**The ethics of incentivised sterilisation as a key component of population policy in India**

**Sam Rowlands**

Centre of Postgraduate Medical Research & Education, Faculty of Health & Social Sciences, Royal London House, Christchurch Road, Bournemouth University, Bournemouth, BH1 3LT, UK

[srowlands@bournemouth.ac.uk](mailto:srowlands@bournemouth.ac.uk)

+44 7738 269852

ORCiD 0000-0001-5940-9079

**Jeffrey Wale**

Centre for Conflict, Rule of Law & Society, Faculty of Media and Communication, Weymouth House, Bournemouth University, Fern Barrow, Poole, BH12 5BB, UK

[jwale@bournemouth.ac.uk](mailto:jwale@bournemouth.ac.uk)

+44 1202 962245

ORCiD: 0000-0002-9210-029X

**Corresponding author:**

Prof Sam Rowlands

**Abstract**

In the years before fully-developed international human rights became fundamental determinants of law and ethics, family planning programmes designed to control population growth were adopted by some countries, including India. Indian programmes have been target-driven and incentive-based with sterilisation as a key component. This paper examines contemporary issues relating to sterilisation in India from an ethical stance. Nowadays, a rights-based approach to sexual and reproductive health programmes has become the norm globally. Although Indian programmes are no longer labelled as target-based, there is still an element of incentivisation present in some localities. From an ethical point of view, this has the potential to be coercive.

Keywords: India, incentivisation, targets, population, sterilisation, human rights

Word count: 105 words (Abstract); 5,948 words (Main text)

**Introduction**

A Neo-Malthusian viewpoint is that burgeoning population growth has serious negative economic, environmental and humanitarian consequences (1). This viewpoint, in particular, includes a belief that population growth exacerbates poverty. Others concerned with development and human rights argue that the fundamental issues that need to be addressed are unequal distribution of wealth and power and that these are best helped by social reforms. In particular, proponents argue that governments should focus on the emancipation of women and improvements in education and healthcare (especially for women).

It is true that 22% of Indian citizens live below the poverty line (BPL), grain production is barely enough to feed the population and malnutrition and anaemia are widespread (2). Nevertheless, fertility is now decreasing and further decrease is expected as a result of efforts to improve maternal and child health and women’s education and employment opportunities. Along the way, smaller families are desired and fertility decreases even further.

Although population growth has many causal factors - including increasing longevity (3) - many governments have formulated population policies targeting reproduction over the past century (4). For example, some countries have used targeted sterilisation of their citizens when they considered their population to be too large and/or growing too fast. A range of policy instruments are open to State actors to control fertility - from compulsory medical examination checks and enforced sterilisation, to subtler forms of control including education, reward, incentive and penalty measures. Programmes involving incentivisation of potential acceptors of sterilisation (and in some cases health service providers) have been conducted in Tunisia, South Korea, Taiwan, Vietnam, Mauritius, Nepal, Bangladesh, Pakistan and Sri Lanka (5). Incentives can take many forms and may involve promises that are not necessarily honoured by the promisor. It is arguable that payments to acceptors to cover lost wages and direct costs of food and transport associated with the sterilisation is non-coercive and merely facilitates access to the medical procedure. However, third-party payments for recruitment of acceptors can be coercive; and for this reason, for example, this type of fee was discontinued in Bangladesh in 1988 (6).

India is the largest democratic country with an anti-natalist government policy framework in place. Added in 1976, item 20A on the Concurrent List of the Constitution of India is Population Control and family planning; this is one of 52 powers that may be considered to be used by both central and state government (7). Whilst India has clear guidelines for clinicians on consent for sterilisation, these are often not adhered to. This paper will focus on Indian State efforts and mechanisms to control population levels through sterilisation and will not examine explicit coercion by non-State actors including members of the acceptor’s family. Although we have used the term ‘acceptor’ to denote the person who has undergone the sterilisation, the term should not be construed as meaning that that individual has necessarily consented to the procedure on a free and informed basis. As we shall see, incentives become problematic if they undermine, or have the real potential to undermine, individual autonomy both in terms of self-determination (free will) and self-governance (personal control).

The authors’ search strategy for this paper was to look for material freely available on the subject. These sources included journals in various disciplines, books, theses, documentary films, government publications, publications by non-governmental organisations, articles in the lay press and information from reliable internet sources.

The paper is divided into six distinct parts. In part 1, we examine the background to national and local population control policies in India. In part 2, we consider some of the specific national and international guidance disseminated on sterilisation within India. In part 3, we move on to consider some contemporary developments within fertility control and influence over it. In part 4 we examine the policy instruments available to State actors and concentrate on the role of incentives and policies designed to influence/ facilitate reproductive decision-making and outcomes. In part 5 we address some of the ethical issues around the use of State incentives for sterilisation before making some closing remarks about the use of sterilisation in part 6.

**Background**

*Brief history*

India is a Union made up of 29 States and seven Union Territories. Many powers are devolved by the Union government to State governments. In turn, State governments pass down authority and powers to local level.

In 1952, the newly independent Indian government brought in the first national population policy in the world ‘*to stabilise the population at a level consistent with the requirement of national economy’* (8). There was great political concern over the population increase of one million every month. However, the 4,000 family planning (FP) clinics made negligible impact on the citizens who resided in 560,000 villages and 3,000 towns and cities (9). The clinic-based programme was replaced by an ‘extended’ FP programme, with plans for building a community workforce of 150,000.

A coercive approach was brought in during the period 1965 - 1974. It was called the 'Health Department operated, Incentive-based, Target-oriented, Time-bound and Sterilization-focused programme' (HITTS) (9). In 1966/67 a target of 1.38 million sterilisations annually was set; in 1970/71 this was increased to 4.51 million.

In 1969, 4,326 rural family welfare planning centres (FWPCs), 22,826 rural sub-centres and 1,797 urban FWPCs were in operation (2). It is important to highlight that the Indian experience with alternative and reversible forms of contraception (e.g. the IUD) during this period was not an especially positive one (3). This factor appears to have influenced subsequent attempts to control population growth via fertility control measures.

During Prime Minister Indira Gandhi's 21-month political ‘Emergency’ of 1975-1977, when civil liberties were suspended, her son and heir apparent Sanjay orchestrated a mass-sterilisation campaign (3, 10). In 1976, three States introduced parliamentary Bills that would have authorised compulsory sterilisation: Maharastra, Punjab and Haryana (11, 12). If it had been enacted, the Punjab Population Control Bill would have allowed imprisonment of *both* members of a couple found to have violated the law limiting family size to two children. However, these Bills never reached the stage of assent by the Union Government (13). The excesses of Sanjay Gandhi's sterilisation campaign, and the coercive measures that accompanied it, created a backlash that resulted in the collapse of Indira Gandhi's government (9). In 1977, FP was renamed ‘family welfare’ and sterilisation targets were reduced substantially. Again, it should be emphasised that the sterilisation policies that were pursued during this period also had a gender focus – male sterilisation was used as a specific mechanism for achieving control over population growth (3).

In addition to national policy, local initiatives were important. For example, the District Collector (chief state administrator) of Ernakulam district, Kerala, developed the concept of the mass-vasectomy camp (14). In 1970, almost 100,000 men were sterilised in three camps in Cochin over a period of 85 days (9). This was followed soon afterwards by 221,933 vasectomies being performed during a two-month period at more than 1,000 separate camps in Gujarat (15).

The doctors performing the sterilisations were complicit in the coercion; consent was by and large invalid, as there was a lack of information about the operation and the (reversible) alternatives and often no time allowed for individuals to make their decision (16). The doctors themselves were incentivised with an item-of-service fee over and above their salary. Operations were done in haste; even some men who had already had a vasectomy underwent operations due to lack of adequate preoperative assessment. Seventy-five per cent of vasectomy acceptors in the early 1970s had a monthly wage of less than INR100 and a majority were illiterate (16). Intersectionality (17) has featured prominently, with sterilisation acceptors coming disproportionately from vulnerable groups - including those from lower educational and socio-economic groups (15). We argue that these intersectional features create an environment that makes it more likely that incentives and other default State practices will have a coercive or adverse impact on individual autonomy. In this context, our focus is centred on the way intersectionality impacts on the exercise of State power and consequential justice rather than on individual identities (18).

By 1973, cumulative totals of 11.2 million vasectomies and 3.1 million female sterilisations had been performed in India (10). Around four million sterilisations per year were being ‘achieved’ just before the Emergency. During the Emergency, this number doubled to 8.2 million (10). In 1978 (the year of the so-called 'Setback'), the number of vasectomies fell to about half a million per year and female sterilisations to about 3.6 million per year. There was a profound backlash against vasectomy; its reputation has been tarnished ever since. Since the Emergency, the annual number of sterilisations has been subject to marked fluctuations; this is explained by variable amounts of local bureaucratic effort and incentivisation.

As discussed above, the majority of vasectomy adopters came from lower socioeconomic groups and were predominantly illiterate, poor and from low castes (3). Husband-wife communication has been shown to be positively correlated with socioeconomic status (10). Many Indian men were reluctant to undergo vasectomy - one of the prime reasons being a concern about high infant/child mortality. Information given about reversible contraception appears to have been generally inadequate or absent. Motivators receiving incentives for recruitment of men and women tended also to be of low socioeconomic status and have been shown to have targeted those further below them in the caste system. A survey of nearly 3,000 women (of whom 74% were illiterate) undergoing sterilisation in eight hospitals in the 1970s found that one-fifth felt coerced by healthcare professionals (19).

India switched to a so-called ‘target-free approach’ to family planning in April 1996. The National Population Policy in 2000 was based on ‘voluntary and informed choice and consent of citizens’; its objective was to achieve a stable population by 2045, but it came to an end in 2010. In practice, India did not move away completely from targets (20). In order to control fertility and allow girls/women to complete their education and reach mature decisions, the Prohibition of Child Marriage Act 2006 was passed. This raised the lower age limit for marriage to 18 years for women and 21 for men. Despite this statute, the proportion of women subjected to child marriage remains high at 22% (21).

Women are disadvantaged disproportionately compared to men in relation to literacy. India’s adult literacy level is 74% (below the global proportion of 86%); the female literacy rate in India is 65%, compared to 82% for males (22).

*Demography*

India is currently the second most populous country in the world. India's population exceeded the one billion mark in 1998 and it is predicted that its population will equal that of China in 2024, at 1.40 billion, and then overtake it (23). By 2025, it is projected that India will be one of only a handful of countries that contain megacities with populations of more than 20 million; Delhi will likely have 33 million and Mumbai 27 million inhabitants (24).

India extends over 2.5% of global land mass and yet has as much as 17.7% of the world’s population (2). The population currently stands at 1.35 billion. India’s annual population growth is 15 million, in absolute terms by far the highest in the world, equivalent to the population of the West African country of Somalia. However, in percentage terms, annual population growth levelled off in the 1970s and has decreased from 2.35% in 1982 to a current figure of 1.11%.

Reducing the population is not as straightforward as simply making contraception widely available. Socioeconomic changes can have a great influence on fertility rates. Improvements in women’s education and employment opportunities in non-agricultural sectors have a powerful influence in lowering fertility (25).

According to Census data, the Total Fertility Rate (TFR) has decreased from 5.9 in 1955 to 2.44 in 2015 (2). Data from the National Family Health Survey-4 suggest that the TFR has since decreased further to 2.2 (26). This is now just below replacement level which for India is about 2.23 (27). According to the Draft National Health Policy 2015, 21 out of 36 states have achieved replacement levels of fertility. It is now policy to increase vasectomy prevalence to at least 30% (2). The National Health Policy is explicit in its emphasis that coercive methods are not justified and improved access to services, education and empowerment are now held to be the basis of successful population stabilisation.

**Guidance on sterilisation**

Guidance for female and male sterilisation is laid down in an Indian Government document first produced in 1989 and now on its fifth edition (28). Medical eligibility criteria for sterilisation include the following requirements for clients:

* be married;
* of an appropriate age (females age 23 – 48 years; males under 60 years);
* have a minimum of one child aged more than one year;
* neither spouse should not have undergone sterilisation previously;
* be of sound mental state.

Steps to be taken during counselling and before signing the consent forms include:

* Information must be given about all the available methods of family planning;
* The decision to be sterilised must be voluntary;
* Counselling must be in a language the patient understands whenever required;
* Information must be given about the nature of the operation, its side effects and complications
* An explanation must be given of the operation’s permanency, lack of effect on sexual function, lack of effect on day-to-day functioning and that reversal is possible but may not be successful
* Clients should be told that they can change their mind about going ahead with the operation without the decision affecting their access to other reproductive health services

It is specifically mentioned that informed consent must not be coerced or taken when a person is sedated; also, that the consent must be taken before the surgery. The guidance also states that local anaesthesia for female sterilisation is the ‘preferred choice’; such a preference for local anaesthesia by the Government being presumably due to its relatively low cost compared to regional or general anaesthesia. Those undergoing sterilisation in rural primary care centres may not in practice get any choice (29). Infiltration of local anaesthesia at the sites of introduction of the laparoscope and ring applicator with little or no sedation will be distressing for some.

The International Federation of Gynecology and Obstetrics (FIGO) condemns inducements, pressure and coercion in relation to sterilisation (30). In its ethical guidance, FIGO states that coercive measures will in the long run be counterproductive and that coercion brings a reproductive health programme into disrepute, jeopardising the limitation of fertility.

**Contemporary issues**

At the June 2012 meeting of the Family Planning Association of India in New Delhi, the Union government was urged to shift the emphasis in its approach from demography to the recognition of individual rights. At the London Summit on Family Planning in July 2012, the Indian government announced that it had brought about a paradigm shift in its approach and would be emphasising promotion and provision of contraceptives for birth spacing. It was also announced that it would be making contraceptives available on people’s doorstep through 860,000 community health workers, including availability of copper IUDs (but, unfortunately, not implants or hormone-releasing intrauterine systems). Despite this rhetoric, female sterilisation continues to predominate, even in states that have achieved replacement fertility. Furthermore, these targets are repeatedly ratcheted up. For example the Madhya Pradesh annual target for female sterilisation for 2011/12 was set at 650,000 despite ‘only’ 150,000 procedures having been ‘achieved’ in 2005/6 (31).

In 2013/14, India spent 85% of its fertility control budget on sterilisation (32). Of the INR3.97 billion (US$58 million) spent on female sterilisation, INR3.24 billion was spent on incentives and compensation (33).

*Sterilisation camps*

There is evidence that, in most camp settings, the sterilisation guidance is ignored, for the sake of convenience or due to the pressure of high case-loads (34). The quality of care of those sterilised in community settings has been shown to be largely poor and, in some cases, dangerously so (35).

An independent report following the Bilaspur deaths included the following forceful recommendations:

* Incentives for service providers to be stopped
* Acceptors to be paid only compensation for loss of wages and travel expenses
* Sterilisation targets to be stopped
* Sterilisation camps to be stopped

The total number of sterilisations is currently running at 4.14 million per year (36). The prevalence of female sterilisation of married women in India as at 2015 is 36%; the equivalent figure for men who have had a vasectomy is 0.3% (37). In Bilaspur District, the female sterilisation prevalence was as high as 47%. Notably, vasectomies, as a proportion of total sterilisations in India, have decreased from 20% in 2009/10 to 2% in 2015/16. The decline in vasectomies can be explained, at least in part, by the profound societal effect of the excesses of the Gandhi regime in the 1970s (3).

In September 2016, the Supreme Court of India ordered that sterilisation camps should cease within three years, a counsellor should see the potential candidate as well as a doctor and sterilisation targets should not result in coercion (38). This action, *Devika Biswas v Union of India*, was a direct result of a public interest petition brought by a health rights activist*.* Previous calls for sterilisation camps to be shut down had been unsuccessful (39). Camps will be stopping; but, incentivisation of sterilisation seems likely to continue.

In more recent times, some State governments, have considered the impact on families if the person who has been sterilised dies or experiences morbidity as a result of immediate complications; also, failure of the procedure to prevent pregnancy has been considered. Since April 2013, India has had a system of compensation in place for this purpose (36), although this is not well publicised (35). This may be of some comfort to those opting for sterilisation.

It is acknowledged that commenting on this subject in a meaningful way is fraught with difficulty due to the cultural complexity. Citizens belonging to higher social classes tend to choose and undergo sterilisation in private hospitals in a high-quality clinical environment. Many poor women make a decision to opt for sterilisation as an expression of pragmatic agency in the context of their precarious economic circumstances, unequal gender relations and constantly weakening bodies (40). Although, undoubtedly, many individual citizens themselves truly wish to control their fertility by sterilisation, for some, the voluntariness of sterilisations in India is questionable (41). It has been estimated that as many as one third of women who have been sterilised did not give valid consent (42). The latter figure lacks a definition and is imprecise but no other contemporary estimates have been found by the authors. Despite the Indian government announcing a ‘target-free’ approach to population control in 1996, in practice health workers continue to work to sterilisation quotas, even if called by another name (39, 43).

On a more optimistic note, the Government of India has announced that it will develop a comprehensive approach to quality improvement (44). It has also made a commitment to developing a gender transformative health strategy which recognises women’s reproductive rights and shifts the focus back to include a balance of female and male sterilisation (45). Finally, the Government has declared that future programmes will be rights-based (46).

Nevertheless, given that incentives to sterilisation are likely to remain a pervasive feature of Indian population policy, at least in the short term, we now move on to evaluate these types of policy instruments in more detail.

**Policy instruments**

For discussion purposes, we will categorise policy instruments into two broad categories – those that mandate individual action or consequences (negative) and those that aim to influence or otherwise facilitate specific decisions and outcomes (positive). States can use a selection of ‘negative’ policy instruments to influence birth rates including punishments, penalties or other sanction on those who refuse sterilisation or any other attempt to control their fertility. For example, ration cards have been withheld from eligible couples who refused sterilisation (12). Further, parents who failed to produce sterilisation certificates have been refused nutritional supplements for their existing children. From 2001 in Maharashtra, a third child was not entitled to food and other subsidised goods offered under the public distribution scheme (47).

In terms of positive policy instruments, these can be subdivided into nudges, boosts and other incentive measures either intended to benefit the individual patient or designed to achieve wider community goals. In this paper, our specific focus is on the use of positive forms of policy instrument as a mechanism of population control. However, it should be recognised that positive and negative policy instruments can be combined to achieve their intended effects – as evidenced during the Gandhi emergency period between 1975-1977 (3).

So how do these different positive instruments work? Nudges ‘*seek to affect decision-making by semi-conscious or unconscious “altering defaults” in the framing of choices*’ (48, 49) and can be aimed at correcting detrimental behaviours impacting on the patient or others (50). In some cases, the nudges may be intended to alter an individual’s actual preference (48). A nudge could be categorised as an intervention that results in a default outcome – in other words, it is necessary for an individual to make an active choice to avoid the default outcome. So, for example, we see nudges in operation in relation to schemes that require an active ‘opt out’ to avoid the default consequence.

Conversely, boosts are designed to “*extend people's decision-making competence rather than co-opting their deficits*” (48). Boosts ‘*can target the individual’s skills and knowledge, the available set of decision tools, or the environment in which decisions are made*’ (51). The concept of ‘boosts’ has become increasingly popular, partly because of the emphasis on enhancing existing competency, and because nudges have attracted a significant degree of criticism because of their tendency to treat individuals as “*mindless, passive decision makers*” (51). The precise difference between incentives and nudges is not entirely clear (48), but some commentators do distinguish the use of default decision-making rules (nudges) from incentives (48). Incentives are normally addressed explicitly and directly at an individual which is not usually the position with nudges. Incentives are designed to change or influence the decision-making of the individual – and in our context, whether to undertake a sterilisation procedure or not. Incentives may help shape whether a specific reproductive strategy is adopted by an individual, and specifically whether to engage with irreversible, reversible or natural forms of contraception that might include abstinence.

It is important to emphasise that State-supported incentives are capable of influencing the wider public narrative around reproduction. Promotion can impact on and influence nationalistic ideals around population and reproduction (3). This in turn can create subtle forms of pressure and influence on decision-makers, particularly when coupled with the wider promotion of responsible reproduction within a community. So, where a State promotes the concept of ‘responsible reproduction’ and associates that with sterilisation, it sets up subtle pressure mechanisms that have the capacity to label ‘non-acceptors’ as irresponsible community members. This is significant if the target of the incentive is a member of a group or groups with pre-existing vulnerability.

When evaluating incentives, we need to be clear about the type of benefit, reward or compensation that is available to the target agent (i.e. the individual or group of individuals to whom the incentive is directed). The incentive might consist of a financial payment but may include other forms of benefit or reward. We also need to distinguish between rewards and benefits directed towards particular subjects or individuals. In the context of sterilisation, incentives to different individuals/ groups can combine collectively to influence overall behaviour and outcomes. In India, this has involved the use of State incentives directed at individual families/ patients, healthcare providers and third-party motivators (3). Some incentives may only compensate an individual for out of pocket expenses for attending the procedure. As such, the offer of reimbursement of expenses may operate to facilitate the attendance of the acceptor at the treating clinic. However, the incentive may go beyond compensation and include an element of extra reward for the patient – some additional benefit that goes beyond the reimbursement of out of pocket expenses. That reward may benefit the acceptor only but might also extend to others - this could include their partner or members of their wider family. The personal circumstances of the potential acceptor may affect the persuasive impact of the reward – an individual who has limited economic means and is otherwise vulnerable may be more impacted or prone to impact by offers of this type. The promise of an incentive when coupled with the threat of sanction may be particularly effective in ‘persuading’ these vulnerable individuals.

Cash payments were common in India for sterilisation acceptors from the 1960s onwards but inducements for female sterilisation have included goods such as televisions and pressure cookers too. Women acceptors are typically paid INR1,000 to INR1,400 (equivalent to almost a month’s income in rural areas) (52). The most recent MOHFW Annual Report confirms that vasectomy acceptors will receive INR2,000 in ‘high-focus’ states and INR1,100 elsewhere; female sterilisation acceptors will receive INR1,400 in high-focus states and INR600 elsewhere (21). In some cases, the incentive cash sums have been more than twice as much in value as average monthly wages (16). In some places, men have been offered gun licences as rewards as a kind of reinforcement of their masculinity (31). The size of these payments is relevant because they have a disproportionate influence (or at least the capacity to have a disproportionate impact) on the intersectional groups highlighted above (i.e. those from low educational and socio-economic groups).

A recent scheme for six high-focus states (the Santushti Strategy) has incentivised private health providers when they perform 10 or more sterilisations per month (1). This has the capacity to undermine the ‘free and informed’ nature of the consent process because healthcare professionals have to address the implicit influence of additional personal benefit. These schemes set up potential conflict and tension between the personal interests of the healthcare professional and their beneficent duties to their patient. Mass sterilisation campaigns have used lay workers/ ‘motivators’ to recruit 'acceptors' in India. Motivators include auxiliary nurse midwives, primary care doctors, ration shop dealers and accredited social health activists (ASHAs) (40). It is culturally almost impossible for female workers to recruit men for vasectomy. Some Indian States took extreme measures with the use of motivators and the use of recruitment targets: in Madhya Pradesh a Tata Nano car was offered to motivators for recruiting 500 subjects for an operation, a fridge for 50 and a gold coin for 25 (53). ASHAs are typically paid INR150 for each individual brought to be sterilised (54, 55). In June 2012, Human Rights Watch interviewed more than 50 health workers in two districts in Gujarat (31). All of them had been assigned individual targets for female sterilisation. An example of a target size was 30 women annually. Financial penalties or public humiliation were also imposed on any workers who did not achieve their target. This provides an example of negative (viz. a third-party agent) and positive policy instruments (viz. the primary target agent) being applied in combination.

Where a third-party agent is incentivised, this may add to social and other pressure on individuals who might already be weighing up the benefits for themselves and their wider family. In some cases, the healthcare provider or agent will be eroding or receiving a cut of the incentive that would otherwise have been available to the acceptor patient (3). The use of collective rewards and incentive policies has the potential to be coercive if they undermine individual liberty and autonomy (either in terms self-determination or self-governance). The interaction of and pressure from multiple sources and individuals - including those performing the procedure - make collective incentive schemes more likely to exert undue pressure in favour of sterilisation. Again, intersectional concerns render collective incentive schemes especially problematic when they are targeting vulnerable groups.

The promise of benefit or financial reward may also produce additional pressure from the patient’s family. Free health or education benefits may be as impactful as the offer of direct financial payments to a family struggling to balance family income and outgoings. This sets up a context where the liberty and autonomy of the individual decision-maker is threatened; the permanency of sterilisation makes it particularly important that any resulting decision is free and informed (55, 56).

**Ethical Discussion**

As a starting point, we might argue that reproductive autonomy is a universal human right that should be upheld for women who bear the physical burden of pregnancy. Couples should therefore have the right to decide freely and responsibly on the number, spacing and timing of their children (57). Similarly, reproductive liberty demands that sterilisation decisions should be free of undue influence by third-parties. State incentives, penalties and other forms of coercion have the potential to erode and negatively impact on reproductive liberty and autonomy. Sundararaman has called this the ‘coercive State’ (58). However, we do need to be cautious about our ethical evaluation of such interventions because, as Richard Ashcroft argues, it is not ‘*useful to make broad brush assumptions about “behaviour change” interventions as if they were homogeneous in type, design, intended effect, mechanism of action, or underlying ethical norms*’(48). Any concerns that we might have about these interventions will also be influenced by the specific ethical lens we decide to employ – for example, whether emphasis is placed on individual rights, community justice or collective goals. Ashcroft neatly summarises the position:

‘*If one is mainly concerned with autonomy and liberty, then they seem to involve methods of suborning the will of the individual agent. If one is concerned primarily with justice, they seem to involve unfair burdens on the economically, socially or psychologically vulnerable. If one is concerned with the classical values of public health as collective action at the societal level, they seem to involve socially atomistic and individualistic assumptions which corrode solidarity. And so on.*’ (48)

So, in favour of incentives, we have seen historic emphasis on public health goals centred on the management of population levels. We have now seen a move away from these collective goals (with acceptance that the means were inherently flawed) towards a recognition of individual rights. Whilst we acknowledge that this shift is an important change, we have endeavoured to highlight the need for consideration of wider concerns of justice for those targeted by any collective incentive scheme where sterilisation is the intended or preferred State objective. What is important is that States acknowledge that incentive schemes not only have the capacity to impact on individual rights but on the issue of fairness and justice for specific communities within a State.

Ashcroft also cautions about evaluating arguments about the rightness or wrongness of interventions (including for our purposes, sterilisation) in circumstances that make ‘*the assumption that they have significant, measurable and occurrent effects’* (48). So, when evaluating historical population policies, we ought to be careful about making assumptions about cause and effect. If Ashcroft is correct, the use of collective incentive measures in relation to sterilisation makes this evaluation especially problematic. Against this background, we now highlight a range of factors that might impact on the permissibility of incentives in the context of sterilisation.

The availability of other effective and publicly acceptable contraceptive options may influence the impact of incentives directed to sterilisation. As already discussed, the past negative experience with IUDs may have influenced the development of sterilisation policies in India (3). The public narrative around options and the balanced availability of incentives for reversible and irreversible forms of contraception are also likely to be important. Balanced narratives around female and male sterilisation options may be important given the statistical gender imbalance that currently exists in India today (male/female ratio at birth 1.12 in 2016).

The timing of incentives may also be critically important. Incentives offered at a time of vulnerability for an individual (e.g. at, or shortly after, birth) are problematic if the decision-making and information-receiving processes are potentially impaired (56). Rather alarmingly, a doctor interviewee working for the Brihanmumbai Municipal Corporation (BMC) said that the optimal time to ‘motivate’ women for sterilisation is when they are in labour (55). With this concern in mind, FIGO specifically rules that the consent process must not be timed when women are in pain (30). Mandatory waiting periods might also be considered in the consent process – to allow for adequate reflection and deliberation - although the critical concern should be to ensure that the patient is a true volunteer for the sterilisation process.

Belief that incentives will be fulfilled is likely to be important in communities that have experienced historical broken promises in relation to incentives (3). An example of this is when free radios promised to men did not materialise. Where a State actor deliberately withholds a promised reward or benefit - especially if that intention subsisted prior to or at the time of the incentive offer - it undermines the informational component of consent.

The nature of the reward or benefit may also have an impact on the ethics of the intervention. Financial promises directed to the poor are more problematic and may be discriminatory if directed solely against specific sections of a vulnerable community. Intersectional discrimination is an acute risk if directed to single gender and low educational/ socioeconomic groups (40).

Again, rewards that do not directly benefit the acceptor should be approached with some caution. This concern should point against the use of motivator rewards based on numeric procedural outcomes, especially where they create a tension between the interests of the motivator and any duty of care owed to the acceptor. Payments that exceed direct out of pocket expenses are more likely to undermine autonomous decision-making, especially if directed to those with a low socio-economic status. If a State offers a benefit, it ought to be honoured and transparent mechanisms to record and adjudicate individual incentive regimes are likely to be warranted. The availability of sterilisation incentives is potentially problematic in communities that do not operate accessible alternatives (including reversible contraceptive options); safe sterilisation methods should be available to all genders with proper non-directive counselling mechanisms. Of course, it is important that the use of reversible forms of contraception must not be coercive or directed at the target groups highlighted above (3, 17, 59).

One specific and problematic feature of many population policies is the tendency to use women’s bodies as a ‘*political resource’* (3). This concern should be extended to cover different social groups - we must not forget the focus on male sterilisation during the mass sterilisation campaign in India in the 1970s (3). Again, we need to be alert to the combination effect between incentives, sanctions and other forms of direct coercion (3).

**Conclusions**

Zealous campaigning on overpopulation has been shown to be not so apposite now in light of falling birth rates in many countries. It has become apparent from global demographic analysis that TFRs would have dramatically fallen regardless of any draconian population policy. It has also become clear that aggressive population policies distort the population structure. When providing health care to individuals, their reproductive rights must take priority.

With the development and introduction of highly effective reversible methods of contraception, there are alternatives to sterilisation. Coercive sterilisation programmes are no longer appropriate; sterilisation is an option that should be readily available as part of an overall reproductive health service for those who request it. Although a rights-based approach is now generally accepted in India, vigilance is still necessary as coerced sterilisations are still happening. Guidance for sterilisation has been disseminated over a period of many years; greater monitoring of compliance with the guidance is needed. This paper argues for specific caution around the future use and implementation of incentive schemes in relation to sterilisation.

**Acknowledgements**

We thank Dr Pramod Regmi, Lecturer in International Health, Bournemouth University, for his helpful comments on the manuscript.

**Disclosure statement**

No potential conflict of interest was reported by the authors.

**Funding**

None.

**References**

1. Poston DL, Bouvier LF. Population and Society: an introduction to demography. 2nd ed. Cambridge: Cambridge University Press; 2017.

2. SyamRoy B. India’s journey towards sustainable population. Cham: Springer; 2017.

3. Solinger T, Nakachi M. Reproductive states: global perspectives on the invention and implementation of population policy. New York: Oxford University Press; 2016.

4. May JF. World population policies: their origin, evolution, and impact. Dordrecht: Springer; 2012.

5. Veatch RM. Government population incentives: ethical issues at stake. Studies in Fam Plan. 1977;8:100-8.

6. Cleland J, Mauldin WP. The promotion of family planning by financial payments: the case of Bangladesh. Studies in Fam Plan. 1991;22:1-18.

7. Constitution of India, (1949).

8. Isaacs SL, Cook RJ. Laws and policies affecting fertility: a decade of change. Population Reports. 1984;X11:E105-E51.

9. Harkavy O, Roy K. Emergence of the Indian national family planning program. In: Robinson WC, Ross JA, editors. The global family planning revolution: three decades of population policies and programs. Washington DC: The World Bank; 2007. p. 301-23.

10. Vicziany M. Coercion in a Soft State: The family planning program of India: Part 1: The myth of voluntarism. Pacific Affairs. 1982;55:373-402.

11. Christiansen D. Ethics and compulsory population control. Hastings Center Reports. 1977;7:30-3.

12. Minkler M. “Thinking the unthinkable”: the prospect of compulsory sterilization in India. Int J Health Services. 1977;7:237-48.

13. Visaria L, Ved RR. India’s family planning programme: policies, practices and challenges. London: Routledge; 2016.

14. Krishnakumar S. Pioneering experiment in massive vasectomy camps. Stud Fam Plann. 1972;3:177-85.

15. Thakor VH, Patel VM. The Gujarat massive vasectomy campaign. Stud Fam Plann. 1972;3:186-92.

16. Vicziany M. Coercion in a Soft State: The family planning program of India: Part 2: The sources of coercion. Pacific Affairs. 1982;55:557-92.

17. Sifris R. The involuntary sterilisation of marginalised women: power, discrimination and intersectionality. Griffith Law Review. 2016;25:45-70.

18. Cooper B. Intersectionality. In: Disch L, Hawkesworth M, editors. The Oxford Handbook of Feminist Theory. Oxford: Oxford University Press; 2016.

19. Jamshedji SA, Pachauri S. The sterilisation decision: a socio-demographic and fertility profile of the Indian woman. J Family Welfare. 1980;26:27-41.

20. Das A. The ethical implications of the targeted population programme proposed by the UPA. Indian Journal of Medical Ethics. 2005;II:10-1.

21. MOHFW. Annual Report of Department of Health and Family Welfare 2016-17. New Delhi; 2018.

22. Anonymous. Literacy in India: Census 2011; 2015 [Available from: <https://www.census2011.co.in/literacy.php>

23. UN Department of Economic and Social Affairs. World population prospects. New York: United Nations; 2017. Contract No.: ESA/P/WP/248

24. Boyle M. Human geography. Chichester: John Wiley; 2015.

25. Dharmalingam A, Morgan SP. Women’s work, autonomy, and birth control: evidence from two South Indian villages. Population Studies. 1996;50:187-201.

26. MOHFW. National Family Health Survey - 4: 2015-16. Mumbai: International Institute for Population Sciences; 2017.

27. Haub C, Sharma OP. India approaches replacement fertility. Population Bulletin. 2015;70:1-16.

28. MOHFW. Standards for female and male sterilization services. 5th ed. New Delhi: Ministry of Health and Family Welfare, Government of India; 2006.

29. Mehta PV. A total of 250,136 laparoscopic sterilizations by a single operator. BJOG. 1989;96:1024-34.

30. FIGO. Ethical issues in obstetrics and gynecology London: International Federation of Gynecology and Obstetrics; 2015 [Available from: <http://www.figo.org/sites/default/files/uploads/wg-publications/ethics/FIGO%20Ethical%20Issues%202015.pdf4893.pdf>

31. HRW. India: target-driven sterilisation harming women: Human Rights Watch; 2012 [Available from: <https://www.hrw.org/news/2012/07/12/india-target-driven-sterilization-harming-women>

32. Dhar A. Gendered approach to steriliation. The Hindu. 2015 1 January.

33. Muttreja P, Banerjee A, Apte K, Sri S. Robbed of choice and dignity: Indian women dead after mass sterilisation. New Delhi: Population Foundation of India; 2014.

34. Padmadas SS. Inside India’s sterilisation camps: The Conversation; 2014 [Available from: <http://theconversation.com/inside-indias-sterilisation-camps-34208>

35. Masih M, Barpanda S, Wynne Z. Mistreatment and coercion: unethical sterilization in India. New Delhi: Socio-Legal Information Center; 2018.

36. Government of India. Annual Report 2015-16 - Family Planning. 2016.

37. UN. World contraceptive use. In: United Nations Department of Economic and Social Affairs Population Division, editor. New York2018.

38. Ashok KM. Are you framing national health policy or not: SC asks Centre: Live Law.in; 2016 [Available from: [www.livelaw.in/framing-national-health-policy-not-sc-asks-centre/](file:///C:\Users\samrowlands\Documents\Sam\Articles\www.livelaw.in\framing-national-health-policy-not-sc-asks-centre)

39. Pulla P. Why are women dying in India’s sterilisation camps? BMJ. 2014;349:g7509.

40. Luksaite E. The intimate state: female sterilisation, reproductive agency and operable bodies in rural North India: Brunel University, London; 2016.

41. Dhanraj D. Something like a war. Women Make Movies; 1991.

42. Wetenhall E. Population control policy in India: a dark history uncovered: Davidson in India; 2017 [cited 2017 10 November]. Available from: <http://davidsonindia.net/2017/population-control-policy-in-india-a-dark-history-uncovered/>

43. Sarojini N, Subha SB, Ambhore V, Venkatachalum D. Bilaspur sterilisation deaths: evidence of oppressive population control policy. Indian J Med Ethics. 2015;XII:2-5.

44. MOHFW. India’s ‘VISION FP 2020’. New Delhi: Ministry of Health & Family Welfare, Government of India; 2014.

45. Government of India. National policy for women 2016: articulating a vision for empowerment of women. Delhi: Ministry of Women and Child Development; 2016.

46. Health Ministry to launch “Mission Parivar Vikas” in 145 high focus Districts for improved family planning services [press release]. Delhi: Ministry of Health and Family Welfare2016.

47. Chayanika. Maharashtra state population policy. Indian Journal of Medical Ethics. 2001;IX:22-3.

48. Ashcroft R. Incentives, nudges and the burden of proof in ethical argument. J Med Ethics. 2017;43:137.

49. Sunstein CR. Choosing not to choose: understanding the value of choice: Oxford University Press; 2015.

50. Hertwig R. Beyond nudging: how to boost medical decision making. 16th Biennial European Conference of the Society for Medical Decision Making; 13 December; London2016.

51. Grüne-Yanoff T, Hertwig R. Nudge versus boost: how coherent are policy and theory? Minds & Machines. 2016;26:149-83.

52. Doane D. Is India’s sterilisation programme barbaric and anti-women? Guardian. 2014 12 November.

53. Mishral M. Bring 500 for sterilization, take home a Nano Gurgaon2013 [Available from: <https://timesofindia.indiatimes.com/city/bhopal/Bring-500-for-sterilization-take-home-a-Nano/articleshow/19013834.cms>

54. Bader S. Is incentive-based pay for India’s commmunity health workers working? : Devex; 2017 [Available from: <https://www.devex.com/news/is-incentive-based-pay-for-india-s-community-health-workers-working-90502>

55. Brault MA, Schensul SL, Singh R, Verma RK, Jadhav K. Multilevel perspectives on female sterilization in low-income communities in Mumbai, India. Qualitative Health Research. 2016;26:1550-60.

56. Rowlands S, Wale J. Sterilisations at delivery or after childbirth: addressing continuing abuses in the consent process. Global Public Health. 2019.

57. UN. Convention on the Elimination of all forms of Discrimination Against Women. New York: United Nations; 1979.

58. Sundararaman T. Questions of ethics in public health policy. Indian Journal of Medical Ethics. 2013;X:13-5.

59. Rowlands S, Ingham R. Long-acting reversible contraception: conflicting perspectives of advocates and potential users. BJOG. 2017;124:1474-6.