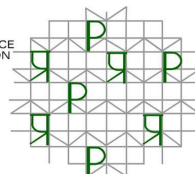


Promoting Adolescent Engagement, Knowledge and Health (PAnKH) in Rajasthan, India

Programme Implementation and Cost-Effectiveness Analysis



PROFESSIONAL ASSISTANCE
FOR DEVELOPMENT ACTION



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Rajasthan, India**

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1 INTRODUCTION

The potential of programmes targeting the skills, knowledge and attitudes of adolescent girls and their communities has been recognised by politicians, policymakers and civil society organisations in India. India has several ambitious national programmes that aim to transform the education, marriage and labour market outcomes of women through intervening during adolescence. Despite, or perhaps because of, the scale of their ambition there are serious concerns about the implementation strategies employed by these programmes. Many rely on young adolescents to deliver large parts of the programme activities. These adolescents are typically volunteers and receive only limited training for and support in their role. Given the hugely challenging and often taboo nature of the topics that these programmes aim to address there is a natural worry over whether these young people have the capacity and skills to deliver high-quality services.

We designed PAnKH (‘Promoting Adolescent Engagement, Knowledge and Health’) to address key government priorities of improving adolescent girls’ education, skills, empowerment, mental health and delaying marriage and the onset of childbearing. We designed the strategy to overcome concerns regarding the feasibility of existing government programmes. In a parallel evaluation report we document that PAnKH increased adolescent girls’ attendance at school, particularly amongst older girls. Amongst this older group too PAnKH delayed marriage. A separate community component improved mental health.

In this report we focus on how PAnKH fits into the existing Indian policy landscape, whether and how the model could be implemented at a much larger scale, key challenges experienced during implementation and cost-effectiveness. PAnKH, and its evaluation, was designed to inform the lively debate around national programmes targeting adolescent girls and so these questions are crucial. We pay particular attention to what the details of implementation mean for the extent to which these findings provide evidence on the likely effectiveness of key government policies.

We also examine PAnKH’s success in reaching all adolescent girls living in programme communities. We assess the programme’s overall participation rate and look at barriers that affected access for particular groups, in particular married adolescent girls who attended sessions at a very low rate. This analysis is important in terms of the cost-effectiveness of the and in terms of how the programme impacts upon inequality within communities.

2 PANKH WITHIN INDIA'S POLICY CONTEXT

India has a variety of national programmes targeting adolescent girls (Table 1). Earlier schemes, for example *Kishori Shakti Yojna* (KSY) initiated in 2000 and *Nutritional Programme for Adolescent Girls* (NPAG) initiated in 2002, predominantly focused on improving adolescent girls' physical health and increasing school attendance. More recently, the government has broadened the aims and scope of adolescent policymaking to more target adolescents' life-skills, vocational skills, empowerment and knowledge of sexual and reproductive health. These are hugely promising yet highly ambitious policies that aim to remove many of the barriers that adolescent girls face to securing an education, to making meaningful choices about their education, health and marriage and to actively participate in their communities. However, despite the promise of the areas targeted by these schemes there are serious concerns regarding the feasibility of their implementation strategies.

Key schemes are highly reliant on 'peer education' models whereby the responsibility is placed on adolescents themselves to organise and run group sessions to impart the relevant skills, knowledge and empowerment. The intensity of training and support given to these peer educators appears little relative to the hugely challenging nature of the topics they are expected to cover. For example, in the *Rajiv Gandhi Scheme for Empowerment of Adolescent Girls* (SABLA), which in 2011 replaced and combined KSY and NPAG¹, a volunteer adolescent girl aged 11-18, with the help of two peers, is expected to run group sessions for between 15 and 25 girls. These sessions cover complex, sensitive and often taboo topics such as sexual health, contraception, legal rights of women and life-skills training (Ministry of Women & Child Development, 2011). The intensity of peer educators' training and support varies state by state but overall an evaluation found that just 35% of peer educators had received training (Administrative Staff College of India, 2013) which is concerning given the complex nature of the role they are expected to perform. Overall, more than 80% of SABLA's funds have been allocated to the nutrition component suggesting that although the specified aims of SABLA are far broader than the nutrition and physical health programmes it replaced, in practice most SABLA activities that happen on the ground are related to nutrition.

Rashtriya Kishor Swasthya Karyakarm (RKSK), which was launched in 2014 and is currently being rolled out, aims to target six main areas of adolescent health and wellbeing: Reproductive and Sexual Health, Nutrition, Mental Health, Injuries and Violence including Domestic and Gender Based Violence, Substance Misuse and Non- Communicable Disease. Like SABLA then, RKSK also targets complex and difficult topics. RKSK aims to engage directly with adolescents, their parents and communities to create safe and supportive environments for adolescents (Ministry of Health and Family Welfare, 2014). And like SABLA it relies on a volunteer peer educator model. Peer educators, who are aged 15 to 18, are given 14 days of training and then are responsible for forming groups of adolescents and

¹ SABLA was initiated in 200 districts. In the remaining districts KSY continued.

running 15 group sessions with them following a challenging and complex curriculum (Ministry of Health and Family Welfare, 2014, 2015a). As with SABLA, it is uncertain whether such young women with only limited training and support will have the knowledge, skills and maturity to run group sessions on such challenging topics. Initial assessments of RKSK show that there have been challenges around recruitment, training and retention of peer educators. Moreover, peer educators faced difficulties facilitating the exchange and provision information around nutrition, sexual and reproductive health (Population Council, 2017a, 2017b).

Beti Bachao Beti Pado (BBBP) was launched in 2015 with the aims of preventing sex selective abortion and improving the safety, survival chances, education and participation of girl children. BBBP is a national campaign that is focused on “challenging mindsets and deep-rooted patriarchy in the societal system”.² The scheme involves a national mass communication campaign through broadcast and social media. At a more local level BBBP aims to engage with existing leaders at the village, block and district level, to identify BBBP champions, to display posters and other material from the campaign in the community and in public spaces and to run public events promoting the aims of the campaign (Ministry of Women & Child Development, 2016). However, BBBP has published few details on the topics expected to be covered at engagement events at the local level and who is responsible for these events and how those responsible will be trained.

Sl. No	Ministries and Adolescent Health Programmes	Services
1	Ministry of health and family welfare	
	a Adolescent reproductive and sexual health (ARSH)	Preventive, promotive, curative and counseling services for reproductive and sexual problems.
	b School health programme	Nutritional interventions, promoting health lifestyle, counseling and immunization
	c Rashtriya Kishor Swasthya Karyakarm (RKSK)	Provide knowledge, skills and empowerment sessions to adolescent girls through groups facilitated by volunteer peer educators. Creating adolescent friendly health services.
2	Women & Child Development	
	a Kishori shakti yojana	Services improving health, nutritional and educational status of girls
	b Balika samridhi yojana	Services to raise the age of marriage and to improve enrollment and retention of girls at school

² <http://www.wcd.nic.in/bbbp-schemes>

Sl. No	Ministries and Adolescent Health Programmes	Services	
	c	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA)	Iron and Folic Acid supplementation, nutrition & health education, ARSH, life skill education and vocational training for girls aged 16 and above under National Skill Development Program
	d	Integrated program for street children	Shelter, nutrition, education, health care and recreation facilities to street children. Child Help Line Service (1098)
	e	Beti Bachao Betu Padoo (BBBP)	National and local campaigns focused on eliminating sex-selective abortion, increasing protection and value of girl children and improving education.
3	Human Resource Development		
	a	Sarva Shiksha Abhiyan	Free and compulsory education to 6-14 years age group
	b	Mahila samakhya programme	Provides equal educational opportunities for women
	c	Adolescent education program	Creates awareness and positive attitude to develop skills to enable them to respond to real life situations
4	Youth Affairs & Sports		
	a	Nehru yuva Kendra Sangathan	Empowerment of rural youth
	b	The national service scheme	Personality development of students through community service
	c	National Program for Youth and Adolescent Development	Leadership qualities and personality development of youth
5	Others		
	a	Narcotic Drugs & Psychotropic Substances Act, 1985- AH Strategy	Prohibition on sale to minors
	b	National AIDS Control Programme Phase –III	Appropriate referral of HIV/AIDS and RTI/STI cases

Table 1: Indian Government Programmes Targeting Adolescent Health and Development. Table taken from Sivagurunathan et al. (2015). Shaded rows added to include new programmes: RKSK and BBBP

PAnKH was designed to be a blueprint for scalable and cost-effective programmes targeting adolescent girls' education, early marriage, life skills and sexual and mental health and to inform the design and implementation of existing government programmes. The aims of PAnKH are very similar to the aims of existing government programmes, in particular SABLA and RKSK. It's approach, very broadly defined, is also similar – a community-based approach focused on engaging adolescent girls through group activities. However, in designing PAnKH we hoped to address some of the challenges faced by the implementation models that are currently being used, especially challenges related to the capacity, training and support of the young people expected to run the groups. PAnKH used para-professional mentors who were paid a competitive salary for their work with the idea that this professionalisation would increase commitment to the challenging role. The mentors were also chosen to be slightly older than peer educators in government programmes (19 to 25 years rather than, e.g., 15 to 18 in RKSK) due to the demanding nature of the role. The programme also provided intensive training, 28 days in total, to mentors and more frequent supervision and support.

Engaging with girls' wider community was important feature of PAnKH and the research design we adopted allows us to assess the additional effects of this engagement over and above the activities focused on adolescent girls. This dimension of PAnKH is related to the approach of BBBP. However, PAnKH implemented a more structured model of engagement with the wider community than BBBP. Engagement primarily took the form of community 'Call for Action' events run by the adolescent girls and their mentors every two to three weeks throughout the implementation of the girl groups. In these events girls and mentors presented the topics they had been covering in the groups to the community as well as facilitating a wider discussion and to seek support and action from them on these issues. This gave these events a natural structure which closely followed the curriculum of the girls' groups.

3 THE PANKH PROGRAMME

PAnKH targeted unmarried and married girls between 12-19 years of age (at the start of the programme) and included two different community-based interventions: girl only intervention and integrated intervention. Both interventions lasted for two years. The girl only intervention took place in 48 villages arranged into 30 clusters and comprised educational sessions, focused on building knowledge, life-skills and equitable gender attitudes, for adolescent girls and sports sessions that culminated in an inter-village sports tournament. In addition to the educational and sports sessions, the integrated intervention, which took place in 39 villages arranged into 30 clusters, also included a series of Call for Action events that reached out to the whole community (Figure 1). Below, we briefly describe all three components.

	Girl Only Intervention	Integrated Intervention
Education sessions	✓	✓
Sport sessions (+ tournament)	✓	✓
Call for Action events		✓

Figure 1: Intervention Model

Group Education Activities with adolescent girls age 12-19

Group Education Activities (GEAs) consisted of a total of 31 sessions for girls aged 12-14 and 28 sessions for girls aged 15-19 years, each session lasting about 45-60 minutes. These were facilitated by “mentors” who were young women, aged 19 to 25, from the targeted communities. Mentors were trained to follow a set detailed curriculum by PRADAN and ICRW.

The curriculum was divided into three segments to introduce new topics in a progressive way, from more simple concepts to more complex and sensitive issues: the basic, intermediate and advanced components comprised 11, 12 and 5-8 sessions³, respectively. The curriculum covered topics on gender, social norms, marriage, education, safe spaces and violence, the female body and sexual and reproductive health. To ensure the content was appropriately targeted, girls were divided into two groups based on their age: girls aged 12-14 and girls aged 15-19. This ensured more complex and mature topics, such as contraception, could be covered with the older girls while the younger girls focused on the physical and emotional changes during adolescents.

The curriculum involved many types of activities including interactive games, role-play and group discussions. Moreover, as part of the programme an activity book for girls was to summarize the positive messages of the programme and allow the girls to review and reflect on them beyond the programme sessions.

Sports Activities with adolescent girls age 12-19

Building on ICRW experience of implementing *Parivartan* Girl Sport programme⁴, a core component of work with the girls included sports sessions of 60 minutes that were given every week either before the education sessions or in a different day. In the sessions girls played *kabaddi*, a traditional and popular sport across India. There were three main reasons for the choice out an outdoor sport like kabaddi. First, it is a sport requiring exertion of physical strength, requiring the players to move and run around in open public spaces, thus giving opportunities to girls move about freely in public spaces and claim their right to free

³ The duration of these sessions was longer, approximately 90 minutes.

⁴ *Parivartan* Girl Sports programme is an intervention targeting adolescent girls age 12-16 years with the aim of improving their self-esteem, self-efficacy and aspirations for education:

<http://strive.lshtm.ac.uk/resources/parivartan-girls-programme-tools>

access of open spaces. Second, as kabaddi requires girls to play as a team, it helps in building peer networks, decision making and leadership building as well. Third, the sport also provided perfect entry point to talk to girls about issue of sexual reproductive health rights, sexuality, bodily integrity as the sport provided and opportunity of praxis on these issues for girls. The sports sessions culminated in a kabaddi tournament providing an opportunity for girls from different villages to come together and play.

Call for Action events

Call for Action events consisted of events at the end of each module of the GEA sessions. Girls were encouraged to invite their parents, siblings and members of the community to the CFA events. The call for action events were designed to spread the messages on issues such as menstrual health, violence and gender-based discrimination to the community and seek their action on them. Call for action events saw girls and boys collectively raise social issues concerning the adolescent girls before the community members through tools such as street plays, songs, posters and slogans. After they put forth the issue through their performance the community members were engaged in a dialogue on the issue to seek their support for action towards positive change. The girls and boys ensured that these events have community representation from all sections and stakeholders from local self-government bodies, village level health and public service providers.

Originally, the integrated intervention was planned to include (i) activities with mothers and fathers of adolescent's girls, and (ii) education activities with men and boys. During the first 4 months of intervention (August to December 2016), sessions with mothers and fathers were executed in 6 out of the 30 targeted clusters. Moreover, between 3 to 4 education sessions were conducted with approximately 1282 men and boys. However, in all only a small proportion of relatives of sample girls attending these sessions. It was particularly difficult to engage fathers as they were often outside the village during the daytime. Therefore, it was decided to engage boys, men and caregivers in the Call for Action Events.

3.1 PROGRAMME DETAILS

The two models, 'girls only' in 30 clusters and 'integrated' in 30 clusters, were implemented between August 2016 and September 2017. The 60 clusters, villages or groups of nearby villages were spread over three blocks of Dhoulpur district – Bari, Baseri and Dhoulpur. Figure 3 summarises the timing of implementation and below we summarise each stage of implementation.

3.1.1 PREPARATION

To gain a comprehensive understanding of the key issues affecting adolescent girls and their families in rural Dhoulpur, we began by collecting a baseline survey of adolescent girls and their caregivers and conducting a social mapping exercise⁵. Insights from both impacted substantially to the design of the programme and curriculum. For example, the baseline survey clearly demonstrated that adolescent girls had very low levels of even basic

⁵ For more details refer to the Baseline Report.

knowledge about puberty and menstruation, confirming that this should be a focal point of the curriculum. Moreover, the survey and social mapping together illustrated the extent of restrictions that adolescent girls' face; in their mobility, in their participation in household and community decisions that affect their future and in their ability and confidence to occupy public space within their community. The understanding of the depth and complexity of such norms and restrictions were important in designing the programme to be both relevant and acceptable to both girls and the community. The social mapping exercise also mapped existing community and social groups, presence of Collectives, Cooperatives, Self-Help-Groups (SHGs) and groups within the village such as community-specific Panchayats (caste and tribe based groups). This also informed curriculum design. In particular, girls' and their families' fear of violence if girls deviated from social norms or moved along outside of their home was particularly salient. Social mapping was important in terms of identifying stakeholders. Similarly, it sought an understanding of different caste and religious groups and relations in each community and the implications of these for GEA group dynamics. In particular, it was useful in assessing whether mixed-caste GEAs would be feasible or whether it was necessary to have separate groups. During the social mapping exercise, the team also took the opportunity to brief the villagers about plans for implementation of the PAnKH programme and sought their collective approval to work with the groups targeted by the programme.

Engaging girls and their families in programme design through the participatory process of social mapping served three key purposes. First, it prepared the ground for program implementation by mobilizing the community around the issue of empowerment of adolescent girls. It not only gave an opportunity for people share about their problems faced by girls in the communities and homes, but it also was a platform for them to come together for the first time on the issues of girls and collectively reflect on the situation and suggest ways forward. This was major step in gauging as well as building buy-in on the issue of girls among the community members. Second, it created openness for discussion on the issue and understanding priorities of girls. One of the areas of probe was on the aspects of what issues are of interest to girls and what could bring them together for discussion and activities. The predominant question at this stage was also whether the girls would be ready for a programme on such sensitive topics given the context of rigid gender norms in this area. However, in these interactions and qualitative data collection girls talked openly on the issue and expressed need for more knowledge. This helped in defining the intensity of the curriculum on the issue of SRHR and also grading it as basic, intermediate and advanced. Third, the process of designing the program for girls was empowering for both girls and the mentors as the program gave flexibility to adapt the timings and pace of the sessions to needs of girls in specific villages. This depended on the availability of time given that some of them were burdened with household chores, were studying in schools or had restrictions on movement outside the house for any purpose other than the household related chores.

Developing the PAnKH curriculum was an iterative process completed over the course of a year incorporating inputs from the community and experts. At the core of the curriculum is the integrated approach used by ICRW known as the 'gender transformative framework'. This involves pausing and reflecting on one's everyday life to recognize and understand the

social construction of gender and how it is reflected in the small everyday actions that we all undertake. These critical reflections have to be undergone by the facilitators, mentors and other programme implementing actors in order for them to be able to create similar opportunities for the participants to observe and reflect on their own ingrained norms and challenge them. The idea is to introduce the core component of sexual and reproductive health and rights within the larger paradigm of gender as a social structure which enables and constrains both men and women in different ways.

The first draft of the curriculum went through a round of simulation and testing with the programme facilitators and it was adapted based on the progress made during the implementation of the basic curriculum.

3.1.2 COMMUNITY MOBILISATION AND STAFF RECRUITMENT

The programme coordinators held meetings with community leaders and key workers in the local health and education system⁶ to explain the programme objectives and gain their support to implement the programme. Moreover, the programme also organized community meetings to inform the community about the programme and formally gain their commitment and support towards the programme.

Programme staff were recruited. For all roles, applicants with prior experience working and implementing programmes targeting women and girls were preferred but such experience was not common and not necessary. Programme staff included the programme manager, 13 facilitators, 120 female mentors, 40 male mentors and 35 PAnKH Sakhis (frontline workers of PRADAN).

The female mentors were young women between 19-25 years old who had completed at least 10th grade in school. They were recruited from the participating villages and led the group education sessions, sports activities, the call for action events and community campaigns. Each village had between 1 to 3 mentors, and was responsible for 1 to 4 groups of girls. The male mentors were initially in charge of organizing the sessions that were planned for boys, men and fathers. Later, when the CFA component was introduced, the male mentors contributed to organize these events, co-facilitate discussions and report back the progress of CFA events to the PAnKH team.

The programme manager oversaw and monitored the implementation of the programme. The facilitators were individuals from the district with higher education that were involved from the very initial stages⁷ in all parts of the project including initial formative research in the targeted villages, baseline data collection, as well as training for and monitoring of the programme implementation. Each field facilitator supervised implementation in up to 6 villages and provided support and advice to the mentors.

Initially, the recruitment of mentors was challenging due to harvest season, lack of qualified candidates, lack awareness of the programme objectives and the distance between targeted

⁶ Including the Sarpanch (Head of Panchayat- local governance system), Ward Panch (ward head from Panchayat), ASHA, ANM, school teachers, AWC, and SHGs

⁷ Facilitators were recruited in 2015 to provide support in initial stages.

villages. Based on this experience, the recruitment process was intensified and further decentralized, holding meetings in Dholpur, Bari and Baseri blocks with the support of local leaders and SHGs. Over the period of PAnKH’s implementation, some mentors dropped-out due to marriage, education or other work opportunities, so new mentors were recruited and trained when needed.

The recruitment of PAnKH Sakhis happened at a later stage, once the programme had started. They were responsible for providing support to mentors and, in particular, to encourage families to allow their adolescent girls to attend the sessions. Their older age and respected standing in the community stemming from their longer term involvement with PRADAN and working on social issues was important in this latter role.

3.1.3 STAFF TRAINING

The field facilitators and the mentors underwent extensive training – the complexity of the topics dealt with by the curriculum meant training of staff was a key programme investment. The group education activities (GEA) education sessions were organized in three sequential stages - basic, intermediate and advance sessions – and the training was structured in such a way that the mentors were trained on specific topics prior to the start of a new stage of the sessions. This allowed mentors to absorb the new concepts and information better, and to build up experience in teaching, facilitating groups and fostering dialogue.

The initial set of training workshops focused on the core philosophy and themes of the programme. Subsequent workshops covered specific materials and facilitation methods for the implementation of education curriculum that covered topics related to sexual and reproductive health (SRH), gender, gender-based-violence, decision making, emotional expressions, communication and negotiation skills, among others. Moreover, the facilitators and mentors underwent additional training on the rules and tactics of kabaddi. In all mentors received 28 days of training and supervised practice over the 2 year programme (Table 2).

Training Session	Number of Days
Basic Curriculum Training	6 days
kabaddi Training	2 days
Additional Basic Curriculum Training and Practice	2 days
Intermediate Curriculum Training	6 days
Additional Intermediate Curriculum Training and Practice	2 days
Advanced Curriculum Training	6 days
Additional Advanced Curriculum Training and Practice	2 days
Additional kabaddi Training	2 days
Total	28 days

Table 2: Mentor Training Schedule

It was critical to identify when additional training was needed. Initially, during the implementation of the basic sessions, the mentors struggled to run the sessions and attendance to the sessions was low; mentors reported that they felt uncomfortable discussing

the topics and managing group dynamics. Based on this, the mentors received a further-capacity building workshop and additional practice and the basic curriculum was implemented again. As a result, the quality of the sessions improved and attendance increased. For the intermediate and advanced curriculum mentors were also given an additional practice workshop.

3.1.4 MOBILIZATION OF GIRLS AND COMMUNITY

The PAnKH Sakhis and the mentors led the mobilizing of girls and the wider community and encouraged attendance at the GEAs and the CFAs. They visited the girls and their caregivers at home to encourage participation and to respond to any concerns about the programme. On the basis of concerns raised by girls and caregiver adjustments were made to the programme. For example, girls and caregivers often reported that sessions held on weekday evenings were not convenient as girls had to help in the home after school. In response to this, many groups switched to holding sessions on Sundays.

The mobilization strategy was especially challenging for married girls. Recently married girls in Dhaulpur district face many restrictions to their mobility and ability to mix socially outside of the household. Despite multiple efforts, only 7% of married girls attended the sessions. The issue of attendance amongst married girls is discussed in detail in section 4.

Concerning the wider community, it was challenging to mobilize boys, men and the girl's parents to attend the sessions designed for them. Generally, men were not available during the day because of work or migration to other villages. Moreover, during the evening, it was difficult to engage with them because they were involved in social activities. In the case of caregivers, they lacked time to attend the sessions and were often reluctant to participate in the sessions because the mentors were younger than them. Because of challenges engaging mothers and men and boys for specific group sessions, the decision was made to transition to CFA events. During these CFA events, mobilizing the men was still a challenge. To counter this, the programme implemented two strategies: inviting the head of the villages to the events and involving men/boys in the activities run during the CFA events (e.g. participation of boys in role plays).

PAnKH Sakhis, facilitators and mentors together encouraged participation in sports activities. The sports sessions found the support of the vast majority of programme communities. However, in a few communities, some men raised objections to the participation of girls in the tournament as they considered that kabbadi was not a respectable game for girls. Moreover, the existence of strong caste dynamics also restricted the participation of some girl in the tournament.

3.1.5 PROGRAMME ACTIVITIES

In each of the 60 clusters, between 2 and 10 groups of girls were formed for the education and sports sessions, and the mentors were in charge of 1 to 4 groups each. It was difficult for a project such as PAnKH to shift social norms around caste, and thus the program had to work around it and acknowledge that it remained a hurdle in building community level peer networks for girls across different castes in some villages. This was more visible in bigger

villages that had communities from different castes and where the habitations of different caste groups were spatially segregated, and thus the group formation was specific for one neighbourhood and was dominated by one caste group. In some villages intra-village communication between groups could not happen on regular basis because of caste, barriers which also posed restrictions on mobility of girls to habitations of communities from other caste groups. However, the sports and the tournament was a major contributor in breaking the barriers of caste as during the tournaments girls from different villages and different blocks interacted and played with each other freely and also helped in forming newer networks for girls transcending the caste boundaries and thus continuing these interactions in schools or while playing.

The education sessions were structured in 3 stages: basic, intermediate and advance. This allowed introducing new topics in a progressive way, from more simple concepts to more complex and sensitive issues. This was done to ensure that girls who dropped out or moved away from the village received a minimum level of input and since it was easier to handle more complex issues like contraception and sexuality after a firm rapport was established with the adolescents and the community was also convinced about the purpose of the programme. The curriculum comprised 31 sessions for girls aged 12-14 and 28 sessions for girls aged 15-19 years, organized in 3 stages: 11 basic curriculum, 12 intermediate curriculums and 5-8 advance curriculum. All groups covered the entire curriculum. Some groups held a higher number of sessions because (i) some mentors struggle to teach the sessions at the beginning, so after providing them additional training, the basic curriculum was implemented again and (ii) some groups held additional sessions to review the topics and play kabbadi.

Basic Sessions	Intermediate Sessions	Advance Sessions
Introductory session	Aspirations and education (2)	Body and sexuality (2)
Gender and sex	Barriers and negotiation to achieve education aspirations (2)	Personal space and right to say no
Division of labour	Marriage aspiration and negotiating around marriage (2)	Good and bad touch
Gender and social norms	Growing up: physical changes	Sexual and reproductive health rights
Stereotypes: roles and responsibilities	Growing up: menstruation	Contraception knowledge
Enacting power	Growing up: emotions	Family planning and communication
Understanding relations	Understanding violence	HIV and STI
Marriage: what and when?	Safe spaces	Stigma and discrimination
Marriage: roles and responsibilities	Standing up against violence	Human rights and values
Effective and assertive communication		
Communication for negotiation		

Sessions for all (12-19)
 Sessions for girls 12-14
 Sessions for girls 15-19

Figure 2: GEA curriculum

The sessions were mainly held in the community centres or in closed spaces to ensure a private and safe environment. The mentors decided when to hold sessions and the majority of

sessions were done on weekends to avoid interfering with the school schedule. During some seasons of the year, it was harder to mobilize girls due to holidays, harvest season or hot weather. In these cases, the sessions were sometimes postponed to a later date and in some cases, more sessions were held in a week to ensure groups covered the whole curriculum. Furthermore, at first, the programme planned to run the GEA and sport sessions on different days. However, considering that the sport sessions were very popular and a big draw for encouraging participation, the majority of the groups decided to hold the sport sessions and the GEA sessions back to back.

The kabaddi sport tournament was organized during the second year of the programme (January-February 2017). The tournament started with games between different teams from the same village, progressed to games between villages in the same block and culminated in a final between winning teams from the different blocks. More than 3,000 girls participated in the tournament and large crowds of families and the wider community watched tournament matches. Around the games, the groups performed roleplays and led discussions on the issues they had been considering in the GEAs, similar to the CFA events.

In the 30 villages where the integrated model of the programme was implemented, the facilitators, mentors and PAnKH Sakhis organized the CFA events. The events were implemented since 2017 and intended to replace the model of targeted sessions for men, fathers and caregivers. They were organized once a month and consisted of role-plays and facilitated discussions about issues related girl's education and early marriage, gender-based violence and differential treatment between girls and boys.

3.1.6 MONITORING AND SUPPORT

PRADAN and ICRW constantly monitored the quality and reach of all components of the programme. PRADAN employed 13 facilitators, overseen by the programme manager and a co-ordinator from ICRW.

Facilitators were the first point of contact for mentors. They observed GEAs and sports sessions, provided advice, on-the-job training and feedback to mentors. PRADAN and ICRW held monthly meetings to discuss the progress of PAnKH and plan modifications to the programme based on the challenges encountered by the staff (e.g., organize the transition from individual sessions with caregivers, men and boys, to CFA event). In the integrated intervention mentors also had the support of PAnKH Sakhis, older women within their own communities. IFS also joined the meetings and visited the field on a quarterly basis to provide additional support and advice.

Field facilitators also received ongoing training. They met for day long discussions every week where topics including child safe guarding, ethics of research, monitoring data collection, and process documentation were covered.

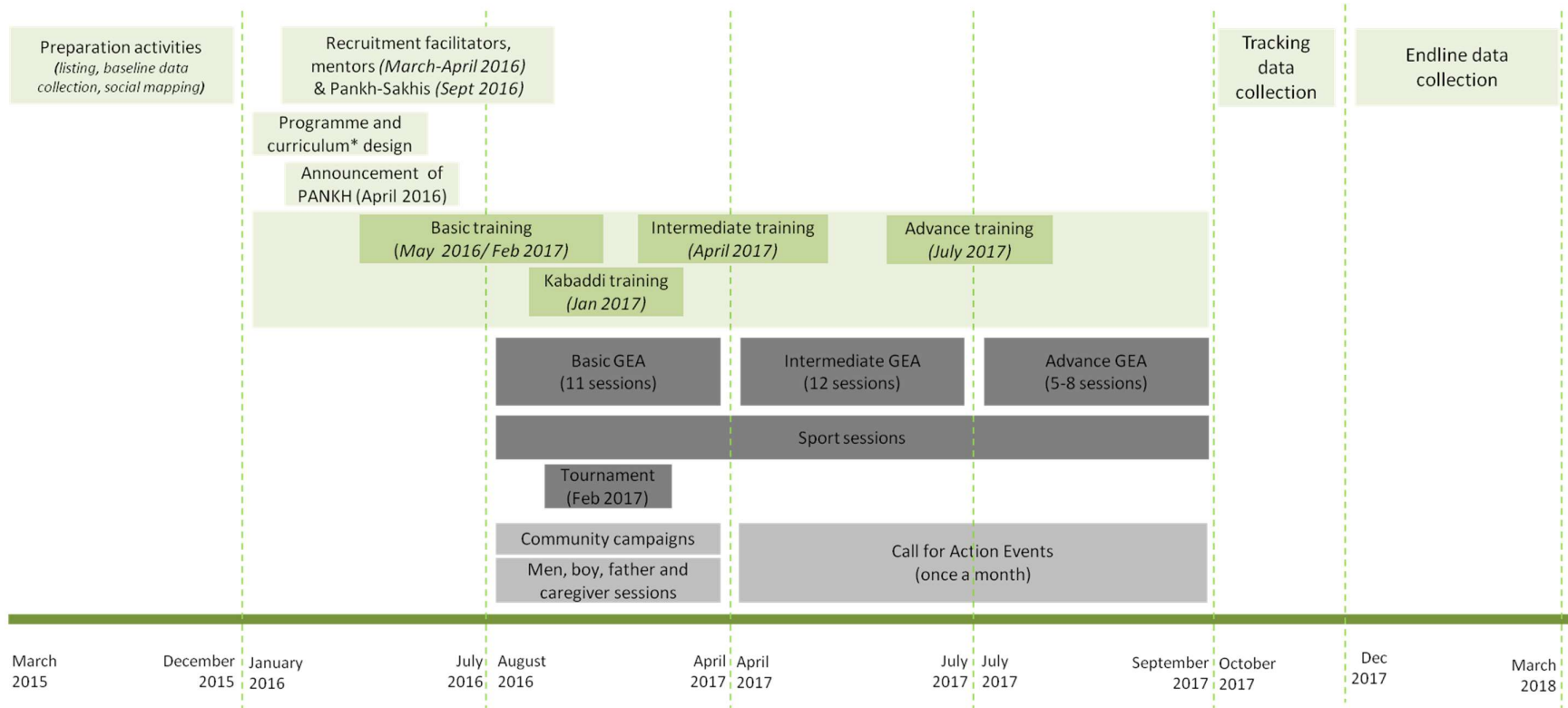
Girls' session attendance and progress through the curriculum was collected throughout the programme by mentors and was digitised and monitored by PRADAN. This data allowed a real-time scrutiny of attendance and progress in different communities so facilitators could intervene quickly in cases where there were problems or mentors needed additional support. Monitoring data allowed the implementation team to identify and quantify patterns of attendance to update or change implementation strategies. For instance, it helped to identify that married girls were not attending the sessions and this led to an increase in the mobilization activities within this group.

Monitoring data was also essential for the evaluation team. The data was essential to identify that the study did not have enough power to measure the impact of PAnKH among married girls, as only 7% of married girls at baseline attended the programme activities which led us to drop these girls from the quantitative endline. In the next section we use this data for analysis of how many and which girls attended sessions.

3.1.7 SAFEGUARDING

The PAnKH project team was trained by International Inspiration (IN) on child safeguarding. With support from International Inspiration (United Purpose), PAnKH team developed a code of conduct to safeguard children/ adolescent girls and boys who would take part in the program in consultation with PRADAN in local language. The entire PRADAN team including the core staff, all field facilitators as well as both female and male mentors were trained in this by the ICRW team, after which the policy was signed.

The policy helped the team deal with some incidents reported from the field. For example, there were some instances of girls getting hurt and other things like clothes being torn off as part of the kabaddi sessions. These incidents were very upsetting to the children involved and dissuaded them from coming to the next sessions. However, in these instances, the field team counseled the girls and her parents and encouraged her to join them again. Similarly, instances of caste discrimination were also reported wherein upper-caste girls abused other girls while playing together. This was also dealt with promptly.



* Adapted and improve throughout the programme

Figure 3: Programme Timeline

4 PARTICIPATION AND ACCESS

How many and which girls attended PAnKH activities is important for the effectiveness, cost-effectiveness and equity of the programme. In this section, we analyze the factors that influenced girls' participation in activities, using quantitative monitoring data on girl's attendance⁸, and qualitative data⁹. As discussed in section 5, the extra costs associated with expanding the programme to more girls within a given village are small since mentors were often not working at full capacity and could have added more groups to their workload. Therefore, since the costs of scaling up within villages are minimal this is the most effective route to increasing cost-effectiveness, presuming the benefits from participation translate to these new participants. Examining girls' reasons for not attending sessions is thus key to understanding the feasibility and best strategy to scale up within villages.

The PAnKH Sakhis and mentors ran extensive mobilization activities to encourage participation in the GEA and sports sessions among married and unmarried girls aged 12 to 19 years (see section 3.1). Based on the monitoring data, 7% of married girls and 48% of unmarried girls at baseline attended at least one activity of the PAnKH programme. Among the unmarried girls who participated in PAnKH, they attended an average of 60% of sessions.

4.1 PARTICIPATION AMONGST MARRIED GIRLS

Throughout PAnKH we observed very low turn-out among married girls, just 7% attended any sessions. The qualitative data collected in the FGDs with 28 married girls and 15 mothers-in-law; allowed us to explore the reasons behind this low participation. The majority of married women who participated in the FGDs said they did not attend the programme activities, and just 2 recalled going to one session.

Married women faced restrictions on their movement outside of their households. The majority of young married women who participated in the FGDs stated they did not leave their home without their mothers-in-law's or husband's authorization and that they would generally not go outside their household unaccompanied. In the FGDs with mothers-in-law, the majority agreed that the daughters-in-law generally do not leave the household without their or her husband's permission. Correspondingly, the mentors agreed on the critical role of mothers-in-law and husbands around not allowing married girls to leave their home and join the programme.

⁸Estimates of attendance from monitoring data may be underestimates since the unique IDs were only added later to the register and it is possible that some records were not matched with baseline data due to discrepancies in spellings.

⁹ These qualitative observations come from eight focus groups discussions (FGDs) run with married girls and their caregivers, unmarried girls and mentors as part of an implementation review consultation run by Pradan.

“If my mother-in-law agrees and asks me to, then I can come.”

Married Girl, Bari block

“If we will say no to the daughters-in-law, they will not go.”

Mother-in-Law, Bari block

“Some married girls are such that they listen to their husbands more than their mothers-in-law and in that case we need to talk to their husbands.”

Mentor

Both the married girls and their caregivers highlighted that the reasons for going outside the household had to be relevant or beneficial to the household (e.g, going to the doctor, visiting family members, working in the fields), as married women had to take care of household chores and could not leave for long hours. For instance, some mothers-in-law indicated that to support their daughters-in-law attendance of PAnKH activities they had to know the objectives of the programme and the potential benefits from attending in advance.

Across the four FGDs, married women suggested that (i) the sessions should last less than two hours, (ii) sessions should be run near their houses, (iii) mothers-in-law and husbands have to be informed in advance, and (iv) it should include activities that provide married women a tangible skill that is useful for them and their household. With respect to the later, in one of the FGDs with mentors, this also came-up as a suggestion to encourage attendance; one mentor said: “To call the married girls and to convince their families, the program will need to include trainings on sewing, embroidery, painting or something. Some tangible skill will need to be taught to get them and is also employable”.

“Women have work to do in the house, they have important work to be done in the house itself.”

Married Girl, Baseri block

“We will come if the meeting is held in our village and very close by”

Married Girl, Dholpur block

“The women say that what will our daughters-in-law do there, what is the benefit, what will they learn, will they get some work? ...if they will get this then we can send them.”

Married Girl, Bari block

Few mothers-in-law wanted to send their daughters-in-law to the sport sessions as these were not considered appropriate activities for married girls. Moreover, in one of the FGDs, married women expressed that, even with authorization of the caregiver, they would not necessarily leave the household if they felt that it could affect their reputation of a ‘good woman’, highlighting the importance of ensuring the community acceptance of the programme.

“My daughter-in-law will not play kabaddi, if any villager sees her playing they’ll tell the entire village and say ‘see, what is her daughter-in-law doing’. We will be embarrassed.”

Mother-in-law, Bari block

Another reason for not attending to PAnKH was that some married women believed that the programme was not targeted to them. This misconception could have been influenced by the fact that mainly unmarried girls were attending the group sessions, and that activities such as kabaddi were not considered appropriate for married women. Interestingly, even though married girls did not mention it, according to the mentors the fact that some of the mentors were not married, disincentivized the attendance of married girls. In one FGD, one mentor of the Integrated Arm explained “The other reason is also that they think since they are married, they are in a better position to tell about these issues/topics on sex, sexuality and pregnancy than we are.” This could have affected the married women decision to attend to PAnKH, as well as their perceptions of the programme. Finally, despite the extensive door-to-door mobilizing activities, in 2 out of 4 FGDs, a few married women mentioned that they or their mothers-in-law were not invited to participate in the programme.

“The meeting was for unmarried girls and they would clearly say that they wanted to talk to them and that married women should not come”

Married Girl, Bari

“I did not know any program of this kind was running in our village. My house is a little far, nobody came to my house.”

Married Girl, Dholpur

Quantitative analysis of administrative attendance data (Table A1) shows that attendance was very low across married girls of all characteristics: attendance amongst married was not correlated with caste, age, wealth, having children at baseline or carers’ education.

4.2 PARTICIPATION AMONGST UNMARRIED GIRLS

48% of unmarried girls attended sessions. Understanding which girls attended is important in understanding how programmes such as PAnKH affect inequalities in skills and access to opportunities that exist within communities. In the FGDs with unmarried girls, girls mentioned household chores, harvesting season, weather conditions and distance as the main reasons for not attending to PAnKH sessions. In addition to this, in the FGDs with mentors, some worried that attendance could be reduced once the parents knew more about the content of some sessions, mainly because some topics such as SRH and gender-based violence were not usually discussed with adolescent girls and some family members might consider them inappropriate.

“We did not go when we had any work or whenever it was extremely hot outside.”

Unmarried girl, Dholpur block

“The ones who live close to the school, they used to come easily but the ones who live a little far would not come”

Unmarried girl, Bari block

“We would tell them to be cognizant of how much is feasible to disclose and how much is not because we also do not want them to stop attending sessions.”

Mentor

Quantitative analysis of administrative attendance data (Table A1) shows that, amongst unmarried (at baseline) girls, those who were attending school at baseline were significantly more likely to attend (an increase of 7.8 percentage points), as were younger girls and those whose parents had no plans for their marriage at the time baseline. All of these correlations can be rationalised through the fact that girls who were more likely to get married, based on their baseline characteristics, and therefore leave the village had lower attendance, as would be expected. Although a mentor also mentioned in a FGD that “the girls who did go to school and understood the importance would come to our house and ask us to take sessions but it was difficult with the ones who did not study took time in understanding the purpose and benefits of the program.” Girls from OBC/EBC castes were 8.3 percentage points more likely to attend than girls from dominant caste backgrounds, and more likely than girls from SC/ST backgrounds. We don’t see that household wealth or maternal education play any independent role in predicting access to PAnKH, over and above caste.

4.3 PARTICIPATION AMONGST THE WIDER COMMUNITY

We did not collect any data (quantitative or qualitative) on attendance at the Call for Action events that were implemented in the integrated arm. Implementors reported that they were generally well attended but of course this does not tell us whether it was primarily the families of the participating girls who attended or others from the communities.

Both women and men attended CFA events although the events were usually fairly segregated as is typical in rural communities in Rajasthan, with women standing towards the back and men taking more prominent positions. We don't know how attendance varied by caste or socio-economic status but often it did appear that more powerful male community leaders spoke the most at these events. This may have affected who, in practice, able to fully engage in the programme. These issues should perhaps be considered in future programme design.

5 COSTS AND COST-EFFECTIVENESS

An in-depth understanding of programme costs, both costs at the scale at which the programme was implemented and projections of how these costs would change if the programme was scaled-up, are vital to understand whether the programme is viable as a model for policy. Collecting such data is challenging, it is time-consuming and implementing agencies often do not systematise cost data in a detailed and disaggregated format, and hence many programme evaluations do not report information on costs (McEwan, 2012). However, we consider the analysis of costs to be as important as the analysis a programme's impacts since only together do we obtain a broader understanding of the programme's potential.

We compiled a complete picture of programme costs through reviewing receipts and financial reports. All costs were categorised by type (e.g. monitoring vs. implementation) and into the extent that they were fixed or variable, i.e. the extent to which costs would increase if the programme were to expand.

We conduct a Cost-Effectiveness Analysis (CEA) of PAnKH and hence estimate the cost required to achieve a given impact through PAnKH¹⁰. For our primary analysis, we estimate the cost of increasing the probability of a girl attending school by 1 percentage point. The increase in school attendance that PAnKH caused is likely to positively affect girls' lives through a multitude of different channels – through improved earnings, productivity in self employment, agency within household decision making, health and the health and welfare of their own children (Jensen and Thornton, 2003, Schultz, 2002). For example, evidence shows that the rate of return of an additional year of schooling is positive and around 8% per year in India (Montenegro & Patrinos, 2014). In a further analysis we assess the additional costs of improving girls' mental health through the addition of the community component in the integrated arm.

Finally, we compare the results of our CEA to CEAs of other programmes seeking to increase school attendance amongst adolescent girls in low- and middle-income countries.

5.1 ASSUMPTIONS AND ADJUSTMENTS

We follow best practice (Dhaliwal, Duflo, Glennerster, & Tulloch, 2013) in making various adjustments to ensure costs are comparable across studies. We convert all costs into United States Dollars (USD) and account for time preferences (using a base year of 2016 and a 10% discount rate) and inflation (costs are reported in 2018 USD). For details of these adjustments see Appendix A2.

¹⁰ This approach differs from an alternative method used to assess the cost-benefits of a given programme, cost-benefit analysis (CBA). In CBA the benefits a programme are converted into monetary units (e.g., additional earnings received by the beneficiaries of an intervention). While CBA can provide a more complete picture of the overall return of a programme, and can simultaneously take into account different benefits a programme may have, it requires many assumptions to assign a correct market price to the many benefits. This is particularly true for our outcomes of interest, girls education, early marriage and mental health (Bandiera et al, 2017).

We calculate costs separately for the two programme models, integrated and girl only, since the difference in costs between the two is a key component of the policy implications. For programme activities that were run in both integrated and girl only clusters we split costs equally between the two arms.

We estimate the impact of PAnKH as the average impact on all girls who were targeted, or eligible, to receive the intervention, regardless of whether or not they actually attended sessions (i.e. we estimate Intention to Treat effects). Correspondingly, therefore, we wish to estimate costs per girl who was eligible to attend the program. Any girl aged 12-19 who lived in an intervention village was eligible to attend group sessions. In many clusters, where there were more eligible girls than we had resources to survey so our quantitative sample is formed of a random subsample of the population of unmarried girls aged 12-17 at baseline, as identified by a door to door census. Therefore, as our estimate of the number of eligible girls we take the total number of adolescent girls aged 12-17 identified during the census. This figure comes to 3056 eligible girls in the girl only arm and 3207 in the integrated arm. These numbers are likely to underestimate the true number of eligible girls for two reasons: first, because in reality girls aged 18-19 and married girls were also eligible and, second, because in practice girls from neighbouring areas, outside of the cluster, often joined. Therefore, the true cost per eligible girl is likely less than we estimate meaning we underestimate the cost-effectiveness of PAnKH.

5.2 INPUT COSTS

We categorised costs into four categories: programme administration, staff training, implementation costs and monitoring costs. We do not include costs related to evaluation and research activities (e.g., listing, baseline and endline data collection and social mapping), as these are not required activities to reproduce the programme.

5.2.1 PROGRAMME ADMINISTRATION

These are costs related to the central co-ordination of PAnKH, including salaries of key staff and costs of running the portion of the PRADAN office that managed PAnKH. The main administrative costs were the salary of the programme coordinator and the accountant. In total, the programme administration costs were **USD 11,759**. The total cost was divided equally between the Girl Only and Integrated intervention, coming to roughly USD 1.70 per eligible girl.

5.2.2 STAFF TRAINING

These are costs related to staff recruitment and training.¹¹ Training of staff was intensive and represented a sizeable investment and thus a substantial portion of programme costs. We view the high quality of the training as a crucial element in PAnKH's success. The programme ran multiple training sessions for facilitators, mentors and PAnKH Sakhis. The

¹¹ Recorded recruitment costs were minimal. However, some of these costs might be covered under the implementation costs of 'printing' or 'travel'.

trainings were organized in 3 sequential stages - basic, intermediate and advance– and included training on kabaddi rules for the sport tournament. In all, mentors received 28 days of training.

The costs included the salaries of the trainers, transportation costs, accommodation costs, materials, venue and food. The staff training costs under the Girl Only Intervention were USD 10.88 per eligible girl. In the Integrated Intervention, the costs were slightly higher at USD 11.12 per eligible girl since these costs included the trainings for male mentors and PAnKH Sakhis. The bulk of the cost of training were costs associated with bringing all staff to a central location and providing them with accommodation and food for the duration of training.

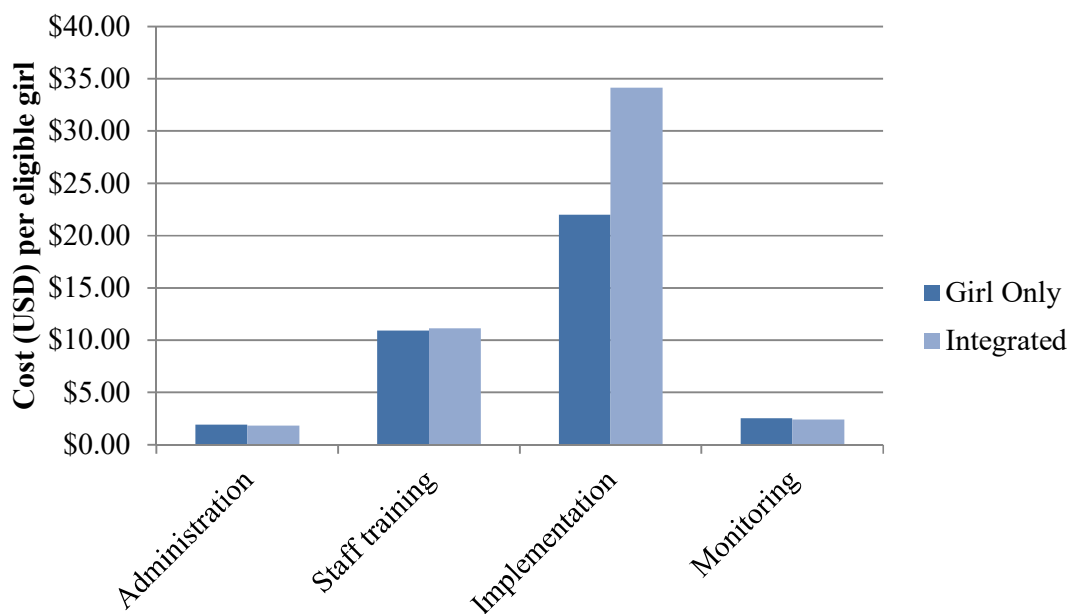


Figure 4: Program costs per eligible participant (2018 USD)

5.2.3 IMPLEMENTATION

Approximately 60% of costs were related to implementation in the girl only arm; in the integrated arm this rose to 70%. This includes all costs related to the education and sport sessions for girls, the kabaddi tournament, the sessions for caregivers, boys and men, and the CFA events. The costs cover staff salaries, transportation, materials, venue and food. The main costs were salaries of the facilitators, mentors and PAnKH Sakhis. Since sessions were held in local community centres there were no costs related to renting a venue for programme activities. Only for the kabaddi sport tournament, did the programme have to invest in preparing the field and providing refreshments. For the sport tournament, the programme also incurred costs of renting first aid kits, microphones and audio equipment.

The implementations costs under the Girl Only and Integrated intervention were USD 21.70 and USD 33.93 per eligible girl, respectively. The Integrated Intervention was more costly since it covered the salaries of male mentors and PAnKH Sakhis and a higher proportion of the printing and transportation costs. However, although it was originally planned that the male mentors would have similar workloads to the female mentors, running groups for men and boys in the community, due to changes in strategy their actual workload was substantially lower. In reality they helped to mobilise the community for CFA events and helped to run these events but they did not have regular commitments of running groups. Therefore, although we include their full costs here if PAnKH was repeated or scaled-up their salaries cut likely be cut substantially to reflect their reduced workload. If we exclude the salaries of the male mentors and facilitators the costs of implementation in the integrated arm fall to USD 26.70. This makes the integrated intervention more comparable to the girl only intervention in terms of costs.

5.2.4 MONITORING

Monitoring costs include costs incurred in visiting villages, gathering attendance data, and organizing meetings with field and office staff. In addition to the programme coordinator – whose costs are covered under administrative costs - ICRW had one staff member providing support for all the monitoring activities, mainly doing village visits and systematizing the attendance data. Monitoring costs came to roughly USD 2.50 per eligible girl in both intervention arms.

5.2.5 TOTAL COSTS

In all, the total cost of the PAnKH interventions was USD 113,266 for the girl only arm and USD 158,186 in the integrated arm. This comes to USD 37.06 and USD 49.33 respectively per eligible girl. If we exclude the salaries of the male mentors and facilitators, the integrated arm costs USD 42.10. Approximately 60% of costs represented village specific costs, such as the material used for sessions and salary of the mentors and facilitators in charge of a village. The remaining 40% were costs shared across villages, such as the administrative, monitoring and training costs.

	Total Costs			Costs per Eligible Girl	
	Girl Only	Integrated	Total	Girl only	Integrated
<i>Administration</i>					
Staff salaries	\$5,403	\$5,403	\$10,806	\$1.77	\$1.68
Office space	\$476	\$476	\$953	\$0.16	\$0.15
<i>Sub-total</i>	\$5,879	\$5,879	\$11,759	\$1.92	\$1.83
<i>Staff training and recruitment</i>					
Recruitment costs	\$38	\$38	\$77	\$0.01	\$0.01
Trainers' salaries	\$6,938	\$8,782	\$15,719	\$2.27	\$2.74
Travel, food, accommodation, venue, material	\$26,274	\$26,841	\$53,115	\$8.60	\$8.37
<i>Sub-total</i>	\$33,250	\$35,661	\$68,911	\$10.88	\$11.12
<i>Implementation</i>					
Staff salaries	\$48,009	\$86,130	\$134,139	\$15.71	\$26.86
Transportation costs	\$2,270	\$4,864	\$7,134	\$0.74	\$1.52
Material for girls	\$2,921	\$4,051	\$6,972	\$0.96	\$1.26
Printing and stationary	\$1,716	\$2,379	\$4,095	\$0.56	\$0.74
Tournament venue, materials and food	\$11,405	\$11,405	\$22,810	\$3.73	\$3.56
<i>Sub-total</i>	\$66,321	\$108,829	\$175,150	\$21.70	\$33.93
<i>Monitoring</i>					
Staff salaries	\$7,512	\$7,512	\$15,024	\$2.46	\$2.34
Food and travel for meetings	\$304	\$304	\$608	\$0.10	\$0.09
<i>Sub-total</i>	\$7,816	\$7,816	\$15,633	\$2.56	\$2.44
Total	\$ 113,266	\$158,186	\$271,452	\$37.06	\$49.33
Total Costs per cluster	\$3,776	\$5,273			
Total Costs per village	\$2,360	\$4,056			
Total Cost per group	\$740	\$1,069			
Total Cost per eligible girl	\$37.06	\$49.33			

Table 3: Programme Costs

5.3 SCALING-UP COSTS

While PAnKH was implemented at a reasonably large scale, across 83 villages (60 clusters) in three blocks, the costs that are most important for policy analysis are those that would be associated with scaling-up further. To estimate the likely costs involved in expanding PAnKH to cover more villages and more girls within each village, we categorize programme costs into fixed costs and variable costs. Fixed costs are those that would remain fixed even if the programme expanded. Variable costs, however are those that would expand proportionally as the programme expanded. The higher the proportion of fixed costs relative

to variable costs, the greater the scope for economies of scale since the cost per eligible girl would decrease as the programme was expanded (Dhaliwal et al., 2013).

Whether costs are best considered fixed or variable depends on the degree of scale-up. Expanding to new districts, for example, is very different from expanding to additional girls within the same villages. We consider three different scenarios for scaling-up: i) scaling-up within the 60 intervention clusters; ii) scaling-up to new villages within the same district iii) scaling-up to new districts or states. For each scenario, we discussed with implementers whether each cost should be considered fixed (if it would not increase substantially if this type of scaling up occurred), or variable (if it would increase roughly proportionally to the degree of scale up). The categorisation is shown in Table 4.

	(i) scaling-up within the 60 intervention clusters	(ii) scaling-up to new villages within the same district	(iii) scaling- up to new districts or states
<i>Programme administration</i>			
Staff salaries	F	F	V
Office space	F	F	V
<i>Staff training</i>			
Recruitment costs	F	V	V
Training costs			
Staff salaries	F	V	V
Travel, food, accommodation, venue, material	F	V	V
<i>Implementation costs</i>			
Staff salaries	F	V	V
Transportation costs	F	V	V
Material for girls (PAnKH Diaries)	V	V	V
Printing and stationary	F	V	V
Tournament venue, materials and food	F	V	V
<i>Monitoring costs</i>			
Staff salaries	F	V	V
Other: food and travel for meetings	F	V	V

Table 4: Scaling-Up Scenarios. F=fixed cost, V=variable cost

5.3.1 SCALING-UP WITHIN THE 60 INTERVENTION CLUSTERS

Scaling-up within the existing PAnKH villages, i.e. enrolling more girls within the existing villages, has very few additional costs. Indeed, all adolescent girls in the PAnKH villages were eligible to attend activities and therefore our costs are already reported relative to the number of girls that we (conservatively) estimate to have been eligible. However, actual attendance was only 48% amongst unmarried girls and 7% among married girls, providing substantial scope to reach more girls within existing PAnKH communities. As shown in Table 4, we consider that all but one category of cost are fixed when we consider scaling-up within PAnKH villages. Key here is that there were typically two or three mentors working in each PAnKH village and these mentors were typically not working at the full capacity specified when they had taken on the role. Therefore, in the most part, the number of groups and in many cases, the number of girls within each group could have been increased to cover more girls without the need to employ more mentors within the village and thus with no implications for salaries, monitoring, training or administrative costs.

Figure 5a is a histogram of the number of girls enrolled in each group. The mean number of girls per group was 19, which closely corresponds to the planned 20. In all 49% of the 301 groups had 19 or fewer girls enrolled, many had substantially fewer. In these groups there is clearly room to expand the group to cover more girls. In 10% of groups there was exactly 20 girls and in 41% there was over the recommended 20 girls. In most of these cases, however, there were fewer than 25 girls enrolled and so with our average attendance rate amongst enrolled girls of 63% the average session in these groups would still have contained fewer than 20 girls. In roughly half of the groups, therefore, there is capacity to enrol more girls with the only additional costs being the individual materials.

Figure 5b is a frequency histogram of the number of groups run by a single mentor. Mentors were hired to run up to four groups in their village. Therefore, the 80% of mentors that were running three or fewer groups, and especially the 60% that were running two or fewer groups, could have run extra groups for no additional cost other than the individual PAnKH materials for the new enrollees. Based on the number of mentors and groups in each village we can calculate, based on the presumption that each mentor could run four groups, the extra number of groups that could be run in that village without needing to employ any more mentors. Figure 5c shows that in 80% of the 83 intervention villages¹² there was enough spare capacity for at least one more group, in 70% there was enough spare capacity for two or more new groups.

In the vast majority of villages, therefore, it would be have been possible to increase the number of girls enrolled in the PAnKH, either through increasing the number of groups or the number of girls enrolled in each group, at very little cost. The individual PAnKH material given to each girl cost just \$0.77 per girl and therefore this is the relevant marginal monetary

¹² N.B. these 83 villages combine to form the 60 intervention clusters. Since mentors were not expected to run groups in other villages within their cluster we conduct this analysis at the village level.

cost of expanding PAnKH to one more girl within the vast majority of existing PAnKH villages.

We have shown that to increase attendance within the village would have cost very little extra. However, there are other challenges here. All girls aged 12-19 in the village were already eligible and invited to come to sessions. Our conservative estimate of attendance is that only 48% of unmarried girls did. Mentors, PAnKH Sakhis and supervisors made substantial effort during the programme to encourage girls who had not already enrolled to attend. The challenges they faced are outlined in section 4. Hence, while the monetary cost of expanding within villages is cheap, increasing enrolment above that achieved in this evaluation may require new strategies of working with girls, parents and communities.

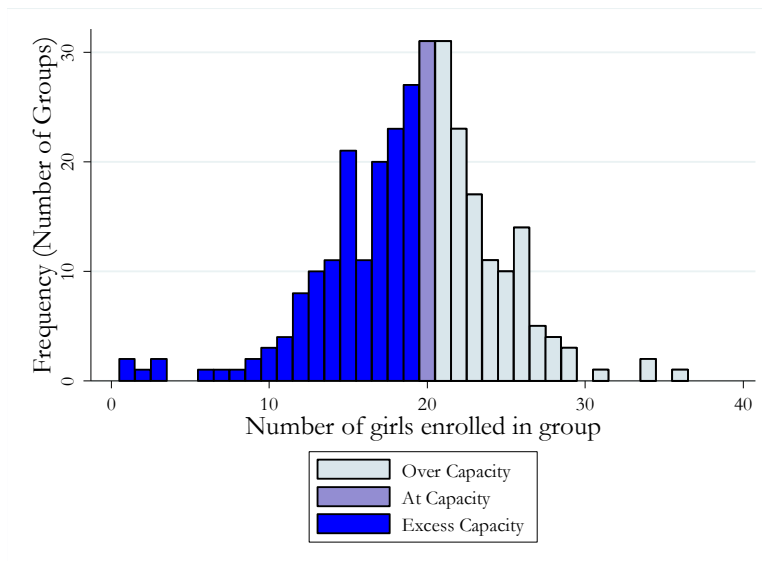


Figure 5a: Number of Girls per Group

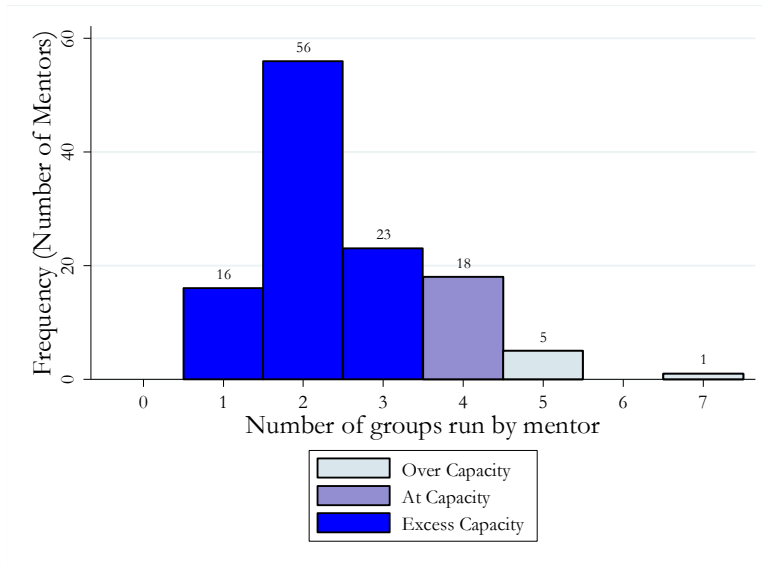


Figure 5b: Number of Groups per Mentor

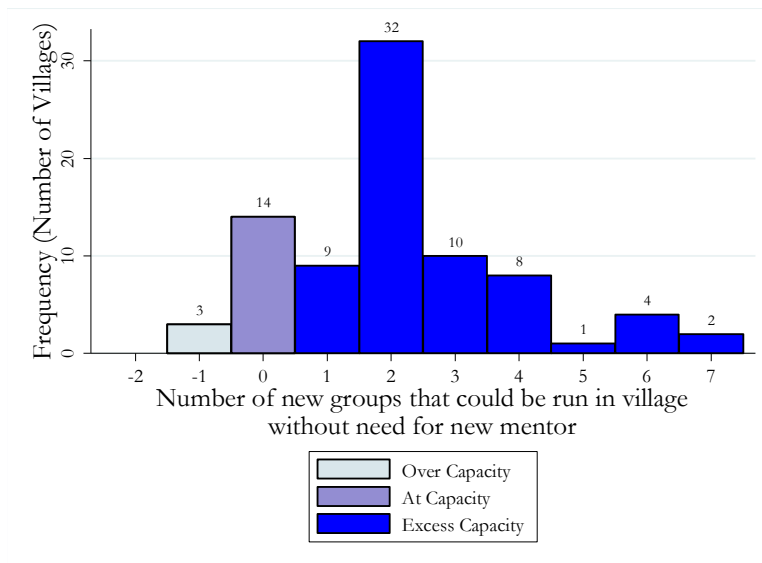


Figure 5c: Number of Excess Capacity of Mentors

5.3.2 SCALING-UP TO NEW VILLAGES WITHIN THE SAME DISTRICT

If PANkH were scaled-up to new villages within Dhaultpur district we conservatively assume that all costs associated with training, monitoring and implementation would increase in proportion to the expansion. New mentors would need to be hired for all villages and these mentors would need to be trained and monitored. In general, we see the quality of training and monitoring as crucial to the intervention's success. Therefore, to sustain quality we propose that resources allocated to training and monitoring would need to increase roughly proportionally to the number of new mentors, and hence the number of new villages.

We estimate that it would cost, on average, USD 2,237 per new village to implement the girls' only intervention and USD 3,905 per new village to implement the integrated intervention if mentors worked at the same capacity as they did in the existing intervention. Here we are considering adding village of the 'average' size of the existing PAnKH villages, containing around 70 unmarried girls aged 12-17. These costs would fall if mentors worked at a greater capacity. In many current PAnKH villages there were, for example, two mentors covering four groups when these four groups could have been covered by just one mentor working at full capacity. However, additional considerations such as the mentor being the same caste as girls in a given group must also be taken into account here.

5.3.3 SCALING-UP TO NEW DISTRICTS OR STATES

Scaling up to new districts or states would require new administrative costs associated with running the central office and employing key administrative staff. In total over the 2 years of PAnKH administrative costs came to \$11,759, and thus we can estimate that administrative costs would come out at approximately \$6,000 per year per new central office established. Given these costs are shared between the number of villages covered by that office there are clear economies of scale: the more villages worked in within the district the lower the cost per village.

5.3.4 COSTS OVER TIME

It is also important to consider how costs of running PAnKH would evolve over time if it were run continuously, rather than as a one-off two year programme. As the programme became established only refresher trainings would be needed for the majority of the mentors and facilitators. Only newly hired staff would require the full training, cutting down on the overall cost of training. However, it must be kept in mind that given mentors were young women, both married and unmarried, we would expect a high turnover due to migration for education or marriage and due to the onset of childbearing.

Moreover, as supervisors became more experienced in the concepts and methods behind PAnKH they would likely be able to take more ownership of trainings of future mentors, reducing the cost of using as many external experts in training. This must, of course, be balanced against maintaining high quality in the trainings.

5.4 COST-EFFECTIVENESS

The cost-effectiveness ratio (CER) of an intervention, compared to the counterfactual of no intervention, is the costs of the programme divided by its effects:

$$\text{CER} = \frac{\text{Cost of programme per eligible girl}}{\text{Causal effect of programme per eligible girl}}$$

We calculate cost-effectiveness ratios for both interventions.

Costs per eligible girl were USD 37.06 for the girl only intervention and USD 49.33 in the integrated intervention (section 5.2). However, as noted these costs per eligible girl are likely overestimates since we use the number of unmarried girls aged 12-17 recorded in the census to proxy for the number of eligible girls whereas in reality girls from outside of the area covered by the census also took part in the intervention, as did 18 and 19 year olds. This implies our cost-effectiveness ratios are conservative, with more accurate estimates of the eligible population the interventions would be appear more cost-effective than they do here.

5.4.1 COST-EFFECTIVENESS WITH RESPECT TO SCHOOLING

For our primary analysis, we calculate the cost-effectiveness ratio of PAnKH with respect to its effect on schooling. Namely, we calculate the cost of increasing the probability that an eligible girl attends school by one percentage point. The girl only intervention increased the proportion of girls attending school by 4.0 percentage points (relative to the control group) and the integrated intervention increased the proportion by 3.8 percentage points. Hence the cost-effectiveness ratios in terms of PAnKH’s effect on schooling are:

	Cost of programme (USD) Causal effect of programme (p.p.)	CER (USD/p.p. increase in school attendance)
Girl Only	$\frac{37.06 \text{ USD}}{4.0 \text{ p.p.}}$	9.27 USD/p.p.
Integrated	$\frac{49.33 \text{ USD}}{3.8 \text{ p.p.}}$	12.98 USD/p.p.

Table 5: Cost Effectiveness of PAnKH with Respect to School Attendance

Hence, we estimate that achieving a 1 percentage point increase in the probability of a girl attending school cost 9.27 USD when achieved through the girl only intervention and 12.98 USD through the integrated intervention. Using this metric the girl only intervention was more cost-effective than the integrated intervention since it had (very slightly, but not significantly different) greater impacts on school attendance and substantially lower costs. The differences in costs were primarily driven by the integrated arm hiring and training male mentors. If we exclude the salaries of male mentors and facilitators then the CER for the integrated arm falls to 11.07 USD/p.p..

Clearly, we estimate that the programme was more cost effective amongst groups for which there was a larger impact on school attendance, namely older girls and girls who were still in school at baseline. For example, Table 7, shows that the CER of the girl only intervention for girls aged 15-17 at baseline was 5.53 USD/p.p. and the CER for girls who were in school at baseline was 6.69 USD/p.p. Note, however, that these sub-population estimates are more tentative since they use they assume the same cost per girl even when the intervention is only offered to a subgroup.

5.4.2 COST-EFFECTIVENESS WITH RESPECT TO OTHER OUTCOMES

PAnKH had multiple aims – to keep girls in school, to delay marriage, to improve mental health and soft skills and to shift gender attitudes. As presented in the evaluation report we find that for both intervention arms PAnKH significantly increased the proportion of girls

attending school and delayed marriage amongst older girls. In the integrated arm there were also significant improvements to mental health. A drawback of cost-effectiveness analysis is that it typically only considers one outcome at a time, as we considered above with school attendance, or arbitrarily weights different outcomes (Dhaliwal et al., 2013).

We find that PAnKH reduced early marriage amongst older girls (aged 15-17 at baseline) by 3.2 percentage points for the girl only intervention and 2.6 percentage points in the integrated intervention (although the effect for the integrated intervention was not statistically significant). It is difficult to calculate a CER for this outcome however since the effect was not statistically significant for the integrated arm, the effect is only significant amongst older girls and not in the overall sample and we are using the cost figures for the whole age range despite the benefits here just accruing to the older girls. Nevertheless, we propose that when considering the cost-effectiveness of PAnKH it is important to bear in mind its effect on early marriage. Establishing the extent to which PAnKH delays marriage requires longer term follow up and hence these future follow ups will be able to integrate PAnKH's effect on early marriage into a cost-effectiveness analysis.

The integrated intervention improved girls' mental health of 18% of a standard score, as measured by an index combining symptoms of anxiety, depression and rumination. We estimate cost-effectiveness ratios with respect to this improvement in mental health in two ways. First, we estimate the cost of achieving a given improvement in mental health through the integrated intervention, namely the cost of the integrated intervention per eligible girl (49.33 USD) divided by the causal average benefit achieved by the integrated intervention (18% of a standard score (SD)). Using this approach we estimate that it cost 2.74 USD to improve mental health by 1% of a standard score through the integrated intervention. Second, we estimate the *additional* cost associated with implementing the integrated arm above the cost of implementing the girl only arm per 1% of a standard score. This is the relevant figure if we are considering the cost-effectiveness of *adding* the community component to the girl only if the girl intervention were already going to be implemented. In taking this approach we take the additional cost per eligible girl associated with the integrated arm over and above the girl only arm (49.33 USD – 37.06 USD = 12.26 USD) and divide it by the mental health effect of the integrated arm (18% SDs), since the effect of the girl only arm was almost exactly zero. We estimate that the cost of achieving a 1% point improvement in mental health through *adding* the community component to the girl activities is 0.68 USD. If we exclude costs associated with male mentors and male facilitators these CERs fall to 2.34 USD/%SD and 0.28 USD/%SD respectively.

	$\frac{\text{Cost of programme (USD)}}{\text{Causal effect of programme (SD)}}$	CER (USD/ 1% of a standard score (SD))
Integrated	$\frac{49.33 \text{ USD}}{18\% \text{ SDs}}$	2.74 USD/ %SD
	$\frac{\text{Additional Cost of Integrated Arm (USD)}}{\text{Causal effect of programme (SD)}}$	CER (USD/ 1% of a standard score (SD))

Integrated	$\frac{12.26 \text{ USD}}{18\% \text{ SDs}}$	0.68 USD/ %SD
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Table 6: Cost Effectiveness of PAnKH with Respect to Mental Health

5.5 COMPARISON WITH OTHER INTERVENTIONS

It is challenging to compare the cost-effectiveness of different interventions, particularly when those interventions follow different models and therefore likely impact on a different set of outcomes. Moreover, it is especially challenging to draw meaningful conclusions when the interventions being compared occurred in very different contexts meaning that the causal effect of interventions may not be across these contexts. Nevertheless, we attempt a simple comparative cost-effectiveness analysis using school-attendance as our common outcome across studies. In doing this we stress that the interventions compared are very different in nature and all had multiple effects across multiple outcomes. Comparing only their cost-effectiveness in terms of increasing school attendance is simplistic, therefore.

We follow the approach set out by Glennester and Tavarasha (2013), Dhaliwal et al. (2013) and McEwan (2012) to perform a comparative cost-effectiveness analysis. We sought to include all studies that assess programmes with objectives similar to ours, namely to increase school attendance of adolescent girls in low- and middle-income countries, reported sufficient information on costs and found a statistically significant impact on school attendance (the CER is infinite for studies that don't find a statistically significant impact). To this end we reviewed studies included in Field et al (2016)'s cost-effectiveness analysis as well as other recently published studies targeting girls education.

Table A3 presents all studies that we reviewed for inclusion. We found two studies that satisfied our inclusion criteria. The first, Buchmann et al. (2017), found that financial incentives conditional on girls' remaining increased school attendance in Bangladesh by 3.3 percentage points 4.5 years after the intervention started and 2 years after it ended. The second, Baird et al. (2011), found that cash transfers conditional on school attendance increased school enrolment throughout and after the period of the transfer. They increased enrolment in the last term of the two year programme by 11.3 percentage points and in the first term after the transfers ended by 5.8 percentage points.

Table 7 summarises both interventions and their respective costs per eligible girl. To ensure all costs were comparable between studies took only costs to the implementers, i.e. we did not include costs to beneficiaries such as the opportunity cost of their time and we converted all costs to 2018 USD using US GDP deflator rates. All studies applied a 10% discount rate so no further adjustment for time preferences was needed.

We estimate the cost of achieving a 1 percentage point increase in the probability of school attendance for each intervention using identical methods to those described in section 5.4. We include our estimated CERs for PAnKH as well as our estimates for subgroups most comparable to the populations studied in the comparison interventions, namely girls aged 15-17 at baseline and girls who were still in school at baseline. We see that the Bangladeshi

financial incentive programme was similar in cost (50.82 USD per eligible girl) to the integrated model of PAnKH but substantially more costly than the girl only model (37.06 USD). Since the increase in school attendance it achieved was lower, at 3.3 percentage points, its overall cost-effectiveness in terms of school attendance was less than both PAnKH models. However, in this comparison we should note that Buchmann et al. (2017) report impacts on school attendance 4.5 years after the intervention started whereas the PAnKH impacts are just 2 years after the programme started. Hence to make this comparison fair we need to await medium term impacts of PAnKH.

The Malawi CCT cost 325.45 USD per eligible girl, substantially more than either model of PAnKH. Although impacts were substantially higher, 11.3 percentage points in the last term of the programme and 5.8 in the first term after the programme, the overall cost-effectiveness ratio in terms of cost per 1 percentage point increase in school attendance, was substantially worse. It must be noted, however, that Malawi is a very different context and this comparison is not meant to suggest that a programme such as PAnKH would have worked just as well in Malawi.

Overall, despite difficulties in comparing both the costs and the effects of varied interventions in diverse contexts, these comparisons highlight that a programme primarily attempting to increase girls' schooling through building life-skills, changing attitudes and improving mental health may be just as cost-effective as programmes that more directly target school attendance through conditional financial incentives.

Paper	Population	Intervention	Outcome	Increase in school attendance (p.p.)	Cost per targetted beneficiary (2018 USD)	Cost per 1 p.p. Increase in likelihood of school attendance
Buchmann et al. 2017	Girls 15-17, Bangladesh, in school at BL	Incentives for remaining unmarried	In school after 4.5 years, 2 years after finish	3.3	50.82	15.40
Baird et al. 2011	Girls 13-22, Malawi, in school at BL	CCT for school attendance	In school in last term of CCT (Year 2, term 3)	11.3	325.45	28.80
Baird et al. 2011	Girls 13-22, Malawi, in school at BL	CCT for school attendance	In school first term after CCT (Year 3, term 1)	5.8	325.45	56.11
PAnKH	Girls 12-17, Rajasthan.	PAnKH: Girl only	In school after 2 years, 3 months after finish	4.0	37.06	9.27
PAnKH	Girls 12-17, Rajasthan.	PAnKH: Integrated	In school after 2 years, 3 months after finish	3.8	49.33	12.98
PAnKH	Girls 15-17, Rajasthan.	PAnKH: Girl only	In school after 2 years, 3 months after finish	6.7	37.06	5.53
PAnKH	Girls 15-17, Rajasthan.	PAnKH: Integrated	In school after 2 years, 3 months after finish	6.4	49.33	7.71
PAnKH	Girls 12-17, Rajasthan, in school at BL.	PAnKH: Girl only	In school after 2 years, 3 months after finish	5.3	37.06	6.99
PAnKH	Girls 12-17, Rajasthan, in school at BL.	PAnKH: Integrated	In school after 2 years, 3 months after finish	4.5	49.33	10.96

Table 7: Comparison with Cost Effectiveness of Similar Interventions

6 DISCUSSION: LESSONS LEARNT AND ROOM FOR IMPROVEMENT

The design and implementation of PAnKH were guided by an aim to run and evaluate a programme which targeted at the specific needs of adolescent girls in rural communities of Rajasthan, met the Indian governments' strategic priorities for adolescent development and was feasible and affordable as a model for government policy. Taken together, the experience of implementing the PAnKH programmes, the quantitative evaluation, the qualitative evaluation and the cost-effectiveness analysis suggest that community-based interventions that focus on soft skills, attitudes and mental health may be a promising model for policy seeking to improve the education and welfare of adolescent girls. We found that both models - working just with adolescent girls through weekly group sessions and weekly sports activities and additionally reaching out to the wider community - were equally effective at increasing school attendance, particularly amongst older girls who would have been at the highest risk of dropping out over the period and decreasing early marriage amongst these older girls. We found that the additional community engagement element substantially improved girls' mental health. Not only was the programme effective, it was also substantially cheaper to run than other models aiming to keep girls in school, particularly providing financial incentives for school attendance or delayed marriage. This implies that models that target soft skills and empowerment may compare favourably to incentive-based interventions on measures of cost-effectiveness in terms of schooling outcomes. What's more, the other changes caused by the intervention, particularly improved mental health and, more tentatively, attitudes and skills targeted by the programme may continue to benefit girls as they move towards their adult roles: in education, in the labour market and in the marital home. This is a short term assessment of impacts and it is crucial to examine how PAnKH affects girls' education, marriage, skills and health over the much longer term.

Nevertheless, programmes such as PAnKH that attempt to change 'hard' outcomes such as education and marriage through altering more subtle, subjective and difficult to measure constructs such as life skills, attitudes, knowledge and mental health are challenging to implement well. Ensuring high quality delivery whilst implementing at a large scale and within a tight budget is demanding. We faced many challenges during the design and implementation of PAnKH and yet more were highlighted through the qualitative evaluation. Some of these challenges were, at least to some extent, anticipated while others were unforeseen. In this report we have outlined successes and challenges from the point of view of the practical implementation of PAnKH, the community and staff perception and the cost-effectiveness. Here, we discuss these insights in the context of what they can tell us about opportunities to improve the PAnKH model or similar models and, more broadly, their implications for government programming in this area.

In particular, we highlight learnings relevant for key government adolescent and gender programmes, RKSK, SABLA and BBBP. We discuss lessons learnt from the design, implementation and evaluation of PAnKH across 6 areas: (i) human resources, training and

support, (ii) curriculum development, (iii) providing a space for sports and leisure, (iv) vocational skills' training, (v) working with the community and leveraging existing community mobilization platforms, (vi) ensuring access amongst unmarried girls and (vii) reaching young married women.

Human Resources, Training and Support

The quality of frontline programme staff is of the utmost importance in programmes like PAnKH or the Peer Educator component of RSKS and SABLA. Unlike other models used to target adolescent schooling and marriage outcomes, such as financial incentives, programmes that seek to build skills, change attitudes and improve mental health through working directly with adolescent girls will likely achieve nothing if frontline staff do not have the skills, knowledge, understanding of the approach and capacity to deliver the programme as intended. The skills and capabilities that programmes like these ask of frontline staff are great: they must have a thorough knowledge of the whole curriculum and other topics that are likely to be brought up by adolescent girls, they must have the leadership and facilitation skills to lead group activities and discussions, often about highly sensitive topics, and they must have the maturity and judgement to act appropriately when adolescent girls seek help or advice about difficult topics such as violence or sex. Recruiting local women to be the frontline workers is likely the only way to run community-based programmes like PAnKH and the group activities components of RSKS and SABLA at scale, for reasons of affordability, community acceptability and practically running sessions in remote villages. However, since these women have grown-up in the same communities and surrounded by the same attitudes and norms as the programme is targeting, recruiting, training and supporting them to have the confidence, knowledge and capacity to run engaging sessions is a huge challenge. There is an inherent trade-off at stake between the reliability of mentors or PEs and their skills and ability to deliver effective and engaging sessions.

From the outset, we identified that recruiting, training and supporting frontline staff, in our case mentors, was the key challenge in ensuring PAnKH's success. Correspondingly, we invested heavily in recruiting, training and supporting mentors. Nevertheless, the challenges of the job were big and providing ongoing training and support proved crucial in ensuring mentors had the skills and capacity to fulfil their roles.

We recruited young women aged 19 to 25 as mentors. We required that they had completed at least 10th standard in school and looked for leadership and communication skills as well as a strong interest and willingness to openly discuss the content of the curriculum. 64% of the mentors we recruited had finished upper-secondary school (12th standard) and many were continuing their studies further. The mean age of our mentors was 22 and 41% were married. We paid mentors Rs. 2000 (roughly USD 25) per month which corresponds roughly to 1.5 times the minimum wage for 2 days work a week. We trained these young women for a total of 28 days. Despite the fact that we recruited very well educated young women, paid fairly well and provided extensive training many mentors found the job highly challenging. Many struggled to run group sessions at the start and required further training to feel confident

enough to do this. For example, in a focus group one mentor said: “The topic where we had to explain them about the menstrual cycle and after how many days can they have sex was difficult. I called the facilitator to tell them about this. I did face a problem and I told her clearly that I won’t be able to conduct this session. I was myself confused about it, did not have enough clarity.”

RKSK policymakers and implementers have highlighted human resources as the main barrier to the programme’s success (Population Council, 2017a). RKSK uses PEs who are aged between 15 and 19 and provides them with far less training than did PAnKH (see Section 2). SABLA’s peer educators are also under 19 years old. Our experience of implementing PAnKH suggests that these PEs, themselves adolescents, may struggle to fulfil their envisaged role. Our experience suggests that these young PEs will struggle to manage the dynamics of groups of adolescents and will find it difficult to openly lead discussions on sensitive and taboo topics. Furthermore, RKSK (and SABLA) describes their role as including highly sensitive and difficult elements. For example their role requires them to ‘provide referral service with regard to medical or protection needs of adolescents in crisis’, to ‘inform mentors, the village elders, policy or child protection officer if you come to know of cases of violence in the community’ and to ‘help victims of violence reach medical care and counselling and gain access to legal aid’. All the while they are required to ‘maintain confidentiality’. These are a hugely demanding set of tasks and we question the appropriateness of asking adolescents as young as 15 to take them on.

RKSK and SABLA PEs are not paid but are given non-monetary incentives such as a T-shirt. They are expected to spend at least 4 hours a week running group sessions in addition to engaging in one-on-one interactions with peers, completing paperwork records of all interactions, attending weekly meetings with the PE coordinator, co-ordinating referral to health or other public services and helping run community wide campaigns. This is at an age when many of the PEs are likely to still be in full-time education. The workload that is required of unpaid PEs by RKSK and SABLA appears somewhat unrealistic. It is also possible that maintaining the voluntary status of PEs may undermine retention and may lead to less ambitious and young people taking on the role (Ashraf et al., 2016).

Training frontline staff in the content and methods of the curriculum is vital. PAnKH invested heavily in training. Roughly one third of the cost of the girl only arm was the cost of staff training and mentors were trained for a total of 28 days over the two years. Even after the initial training which focused on the core ideas behind the curriculum and on the content of the basic curriculum, mentors struggled to manage group dynamics and felt uncomfortable discussing the topics with girls. They were thus given a further training specifically targeting these difficulties and feedback from supervisors and field staff was that this additional training improved session quality and attendance substantially.

Initial RKSK implementation guidelines stated that PEs would be trained for just 6 days (Ministry of Health and Family Welfare, 2015a). The more recently published training manual suggests they will be trained for 14 days (Ministry of Health and Family Welfare,

2015b). The duration of training for SABLA PEs is unclear but it does not appear extensive. The RSKS training constitutes just half the duration of training received by PAnKH mentors, despite PEs being expected to deliver 15 two-hour group sessions of similar themes and complexity to the PAnKH curriculum and the PEs being as young as 15 years old (Ministry of Health and Family Welfare, 2015b). RSKS PEs are trained by district level trainers who themselves have been trained for just 5 days (Ministry of Health and Family Welfare, 2015b). This contrasts with the training for the PAnKH mentors which was delivered by trainers with substantial experience in training on gender programmes and had often been involved in developing the curriculum. Overall, the quality, intensity and length of training required to ensure that PAnKH mentors delivered high quality sessions suggests that training currently planned under RSKS and SABLA may be insufficient to ensure PEs have the ability to conduct sessions to a high standard.

PAnKH mentors required intensive support throughout the programme. Supervisors met with mentors regularly in their village, between one and three times per month, to discuss progress and any issues they were having. These were also followed up with monthly review meetings between supervisors and mentors at the block level. Supervisors helped mentors reach out to families to encourage attendance of adolescent girls at sessions. In the integrated arm, the mentors were also supported by PAnKH Sakhis who were older women from the same community with experience of PRADAN's self help groups. Our experience suggests that mentors often needed to use this support to help them solve a range of problems and anxieties. The need for support throughout is thus an important consideration for any programme working with relatively inexperienced and young frontline staff.

Curriculum Development

Developing a curriculum that meets the needs of both the recipients (adolescent girls) and those who deliver it (mentors) is challenging. To ensure the curriculum met the needs of adolescent girls, we were informed by quantitative baseline data from over 7,000 adolescent girls, and qualitative focus groups in 60 villages. These data showed that girls and their families subscribed highly patriarchal gender attitudes, which often legitimise the use of violence and abuse against girls and women who break traditional norms. It also showed that while girls often stated aspirations such as completing college or not marrying until age 21, they lacked the skills, knowledge and voice within their family and community to make these a reality. The curriculum was thus designed for these specific needs. Insights from pedagogy and ICRW's extensive experience creating engaging activities for adolescent girls were used to shape a wide variety of different activities during the sessions that would suit girls with different skills and preferences.

In the qualitative feedback sessions, unmarried girls appeared to have been most interested in topics that they would not otherwise have been able to talk about, such as marriage and menstruation. Comments from mentors also suggested that girls were most interested in these topics. Girls reported enjoying activities that involved role plays, team building games, tools such a 'gender-clock' to analyse their time use and reflect on it, quiz and the PAnKH

Diary. Despite PAnKH being successful at keeping girls in school and delaying marriage, our endline results do not tell us much about which part of the programme was most effective. In particular, we don't see any measureable impact of the programme on measures of knowledge (e.g. around menstruation or sexual and reproductive health) that were specifically targeted by the curriculum nor on measures of soft skills. This could be because these constructs are hard to measure or it could be because the curriculum was not very successful at targeting these areas but was successful for other reasons (for example, the sports component). Going forward, more thorough quantitative and qualitative research is required on which aspects of diverse curricula like PAnKH's are effective so that scalable interventions might be targeted at these aspects.

The curriculum must meet the requirements of the mentors who are expected to deliver it. This is related to the above discussion of mentor recruitment, training and support. Mentors found the most sensitive topics, such as sex and violence, particularly challenging to engage with at a personal level. However, these sessions saw a high attendance as this was also one of the key areas of interest for girls owing to very little information being available on this in their surroundings. Some found the more theoretical discussions of gender confusing while transacting during the sessions with girls, though they could articulate it with far more ease in conversations amid fellow mentors. Therefore, the inclusion of topics in curricula must be partially determined by whether mentors have the capabilities to grasp them fully enough during limited training time to lead sessions on them. Relatedly, in dealing with complex and sensitive topics mentors found it easier when the curriculum was more prescriptive about exactly what information they were expected to convey to girls and exactly what activities they should run. This insight that relatively inexperienced paraprofessionals require highly structured curricula to deliver high quality interventions has also been found in early childhood programming in India.

Providing a Space for Sports and Leisure

Sports sessions proved a key element of PAnKH. In qualitative research, we found that many adolescents primarily referred to the whole programme as 'kabaddi' and mentors commented that they often ran sports sessions on the same days as the GEAs as the sports sessions encouraged attendance. Exercise and particularly participation in team sports is often found to be beneficial for physical and mental health. However, feedback from girls, mentors and supervisors suggested that in this context the impacts of the sports sessions went far beyond health. In our study villages, girls rarely occupy public spaces and rarely have the freedom to 'play'.¹³ Sports sessions, then, by providing a safe and supervised space for adolescent girls to have fun in public spaces challenged these unwritten norms. Mentors and girls reported that the sessions and the tournaments gave girls confidence and increased their willingness to occupy public space in the village more generally.

¹³ Demonstrated by social mapping exercises at baseline, see baseline report for details.

Moreover, the sports component was relatively easy and cheap to run. Mentors required just 4 days of training on running sports sessions, compared to 24 days of training on the GEA curriculum. On the whole, mentors found running the sports sessions fun and were confident in doing so from the start of the programme. This was a stark contrast with the difficulties many mentors had in dealing with the sensitive topics raised by the GEA curriculum. Far less support was thus required in helping mentors to run sports sessions.

The apparent success of PAnKHs' sports sessions is consistent with the success of providing adolescent girls with opportunities for leisure in safe community spaces, for example in the BRAC Empowerment and Livelihood for Adolescents model (Bandiera et al., 2017). As in PAnKH, however, these studies have not been able to isolate the effect of leisure opportunities from skill training.

We only integrated sport into the curriculum late on in the design of PAnKH and after our research design was finalised. Nor did we have the resources to run an independent sports programme, we instead relied on resources already utilised by the GEA programme. Therefore, we did not design our evaluation to assess either the effect of the sports component alone or the additional effect of the sports component over and above the GEAs. Given such positive accounts of the sports component from girls and mentors and given this component was far cheaper and easier to run at scale than the GEAs, these are crucial next questions for researchers to examine. Thus future research, therefore, can help determine whether standalone community-based sports sessions for adolescent girls may be a feasible model for national policy.

Vocational Skills' Training

PAnKH aimed to develop girls' 'life' skills or 'soft' skills, such as negotiation, self-esteem, self-efficacy, communication and resilience. These skills are increasingly recognised as important for long term outcomes in both the worlds of work and home. However, feedback from both girls and mentors at the end of the programme was that there was substantial demand from adolescent girls and their families for 'harder' vocational skills' training. Girls mentioned that they would especially like training in sewing. One girl reported "We want to learn how to sew, make Rangoli and all these things and even our parents want this for us. We want to be involved in something. We already know how to cook and take care of the house and want to know newer things." Girls and mentors both advanced the view that including vocational skills training would have increased attendance at sessions from both unmarried and married girls. The inclusion of vocational skills in community-based interventions such as PAnKH should therefore be considered and future research should examine the impact of vocational training both as a standalone intervention and in combination with life skills training.

It should be noted that traditionally 'female' vocational skills like sewing and Rangoli are easier to implement than vocational skills around agriculture, technology or business since they are in line with prevailing gender norms. However, a focus on these traditionally female

skills may cement gender roles where women's work is firmly tied to the home. It might also cut women out of skills that provide a higher economic return. Therefore, future research should consider the effect of vocational training that gives young women skills that help them to deviate from narrow socially defined gender roles.

There is substantial policy focus in India at present on vocational skills training, particularly through the flagship Skill India programme which aims to train 400 million people by 2022. However, this training takes place at residential training centres where families are often reluctant to send their daughters and the programme struggles with retaining female trainees with many dropping out at the point of the first work placement¹⁴. Creating opportunities for adolescent girls to access vocational training within or closer to their communities, or creating mechanisms to make it more acceptable for girls to travel to receive training, is imperative to reducing skills gaps and differences in earnings capacities between men and women in India.

Whether or not vocational skills training in the community is a potentially fruitful model requires further examination, as does the types of vocational skills that would be most valuable to adolescent girls. The next aim for this project is to extend PAnKH with a second-stage vocational skills training programme aiming to equip girls with the vocational skills to make a valuable contribution to household income and hence increase their participation in household decision making. A key research question is whether the provision of such training leads to further delays in marriage and increases in education, as well as subsequent improvements in the marital household's economic position, married women's mental health and share of household consumption, and their children's health and education. Indeed, promising existing evidence from India has suggested that access to labour market opportunities causes a delay in young women's age of school leaving, marriage and first childbirth (Jensen, 2012). We propose that this vocational training be based around two elements:

- i) Enhancing the girls' productivity in agricultural activities, within or alongside family farming.
- ii) Increasing the girls' opportunities for employment in local towns or further afield, via computer skills training courses delivered by mobile computer labs.

The aim is to provide the girls with the skills not only to be more productive in traditional occupations for women within their communities, but also to increase their earnings potential in the wider labour market. The training will complement formal schooling, which contains very little training in labour market-specific skills.

Working with the Community and Leveraging Existing Community Mobilization Platforms

Community-based programmes require buy-in from the wider community to operate effectively. This is particularly the case in small communities with strong social norms and when the programmes cover sensitive topics. Obtaining the support of different parts of the

¹⁴ <https://epod.cid.harvard.edu/project/improving-outcomes-female-trainees-through-skill-india>

community was a key part of programme activities in the early stages of both the girl only and integrated arms and was done through community meetings and seeking support from community leaders. In the integrated arm, however, there was an additional level of community engagement through the call for action events. Here girls invited family members and others from the local community and then girls and their mentor shared what they had been learning through the GEAs, performed roleplays and facilitated discussions. Feedback from programme staff suggested that this was an effective way of gaining community support for the girls' activities, in addition to being a platform to raise adolescent girls' issues amongst the wider community. In keeping with the rigid gender norms in rural Dhaulpur, the call for action events typically had gender-segregated audiences, with men sitting or standing on one side, and women standing further back. Men, and often men who held local positions of leadership, spoke the most during discussions although women did participate too. Strategies for more fully engaging more disadvantaged groups in community activities should be explored.

PAnKH's approach to community engagement through the integrated arm could be valuable in considering how RSKS and SABLA engage with the wider communities in which they work as well as BBBP's approach to community campaigns. In considering this, however, two points should be borne in mind. First, the integrated model was no more effective than the girl only model at delaying marriage and school dropout, although there was a difference in mental health. Second, the call for action approach was adopted after the start of implementation due to challenges engaging more intensively with mothers and men and boys. Therefore, it should be viewed as a particular mode among many alternatives of engaging with the community. In PAnKH's integrated arm had a higher frequency of engagement with the community than do the key government programmes. More importantly, though, the mode of the engagement was more structured in that it followed the curriculum of the group educational activities. The perception amongst implementers was that this gave the campaigns much more structure and coherence than if the mentors and girls had been relied upon to devise events from scratch.

Men have the final say over many decisions that PAnKH engaged with, such as girls' schooling or marriage. Men attended call for action events but it was difficult to engage with men and boys in more targeted ways, as had initially been planned. Men were often either out for work in the day or had migrated to cities and the evening was not ideal in many villages for interacting with men due to alcohol consumption. Hence we decided to cover them as part of the less intensive call for action events. The only successful aspect of male engagement as part of this programme was around engaging young boys, who were interested in forming groups. As these numbers were few and it was difficult to organize all young boys into groups, the strategy was changed to reaching out to them through 'spot meetings' at the points in the community where boys tended to congregate. These spot meetings covered a shorter, but similar, curriculum to that covered with adolescent girls. Further research should explore new ways for engaging with men and boys on issues important to adolescent girls.

PAnKH also provides key insights on the benefits of leveraging existing platforms for community mobilization, such as the network of PRADAN's self help groups (SHGs). The premise of the programme design was to layer the intervention onto the existing SHG network in the intervention area, which was active, strong and had been established 15 years prior. The SHGs proved helpful in initial community mobilization for social mapping, for programme design, for mobilizing girls for participation in the program, supporting community campaigns for girls and for appointing PAnKH Sakhis. However, PAnKH did not succeed at putting the issues of adolescent girls on the agenda of the SHG meetings more generally due to lack of time, their unfamiliarity with some of the topics. Our experience suggests that institutionalization of strategies to engage adolescent girls within existing institutions requires dedicated attention and more handholding support that was not possible within the time and resources of this programme.

Ensuring Access amongst Unmarried Girls

At least 48% of unmarried adolescent attended enrolled in PAnKH, i.e. they attended at least one session, and these girls attended, on average, 63% of sessions. The enrolment rate compares favourably to other studies of community-based adolescent girl interventions (e.g. 21% in the Tanzania safe spaces and vocational training programme (Bandiera et al., 2017) and 56% in Bangladesh girls' empowerment program (Buchmann et al., 2017). We put this down to the active nature of the frontline staff's outreach to families and the community, mentors, facilitators and PAnKH Sakhis visited the house of all the adolescent girls we knew about in the community to address any concerns the family might have and outline what the potential benefits of attending would be for adolescent girls. Nevertheless, there is room to improve on both the enrolment of unmarried adolescents. As discussed in Section 5.3, there are strong economies of scale within villages so in most villages it would require almost no additional cost to increase the number of girls enrolled in and attending sessions substantially. In qualitative feedback mentors suggested further mobilisation activities that could have further increased enrolment. As discussed above, both mentors and adolescent girls mentioned that families might be more keen for adolescent girls to participate if the curriculum included some vocational skills.

Mentors found that enrolled girls' attendance at sessions was strongly influenced by their other duties. Mentors tried to work around this, often arranging sessions on Sundays when girls had the most free time. Attendance was also lower during the harvesting seasons and when the weather was uncomfortably hot. Most mentors found that kabaddi was a particular draw for girls and often held kabaddi before GEAs to increase attendance, demonstrating that incorporating sport and leisure time into more educational sessions can be effective at increasing engagement.

Reaching Young Married Women

Young women who married young, particularly those who married before 18 years, have particular needs such as dealing with family planning, pregnancy and intra household dynamics. They also find it very hard to continue their education or build skills in other ways.

PAnKH was remarkably unsuccessful at reaching married girls. Even after multiple mobilisation efforts from mentors, facilitators and PAnKH Sakhis only 7% of married girls attended any session. The first strategy was to reach out to them through mentors and their supervisors- the field facilitators. The second was to engage the Pankh Sakhi to negotiate with parents. The third was to leverage the platform of SHGs for encouraging the women to get their daughter-in-laws for meetings once a month - this could not work out as it required too much involvement of the field facilitators, who were stretched for time as the engagement on the girls component was already intensive. The fourth strategy was to send printed handouts of knowledge material on issues related to the curriculum along with the activity book, the Pankh Diary, to them through PAnKH Sakhis or unmarried girls of the same households. It was seen that there was a high demand for the printed handouts that had content on understanding the reproductive system, conception and pregnancy, ante-natal check-up, and family planning methods. The information handouts were simple one-page documents that did not attract much attention of the family members and the girls could easily keep them in their safe custody due to cultural taboos on conversation around such issues.

That it was more difficult to engage with married girls was anticipated but the extent of this surprised us. The attendance rate amongst married girls was so low that we did not cover them in the quantitative evaluation but instead collected qualitative data to assess barriers to them accessing PAnKH. Chiefly, we found that attendance amongst married girls was so limited since they were not able to leave the house or attend gatherings without the permission of their mother-in-law or husband and that their mothers-in-law and husbands were reluctant to give permission since they did not think the groups appropriate for married women and did not perceive any tangible benefit to the household. Various suggestions came up in qualitative work for how access amongst married women might have been improved, such as including vocational training, inviting leaders from outside the villages to talk about the benefits of the programme and gathering mothers-in-law to agree collectively in the daughters-in-law participation in the programme. However, many of the suggestions were things that had already been tried extensively during the programme, such as meeting with mothers-in-law to address any concerns they had. None of the major government programmes engage with young married women in a structured way and we would anticipate that any attempt to expand existing programmes to young married women would face the same challenges as PAnKH did. In all, the experience of PAnKH suggests that different models of engaging with this particularly hard to reach group must be explored.

7 CONCLUSIONS

The Government of India has established flagship policies that seek to transform adolescent girls' hard outcomes such as education and marriage through targeting soft skills, attitudes,

knowledge and mental health. The implementation and evaluation of PAnKH suggested this approach programmes is promising. PAnKH was feasible to run at a large scale, was effective at increasing school attendance and cost less per eligible girl relative to its effectiveness than incentive based programmes with similar aims.

Nevertheless, PAnKH was extremely challenging to run well. A key approach of PAnKH was to recognise the centrality of the quality of how mentors delivered the sessions and to recognise how challenging this role was to do well. Therefore, PAnKH provided mentors with extensive training, twice the number of days as in RKSK, and provided ongoing support and on-the-job training. Still mentors frequently struggled, particularly at the start of the programme, to have the confidence and skills to run engaging group sessions. Therefore, the experience of implementing and evaluating PAnKH raises serious concerns about the capacity of the peers in peer education models utilised by key government programmes. These peers are volunteers, young and receive less intensive training and support than PAnKH mentors did. We suggest their capacity to deliver high quality programmes be therefore reconsidered.

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9 APPENDICES

APPENDIX A1: PREDICTORS OF ATTENDANCE

	(1) Married girls		(3) Unmarried girls	
	Logit coefficient (s.e.)	Average Marginal Effect	Logit coefficient (s.e.)	Average Marginal Effect
Caste SC ST BL	0.698 (0.627)	0.0413	0.114 (0.214)	0.0278
Caste OBC EBC BL	0.810 (0.653)	0.0480	0.344 (0.214)	0.0834
Attending school BL	0.490 (0.524)	0.0290	0.322*** (0.107)	0.0781
Girl age at BL	-0.169 (0.124)	-0.0100	-0.0970*** (0.0257)	-0.0235
Wealth Index BL	-0.0694 (0.175)	-0.00412	0.00431 (0.0624)	0.00104
Carer years education BL	0.0296 (0.0999)	0.00175	-0.0199 (0.0172)	-0.00484
Number of children at BL	-0.223 (0.210)	-0.0132		
Elders taking about marriage at BL			-0.315** (0.134)	-0.0765
Marriages fixed or engaged at BL			-0.636** (0.287)	-0.154
Girl intended age of marriage (caregiver) at BL			-0.0178 (0.0247)	-0.00431
Observations	1023		3851	

Table A1: Likelihood of attendance. Standard errors in parentheses. Logistic regression using specification: $Y_{ij} = \gamma X_{ij} + \varepsilon_{ij}$. The outcome variable is a dummy that takes the value of 1 if the girl attended at least one PAnKH session. All specifications include baseline controls: wealth index, caste, mother's education in years, school attendance, age in years. Column (2) and (3) include additional controls that are relevant according to the marital status. In the case of missing baseline controls we imputed the missing covariate value with the average (mean for continuous controls and median for discrete) of the non-missing observations and this imputation was accounted for with a dummy variable equal to one for imputed observations. We allowed for clustering of the random error term at the cluster level. * $p < .1$, ** $p < .05$, ***

$p < .01$

APPENDIX A2: COST EFFECTIVENESS: ASSUMPTIONS AND ADJUSTMENTS

Exchange rates: We converted all costs into United States Dollars (USD) using exchange rates outlined in Table A2.

Base Year of the programme: the programme implementation started on March 2016 and the costs were distributed across 2016 and 2017. To account for time preferences (e.g. the decision of using funds in 2016 or 2017), we discount the costs of 2017 back to the base year. For comparison with CEAs of similar interventions (Baird, McIntosh, & Özler, 2011; Buchmann et al., 2017) we use a discount rate of 10%.

Inflation: To adjust for inflation we follow a two-step procedure. First, we deflate all costs in 2017 Indian Rupees (INR) back to their value in the base year (2016). Second, inflate them forward to show the costs in the year of analysis (2018). As suggested by Dhaliwal et al. (2013), we use average Gross Domestic Product (GDP) deflators of the base year and the year of analysis instead of the consumer prices indices, as the former one includes a wider range of goods and services.

Other cost assumptions: for the costs related to activities that were implemented in both interventions, we assigned 50% of the total costs to each intervention. Moreover, for some inputs, it was not possible to obtain cost data by year, and instead, we have the overall costs through 2016 and 2017. In these cases, we did not adjust for time preferences and inflation.

Assumptions/Adjustments	Conversion Factor	Source
Base year: 2016		
Year of Analysis: 2018		
Discount Rate	10%	
UK-GDP deflator inflation rate		
2016	1.97	HM Treasury UK
2017	1.97	
2018	1.53	
India-GDP deflator inflation rate		
2016	2.11	Ministry of Statistics and Programme Implementation – India
2017	3.47	
2018	2.96	
USD – GDP deflator inflation rate		
2016	1.49	US Bureau of Economic Analysis
2017	1.97	
2018	1.30	
2016 standard exchange rate	0.012 INR/GBP 67.27 USD/ INR	
2018 standard exchange rate	0.011 INR/GBP 64.80 USD/ INR	

Table A2. Conversion Factors

APPENDIX A3: COST EFFECTIVENESS: COMPARABLE INTERVENTIONS

Paper	Country	Intervention	School enrolment as outcome	Significant impacts	Information on costs	Included in cost-effectiveness comparison
(Buchmann et al., 2017)	Bangladesh	Conditional incentives to delay marriage	Yes	Yes	Yes	Yes
	Malawi	Unconditional cash transfer	Yes	No	Yes	No
(Baird et al., 2011)	Malawi	Conditional cash transfer	Yes	Yes	Yes	Yes
(Bandiera et al., 2017)	Uganda	Vocational and life skills training	Yes	No	Yes	No
(Duflo, Dupas, & Kremer, 2015)	Kenya	School uniforms subsidy	No		No	No
(Angrist, Bettinger, Bloom, King, & Kremer, 2002)	Colombia	Private school vouchers	Yes	No	Yes	No
(Hahn, Islam, Nuzhat, Smyth, & Yang, 2018)	Bangladesh	School stipend	No		No	No

Table A3: Comparable Interventions. For the studies reported in (Field, Glennerster, Buchmann, & Murphy, 2016), this table documents whether the studies (a) find significant impacts on our outcome of interest, school enrolment, and (b) report sufficient information on costs to calculate cost effectiveness ratios.