

SUPPORTING TRANSITIONS FROM ADOLESCENCE TO ADULTHOOD

Evidence-informed leads for investment



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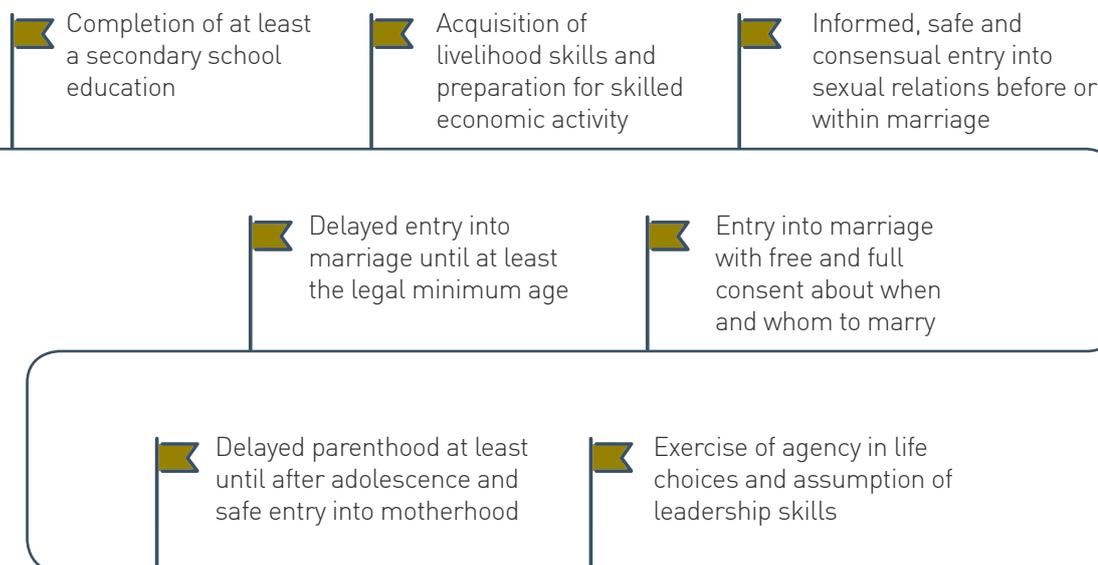
EXECUTIVE SUMMARY

According to India's 2011 census, 365 million people in the country – nearly a third (30.1%) of the country's population – are young people aged 10–24. Whether India achieves the Sustainable Development Goals, whether it achieves its population stabilisation objectives and whether it realises the advantage of its demographic dividend will depend on the nation's investment in these young people.

There are encouraging signals that reflect India's recognition of the vulnerabilities faced by young people and its commitment to promoting their development needs and protecting their rights. Several ministries are implementing programmes directly focused on the multiple dimensions of adolescent life. These include the Ministry of Human Resource Development's (MOHRD) Sarva

Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Adolescence Education Programme (AEP), the Ministry of Skill Development and Entrepreneurship's (MSDE) National Skill Development Mission, the Ministry of Health and Family Welfare's (MOHFW) RMNCH+A programme, Rashtriya Kishor Swasthya Karyakram (RKSK) and their multiple components, the Ministry of Women and Child Development's (WCD) Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA scheme) and Kishori Shakti Yojana (KSY) programmes, and the Ministry of Youth Affairs and Sports' (MOYAS) youth leadership programme [Nehru Yuva Kendra Sangathan (NYKS) programme]. Numerous NGOs are also implementing programmes intended to ensure a successful transition to adulthood.

Markers of a successful transition to adulthood are multifaceted and include:

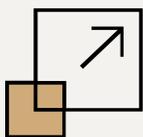


Despite national attention to adolescent transitions, questions remain about whether programme investments are indeed evidence-informed and likely to be effective. This review synthesises the global and Indian evidence on what works and what is promising in improving schooling outcomes, enhancing employability, improving sexual and reproductive health outcomes, and empowering the young. It analyses the kinds of interventions implemented in India by the government and others,

identifies gaps, and makes recommendations about promising investments or promising modifications to existing programmes for adolescents.

The review concludes, from the global and/or Indian literature, that several programmes hold promise. Ten interventions stand out that have direct relevance for ongoing state- or national-level programmes, at different levels of readiness for replication and scale-up.

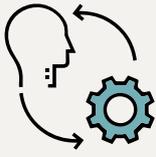
Promising models for future investment



Ready for replication and scale-up

Readiest for replication and scale-up are two interventions that have been shown to be effective in promoting adolescent wellbeing globally and/ or in India, either at state-level or in multiple evaluations in smaller settings. Both interventions focus on keeping adolescents in school and improving their learning outcomes.

- 1. Supplementary coaching (remedial education) and teaching at the right level** have been shown, in multiple studies in different parts of the country (Andhra Pradesh, Bihar, Haryana and Uttar Pradesh) to improve learning outcomes among vulnerable students in primary school. There is potential for similar models to be replicated at scale in public sector platforms at district and state levels. Investments are also needed to extend the programme to secondary school students, include additional topics, track impact on both learning outcomes and secondary school completion, and forge collaborations for programme implementation together with state governments.
- 2. Providing girls entering secondary school with bicycles** to improve their physical accessibility to schools has proven successful in promoting secondary school enrolment and completion among girls in Bihar. The programme has been adapted and implemented in several states, and has potential for wider scale-up. Scale and replication would be well-informed by efforts to evaluate effects on school completion and later life outcomes, reach the most vulnerable girls, and track and learn from implementation challenges.



Need for adaptation and implementation

There are four interventions for which there is strong global evidence, but evidence from India suggests a need for modifications to programme design and content prior to scale-up. There is a programmatic rationale for developing these interventions based on evidence, given their inclusion in, or potential to be incorporated into, national programmes such as RKSK, SABLA/KSY, NYKS youth clubs, the AEP, as well as the National Skill Development Mission and other skilling initiatives.

- 1. Community-based gender transformative life skills education programmes**, implemented in small geographic settings using gender-appropriate approaches and a variety of curricula, have demonstrated positive effects on awareness and attitudes relating to sexual and reproductive health and violence as well as on the exercise of agency and contraceptive use. Investment is needed to adapt available models, synthesising promising practices from India and elsewhere, and ensuring that content is age-appropriate, comprehensive and takes into account the unique risk profiles of both girls and boys.
- 2. Comprehensive sexuality education programmes** delivered within school settings have consistently been shown to change attitudes and practices in the global evidence. In contrast, India's school-based programme remains conservative in content and evaluation is limited. There is a need to draw from internationally available experiences to assess curriculum modification, develop age-appropriate models, evaluate their effectiveness at the school level, and consider scaling them up in school systems across the country.
- Several programmes in India have found that an **exclusive focus on married girls** holds promise for empowering and building life skills among them, as well as affecting contraceptive and pregnancy related outcomes. In view of their vulnerability and numbers, it would be appropriate to review, adapt and then scale these programmes to sub-district level in states with high rates of child marriage.
- With regard to employability and transitions into work, the global evidence has shown that **programmes that combine skills training with other supportive activities** (such as soft skills and post-training support) lead to better outcomes than skills training alone. In India, where skilling programmes have tended to have a narrow focus on building vocational skills, investment is needed to develop and test skilling models that impart softer skills and support trainees, especially women, in job placement and retention.



To be developed and evaluated

Four programmes that have been identified as holding promise for low- and middle-income countries have either not been implemented and tested in India, or have been included at scale in the RKSK programme but need to be better informed by the evidence.

1. Successful **conditional cash transfer (CCT) programmes** in other countries have focused on improving schooling outcomes and have had short time horizons with payments made monthly or annually conditional on regular attendance. Such programmes have been shown to affect not only schooling outcomes but delayed marriage and childbearing as well. In contrast, CCT programmes in India tend to have very long-term pay-out horizons (for example when the child turns 18 and is unmarried) and few have been robustly evaluated. There is a need to reshape CCT programmes in India, drawing on successful international models, and test models for immediate as well as long-term impacts.
2. Although the role of parents as key socialisers of adolescents is repeatedly acknowledged, there are hardly any interventions in India or other low- and middle-income countries that have aimed to **modify parenting practices**. The few pilot programmes that have been implemented in other countries show promising results. There is a need to develop, test and evaluate interventions that involve and engage parents through schools, as well as through livelihood training and health programmes for adolescents, using forums that are acceptable to and convenient for parents, and evaluate programme effects on both parents and adolescents.
3. Evidence suggests that making services adolescent-friendly enhances their connections to the health system and increases service use. Whilst RKSK stresses the need for the provision of **adolescent friendly health services** and Adolescent-Friendly Health Clinics, far more work is needed to establish appropriate design, reach and effectiveness in the Indian setting. Investment is needed to test whether models that are currently implemented are feasible, and how to establish optimal linkages between clinic-based services and outreach in schools and communities, drawing on existing NGO experiences if available.
4. There is some evidence to suggest that **peer educator programmes**, despite being largely unsuccessful in high income countries, may have an effect in low and middle income countries, particularly on safe sex behaviours and use of health services. The RKSK calls for the inclusion at scale of a peer educator component, and investment is needed to develop and test appropriate models in different parts of the country.

Aside from the need to obtain strong evidence on what works, there remains a need for research that enables a better understanding of how to reach relatively underserved groups and address relatively neglected issues. For example, research is needed to explore how best to prepare adolescents aged below 18 years for skilling and productive employment opportunities. Very young adolescents are recognised as a neglected group, and research is needed that explores acceptable ways of reaching this group, apprising them about physiological maturation and instilling in them new notions of masculinity and femininity. Many gaps remain in the health arena; for example, far more attention must be paid to understanding mental health needs, practices linked to future non-communicable diseases, alcohol and substance abuse, and the continued experience and perpetration of violence. Even in the sexual and reproductive health arena, research is needed to better understand trends in pre-marital sexual behaviour, abortion-seeking pathways and obstacles among unmarried girls, as well as menstrual hygiene and management practices and their consequences for adolescent reproductive health and adolescent life.

Other issues also arise that relate to programme implementation and evaluation more generally. There exist a vast number of programmes in India that address adolescent transitions, and it would be useful to synthesise what is known about the content and design of these curricula and programmes, and draw from them lessons on the kinds of designs and curricula that are most effective in reaching different sub-groups of adolescents. At the same time, concerns are raised about the fidelity with which interventions are implemented, and there is a need for stronger programme monitoring mechanisms that ensure fidelity and shed light on implementation challenges. Finally, programme implementation must take specific measures to identify and ensure

the inclusion of the most vulnerable, without which they risk overlooking the neediest adolescents, and diminish the likelihood of positive findings at population level.

Programme evaluation must be rigorous. To understand the complexities and challenges of adolescent programming, we need well-designed evaluations that use robust counterfactuals, as well as process documentation that tracks implementation challenges. Measurement issues also arise. It is very likely that programmes aiming to influence one outcome (for example schooling) will affect other dimensions of adolescent life as well (for example marriage and childbearing), and that effects of programmes focused on adolescence will show results many years in the future. However, programme evaluations have rarely made efforts to understand these multifaceted and/or longer-term programme effects. Finally, translating what works in successful NGO pilots into scaled-up public sector programmes remains one of the most significant challenges in evidence-informed programming for adolescents and projects need to pay attention to potential scalability from the time they are conceptualised, rather than at their conclusion, and must conclude with a roadmap of what is feasible and what is effective. Innovative pilots that are implemented with the engagement of government agencies are of course ideal, with potential for replicating promising lessons at scale.

Meeting the SDGs by 2030 will require sustained investment in health, education, skill building and preparation for employment, empowering young women and girls, and promoting gender-equitable attitudes and behaviours among India's adolescents and youth. Governments and NGOs must therefore be open to developing, testing and adopting new approaches to supporting adolescents to make a successful transition into adulthood.

INTRODUCTION AND OBJECTIVES

According to India's 2011 census, 365 million people in the country – nearly a third (30.1%) of the population – are young people aged 10–24. 253 million are adolescent aged 10–19, and 232 million are youth aged 15–24 (Office of the Registrar General and Census Commissioner, India, 2015a). Whether India achieves the Sustainable Development Goals, achieves its population stabilization objectives and realises the advantage of its demographic dividend will depend on the nation's investment in its young people. There are encouraging signals that reflect India's recognition of the vulnerabilities faced by young people and its commitment to promoting their development needs and protecting their rights. Numerous policies and programmes reflect this commitment, several of which have been relatively recently initiated including the Rashtriya Kishor Swasthya Karyakram (RKSK) programme to promote adolescents' health and the National Skill Development Mission to develop young people's skills and prepare them for productive employment.

Compared to earlier generations, the situation of young people in India has undoubtedly improved: they are healthier and better educated than ever before, and gender disparities in child mortality, school enrolment and educational attainment have narrowed. Yet secondary school completion remains far from universal and learning outcomes are limited, preparation for livelihoods eludes many,

and too few girls make the transition from school to productive employment. Few adolescents make informed life choices and few hold egalitarian notions of masculinity and femininity. Young women are constrained from exercising agency, marriage and childbearing are initiated prematurely, and many young people's health, including in the sexual and reproductive health arena, tend to be compromised. Questions remain, moreover, about whether the investments India has made are indeed informed by evidence and likely to be effective in empowering adolescents and enabling their successful transition into adulthood.

This review aims to shed light on promising investments in India to promote successful transitions from adolescence to adulthood, with particular focus on adolescent girls and young women. It describes the types of interventions that have been implemented at national or state level in India by the government and NGOs, and assesses the extent to which these and other types of interventions have been successful in promoting successful adolescent transitions globally and in Indian pilot schemes. By mapping existing programmes against the evidence on what works, the review identifies promising leads for future investments, potential modifications to existing programmes as well as research and programme evaluation gaps that need to be filled.

The review is organised as follows:

CHAPTER 2 sets out a framework for understanding the dimensions of a successful transition to adulthood and briefly outlines the situation of adolescents in India in light of this framework.

CHAPTER 3 provides an overview of current programmes in India implemented by the national and/or state governments and NGOs.

CHAPTER 4 reviews the global and Indian evidence on interventions to promote successful adolescent transitions, and maps the evidence against existing investments in India.

CHAPTER 5 concludes with a discussion of promising investments and modifications to existing programmes and directions for further research and evaluation.

2

DIMENSIONS OF A SUCCESSFUL TRANSITION FROM ADOLESCENCE TO ADULTHOOD

The Lancet Commission on Adolescent Health and Development notes that investments made in adolescent wellbeing today yields triple dividends – in terms of adolescent health and wellbeing today, the health and wellbeing of this cohort of adolescents in adulthood, and the health and wellbeing of the next generation, as healthy and educated parents bear and rear healthy, educated and skilled children (Patton et al., 2016). Investments in promoting successful transitions to adulthood have the potential to generate large economic and social returns, particularly in low-income countries. This is shown in a recent modelling exercise that uses data from low, middle and upper-middle income countries to estimates the economic and social benefits of specific investments in adolescent health

and wellbeing (Sheehan et al., 2017). Benefit-to-cost ratios were estimated for the period 2015 to 2030 in three broad areas: delaying child marriage, enhancing physical, mental and sexual health, and ensuring the attainment of at least a secondary education. While the exercise did not separately consider livelihood skill building programmes or programmes intended to build agency, these are closely related and likely to be embedded in the interventions covered. Findings show an average benefit-to-cost ratio of 5.7 for interventions to reduce child marriage, more than 10.0 for interventions targeting physical, mental and sexual health, and 11.8 for interventions that improve the quantity and quality of secondary education.

Drawing on the Population Council’s framework for healthy adolescent transitions (Santhya et al., 2017), this review measures the quality of transitions to adulthood in terms of multiple dimensions of young people’s lives. Markers of a successful transition to adulthood include:

Completion of at least a secondary school education

Acquisition of livelihood skills and preparation for skilled economic activity

Informed, safe and consensual entry into sexual relations before or within marriage

Delayed entry into marriage until at least the legal minimum age

Entry into marriage with free and full consent about when and whom to marry

Delayed parenthood at least until after adolescence and safe entry into motherhood

Exercise of agency in life choices and assumption of leadership skills

The extent to which these markers are achieved depends on the acquisition of a range of assets – human, social, financial and physical – during the course of adolescence, as well as facilitating and obstructing factors ranging from the family, community and media environment to macro-level laws, policies and programmes (Santhya et al., 2017). Also evident are the interlinkages between many of

the attributes of a successful transition to adulthood: for example, between educational attainment and delayed marriage on the one hand and skilled employment on the other, and between delayed marriage and delayed childbearing. Clearly affecting one dimension of adolescent life has both direct and indirect synergies with others.

The situation of adolescents and youth in India: a brief overview

Many adolescents in India fail to attain the markers of a successful transition to adulthood described above – few complete high school, the quality of education is often poor, and many lack livelihood skills and employment opportunities. The health of many is compromised, and gender gaps and gaps between those from better-off and worse-off households persist. Traditional gender norms and biases persist, whilst child marriage, violence and lack of agency compromises the life of many adolescent girls.

54% of girls and **48%** of boys aged 18-19 have not completed Class 10

[2011; Office of the Registrar General and Census Commissioner, 2015b]

70% of rural and **80%** of urban women aged 20-24 are outside the labour force



[2011-12; NSSO 2014]

21% of young men and **25%** of young women (15-24) received vocational training



[2006-07; International Institute for Population Sciences and Population Council, 2010]

Vocational training is heavily gendered:



59%

of young women who received training were trained in tailoring



46%

of young men were trained in computers

[2006-07; International Institute for Population Sciences and Population Council, 2010]

27% of 20-24 year old women are married before age 18



[2015-16; International Institute for Population Sciences, 2017]

8% of girls aged 15-19 are pregnant or have at least one child



[2015-16; International Institute for Population Sciences, 2017]

15% of young men and **4%** of young women have had pre-marital sex



[2006-07; International Institute for Population Sciences and Population Council, 2010]

51% of recently married young women (<6 years) want to postpone their first pregnancy, but only **10%** are able to access contraception



[2006-07; Jejeebhoy et al., 2014]

37% of married and **28%** of unmarried young women are not permitted to visit a shop or a market in the village unescorted



[2006-07; International Institute for Population Sciences and Population Council, 2010]

27% of married young women experienced forced sex within marriage



[2006-07; International Institute for Population Sciences and Population Council, 2010]

99% of young men and **94%** of young women had never discussed reproductive processes with their parents

[2006-07; International Institute for Population Sciences and Population Council, 2010]



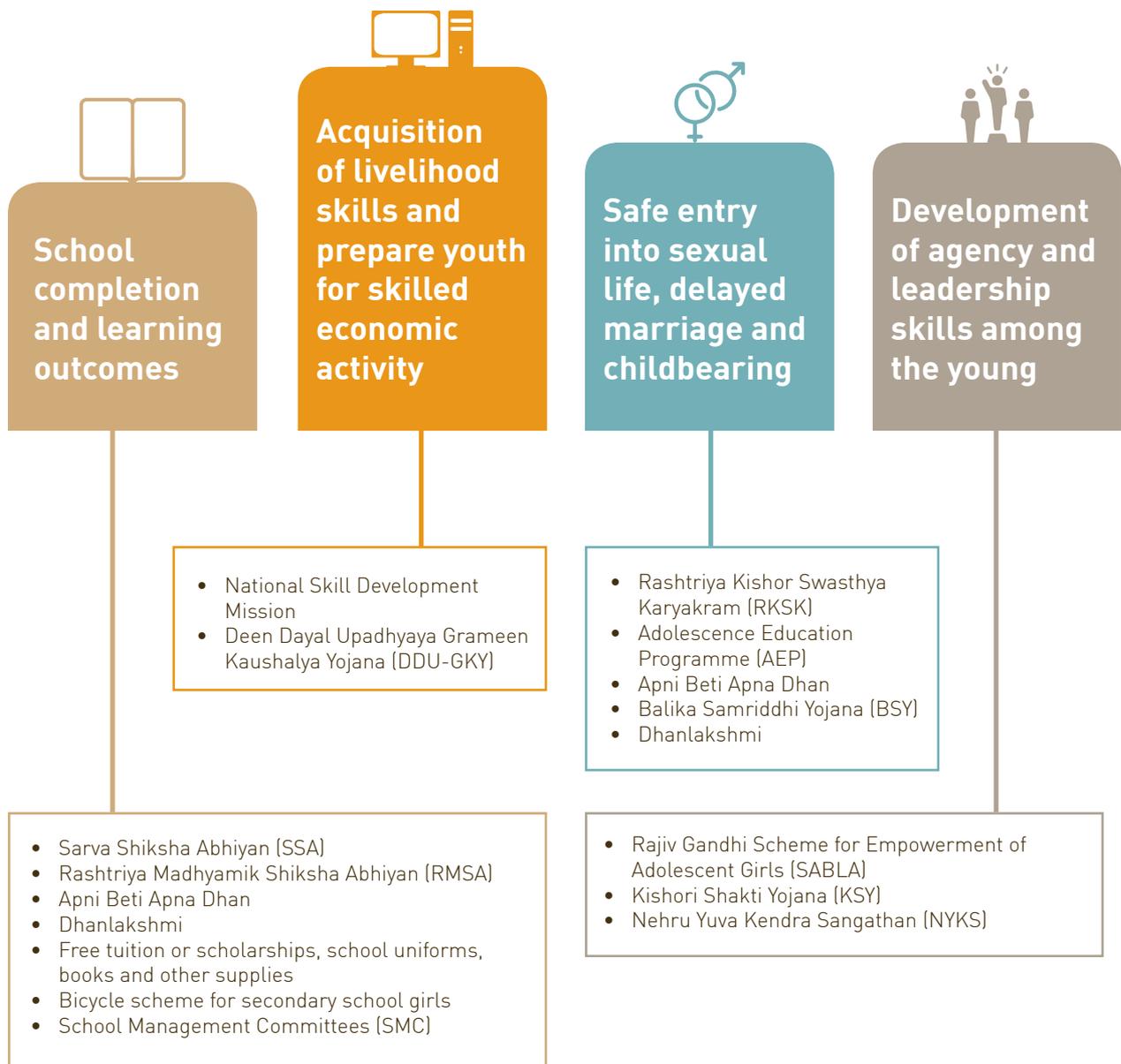
3

PUBLIC SECTOR AND NGO PROGRAMMES IN INDIA

At least five Ministries are engaged in programmes directly focused on increasing school completion, equipping adolescents with livelihood skills, promoting safe entry into sexual life and delaying marriage and childbearing, and developing agency and leadership skills among adolescents. In addition to the large-scale programmes implemented by national and state

governments, numerous NGOs work in small geographic settings across the country toward improving the situation of adolescents. This chapter summarises key programmes in each of these areas. It is worth noting that synergies exist between many of these programmes, in that programmes aimed at one aspect of adolescent life will have indirect effects on others as well.

FIGURE 1 Examples of government programmes



3.1 Programmes to enhance school completion and learning outcomes in India

The Government of India recognises that education is a powerful way of reducing poverty and inequality, as well as of enhancing India's place in a globalised world. This recognition was manifested in the Right to Free and Compulsory Education Act that made primary school attendance (ages 6-14) a fundamental right. It is also manifested in the increased attention paid to facilitating the transition from primary to secondary school, and the introduction of a national programme, the Rashtriya Madhyamik Shiksha Abhiyan (RMSA), intended to encourage secondary school completion. At the same time, the private sector in India plays a considerable role in offering educational facilities, especially at the secondary school level. Finally, there exist a range of NGOs (most notably Pratham and MV Foundation) that work toward enhancing adolescents' school attendance, improving learning outcomes, and offering school drop outs a second chance.

School programmes

The Right of Children to Free and Compulsory Education (RTE) Act of 2009, that came into force in 2010, made education free and compulsory for all children of the age six to 14 years and aimed to provide every child the right to quality and equitable elementary education. The Act mandates that primary schools are established at village level and that children must be admitted in age appropriate classes, with special attention to those lagging (Ministry of Law and Justice, 2009).

The Ministry of Human Resources' Sarva Shiksha Abhiyan (SSA), operational since 2000-2001, is the Government of India's flagship programme for universalising primary school education (Classes 1-8). Going by the 2011 census, the SSA potentially serves some 234 million children between the ages of 6 and 14, including 133 million young adolescents aged 10-14 (Office of the Registrar General and Census Commissioner, 2015a). The scheme focuses on opening new schools in remote areas that do not have schooling facilities and strengthening existing school infrastructure through the provision of additional classrooms, toilets, drinking water, maintenance grants and school improvement grants. It also aims to equip

schools with sufficient teachers with regular in-service training opportunities, and good quality teaching-learning materials. The programme seeks to provide quality elementary education including life skills, has a special focus on girls' education and children with special needs, and aims to also provide computer education to bridge the digital divide (Ministry of Human Resource Development, n.d., a).

The Rashtriya Madhyamik Shiksha Abhiyan (RMSA) serves adolescents in secondary school between the ages of 15 and 19 (Classes 9-12), a pool of some 120 million adolescents according to the 2011 census (Office of the Registrar General and Census Commissioner, 2015a). The scheme, which was initiated in 2009, aims to increase the enrolment rate to 90 percent at secondary and 75 percent at higher secondary stage, by providing a secondary school within reasonable distance of every home, improving the quality of education by making all secondary schools conform to prescribed norms, removing gender, socio-economic and disability barriers, providing universal access to secondary-level education by 2017 and enhancing and universalising retention by 2020 (Ministry of Human Resource Development, n.d., b).

Conditional cash transfers and other entitlements

There are a number of entitlements offered to reduce the cost of schooling and improve access to schools. Many have been implemented by state governments, and have taken the form of conditional or unconditional cash transfers for girls, intended to change deeply rooted hierarchical gender norms, enhance girls' education and/or delay their marriage. In most state-led conditional cash transfer (CCT) programmes, girls are enrolled around the time of birth, and receive the entitlement only if they meet key criteria such as the completion of secondary school education and delaying their marriage at least until age 18 (Sekher, 2010). One of the earliest was the Apni Beti Apna Dhan programme in which the girl was enrolled at birth and received the full benefit of the cash transfer when she reached age 18, if she remained unmarried. More recent programmes, such as the Dhanlakshmi programme provide benefits on achievement of various milestones. For example, the Dhanlakshmi programme initiated in 2008 in districts of Andhra Pradesh, Bihar, Chhatisgarh, Jharkhand, Orissa, Punjab and Uttar Pradesh, gives parents Rs. 5000 when the girl is registered, and then small amounts of Rs. 200-250 on

achieving various immunisation milestones, between Rs. 500 and Rs. 1500 on completing various years of education, and Rs. 100,000 if the girl remains unmarried at age 18 (Sekher and Ram, 2015).

Other entitlement schemes include the provision of free tuition or scholarships, school uniforms, books and supplies to those from socially excluded castes, with special benefits to encourage girls' attendance (see, for example, MOHRD, 2014; MOHRD, n.d., c; MOHRD, n.d., d). Of particular interest is the bicycle scheme, implemented in Bihar and a few other states, that aims to reduce the gender gap in secondary school enrolment by providing girls who continue to secondary school with a bicycle to enable them to overcome at least one obstacle to attending secondary school, namely distance to school.

Engaging parents

Although parents play a large role in the school continuation and learning outcomes of adolescents, there are no public sector programmes that directly engage them. School Management Committees (SMC) attached to primary schools are the only exception. They are expected to involve parents, as well as other influential members of the community, in the day-to-day management of primary schools; corresponding programmes are not available for secondary school management. The extent to which parents elected to SMC are indeed engaged in school management activities, and the extent to which schools conduct and parents attend parent teacher sessions, are, however, unclear.

NGO initiatives

A number of NGO programmes have been implemented that aim to keep adolescents and girls in school, bring out-of-school girls back into school and enhance learning outcomes among vulnerable adolescents.

For example, the MV Foundation implements a variety of programmes in Andhra Pradesh, Telengana and elsewhere that aim to improve the quality of school infrastructure and curriculum, enhance teacher skills, strengthen School Management Committees (SMC) and institute a continuous evaluation system for each child. It also conducts "bridge courses" for adolescents who have dropped out of school, prepares them to attain enough proficiency to re-enrol in schools and facilitates their re-entry (MV Foundation, n.d.).

Pratham's flagship programme, Read India, aims to improve the reading, writing and basic arithmetic skills of children aged 6-14 years.

Implemented with the engagement of trained community volunteers, the programme aims to ensure age-appropriate learning outcomes and is reported to have reached 33 million children across 19 states by 2008-09. Currently it implements a Learning Camp model in which children are provided a short-duration, high-intensity intervention taught by Pratham's local team members and volunteers. In addition, like the MV Foundation it offers a "Second Chance" programme for adolescents and young people aged 16-25 who have discontinued their education, enabling them to complete their secondary school education and develop skills required for employment. Also implemented are innovative programmes such as digital learning and special coaching in English (Pratham, n.d.).

The Lehar programme, implemented by the Aga Khan Foundation and supported by the United Nations Population Fund (UNFPA), takes a more multifaceted approach (Jejeebhoy, 2016). Focused on adolescents in Patna district, Bihar, it addresses educational, skill building, and agency in different forums for sub-groups of adolescents. For out-of-school girls, it combines life skills education and coaching aimed at enabling girls to return to school, or to complete Class 10 from the Open Schooling programme. For school going boys and girls, it focuses on school quality improvement, including teacher skills upgrading and demonstration classroom sessions by Lehar programme field staff. The Lehar programme also includes a focus on livelihood skills, which is discussed in the next section.

3.2 Programmes to enhance the acquisition of livelihood skills and prepare youth for skilled economic activity

India's commitment to skilling its youth is manifest in a host of policies and programmes that aim to prepare youth for gainful employment or the acquisition of livelihood skills. A number of NGOs have also implemented small and focused programmes in various parts of the country that aim to link youth to skills training and subsequent job placement

Programmes for skilling youth

The skilling needs of the country are addressed by the Ministry of Skill Development and Entrepreneurship (MSDE); the priority accorded to skilling is evident from the fact that it was upgraded from a department to a ministry in 2014, with the goal of driving the skilling needs of the country in 'mission mode.'

Correspondingly, the National Skill Development Policy, originally formulated in 2009, was revised and reformulated as the National Policy on Skill Development and Entrepreneurship in 2015 (MSDE, 2015). The revised policy was accompanied by the National Skill Development Mission that aims to skill or upgrade the skills of 150 million people by 2022.

The Ministry coordinates and consolidates the work of a number of agencies, including the National Skill Development Agency (NSDA), the National Skill Development Corporation (NSDC), the Directorate General of Training (DGT), the National Skills Qualification Framework (NSQF)/ National Vocational Education Qualifications Framework (NVEQF), the National Apprenticeship Promotion Scheme (NAPS), 2016, and the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), all of which work toward building livelihood skills and linking trainees with employment or entrepreneurial opportunities.

The National Skill Development Mission offers training in a range of skills to adults aged 18 and above, with eligibility for various programmes being based on a minimum level of educational attainment. Theoretically, all of India's approximately 160 million youth aged 18-24 (as of 2011) are eligible to draw on the skill development programmes offered under this Mission (MSDE, n.d.; Office of the Registrar General and Census Commissioner, 2015a).

In addition, the Ministry of Rural Development has been implementing the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) since 2014, as part of the National Rural Livelihood Mission. The scheme focuses on developing skills and providing employment to poor rural families, notably those aged 15-35 years, and aims to reach more than 55 million poor rural youth. It is implemented in 21 states and union territories, has thus far trained 270,000 persons and placed 134,000 (Ministry of Rural Development, n.d.)

Skilling programmes, including those that build the softer skills to prepare youth for skilled economic activity, are unavailable for adolescents under age 18. While the thrust of the Mission has huge potential for empowering adolescents (at least those aged 18 and above), little is known about the reach of these opportunities among the young, much less about the obstacles the young face in enrolling in skilling programmes. Furthermore, little is known about the effect of skilling programmes on subsequent skilled employment or self-employment. Outcomes available for these programmes have generally been restricted to the number of individuals

reached, and number of centres established.

NGO initiatives

In the NGO sector, several programmes have focused on building vocational skills among the young. For example, the Pratham Institute for Literacy, Education and Vocational Training, set up in 2005 aims to provide vocational skills training and subsequent job opportunities to youth from economically disadvantaged backgrounds, helps young people build confidence and develop the foundational skills needed to succeed in the professional world, meet the labour demands of high-growth sectors in India and become entrepreneurs through mentoring and financial support. Its various programmes offer (a) four industry-specific 3-month programmes (hospitality, construction, bedside assistance and automotive) for students from rural areas, urban slums and minority communities, providing certification, placement and job opportunities; (b) entrepreneurship training catering to youth, especially women, who want to set up their own businesses; and (c) general skilling centres that provide foundation courses on soft skills to promote personal and professional growth, together with training in specific courses. It has supported over 40,000 youth, and reports an 80 percent placement rate (Pratham, n.d.). Eligibility criteria are applied: for all courses, the applicant must be at least 18 years old, and for most, must have completed a minimum of eight years of schooling.

The Lehar programme (Patna district, Bihar), discussed above, also addresses the livelihood skill building and employment needs of young women. For young women who have completed secondary school and are eligible for apprenticeship programmes and placement, the project forges connections with available placement linked livelihoods training opportunities (minimum eligibility criteria are a Class 10 or 12 certificate and age 18). Young women trained through the project have been placed in the hospitality sector as well as in factories, and helped to overcome parental concerns about working outside the home. For those who do not meet educational eligibility criteria, or face constraints on freedom of movement, training in tailoring, stitching and computers is provided in the project's skill centre, together with life skills education (Jejeebhoy, 2016).

As in public-sector programmes, several of these NGO programmes are focused on those aged 18 and above, and evaluations of their effect on employment have not been conducted.

3.3 Programmes addressing safe entry into sexual life, delayed marriage and childbearing

The Government of India has demonstrated its commitment to addressing adolescent health and wellbeing through a number of programmes focused directly on health, as well as on life and leadership skills (discussed below in the section on building agency). The health needs of India's 253 million adolescents are addressed by the Ministry of Health and Family Welfare's (MOHFW) programmes, including the RMNCH+A programme, the RKSK programme and its multiple components (Weekly Iron and Folic Acid Supplementation (WIFS), menstrual hygiene, Adolescent Friendly Health Clinics (AFHCs) and peer educator programmes). At the same time, there is a thriving group of NGOs (for example, Institute for Health Management Pachod (IHMP), the MAMTA Health Institute for Mother and Child, Pathfinder International, the Child in Need Institute, the Centre for Catalyzing Change) that also work toward adolescent health promotion; most NGO programmes have focused on the provision of life skills education, although some also support service provision and provider training.

Programmes to enhance adolescent health

At national level, there has been considerable recent attention to programmes intended to delay marriage and childbearing and ensure safe entry into sexual life. The Rashtriya Kishor Swasthya Karyakram (RKSK) introduced in 2014, part of the larger RMNCH+A approach, is a comprehensive programme aimed at addressing the health needs of all adolescents, girls and boys, unmarried and married (MOHFW, 2014). The intention is to equip adolescents with information and counselling related to sexual and reproductive health (SRH), link them to sources of supplies and services, and provide facility level services devoted to addressing their health needs. It takes a wide-ranging definition of health needs, focusing on SRH issues as well as other key concerns of adolescents – malnutrition, substance misuse, mental health, and sexual and physical violence prevention – but rollout of its various components has been uneven. The programme encompasses many activities, listed in Figure 2.

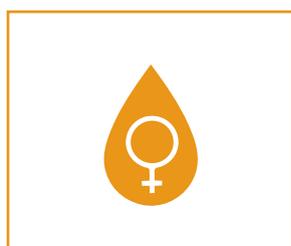
FIGURE 2 Components of the Rashtriya Kishor Swasthya Karyakram (RKSK)



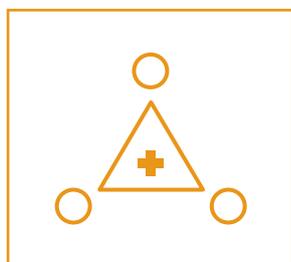
Peer education: Male and female peer educators at community level are supported to build adolescent groups, inform their peers about health promoting practices (including in the SRH arena), and counsel, refer and support those in need. They play an intermediary role between the adolescent and both the frontline health worker and the health system (MOHFW, 2014).¹



Adolescent friendly health clinics: At facility level, the programme continues and strengthens the Adolescent Friendly Health Clinics (AFHC) already established at various public health facilities. AFHCs are managed by dedicated counsellors, backed by facility medical staff. The clinics are to provide non-threatening and non-judgemental counselling, as well as medical and para-medical specialised services, including the provision of contraceptive supplies, to adolescents. AFHC counsellors also conduct outreach into communities and schools, and receive referrals from health care providers from subcentres and primary health centres for adolescents in need.



Menstrual hygiene: Also folded into the programme is a scheme for the promotion of menstrual hygiene among adolescent girls in rural areas, in which girls are informed about healthy practices, and provided sanitary napkins. The programme is delivered through schools as well as through frontline workers.



Connections with other health programmes: Linkages have been made with other programmes, such as the School Health Programme, which offer screening, basic health services and referral, micronutrient supplementation (IFA, Vitamin A) and de-worming, and sensitisation about nutrition, NCDs and mental health. It also provides linkages to the Adolescence Education Programme (AEP).



Connections with other life skills and leadership programmes: Linkages have also been made with life skills and leadership programmes delivered at community level and focused on those out of school. These include the SABLA programme (Ministry of Women and Child Development) and the Youth Clubs formed under the Nehru Yuva Kendra Sangathan (Ministry of Sports and Youth Affairs), both of which offer opportunities for life skills education and development of leadership skills in group settings guided by peer mentors.

¹ In February 2017, the Saathiya resource kit for peer educators was launched by the Secretary, Health and Family Welfare, with support from UNFPA. In his inaugural remarks, the Secretary indicated that 160,000 peer educators will be identified, trained and provided this kit through which they are expected to engage other adolescents in their communities.

Adolescence Education Programme

The Adolescence Education Programme (AEP) has been implemented by the Ministry of Human Resource Development through National Council Of Educational Research And Training (NCERT), in partnership with UNFPA, among students of Class 9 (Class 11 has been discontinued). It has been institutionalised in three formal school systems (Jawahar Navodaya Vidyalaya Samiti (JNVs), Kendriya Vidyalaya Sangathan (KVS) and private schools affiliated to the Central Board of Secondary Education (CBSE)) as well as the National Institute of Open Schooling and in at least two state systems (Bihar and Jharkhand, through C3 India). Major content areas include physiological maturation, and being comfortable with physical changes taking place in adolescence, enhancing self-esteem, establishing and maintaining positive and responsible relationships, understanding and challenging stereotypes and discrimination (including abuse and violence), and raising awareness about gender and sexuality, pregnancy prevention and prevention of HIV/AIDS, and substance abuse. The programme trained a pool of master trainers who are responsible for orienting selected teachers from participating schools. These teachers are responsible for transacting AEP with school students over 16 hours during the school year. Implementation challenges remain in terms of teacher quality, preparedness and willingness to convey sensitive matters to students, the dilution or exclusion of key concerns of adolescents from the curriculum, and the limited attention paid to engaging parents and communities and building an environment that is more conducive to responding to the needs of adolescents.

Strengthening health care provider and teacher skills

Programmes such as the RCH2, RMNCH+A and RKSK and the AEP are specifically charged with building health care provider and teacher capacity and ensuring that they provide information and services to adolescents in non-threatening ways. However, little is known about the quality of pre- and in-service capacity building, interactions between trained and untrained teachers and/or health care providers and adolescents, for example, whether health care providers and teachers are comfortable performing this role, and whether adolescents do indeed view teachers and health care providers as mentors whom they can approach with questions, for counselling and in the case of health care providers, services.

Conditional cash transfers to delay marriage

Several CCT programmes including the Ladli scheme (ongoing), the Apni Beti Apna Dhan Scheme (discontinued from the birth cohort of 1999), the Balika Samridhhi Yojana (BSY) (discontinued in 2006) and the Dhanlakshmi scheme (initiated in 2008 in selected districts of selected states and ongoing) have been implemented at state and national levels. While schemes vary in design and reach, key objectives are to combat gender-biased sex selection, restore balance in the sex ratio at birth, and encourage the birth of girls. Some also aim to ensure immunisation, keep girls in school and delay marriage to age 18 (Sekher, 2012; Sekher and Ram, 2015; MOWCD, n.d.). Schemes typically involve the provision of a National Savings Certificate or other bond in the name of the girl shortly after birth, with pay-outs varying (some if she reaches certain educational and other milestones), and the full amount paid at age 18 (or 21) if she remains unmarried. Overall, benefits rarely exceed Rs. 100,000. Some schemes are only available to parents from socially excluded castes and tribes, those from poor households, those who have been sterilised, or those with a second daughter (Department of Women and Child Development, Government of Haryana, n.d.; Sekher, 2012; Sekher and Ram, 2015; n.d.). A review of some 15 CCT programmes suggests that seven reached over 100,000 girls in at least one year of the two years 2008-09 and 2009-10 (Sekher, 2012). Hardly any have been evaluated, and data on how many of those enrolled succeeded in obtaining the full benefit are not available.

Engaging parents

Available studies confirm that socialisation is gendered and hierarchical, and that parent-child communication is limited, particularly on sensitive issues relating to growing up and sexual and reproductive health matters (see for example, Jejeebhoy and Santhya, 2011; Shekhar, Ghosh and Panda, 2007; International Institute for Population Sciences (IIPS) and Population Council, 2010), and that strong cultural taboos inhibit talking about sex (Lambert and Wood, 2005). Health sector programmes have recognised the need to actively engage parents in enabling adolescents to make safe and healthy transitions to adulthood, as documented in both the RKSK strategy document (MOHFW, 2014) and the implementation guide relating to the adolescent programme of the RCH-2 programme that preceded it (MOHFW, 2006). The RKSK,

for example, advocates that community-based workers and volunteers engage with parents and families of adolescents to increase awareness about their unique needs, and change traditional attitudes about, for example, child marriage on the one hand, and the appropriateness of providing adolescents information about sexual and reproductive matters on the other (MOHFW, 2014). Little is known about the extent to which parental engagement on these issues has indeed taken place, and if it has, its effect on improving parent-child relations and child outcomes.

3.4 Programmes addressing the development of agency and leadership skills among the young

Community-based life skills education and leadership skills programmes are provided through several different Ministries. They focus on different sub-populations and use different approaches and methodologies. For example, the Ministry of Women and Child Development's (WCD) Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA scheme) and the Kishori Shakti Yojana (KSY) are focused on adolescent girls in rural areas. The Ministry of Youth Affairs and Sports' (MOYAS) youth leadership programmes (NYKS) are open to all those aged 13-35. The peer education programme promoted by the Ministry of Health and Family Welfare's Rashtriya Kishor Swasthya Karyakram (RKSK) has potential to reach all of India's adolescents, including out-of-school adolescents, although thus far its rollout has been limited. A number of programmes in the public and NGO sectors have aimed to build adolescent agency and leadership skills, and the overlap with other programmes – sexual and reproductive health in particular – is evident

Public sector programmes

Notable among the programmes designed to build the agency and leadership skills of young women and address gender disparities are the Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA scheme) introduced in 2010 in 200 districts, and the Kishori Shakti Yojana (KSY) that preceded the SABLA scheme and is still implemented in non-SABLA districts. The SABLA scheme (and to a lesser extent KSY) is a safe spaces programme that focuses on empowering adolescent girls aged

11-18 years, providing them a package of interventions including literacy and numeracy skills training, life skills education, vocational skills training, guidance on public resources, health check-ups and referral services and nutritional supplementation. The programme establishes kishori samooch (girls' groups) in existing Anganwadi centres, where out-of-school adolescents meet frequently (2 hours a day on 3 days a week) and in-school girls meet 1-2 times monthly (MOWCD, 2010). Recent reports indicate that a total number of 10,228,911 girls benefitted from the scheme during 2014-15 and 4,868,553 in the first nine months of 2015-16 (Press Information Bureau, 2015).

The National Programme for Youth and Adolescent Development (NPYAD) implemented by the Ministry of Youth Affairs and Sports implements various schemes that pay special attention to providing opportunities for the holistic development of youth. One of the schemes of the programme is the Nehru Yuva Kendra Sangathan (NYKS), established in 1987-88 to focus on building youth leadership skills. Indeed, the NYKS is one of the largest grassroots level youth organisations in the world; it has established a network of youth clubs, with a membership of some 8.5 million distributed among more than 300,000 clubs in 623 districts. These youth clubs aim to develop leadership and citizenship among youth. The age range it serves – up to 35 – goes far beyond adolescence, and as a result, these clubs have tended to be dominated by adult men whilst adolescents and girls are typically under-represented. Efforts have been made however to focus on adolescents. With support from UNFPA, for example, teen clubs were established. The programme also encompasses activities intended to address the development and empowerment of adolescents specifically, including life skills education, counselling and career guidance and residential camps that provide a second chance to acquire basic education and life skills to those left behind in the formal system. Life skills education camps are held for batches of 40 for a one-week period (MOYAS, n.d., a; n.d., b; 2014).

NGO initiatives

A large number of NGOs also implements programmes intended to build agency, leadership, and life skills. Many do so while also informing adolescents about growing up, sexual and reproductive health and health promoting practices, developing gender egalitarian attitudes (including those rejecting the acceptability of violence against and control over women and girls), financial literacy, and/or building communication and negotiation skills. More interventions have focused on girls rather than boys, and most are group-based, aiming to offer adolescents, especially girls, a safe space and an opportunity to build peer networks. A few gender transformative life skills education programmes have been implemented by NGOs in government platforms with an eye to replication and scale-up in these platforms. These interventions include those implemented by, among others, the Institute for Health Management Pachod, the Child in Need Institute, the MAMTA Health Institute for Mother and Child, Pathfinder International, the International Centre for Research on Women, and the Centre for Catalyzing Change (Pandey et al., 2016; Acharya et al., 2009; Mehra et al., 2016; Dyalchand, 2014, Kanesathasan et al., 2008; Verma et al., 2006;

Das et al., 2012; Jejeebhoy et al., 2017; Srikala and Kishore, 2010; Santhya et al. 2008; Jejeebhoy et al., 2016). Target beneficiaries, durations, approaches, and curricula of these interventions have varied. Some have targeted only girls or only boys, while others have focused on both and still others on only married girls. Age groups have also varied; while most have focused on 15-19 year olds, some have included younger adolescents and others have included those aged 20-24. Durations of interventions have ranged from a three-day training programme (PRACHAR) to 6-12 months. While approaches vary, most have used a group format, and those focused on girls have deliberately provided them a safe space in which to develop and strengthen friendships; some have been transacted by trained peer leaders, others by project staff. Curricula have varied although many cover similar topics. Most have aimed to develop self-esteem, self-confidence, communication and negotiation skills, sensitise adolescents about their rights and entitlements and foster egalitarian gender role attitudes; some have also included a livelihood skill building component or sports engagement. Findings from selected programmes are discussed in subsequent sections.



4

SYNTHESISING THE GLOBAL AND INDIAN EVIDENCE ON WHAT WORKS

This section reviews the evidence on what works to promote each of the key adolescent transitions described above, drawing on the global evidence as well as evaluations of pilot programmes in India. In doing so, it highlights potential gaps in investment as well as gaps in the existing evidence base.

In conducting this review, various sources of information were consulted. Searches of JStor, Pubmed, Popline, Medline, and GoogleScholar of studies conducted in the last 20 years (approximately 1995 to 2017) on each of the above-mentioned domains were conducted. In addition, studies conducted in India, as well as public sector and NGO programme documents were consulted, as were colleagues working in specific areas of adolescent health and development. Given the paucity of evidence about the effect of a number of interventions, a wide net was cast in terms of methodologies employed, and studies that employed a variety of designs, including pre- post and post-intervention only designs, as well as those using quasi-experimental designs, panel designs and randomised trials were included.

4.1 Completion of at least secondary school education

Various types of interventions exist to promote secondary school enrolment and attendance and elevate learning outcomes, which we know are closely associated with retention in school and transitions into productive employment. Interventions are both supply and demand-based; that is, focused on both the school system and on individuals and families (Glewwe and Muralidharan, 2015; Petrosino et al., 2012; Sperling and Winthrop, 2016). Key interventions at the school system level include infrastructure such as building new schools and repairing existing ones, improving school quality, including the provision of libraries, textbooks and other materials, investing in teacher quantity and quality, use of ICT in the classroom, and providing supplementary coaching to students in need. Key interventions at individual and family level include conditional cash transfer programmes, the provision of entitlements to reduce the cost of schooling (eliminating school fees, provision of scholarships, provision of school uniforms, textbooks and other supplies),

provision of entitlements (specifically bicycles) to improve physical access to schools, provision of health and nutrition services in school settings, and interventions that aim to change attitudes at parent and community level, for example by spreading information about the value of and returns to education. The global and Indian evidence on each of these types of interventions is discussed below.

Building and repairing schools

Global evidence: Interventions to build new schools and/or repair existing schools reduce the indirect cost of attending school, that is, the distance to the nearest school (Glewwe and Muralidharan, 2015; Sperling and Winthrop, 2016; Petrosino et al., 2012). While reviews identified just a few studies on this type of intervention, the global evidence points to building new schools and improving existing ones as the most consistently effective supply-side intervention for enhancing enrollment and attendance in LMIC. Effects were observed in countries as different as Afghanistan, Burkina Faso, Indonesia, Mozambique and Pakistan (Glewwe and Muralidharan, 2015).

Evidence from India: Studies assessing the effect of building new schools or repairing existing schools on school retention or outcomes in India are unavailable.

Improving amenities

Global evidence: Studies exploring the effects of improving school amenities – toilets, water, libraries, playgrounds and so on – have had mixed results. Notably, a study from Burkina Faso that evaluated the impact of providing girl-friendly amenities such as clean water and separate latrines for girls and boys succeeded in increasing the enrolment rate of all children by 18.5 percent – 16.3 percent for boys and 21.9 percent for girls (Kazianga et al., 2013). The availability of libraries, textbooks and other teaching materials did not have a consistent effect (Glewwe and Muralidharan, 2015; Borlkum et al., 2012, South Africa).

Evidence from India: While efforts to improve school amenities have been made, the effect of specific interventions has rarely been studied. A study of the effect of school sanitation infrastructure using administrative data from

DISE of 139000 schools, together with ASER data, observed that the provision of toilets, predominately sex-specific latrines, substantially increased the enrolment of upper primary school aged girls (8% and 12% increases in upper-primary- and primary-school enrolment, respectively); provision of toilets did not however affect learning outcomes (Adukia, 2014). Another study, conducted in Bengaluru, found no effect of the provision of school libraries on enrolment or learning outcomes (Borkum et al., 2012)

Investing in teachers

Global evidence: Studies on the effect of teacher quantity and quality are sparse and typically measure learning outcomes, although some studies have also evaluated effects on enrolment. A few studies have found that reducing the pupil-teacher ratio improved students' school attendance and learning outcomes (Glewwe and Muralidharan, 2015). Programmes that incentivise teachers based on student attendance or performance have found significant positive effects on both attendance and learning outcomes, and indeed, authors suggest that such incentive programmes may be 15 to 20 times more cost effective at improving learning outcomes than reducing pupil-teacher ratios.

Evidence from India: Several studies have explored the effect of increasing the quantity of teachers and reducing the student-teacher ratio on enrolment and learning outcomes. Evidence from one initiative that provided both extra teachers and educational materials (including blackboards) found that exposure to the programme led to a small but significant increase in primary school completion rates (by one to two percentage points), but given the twin interventions implemented, it is difficult to attribute this increase entirely to the improved student-teacher ratio (Chin, 2005, as in Glewwe and Muralidharan, 2015). Another study that provided an additional teacher (on contract) to 100 randomly selected schools in Andhra Pradesh found that at the end of two years, learning outcomes of students in project schools were significantly higher than outcomes among those in control schools; they found moreover that contract teachers were at least as good as regular teachers, and absentee rates were lower among them. Effects on completion rates were not measured in this study (Muralidharan and Sundararaman, 2013).

While teacher training programmes have not been evaluated, there is some evidence from Andhra Pradesh that providing incentive payments to teachers based on the average improvement of their students' test scores (mathematics and language) resulted in significantly better learning outcomes (by 0.27 and 0.17 standard deviations in mathematics and language tests, respectively) of students in incentivised schools than control schools at the end of two years. Students in incentivised schools also performed significantly better in subjects that were not incentivised, suggesting positive effects in other domains as well (Muralidharan and Sundararaman, 2011).

Use of ICT

Global evidence: The use of ICT in the classroom holds great promise: for example, it allows cost effective replication and scaling, helps overcome limitations in teacher capacity and better engages students through interactive modules. While potentially promising, studies evaluating interventions that have used ICT are sparse. The single study (Peru) that assessed the impact of computers and information technology on attendance – via the use of computers and the Internet – showed no significant effects on repetition and dropout. Those assessing the impact of ICT on learning outcomes in mathematics (typically also using computer-aided learning but also provision of laptops) showed mixed findings, with several showing positive effects, and several showing no effect (Glewwe and Muralidharan, 2015).

Evidence from India: Two studies from India have explored effects of ICT based instruction (Banerjee et al., 2007; Linden, 2008). In one case, the NGO Pratham supplemented classroom instruction with computer assisted learning in selected primary schools in Vadodara over a two year period. The intervention was implemented in 55 randomly selected schools and 56 others served as the comparison; all schools had been provided four computers by the government. The intervention comprised basic instruction on how to use the computers, and an opportunity to work on the computer with educational software (games designed to improve basic mathematics skills) for two hours per week. Authors found that students who participated in the programme had higher mathematics scores on average than did those in the comparison group (by 0.35 and 0.47 standard deviations in the first and second years, respectively) (Banerjee et al., 2007).

Supplementary coaching and Teaching at the Right Level (TaRL)

Global evidence: Supplementary coaching (or remedial schooling, the term used in the global literature) interventions, many of which were conducted in India, have been implemented to help lagging students catch up; several high-quality studies have shown positive effects of such education on learning outcomes, even when implemented by volunteers with little formal training (Glewwe and Muralidharan, 2015).

Evidence from India: Several schooling initiatives in India have sought to provide supplementary coaching for disadvantaged students in the expectation that more personalised attention will enhance progress and reduce the gap between these students and their more advantaged counterparts. Evidence from India bears out this hypothesis. An evaluation of a programme implemented by Pratham (Banerjee, Cole, Duflo, and Linden, 2007) targeted children in public schools of Mumbai and Vadodara who were performing poorly. The project provided an informal teacher, trained by the project and hired from the community (known as a *Balsakhi* or children's friend) to schools; coaching was provided daily for two hours. While the programme did not enhance attendance, learning outcomes significantly improved. Overall test scores increased by 0.14 standard deviations in the first year and 0.28 standard deviations in the second year, with the largest gains in mathematics, and the largest gains among the weakest students. A second project that assessed the impact of a programme implemented by the Naandi Foundation in Andhra Pradesh recruited community volunteers to provide after-school coaching for two hours daily to rural children. After two years of intervention, learning outcomes were significantly better (0.74 standard deviations higher) among students in intervention than control villages (Lakshminarayan et al., 2013). Other models, also implemented by Pratham, include the Teaching at the Right Level (TaRL) methodology, that is, teaching at each child's competency level, within schools, as well as in a camp setting in the summer vacation. An evaluation concluded that exposure to the TaRL intervention resulted in a 0.15 standard deviations increase in language test scores (significant at the 1% level) (Banerjee et al., 2016; Banerjee, 2013).

Conditional cash transfers

Global evidence: One of the most widely implemented types of interventions for which there is considerable global evidence is conditional cash transfer programmes that provide payments to parents if children are enrolled in school or have a high rate of attendance. Most of these programmes aim to address enrolment and attendance (Fiszbein and Schady, 2009; Petrosino et al., 2012; Molina-Millan et al., 2016; Glewwe and Muralidharan, 2015). Overall, in almost every evaluation reviewed, findings from randomised trials have suggested a positive effect of CCT programmes on school enrolment, although the magnitudes of this impact vary with programme characteristics and type of target population. For example, Oportunidades (formerly Progresá) in Mexico, perhaps the best known example of a CCT programme, reported a grade 7 enrolment rate 8.7 percentage points higher among students participating in the intervention than students in control groups. In Malawi the evaluation of a CCT programme for girls found that among girls already in school when the programme started, the number of terms enrolled over the next two years increased by 0.535 (about one-sixth of a school year) and the daily attendance rate increased by eight percentage points. It also had a huge effect on out-of-school girls, who had re-enrolled when the programme began, namely, an increase of 2.35 terms (approximately a full year of schooling) (Baird, McIntosh and Ozler, 2011; Baird et al., 2013).

In Pakistan, a project targeting girls in Classes 6-8 provided families \$3 per month if their daughter attended school regularly. The project was evaluated using difference-in-differences and regression discontinuity methods and resulted in an increase of nine percent in girls' enrollment (Chaudhury and Prajuli, 2006). Overall, one review estimates an increase in attendance in the range of 3-12 percentage points as result of conditional cash transfer programmes (Slavin, 2009). In contrast, effects of conditional cash transfers were visible on learning outcomes in just a few studies (Glewwe and Muralidharan, 2015).

Evidence from India: Despite the emphasis on conditional cash transfers in the global literature and the large number of CCT programmes implemented in India, only one evaluation of a CCT programme in India exists. This is the evaluation of the Apni Beti Apna Dhan programme implemented in Haryana, which enrolled girls in infancy and

provided a one-time payment at age 18 if the girl was unmarried. The evaluation interviewed beneficiaries of this programme when they were aged 18-20, and compared their outcomes with those of a matched sample of non-beneficiaries. While the programme had a significant effect on retention in school up to Class 8 (compared to the matched sample), no effect was observed in terms of retention in higher classes or completion of secondary school (Nanda et al., 2016). Other schemes, with somewhat shorter term pay outs (for example, at registration, on the achievement of full immunisation and school completion, as well as marital status at age 18) have not been evaluated. Notably, CCT programmes in India are far longer term than are those in other countries; they were intended to counter adverse sex ratios at birth and the practice of gender-biased sex selection and not schooling outcomes. As such, while the global literature discusses CCT programmes in which transfers take place in a short reference period (a month or year of complete attendance for example), the CCT programmes in India are longer term, with benefits accruing to the girl or her family only if she completes secondary school and delays marriage.

Other entitlements to reduce the cost of schooling

Global evidence: Other entitlements studied include unconditional in-kind transfers, including food transfers, scholarships, vouchers, school fee reduction or elimination, scholarships, uniforms and school supplies. Findings from the global literature were generally positive for a few entitlements, with strong evidence that the provision of merit scholarships had a powerful effect on both enrolment and learning outcomes. While mixed findings were observed, several studies assessing the effect of the provision of vouchers (by lottery) to students to attend private schools found a significant positive effect on learning outcomes and school graduation (Glewwe and Muralidharan, 2015).

Evidence from India: There appears to have been just one experimental voucher scheme, implemented in Andhra Pradesh, which provided students vouchers based on a lottery system to attend schools of their choice. The evaluation did not find significant effects on learning outcomes for students who were awarded the vouchers compared to students who were not (Muralidharan and Sundararaman, 2015).

Other entitlement to improve mobility to schools

Global evidence: No programmes to enhance physical accessibility to schools were located.

Evidence from India: A successful programme in Bihar offered girls enrolled in Class 9 funds to purchase bicycles to ride to school. The programme was found to increase enrolment by five percent; the increase in enrolment was particularly steep (9%) in villages where the nearest secondary school was more than three kilometres away. Authors report that the programme was much more cost effective in increasing girls' enrolment than comparable conditional cash transfer programmes in South Asia, suggesting that the coordinated provision of bicycles to girls may have generated additional effects as well, including improved safety from girls cycling to school in groups, and changes in patriarchal social norms that proscribed female mobility outside the village, which had previously inhibited female secondary school participation (Muralidharan and Prakash, 2013). An evaluation of the longer-term effects of the scheme found that girls who received bicycles were 23 percent more likely to complete school and five percent more likely to complete college (Mitra and Moene, 2017). The scheme has been extended to several other states (eg. Andhra Pradesh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan and others), with varying eligibility criteria; however, it is only Bihar in which effects have been evaluated.

Health and nutrition services in school settings

Global evidence: While school feeding programmes or take home rations and school-based health services have undeniable benefits for student health and nutritional status, their effects on attendance and learning outcomes have been mixed. One review notes that school feeding programmes had little effect on enhancing school attendance, but a greater effect on enhancing learning outcomes, as evident from some but not all evaluations (Glewwe and Muralidharan, 2015). A second review of what works to address the education needs of girls highlights a number of studies that conclude that school feeding and take home ration programmes did indeed increase enrolment and attendance rates of girls (Sperling and Winthrop, 2016).

As far as school health programmes are concerned, there is strong evidence that deworming programmes in Africa affected school attendance as well as learning outcomes, including when measured several years following the intervention, and that the provision of iron supplementation improved learning outcomes (Glewwe and Muralidharan, 2015; Miguel and Kremer, 2004). Effects of other health programmes are poorly evaluated. A systematic review of available evidence on menstrual hygiene management programmes reported no evidence that improvements in management methods reduced school absenteeism (Sumpter and Torondel, 2013). In contrast, a study in Ghana reported that the provision of sanitary pads, together with puberty related education, increased girls' school attendance by nine percent (Sperling and Winthrop, 2016).

Evidence from India: Few studies have evaluated the effect of the mid-day meal programme or other school health interventions in India on student attendance and learning outcomes. One study of the impact of school meals on schooling outcomes in India found that the average monthly attendance rate of girls in Class 1 rose by more than ten percentage points with the introduction of the programme, but had no more than a small positive effect on the enrolment rates of girls from socially and economically disadvantaged households (Afridi, 2011). In addition, the single study exploring the effect of a programme providing sanitary pads to secondary school girls showed no effect on the attendance of girls in secondary school (Adukia, 2016).

Engaging parents

Global evidence: In contrast to the large number of evaluations of entitlement programmes and school-level programmes implemented to enhance schooling outcomes, relatively little attention has been paid to engaging key decision-makers, namely parents and guardians, both in the global as well as the Indian literature (Glewwe and Muralidharan, 2015).

There are few programmes in low income countries including India that aim to change attitudes about the long-term value of education, especially for girls, and familiarise parents with employment opportunities accruing from education. Even

fewer programmes have been evaluated. Evidence from HIC shows that family-oriented programmes that strengthen parent-child relationships, and parental monitoring and engagement succeed in improving school performance, building adolescents' social competence, and reducing their risky behaviours (Banati, 2016). However, the few available evaluations of such interventions from LMIC showed mixed findings; a study in the Dominican Republic revealed positive effects whilst one in China showed no effect. A parent empowerment programme in Niger that provided grants to school committees to encourage parents in school management had no effect on attendance or learning outcomes (Glewwe and Muralidharan, 2015). Evaluations of interventions that conveyed information to parents (and adolescents themselves) about the perceived returns to secondary school, and dispelled misconceptions about low such returns also suggest positive outcomes. An intervention in Madagascar in which parents were shown data on the returns to education at parent-teacher meetings was found to increase test scores and attendance in the first few months of the intervention (Nguyen et al., 2008).

Evidence from India: Targeted interventions that aim to engage parents in enhancing enrolment and attendance are very rare. One evaluation of an intensive campaign comprising 8-9 public meetings intended to improve parental participation in village education committees found a positive effect (inconsistently) on learning outcomes (in two states there was a significant effect on reading (14-27%) in one of the three classes tested; in the third state there was a significant effect on writing in one class (15%) and on mathematics in another (27%); but it is unclear what the effect of a less intensive and more realistic intervention might be (Pandey, Goyal and Sundaraman, 2009). Another well-evaluated study that focused on changing parental attitudes about educating girls as well as strengthening parents' engagement with the school system (and notably the School Management Committee) showed that the intervention succeeded in raising girls' educational aspirations, building parental support for their secondary education, and giving voice to parents, through their engagement in SMC, to demand improvements in school quality. Effects on learning outcomes were mixed, however, and there was no evidence that participation in the programme enabled girls to spend more time

on school related activities (Santhya et al., 2016). Other interventions that aim directly to empower parents to play a more active role in School Management Committees have been implemented but not been evaluated (see, for example, the MV Foundation's work).

A different approach was adopted in a project that sought to demonstrate to parents the value of educating girls more indirectly. This project recognised that in settings with unequal gender norms, strong son preference and restrictions on women's work, investment in girls' education is far outstripped by investments in the education and wellbeing of their brothers. It explored the extent to which increasing employment opportunities for young women can lead to greater investment in girls' education. In a randomised intervention implemented in selected rural areas over a three-year period, the project connected women – mostly younger and unmarried women – with experienced recruiters and through them raised awareness of and access to employment opportunities in the Business Process Outsourcing (BPO) industry.

Endline surveys showed that girls aged 5-15 in villages that received the intervention were 3 to 5 percentage points more likely to be in school than were those in control villages and experienced an increase in Body Mass Index, reflecting greater nutrition and/or medical care. Results emphasise that an awareness of the returns to human capital and the opportunities available to educated young women are strong demand-side factors prompting parents to invest in girls' education. Notably, findings show that parents increased investments in girls without decreasing investment in boys, suggesting that poverty may not be as important as perceived low returns to investing in daughters in limiting schooling investment in girls. Whether similar effects may be anticipated over other types of employment, for example, those considered 'lower status' is unclear (Jensen, 2010). A second study showed similar effects at a macro level, demonstrating an association between the introduction of BPO opportunities in a particular area and increased school enrolment rates (Oster and Millet, 2010).

Table 1 below provides a summary of the types of interventions to promote school completion and the evidence of their effects, as available in both the global literature and in Indian studies. Also described are corresponding Indian programmes at national or state level.

TABLE 1 PROGRAMMES AND INTERVENTIONS TO ENHANCE SECONDARY SCHOOLING OUTCOMES

STRENGTH OF EVIDENCE:		ESTIMATED IMPACT:	
Multiple strong evaluations		Strongly positive	
Some evaluations		Positive	
Few evaluations		Mixed effect	
No evaluations		No effect	

Intervention	India national or state level programmes	Sub-category (if any)	Global evidence		India evidence	
Building and repairing schools ¹	SSA, RMSA at national level					
Improving school amenities ²	SSA, RMSA at national level	Clean water and toilets			 sex-specific toilets	
		Libraries, textbooks and other teaching materials			 libraries	
Investing in teachers ³	SSA, RMSA at national level aim to increase the number of teachers NGO pilot interventions only for performance incentives and other interventions		teachers and materials (primary) performance incentives		teachers and materials (primary) performance incentives	
Use of ICT ⁴	None (NGO pilot interventions only)			on dropouts on learning outcomes		on learning outcomes
Supplementary coaching (remedial education) and TaRL ⁵	None (NGO pilot interventions only)			on learning outcomes		on learning outcomes
CCT programmes ⁶	State level programmes, typically enrolment at birth, payments made at various milestones (e.g. ABAD, Ladli)					
Other entitlements to reduce the cost of schooling ⁷	State level programmes	Scholarships and vouchers				
		Uniforms and school supplies				
Other entitlements to improve mobility to school ⁸	State level programmes in Bihar, some other states				 bicycles	
Provision of health and nutrition services in school settings	National level RKSK programme but extent of state-specific rollout unclear	School health services ⁹				
		School feeding programmes ¹⁰				
Engaging parents and demonstrating the value of educating daughters ^{11,12}	Parents to be engaged in School Management Committees, but parental input unclear None (NGO pilot interventions only)	Engaging parents and communities directly	 high-income countries			
		Demonstrating the value of educating daughters by increasing employment opportunities for women				

Sources: ¹Glewwe and Muralidharan, 2015; Petrosino et al., 2012; Sperling and Winthrop, 2016; ²Glewwe and Muralidharan, 2015; Kazianga et al., 2013; Borkum et al., 2012; Adukia, 2014; ³Glewwe and Muralidharan, 2015; Petrosino et al., 2012; Chin 2005; Muralidharan and Sundararaman, 2013; 2011; ⁴Glewwe and Muralidharan, 2015; Banerjee et al., 2007; Linden, 2008; ⁵Glewwe and Muralidharan, 2015; Banerjee et al., 2007; Lakshminarayan et al., 2013; Banerji and Walton, 2011; Banerjee et al., 2016; Banerjee, 2013; ⁶Glewwe and Muralidharan, 2015; Fiszbein and Schady 2009; Petrosino et al., 2012; Molina-Millan et al., 2016; Nanda et al., 2016; ⁷Glewwe and Muralidharan, 2015; ⁸Muralidharan and Prakash, 2013; Mitra and Moene, 2017; ⁹Glewwe and Muralidharan, 2015; Sperling, Winthrop, 2016; Miguel and Kremer, 2004; Afridi, 2011; ¹⁰Glewwe and Muralidharan, 2015; Sperling, Winthrop, 2016; Afridi, 2011; Jensen 2010a; Nguyen, 2008. ¹¹Glewwe and Muralidharan, 2015; Banati, 2016; Pandey, Goyal, Sundaraman, 2009; Santhya et al., 2016; ¹²Jensen, 2010; Oster and Millet, 2010

4.2 Acquisition of employability skills and preparation for skilled economic activity

Employability skills have been defined as “the skills, knowledge and competencies that enhance a worker’s ability to secure and retain a job... Individuals are most employable when they have broad-based education and training, basic and portable high-level skills, including teamwork, problem solving, information and communications technology (ICT) and communication and language skills. This combination of skills enables them to adapt to changes in the world of work” (Brewer, 2013). Core employability skills thus combine exposure to a vocational skill with ‘softer’ life skills attributes.

Young women have a more difficult school-to-work transition than young men. In 2011, between 47 and 72 percent of girls aged 15-24 in low-income countries were not in school or at work (Chalasan and Fletcher, 2015). This calls for greater programme and policy efforts focused on enabling girls to access employment opportunities. Doing so would not only empower girls and young women but enable them to delay marriage and childbearing. A number of programmes have been implemented that aim to enable marginalised young women, typically those aged 18-24 or 20-24, to access market opportunities, but work is limited that orients younger girls in employability skills, or that equips older girls with skills required for local labour market realities. Few studies exist that assess the effect of economic empowerment programmes for adolescent girls in LMIC (Betcherman et al., 2007), and several available evaluations were found to be of low quality (Taylor and Perezniето, 2014).

Various types of interventions have been implemented globally to support young people’s transition into work. The most popular is a narrow focus on skills training, which in some cases also includes apprenticeship and on the job training, entrepreneurship support, employment support services and/or subsidised employment. More comprehensive interventions are those that combine skills training with other activities such as life or soft skills training, career counseling, job search support and job-related mentoring (Betcherman et al., 2007;

Kluve et al., 2016). Kluve et al note that of 107 studies reviewed (including just one from India), 32 (30%) provided only skills training, while 27 (25%) offered skills training within a more comprehensive programme.

Skills training

Global evidence: An inventory of available interventions notes that while many evaluations of skills training programmes are of weak quality, the majority of interventions reviewed had positive effects on post-programme employment and earnings (Betcherman et al., 2007). Likewise, a systematic review of evaluations of various skilling programmes confirms that skills training programmes for young people have led to positive outcomes in LMIC, increasing their chances of finding or staying in employment and improving their income. However, the review cautions that changes in labour market outcomes of youth take place gradually and are not immediately visible (Kluve et al., 2016). While most evaluations come from high-income countries, findings from both reviews suggest that larger labour market effects were achieved in low- or middle-income than in high-income countries.

Evidence from India: Although a number of skilling programmes are available, evaluations of effects on young people have rarely been conducted. One study evaluated a training programme in stitching and tailoring (the most popular skill in which women are trained) for women aged 18-39 years who had completed at least five years of schooling and were residing in New Delhi slums. The study found that within six months of completing the programme, women exposed to the intervention were six percentage points more likely to be employed, four percentage points more likely to be self-employed, worked 2.5 additional hours per week, and earned 150 percent more per month than women in the control group. In a second assessment conducted 18 months after the completion of the programme, effects on employment, hours worked, and earnings were all sustained (Maitra and Mani, 2014).

A second study aimed to better understand the labor market experiences of young men and women who had undergone skills training through the Ministry of Rural Development’s DDU-GKY programme and the constraints experienced by women in particular. The study found that female trainees received training in trades with lower market demand than men,

were less likely to receive job offers even for identical trades, and were less likely to take up jobs offers (56% versus 70%). Retention was very low with only 21 percent of trainees remaining in their jobs 6 months after placement; females were more likely to still be in their jobs than males, so too were younger trainees and those whose job had not required migration. While leading reasons for discontinuing employment for young women were personal and family level constraints and reluctance to migrate, young men's reasons reflected inadequate salary and work related issues (Moore et al., 2016).

Comprehensive skills training and support programmes

Global evidence: A review of available evaluations concludes that in LMIC, programmes that supplement skills training with other supportive activities lead to better outcomes than simply providing skills training (Kluve et al., 2016). Positive findings come from studies conducted in a number of settings. For example, the World Bank's Adolescent Girls Initiative, launched in 2008 to support adolescent girls to make the transition from school to work, supported pilots in Afghanistan, Jordan, Lao PDR, Liberia, Haiti, Nepal, Rwanda, and South Sudan. Pilots in each country were tailored to the context and opportunities of that country and hence were not identical; interventions included life skills, combined with the provision of an array of technical, vocational, and business development skills. Post-training support was provided to help beneficiaries connect to job opportunities and take advantage of new economic opportunities. An evaluation of the Liberia programme found that that employment rose by 47 percent while earnings increased by about US\$32 per month—an 80 percent increase relative to the control group. In Nepal, the initiative encompassed livelihood training (across 39 occupations), together with life skills training and assistance with job searching and placement; a year after graduation, girls in the treatment group had increased their non-farm employment by 14 percentage points, for an overall gain in employment of 47 percent relative to the control group. Average monthly earnings

increased significantly as well. In various countries, effects were seen that went beyond the economic realm: greater decision-making, freedom of movement and self-confidence, larger social networks, greater life satisfaction and greater entrepreneurial self-confidence (World Bank, 2016).

Evidence from India: Evidence is sparse. One intervention – a secondary school based pilot programme (PAGE) – sought to empower and build employability skills in school settings among girls in Classes 9 and 11 from low-income communities in New Delhi. The intention was to build girls' self-efficacy and ability to identify, plan and realise their future personal and professional goals. The evaluation found a significant positive effect on indexes of self-efficacy and employability, reflecting, respectively, girls' aspirations for their future careers and the actions they took towards their careers. However, because many girls discontinued their education after Classes 9 and 11, the sample interviewed following the intervention was not representative of all the girls exposed to the intervention, and the resulting selectivity limits the extent to which changes may be attributable to the intervention (Nanda et al., 2017).

More intensive support was provided in a project that aimed to link rural girls and young women to new sectors, namely the business process outsourcing (BPO) industry. In this project, agents were engaged in informing and mentoring girls and young women aged 18-24 from relatively remote rural areas to access labour market opportunities in the BPO sector. An evaluation of this project showed that exposure resulted in an increase of almost five percentage points in employment in the BPO sector. Aspirations for a career prior to marriage were 12 percentage points higher than in the control villages. Other effects were also observed. For example, those in intervention villages were more likely to enrol in computer or English language courses, less likely to get married (five percentage points), and expressed a desire for fewer children than did those in the control sites (Jensen, 2012).

Table 2 below provides a summary of existing national and state-level programmes to promote employability skills in India, and summarises the evidence on what works, in terms of both the global and Indian literature discussed above.

TABLE 2 PROGRAMMES AND INTERVENTIONS TO ENHANCE THE ACQUISITION OF LIVELIHOOD SKILLS AND PREPARATION FOR SKILLED ECONOMIC ACTIVITY

STRENGTH OF EVIDENCE:		ESTIMATED IMPACT:	
Multiple strong evaluations		Strongly positive	
Some evaluations		Positive	
Few evaluations		Mixed effect	
No evaluations		No effect	

Intervention	India national or state level programmes	Global evidence		India evidence	
Skills training ¹	National Skill Development Policy; National Skill Development Mission (to skill 150 million people by 2022)		LMIC largely from HIC		
Comprehensive skills training and support including facilitating information and access to opportunities ²	NGO				

Sources: ¹Kluve et al., 2016; Maitra and Mani, 2014; ²Jensen, 2012

4.3 Safe entry into sexual life, delayed marriage and childbearing and development of agency

Programmes in the domains of safe and wanted entry into sexual life, delayed marriage and delayed childbearing overlap considerably, and huge synergies exist between programmes focused on achieving reproductive health outcomes and those intended to build life and leadership skills and enhance the agency of adolescents. Indeed, programme objectives frequently aim to address all three domains simultaneously. Synergies between various interventions are obvious, and the need for multi-pronged and multi-component programmes, implemented at community, school and health service levels, and adapted to sociocultural contexts, is repeatedly stressed across the different available reviews (Patton et al., 2016; Chandra-Mouli et al., 2013; Fatusi, 2016; Jackson et al., 2012; Chandra-Mouli et al., 2015). The evidence on all these dimensions of adolescent well-being is therefore discussed together in this section.

Gender transformative life skills education

Global evidence: Several reviews have noted that life skills education – that builds awareness, changes attitudes, develops agency, communication and negotiation skills, and empowers adolescents (notably girls) to adopt health-promoting practices and make informed life choices -- is a promising intervention, but there are few high-quality studies that observe a link to delayed marriage or sexual and reproductive health (Patton et al., 2016). The Lancet Commission report concludes, moreover, that life skills education is most effective when focused also on schooling matters, social support and skills development, and has a strong effect on knowledge and attitudes. It reports moderate quality evidence for increases in contraception, reduced early sexual initiation and multiple sexual partners, but also moderate quality evidence of no effect on pregnancy (Patton et al., 2016). Another recent synthesis of available evidence notes that life skills education programmes are also promising in terms of a reduction in intimate partner violence (Sheehan et al., 2017). As such, WHO guidelines, for example, recommended the implementation of these interventions to fulfil the rights of girls, calling for more research on their feasibility and scale up (WHO, 2011).

A review of evaluations of programmes intended to delay marriage notes that the vast majority (18 of 23) focus on building the life skills of girls, that is, providing training and communication and negotiation skills, sharing information, creating safe spaces and developing support networks. Several of these documented notable changes in knowledge, attitudes and even behaviour related to child marriage within only a few years, although most evaluations were not robust enough to be able to attribute change to the intervention (Malhotra et al., 2011). A second review of 21 programmes found that a few (5 of 21) life skills education programmes had succeeded in reducing unintended and repeat pregnancy, increasing contraceptive use or reducing sexual activity; a few, however, showed no or contradictory effects (Hindin et al., 2016).

Evidence is sparse of high quality evaluations of interventions intended to improve menstrual hygiene management for girls in lower income settings. One systematic review of available evidence on menstrual hygiene management programmes however reported good evidence that educational interventions can improve menstrual hygiene management practices and reduce social restrictions (Sumpter and Torondel, 2013).

A systematic review of mental health promotion interventions for children and/or adolescents that focused on life skills and resilience training, implemented in school and community-based settings in low and middle income countries, found positive effects on self-esteem, motivation, self-efficacy and mental health more generally (Barry et al., 2013).

India evidence: A number of gender transformative life skills education projects have been implemented in India, using different designs, curricula and formats. While these projects are well-known and appear promising, evaluations of their impact and acceptability are relatively sparse. Findings from evaluations using rigorous designs suggest that these interventions are promising with effects observed fairly consistently across studies in terms of raising awareness, changing gender role attitudes, and building adolescent agency. A few have demonstrated positive effects on behaviours such as delaying marriage and childbearing, promoting birth spacing or reducing the perpetration of violence against women and girls.

Examples from evaluations of gender transformative life skills education programmes

- A longer-term follow-up of a three-day training programme for adolescent boys and girls conducted as part of the **PRACHAR** project implemented by Pathfinder International in rural Bihar found that those exposed to the programme were significantly more likely than a matched control group to report contraceptive awareness and to have practised contraception and display various dimensions of agency. Effects on marriage age and the length of birth intervals were weak (Pandey et al., 2016).
- **The Better Life Options programme** developed by CEDPA, was implemented over 12 months in a rural setting of Uttar Pradesh among groups of adolescent girls aged 13-17, offering them a safe space as well as exposure to life skills education. An evaluation of this project found a significant positive effect on enhancing SRH awareness, building agency and changing gender role attitudes as compared with girls from a comparison site (Acharya et al., 2009).
- **The Meri Life Meri Choice programme** implemented by MAMTA in rural areas of Madhya Pradesh and Uttar Pradesh and directed at the most isolated girls, their brothers and family members was implemented over a six-month period. Programme exposure had a positive effect on girls' peer networks, their agency, financial literacy, gender role attitudes and awareness about SRH matters. Exposure to the intervention also succeeded in reducing multiple partner sexual relations and increasing condom use among their sexually experienced brothers (Mehra et al., 2016).
- The evaluation of the **Yari-Dosti** pilot intervention implemented by the Population Council and others in 2005-6 to promote gender equity among young men aged 18-29 from low-income communities in Mumbai suggests that exposure modified men's support for inequitable gender norms, sexual harassment of girls and women, and the extent of equitable relationships (Verma et al., 2006).
- **The Parivartan programme**, implemented by the International Centre for Research on Women (ICRW) and others, was conducted across private schools offering cricket and among community-based cricket teams in a slum community of Mumbai. Findings showed improvements in equitable gender role attitudes, attitudes about men's right to perpetrate violence on women and intention to intervene to stop any act of violence witnessed, but no consistent evidence that behaviours – intervention in case of violence witnessed and perpetration of violence – had changed (Das et al., 2012).
- The **Do Kadam Barabari ki Ore** project, implemented by the Population Council and Centre for Catalyzing Change (C3 India), was directed to boys aged 13-21 in youth clubs formed under the Government's NYKS programme in rural Bihar over a roughly 12 month period, using a peer mentor model. Findings showed improvements in the expression of gender egalitarian attitudes, rejection of men's and boys' right to control and perpetrate violence on women and girls, and action taken to stop incidents of teasing or any other form of abuse or violence against a woman or girl. Findings with regard to reducing the perpetration of violence were more mixed (Jejeebhoy et al., 2017).
- The **NIMHANS** model of life skills education is a mental health promotion intervention that provides life skills education to adolescents in the school setting, and is not linked to sexual and reproductive health directly. An evaluation showed effects in terms of self-esteem, coping skills, and general adjustment and pro-social behaviour (Srikala and Kishore, 2010).

School-based comprehensive sexuality education

Global evidence: Comprehensive sexuality education refers to education that not only imparts information and skills relating to contraception, unintended pregnancy, sexually transmitted infection, coerced or unwanted sex and gender based violence, but at the same time familiarises adolescents with human rights concepts, builds gender egalitarian attitudes, and encourages responsible decision-making, critical thinking and a sense of self-efficacy (Haberland and Rogow, 2015; Population Council and others 2009). It is clear that not many sexuality education programmes are comprehensive by this definition.

While the quality and content of sexuality education programmes differ, there is strong evidence of small but significant effects of sexuality education on knowledge and attitudes, as well as on condom use, the number of sexual partners, initiation of first sex and risky sexual behaviour; and no evidence of heightening premature sexual activity (UNFPA, 2016). A review of 53 RCTs, mostly conducted in high income countries (49) found that sexuality education interventions significantly increased condom use at last sex; findings suggest that the combination of sexuality education with contraceptive promotion significantly reduced unintended pregnancy (Oringanje et al., 2016). The WHO also observed a reduction in rates of unintended pregnancy as a result of sexuality education for adolescents, based on evaluations conducted largely in HIC (WHO, 2011). A systematic review of the effect of school-based sexual health interventions in sub-Saharan Africa in reducing sexually transmitted infections and promoting condom use found that several studies reported positive effects on condom use, though none (of a total of 51) reported statistically significant effects on the incidence or prevalence of HIV and HSV-2 infections (Sani et al., 2016).

The Lancet Commission review underscores that there is high quality evidence indicating that abstinence-only education programmes are ineffective in reducing infection and unintended pregnancy among the young (Patton et al., 2016).

Evidence from India: Sexuality education programmes in India are far from comprehensive, and high-quality evaluations are limited. Hardly any have been evaluated. Indeed, there is just one evaluation of the Adolescence Education programme (AEP), conducted in 2010-11 in 210 schools across five states. This

evaluation used a case-control post-intervention only design and showed modest positive effects of the programme on awareness of physical maturation, nutrition and anaemia, HIV/AIDS and modes of transmission, and substance misuse. Modest effects were also visible in students' agency – for example, their self-esteem, decision-making and assertiveness – as well as their gender role attitudes and their skills in terms of communication and problem-solving ability. Effects on delaying marriage and childbearing can only be assessed in a longitudinal design, but the evidence confirmed that awareness of and attitudes about delaying marriage and childbearing were affected by exposure to the AEP. However, the evaluation pointed to the need for more rigorous teacher training and better transaction of the curriculum (NCERT and UNFPA, 2011).

Conditional cash transfers and other entitlements

Global evidence: Many reviews have highlighted the potential of cash transfers and other entitlements intended to affect schooling outcomes for preventing child marriage and early childbearing. The Lancet Commission report, for example, found moderate quality evidence for the impact of both unconditional and conditional cash transfers with payments linked to school attendance on delaying marriage and pregnancy (Patton et al., 2016). A second review of seven studies found that among the four studies that revealed a significant impact on delaying marriage, three had provided some type of economic incentive to remain in school, notably conditional cash transfers and payment of school fees (Kalamar et al., 2016). A school voucher programme in Colombia, a CCT programme in Mexico (Oportunidades), and entitlement programmes in Zimbabwe (school fees and supplies) and Ethiopia (Berhane Hewan which provided households with a goat) have all resulted in notable declines in the proportion of girls married or an increase in marriage age (Kalamar et al., 2016; Malhotra et al., 2011).

There is also moderate quality evidence for the impact of schooling-linked unconditional and conditional cash transfers on improving safe sex practices, as well as on reducing STI and HIV prevalence (Patton et al., 2016; Kalamar et al., 2016; Baird et al., 2013). A systematic review of interventions and evaluations to reduce unintended and repeat pregnancy among young people (including unmarried youth) in low and middle-income countries found that conditional cash transfer programmes were more likely

to have positive effects on unintended and repeat pregnancy than programmes focused on peer education and life skills education, contraceptive counselling and supplies, and use of the mass media. For example, of the nine studies that reported statistically significant declines in pregnancy rates, five were CCT programmes; so too were one of two that found declines in sexual activity and both those reporting an increase in age of first sex (Hindin et al., 2016). Economic incentives were also identified as a promising approach in a review of evaluations of interventions aimed at reducing STIs or high-risk behaviours among the young (Kalamar et al., 2016).

Evidence from India: As mentioned earlier, evidence from India on the effect of cash transfer programmes is sparse, and have not been conditional on schooling as in other countries. Rather, in available CCT programmes benefits are transferred only when girls reach age 18 or when she achieves such milestones as full immunisation, school completion as well as non-marriage at age 18, much longer time horizons than the programmes described above. The only evaluation of a CCT programme (Apni Beti Apna Dhan) found that it had no effect on child marriage, that is, on the proportion marrying before they reached the age of 18, with 13-17 percent of beneficiary and non-beneficiary girls marrying in childhood.. More beneficiary than non-beneficiary girls, however, married immediately after they reached age 18 and before they reached age 19 (59% versus 45%), and qualitative data suggest that the cash transfer was used for marriage related expenses rather than as a form of security for the girl herself (Nanda et al., 2016). Findings raise questions about whether the amount and the delayed receipt of the transfer were sufficient to change parental attitudes about secondary school completion and delaying the marriage of their daughter. Indeed, a study conducted in Haryana (Jejeebhoy et al., 2015) observed that several parents and stakeholders argued that the transfer amount was insufficient to change practices relating to gender biased sex selection, and by extension, age of marriage.

Engaging parents and communities

Global evidence: Parents are in a unique position to influence young people's health and personal development, and their transition to adulthood including sexual life (World Health Organization, 2007; Kågesten et al., 2016). Yet many have noted the dearth of research on the nature of parental influences and of

programmes that explore promising parenting practices. Indeed, the Lancet Commission on Adolescent Health and Wellbeing has remarked that rigorous research into family influences remains a major gap (Patton et al., 2016), and research on the social and structural determinants of adolescent well-being coordinated by UNICEF's Office of Research at Innocenti highlights the need for family and parenting support interventions (Banati, 2016).

Parents are rarely the primary target group of programmes conducted in LMIC. Rather, programmes that aim to change young people's knowledge, attitudes and practices may also engage parents and communities on the advantages of delaying marriage, ranging from one-on-one counselling sessions to group and community education programmes. Evaluations are rare. Exceptions include evaluations of two parenting interventions in LMIC – the *Families Matter!* Program (FMP), designed for implementation in the US but adapted for adolescents in rural Kenya (Vandenhoudt et al., 2010), and the *Improving the communication between parents and adolescent in reproductive health and HIV/AIDS* implemented in Senegal (Diop and Diagne, 2007). Both programmes had some success in building parental awareness of adolescent health and development, enhancing gender egalitarian socialising of sons and daughters, and enabling parents to communicate better with their adolescent children, particularly about sexual and reproductive matters. Despite the sparse, moderate quality and often inconclusive evidence from LMIC, available reviews call for the inclusion of a strong focus on family and community in multi-component interventions that aim to change social norms and practices (Patton et al., 2016; Banati, 2016; World Health Organization, 2007; 2011; Kågesten et al., 2016; Malhotra et al., 2011).

Parenting programmes are more common in HIC, and evaluations measuring effects on adolescents have found promising results. For example, a review of parent-youth programme evaluations from the US found positive results on reducing risky behaviours, increasing condom use and/or reducing unintended pregnancies. (Fish et al., 2014). Other studies note that family-oriented programmes that strengthen parent and adolescent relationships, parental monitoring and engagement, contribute to agency in several ways, by improving adolescents' social competence, improving their school performance and reducing risky sexual and other behaviours such as alcohol and drug use (Jackson et al., 2012).

Evidence from India: Most programmes have acknowledged the role of parents, but have traditionally included them only peripherally in life skills and other programmes, for example by conveying the benefits of enrolling their adolescent in a programme and seeking their consent and cooperation. Just one pilot programme explicitly focused on strengthening parental engagement in building more supportive parent-child relationships and developing more gender egalitarian socialisation practices. This pilot, implemented by the Population Council and C3 India, engaged mothers and fathers of adolescents aged 13-17 in rural Bihar and was evaluated using a quasi-experimental design. Group sessions were held and parents were sensitised about equitable childrearing practices, communicating with adolescents about sexual and reproductive health matters, the advantages of delaying marriage, the effect of spousal violence on adolescents, and the importance of maintaining close relations with children. Evaluation findings highlighted that attendance at group sessions was erratic, especially among fathers, and many did not find the content useful. As such, the intervention did not have a consistent effect, particularly among fathers, in changing awareness, attitudes or socialisation and communication practices (Jejeebhoy et al., 2014).

Peer led interventions

Global evidence: There is considerable debate in the literature about the effectiveness of peer led interventions in promoting adolescent sexual and reproductive health. One review has been categorical in denouncing the effectiveness of peer led education programmes on improving health outcomes, and advises against investment in peer education. This review highlights two studies from LMIC: one from Rwanda that found no association between the peer education intervention and increased knowledge or reduced sexual risk behaviours, and a second from South Africa that found that positive changes were limited and piecemeal notwithstanding a strong component to support peer educators. The authors conclude that peer education may be more effective in sensitising adolescents and referring them for counselling and services than in changing adolescent risk behaviours directly (Chandra-Mouli et al., 2015).

Other authors are more positive. For example, the Lancet Commission review recognises that moderate quality evidence from Europe does indeed find peer education to have been ineffective in changing knowledge and

attitudes, STIs or HIV prevalence, and adolescent pregnancy. It notes however that there is also moderate quality evidence from LMIC of the impact of peer led approaches on safe sex behaviours and health service use by adolescents, and concludes that that peer led interventions may well be effective in LMIC (Patton et al., 2016).

Evidence from India: There are no evaluations of peer led interventions in India.

Adolescent friendly health services

Global evidence: There is consistent global evidence that youth friendly venues set up in non-clinical environments (youth centres and so on) are ineffective in reaching the young and in promoting safe sex behaviours, reducing HIV and other sexually transmitted infections, or reducing unintended pregnancy (Patton et al., 2016; Chandra-Mouli, et al., 2015). However, there is moderate quality evidence suggesting positive effects of adolescent friendly health service interventions that provide information and counselling, contraceptive supplies, pregnancy related care, abortion and post-abortion care, treatment and prevention of sexually transmitted infections, HIV testing and counselling and care for sexual and gender based violence. Such adolescent friendly services improve both the uptake of these services and contraceptive knowledge and practice, and, less consistently, reduce HIV and other sexually transmitted infections (Patton et al., 2016; WHO, 2011). Other reviews stress that in order to be effective, services must be accompanied by health worker training, facility improvements, and strategies for demand generation at community level (WHO, 2009).

Evidence from India: Insights are available from a recent scoping review of some 30 studies published between 2000 and 2014 that evaluated Adolescent Friendly Health Services (AFHS) initiatives. (Hoopes et al., 2016). The review acknowledges weaknesses in and variability across study designs, and the lack of comparability between intervention and comparison groups. Even so, findings suggest that these programmes resulted in increased knowledge about SRH matters, both among providers and adolescents, and increased contraceptive practice and use of sanitary napkins; a couple also demonstrated an effect on raising age at first birth at the community level (Hoopes et al., 2016). The evidence cautions however that there have been scant efforts to

spread information about the availability of services, and, as a result, awareness and use of available services, notably those offered by Adolescent Friendly Health Clinics (AFHCs) in the country, are limited (Santhya et al., 2014; Jejeebhoy et al., 2014).

Programmes aimed at married girls

Global evidence: While theoretically eligible to all the services accorded married adults, the compromised situation of married girls inhibits their access to available services for adults. At the same time, interventions for adolescents have generally approached married girls as they do the unmarried. As a result, it is likely that the specific needs of married adolescents are neither addressed in services for married women nor in interventions aimed at adolescents in general.

The single available systematic review that addressed this group found a total of 14 community based reproductive health interventions, of which only eight met quality criteria (Sarkar et al., 2015). Of these eight, five were from India, two from Nepal, and just one outside South Asia (Malawi). Findings suggest that approaches such as counselling married young women and their husband, other family members and communities, home visits by health care workers, and capacity building of health workers were effective in increasing contraceptive use, delaying second and subsequent pregnancies (but not the first) and improving pregnancy and new-born care-related outcomes. The review highlights that multi-layered community-based interventions that target married young women as well as their husband, their family and their community can improve reproductive health services among the young, but recognised the difficulties in changing norms at the family and community level. Many gaps are however noted: strategies to delay the first pregnancy and safe abortion care in particular have not been addressed, and further research is needed to fill these and other information gaps about what works.

Evidence from India: A few projects in India have focused exclusively on married girls and their evaluations suggest that such a focus has potential to affect pregnancy care and child spacing outcomes. For example, the First Time Parents project, implemented in settings in Gujarat and West Bengal aimed to reduce

the social isolation of married adolescent girls, increase their ability to act in their own interest and improve their reproductive health (Santhya, Haberland, Das, 2008). As such, it provided reproductive health information to married young women, their husbands, and influential adults in their families; made efforts to make existing maternal and child health services more sensitive to the needs of married adolescents; and empowered young women through group formation and other social networking activities. The project mobilised more than 1,000 young newly married young women into groups, and exposed them to topics ranging from literacy and vocational skills to pregnancy and postpartum care, contraception and gender issues; exposure visits were also made to village administration offices, banks and so on. The project was evaluated using a quasi-experimental study design, and showed a significant, independent effect on indicators reflecting married young women's autonomy, social support networks, partner communication and support, knowledge of sexual and reproductive health, use of contraceptives to delay the first birth, antenatal care, delivery preparedness, routine postpartum check-ups, and adherence to recommended breastfeeding practices (Santhya et al., 2008). A second project focused on married young people was the PRACHAR programme, implemented in settings in Bihar; its main target audience was youth aged 15–24 and, to a lesser extent, older women and the community at large. This project was directly focused on improving SRH outcomes and its components included the provision of information and counselling to young women, group discussions of sexual and reproductive health issues, and orientation of health care providers. Findings from a longer-term evaluation using a quasi-experimental design found that the intervention was not only associated with increased contraceptive knowledge and use in the short term, but also that the short term gains were sustained years later (Jejeebhoy et al., 2016).

Programmes to change attitudes and behaviours among very young adolescents

Global evidence: There is considerable evidence that traditional gender role attitudes and socially acceptable behaviours for boys and girls are established by early adolescence. However, available reviews point to a dearth of programmes that aim to change gender-stereotypical attitudes and practices among very young adolescents, and an even greater shortage of robust evaluations (Kågesten et al., 2016; McCarthy et al., 2016). In general, reviews have pointed to several potential areas of intervention with very young adolescents – age-appropriate comprehensive sexuality education (CSE) or gender transformative life skills education, puberty education, and parenting programmes as well as programmes that engage adolescents in sports or information technology (McCarthy et al., 2016). In Nepal, for example, a three-month project that aimed to change gender role attitudes of boys and girls aged 10-14 in child clubs was found to change in children’s gendered attitudes and behaviour

relating to discrimination, social image, control and dominance and violence, as well as attitudes to girls’ education and acceptance of traditional gender norms, based on a pre-post design (Lundgren et al., 2013). A second evaluation of a CARE International programme implemented in multiple countries (Honduras, Yemen, Malawi, India, Tanzania and Egypt) also noted a shift to more equitable gender role attitudes; this evaluation also used a pre- post design (Baric, 2013).

Evidence from India: While few such programmes have been implemented in India, there is evidence from at least two studies focused on young boys that used sports as a vehicle to provide gender transformative life skills education. Both studies showed an increase in equitable attitudes expressed by young adolescent boys. Indeed, one of them showed that changes were more significant among younger than older adolescents (Santhya and Gupta, 2017; Das et al., 2012).

Table 3 summarises available programmes, as well as evidence from evaluations conducted in India and internationally.

TABLE 3 PROGRAMMES AND INTERVENTIONS TO ENSURE SAFE ENTRY INTO SEXUAL LIFE, DELAYED MARRIAGE AND CHILDBEARING AND DEVELOPMENT OF AGENCY

STRENGTH OF EVIDENCE:		ESTIMATED IMPACT:	
Multiple strong evaluations		Strongly positive	
Some evaluations		Positive	
Few evaluations		Mixed effect	
No evaluations		No effect	

Intervention	India national or state level programmes	Global evidence		India evidence	
Gender-transformative life skills education ¹	RKSK advocates peer educator led life skills education programmes		 but some studies mixed or show no effect		knowledge, attitudes, skills, agency contraception, condom use, birth spacing, delayed marriage
Comprehensive sexuality education ²	Adolescence Education Programme, selected school systems				
CCTs and other entitlements ³	State level programmes (ABAD, Ladli, etc.); amounts vary				
Parenting programmes ⁴	None				
Peer led programmes ⁵	RKSK advocates peer educator programmes		HIC LMIC		
Adolescent-friendly health services ⁶	RKSK calls for AFHCs, with outreach into schools and communities; AFHCs have existed since the RCH programme				
Programmes for married girls ⁷	NGO				delaying first pregnancy, birth spacing other outcomes ⁹
Programmes to change attitudes and behaviours among very young adolescents ⁸	None				

Sources: ¹Patton et al., 2016; WHO, 2011; Malhotra et al., 2011; Hindin et al., 2016; Barry et al., 2013; Jejeebhoy et al., 2016; 2016a; Acharya et al., 2009; Mehra et al., 2016; Kanesathasan et al., 2008; Verma et al., 2006; Das et al., 2012; Jejeebhoy et al., 2017; Srikala and Kishore, 2010; UNFPA, personal correspondence.
²UNFPA, 2016; Patton et al., 2016; Oringanje et al., 2016; WHO, 2011; UNFPA and NCERT.
³Patton et al., 2016; Kalamar et al., 2016; Malhotra et al., 2011; Kalamar et al., 2016; Hindin et al., 2016; Nanda et al., 2016.
⁴WHO, 2007; 2011; Patton et al., 2016; Banati, 2016; Malhotra et al., 2011; Fish et al., 2014; Rankin et al., 2016; Vandenhoudt et al., 2010; Diop and Diagne, 2007; Jackson et al., 2012; Jejeebhoy et al., 2014.
⁵Chandra-Mouli et al., 2015; Patton et al., 2016.
⁶Chandra-Mouli et al., 2015; Patton et al., 2016; WHO, 2009; 2011; Hoopes et al., 2016; Santhya et al., 2014; Jejeebhoy et al., 2014.
⁷Sarkar et al., 2015; Gokhale Institute of Politics and Economics, n.d.; Daniel et al., 2008; Jejeebhoy et al., 2015; Santhya et al., 2008; Population Council, ongoing.
⁸Kågesten et al., 2016; McCarthy et al., 2016; Lundgren et al., 2013; Das et al., 2012; Santhya and Gupta 2017.
⁹contraception, knowledge, pregnancy related care, support networks, partner communication.



IMPLICATIONS FOR FUTURE INVESTMENT IN PROGRAMMES AND RESEARCH

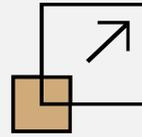
As previous chapters have shown, there is evidence from the global and/or Indian literature of several programmes that have been effective in improving schooling outcomes, enhancing employability, improving sexual and reproductive health outcomes, and empowering the young. Scaling up these NGO initiatives, or bringing successful state-level interventions into other states, could therefore present promising avenues for future investment.

This section draws implications for future investment in programmes and research, based on the available global and/or Indian evidence presented in previous sections. While all of the interventions outlined in previous sections hold value in and of themselves, ten stand out. All have direct relevance for ongoing state- or national-level programmes, including the SSA and RMSA programmes, the Skills Mission, the RKSK, the SABLA/KSY programme, the NYKS youth club programme, and the Adolescence Education Programme. They are however at different levels of readiness for replication and scale-up.

These ten interventions fall into three groups. In one group are two interventions that have been shown to be effective in promoting adolescent wellbeing globally and/or in India, either at state-level or in multiple evaluations in smaller settings, and offer an opportunity in India for replication or scale-up. In a second group are four interventions for which there is strong global evidence, but evidence from India suggests the need for modification of intervention design and content, prior to scale-up and further evaluation. In a third group are programmes that have been identified as holding promise for LMIC but have either not been implemented and tested in India, or have been included at scale in the RKSK programme but need to be better informed by the evidence.

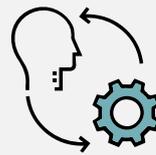
At the same time, knowledge gaps persist. In some instances, evidence comes from just one or two studies or from a small pilot, or is based on less than rigorous study designs, calling for more rigorous evaluations on a larger scale than are currently available. In others, knowledge gaps exist at the LMIC level, for example, on interventions such as parenting programmes and programmes to promote attitudinal and behavioural change among very young adolescents. These implications for programming and research, as well as general observations on the state of the evidence on adolescent transitions, are discussed in the section below.

FIGURE 3 Promising models for future investment



Ready for replication and scale-up

- Supplementary coaching and teaching at the right level (TaRL)
- Bicycle scheme for secondary school girls



Need for adaptation and implementation

- Gender transformative life skills education
- Comprehensive school-based sexuality education
- Programmes with an exclusive focus on married girls
- Comprehensive livelihood skills training and support



To be developed and evaluated

- Conditional cash transfer programmes
- Programmes to modify parenting practices
- Adolescent friendly health services and clinics
- Peer educator programmes

5.1 Promising models for future investment

Ready for replication and scale-up

Both interventions that appear ready for replication focus on keeping adolescents in school and improving their learning outcomes. Most promising are efforts to provide supplementary coaching (remedial education) after school or in-school, and provide teaching at the right level (TaRL) to support students at risk of dropping out, or facilitate re-entry for out-of-school adolescents. Both after-school and TaRL approaches have been shown, in multiple studies in different parts of the country (Andhra Pradesh, Bihar, Haryana, and Uttar Pradesh), to improve learning outcomes among vulnerable students in primary school. These models have been successfully implemented, in small-scale projects, and there is potential for similar models to be replicated at scale in public sector platforms, and their implementation challenges and effects assessed. Investments are also needed to extend the programme to secondary school students, include additional topics, and track impact on both learning outcomes and secondary school completion. Programme implementation in coordination with state governments, as has been successfully achieved by Pratham, will, moreover, facilitate scale up (Banerjee et al., 2016).

The bicycle scheme has proven successful in promoting secondary school enrolment and completion among girls in Bihar and calls for its wider replication and additional and more intensive evaluations of programme effects in Bihar and other states as well. Indeed, at least two evaluations of this programme have demonstrated that it has also improved girls' mobility and modified patriarchal norms about the value of educating girls. What is needed is a larger scale evaluation that addresses not only the effect of the scheme on school completion and attendance among beneficiaries, but also assesses implementation challenges and the extent to which the programme has reached the most vulnerable girls. While a number of states other than Bihar have also implemented variations of the programme, their geographic reach, years of operation, eligibility criteria and so on appear to differ from the programme implemented in Bihar, and no information is available on their effects.

Need for adaptation and implementation

Of the four promising models that need to be reviewed for content adaptation prior to replication and scale-up, three have been associated with delayed marriage and childbearing, safe entry into sexual life, and reduced unmet need for contraception, as well as greater agency in everyday life; the fourth relates to employability and transitions into work.

Gender transformative life skills education has been found to be effective in the global literature in promoting safer entry into sexual life, delaying marriage and childbearing and developing adolescents' agency. Several pilot programmes implemented in India – many of which offer adolescents, notably unmarried girls aged 15-19 a safe space to meet, learn and build friendship networks -- have also demonstrated positive effects on awareness and attitudes relating to sexual and reproductive health and violence as well as, albeit inconsistently, on exercise of agency, and contraceptive use. While fewer, pilot programmes have demonstrated success in modifying the attitudes of boys using models, including sports, that differ from those found to be successful among girls. Investment is needed in adapting available gender transformative life skills education models, as appropriate from the global literature, ensuring that content is age-appropriate and comprehensive. At the same time, recognising that the risk profile of boys differs from that of girls in terms of alcohol and substance abuse, injuries from road accidents and interpersonal violence, more effort is needed in developing and testing models that establish how best to incorporate these elements in programming.

While gender transformative life skills education programmes are typically implemented among unmarried adolescents, there is a need to orient programmes to support married girls, who despite the decline in child marriage continue to comprise millions of adolescents. A few projects in India have demonstrated that programmes focused exclusively on married girls have been successful in empowering and building life skills among this vulnerable group, as well as affecting contraceptive and pregnancy related outcomes. In view of their vulnerability and numbers, it would be appropriate to review, adapt and scale these programmes to sub-district level in states with high rates of child marriage.

For school-going adolescents, comprehensive school-based sexuality education has been shown to be effective in the global literature. NCERT's Adolescence Education Programme has made an impressive start in certain school systems, but programme content remains conservative and many would argue that age-appropriate education should be initiated at primary school level instead of in Class 9, as is currently the case. Efforts to make the curriculum more comprehensive are needed, for example by considering the 'It's All One Curriculum' model. Also needed are rigorous evaluations of both the effectiveness and acceptability of such programmes in the Indian context. Efforts are needed to expand these programmes, currently implemented only in selected school systems in other systems as well.

While the evidence argues strongly for greater attention to gender transformative life skills education focused on unmarried girls and boys, and married girls, in community and school settings, there is also a programmatic rationale for investment in these areas. Existing national programmes -- the RKSK programme for married and unmarried adolescents, the SABLA/KSY programmes for adolescent girls, the NYKS youth club programmes, and the AEP -- are all focused on empowering the young, building life skills, changing gender norms, and equipping them to make informed choices. There is huge potential thus to implement and embed gender transformative life skills education, including those for the married, in all of these existing national programmes.

The fourth programme in this group refers to the development programmes combining livelihood skills training with other supportive activities (such as soft skills and post-training support), and responds to evidence that such programmes lead to better outcomes than skills training alone in low- and middle-income countries (Kluve et al., 2016); While the provision of skills training without other support has also been found to yield positive effects, these effects have largely been observed in high income settings. In India, skilling programmes have tended to have a narrow focus on building vocational skills; the scarce evidence available is mixed about effects on post-programme employment, retention and earnings, especially for young women (Moore et al., 2016; Maitra and Mani, 2014). Investment is needed to develop and test skilling models that impart softer skills and support trainees,

especially women, to take up placements and remain in their jobs in the face of family and social constraints. There is potential to incorporate comprehensive skilling models into existing programmes, notably the National Skill Development Mission and the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY), and evaluate their longer-term effects on employment, retention and earning.

To be developed and evaluated

Conditional cash transfers (CCTs) with pay outs on the basis of school attendance are one of the most widely implemented interventions to increase school enrolment globally, and have consistently been found to be effective in a wide range of countries and contexts. Evaluations show that these transfer programmes have indirect effects, moreover, on delaying marriage and pregnancy, but cost implications may make them difficult to scale up (Kalamar et al., 2016). Unlike in India, in other countries, CCT programmes have been implemented with short time horizons, for example providing payments monthly or annually conditional on regular attendance. In contrast, CCT programmes in India have had extremely long time horizons, typically involving registration at around birth and pay outs at the age of 18 if the girl remains unmarried, or at the achievement of various milestones, such as full immunisation, secondary school completion and delayed marriage till or after age 18. While evidence comes from just one evaluation of one (discontinued) CCT programme, it suggests that the programme had little effect on school completion or delayed marriage. Experiences of programmes implemented outside India suggest that shorter-term CCT programmes may be more effective in India than those that have been implemented so far. Interventions are needed that adopt shorter term CCT designs that focus on schooling outcomes rather than marriage or sex ratio related outcomes, and rigorously evaluate their effect on both school completion and delayed marriage and childbearing. At the same time, evaluations of other ongoing CCT programmes in India (Dhanlaxmi, Ladli) would be useful.

Although the role of parents as key socialisers of adolescents is repeatedly acknowledged, there are hardly any intervention models in India (and few in LMIC more generally) that have aimed to modify parenting practices, encourage parents to adopt more gender-egalitarian socialisation practices, and play a supportive role in the transitions to

adulthood faced by their sons and daughters. As recommended in the report of the Lancet Commission on Adolescent Health and Wellbeing (Patton, 2016), parenting programmes may be implemented best in conjunction with community based programmes for adolescents rather than as standalone programmes. Its recommendations call for efforts to incorporate a greater focus on parents within schooling, livelihood training and health programmes, and test programme effect on both parents and adolescents. More innovative models need to be explored that engage parents and build positive parenting skills, for example by empowering them to have a greater voice in existing formats (such as SMC, PTA, AFHC), developing parenting programme models that are acceptable to parents, including fathers, perhaps using existing forums (such as self-help groups, farmers' groups etc.) to transmit information on adolescent health and gender-egalitarian attitudes towards sons and daughters.

Finally, two interventions to enhance adolescents' connections to the health system have been implemented (or are slated for implementation) in the RKSK programme, namely peer education and adolescent friendly health clinics and services. Neither has been evaluated. However, the global evidence suggests moderate quality evidence from LMIC that peer education, or education delivered by young people to their peers, despite being largely unsuccessful in HIC, may have an effect on safe sex behaviours and use of health services (Patton et al., 2016). The Lancet Commission labels peer education programmes as promising for LMIC, but calls for further research to identify the contours and effect of these programmes. The Commission also reports moderate quality evidence that suggests that making services more adolescent friendly increases service use, and recommends its wider implementation (Patton et al., 2016). Given the emphasis placed by the RKSK on both peer education and adolescent friendly health services and clinics, and the availability of Adolescent Friendly Health Clinics in the public sector across the country, investment is needed to test whether what is currently implemented are feasible models and at the same time design, implement and test modified models that include clinic-based services as well as outreach in schools and communities, drawing on existing NGO experiences if available.

5.2 Knowledge gaps

The priorities for programming discussed above have highlighted the need to fill knowledge gaps to supplement available evidence on what works. There remain, in addition, several gaps that need to be filled to better understand how to reach relatively underserved groups and address relatively neglected issues.

For example, skilling initiatives have typically targeted youth aged 18 and above, without paying attention to orienting adolescents under 18 about skilling opportunities and preparing them for skilled employment. Research is needed that explores how best to reach adolescents aged below 18 years, both those in and out of school, exposing them to vocational skills while concentrating on building life skills, notably financial literacy, a future career orientation and the softer skills that have been found to have positive effects on employment in the global literature. Such models would need to be tested using a longitudinal design, since adolescents under age 18 may not join the work force immediately following training.

A neglected group nationally and globally is very young adolescents. It is increasingly understood that gender roles are established at a young age, and that early adolescence and puberty intensify traditional gender role attitudes and widen differences in socially acceptable behaviours between girls and boys. However, few programmes globally target very young adolescents and even fewer have been robustly evaluated. Designing and testing programmes aimed to change attitudes and behaviours among very young adolescents, for example age-appropriate comprehensive sexuality education, puberty education and programmes that engage young adolescents through sports or ICT, would fill a crucial gap in the global and Indian evidence on what works.

In the health arena, various issues relevant for adolescents remain poorly understood. For example, what is known, nationally and globally, about adolescent health has focused more on sexual and reproductive health than mental health, precursors of NCDs, and alcohol and substance abuse. With regard to violence experienced and perpetrated by the young, more research is needed that highlights what works to change attitudes about men's and boys' right to control and perpetrate violence on women and girls, and the ways in

which violence – observed, experienced and perpetrated – affect transitions to adulthood. Even in the arena of sexual and reproductive health, far more research is needed to better understand trends in pre-marital sexual behaviour, abortion-seeking pathways and obstacles among unmarried girls, as well as menstrual hygiene and management practices and their consequences for adolescent reproductive health and adolescent life.

5.3 General observations

The process of conducting this review has raised issues relating to the design and evaluation of interventions intended to enhance the quality of young people's transition to adulthood and are not specific to any particular intervention. These general observations are discussed in the section below.

Understanding multifaceted and longer-term programme effect

Many outcomes of interest for adolescent interventions including marriage, employment, child-bearing, and sexual relations, may not be measurable until well after an intervention has been completed, perhaps not until late adolescence or even early adulthood. At the same time, several interventions that aim to address one dimension of adolescent life may have synergistic effects on other dimensions as well. Yet, neither of these realities are considered in many programme evaluations. For example, the life of most projects is two to three years, and effects are typically measured at the conclusion of the project, clearly undermining a project's ability to demonstrate longer-term effects. Likewise, while synergies between programmes are likely, few interventions are designed with this in mind and evaluations are often restricted to a particular dimension of adolescent life. For example, supplementary coaching and conditional cash transfer programmes may not only affect school continuation but may also affect adolescents in other ways – it may enhance their agency to exercise informed life choices, give them a future orientation, or affect their savings orientation for example.

What is needed are more longitudinal follow up studies that assess effects, such as, for example, whether exposure to a gender transformative life skills education programme in adolescence leads to delayed marriage and childbearing, and affects increased contraception, more egalitarian spousal

relations, or less marital violence at a later date, or whether supplementary coaching in primary school is associated with college enrolment, and so on. Moreover, it is important that evaluations assess the effects of an intervention on multiple dimensions of adolescent life both at the conclusion of an intervention and once adolescents have transitioned into young adulthood. The long-term and multi-faceted evaluations of two interventions -- the Bihar bicycle scheme and the PRACHAR reproductive health intervention serve as examples; both were conducted some years after adolescents were exposed to the programme, and both captured a variety of longer term as well as synergistic or indirect effects on school completion, marriage, childbirth and work (Mitra and Moene, 2017; Pandey et al., 2016).

Ensuring rigour and depth in evaluations

Programmes in India have by and large been inadequately evaluated: evaluation approaches and designs may not be rigorous or appropriate, analysis may be cursory, and insights drawn may be misleading. At the same time, while many of the studies included here are well-reported, too many do not adequately explain their context, content or methods, and do not reflect the high degree of diversity within adolescent populations. There is an urgent need for well-designed evaluations that use robust unbiased counterfactuals, mixed methods, and systematic process documentation in order to understand the complexities and challenges of adolescent programming. More rigorous and comprehensive evaluations would allow us to shed light on what works and what does not work to influence the transition to adulthood, in different context and for specific sub-groups of adolescents.

Syntheses of programme content

A vast number of programmes – far more than discussed in this paper – exist in India to address the transition from adolescence to adulthood. Many life skills education curricula and entitlement programmes (again far more than discussed here) have been developed and implemented. It would be useful to synthesise what is known about the content and design of these curricula and programmes, and draw from them lessons on the kinds of designs and curricula that are most effective in reaching different sub-groups of adolescents, and how the effect of similar programmes may vary across sub-populations of adolescents and social environments.

Ensuring the inclusion of the most vulnerable

Many programmes make scant efforts to ensure that the most vulnerable adolescents are reached. A number of authors have cautioned that youth centres, safe spaces and community-based life skills education interventions have often overlooked the most marginalised, vulnerable and isolated adolescents (Chandramouli et al., 2015). Unless specific measures are taken to identify and ensure the inclusion of the most vulnerable (by caste, parental education levels, household poverty, sex and marital status for example), interventions will risk overlooking the neediest adolescents, and diminish our ability to show positive findings at the population level. Programme enrolment must therefore ensure that the most vulnerable are not excluded.

Ensuring fidelity in programme implementation

Concerns have often been raised about the fidelity with which interventions are implemented. Sessions may not be held with the frequency proposed and attendance may be irregular, field-level programme implementers may lack capacity and commitment, programme delivery may be compromised if teachers or health care providers skip issues that make them uncomfortable or do not ensure participant engagement and reflection, and complicated enrolment procedures may inhibit parents from enrolling adolescents in available programmes (for example CCT programmes, Sekher, 2012). Findings call for stronger programme monitoring mechanisms to ensure the fidelity of implementation. Process documentation and regular monitoring are essential not only to understand the challenges of project implementation, but also to understand fidelity in programme implementation, document challenges, and make midcourse corrections. Process documentation and regular monitoring may shed light, moreover, on questions such as the ideal duration (dose) of an intervention that balances limited resources and potential participant fatigue with effects on changing norms and practices; whether mixed sex interventions work as well as do same-sex ones; and what a meaningful extent of saturation of a particular target group may be necessary in order to observe community-level effects.

Upscaling successful pilots

Translating what works in successful NGO pilots into scaled-up public sector programmes remains one of the most significant challenges in evidence-informed programming for adolescents. Part of the challenge is that available NGO pilots have typically been designed and implemented without government involvement and have been implemented in specially created NGO platforms that are discontinued at the completion of the project. At the same time, lessons for wider replication – non-negotiable components, the feasibility of a shorter intervention, an intervention that covers more or fewer issues, or the cost of wider replication for example – have not been systematically assessed. Projects need to pay attention to potential scalability from the time they are conceptualised, rather than at their conclusion, and must conclude with a roadmap of what is feasible and what is effective. Innovative pilots that are implemented with the engagement of government agencies are of course ideal, with potential for replicating promising lessons at scale.

5.4 Conclusions

A large number of policies and programmes demonstrate that investing in India's adolescents and youth is a national priority. Yet as this review shows, promising interventions are not all ready for replication and scale-up. Some are indeed ready for replication, others require modification and incorporation of lessons from global evidence prior to upscaling, and still others need to be developed and evaluated for their potential for scale-up. At the same time, many national and state level programmes already exist – the RKSK, the AEP, the National Skill Development Mission, the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY), and numerous CCT programmes – that are urgently in need of evidence-informed modification.

Meeting the SDGs by 2030 will require sustained investment in health, education, skill building and preparation for employment, empowering young women and girls, and promoting gender-equitable attitudes and behaviours among India's youth. Governments and NGOs must therefore be open to developing, testing and adopting new approaches to supporting adolescents to make a successful transition into adulthood.

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