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JHARKHAND

Population and Development

A Discourse on Family Planning in Jharkhand

Purpose of this brief

This policy brief takes a look at the progress made by Jharkhand with respect to the family planning, and the reproductive and child health indicators in the state, the impact of increasing population on the health of the people, and overall development and resources of the state. The brief has two sections. In Section I data from the National Family Health Survey (NFHS), Sample Registration System (SRS), Census 2011, Annual Health Survey (AHS), and the Registrar General of India (RGI) Population Projections 2006 has been analysed to inform the national- and state-level policymakers and experts on the current status of Jharkhand's family planning programme. Section II of this brief presents population projections to inform the future course of population dynamics, estimate the resources required for family planning, and highlight the state's contribution to the achievement of the country's replacement level of fertility. The elaborate exercise of developing these projections was undertaken in 2012–13, and thus considers AHS, 2010–11 data.

Health Goals for India: 12th Five-Year Plan

- Reduction in Infant Mortality Rate to 25.
- Reduction of Maternal Mortality Ratio to 100.
- Reduction of Total Fertility Rate to 2.1.
- Prevention and reduction of anaemia among women ages 15–49 years to 28 per cent.
- Raising child sex ratio in the 0–6 age group from 914 to 950.

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SECTION I

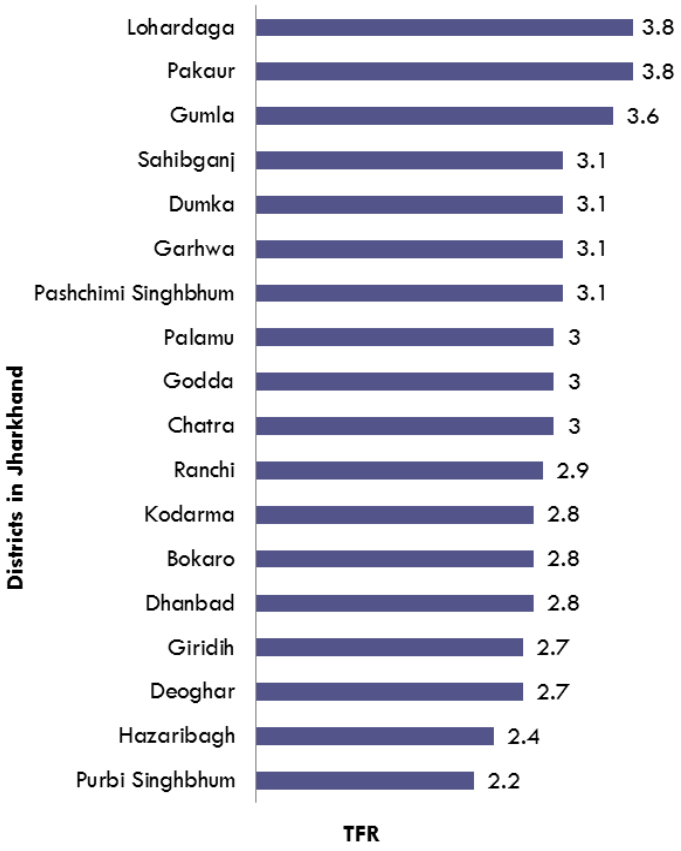
A. Increasing population in Jharkhand

Jharkhand was formed just over a decade ago (2000), out of parts of south Bihar, combining the regions of Chotanagpur and Santhal Pargana. Given its provenance, the state began with an adverse legacy of high levels of malnutrition and poverty, low levels of literacy and per capita income, and high income inequality.

Between 2001 and 2011, the population of Jharkhand has increased from 2.6 crore to 3.3 crore, an increase of seven million or 21 per cent in a decade. The district-wise total fertility rate (TFR)—the average number of lifetime births per woman by the time she reaches age 50—varies from 3.8 in districts like Lohardaga and Pakaur to 2.2 in Purbi Singhbhum.

Figure 1 shows district-wise TFR in Jharkhand, and the difference in the TFRs of various districts. Districts like Lohardaga, Pakaur and Gumla need special focus in addressing their high TFR. Around 55 per cent of the districts have a TFR higher than 3, and 45 per cent have a TFR between 2 and 3, as per the AHS, 2011–12. Table 1 categorises the districts of Jharkhand according to their TFR.

Figure 1: District-wise TFR in Jharkhand. Source AHS 2011-12.



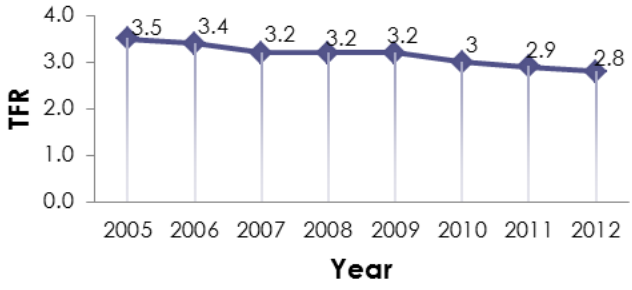
TFR (AHS 2011-12)	# of districts	%age
3.5 – 3.9	3	16.6
3 – 3.4	7	38.8
2.5 – 2.9	6	33.3
2.2 – 2.4	2	11.1
Total	18	100

Table 1: Districts categorised as per TFR. Source: AHS 2011–12

B. Slow and steady fertility decline in Jharkhand

Jharkhand's TFR has dropped consistently between 2005 and 2012, i.e. from 3.5 to 2.8 (SRS 2005–2012) (Figure 2). The TFR of Jharkhand is currently 2.8 children per women (SRS, 2012). According to RGI Population Projections (2006), Jharkhand is likely to achieve replacement-level of fertility (i.e. 2.1) by 2018.

Figure 2: Trend in TFR in Jharkhand since 2005. (Source: SRS 2005-2012).



C. Drivers of increase in population that need to be addressed

Increase in population is a cumulative effect of fertility and mortality indicators, along with socioeconomic determinants. Key actions requiring urgent attention to ensure a check on the increasing population include:

C1. Reducing early marriage: Early marriage increases the length of time for which a girl is exposed to pregnancy, which in the absence of use of a family planning method can lead to higher levels of fertility affecting the overall population momentum. This is one of the key issues affecting Jharkhand, with around 35.9 per cent girls getting married before the age of 18 years (DLHS-3, 2007–08). Recent AHS (2011–12) data shows that a high percentage of currently married women (ages 20–24 years) i.e. 48.3 per cent are married before the legal age of 18 years in Jharkhand. Girls completing schooling and higher education, and being gainfully employed results in their marrying at a later age, planning their families and becoming socially and economically empowered. Thus, focus needs to increase on enrolling girls in school, reducing drop out rates, and providing opportunities for higher education and employment. State departments need to emphasise on increased health and life-skills education in schools, increased counselling of young women by Accredited Social Health Activists (ASHA), Auxiliary Nurse Midwives (ANM), and other door-to-door and mass media campaigns.

C2. Reducing early childbirth: Early marriage is potentially linked to early childbirth, as it keeps the fertility levels high. As per AHS, 2011–12, 46.7 per cent women ages 15–19 years in Jharkhand were already mothers or pregnant at the time of the survey. Improved health education and community engagement at the community level by ASHAs and ANMs can help change social norms around expectations of first child immediately after marriage.

C3. Improving Maternal Mortality Ratio: Women who begin childbearing when they are younger than 18, are also at increased risk of complications during their pregnancy and during delivery. Jharkhand's maternal mortality ratio (MMR) was 517 in 2003. It has come down to 219 (SRS, 2012), a healthy improvement (collective figures from Jharkhand and Bihar). However, it still continues to be high as compared to India's MMR of 178 (SRS, 2012). The pace of progress will need to be accelerated in order to reach the 12th Five-Year Plan goal of bringing down MMR to100 by 2017. There is a need to improve health service delivery, ensure availability of supplies and equipment, utilise funds effectively, ensure rigorous follow ups and provide continuum of care.

C4. Bringing down Infant and Under-Five Mortality Rates: The death rates of infants and children under the age of five in Jharkhand are 38 and 50 respectively (SRS, 2012), better than most of the EAG states and also the India figures. Infant mortality rate (IMR) and under-five mortality rate for India are 42 and 52 respectively. The state needs to make focused attempts to further improve the IMR and under-five mortality by ensuring universal immunisation coverage; early detection and treatment of

Figure 3: Maternal Mortality Ratio in select Indian states. (Source: SRS 2012).

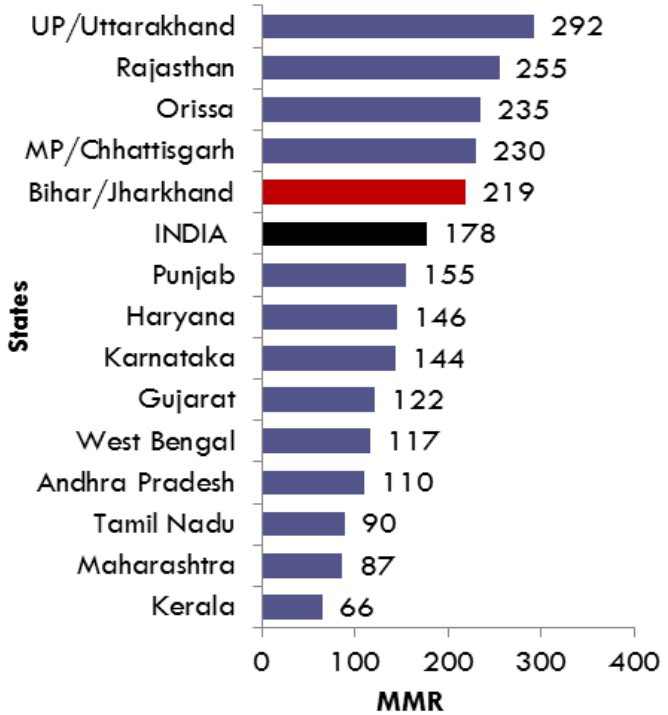
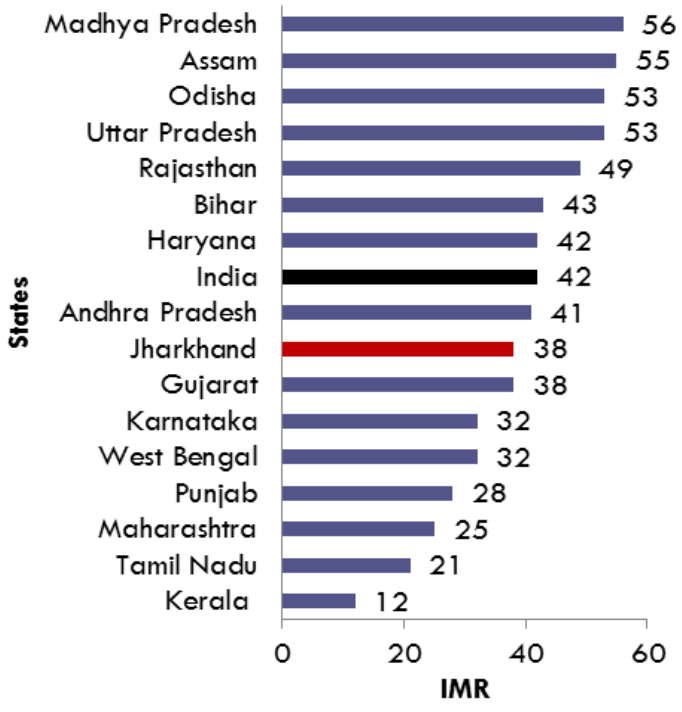


Figure 4: Infant Mortality Rate in select Indian states. (Source: SRS 2013).



diarrhoea, pneumonia and malnutrition; community activation for wellbeing of children through the Village Health and Nutrition Days; improved access to quality nutrition supplementation at the Anganwadi centres; and reduction in harmful traditional practices for treatment of childhood illnesses.

C5. Improving contraceptive use among currently married women: Contraceptive prevalence rate (CPR) is the proportion of women of reproductive age using (or whose partner is using) a contraceptive method at a given point of time. The CPR in Jharkhand is 43.9 per cent for any modern method (AHS, 2011–12), still below the CPR in India. The CPR in India (as per DLHS-3, 2007–8 estimates) is 47.1 per cent. State departments need to increase: access to quality contraceptive products and services through door-to-door delivery; postpartum IUCD for women who are delivering under JSY; male involvement and adoption of sterilisation; Family Planning week celebrations; efforts towards demand generation; and health education at the community level.

C6. Addressing high unmet need for family planning: Unmet need is defined as the proportion of women who want to delay or limit childbearing but are not using any family planning method (traditional or modern). Based on the AHS, 2011–12 data, 22.6 per cent currently married women in Jharkhand have an unmet need for family planning. The national figures for unmet need are 21.3 per cent (DLHS-3).

D. Family planning saves lives

Investing in family planning will help improve health and development in Jharkhand. In this direction following actions would be required:

- **Help couples in Jharkhand achieve desired family size.** Fifty-four per cent of women and 55 per cent of men consider the ideal family size to be two children or less (NFHS-3, 2005–06). NHFS-3 also elaborates that more than sixty per cent of currently married women (60% of women and 64% of men), either want no more children, are already themselves sterilised, or have a spouse who is sterilised. Among those who do want another child, a little more than half would like to wait at least two years before having their next child. Notably, the proportion of currently married women with two children who want no more children is higher in NFHS -3 than in the NFHS-2, irrespective of the number of sons, a strong factor affecting desire for more children (64% in NFHS-3 and 44% in NFHS-2).
- **Reduce childbearing risks.** High-risk births are a major cause of illnesses, disability and premature death among mothers and children (Feranil and Borda, 2008). High-risk births are defined as those that are spaced less than two years apart or born to mothers who are younger than 18 or older than 34, or who have more than three children. Infant mortality is 99 deaths per 1,000 live births in teenage mothers, compared with 66 deaths per 1,000 live births born to mothers ages 20–29 (NHFS-3). As per NFHS-3:
  - ◊ Bearing children too close together in time is especially risky.
  - ◊ Children born less than two years after a previous birth are at a nearly 60 per cent greater risk of death than children born to mothers who waited two or three years between births, and three times greater than children born to mothers who waited four or more years between births.
  - ◊ Children whose mothers have no education are more than twice as likely to die before their first birthday as children whose mothers have completed at least 10 years of school.
- **Save lives:** As per UNFPA estimates widespread use of family planning could lower MMR by 20 per cent and IMR by as much as 25–30 per cent in developing countries. Spacing pregnancies farther apart can help women affected by anaemia and malnutrition become healthier and better prepared for pregnancy in the future and thus, have healthier babies. For women for whom pregnancy poses substantial health risks and for those who do not want any more children, voluntary sterilisation can be an option to prevent pregnancy permanently.

Population projections and expected levels of achievement for Jharkhand

This section presents the expected levels of achievement (ELA) for Jharkhand to address its unmet need for family planning along with the population projections for the state till 2022. The projections include the increase in population, projected number of acceptors of family planning methods, the increased demand for contraception, and projections of IMR and under-five mortality rate. In keeping with the urgent need to address the family planning requirements in the state, these projections are intended to inform the family planning programme and help the state gear up for future requirements to strengthen the family planning programme. These projections were developed in 2012–13, and thus consider AHS 2011–12 data.

A. Inputs and projection period

The population projections and the estimation of ELAs in Jharkhand and India took into consideration a set of inputs and assumptions. Two scenarios were considered—one with changed method mix and the other with an unchanged method mix.

- To compute the population projections, the universally accepted "Component Method" has been used. As per the method the population growth of a given geographic location is determined by three components: fertility, mortality, and migration.
- SPECTRUM Suite, a software package developed by Futures Group, was used to compute population projections and ELAs. In particular two models—DemProj and FamPlan—have been used to project the population, and family planning requirements, needed to reach the national goals to address the unmet need.

In view of the two subsequent plan periods (12th and 13th five-year plans), the projection period has been determined as 2011–22.

B. Assumptions and goal setting

The goal of reaching the unmet need for contraception has been fixed while keeping in mind the estimates of reaching the TFR of 2.1 provided by the Expert Committee on Projections, 2005–2006 (Office of the Registrar General of India, 2006). It is assumed that the unmet need for contraception will not fall beyond 4.7 per cent (Andhra Pradesh's level, NFHS-3, 2005–06), which has been the lowest in the country.

The overall goal is to "meet 50 per cent of the current unmet need for family planning (23.2%, AHS, 2010–11)." This will result in increasing the modern CPR from 37.8 per cent in 2010–11 to 53.1 per cent in 2022.

C. Scenarios for projections

Two scenarios have been created for population projections and ELAs:

Scenario A: Change in method mix proposed (based on the state's current level) for the projection period (2011–22).

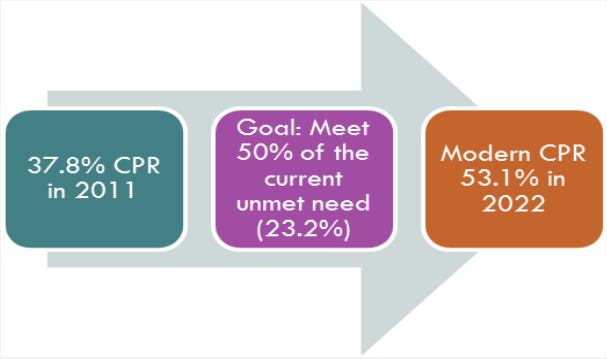
Scenario B: The method mix will remain unchanged during the projection period (2011–22).

Currently, the method mix in Jharkhand is 78 per cent (at the AHS, 2010–11 level) for limiting methods against 22 per cent for spacing methods.

If Jharkhand has to reduce 50 per cent of its current unmet need, the CPR will need to increase from the current 37.8 per cent (AHS, 2010–11) to 53.1 per cent in 2022 (projected figures).

For Jharkhand, as per Scenario A the change in method mix proposed, based on the state's current

These projections have been taken from a Technical Report that was commissioned by the Ministry of Health and Family Welfare (MoHFW) to the Health Policy Unit, under the guidance of Dr R K Srivastava, Sr. Policy Analyst, (ex-Director General of Health Services, MoHFW), at the National Institute of Health and Family Welfare (NIHFW). NIHFW constituted an expert group under the Chairmanship of Dr Arvind Pandey, Director, National Institute of Medical Statistics, with experts from various technical organisations to provide technical directions to estimate the population projections and ELAs. Data analysed and presented have been collated from various sources, including Census publications, SRS Bulletins, three rounds of NFHS and DLHS, AHS (2010–11), and Family Welfare Statistics in India (of MoHFW), and other published materials.



level—for the projection period (2011–22)—is 70 per cent of limiting methods and 30 per cent of spacing methods.

Scenario B with unchanged method mix during the projection period proposes 78 per cent limiting methods and 22 per cent spacing methods.

D. Population projections

Table 2 presents the projected population for India and Jharkhand as part of the two different scenarios. India's population is likely to exceed 1.30 billion by 2017 before reaching 1.38 billion in 2022. Jharkhand will add 3.4 million by 2017, and an additional 2.8 million by 2022 (Scenario A) as per these population projections. The projections indicate that under both the Scenarios, the population projection in Jharkhand is very close till 2017. As per Scenario A the population of Jharkhand would be 39.2 million in 2022, whereas the projections against Scenario B show the population at 38.2 million.

	Table 2: Projected Population as per Scenario A (Millions) for Jharkhand								
State	2011			2017			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Jharkhand	16.9	16.1	33.0	18.7	17.8	36.4	20.0	19.2	39.2
India	623.1	587.4	1210.6	671.5	634.3	1305.9	708.7	669.8	1378.5
	Projected Population as per Scenario B (Millions) for Jharkhand								
Jharkhand	16.9	16.1	33.0	18.7	17.8	36.4	19.1	19.1	38.2
India	623.1	587.4	1210.6	671.6	634.4	1306.1	709.1	670.2	1379.3

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E. Contraceptive method mix

If Jharkhand has to increase its CPR from current 37.8 per cent (AHS, 2010–11) to 53.1 per cent in 2022 (projected figures); reduce at least 50 per cent of its total unmet need; and meet the demand for spacing (total=30.5%, spacing=16.2% and limiting=14.3%, AHS, 2010–11), a change of current method mix is proposed.

Instead of the current method mix (78% limiting & 22% spacing—Scenario B), Jharkhand could adopt a method mix of 70 per cent limiting and 30 per cent spacing (Scenario A) whilst ensuring improved counselling for clients to make informed and voluntary choices and provision of quality services, and not loosing momentum of the uptake of spacing methods. As per the projections of Scenario A, 1.23 million women will require contraceptives for spacing and 0.16 million will require limiting methods.

Table 3 and 4 present the projected number of acceptors of spacing and limiting methods under both the scenarios.

Table 3. Projected number of acceptors for spacing methods: Scenario A, if Jharkhand and India change the method mix (Limiting= 70% and Spacing= 30%) Numbers (Million)

State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Jhark-hand	0.55	0.57	0.62	0.67	0.73	0.8	0.87	0.93	1	1.07	1.15	1.23
India	31.04	32.52	33.12	33.74	34.34	34.89	35.42	35.97	36.49	36.98	37.44	37.92
Projected number of acceptors for spacing methods: Scenario B, if Jharkhand and India continue as today (Limiting= 78% and Spacing= 22%)												
Jhark-hand	0.55	0.57	0.59	0.62	0.66	0.69	0.73	0.76	0.8	0.83	0.87	0.91
India	31.04	32.08	33.0	33.9	34.96	35.91	36.85	37.84	38.82	39.79	40.75	41.7

Table 4. Projected number of acceptors for limiting methods: Scenario A, if Jharkhand and India change the method mix (Limiting= 70% and Spacing= 30%) Numbers (million)

State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Jhark-hand	0.13	0.12	0.15	0.16	0.16	0.18	0.16	0.16	0.16	0.17	0.16	0.16
India	5.17	5.05	5.3	5.34	5.37	5.39	5.66	5.7	5.75	5.81	5.88	6.07
Projected number of acceptors for limiting methods: Scenario B, if Jharkhand and India continue as today (Limiting= 78% and Spacing= 22%)												
Jhark-hand	0.13	0.14	0.17	0.19	0.2	0.2	0.2	0.2	0.21	0.21	0.22	0.23
India	5.14	4.85	5.07	5.1	5.12	5.12	5.36	5.38	5.41	5.46	5.5	5.63

F. Increased demand for contraception

The number of married women in the reproductive age group (MWRA) will also increase over time, as the table below suggests (Table 5). These women will require contraceptives. Jharkhand will have to ensure access to a wide range of quality contraceptive products and services.

Table 5: Projections of MWRA for India and Jharkhand under Scenario A and Scenario B (Numbers in millions)

State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Jharkhand	6.8	6.9	7.1	7.2	7.4	7.5	7.6	7.7	7.8	7.9	7.9	8
India	237.7	242.2	246.6	250.8	254.8	258.6	262.1	265.5	268.6	271.5	274.3	277

G. Contraceptive use and its influence on infant and child mortality

IMR is a serious health concern and directly associated with fertility rate along with other socioeconomic factors. With lower contraceptive use, there are chances of higher IMR. It seems that Jharkhand will fall short of achieving its Millennium Development Goal (MDG) for IMR of 28 per 1,000 live births by 2015. The situation regarding under-five mortality is similar. Table 6 projects the possible infant and under-five mortality rates that Jharkhand will have to plan for.

This indicates an urgent need to adopt strategies in a mission mode to control population growth, address unmet need, increase age of marriage and first birth, and engage multiple stakeholders in increasing access to quality family planning services.

Table 6: Projections for IMR and Under-5 Mortality for Jharkhand and India

	IMR			<5 MORTALITY		
	2012	2017	2022	2012	2017	2022
Jharkhand	44.3	36.6	29.6	57.6	45.9	36.1
India	41.3	34.1	27.3	52.1	42	33.1

H. Greater investment in family planning is the need of the hour in Jharkhand

Family planning saves lives by helping women prevent unintended pregnancies, delay early childbearing, and space births at least two years apart. In summary, meeting the unmet need for family planning reduces fertility rates, leading to improvements in women's and children's health. The population of Jharkhand is likely to increase at a slow pace in both the scenarios. Thus, the state functionaries need to systematically expand access to family planning services and address the unmet need for family planning.

The state will need to ensure additional focus on:

- Increasing access to a wide range of quality contraceptive products and services.
- Placing increased importance on spacing methods and encouraging spacing between children among couples.
- Encouraging increased participation of men in family planning.
- Increasing human resources and health facilities to address the unmet need for family planning.
- Accelerating efforts towards addressing the socioeconomic factors that impact fertility. These include: increasing the age of marriage for girls; increasing education levels among girls and women; and creating more employment opportunities for women.

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