over time. Thus, in China, starting around 1980, beta ultrasound machines were widely available throughout the country for checking IUDs and were freely accessible on a no-cost basis as part of the family planning programme. For India, costs in accessing technology led to such means only gradually becoming available, and increasing sex ratio and availability of technology can be shown to be geographically correlated. The availability of such technology however comes with some regulatory mechanisms. Thus, for some countries, while such technology was available, analysts note it may have been more strictly regulated until 1990.

The technology itself is rapidly evolving. Initially, post implantation technology (amniocentesis and/or ultrasound) was used to determine sex of an offspring, leading to subsequent abortion of any offspring of the unwanted sex. There is now technology for pre pregnancy selection (pre conception such as sperm selection and pre implantation such as pre implantation genetic diagnosis). Using such methods does not involve an abortion since there is no pregnancy. There are also post implantation methods for sex identification, such as amniocentesis or beta ultrasound, which can then be followed by sex selective abortion. Sex selective technology is also becoming increasingly available, including over the internet at low cost and with no involvement of health personnel.

Consequences of Sex selection and Skewed Sex Ratios

Consequences of prenatal sex selection are still at early stages of documentation, but patterns are becoming clearer. Demographic consequences are predictable: the imbalances at birth result in cohorts with skewed sex ratios which are now reaching adulthood. There are indications that this could have longer-term social implications, especially in the form of a "marriage squeeze" – leading to increased migration, including bride trafficking and abduction, increased polyandry and forced marriages in the shorter term. There are some examples of social tension, but some theories stating that the excess of males will inevitably result in violent conflict are as yet hypothetical and should be approached with great caution⁵. The impact may fall disproportionally on underprivileged men and women, where poorer men will be less able to find brides (and afford the associated costs of getting married) and poorer women are married off to geographically distant areas.

II. International Guidance

The issue of sex selection was already raised at the ICPD. Section 4.15 of the ICPD Programme of Action discusses sex selection as a problem of son preference and discrimination of girls since the early stages of their lives and which is compounded by new technologies to determine fetal sex and abortion of female fetuses. The section concludes with an appeal for critical investments in the health, nutrition and education of the girl child (see Annex II on "International Guidance" for more information).

Paragraphs 115 and 116 of the 1995 Beijing Platform for Action give a listing of practices considered as 'violence against women', including prenatal sex selection and female infanticide. This list of practices has been reiterated, for instance, in country reports of the various Rapporteurs on Violence Against Women. This is potentially problematic since this could connote that the female fetus has the right to be born, irrespective of legal and medical contexts. Caution needs to be exercised while using the concept of sex selection as "violence against women" as contained in the Beijing Platform of Action

⁵ There are some studies that allude towards sex selection resulting in social imbalances. For instance, see the article on "Prenatal sex selection – When prenatal testing can threaten social harmony", in *Practical Ethics: Ethical Perspectives in the News*, University of Oxford, 16th June 2009. Source: http://www.practicalethicsnews.com

Regional and national legislatures and other normative fora have also addressed the issue, but not in a consistent manner. Several countries prohibit or recommend against the use of various technologies for sex identification or sex selective abortion; for instance, China, India, the RoK, Canada, the United Kingdom (UK); others, like the US permit it.

The international deliberations and agreed documents have therefore not yet resulted in clear global guidance on sex selection and related technology and many challenges remain. Presenting prenatal sex selection as a form of violence against women may imply personhood for the fetus, and may therefore jeopardize access to safe abortion in countries where it is legal. Limiting women's access to knowledge about the sex of their unborn child - if that information is available to the health provider - may also be problematic. Parents have, for instance, the right to know if the unborn fetus is not a carrier of genetically transmitted diseases (if the knowledge is available). There are thus many unresolved issues, with limited global guidance.

However, it is equally clear that whereas it is problematic to label prenatal sex selection itself as a human rights violation, the *causes* of prenatal sex selection - in that they are based on gender discrimination - are human rights concerns, and the same is true for the *consequences* as they can impact on the human rights of women and men.

III. Recommendations for Action

Past Experiences

The issue of sex selection has attracted increasing attention in the countries listed in the previous section, although there may still be tendencies to dismiss the facts (for instance, by attributing them to "under registration of girls"), or its relevance for development and human rights. Strategies adopted by governments and others so far have generally fallen into three main categories:

- improving data and the *evidence base*;
- limiting the *supply* and controlling the use of technology for sex selective abortions (legislative action, advocacy efforts concentrated on health care providers and so on); and,
- reducing *demand* through short-term mitigation measures of perceived negative effects of having daughters and/or longer-term advocacy and policy changes to address the perception of girls as being worth less (inheritance laws, pension schemes, cash transfer schemes and so on).

There are few cases of well-documented success stories. Arguably, the RoK is the only major success story and even in that case, there are several views of what may have contributed to rebalance the SRB. Analyses variably claim the effectiveness of the limitations of supply and the effect of the enormous societal changes (including urbanization and resultant development) which took place and which may, intentionally or not, have reduced demand for sex selective abortions. Whereas other examples of reversals exist (cases in point being individual regions and provinces of India or China) little analysis exists on the causes, with some quoting limitation of technology and others taking a broader approach addressing all the above categories (for instance, the "China Care for Girls" programme). There are promising small-scale studies from India showing success of community awareness campaigns, resulting in social commitments. This should definitely be further explored, as it harmonizes with approaches used with success by UNFPA in other areas of work.

The Way Forward: Programming Recommendations

UNFPA-initiated action to address sex selection has mainly grown out of country level efforts in India and China. The efforts have been very different - reflecting the local context - and the experiences are reflected in the following programming recommendations. They also build on existing UNFPA policy,

including the overall Strategic Plan (2008-2013) as well as the Strategic Framework on Gender Mainstreaming and Women's Empowerment, and employ the concept of culturally sensitive approaches.

The following is recommended:

- UNFPA Representatives as well as Regional and Sub-Regional Directors should enter into dialogue with stakeholders where and when required. They should familiarize themselves with the situation in the country and region. This entails assembling and analyzing data, mapping legislation and any other measures taken by national authorities.
- UNFPA headquarters in New York will together with the concerned regions arrange capacity development initiatives with the objective of collecting and sharing qualitative experiences and will consult with other UN agencies on positions and roles, via, for instance, webinars and other social networking technology platforms.
- At country level, where appropriate, staff should engage within the UN Country Teams (UNCTs) to work on the issue in a concerted manner and reflect such engagements/dialogue in joint reports for instance, Millennium Development Goals (MDGs) reports and processes. As the issue is highly context specific varying over time and sometimes with great local variations great care should be taken to support the analysis of local situations before recommending action. A "do no harm" principle may apply (i.e. it is better to err on the side of caution).
- Action should be undertaken with the understanding that three major agreements <u>have been reached</u> <u>in inter-agency discussions at this stage</u>:
 - Abortion for the sole purpose of sex selection and the elimination of female fetuses is not acceptable.
 - Recognizing that women may be faced with overwhelming pressure to eliminate females (at times against their will), support should be offered to women to resist pressures against their will. They should be supported to make informed choices via social change and social mobilization techniques, irrespective of whether or not skewed sex ratios are at stake.
 - 'Development' may not solve the root causes of son preference in the short term. Hence, the focus should be: a) on accelerating the process of reducing demand via demonstrating the value of girls through various social change, mobilization and advocacy techniques; and, b) on limiting the supply and controlling the use of technology that assists sex selection.

Specific actions under the framework of UNFPA's three strategic pillars include:

Data for Development:

- Advocate for and support the collection and analysis of sex disaggregated data in particular, sex disaggregated data on SRB and infant mortality - within existing surveys (for instance, censuses, DHSs and the like) and vital statistics, or stand-alone qualitative and quantitative studies;
- Encourage quantitative and qualitative analyses to address causes and consequences at sub-national levels to capture differences in SRB and provide the basis for culturally sensitive approaches at community level;
- Support data harmonization: provisioning for activities to help address differences between different data sets that can generate data which are sufficiently robust for monitoring trends; and,

• Advocate for dissemination and utilization of data.

Sexual and Reproductive Health:

- *Legislation:* Until inter-agency guidance is fully discussed and finalized, it is advisable to not engage in actively promoting legislation or regulation. Given the national variations, there is no "one right way" to address the issue and therefore legislative advice will need to be tailored to national situations. However, if national authorities are developing such guidance and ask for advice, the following aspects may be discussed:
 - Overall, it is essential that any new legislation or regulation does not lead to limiting access to otherwise legal abortion. Countries may differ in their attitude towards abortion, where those more hostile may be more likely to translate limitations on sex selection into general anti-abortion sentiments (e.g. India versus China). There may be wide-ranging differences in the availability of information and technology which can contribute to the effectiveness of legislation. Countries which have well-regulated health sectors (e.g. the RoK) may benefit more from such legislations than those which do not. Laws will not be implemented and monitored unless an enabling environment exists. Where it does not exist, the creation of such an environment should be the preliminary focus of work.
 - Avoid legislative limitations for late abortion in second and third trimesters as that may drive it underground - especially for the groups which are most vulnerable.
 - Ensure clarity on whether limitations address pre implantation methods; methods for determining sex (ultrasound); or, for selecting sex during pregnancy (abortion). Most states have strong limitations on access to medical technology, but many cannot withhold information from the patient if the health provider has access to such information; and,
 - Attention might be focused on measures to prevent aggressive promotion and advertisement of services with the purpose of financial gains by service providers rather than serving the needs and interests of clients.
- Services:
 - Provide counseling to support women, who may be under great pressure from partners and families, so that they are not forced to de-select females. Particular consideration should be given to high risk groups (for instance, women who have already borne a girl child);
 - Particular attention should be given to avoid the health risk of late-term abortions (and which are often the result of sex selection); and,
 - Careful monitoring of service statistics including at the micro level, in hospitals or at the clinic level, for instance are necessary to identify trends and to design possible interventions which are locally adapted and culturally sensitive.
- *Advocacy:* Resources may be provided for national groups to advocate for the issue as follows:
 - <u>Advocacy for health providers:</u> The point of departure should be that health
 personnel should base their work on medical ethics; this includes not promoting or
 performing interventions for the purpose of profit. On the other hand, health
 personnel should avoid being placed in the position of being moral arbiters;
 - <u>Advocacy for technology producers and providers:</u> There is little experience with working with these particular groups and it does come with its attendant challenges, as the practice may be very profitable. However, non-confrontationist dialogue may be attempted with these groups; and,

<u>Advocacy for others, including cultural leaders:</u> Religious or spiritual leaders, grandparents, teachers, media and community leaders may all play a part in perpetuating son preference, and may also all play a part in changing the culture to be more supportive of females. There have been some small-scale but visible levels of success with engagement of communities which might be expanded, based on UNFPA's track record of culturally sensitive community involvement.

Gender Equality and Culturally Sensitive Programming:

Interventions under this pillar can be (and have been in the past) a good opportunity to draw attention to skewed sex ratios as a proxy for underlying discrimination. UNFPA can play a role in disseminating information for general advocacy on gender-based programming in accordance with the established UNFPA approach of integrating cultural sensitivity and aiming at promoting and realizing human rights. Therefore, analysis and support is to be provided to review policies to determine what norms and practices contribute to son preference, such as unequal inheritance laws or the practice of dowry, as well as documenting success stories. Research and case studies should also be undertaken to identify the cultural values and practice. In partnership with others - in particular, the UNCTs - such reviews can be used to build gender sensitive programming that can be buttressed via inclusion in national development plans and reviews (for instance, MDG reviews).

IV. Use of Appropriate Language for Messaging and Positioning

The language which is employed to address and discuss the issue of sex selection is important. If in doubt, err on the side of caution. Guidance on the use of language includes:

Actively promote clarity on demographic facts: There is a great tendency to confuse definitions and concepts, e.g. confusing SRTP with SRB, and consequently prenatal sex selection with infanticide. See Annex I to help ensure and promote clarity, for instance, when developing UN reports and in undertaking policy and advocacy.

Apply the guidelines for responsible use of demographic data, avoiding sensationalism, yet

encouraging that data anomalies are addressed: Demographic data are important as the understanding of the problem relates to demographically significant imbalances. However, do not present new and/or dramatic data unless they have been thoroughly analyzed and assessed for local applicability. If necessary, err on the side of being less exciting, e.g. giving a range of conservative estimates rather than providing high end point estimates. Avoid giving data an unwarranted deterministic place, e.g. the expression "marriage squeeze" may give the impression that social adaptation is impossible. Using official data can be helpful, to avoid that the discussion focuses on quibbling about the accuracy of the data, rather than on the overall trends which they indicate. On the other hand, if sex ratio imbalance is recorded, and is presented as a result of statistical mistakes or biological factors, actively pursue assessments to determine whether this is true.

Promote Harmonization of messaging, especially within the UN: Ensure that both programming and messages are harmonized, between UNFPA field offices and headquarter, amongst UN organizations at both field and headquarter levels, and preferably with government and civil society and private sector, as

well as with community based actors. To avoid confusion and premature conclusions, ensure that informal discussions are held with technical expertise available to guide messaging before engaging in hard hitting public campaigns.

Human Rights: UNFPA is working on a joint position on this issue with other UN agencies. Until that is ready, the following is UNFPA's guidance:

- Avoid any language which assigns the rights of personhood to the fetus thus, avoid the terms "feticide", or describing prenatal sex selection as "violence against women" (implying that the fetus is a woman).
- If helpful, refer to the human rights concerns which are related to sex selection (e.g. gender inequalities in general, or specific cases such as women who are forced to abort), or the human rights consequences that may result (e.g. trafficking, early marriage). However, do not identify sex selection itself as a human rights abuse.
- For the time being, until we have more clarity on a joint UN position, avoid publicly discussing the human right of women to the information or technology for sex selection. The term "third generation human rights" (referring to group rights) is used in some contexts, but should be avoided as it is not clear what this implies. As is always the case, use existing international guidance wherever possible, but avoid using the Beijing Conference definition of violence against women as including sex selection.

Annex I: Definitions and Commonly-Used Terminology

Sex Ratio is usually expressed as the number of males per 100 females in any given population (in India, it is usually expressed in terms of number of females per 1000 males).

Sex Ratio at Birth (SRB) is the number of boys born per 100 girls. In most populations, this ratio is in the range of 104-106, although some populations experience ratios as low as 103 or as high as 107, even in the absence of deliberate sex selection. Thus, it is biologically "normal" that more boys are born than girls.

Sex Ratio at Birth, by Birth Order is the sex ratio of different birth orders, for instance, first, second or third births. Some studies show minor variations in sex ratio according to birth order, even in the absence of sex selection, but the magnitude is small.

Child Sex Ratio refers to the number of male children under a certain age to the number of female children under that age. It is less precise than SRB, and is used primarily in areas where birth or age registration is less reliable (in India, for instance).

Sex Ratio of Mortality is the number of males who die, compared to the number of females who die, for a given age group. In most populations, mortality is higher for males than for females at all ages (for example, infant mortality is often 10-30% higher for boys). There are both biological and behavioral reasons for this pattern.

Sex Ratio in the Total Population (SRTP) refers to the number of males per 100 females in the total population. In most populations, the numerical advantage of males at birth gradually erodes over the life span due to the above-mentioned higher male mortality. As a result, in most populations, there are more females than males (sex ratio in the total population less than 100). Thus, on average, the continents of Latin America and Caribbean, North America, Africa, Oceania and Europe experience rates in the range 93-98. The older the population, the more likely it is that there will be a surplus of females.

Skewed Sex Ratio (sometimes referred to as "imbalanced sex ratio") in this note refers to any aberration from the above "normal" situation. Such skewed sex ratio can be the result of many factors and which are not necessarily the result of sex selection before or after birth.

Annex II: International Guidance

International Guidance:

ICPD Programme of Action 4.15: "Since in all societies' discrimination on the basis of sex often starts at the earliest stages of life, greater equality for the girl child is a necessary first step in ensuring that women realize their full potential and become equal partners in development. In a number of countries, the practice of prenatal sex selection, higher rates of mortality among very young girls, and lower rates of school enrolment for girls as compared with boys, suggest that "son preference" is curtailing the access of girl children to food, education and health care. This is often compounded by the increasing use of technologies to determine fetal sex, resulting in abortion of female fetuses. Investments made in the girl child's health, nutrition and education, from infancy through adolescence, is critical".

1995 Beijing Platform for Action, Paragraphs 115 and 116: These paragraphs give a listing of practices considered to be violence against women, including: "violations of the rights of women in situations of

armed conflict, including systematic rape, sexual slavery and forced pregnancy; forced sterilization, forced abortion, coerced or forced use of contraceptives; prenatal sex selection and female infanticide".

Regional and national legislatures and other normative fora have also addressed the issue. For instance, Article 14 of the Council of Europe's 1997 Convention on Human Rights and Biomedicine states that "techniques (*in this case, pre implantation genetic diagnosis*) may not be used to choose a future child's sex, except where serious hereditary sex-related disease is to be avoided". Several countries - like India, China, Canada and the UK - prohibit or recommend against the use of various technologies for sex selection or abortion. Some of this refers only to the pre implantation methods, while some to methods used during pregnancy (where one consideration may be pragmatic, in that the pre implantation methods are still dependent on medical personnel and therefore easier to control). It is notable that most regulations refer to any type of sex selection for non health purposes, whether or not it indicates a clear preference for sons or is just a wish for family balancing.

Associated guidance:

Discussion sometimes seems to focus exclusively on abortion, although the issue is much broader, including that there are many methods for sex selection beyond abortion. Position the issue as a general gender and health issue rather than focusing only on abortion. If issues related to abortion do come up, avoid with great care to support any language or action which seeks to place new limits on women's access to otherwise legal abortion, in the interest of reducing sex selective abortion. Quote ICPD language (see "ICPD Programme of Action 4.15" in this section) to note that abortion is legal in most countries and should be safe. Make sure that 'all' abortion is not understood as bad. If reference is made to late abortion, stay with health issues (lower mortality associated with first trimester abortion) rather than ethical considerations.

The above-mentioned deliberations and documents have not yet resulted in clear global guidance on sex selection and related technologies. Some important associated international guidance, as stated in the ICPD Programme of Action, includes:

Guidance on Abortion:

"[i]n no case should abortion be promoted as a method of family planning" [first line of paragraph 8.25].

"All Governments and relevant intergovernmental and non-governmental organizations are urged to strengthen their commitment to women's health, to deal with the health impact of unsafe abortion as a major public health concern and to reduce recourse to abortion through expanded and improved family planning services. Prevention of unwanted pregnancies must always be given the highest priority and every attempt should be made to eliminate the need for abortion. Women who have unwanted pregnancies should have ready access to reliable information and compassionate counseling..." [paragraph 8.25]. "Any measures or changes related to abortion within the health system can only be determined at the national or local level according to the national legislative process. In circumstances where abortion is not against the law, such abortion should be safe. In all cases, women should have access to quality services for the management of complications arising from abortion. Post-abortion counseling, education and family-planning services should be offered promptly, which will also help to avoid repeat abortions." [paragraph 8.25]

At the 1995 Fourth World Conference on Women, governments agreed that "[i]n the light of paragraph 8.25 of the Programme of Action of the ICPD..." they should "consider reviewing laws containing punitive measures against women who have undergone illegal abortions." [paragraph 106 (k)]

At the 1999 U.N Special Session for the 5-year review of the implementation of ICPD, governments

agreed that "and in circumstances where abortion is not against the law, health systems should train and equip health-service providers and should take other measures to ensure that such abortion is safe and accessible. Additional measures should be taken to safeguard women's health." [paragraph 63 (iii)]

Annex III: Other Resources

For other resources on this issue, refer to:

1) Amartya Sen: *More Than 100 Million Women Are Missing in Asia*, New York Review of Books, Volume 37, Number 20, 20 December, 1990.

2) A paper on "India - Restoring the Sex-ratio Balance" is accessible at: <u>http://www.unfpa.org/culture/case_studies/india_study.htm</u>

3) Christophe Z. Guilmoto: "The sex ratio transition in Asia" in *Population and Development Review*, Volume 35, Issue 3: p 519–549, September 2009.

4) Reports that were prepared for a meeting during the 2007 4th Asia Pacific Conference on Reproductive and Sexual Health held in Hyderabad City, India, accessible at: <u>http://www.unfpa.org/gender/case_studies.htm</u>

5) *The 2008 State of the World Population Report*, Chapter 2, accessible at: <u>http://www.unfpa.org/swp/2008/en/02_building_support.html</u>

6) UN Population Division, *World Population Prospects 2008*, accessible at: <u>http://esa.un.org/unpp/index.asp</u>