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PREFACE

The Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat organized an Expert Group Meeting on "Fertility, Changing Population Trends and Development: Challenges and Opportunities for the Future" at the United Nations Headquarters in New York on 21 and 22 October 2013. The meeting was convened to inform substantive preparations for the forty-seventh session of the Commission on Population and Development in April 2014. In light of the twentieth anniversary of the 1994 International Conference on Population and Development (ICPD), the Commission's theme for 2014 is an "Assessment of the status of implementation of the Programme of Action of the International Conference on Population and Development".

The meeting brought together experts from different regions of the world to address key questions about the future pace of fertility change, implications for age structure changes and other population trends and effective policy responses. A selection of the papers prepared by experts participating in the meeting is being issued under the Expert Paper Series published on the website of the Population Division (www.unpopulation.org).

This paper examines how enabling people to meet their reproductive rights could have an impact at the population level. The paper analyses examples of the fertility impact of meeting unmet need for family planning, reducing the gap between actual fertility and desired fertility in low-fertility countries, and the effect on adolescent fertility of reducing the incidence of child marriage. Based on these examples, a framework is presented on the mechanisms by which human rights, and specifically reproductive rights, influence population-level outcomes. New opportunities (such as the increased use of accountability mechanisms) and persistent challenges (such as social norms that restrict women's autonomous reproductive decision-making) to the full exercise of reproductive rights are also discussed.

The Expert Paper series aims at providing access to government officials, the research community, non-governmental organizations, international organizations and the general public to overviews by experts on key demographic issues. The papers included in the series will mainly be those presented at Expert Group Meetings organized by the Population Division on the different areas of its competence, including fertility, mortality, migration, urbanization and population distribution, population estimates and projections, population and development, and population policy.

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A. INTRODUCTION

Sixty years ago, the Universal Declaration of Human Rights laid the foundations for the right to the highest attainable standard of health. This right is central to the creation of equitable health systems. More recently, in the 19 years since 179 governments adopted a 20-year Programme of Action (PoA) at the International Conference on Population and Development (ICPD) in 1994 (Earth Negotiations Bulletin, 1994), much has been done to ensure that population concerns are not just about counting people, but about making sure that every person counts, and that the Universal Declaration of Human Rights is used to promote health and wellbeing (Osotimehin, 2013). The delegates to that conference brought about a sea change in the rhetoric around the population debate – agreeing unanimously that a woman's ability to access reproductive health and rights is a cornerstone of her empowerment, and the key to sustainable development for everyone on the planet (United Nations, 1995).

Despite the momentum generated by the ICPD, Millennium Development Goal 5 remains one of the most off-track of the international aspirations for a better world. Goal 5b which addresses reproductive health services and family planning was added late to the framework in 2007. Only 13 countries are poised to reach the targeted reductions in maternal mortality (Centre for Reproductive Rights, 2013). Since 2005 there has been a proliferation of World Health Reports (World Health Organization, 2005, 2006 and 2008; UN Millennium Project Task force on child health and maternal health, 2005) MDG acceleration frameworks (UNDP, 2010; Ghana Ministry of Health and United Nations, n/d), Global Strategies (Partnership for Maternal, n/d) and accountability mechanisms (Hunt and Gray, 2013) to tackle the continuing lack of achievement. The headline figures published in 2012 at last showed some improvement for reproductive health (WHO et al., 2012), and there have been some very notable positive case studies (Mbizvo and Say, 2012). At the same time, adolescent childbearing, which is risky for both mother and child, remains at very high levels in many developing regions, with African countries showing particularly wide disparities in maternal and reproductive health, including the need for family planning (United Nations, 2013).

While a large body of research has focused on the importance of a human rights-based approach, there is limited evidence examining the extent to which rights related to reproductive health have been realised. The likely population level impacts of enabling people to benefit from their reproductive rights are unknown. This paper brings together a framework through which to analyse population impacts with a focus on fertility, as well as considering the constraints, challenges and opportunities to the positive developmental consequences of fuller exercise of reproductive rights in the future.

In essence, the reproductive rights approach adopted in Cairo is intended as an instrument to promote policies and development that result in improvements in women's health, their autonomy in reproductive decision-making and the health of their babies and children. The recent emphasis on accountability is an attempt to build on the Cairo consensus, but to also accelerate progress by holding key actors to account. In some contexts there are clearly constraints to this approach (for example, where legal rights exist but the conditions are not in place to transform them into capacities and choices for better reproductive health). The existence of rights in theory does not necessarily ensure the translation of those rights into capacities, choices, wellbeing and positive population impacts. This paper therefore looks at fertility impacts, but also the challenges of bridging the gap between selected reproductive rights and better outcomes for women and their families, as well as the opportunities that meeting these challenges would bring. The field of reproductive rights is broad, so we use availability of contraceptive services to address unmet need for family planning, the ability to achieve desired family size in contexts of low fertility, and the effect of addressing child marriage on adolescent fertility as examples of rights that have been extended with potentially far-reaching effects. The paper concludes by using the relationships suggested by a very brief scan of the literature to provide a critical view on rights and sustainable development.

B. HUMAN RIGHTS, REPRODUCTIVE RIGHTS AND THE RIGHT TO HEALTH

Human rights provide an internationally recognized, legally binding code of conduct (Bilder, 1992). Human rights are those activities, conditions, and freedoms that all human beings are entitled to enjoy, by virtue of their humanity. They include civil, political, economic, social and cultural rights. Human rights are inherent, inalienable, interdependent, and indivisible, meaning they cannot be granted or taken away, the enjoyment of one right affects the enjoyment of others, and they must all be respected. Human rights are thus fundamentally about securing entitlements of people and empowerment in a context of respect and accountability defended by recourse mechanisms (Committee on Economic Social and Cultural Rights, 2000).

1. *The Right to Health*

Human rights are concerned with the empowerment and entitlements of people in certain aspects of their lives including in the field of health. The right of everyone to enjoy the highest attainable standard of physical and mental health (also known simply as the Right to Health) and related reproductive health rights are enshrined in the International Covenant on Economic, Social, and Cultural Rights (ICESCR 4 and 5) and the Convention on the Rights of the Child (CRC 6), both of which have been almost universally ratified by Member States of the United Nations (Somalia and the United States of America have not ratified the CRC) (Bilder, 1992).

The right to the highest attainable standard of health encompasses medical care and the underlying structural, social, political and economic determinates of health and health care systems (Committee on Economic Social and Cultural Rights, 2000). For example, the Right to Health includes access to safe drinking water, adequate sanitation, education, and health-related information. Implicit in the Right to Health is the freedom of individuals and communities to claim health rights equally, without discrimination through, for example, primary health care. Upholding the Right to Health therefore often focuses on ensuring that the most disadvantaged people and populations, including those living in poverty, have access to health care. The Right to Health requires an effective, responsive, integrated health system of good quality that is accessible to all (Hunt and Backman, 2008). Putting in place functional health systems, however, is aspirational in many low resource settings – despite international commitments. International human rights law recognises this and therefore demands that countries that are signatories to legally binding treaties to uphold the Right to Health demonstrate, progressively, improvement and where shortcomings exist, to explain how progress is being made and shortcomings addressed through measurable indicators and benchmarks. Areas where immediate action is expected, however, include non-discrimination (Alexander, 1994).

According to general Comment 14 on the Right to Health, the "right to the highest attainable standard of health" is composed of four key elements, including availability, accessibility, acceptability and quality (AAAQ). Availability implies that countries must put in place adequate healthcare services in medical facilities that are functionally equipped and staffed to deliver request services. Accessibility of services, both physically and financially, must be facilitated for rural, disparate populations as well as for the increasing urban poor populations where financial barriers limit use of available services.[a] Acceptability of services requires that countries provide services that respect clients' unique needs and diversity (as long as they are not harmful). Finally, quality services must be assured through implementation of national protocols, standards and guidelines for evidence-based health care services, including use of modern equipment and technologies and medicines. Given that only Governments are in a position to put in place the laws and policies necessary to respect, protect and fulfil human rights related

[a] In the Burkina Faso capital Ouagadougou, for example, around 2 per cent of women give birth at home, while in other cities, this proportion rises to 8.3 per cent(INSD and SDF International, 2012). At the same time, amongst the richest quintile around 6.5 per cent women give birth at home, whereas amongst the poorest quintile this proportion exceeds 53 per cent (INSD and SDF International, 2012).

to health and to regulate private and public practices that impact individuals' enjoyment of those rights, we therefore consider national Governments ("States") as the guarantors, or violators, of human rights.

The Right to Health however also requires that education, information and services are provided for together. Implementing a human rights-based approach involves strengthening the capacities of both rights-holders to make their claims and duty-bearers to meet their obligations (Human Rights Council 20th Session, 2012). In short, in the sexual and reproductive health (SRH) context, clients and providers must become aware of their rights and to expect more from those that have the duty to deliver on those rights. This translates into claiming the Right to Health care as clients; or as providers, to be given the conditions in which to work effectively. Likewise, it requires the providers and managers in the health system recognize their obligation as duty-bearers to ensure that a client's Right to Health is respected, protected and fulfilled by the system and by they themselves as primary actors within the system.

2. *Reproductive rights: a key subset of human rights which underpin development*

Reproductive rights relate to an individual woman's or man's ability to control and make decisions about her or his life which will impact their sexual and reproductive health. They are not new rights but rather a constellation of human rights that together constitute reproductive rights. Reproductive rights relate to the functions of reproduction and related health or healthcare and refer to a broad range of issues linked with both healthcare and sexual relations. For example, persons who are in need of healthcare related to reproduction have rights related to non-discriminatory, respectful, confidential, accessible and quality healthcare that responds to their needs. As applied to sexual relations, the rights extend to the ability to lead a healthy and satisfying sexual life of choice, free of coercion, rape, violence and discrimination.

One of the first articulations of reproductive rights was at the United Nations 1968 International Conference on Human Rights. The resulting non-binding Proclamation of Teheran was the first international document to recognize one of these rights when it stated that: "Parents have a basic human right to determine freely and responsibly the number and the spacing of their children."

In the next decade, autonomy in decision-making about fertility regulation as a sexual and reproductive right began to include a broader range of sexual and reproductive health issues as well as some of the underlying structural conditions that constrain reproductive and sexual decisions (that is, maternal and infant mortality, infertility, unwanted sterilization, malnutrition of girls and women, female genital mutilation, sexual violence and sexually transmitted infections). During this time, the issue surrounding rights was enlarged to address the social needs that erode reproductive and sexual choices of poor women (Correa and Petchesky, 1994).

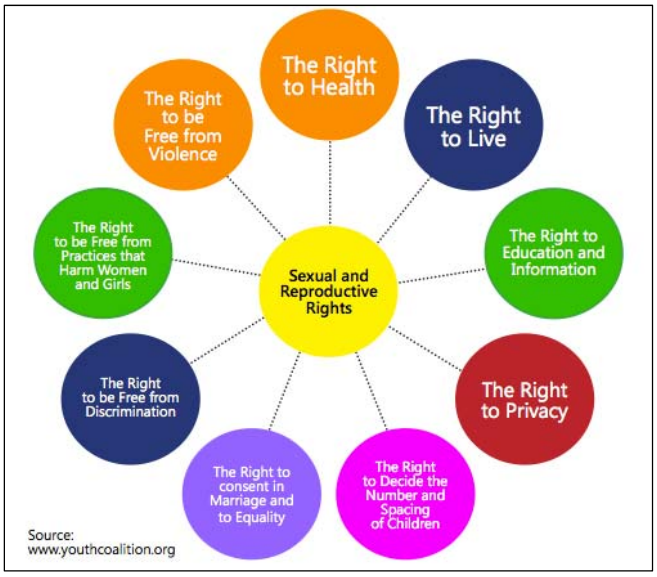
While the developing concept of reproductive rights gained momentum in some circles, population control policies and programmes were pervasive, emerging out of Malthusian concerns that high population growth rates hamper economic growth, destroy the environment, overstretch public services and result in greater poverty. These concerns led to drastic measures where States, localities and even lone providers took fertility control into their own hands using coercive methods to meet family planning goals (Sen et al., 1994). Reproductive rights in countries such as China and India and others were redefined to meet State population objectives (Haberland and Measham, 2002). In response to these measures, activists, providers, and some professional bodies joined forces for the first time to advocate for a paradigm shift from targets to choices (Germain and Liljestrand, 2009). They argued that population policies should focus on well-being and quality of life of individuals and on the rights of women, particularly, to make decisions about their bodies and on matters related to their reproductive health. Health and population programmes should further focus on sustainable development and poverty eradication, based on human rights norms and standards. Progress, they argued, can only be achieved by empowering people to make better choices about family size based on health, social and economic

opportunity.

The historic consensus reached in Cairo in 1994 at the ICPD was a landmark agreement that put the reproductive rights of women at the centre of the debate. Fertility control was out and choice, empowerment, and resources (to create the conditions for self-determination) were in (Finkle and McIntosh, 2002). Nearly 20 years later, the Cairo Programme of Action is still relevant as countries try to make those historic promises a reality. Today, there is recognition that reproductive rights necessarily include a variety of rights (see Figure I) as well as responsibilities that can only be achieved through integrated approaches to services as well as by overcoming social, cultural and economic barriers that so often limit the exercise of rights. Progress has been uneven, particularly between regions, and for the most disadvantaged, but in many areas significant progress has been seen. In revisiting the impact of reproductive rights, the question of whether the social – rather than the individual – plays the more substantive role in reproductive decision-making becomes key. In addition, for reproductive decisions to be truly "free" requires "enabling conditions" that can transform rights into capacities (Correa and Petchesky, 1994).

The original vision of a human rights approach to reproductive health has been more fully explored and elaborated in recent literature (Bustreo and Hunt, 2013; Hunt and Gray, 2013; de Mesquita and Kismodi, 2012; Centre for Reproductive Rights, 2013; Kaur, 2012; Kismödi, et al., 2012). For example, Bustreo and Hunt (2013) highlighted the importance of both an explicit and implicit role of human rights in terms of policy design. Complementarily, research (e.g. Kismödi, et al., 2012) has emphasised the key role of states and international human rights bodies in ensuring that individuals are able to exercise their sexual and reproductive rights.

Figure I: What are sexual and reproductive rights?



C. POPULATION-LEVEL FERTILITY IMPACTS OF ENABLING PEOPLE TO EXERCISE THEIR REPRODUCTIVE RIGHTS

The links between human and reproductive rights to broader consequences–whether they are population impacts such as lower fertility for those that need contraception or who marry too early, or higher fertility for those who are unable to reach their desired family size, or wider impacts such as better economic wellbeing—can be conceptualised in a series of stages. First, if reproductive rights are upheld, does reproductive health improve and are family sizes more in line with desires? Second, if these

outcomes improve, what is the magnitude of the fertility impact? And third, how do these population impacts in turn influence broader wellbeing? The evidence on these links needs to be drawn from separate sets of literatures.

Examining the effect of reproductive rights approaches is a fairly recent endeavour and has been tried, for example, by using country case studies and interviewing key actors as in a study in Nepal (Bustreo and Hunt, 2013) claiming large impacts on population rates. Other case studies presented in the same monograph on Brazil, Italy and Malawi examine the rights focus of various programmes and policies and track outcomes – seeking to link the two by analysing in-depth interviews with key decision-makers active during the time of policy and programme implementation. However, given the breadth of the field, mixing the impacts of upholding rights in HIV care with abortion, contraceptive services, sexual health and maternal healthcare may add up to an impressive set of effects, but the pathways to impact vary considerably.

The right to decide the number and spacing of children is at the heart of the impact of reproductive rights on fertility. Collated survey estimates suggest that in 16 countries, the excess fertility over desired family size is 0.5 or less children per women, in 22 countries the excess fertility is between 0.6 and 0.9 and in 19 countries, the excess fertility is one child or more. In these contexts women and couples are in need of contraception. It is also in these same contexts where very young girls are married too early and adolescent fertility remains high. In contrast, amongst 27 European countries the opposite situation prevails whereby women are on average having 0.7 children less than they would desire.

The following sections examine specific reproductive health rights and their likely fertility impacts: 1) reducing the unmet need for family planning by satisfying demand for family planning, 2) increasing fertility rates in more developed countries with lowest low achieved family sizes, and 3) reducing early marriage especially where adolescent fertility rates are high.

1. *Meeting unmet need for family planning - impacts on fertility*

The right to decide freely and responsibly the number and spacing of children and the right to privacy in family matters are protected by various international and regional human rights treaties[b] and by various national constitutions. The implementation of these rights reduces State powers to compel individuals to account to government officials their reproductive choices, and to compel individuals to employ reproductive capacities in compliance of government preferences. Reproductive choice to control one's own fertility, however, requires States to provide the education, information and means (services) in which to do so without discrimination (Cook, 1992).

The evidence base highlights breaches of these rights in a number of countries, including Romania. In the 1960s, in Romania abortion was made illegal and importation of contraception stopped. These practices combined with lack of adequate sexual education resulted in the public being misinformed about their sexual and reproductive rights and choices (Gauthier, 2006) – a situation that has subsequently changed in recent years making Romania a strong modern case study for the promotion of family planning choices. In Poland abortion remains banned except for limited circumstances, such as rape, which forces Polish females to have to travel abroad in order to undergo safe abortions. In an increasingly globalised world, States' failure to guarantee a framework enabling the implementation of reproductive rights can also have an effect on other countries where these rights are ensured.

An indication of the extent to which access to contraception is lacking is the difference between actual and desired family sizes. Women in developing regions often express a desire for a smaller family

[b] These include article 16(1) of the Convention on the Elimination of All Forms of Discrimination against Women and article 17(1) of the International Covenant on Civil and Political Rights.

size. Unmet need for family planning is defined as the percentage of women of reproductive age, either married or in a union, who are fecund and sexually active but are not using any method of contraception, and report not wanting any more children or wanting to delay the birth of their next child (WHO), 2013). Since ICPD, and even more recently through the revival of family planning as "the unfinished agenda" (Cleland J, Bernstein S, Ezeh A, Faundes A, Glasier A, 2006), meeting the unmet need for family planning is increasingly recognized as challenging yet achievable by the reproductive health community and their supporters (Cohen, 2012). The more sensitive indicator of 'demand for contraception satisfied' takes into account a growing demand for family planning, and correlates strongly with total fertility across the world (see Figures II and III) with a 10 per cent rise in demand satisfied associated with 0.7 fewer children per woman as an unadjusted effect size. This may give an indication of the larger effects that may be expected if reproductive health and rights were extended to all those in need. A more sophisticated analysis to account for confounders might give a more nuanced set of estimates. Investigating the relationship by region gives an indication of the potential of extending rights by continent (Figure III).

Figure II: Association between demand satisfied and total fertility

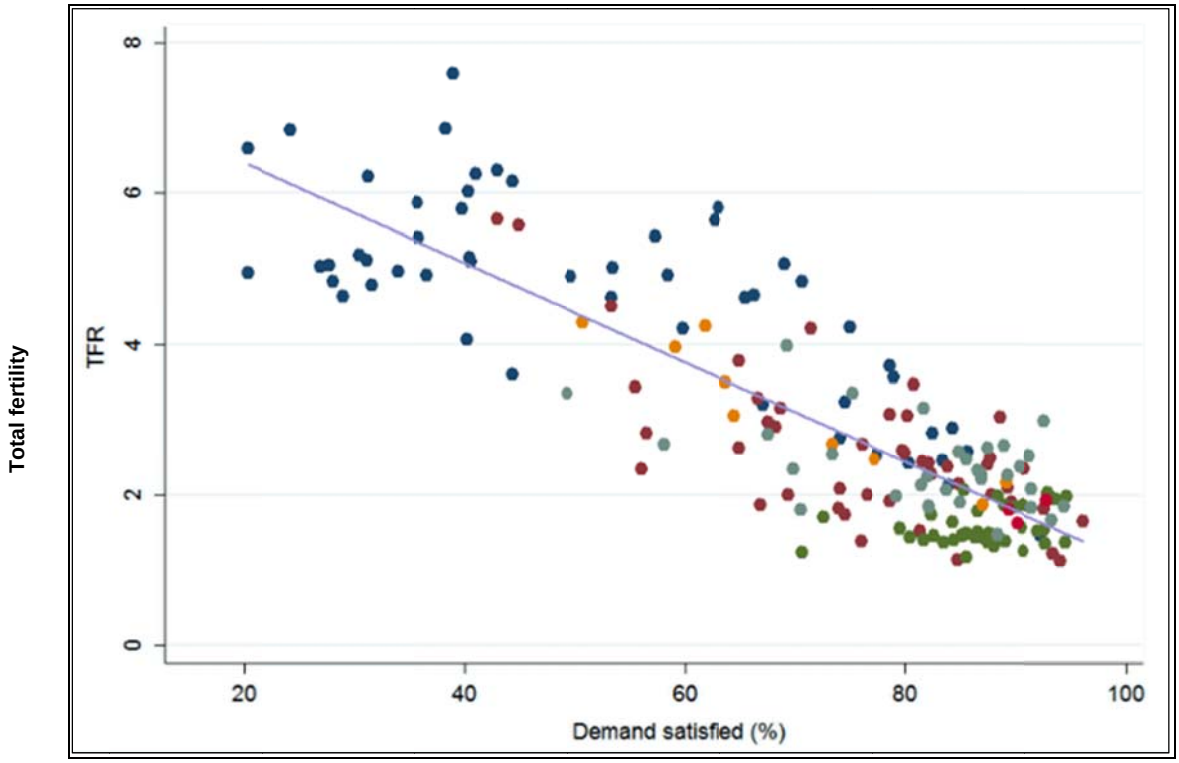
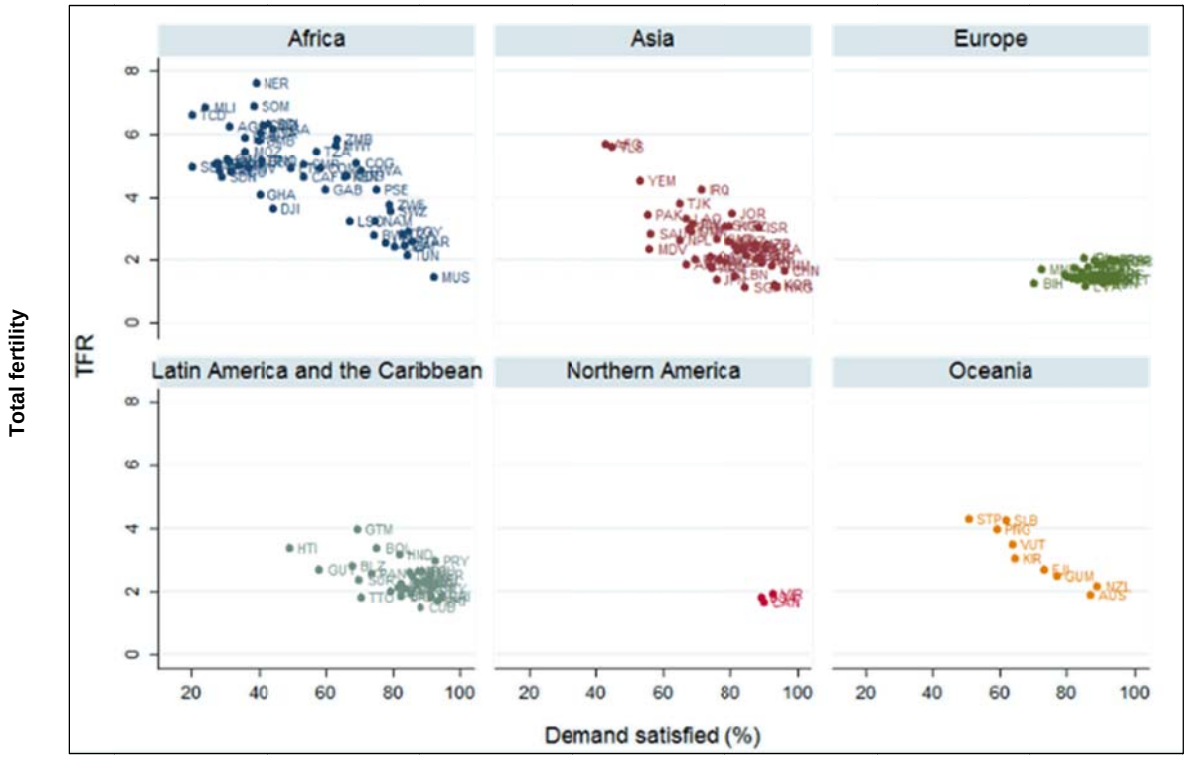


Figure III: Association between demand satisfied and total fertility rate by geographical region



In terms of fertility impacts of meeting the unmet need for family planning, an older evidence base shows that investments in family planning, where they have been made, have helped to accelerate fertility declines in many countries (Tsui, 2001; Maudlin and Ross, 1991). Although at the time of the ICPD this created the impression that the 'population problem' had been 'solved', many of the interventions to meet unmet need for family planning have not been taken to scale in the ensuing decades. Commentators have criticised complacency about fertility decline that has led to a 'disaster' for family planning in Africa in the decade up to 2008 (United Kingdom All Party Parliamentary Group on Population Development and Reproductive Health, 2007). Regarding the impact on mortality, the Guttmacher Institute estimated the impact on maternal and perinatal mortality and morbidity that meeting unmet need for family planning can provide. If all women in developing countries who currently have an unmet need for modern methods were served, then each year an estimated additional 54 million unintended pregnancies would be prevented, including 21 million unplanned births, 26 million abortions (of which 16 million would be unsafe) and seven million miscarriages; this would also prevent an estimated 79,000 maternal deaths and 1.1 million infant deaths (Singh and Darroch, 2012).

The most recent data on unmet need show some progress in the decade to 2010. Most countries, including many in sub-Saharan Africa, have less unmet need for family planning than at the turn of the century – even in Kenya, where stalling fertility has been observed. However, Ghana, Nigeria and Tanzania have seen increased unmet need and others have stagnated (see Figure IV). Clearly there may be supply side issues in some countries that may underscore the lack of progress, as well as increasing demand for contraceptives in some countries, but in many countries there remains a reluctance to use contraceptives. The most common cited reasons for non-use in a list of 39 countries where DHS data are available are: infrequent sex, sub fecundity and breastfeeding (together accounting for 44 per cent of the non-use reasons); fear of side effects (25 per cent of concerns); and a woman's own opposition to family planning. However, the reasons reflecting constraints on either a woman's agency (unawareness of methods, partner opposed) or the lack of a functioning supply system (cost too high or no known source

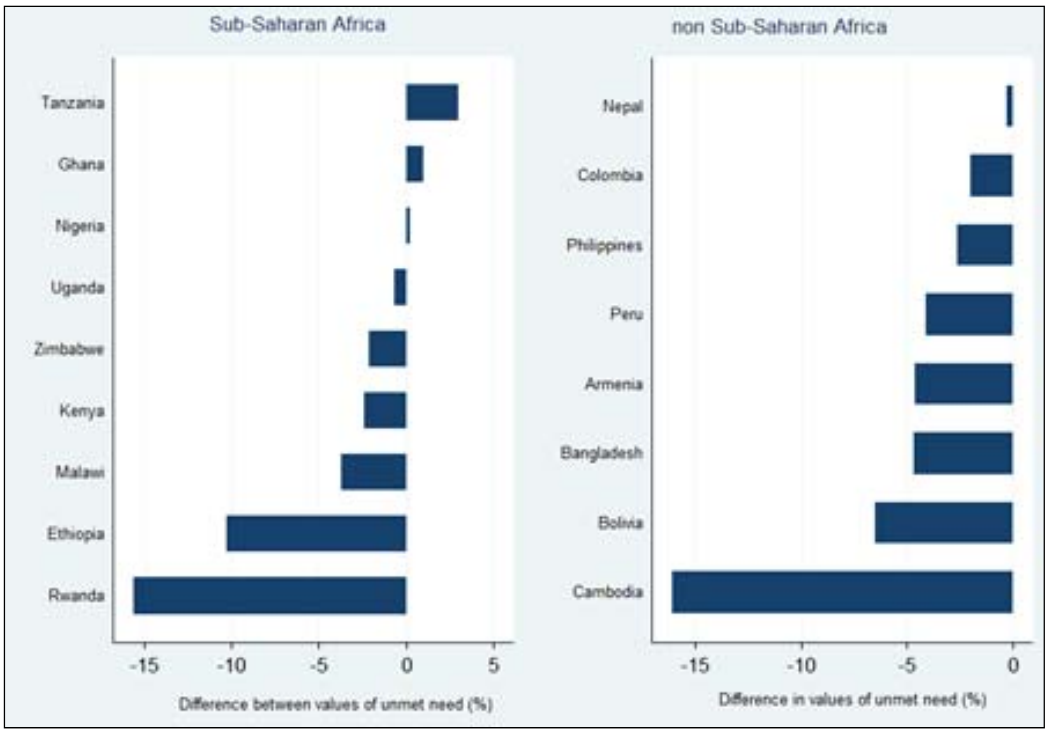
for methods) together constitute another 23 per cent of the reasons for non-use. In some countries these reasons can account for a relatively high proportion of non-use (see Table 1).

TABLE 1: PER CENT OF WOMEN THAT GIVE REASONS FOR NON-USE OF CONTRACEPTIVES RELATED TO AGENCY OR HEALTH SYSTEMS

Country	*Partner or other is opposed*	*Unawareness of method*	*High cost*	*No source/access problems*
Burkina Faso	11	5	12	19
Benin	6	12	5	15
Ethiopia	8	11	2	15
Madagascar	6	13	4	13
Mozambique	8	4	3	13
Uganda	14	5	7	13
Mali	10	10	4	11
Peru	5	0	3	11
Nepal	11	1	1	10
Chad	4	15	3	9
Mauritania	9	13	1	9
Nigeria	7	9	3	9
Cameroon	5	12	4	8
Ghana	3	7	8	8
Guinea	7	5	3	8
Tanzania	11	2	1	8
Bolivia	6	12	4	7
Cambodia	1	5	4	7
Zambia	6	1	1	7
Kenya	11	2	3	6
Nicaragua	7	2	2	6
Senegal	11	4	3	6
Gabon	7	8	9	5
Rwanda	7	6	2	5
Congo	6	8	8	4
Haiti	3	1	3	4
Lesotho	9	2	5	4
Malawi	7	1	1	4
Namibia	10	6	3	4
Zimbabwe	9	0	9	4
Bangladesh	6	0	1	3
Dominican Republic	2	1	3	3
Honduras	6	1	2	3
Indonesia	5	1	8	2
Philippines	7	1	8	2
Armenia	8	0	2	1
Colombia	3	0	9	1
Egypt	7	0	0	1
Morocco	1	0	1	1
Average	7	5	4	7

Source: DHS surveys in the time range 2000-2010, ordered by per cent access problems

Figure IV: The evolution of unmet need for contraceptives (2000-2010) from DHS surveys with two time points



NOTES: Country selection criteria were based on 1) the availability of data at or around [+/-2 years] 2000 and 2010 and similar time period between the two surveys (9-11 years). When a survey was carried out over a two-year time period, the older time point was used as a reference.

2. *Bridging the gap between low fertility and desired family size*

Low fertility and desired family size have been amongst the key socio-demographic issues on the agendas of most European countries. With the overall total fertility (TF) of 1.6 (Eurostat, 2013), the EU nations are projected to experience potential challenges in terms of their future labour force as well as healthcare and welfare provisions. Higher life expectancy combined with shrinking working-age populations and often unfavourable economic climate imply that more resources will be needed to care for the aging while the supply of these resources is at risk. In some countries, such as Italy, Austria and Greece, the TF is as low as 1.4 children per women (Eurostat, 2013). Comparatively, between 2005 and 2010, in Japan and the Republic of Korea the TFs were respectively 1.3 and 1.2 (UN, 2010). The reasons for these trends have been researched extensively and include changes in social norms and values, lack of stable employment prospects, higher educational attainment and labour participation of women as well as deficiency of policy responses at the state level (Kohler, 2006; Kohler et al., 2002; Morgan, 2003; Ní Bhrolcháin and Beaujouan, 2012; Gauthier, 2006).

Analysing the 2011 Eurobarometer on Fertility and Social Climate data, Testa found that around 30 per cent of men and women exit their reproductive age with less children than they initially intended (Testa, 2012). While in extreme cases, such as that of Cyprus, the difference between the actual family size and the personal ideal family size is more than one child, in all other EU nations the personal ideal family size is greater than the actual family size. In almost all these countries, the personal ideal family size is two or more children (Testa, 2012). Similarly, a recent study of desired family size in Hyogo, Japan found that the desired TF was almost 2.6 as compared to the actual TF of 1.8 reported in the sample under investigation (Matsumoto and Yamabe, 2013). In addition, the study found significant rural-urban differentials, with rural families showing a greater desire for larger families as compared to their urban counterparts.

From the human rights perspective, two key questions arise: 1) what are the reasons behind the gap between the actual low fertility and couples' desire for more children, and 2) are the ways in which governments try to incentivise couples to have more children fully compliant with individuals' reproductive rights? Regarding the first issue, an analysis of longitudinal household data from Spain found that unemployment and temporary contracts were positively associated with the fertility gap, while women working in public sector were more likely to achieve their desired fertility (Adsera, 2005). Within a context of rising unemployment and job insecurity, an inadequate institutional infrastructure is likely to exacerbate the existing fertility gap. Research on the discrepancies in Europe and the United States found that in addition to a different ethnic composition of the United States, a more flexible job market paid a key role in allowing couples to satisfy their reproductive choices (Kohler, 2006). However; while there is a broad debate around the type of support that States should provide in order for individuals to reach their desired family size, the other side of the coin is the risk of States' policies preventing couples from exercising their low fertility choices.

3. *Reducing early marriage – effects on adolescent fertility*

Any marriage before the age of 18 is considered by international human rights standards as child marriage yet the right to marry and found a family are rights of adults not children or adolescents (Cook, 1994) . Although in decline worldwide, a substantial proportion of girls in sub-Saharan Africa and South Asia will be married early, and if marriage patterns remain the same, it is estimated that more than 100 million young women will be married before age 18, and roughly 14 million will be married by age 15 in the next 10 years (Bruce, 2005).

Early marriage has been associated with elevated fertility rates and all the morbidities and mortality associated with early pregnancy (Raj et al., 2009). A review conducted by the Population Reference Bureau (2007) found that complications of pregnancy and childbirth are the leading causes of death among females aged 15 to 19, and girls who have children before 15 years of age are more than twice as likely as older mothers to die of pregnancy-related causes (Murphy and Carr, 2007). According to a review of the DHS from 51 countries, more than 90 per cent of first children born to mothers under 18 years of age were of mothers who were already married (Haberland N. et. al., 2005).

Early marriage is driven by a variety of factors such as poverty, social exclusion and cultural norms that perpetuate gender inequalities. Associated stigma and taboos related to adolescent sexuality limit access to contraception for youth increasing the likelihood of adolescent pregnancy. In the context of restrictive social and cultural norms, early marriage and child bearing are often seen by families as protective, as they are often unaware of the increased risk this may bring to the young bride or mother (Poletaev, 2013). Despite parental intentions, child brides are generally more vulnerable to gender based violence, and the sexual and reproductive health consequences of power differentials that can result from age differences such as sexually transmitted infections and unintended pregnancy (Erulkar, 2013). Once married and with child, she often drops out of school limiting her wage earning prospects and increasing her dependency on her husband and his family (Center for Reproductive Rights, 2013)

The connection between early marriage, adolescent childbearing and elevated rates of adolescent maternal mortality was recognized in Cairo by highlighting the critical role that education can play in preventing early marriage (ICPD Programme of Action, Principle 4 and para 7.41). The ICPD Programme of Action states that a child has the right to an adequate standard of living, health and education and to be free from neglect, exploitation and abuse. It supports numerous international human rights standards that strongly condemn child marriage. Beginning with the Universal Declaration of Human Rights that declared that "marriage shall be entered into only with the free and full consent of the intending spouses" (article 16 [2]; and followed by all pertinent human rights conventions thereafter (e.g. International Covenant on Economic, Social and Cultural Rights; CEDAW; CRC, and the International Covenant on

Civil and Political Rights), early and forced child marriage is universally recognised by the international community as a violation of the rights of children and adolescents (Center for Reproductive Rights, 2013).

The Convention on the Rights of the Child recognized that children are rights-holders, and the United Nations treaty-monitoring bodies that have explicitly noted adolescents have the same human rights, including reproductive rights, as adults have. However, as children or even adolescents, they lack the autonomy necessary for decision-making, and are most often in a situation of social and economic, and even physical vulnerability that makes the exercise of their rights nearly impossible. Thus in the case of early marriage we see the negative population level impacts when reproductive rights are violated.
To illustrate this impact, Figure V presents the macro level association between child marriage and adolescent fertility rate, while Figure VI allows for further disentangling of this association by different world regions. Concerning the first graph, one can notice a strong linear relationship between the two factors. Complementarily, the results of an unadjusted regression modelling show that, at the country level, an increase in child marriage is associated with significantly higher adolescent fertility rate (β=0.32, R2=0.66). The most visible patterns can be observed in Africa and Asia (Figure 6), despite a number of outliers in the second region.

Figure V: Association between child marriage and adolescent fertility rate

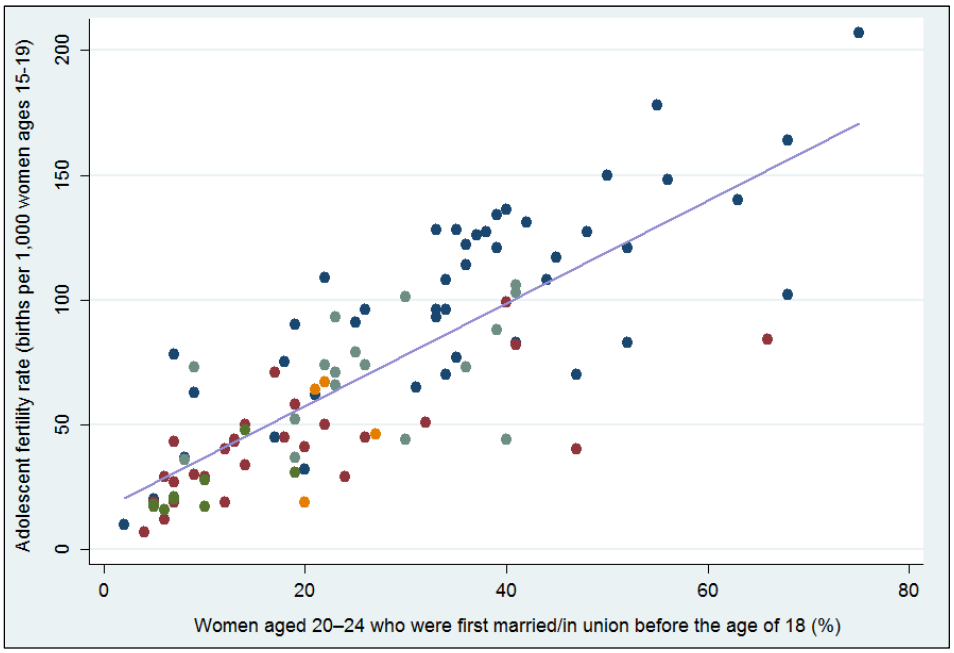


Figure VI: Association between child marriage and adolescent fertility rate by region

D. HYPOTHESISING BROADER IMPACTS ON POVERTY- TOWARDS A CONCEPTUAL FRAMEWORK

Various literature reviews have examined the further links between reproductive health and broader impacts on fertility and economic wellbeing. Greene and Merrick (2005), for instance, concluded that "poor reproductive health outcomes can undermine a household's chance as well as a country's chance of reducing poverty". Various authors (Hobcraft, 2003; Matthews and Falkingham, 2008) posit a range of conceptual frameworks linking population growth, reproductive health and poverty via population impacts (both at macro and micro levels) using extensive literature reviews. Matthews and Falkingham (2008) suggest the 'population dividend' (Bloom and Williamson, 1998; D.E. Bloom et al., 2003) as a way of changing a cycle of poor reproductive health and poverty into a virtuous cycle leading to economic wellbeing. More recently, Grepin and Klugman (2013) concluded that "investments in reproductive health are a major missed opportunity for development".

Commentators and experts are now asserting with increasing confidence that people are in poverty because of their lack of capacity to achieve reproductive health and rights (Leete and Shoch, 2003), and that the growth rate of poor people can be more than twice the overall growth rate of the population, thus raising enormous challenges for poverty reduction (Castilla, cited in All Party Parliamentary Group, 2007; United Kingdom All Party Parliamentary Group on Population Development and Reproductive Health, 2007). One of the first advocates to put the macro perspective back into the policy discussion around fertility, health and mortality reduction and see the potential of macroeconomic arguments to understand the consequences of these population issues was Jeffrey Sachs in 2001. His Report of the Commission on Macroeconomics and Health examined the possible economic benefits that could result from reducing mortality generally—and reducing avoidable mortality from HIV/AIDS and other communicable diseases, maternal complications and newborn conditions in particular–-thus adding economic clout to the moral imperatives enshrined in the Millennium Development Goals (Sachs, 2001). The Guttmacher Institute estimates that each dollar spent to move from current levels of modern method use to the full-needs-met scenario would save $1.40 in the costs of maternal and newborn health care.

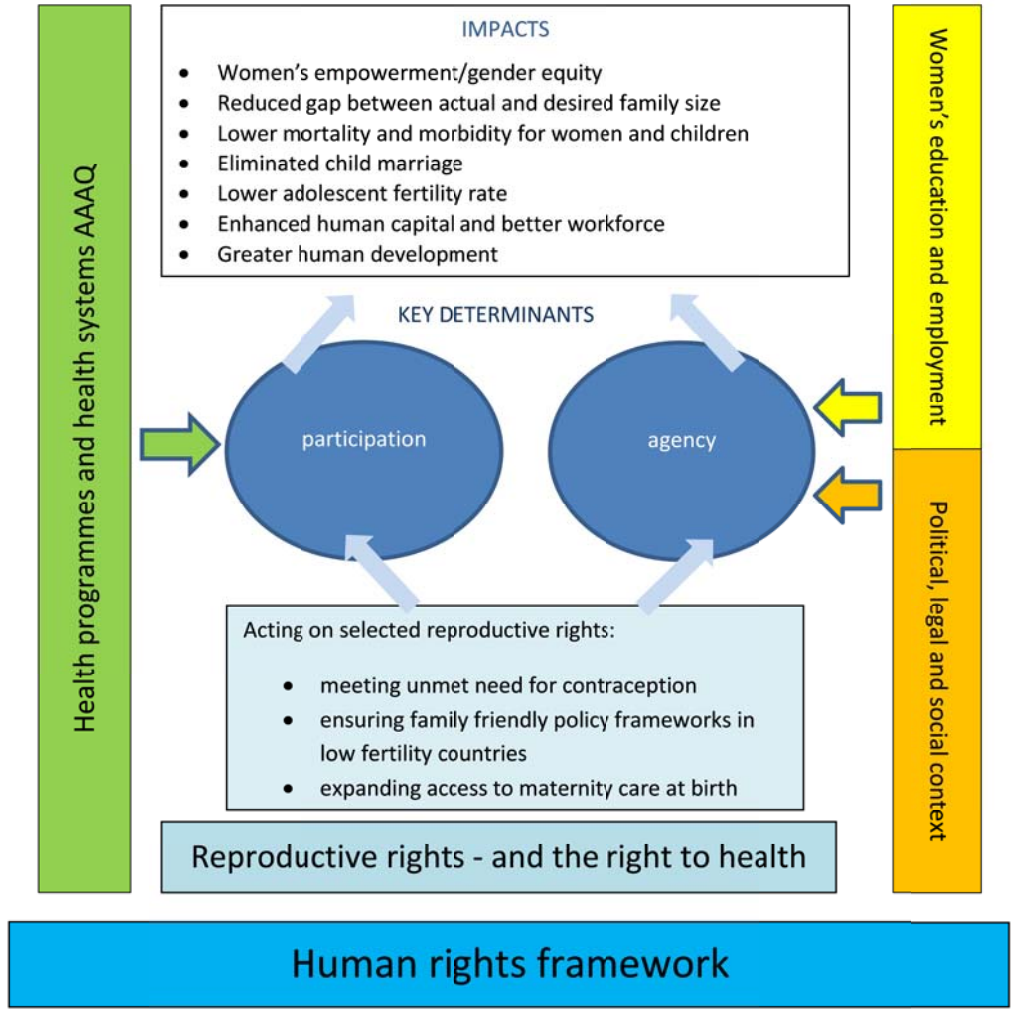
Spending the needed additional $4.1 billion for modern contraceptive services to meet the need of all women would save roughly $5.7 billion (Singh and Darroch 2012).

In another literature, the macro-economic effects of fertility reduction that would come from contraceptive use have been studied in the east Asian context, suggesting that reaping the effects of their 'demographic bonus' (Bloom and Williamson, 1998; D E Bloom et al., 2003) can be beneficial for a nation's economic wellbeing through capitalising on the human potential of a youthful population at a well-timed point in fertility transitions. In addition, a recent analysis of the impact of declining fertility on schooling dividends in Sub-Saharan Africa found the prospects of such dividends to be "promising" and established that most gains would likely be realised after the MDG deadline (Eloundou-Enyegue and Giroux, 2013) A much more sparse literature at the micro level relates a lack of contraception and reproductive health care and the adverse effect of these factors on the chances of the poor escaping poverty. Indeed, this secondary literature is more multifaceted because the micro level deals not only with household poverty, but also with individuals within households where power in decision-making may be compromised due to age, gender or other factors.

The examples of selected reproductive rights and macro-level impacts on fertility highlighted in this paper suggest a conceptual framework (Figure VII) to examine key mechanisms by which a human rights framework and specific reproductive rights influence population-level outcomes. Importantly, the human rights are closely linked to countries' health systems and ideally should be embedded in all health programmes and policies. As such, the "right to the highest attainable standard of health" is composed of four key health systems elements, including availability, accessibility, acceptability and quality (AAAQ). In addition to impacts on women's empowerment and greater gender equity, a human rights-based reproductive health approach has important implications for economic growth, poverty alleviation and the overall well-being of populations.

Crucially, both at the micro level and population level, the impact of enabling people to benefit from their reproductive rights is mitigated by women's ability to exercise their agency. This implies that women are able to pursue their goals and exercise their rights in a free, conscious manner. Women's agency has important consequences as it translates into access to schooling and employment. As such, women's agency can have a direct effect on gender equality and women's empowerment among other entitlements. Evidence suggests that countries which score high in the gender inequality index (GII) which include five indicators related to reproductive health (maternal mortality and adolescent fertility), empowerment (educational attainment above secondary school) and parliamentary representation) and labour market (labour force participation) also tend to have higher rankings in terms of the key developmental indicators. For example, according to the 2012 GII ranking, the first ten countries are all in the very highly developed category. Previous studies (Bunting, 2005; Sen Gupta, 2005) highlighted the two-directional relationship between education and women's ability to exercise their reproductive rights. On the one hand, educated women are more likely to have greater self-esteem and confidence. On the other hand, at the macro-level, societies where women's reproductive rights are guaranteed are able to benefit and take advantage of additional human capital.

Figure VII: Conceptual framework representing population-level impacts of enabling people to exercise their reproductive rights



However the same bi-directional relationship can be seen to act in a negative way. In many communities, child marriage continues to take place despite girls' will, and laws that prevent marriage before age 18. Early pregnancy hinders girls' opportunity to continue education and consequently often leads to dependency and poverty. While contraceptive methods can be available and accessible, girls, and women might refuse using them for cultural or religious reasons. Yet, at the population level, contraceptive prevalence is strongly correlated with women's educational attainment. In that sense, reduction in investments in reproductive health can have a dramatic effect not only on gender equality and women's empowerment, but can also hamper human capital development in countries.

E. New opportunities and challenges to making further progress in the full exercise of reproductive rights

1. *Opportunities—education, health systems strengthening and accountability*

In contexts where conflict and disaster have not decimated national systems, the gradual upgrading of health systems is an opportunity for optimism with regards to the reproductive rights and health and development virtuous cycle. The expansion of primary education and improved access to secondary and

tertiary education are similarly an opportunity to foster a better enabling environment for extending women's agency and increasing their participation in the workforce.

Accountability mechanisms are still in their infancy, but many advances in holding responsible actors (duty-bearers) to account both at local and national levels are likely to help to close the gap between the rhetoric on improving health systems and the realization of extending effective quality coverage. The recently established Commission for Information and Accountability for Women's and Children's health has focussed on accountability mechanisms such as maternal death reviews, and the availability of data down to local levels (WHO: Commission on Information and Accountability for Women's and Children's Health, 2011). There is some way to go – but many countries are taking up the opportunities related to improved data management and transparency, and the use of maternal death review information not only for compiling statistics, but to take action on the results. The success of scorecards initiatives is one example of the willingness of actors at national and local levels to get engaged in looking at local performance and making sure the data are used as strategic intelligence to improve health and health services, rather than just a data collector's chore. A slower evolution has been seen in the moves to improve birth and death registration, but these basic sources of information are crucial to planning, and the calculation of death rates and fertility rates too.

2. *Challenges—status of women, violence and women's employment*

Full exercise of one's reproductive rights is dependent upon equal status in the home, family, community and society more generally. Gender equality, however, is not the norm, particularly in countries where autonomy in reproductive decision-making is most constrained. In contexts of gender discrimination, where restrictions, exclusion or any other distinction is made on the basis of socially-constructed gender roles and norms that prevent the full enjoyment of one's human rights, women's status is often the lowest. Social institutions that introduce and reinforce gender norms are supported by country laws and policies that formalise the inequalities. The result is socially-prescribed roles for girls and boys, women and men, which often place greater value on boys and men than on girls and women. This systematic devaluation of girls and women underlies many reproductive health challenges from low education rates of girls to the lack of power to make decisions on matters related to one's own health to the high rates of violence girls and women suffer within their own homes and communities. The continuing practice of sex-selective abortion is testimony to the inferior status given to women in society.

Gender norms are slowly changing in some settings. Increased educational achievement in recent years has increased economic opportunity for women (Grepin and Klugman, 2013). More education among women is reflected in greater uptake of modern methods of family planning, greater utilisation of health services, and ultimately fewer reproductive morbidities and mortality (Grepin and Klugman, 2013). But despite these advance, much more attention is needed to improve the status of women – a necessary precondition for the exercise of reproductive and other rights.

3. *Adolescent reproductive health—a challenge and an opportunity*

Today's adolescents and youth aged 15 to 24 are 1.8 billion strong and make up one quarter of the world's population (UNFPA, 2012). Today's young women and men have greater aspirations and many strive for a better life through education, economic opportunity, good health care and jobs to support themselves and their future families. They are better connected via mobile technology and have greater access and information to global messages and commodities. They are shaping social and economic development, challenging social norms and values, and building the foundation of the world's future. Maturing earlier than previous generations, both physically and socially, adolescents and youth have high expectations for themselves and their societies, and are imagining how the world can be better.

While notable progress has been made, many adolescents — especially girls — lack the investments and opportunities that they need to realize their full potential. For millions of young people

around the world, puberty — the biological onset of adolescence — brings not only changes to their bodies but also new vulnerabilities to human rights abuses, particularly in the arenas of sexuality, marriage and childbearing. Millions of girls are coerced into unwanted sex or marriage and many face the high risk of unwanted pregnancies, unsafe abortions, sexually transmitted infections and HIV, and dangerous childbirth (Gore et al., 2011). Thus, despite the incredible resources they present, young people's capacities are often overlooked, stifled or underutilised, particularly due to socio-cultural and institutional norms that limit their enthusiasm, opportunities and chances for a better life.

At the forty-fifth session of the United Nations Commission on Population and Development in 2012 that reviewed the progress on ICPD, a landmark consensus among Governments was reached on the importance of recognizing the rights of adolescent girls and boys to decide on matters relating to their sexuality and reproduction, free of violence, coercion and discrimination, and to have the necessary information and health service to do so (United Nations Division of Economic and Social Affairs, 2012). This consensus demonstrated the international community's recognition of the opportunity young people present if they are afforded the same human rights as everyone else to determine their reproductive life.

Adolescence and the reproductive health rights of adolescents are a very substantial challenge. Adolescents are also our collective future on which a possible 'demographic dividend' may be based in many countries. The demographic impact of reproductive rights both positively and negatively will be experienced by today's young people thus their role in the world's development should not be overlooked.

F. CONCLUSION

From the three examples of reproductive rights described in this paper that have been extended with potentially far-reaching population fertility and wider effects, the impact – although suggested by an evidence base that is incomplete – is likely to be far reaching. However, slow progress in women's status, employment and the context for change will hold back these impacts, especially if actions to extend reproductive rights to adolescents are slowed or even avoided. If young people's rights are recognised and ensured, development and progress in terms of health improvements can be achieved.

As the international community prepares for the renewal of global development goals, the need to appreciate the positive force of international human rights–and the associated reproductive rights–in securing positive demographic impacts must not be ignored. Human rights, as the underlying basis from which ICPD goals and its guiding principles were implemented, were critical for achieving the significant progress made in the last 20 years.

Recent proposals for goals on sustainable development (Sustainable Development Solutions Network, 2013), however, reveal that arguments for 'voluntary fertility reduction' in the 'planetary boundaries' section for sustainable development are not likely to be a direction that bears fruit, even if accompanied by rights language. In addition, the current suggestions on how to express aspirations for health in this new formulation are not underpinned by human rights standards – even though the words 'reproductive health' are mentioned specifically as a key part of health. Lessons from past successes show that targets to improve health and reproductive health must have a rights basis if we are to continue to make progress. All girls, women, young people and vulnerable groups should be provided with the means to express their reproductive choices for their and our sustainable future. The new global goals must also expressly include adolescents as a specific target population. The lessons from the ICPD legacy have included attention to an international understanding of human rights underpinning of reproductive health. Future goals or targets on health need to be expressed within clear human rights language that can be understood broadly and not open to interpretation. Only then can we assure that progress made is collective, shared and enduring.

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