

Master thesis Niels van Gorp

**Constructive Technology Assessment of Reproductive Health
Education Programmes in India**

First supervisor: Prof. Dr. Wouter van Rossum

Second supervisor: Dr. Henk Boer

External committee member/ Pratham representative: Suchi Raval

December 19th, 2007

University of Twente

School of Management and Governance

Industrial Engineering & Management

Master thesis Niels van Gorp

**Constructive Technology Assessment of Reproductive Health
Education Programmes in India**

First supervisor: Prof. Dr. Wouter van Rossum

Second supervisor: Dr. Henk Boer

External committee member/ Pratham representative: Suchi Raval

December 19th, 2007

University of Twente

School of Management and Governance

Industrial Engineering & Management

Summary

Pratham Gujarat Education Initiative, an NGO in Ahmedabad, India, started their first Reproductive Health Programme in January 2008. Pratham is an education-focused NGO that provides education in slums for the poorest. In a project with Novib and World Population Foundation, Pratham has started a new project in which education on reproductive and sexual health and rights and HIV/Aids are mainstreamed in their education. A two-day programme is proposed for each of the five target groups: adolescent boys 11-14 and 15-19, adolescent girls 11-14 and 15-19 years old and women.

Pratham would like to get a broad, societal view on the effects and impact of their programme. The research was carried out during early development of the programme. A traditional approach to economic evaluation like cost-effectiveness analysis did not match the requirements. Therefore a Constructive Technology Assessment (CTA) was carried out. CTA provides the opportunity to investigate the expectations of many stakeholders in an early stage of development.

Because the environment and circumstances in which the Reproductive Health Programme is carried out are quite complex, an analysis of relevant stakeholders in the programme is evident. Eventually a categorization was used where stakeholders were divided in upward (sponsors), downward (target groups), horizontal (peers) and inward (employees) stakeholders. 20 Stakeholders were identified and mapped.

Data was collected using Focus Group Discussions (FGDs) and in-depth interviews. A total of 11 FGDs and 6 interviews were held among 76 respondents. FGDs were chosen for the qualitative character of the data needed and the sensitiveness of the issues discussed. Interviews were only held if an FGD was not possible. Respondents were chosen from the same community whenever possible. In every FGD and interview, an introduction to the Reproductive Health Programme was given. Then questions were discussed. Questions concerned the expectations of the respondents regarding the effects of the Reproductive Health Programme.

A total of almost 500 effects were mentioned during interviews and FGDs. All effects were categorized in knowledge & awareness, attitude & social acceptance, skills, behaviour (positive), self-confidence & emotional effects, health gain & quality of life, monetary costs, practical costs, negative attitude, undesirable behaviour and remaining (personal) effects.

Target groups expected predominantly knowledge & awareness and behaviour related beneficial effects, as well as costs of missing income because of programme participation. Pratham employees expected more of skills and self-confidence in the target groups. Policymakers mentioned higher goals more often as expected effects: averting HIV infections and improvement in the quality of life.

All of Pratham's goals for the programme were mentioned in the FGDs and interviews, but not every stakeholder expected the same effects. Every stakeholder category had different expectations of the programme. Pratham should take care not to place a too high bet on skills building and self-confidence. Many respondents mentioned they expected that participants miss income when participating in the programme. Pratham should find a way to solve this problem. Either by paying its participants or by executing the programme sessions on a convenient time for the participants.

Preface

This is the Master Thesis of Niels van Gorp. As a graduation project for my study in Healthcare Technology and Management at the University of Twente, I did a study on Constructive Technology Assessment of a Reproductive Health Programme in India.

Via my girlfriend I found a project in Ahmedabad, India at Pratham Gujarat Education Initiative, where I stayed from February till August 2007. My initial project was to carry out a cost-effectiveness study of the short-term effects of their Reproductive Health Programme. The programme would only not be implemented before the end of my stay in India. Together with my coordinators, we decided to do a Constructive Technology Assessment of the same Reproductive Health Programme, some sort of pre-assessment of cost-effectiveness of the Programme.

I would like to thank Pratham Gujarat Education Initiative and especially Suchi Raval, Rupali Tripathee and the team of fieldworkers of the Reproductive Health Programme for their support, translations and help with the Focus Groups Discussions. Furthermore, I would like to thank my supervisors Wouter van Rossum and Henk Boer for their help in the realization of a (new) project proposal and their useful comments on my thesis.

Enschede, December 19, 2007

Niels van Gorp

Table of Contents

1 Introduction, context and problem definition 8

1.1 Context of Pratham's Reproductive Health Programme 8

1.1.1 The Indian Context 8

1.1.2 The context in Ahmedabad 9

1.2 What is Pratham? Facts and figures 9

1.3 A description of the Reproductive Health Programme 10

1.3.1 Aims, goal and objective 10

1.3.2 Background of the programme 10

1.3.3 Target groups of the programme 11

1.3.4 Reach 11

1.3.5 Content and mode of delivery 12

1.4 Problem definition and research questions 13

1.4.1 Assignment 13

1.4.2 Main research question 13

2 Technology Assessment 14

2.1 Economic evaluation 14

2.1.1 What is economic evaluation? 14

2.1.2 Why use economic evaluation? 14

2.1.3 Different kinds of economic evaluation 14

2.1.4 Use of economic evaluations 15

2.1.5 Examples of cost effectiveness studies 15

2.2 CTA – Theory and practice. 16

2.2.1 Introduction to CTA 16

2.2.2 Steps in CTA 17

2.2.3 Examples of CTA studies 18

2.3 CTA in complex situations 19

2.3.1 What are stakeholders? 19

2.3.2 In search of a categorization of relevant stakeholders 20

2.3.3 Analysis of stakeholders 22

2.4 Data collection in CTA: Focus Group Discussions 26

2.4.1 Pros and cons of Focus Group Discussions 26

2.4.2 Conducting Focus Group Discussions 27

2.4.3 Examples of FGD use in sex research and developing countries 28

2.5 CTA and Pratham's Reproductive Health Programme 30

3 Methodology 31

3.1 Focus Groups and In-Depth interviews 31

3.1.2 Focus Groups with inward stakeholders 34

3.1.3 Focus Groups and interviews with horizontal and upward stakeholders 35

3.2 Conducting the FGDs 36

4. Results 39

4.1 Introduction to the results 39

4.2 Positive effects 40

4.3 Negative effects 46

5. Conclusions and discussion 50

5.1 Introduction to the conclusions and discussion 50

5.2 Conclusions and discussion of the results 50

5.3 Recommendations for Pratham 54

5.4 An initial questionnaire for Pratham 55

References 57

Appendix 1 - Goals of the Focus Group Discussions 61

Appendix 2 - List of questions used in FGDs and interviews 65

Appendix 3 - List of remaining effects 68

1 Introduction, context and problem definition

This chapter describes the Indian context and the context of Ahmedabad. Pratham and its reproductive health programme are discussed and the problem definition and main research question are introduced.

1.1 Context of Pratham's Reproductive Health Programme

1.1.1 The Indian Context

India is a fast growing country, in many aspects. Its population is expected to exceed China's within 15 years from now, its economic growth is enormous, and it adds the most nouveau riches to the world's list of millionaires. But with all growth comes a lot of poverty. Only a small part of the 1.1 billion Indians is benefited by its growth.

Some facts that indicate the harsh situation of part of India's population can be found in a publication of UNICEF, the UN organization for the wellbeing of children (UNICEF, 2004). For a start, 28% of the world's population living on less than 1\$ a day, lives in India.

In the meantime India has the world's fastest growing number of HIV infected people. Prevalence has not yet reached 1% of total population, as estimated by the National AIDS Control Organization (NACO) in 2004 (NACO, 2004) but various sources mention various numbers. Though still it's huge population and the taboo on the subject (Gupta, 2003), complemented with the use of preventive measures for birth control purposes only (if used anyway), make the rising incidence a major problem for the country. In number, India ranks second in the world's HIV population (after South Africa, India has 13,5% of the world's HIV infected population). Furthermore, India's population grows explosively, partly because of the 'belief' in many slum areas that 'more hands make more money', an economic motive, partly because 'getting children is God's gift and you should not interfere in this process' (religious beliefs) and partly because of a lack of knowledge about the availability or existence of family planning measures and contraceptives. Consequences are numerous. Girls give birth on a very young age (Gupta, 2003), causing high maternal death rates, 25% of all maternal deaths are in India. 23% of all under-5 children deaths are found in India, just like 34% of all underweight children. Girls are victims more often than boys and are more often neglected by their parents, which causes higher death rates and girl child-deaths, causing imbalanced proportions of boys and girls. In some states the situation is as imbalanced as 780 girls on 1000 boys, in Ahmedabad the rate is 886 girls-1000 boys, which for instance causes more rape-incidents. India is home to 19% of the world's children. These are 'just some' other examples. Many more reproductive health related problems mark India's rising.

1.1.2 The context in Ahmedabad

Pratham Gujarat, the unit of Pratham for the Northwestern state of Gujarat, is based in the city of Ahmedabad. Ahmedabad is 'home' to about 5.3 million people. Hard to imagine that a city most people have never heard of, has around 7 times as many inhabitants as the Dutch capital of Amsterdam. Ahmedabad and the state of Gujarat are among the most prosperous ones in India. Literacy in Ahmedabad is, with almost 80%, highest in the state of Gujarat and also quite high for India. Still a large part of the population is living in one of Ahmedabad's fifty slums, home to about 440,000 citizens. Part of the reason is that Ahmedabad used to be one of the biggest textile-centres in the world. But most of the mills closed down some 10 years ago and brought poverty to part of the city's population.

The religious context in Ahmedabad is also quite remarkable. Many religions live together quite peacefully. In 2001, around 85% of the Ahmedabad population was Hindu, it counted 11.4% Muslims, 2.9% Jains (related to Hindu religion) and a little less than 1% consisted of Christians. Furthermore Ahmedabad is home to numerous Parsis and some Bene Israel Jews. Although most of the time these religions live together in harmony, in 2002 communal riots between Muslims and Hindus broke out in Ahmedabad, which put the communities to the test. Now, in 2007, relations seem to be restored, but still signs of fear appear. Police and military heavily guard the yearly Rath Yatra procession of the Hindus, and the 2005 movie on the riots, *Parzania*, is prohibited for display in public.

1.2 What is Pratham? Facts and figures

Pratham is an India-based NGO, active in 53 districts, 40 cities and 13 states of that sub-continent. Pratham reaches out to 250.000 children with its education programmes and Pratham's libraries service 400.000 children in slums. Pratham's core business is providing education for 3-12 year old children. Pratham's target group is now expanding to kids of up to 14 years old and the library programme now targets all kids up to the age of 19. Pratham provides education that is supplementary to the government schools and as the affordable initiative for the poorest. A lot of kids in India still do not attend school in spite of big efforts of India's government. Pratham's goal is to get every kid in school and learning well by the year 2010.

Pratham tries to make learning more attractive for kids in utilizing learning-by-doing programmes, presenting topics like maths and science in informative activities. Pratham provides different programmes for different target groups and in different areas. Some of their programmes are carried out nationwide in all districts where Pratham is active (organization

wide). Other projects are only executed in Ahmedabad and its 50 slums, or in the Gujarat districts or rural areas only.

A reproductive health programme is something completely different for Pratham. This programme is being carried out in Ahmedabad and Jaipur (State of Rajasthan) only. However if the programme proves to be successful, it is likely to be mainstreamed in all Pratham's programmes, nationwide.

Pratham has its Gujarat state-headquarters in Ahmedabad. Different teams work on the different programmes that are developed in the office in Ahmedabad. From the activity based learning programmes of the NOS team (trunks) to the village-education in schools of the Rural Community Approach (RCA) and from the Read India campaign, teaching young kids to read within 6 weeks, to the new Reproductive Health Programme.

1.3 A description of the Reproductive Health Programme

1.3.1 Aims, goal and objective

In their project proposal (Pratham Education Initiative, 2007), Pratham mentions three aims of the intervention. The first aim is to provide youth and adolescents with adequate information, the second aim is sensitising their environment (parents and community leaders) and the third aim is to serve as counsellor. These were the initial aims of the programme. Eventually, only youth and women will be targeted and sensitised. The overall goal for Pratham, according to their project proposal, is to reduce HIV/Aids and other STDs and RTIs that are related to the vulnerability of the target group.

Their objective is to broaden the scope and improve the quality of education by integrating sexuality education and thereby empowering the youth to make better choices.

The aims, goals and objectives mentioned are complemented with goals that emerged in the development stage of the project. These goals have a direct link with the content of the programme. These goals are discussed in the subsection on content of the programme.

1.3.2 Background of the programme

With its educational background, this health-related project is something new and unknown to Pratham. Therefore, Pratham recruited some new team members with more specific knowledge of reproductive health and HIV/Aids. Furthermore a similar programme is

executed by five organisations in four states¹, all of them have an educational background. They work together to share experiences and ideas. World Population Foundation, a Dutch organisation, provides technical guidance for the project. All of the organizations are education partners of Oxfam Novib The Netherlands and are asked to mainstream reproductive health education in their existing programmes. Novib is sponsor of the programme. In the meantime WPF runs a pilot with this project in using Intervention Mapping as a tool to develop reproductive health education programmes. The project with the 5 organizations is thus at the same time used as a case study to prove the effectiveness of the Intervention Mapping method. Each of the sponsored organizations follows its own path towards implementation. This thesis focuses on Pratham (Gujarat)'s intervention.

1.3.3 Target groups of the programme

The target groups for the programme are adolescents of 11-19 years old and women, living in slum areas in the city of Ahmedabad. The group of adolescents is split up in four separately addressed groups:

1. 11-14 year old boys
2. 11-14 year old girls
3. 15-19 year old boys
4. 15-19 year old girls

Groups are separated by sex because it eases discussion and freedom of speech during the sessions. Especially girls are less likely to talk about sensitive issues, like sexuality in the presence of boys. The division in age groups is made because of the difference in development (physical as well as mental development) and a difference in experience (with sexuality).

1.3.4 Reach

The programme is carried out in two phases. A first (pilot) phase for which Pratham Gujarat has selected ten slums in the city of Ahmedabad. Pratham aims to reach 50 people per slum in the first phase; ten individuals per target group for each slum and a total of 500 targeted people in the first phase.

After the first phase the intervention is evaluated and fine-tuned. In the second phase of the pilot, reach of the project is expanded to all slums in the city of Ahmedabad. The second

¹ Pratham in the states of Gujarat and Rajasthan, Lokmitra in Uttar Pradesh, URMUL Trust in the Thar Dessert of Rajasthan and CYSD in Orissa

phase of the project aims to sensitise 5000 adolescents and 2000 mothers in 50 slums in urban areas of Ahmedabad.

1.3.5 Content and mode of delivery

The proposed intervention covers four sessions divided over two consecutive days for each target group separately. The sessions can be split in two major parts: Sexual and Reproductive Health and Rights (SRHR) and a part on Sexually Transmitted Diseases (STDs) and HIV/Aids. These first sessions are predominantly meant to increase knowledge and awareness and to sensitise participants. Monthly in-depth sessions on the same topics follow in the implementation of the intervention.

The mode of delivery differs for the different topics covered. Furthermore, some of the topics are not –or in less detail- discussed with 11-14 year olds, other topics get more focus in the girls groups and for women focus is also on different topics. Content, mode of delivery and goals are listed in Table 1.1

Table 1.1 Content, mode of delivery and goals of Pratham's Reproductive Health Programme

Description of content	Mode of Delivery	Goals	Remarks
Knowing your body (reproductive system, pregnancy, reproductive organs, puberty)	Information via speech, booklets, pictures and charts	Increasing knowledge and awareness of the own body and sexuality, Sensitising community	Girls: more focus on menstruation, pregnancy. Boys: e.g. wet dreams
Gender differences and gender roles	Group Discussion on differences between men and women and role playing games on role stereotyping	Increase awareness and knowledge on rights. Create positive attitude of boys against girls and vice versa.	
Communication & Negotiation skills (discussing intercourse, using contraceptives)	Discussion and role playing games	Skills in negotiation and communication, Self efficacy, empowering women	Less focus on the sexual part for young adolescents
Reproductive rights and responsibility	Group discussion on rights and viewing a film	Creating awareness of rights, empowering women.	Focus on rights of women in boys groups
Sexually Transmitted Diseases (STD) & HIV/Aids discussing symptoms, risks	Information via speech, booklets, syndromic approach	Increasing knowledge, risk perception, sensitising community	
Testing against STDs/HIV/Aids	Information via speech	Skill, self efficacy	
Spread of STDs and HIV/Aids	Information via speech and game on possible modes of transmission	Increase knowledge, decrease risk seeking behaviour	
Responsibilities of HIV positive people towards society & vice versa	Discussion with an HIV positive person	Decrease discrimination and stigma, create positive attitude	

1.4 Problem definition and research questions

1.4.1 Assignment

Pratham starts a new programme in a new field: the Reproductive Health Programme. For this new programme Pratham wants to know whether the goals they set for the programme correspond with the expectations of the target group. May Pratham expect the proposed programme (as described in the last paragraph) to be effective?

A classic way to evaluate the effectiveness of a health education programme is by economic evaluation, like the cost effectiveness analysis (CEA) and approaches alike. However, methods like CEA are only applicable after implementation of the programme and have a managerial look on the effectiveness of a programme.

Constructive Technology Assessment (CTA) enables Pratham to assess expected effectiveness in an earlier stage, during development of the programme. Constructive Technology Assessment is best applicable to Pratham as CTA focuses on societal effects of a technology. This research describes application of a Constructive Technology Assessment of Pratham's Reproductive Health Programme (the technology assessed is in this case a reproductive health programme).

1.4.2 Main research question

The main research question is:

Do goals and expected effects of Pratham's proposed Reproductive Health Programme match and what does this imply for the expected effectiveness of the programme?

2 Technology Assessment

2.1 Economic evaluation

2.1.1 What is economic evaluation?

According to UNFPA's toolkit (2004a, p.1) evaluation is "...a management tool. It is a time bound exercise that attempts to assess systematically and objectively the relevance, performance and success of ongoing and completed programmes and projects." Economic evaluation then, is an evaluation on economic aspects, involving costs (inputs) and effects (outputs, benefits, impacts).

2.1.2 Why use economic evaluation?

Economic evaluation of a health communication programme is quite costly. That is why it's often not part of an intervention, especially not in developing countries. Budgets are tight and, at first sight, evaluation has no direct positive effect on the outcomes (results) of the intervention. It can however help, for instance for future programmes, to see what is the best intervention for the money available, what channel to use best for a certain impact, to be able to calculate what increase in costs brings about what amount of behaviour change, et cetera (Bertrand, 2006). UNFPA's Toolkit (2004b) adds accountability and the generation of knowledge on best practices as motivations for evaluation of an intervention. Marseille and colleagues (Marseille, Morin, Collins, Summers, Coates & Kahn, 2002) mention some more specific whys of using cost-effectiveness analyses.

2.1.3 Different kinds of economic evaluation

Hutchinson and Wheeler (2006) distinguish five economic evaluations; Cost Minimization Analysis (CMA), Cost Consequence Analysis (CCA), Cost Effectiveness Analysis (CEA), Cost Utility Analysis (CUA), and Cost Benefit Analysis (CBA).

These five different methods have much in common. The actual difference lies in the output-factor. Frick (2006) mentions pros and cons of the five different approaches to economic evaluation. All approaches have in common that they are carried out after implementation. Furthermore, they take into account a limited amount of costs (often only direct programme costs, like salaries of peers (peer-education) and personnel (programme officers), publication or airing costs (mass media campaigns), material costs (e.g. printing educational materials), development costs (e.g. salaries of actors and recording costs for a TV series) and supplies (drugs, condoms, tests) (Hutchinson & Wheeler, 2006, UNFPA, 2002). Indirect costs and

opportunity costs are seldom taken into account. Outputs or benefit of the programme is often limited to a single measure, for instance the number of HIV infections averted. Cost effectiveness analysis (and similar approaches) is thus relatively simple and easy to use. However, they are neither applicable to Pratham's Reproductive Health Programme in its current stage of development, nor for research on societal effects of the programme.

2.1.4 Use of economic evaluations

In medical interventions and new medical technologies, economic evaluations are common ground. In the commercial (for profit) sector, cost-benefit analyses are a bare necessity for the company's continuity. In health communication/promotion interventions like Pratham's Reproductive Health Programme, economic evaluation is not that common, let alone interventions in developing countries. And if such an evaluation is executed, outcomes are seldom comparable to evaluations of other (similar) programmes (Hutchinson & Wheeler, 2006).

2.1.5 Examples of cost effectiveness studies

Most research on economic evaluation of health communication programmes is on Cost Effectiveness Analysis. Here are some examples of CEA use in Reproductive Health Programmes.

Hutchinson, Lance, Guilkey, Shahjahan and Haque (2006) write on the cost-effectiveness of a mass media campaign, using different media channels, such as billboards, TV spots, Radio spots and a TV drama series. Costs were collected at three levels, national, NGO and local levels. Costs included were development costs for materials, billboards, spots and serials, costs of airing TV and radio spots and series and staff salaries. Effectiveness of the campaign was determined by measuring exposure. Effectiveness was measured separately for different channels, different groups in the population and on different levels (rural areas, countrywide and local activities). Another measure of cost effectiveness for a part of the programme was given in the increase in children vaccinated for DPT3 and measles.

Hutton, Wyss and N'Diekhon (2003) did a study in Chad on the cost-effectiveness of different programmes, to set priorities for the available (but limited) budget. The first intervention examined was a mass media campaign. Costs were very low because use of mass media was provided free of charge. Costs for condom distribution were estimated based on available data from other developing countries and estimated on around US\$ 0.15 per condom distributed. For effectiveness, the number of predicted new infections was taken, with a 100% increase in the sales of condoms, a 5% reduction of new HIV infections was predicted. Given the cost of

free condom provision (the increase of 3 million condoms), divided by the number of HIV infections averted gave a measure for the cost-effectiveness of the programme. The same article reports on cost effectiveness of six more programmes (for instance outreach to high-risk groups, voluntary testing & counselling and safe blood transfusion). The authors point at the fact that certain interventions can not easily be neglected because of a low cost-effectiveness (relatively high cost), because the kind of analysis decides what costs are taken into account and above all, that some interventions (like Anti Retroviral Therapy) are very important for a specific group (in this case: the only possible treatment for HIV positive people), but are simply not that cost-effective.

A third study on cost-effectiveness was a HIV Prevention campaign among sex workers and their clients in the Dominican Republic (Sweat, Kerrigan, Moreno, Rosario, Gomez, Jerez, Weiss & Barrington, 2006). The cost-effectiveness of two approaches was analysed. The first was an environmental approach, using community mobilization, promotional media and interpersonal communication and counselling. In another city, condom use in sex establishments was made obligatory, with fines and closure of the establishment as a regulatory threat. Programme costs were recorded and outcomes were measured in number of HIV infections averted. Cost-effectiveness was then measured as the cost per infection averted and further calculated to cost per DALY saved. The government policy and enforcement by police and officials encouraged establishments and sex workers to use condoms in such a way, that the cost-effectiveness was more than twice as high (twice as effective) as the intervention without policy and enforcement.

2.2 CTA – Theory and practice.

2.2.1 Introduction to CTA

Constructive Technology Assessment or CTA is a tool that has its origin in The Netherlands at the Netherlands Organization for Technology Assessment (NOTA, now Rathenau Institute), which started the development of CTA in 1986 (Ornetzeder & Rohracher, 2006). Ornetzeder and Rohracher (2006) mention three uses of CTA, which were formulated by early researchers on CTA, Rip and Van Den Belt. These are (Ornetzeder & Rohracher, 2006, pp. 6-7):

- Supporting the development of desirable technologies;
- Technology forcing (by regulation);
- Influencing ongoing transformations of technologies.

According to Schot and Rip (1996), CTA provides a tool to integrate feedback of assessment in the development of a technology and to manage technology in society. Schot (1992) adds to this that CTA can be used to steer the development of technologies in their early stages. CTA brings technological and societal actors together, reflecting on the idea that technological development is heavily influenced by society (Van den Ende, Mulder, Knot, Moors & Vergragt, 1998). Eventually, CTA tries to provide a broad societal view on the expectations of a technology.

The technique of Constructive Technology Assessment can easily be used to get an idea of what societal actors expect from a future programme in other sectors than technology, in this case a Reproductive Health Programme. CTA is most useful in the design-phase of a technology according to Van den Ende et al. (1998) and is thus applicable to Pratham's Reproductive Health Programme in this stage of development.

2.2.2 Steps in CTA

How to come to the desired broad societal view and what are steps to take in a Constructive Technology Assessment? Van den Ende et al. (1998, p. 8) suggest doing this by 'including as many relevant societal actors as possible'. These 'stakeholders' have to be identified to be able to involve their views in the decision-making process. In some cases, relevant societal actors are limited to only one actor, society in general. In that case CTA concentrates on the expectations of that single actor. Pratham's Reproductive Health Programme affects many more stakeholders. Not only target groups are affected, but also other stakeholders experience impact of the programme. Therefore the selection and identification of stakeholders is so important in this study.

Bhola (2000) provided support for including more stakeholders than the target group only. He stated that after the individual or group the programme was meant to have impact on has been affected, the impact can flow in more directions (and others than intended). It is therefore important to include these stakeholder's views in the CTA of the programme.

When the relevant actors are identified, they have to be asked for their opinions. The second step in CTA research will therefore consist of Focus Group Discussions (FGD) with all relevant actors identified, providing for qualitative data from groups of people. FGD is a useful tool for this purpose. The fourth paragraph therefore discusses FGD guidelines, the use of FGDs in sex research and the use of FGD in developing countries.

Usually in CTA, results are used to steer the development of the technology. Similarly, CTA of Pratham's Reproductive Health Programme can steer the development of the programme

and it's content. At the same time, the expected outcomes mentioned by stakeholders could be transformed into indicators to evaluate effectiveness on.

2.2.3 Examples of CTA studies

Hummel (2001) applied CTA in the development stage of a new medical technology, the PUCA pump. During the development of the pump, the views of different stakeholders in the social context of the development of the technology were collected. The idea of involving societal actors is to be able to steer development of the technology in an early phase, before its design is definite. Ultimately, the input of stakeholders was expected to improve clinical as well as social effectiveness of the technology. Hummel proposed an expert panel consisting of a variety of stakeholders.

A second example of a study using CTA can be found in Schot (1992). Schot proposed to use CTA to face one of the world's central problems: environmental pollution. He discussed three complementing CTA strategies that stimulate the further development of clean technologies. Involving actors and making stakeholders collaborate is the key to success.

A third and last example is the recent study of Van Merkerk and Smits (2007). They want to use CTA to involve a broad selection of relevant actors (or stakeholders) in the development of emerging technologies. They address the need for an approach (CTA) that can create order in the chaos and that helps selecting a broad group of relevant stakeholders, who play an important role in the development of emerging technologies. They want to tailor CTA to enable these relevant stakeholders to play their role in the development of emerging technologies and to make CTA useful for emerging technologies. Van Merkerk and Smits (2007) described a 3-step approach to CTA, which they applied to the emerging Lab-on-a-chip technology. They informed participants on latest developments in the technology (first step), reduced uncertainty for stakeholders by developing scenarios (step 2) and organised a 'dialogue workshop' in the third step. Participants (respondents/actors/stakeholders) reacted on each other's views and opinions in interaction.

CTA is thus used in quite a wide spectrum of studies, but with a similar common goal: involving a wide range of relevant actors (stakeholders) in the development phase of a technology, to be able to steer the development in such a way that the eventual technology becomes more effective. Not only technically more effective, but also socially more effective.

2.3 CTA in complex situations

Constructive Technology Assessment (CTA) aims to provide a broad societal view of a new technology. This view is constructed by collecting opinions of stakeholders. In some studies, it is sufficient to discuss with only one stakeholder, for instance society as a whole. Pratham's Reproductive Health Programme is more complicated. Its impact stretches out to more groups than the sole target groups. In such complex situations, it is necessary to carry out an analysis of the stakeholders first. Many more stakeholders are involved and therefore careful selection and support for the choices made is necessary.

This paragraph discusses what a stakeholder is, how stakeholders are selected and finally how the stakeholders for Pratham's Reproductive Health Education programme were identified.

2.3.1 What are stakeholders?

Why analyzing whom Pratham's stakeholders are, when they're probably already known? Krick, Forstater, Monaghan and Sillanpaa (2005) argued that no static list of stakeholders exists. Even for a single organization the affected stakeholders differ from time to time and for different projects or issues. For this particular project, it seems obvious that formerly non-stake holding groups or individuals of Pratham have become stakeholders (e.g. because this reproductive health programme is totally different from their 'regular operations', educational programmes, in content and partly in target group). Moreover this programme is linked with the programs of five other NGOs in different states and technically guided by an organization, which Pratham has never worked with before.

Who are stakeholders?

Freeman was the first to define the term stakeholder. Freeman stated that a stakeholder is 'any group or individual who can affect or is affected by the achievement of the organization's objectives' (Freeman, 1984, p.46 cited in: Mitchell, Agle and Wood, 1997, p.854). Mitchell et al. (1997) argued that Freeman's definition is too broad and little specific. Almost anyone or any group could be a stakeholder according to Freeman's definition. Mitchell et al. (1997) call for an approach to separate the stakeholders from the non-stakeholders. Other, less broad descriptions are listed in the article, but Mitchell and others neglect these and propose three attributes: power (to influence the organization), legitimacy (of the relationship with the organization) and urgency (of a claim on the organization). Whenever an individual or a group possesses one or more of these attributes, he/it is a stakeholder, according to Mitchell.

Using Mitchell

Mitchell's stakeholder approach is now widely used and recognised. Though there are two reasons not to use Mitchell's theory in this Constructive Technology Assessment:

1. Mitchell's theory is said to be applicable to firms and governmental organizations, as well as to nongovernmental organizations (NGOs) like Pratham. However Mitchell's theory suits best when applied to firms and needs adjustment when applied to NGOs or a different approach should be chosen.
2. There seems to be a bias between 'narrowing down' the amount of stakeholders in Freeman's definition and the creation of a 'broad societal view' that CTA aims for.

Mitchell can be used to identify stakeholders for my project but the consequences are used in a different way than in a commercial, business-like setting. In the next subparagraph other possibilities for the identification and categorization of stakeholders are explored.

2.3.2 In search of a categorization of relevant stakeholders

Schot (2001), one of the most prominent researchers on CTA, provided a categorization for actors in CTA. He described four categories:

1. Technology actors, including investors, developers and maintainers
2. Societal actors, like users and other affected parties
3. Regulating actors, like governmental bodies
4. Facilitators, facilitating discussion among actors

These categories are applicable to CTA, and are therefore very much focused on the development of a technology and actors that affect or are affected by that development or the eventual technology itself. Still there is a slight focus on technology that makes it appropriate for Pratham's Reproductive Health Programme.

No applicable literature seems to be available on stakeholder theory for NGOs. Results found are on the accountability of NGOs. It could be stated that the stakeholder discussion in companies as started by Freeman and elaborated by Mitchell et al. (1997) was essentially about accountability as well. Companies should not just be accountable to their shareholders, but to their environment too.

In a report for One World Trust, Lloyd (2005) advocates a partitioning in four categories, because NGOs are accountable in four directions. These four categories are:

1. Upward accountability to donors, governments and foundations, because they provide the NGO with a financial and legal base

2. Downward accountability to the individuals and groups that benefit from the NGO's efforts, the beneficiaries of the programme in this case.
3. Inward or internal accountability to the NGO's own staff. (Lloyd, 2005) also mentions accountability to the organization's personnel but also to the organizational mission and values)
4. Horizontal accountability to 'peers', organizations similar to the NGO

Lloyd (2005) added to this categorization that accountability relationships differ in strength and self-evidence (obviousness). Accountability to sponsors and governments are, for instance, natural, strong and well established.

Lee (2004) discussed a second approach to the categorization of stakeholders of NGOs. In his report for the Centre for Applied Studies in International Negotiations (CASIN) he also distinguished four categories, which differ in focus and description from Lloyd's (2005). Lee (2004) mentioned the following:

1. Actors that determine the context in which the NGO operates, like governments and donors.
2. The internal environment of the organization, consisting of staff, boards, supporters, subsidiaries and local partners.
3. The society in general, comprising social movements, the general public and other NGOs.
4. Target groups of the NGO, people it aims its efforts at and stakeholders that it tries to affect, such as beneficiaries, the private sector and governments.

AccountAbility's report (2005) does not discuss accountability, but provides a standard for stakeholder engagement. This standard is meant for companies, but the proposed categorizations can be used by NGOs as well. AccountAbility does not provide for a categorization like Lloyd's (2005) and Lee's (2004), but offers different approaches to selection criteria/ distinctive criteria that have some resemblance with Mitchell's attributes (Mitchell et al., 1997). AccountAbility proposed the following dimensions as bases for categorization:

1. Responsibility: to what parties is the NGO responsible, for instance because there is a contract or because of existing legislation
2. Influence: the ability of a stakeholder to influence the programme's goals.
3. Proximity (or distance): stakeholders with a close link to the NGO's day-to-day business
4. Dependency: who is directly affected by the programme's efforts and actions

5. Representation: representatives of (groups of) people related to the NGO

These dimensions are -or can be seen as- attributes of their relationship with the programme.

All of these categorizations show that every stakeholder's relationship with the NGO is different and the degree to what the intervention affects or is affected by the stakeholder differs.

Selecting an approach

Lloyd's categorization (2005) in upward, downward, horizontal and inward accountability is a very practical and useful approach that suits Pratham's Reproductive Health Programme. To limit the amount of stakeholders that play a role, the proximity dimension of AccountAbility is used. Stakeholders of first and second grade (direct and indirect impact of the programme) are identified.

2.3.3 Analysis of stakeholders

Inward Accountability

Inward accountability as Lloyd (2005) explains it, should be translated to internal stakeholders in the categorization. This category comprises Pratham employees only. Every employee from Pratham involved in the Reproductive Health Programme is part of this category:

- Overall project coordinator: coordinates both Pratham Gujarat's and Pratham Rajasthan's programme, is seated in Jaipur. He eventually decides on the content and development of both interventions. First grade stakeholder
- Project coordinator for Gujarat: guides and leads local (Ahmedabad) part of the programme and is the team captain of the fieldworkers. First grade stakeholder
- Programme consultant: guides the programme in Ahmedabad, helps to train the fieldworkers, conducts focus group discussions during the needs assessment and gives advice on the content of the intervention. First grade stakeholder
- Fieldworkers: carry out the practical part of development and implementation of the intervention. First grade stakeholder
- Head of Pratham Gujarat: monitors all programmes Pratham runs. Takes most important, strategic decisions. Second grade stakeholder (Does not influence the content of the programme directly)
- Account manager: monitors all expenditures for the programme. Second grade stakeholder

Upward accountability

This category comprises stakeholders to whom Pratham must justify its actions regarding the Reproductive Health Programme. These can be organizations that provide financial support or legislation. In Pratham's case, governments do not really play a role. The programme has nothing to do with NACO (National Aids Control Organization). Furthermore, regulation for content of HIV/AIDS and reproductive health programmes on state-level only exists for schools. Pratham doesn't use schools for implementation so governments are no stakeholders.

- Oxfam Novib: Oxfam Novib from the Netherlands is Pratham's sponsor and is also a sponsor for the Reproductive Health Programme. First Grade Stakeholder

Downward accountability

Pratham is downwardly accountable to the beneficiaries of the programme, such as the target groups.

- Target groups: The programme directly affects the target groups. These are first grade stakeholders. These are the five target groups:
 - (Adolescent) Boys 11-14 years
 - (Adolescent) Girls 11-14 years
 - Adolescent boys 15-19 years
 - Adolescent girls 15-19 years
 - Women
- Men (husbands): men in the community (husbands of the women participating in the intervention. The programme will thus affect the sexual and reproductive aspects of their relationship with the participating women. Second grade stakeholder
- Health Service Providers (family doctors in the community): as adolescents and women gain knowledge about their own reproductive health, questions and the need for testing on STDs, doctor prescribed birth-control methods (pills, intrauterine devices) and curing of STDs will increase. Second grade stakeholder
- Religious leaders in the community: religion prohibits the use of birth control measures. Religious leaders preach this to community-members. The message conflicts with the intervention. Religious leaders have an indirect effect on the effect of the programme, the extent to which community members are willing to change their behaviour in favour of prevention, but in contradiction with their belief. Second grade stakeholder
- HIV affected people in the community: intervention has a non-stigmatising HIV positive people message. Social life for positive people can change. Second grade stakeholder

Horizontal accountability

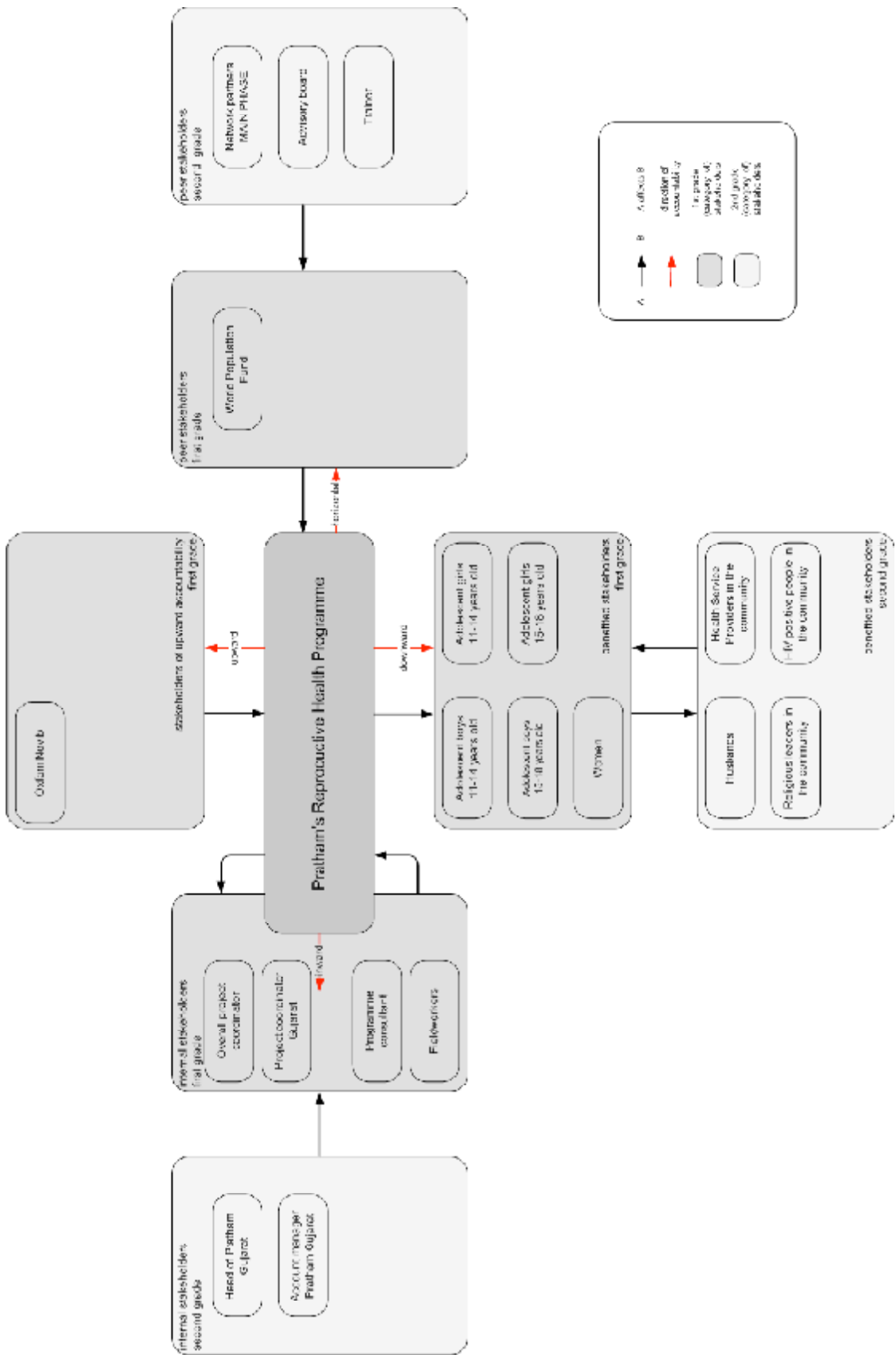
Horizontal accountability means accountability to individuals or groups that help the NGO, cooperate with the NGO or accomplish similar programmes. They are the peers of the NGO.

- Trainer: training of fieldworkers; is hired. Second grade stakeholder
- World Population Foundation (WPF): a Dutch NGO and partner of Oxfam Novib. They've been asked to give technical guidance to the programme. First grade stakeholder
- Network partners of MAIN PHASE: at the same time five other education-aimed Indian NGOs do exactly the same programme, sponsored by Novib and guided by WPF. Respondents are project coordinators for these partners. Second grade stakeholders
- Advisory Board: Pratham (Gujarat and Rajasthan) called for an advisory board supplementary to all other advising and consulting organs and individuals. Consists of experts in reproductive health care, e.g. someone from NACO and an HIV positive person. Second grade stakeholder as advice is not binding

A map of the stakeholders

All 19 stakeholders are depicted in a map on the next page. Categories and grade of the stakeholders are visualised in this diagram.

Figure 2.1 Stakeholder diagram



2.4 Data collection in CTA: Focus Group Discussions

Focus Group Discussions (FGDs) are used to collect data for the Constructive Technology Assessment (CTA) of Pratham's Reproductive Health Programme. Therefore, in this paragraph some pros and cons of FGDs are discussed. Furthermore, some guidelines on using FGDs are given and examples of FGD-use in sex research and developing countries are discussed.

2.4.1 Pros and cons of Focus Group Discussions

Focus Group Discussion is a widely used tool in research, including in social sciences. Frith (2000) gives an impressive list of FGD use in sex research. FGDs are used to gather qualitative data on a subject. Pratham for instance, used Focus Group discussions during the needs assessment of the Reproductive Health Programme.

Focus Group Discussions are a useful method to collect data for the CTA, according to the following characteristics of a Focus Group Discussion.

Positive characteristics of Focus Group Discussions for CTA

- FGDs deliver qualitative data
- Questioning relatively many respondents in a relatively short amount of time is possible
- Using FGDs can increase the likeliness of talkativeness of respondent on a sensitive issue like this (reproductive health, HIV/AIDS)
- The group can stimulate other respondents to mention more effects, group can help other participants to feel less embarrassed to answer
- Discussion can lead to more answers than the amount of questions asked
- Structure of questions is very loose. Effects mentioned are very subjective and personal
- During the FGDs, questions of the discussion guide can be further explained and questions from the group can be answered directly. An introduction to the subject can easily be given and explained before an FGD is conducted
- Interviewer or FGD facilitator can see group behaviour and can see reactions on questions from the group. Slight changes (although undesirable) can be easily made to the discussion guide for the next group
- Respondents can be approached as a group to ask their participation, this is can be a stimulus for individuals to participate. Furthermore, it is less time-consuming than interviews. Community mobilization is quite easy in the slums and the fieldworkers that will help me with the FGDs already have the skills to mobilize target groups (for FGDs)
- A very large group of respondents is illiterate. FGD is an oral method of gathering data

Negative characteristics of Focus Groups Discussions for CTA

- Discussion can easily lose structure and lead to unanswered questions
- Besides a stimulus, the group can also be a barrier to talking openly on sensitive issues
- Interviewing groups in a community can bring about rumours and it can be hard to keep outsiders and non-invited people away from the FGD
- FGD can not be carried out by one person only

The characteristics mentioned above show that FGDs are an applicable and appropriate tool to gather data for the Constructive Technology Assessment of Prathams' Reproductive Health Programme.

2.4.2 Conducting Focus Group Discussions

Definition and use

Folch-Lyon and Trost (1981, p.444) define FGD as 'a discussion in which a small number (usually 6 to 12) of respondents, under the guidance of a moderator, talk about topics that are believed to be of special importance to the investigations'. Varkevisser, Pathmanathan and Brownlee (2003, p.181) add to this that it is: 'a group discussion...during which group members talk freely and spontaneously about a certain topic'.

Facilitative requirements

To facilitate a good FGD, it must satisfy certain conditions that promote implementation and the gathering of desired results. Participants in a Focus Group should have roughly the same background and difference in age and sex should not disturb free discussion (Varkevisser et al., 2003). Discussions should take place in a neutral location (Folch-Lyon and Trost, 1981), which is quiet, non-distracting and light (Varkevisser et al., 2003) and on a day and time that is convenient to the participants (Folch-Lyon and Trost, 1981). Maynard-Tucker (2000) adds that no bystander should be able to interfere.

Conductor and recorder guidelines

A facilitator or moderator guides the discussion. The facilitator should have roughly the same age as the discussants and should have the same sex (Varkevisser et al., 2003), especially if separation between sexes is strong in the community of subject (Maynard-Tucker, 2000). The facilitator should have a strong, friendly personality and should not be timid (Maynard-Tucker, 2000). He (or she) should ask questions that stimulate discussion on the subject and should not act as an expert on the subject (Varkevisser et al., 2003). Questions should be neutral and the moderator should in no case lead the respondent in its answer (Bertrand and

Solis, 2000). A recorder assists the moderator. The recorder operates a voice- or memo recorder to track all conversations and he or she takes notes on key words of the answers of the respondents. Some guidelines (e.g. Maynard-Tucker, 2000) suggest that an observer should also be part of the team to 'record' the group behaviour and nonverbal communication.

2.4.3 Examples of FGD use in sex research and developing countries

Focus Group Discussions are widely used as a method to gather qualitative data, also in research on reproductive health (education) in developing countries. The use of the FGD in the selected studies differs. Sometimes FGDs are used in an explorative manner, for instance using the data as input for a questionnaire on a larger population. In the three studies discussed, the data from the FGDs were complemented with in-depth interviews (Andrew et al., 2003, and Bunce, Guest, Searing, Frajzyngier, Riwa, Kanama and Achwal, 2007) or semi-structured interviews (Bosmans, Cikuru, Claeys and Temmerman, 2006). In one study, FGD was used as the sole manner of data collection (Garcia, Yam and Firestone, 2006).

Bosmans et al. (2006) used FGD to get qualitative data on access to condom information and supplies. Eleven FGDs were conducted among groups of adolescents, some consisted only of boys, some only of girls and some groups were mixed. To assess the discussion guide, the questions were first reviewed by local facilitating NGOs. They felt some questions were too direct and explicit. A pre-test of the questions on adolescents however, learned that they found the questions useful. Eventually the original questionnaire was used, not only in the FGDs but also in interviews with programme officers. The last group were not comfortable with all topics covered in the interview. The native facilitators in the FGDs sometimes tried to change the questions slightly to make them less direct, and had to be guided by the researchers to put the questions as they were formulated: direct. Some of the findings in the FGDs were that condoms were perceived to be an unreliable method of protection and condoms were only mentioned as a manner of protection against HIV in 5 out of 11 groups. The interviews found that religion was often used as a valid argument to reduce the 'ABC'² message to an 'AB', or even an abstinence-only message, whereas religious NGOs were the ones to provide the reproductive health programmes to the adolescents. The initial attitude towards the open and direct questions by programme leaders and trainers was negative, but

² ABC is an often-used approach in HIV/Aids prevention campaigns, where A stands for promoting Abstinence, B stands for Be faithful and C stands for (correct) Condom use.

the results of the discussions worked as an eye-opener to these people. Results of the FGDs gave open and detailed information on the researched topics.

Bunce et al. (2007) wrote on the acceptability of vasectomy among men in Tanzania, as one of the methods to integrate men in the discussion on reproductive health and rights. Three FGDs and 10 additional in-depth interviews were held among vasectomized men. Another nine FGDs were conducted, three in each of the three selected districts. In each district one FGD with partners of vasectomized men was held, one FGD with tubal ligation clients and one FGD with potential vasectomy clients. All FGDs used the same questions in the same order. Two Tanzanian institutes approved the questions.

Results were categorized in six main themes. Evidence was found in the study that the idea of men resisting against vasectomy as an option, was wrong. The reason for limited use of the method should be found in the mentioned categories, in which the lack of information played a strong role. Bunce et al. (2007) also mentioned a few limitations of the study, among which the need to translate all the data, which makes the reliability of the data questionable. Also a bias in information is foreseen because the vasectomy has happened in the past.

In a research of Garcia et al. (2006), FGDs were held with female and transvestite sex workers and male clients in Mexico and the Dominican Republic. Respondents were asked for their definition of successful condom use, their reasons for using condoms, their methods to negotiate condom use and how they would promote condom use in the future. Participants were chosen from a selected group who had to have used condoms in the past. A questionnaire among this group decided about the eventual participants in the FGDs. A total of 3 FGDs were conducted. The FGDs were used in an explorative way. Questions for the FGDs were tested on cultural sensitiveness by local NGOs. In this study, the researchers chose explicitly to select participants that had a positive attitude towards condoms and condom-use. Generalizability was low according to the writers, mentioning the small sample and qualitative method as reasons.

None of the studies found inevitable difficulties discussing 'taboo' topics in their Focus Group Discussions and all got qualitatively good and useful input from the FGD. Some first asked for appraisal of their questionnaires to make sure they were culturally sensitive. Some studies put question marks to the generalizability of the research, given the qualitative character or the relatively small target group.

2.5 CTA and Pratham's Reproductive Health Programme

What do all these theories, guidelines and applications of theories mean for the CTA of Pratham's Reproductive Health Programme? What kind of results should the Constructive Technology Assessment produce? How should CTA be used in the specific case of Pratham's Reproductive Health Programme?

This chapter showed that CTA is used to investigate the expected effects, the expected impact of the Reproductive Health Programme in its development phase. The proposed programme is presented and respondents are asked what kind of effects they expect to come across before, during and after implementation of the Reproductive Health Programme. Effects are categorized in terms of knowledge, attitude, behaviour, skills, self-confidence and personal benefits they expect to gain and costs they expect to face.

CTA investigates the societal impact of a programme. For this particular intervention, impact stretches further than society in general or users only. It is a CTA in a complex environment that makes identification and involvement of relevant stakeholders crucial for the outcomes of the study. Using Lloyd's approach (2005), a total of 20 stakeholders are identified as relevant and categorized according to their relationship with the programme. In Focus Group Discussions (FGDs) and In-depth Interviews the effects that these different stakeholders expect are collected. A broad societal view on the impact of the programme is constructed from the collected data in FGDs and interviews.

The effects mentioned are inventoried and compared to the goals and aims Pratham initially set for the Reproductive Health Programme. According to this comparison, conclusions can be drawn on the effectiveness of the programme. To improve the expected effectiveness of the programme, the results of the FGDs and interviews can be used to steer the development of the Reproductive Health Programme. The CTA approach enables Pratham to steer the development of the programme.

Furthermore, the results of the FGDs and interviews can be used in a questionnaire to economically evaluate the effectiveness of Pratham's Reproductive Health Programme after implementation.

3 Methodology

3.1 Focus Groups and In-Depth interviews

In this paragraph, all focus groups are discussed. Some respondents were interviewed using in-depth interviews, including argumentation for the choice of in-depth interviews. Whenever possible, one FGD was conducted for each separate stakeholder. A total of 11 FGDs and 6 interviews were conducted during the study.

3.1.1 Focus Groups and interviews with downward stakeholders

Table 3.1 Focus Group 1. Target group women

Women	
Participants	5
Date and time	June 18 th 2007, 14.00h
Location	Allah Nagar, Slum in the city of Ahmedabad
Approach	Community mobilization by fieldworkers, afterwards individual invitation in 1 slum
Facilitator	Suchi Raval
Recorder	Rupali Tripathee
Language	Gujarati
Remarks	More women were found but some had to leave early. 5 Women participated during the full FGD. Most of the women were busy with household chores and work

Table 3.2 Focus Group 2. Target group adolescent girls, 15-19 years old

Adolescent Girls 15-19 years old	
Participants	8
Date and time	June 18 th 2007, 16.00h
Location	Allah Nagar, Slum in the city of Ahmedabad
Approach	Community mobilization by fieldworkers, afterwards individual invitation in 1 slum
Facilitator	Suchi Raval
Recorder	Rupali Tripathee
Language	Gujarati
Remarks	June 17 th community in Allah Nagar was mobilized, before the FGD girls were invited personally

Table 3.3 Focus Group 3. Target group girls 11-14years old

(Adolescent) Girls 11-14 years old	
Participants	7
Date and time	June 19 th 2007, 12.00h
Location	Allah Nagar, Slum in the city of Ahmedabad
Approach	Community mobilization by fieldworkers, afterwards individual invitation in 1 slum
Facilitator	Suchi Raval

Recorder	Rupali Tripathee
Language	Gujarati
Remarks	June 17 th community in Allah Nagar was mobilized, before the FGD girls were invited personally

Table 3.4 Focus Group 4. Target group boys 11-14 years old

(Adolescent) Boys 11-14 years old	
Participants	9
Date and time	June 19 th 2007, 14.00h
Location	Allah Nagar, Slum in the city of Ahmedabad
Approach	Community mobilization by fieldworkers, afterwards individual invitation in 1 slum
Facilitator	Suchi Raval
Recorder	Rupali Tripathee
Language	Gujarati
Remarks	June 17 th community in Allah Nagar was mobilized, before the FGD boys were invited personally

Table 3.5 Focus Group 5. Target group boys, 15-19 years old

Adolescent Boys 15-19 years old	
Participants	10
Date and time	June 19 th 2007, 16.00h
Location	Allah Nagar, Slum in the city of Ahmedabad
Approach	Community mobilization by fieldworkers, afterwards individual invitation in 1 slum
Facilitator	Suchi Raval
Recorder	Rupali Tripathee
Language	Gujarati
Remarks	June 17 th community in Allah Nagar was mobilized, before the FGD boys were invited personally

Table 3.6 Focus Group 6, Second grade downward stakeholders men

Men	
Participants	8
Date and time	June 14 th 2007, 12.00h (Sunday)
Location	Allah Nagar, Slum in the city of Ahmedabad
Approach	Community mobilization by fieldworkers, afterwards individual invitation in 1 slum
Facilitator	Ashvin Mehta
Recorder	Pradeep
Language	Gujarati
Remarks	Men were approached on a Sunday, so that they did not have to work. FGD was conducted and recorded by a male conductor and a male recorder.

Table 3.7 Focus Group 7, Second grade downward stakeholders, HIV Positive people

HIV Positive People	
Participants	6

Constructive Technology Assessment of Reproductive Health Programmes in India

Date and time	July 6 th 2007, 12.00h
Location	Office of support & counselling organization positive people in Ahmedabad
Approach	Via HIV positive person in Advisory Board, counsellor for the support organization for Positive People in Ahmedabad
Facilitator	Ashvin Mehta
Recorder	Rupali Tripathee
Language	Gujarati
Remarks	Participants were not living in the community of Allah Nagar but were from all over Ahmedabad. Respondents were known with the support organization where the FGD was held

Table 3.8 In-depth Interview 1. Second grade downward stakeholder Health Service Provider

Family Doctor (Health Service Provider) 1	
Date and time	June 28 th 2007, 10.00h
Location	Slum Allah Nagar in Ahmedabad, at doctor's office
Approach	Personally by conductor of interview
Conductor	Ashvin Mehta
Recorder	Pradeep
Language	Gujarati
Remarks	There were more family doctors/ health service providers, but they would not come together in a central place in Ahmedabad. They were too busy. Only willing to come together for an FGD if they were paid and if lunch and/or dinner were served. Budget was not sufficient for such arrangements so one on one in depth-interviews were held

Table 3.9 In-depth Interview 2. Second grade downward stakeholder Health Service Provider

Family Doctor (Health Service Provider) 2	
Date and time	June 28 th 2007, 12.00h
Location	Slum Allah Nagar in Ahmedabad, at doctor's office
Approach	Personally by conductor of interview
Conductor	Ashvin Mehta
Recorder	Pradeep
Language	Gujarati
Remarks	Same conditions as other family doctor interviewed

Table 3.10 In-depth Interview 3. Second grade downward stakeholder Religious Leader, Muslim

Religious Muslim leader	
Date and time	June 28 th 2007, 14.00h
Location	Slum Allah Nagar in Ahmedabad, at community mosque
Approach	Personally by conductor of interview
Conductor	Ashvin Mehta
Recorder	Pradeep
Language	Gujarati
Remarks	For the same reason as the family doctors, religious leaders were interviewed separately. One Hindu leader and one Muslim leader were approached

Table 3.11 In-depth Interview 4. Second grade downward stakeholder Religious Leader, Hindu

Religious Hindu leader	
Date and time	June 28 th 2007, 16.00h
Location	Slum Allah Nagar in Ahmedabad, at community temple
Approach	Personally by conductor of interview
Conductor	Ashvin Mehta
Recorder	Pradeep
Language	Gujarati
Remarks	Religious leaders were both from a community level, like priests

3.1.2 Focus Groups with inward stakeholders

Table 3.12 Focus Group 8: Inward stakeholders, Pratham employees

Head of Pratham, Programme coordinators (Gujarat & Overall), trainer, consultant and accountant	
Participants	6, see for details header
Date and time	June 6 th 2007, 11.00h
Location	Pratham Gujarat Paldi Office, Ahmedabad, Reproductive Health Programme Room
Approach	Through e-mail and in person, well in advance
Facilitator	Niels van Gorp
Recorder	Niels van Gorp
Language	English
Remarks	All respondents are separate stakeholders, all but one from the inward accountability category. The trainer is a horizontal stakeholder. All participants knew each other. An FGD has more benefits than separate interviews with every one of the mentioned participants. Results are clearly separated by stakeholder. A disadvantage is however, that an effect is less likely to be mentioned a second time if one stakeholder has already come up with that effect.

Table 3.13 Focus Group 9: Inward stakeholders, Fieldworkers

Fieldworkers	
Participants	4
Date and time	June 13 th 2007, 14.00h
Location	Pratham Gujarat Paldi Office, Ahmedabad, Reproductive Health Programme Room
Approach	Invited through e-mail and in person, arranged with programme coordinator
Facilitator	Suchi Raval & Niels van Gorp
Recorder	Rupali Tripathee
Language	English
Remarks	Team of fieldworkers consisted of 6 people, one of them was ill and one had a family engagement. Changing the date was no option while participants were needed during FGDs of target groups, which could turn to a bias in the information gathered. Facilitator and recorder were interviewed in Focus Group 8

3.1.3 Focus Groups and interviews with horizontal and upward stakeholders

The Focus Group with the sole upward stakeholder, Oxfam Novib, also contained WPF as horizontal stakeholder. One horizontal stakeholder is not mentioned in this paragraph. The trainer was interviewed simultaneously with Pratham employees in Focus Group 8 with inward stakeholders.

Table 3.14 Focus Group 10. Second grade horizontal stakeholders, network organizations.

Network organizations	
Participants	4
Date and time	May 18 th 2007, 17.00h
Location	Hotel Klassic Gold, Ahmedabad during May network-meeting
Approach	Personally through e-mail and well in advance
Facilitator	Niels van Gorp
Recorder	Niels van Gorp
Language	English
Remarks	One representative for every network organization, including Pratham Rajasthan, except Pratham Gujarat. Focus Group included the network coordinator.

Table 3.15 Focus Group 11. First grade upward and first grade horizontal stakeholder.

World Population Foundation and Oxfam Novib	
Participants	2 respondents of WPF and one representative of Oxfam Novib, total of 3
Date and time	May 19 th 2007, 16.00h
Location	Hotel Klassic Gold, Ahmedabad during May network-meeting
Approach	Personally through e-mail and well in advance
Facilitator	Niels van Gorp
Recorder	Marlies Fickweiler
Language	Dutch
Remarks	Three respondents were together in India only once, during the May meeting of the network. These three respondents were the only ones responsible for the project at their organizations. Due to limited amount of time an FGD was held with these three respondents. Results were recorded with clear indications of the stakeholder mentioning the effect. Still it is very likely that if both stakeholders expected the same effect, it was only mentioned once in the FGD, which is a disadvantage for the eventual analysis of results.

Table 3.16 In-depth Interview 5. Second grade horizontal stakeholder, members of the advisory board

Advisory Board Member 1: HIV Positive Person	
Date and time	July 4 th 2007, 11.00h
Location	Office of support & counselling organization positive people in Ahmedabad
Approach	Personally in e-mail, well in advance and with help of Ashvin, a friend of the interviewee
Conductor	Ashvin Mehta

Recorder	Rupali Tripathee
Language	Gujarati
Remarks	Advisory Board Members live all over India. Getting them together was impossible. Conducting two separate in-depth interviews with Ahmedabad-based members was preferred over a Focus Group Discussion with 2 advisory board members

Table 3.17 In-depth Interview 6. Second grade horizontal stakeholder, members of the advisory board

Advisory Board Member 2: Director of CHETNA, Centre for Health Education, Training and Nutrition Awareness	
Date and time	July 9th 2007, 14.00h
Location	Slum Allah Nagar in Ahmedabad, at community temple
Approach	Personally in e-mail, well in advance and with help of Suchi who had contact with the Advisory Board
Conductor	Niels van Gorp
Recorder	Niels van Gorp
Language	English

Goal was to have 6-12 respondents per Focus Group. Some Focus Groups consisted of less participants due to circumstances mentioned in the remarks part of each table.

Stakeholders from the downward category were chosen from the same slum. Community mobilization then had to be carried out only once and context of the results was the same. The slum Allah Nagar was chosen because from the needs assessment, Pratham knew inhabitants of the community were quite talkative. Pratham is also active in this slum with its education programmes, so the community was familiar with Pratham's activities.

Whenever possible, FGDs and interviews were planned on convenient times for the respondents. Sweets were bought as a compensation for the time spent. FGDs were conducted in a neutral room in the community, which was available free of cost as goodwill from the community to Pratham.

3.2 Conducting the FGDs

Introducing the FGD

For many respondents it was not clear what the Reproductive Health Programme is about. Therefore, they needed an introduction to the programme to be able to mention and discuss expected effects of the intervention. Furthermore the introduction contained information on the goal of the discussion, gathering expected effects. Focus Groups 1,2 and 4 do not need to be introduced to the content of the programme and are therefore only told the goals of the FGD. The rest of the focus groups and interviewees were given the following introduction (in speech, many respondents were illiterate):

Next January Pratham will do a new project in your community. The project is on sexual health and rights and on HIV/Aids.

There will be four sessions on two days somewhere in this community.

One session is about knowing your body, changes that happen to your body when you are in puberty, on wet dreams and menstruation, pregnancy and contraceptives.

A second session will be about differences between men and women and how to handle these differences, on communicating about sex, and rights of men and women.

We will give information about what HIV/Aids is, how it spreads and how it can not spread, how you can prevent yourself from getting HIV, how you can recognize and test HIV and on how you can have contact with infected people.

In the last session we will talk about other diseases you might get from unprotected sex, how you can recognize that you have the disease, how you can test it, what you can do about it and how to prevent from getting the disease.

For the groups of young adolescents (11-14 years old), sex was not explicitly mentioned in the introduction.

After the introductory text, the conductor explained what he or she wants to discuss. Good and bad, positive and negative effects, personal and general effects, small and big effects, effects that occur during development, during implementation and after implementation.

Questions asked

After the introduction the discussion starts. All questions were based on a list of goals on desired data. Questions were fine-tuned for every stakeholder. A question was for instance: 'Would you join Pratham's Reproductive Health Programme? Why or why not?' For men this question was changed to: 'would your wife join the proposed programme? Why or why not?' and for doctors and religious leaders: 'would you encourage people to join Pratham's programme? Why or why not?'

For stakeholders engaged in the development of the programme, the question was not only what effects they expected for target groups, but also what effects they expected to have personally, and what effects they expected the programme to have on their organization.

Furthermore, focus differed for some Focus Groups. Young adolescents were not asked explicitly for the effects on their sex lives and in Focus Groups with women and girls, extra focus was put on the effects of discussing equal rights for women and gender issues.

The order of the questions was not important, except for the concluding questions of every FGD. These concluding questions were on explicit costs and benefits. Questions on costs and

benefits were asked at the end of the FGD to avoid that the terms 'costs' and 'benefits' lead to the sole mentioning of monetary costs and tangible benefits during the FGD.

All questions were based on goals that were set for the Focus Group Discussions. This is a list of the general goals:

- What are expected effects in different phases of the programme (before implementation and during development, during implementation, short-term after implementation and long-term effects of the programme)?
- What effects are expected on different levels, of different magnitude and of different impact (macro-level, micro-level, big effects, small effects, positive effects, negative effects)?
- What are expected effects of different parts of the programme explicitly (effects of information on HIV/AIDS, effects of the 'knowing your body' part, effects of discussing gender)?
- What effects does the stakeholder expect for him/herself personally? (Divided in effects on the respondent personally, the direct environment of the respondent, effects on the focus group or stakeholder as a group and effects on the organization or group the respondent is part of)
- What are expected effects for stakeholders, other than the respondent (for instance society as a whole, or ask fieldworkers what effects they expect for the target groups)?
- What are expected explicit costs and benefits (monetary costs, tangible benefits)?

These general goals were specified for each stakeholder and Focus Group Discussion. A list of these specified goals can be consulted in Appendix 1. The questions, like "would you join Pratham's Reproductive Health Programme? Why or why not?" were based on these specific goals. The full list of questions is too long to incorporate it integrally in the report. Therefore the complete list of questions can be found in Appendix 2.

Before the FGDs were conducted, an expert review on the questions was held. Some slight changes were made to improve the understandability of the questions. The same expert translated the questions and introductions to Gujarati, the local language. After translation, the Gujarati versions were checked with another English speaking Pratham employee to check whether his translation corresponded with the original questions.

4. Results

4.1 Introduction to the results

In 11 Focus Group Discussions and 6 in-depth interviews, a total of almost 500 effects (476 recorded effects, some consisted of more than one effect) were mentioned by a total of 75 respondents (69 in FGDs, six in one-on-one interviews) were recorded. The results altogether provide a societal view on the expectations stakeholders have of Pratham's proposed Reproductive Health Programme. To be able to compare results with goals and aims of the programme, the results must be analyzed.

For the analysis of results of the FGDs and interviews in health research, Bender and Ewbank (1994) mention an appropriate method of analysis. They mention the identification of themes as one of the two most regular methods of analysis for FGDs. In our study, first of all a distinction was made in negative effects (costs) and positive effects (benefits), that respondents expected. Then categories were identified and effects mentioned were counted for the number of times they were mentioned in every stakeholder category (upward, downward, inward & horizontal). Every effect was only recorded once for each stakeholder. A similar effect mentioned by two stakeholders counted as two effects for the results. For three stakeholders, two respondents were interviewed separately (2 family doctors, 2 religious leaders and 2 members of the advisory board). The results of each two interviews were put together and effects mentioned were only recorded once in the tables.

The positive effects were divided in seven categories; knowledge & awareness, attitude & social acceptance, skills, behaviour (change), health gain & quality of life, self confidence, emotional effects and remaining (personal) effects.

The negative effects fitted in the following five categories: monetary costs, practical costs, emotional (intangible) costs, negative attitude & social rejection and undesirable behaviour.

For every category a separate table was made, in which effects were listed and similar effects were counted for each stakeholder category (upward, downward, inward and horizontal). The header of each column mentions the total of stakeholders (n) in that category. In the column, the amount of first and second grade stakeholders mentioning the effect is divided with a slash (/). An example: Downward (n=9) means 9 stakeholders are in the category downward accountability. If adolescent boys 11-14 and women (first grade downward stakeholders) and both doctors (second grade downward stakeholder) mentioned a certain effect, the downward

column states 2/1 (two first grade stakeholders and one second grade stakeholders; two doctors count together as only one stakeholder). A distinction can then be made between effects mentioned by more important stakeholders (first grade) and less important (second grade) stakeholders. Only a few notable examples of the effects that were mentioned one time were recorded in these tables. The remaining effects that were mentioned only once are listed in Appendix 3.

4.2 Positive effects

Knowledge & Awareness

The effects in Table 4.1 are related to an increase in or gain of knowledge, or to an increased awareness. For instance knowledge on symptoms of HIV/Aids and awareness of the risks of unprotected sexual intercourse.

Table 4.1 Positive results, category: Knowledge & Awareness

Effect	Down ward (n=9)	In ward (n=6)	Horiz ontal (n=4)	Up ward (n=1)	Total (n=20)
1 Participants acquire knowledge on incorporated topics	5/4	3/0	1/3	1	17
2 Relatives of the respondents and other stakeholders will learn (e.g. from cooperation in the programme, learn from each other)	3/3	1/0	1/2	1	11
3 Awareness of (the seriousness & risks of and treatments possible for) HIV/AIDS & other STDs increases	2/3	2/0	1/2	1	11
4 Programme creates self-awareness and participants get aware of their (reproductive) health	1/4	1/0	1/2	1	10
5 Awareness of equality among men & women, awareness of rights (of women & right to treatment) and responsibilities of men	1/3	1/0	1/2	1	9
6 Helps participating adolescents in the future (e.g. in family planning), useful information for the future	2/2	1/0	0/1		6
7 Information clears misconceptions & myths	0/1	1/0	0/2		4
8 Participants get scientifically correct (actual) information	0/2		0/1		3
9 The formal education system doesn't provide information alike			0/1	1	2
10 Participants expect to learn about sexual intercourse	2/0				2
11 Environment gets sensitised (teachers, health workers, own employees, community) Also because of the sensitiveness of the topic			1/1		2
12 Participants should learn about addictions	0/1				1
Total of effects mentioned per stakeholder category	16/23	10/0	6/17	6	78

Participants acquiring knowledge is definitely the most mentioned effect and often perceived as one of the most important effects of the programme. Most FGDs mentioned specific pieces

of knowledge participants expect to acquire, for instance on menstruation or pregnancy, or on HIV/AIDS. All but two of these topics are included in the proposed content of the Reproductive Health Programme. Two FGDs with target groups showed that they expected to learn how to have sexual intercourse. Another topic that's expected to be included in the programme is information on addiction.

Remarkable is that downward stakeholders including target groups mention knowledge and awareness related effects a lot, in contrast to inward stakeholders. The beneficiaries and their direct environment expect mainly a gain in knowledge and awareness, where developers of the programme seem to expect less knowledge and awareness effects. The fact that downward stakeholders mention many knowledge effects corresponds with Pratham's educational background and approach (in other programmes).

Furthermore the results show that respondents are likely to share the information they acquired from the Reproductive Health Programme with their families, friends and colleagues and that the knowledge does not only affect the target groups, but participating organizations and employees of Pratham are learning as well. Pratham's goal to sensitise the environment will succeed according to their peers and respondents expect to gain awareness 'according to plan'. Three remarkable effects are effects 7, 8 and 9. To clean misconceptions and give scientifically correct information are no goals of the programme, but it shows confidence in Pratham and their programme and indicates the importance of the Reproductive Health Programme.

Attitudes and social acceptance

Attitude towards the programme, the content, and attitudes regarding reproductive health and rights and social acceptance of (discussing) all these topics are effects that merge in this category. Beliefs about the impact of the Reproductive Health Programme are also incorporated in Table 4.2.

Table 4.2 Positive results, category: Attitudes & Social acceptance

Effect	Downward (n=9)	Inward (n=6)	Horizontal (n=4)	Upward (n=1)	Total
1 Boy's attitude towards girls and perception of girls will improve (change) and vice versa.	3/2		0/2		7
2 Curiousness in respondents, friends about programme and enthusiasm (positive attitude) in stakeholders towards programme	2/2	2/0	0/1		7
3 Openness towards topics discussed and attitude in general towards SRHR and openness to each other	1/0		1/1		3
4 Environment of participants is supportive and motivates target groups to participate	0/1		1/1		3
5 Attitude towards HIV/AIDS is more serious (participants, network)		1/0	1/1		3

6	Increased acceptance of HIV/Aids in the community, attitude towards HIV positive people changes/improves		1/0	0/2		3
7	Information cleans attitudes & prejudices			0/2		2
8	Belief that it will contribute to a better future	0/1		0/1		2
9	Belief that no religious barriers exist	0/1				1
Total of effects mentioned per stakeholder category		6/7	4/0	3/11	0	31

It is mainly the downward stakeholders, target groups, who trust in the Pratham's promise to improve proportions between men and women, the attitude of boys against girls. The effects mentioned relate to the social diffusion of the programme in the community. An important (side) effect of the programme is that people start talking, openly, about the topics discussed in the Reproductive Health Programme. Remarkable is that again the inward-group does not expect much to happen in terms of openness, attitude and increased discussion. The sole upward stakeholder did not mention any of these effects, but did notice that the programme could contribute in countering the tendency of Indian state-governments to stop sexuality education.

Furthermore, the results show that respondents are curious about the Reproductive Health Programme, a positive attitude towards the programme that presumes full participation of the target groups during implementation. An important effect in the context is the belief that no religious barriers exist to the proposed content of the programme. A religious leader in the community expected this and this contributes to the likeliness of success of the Reproductive Health Programme, as religion often is a barrier in similar programmes, for instance in propagating the use of contraceptives.

Skills

Pratham aims to educate target groups, among others, communication and negotiation skills, practical knowledge on how to consult a doctor, how to take precautions against HIV and negotiating condom use and safe sex. In Table 4.3 expected effects regarding obtained skills are listed.

Table 4.3 Positive results, category: Skills

Effect	Downward (n=9)	Inward (n=6)	Horizontal (n=4)	Upward (n=1)	Total
1 More responsibilities, new activities, new methods & ways of working, capacity is built (in a new area) and new skills for stakeholders in development		2/2	1/2	1	8
2 How to take precautions against getting HIV/STDs, how to have safe sex, skills for family planning and delaying sexual intercourse	3/1	3/0			7
3 Assertiveness & negotiation skills		3/0	0/2		5
4 Skill to discuss reproductive (health) problems and negotiate condom use		3/0			3

Constructive Technology Assessment of Reproductive Health Programmes in India

5	Skill to exercise (sexual and reproductive) rights	1/0	1/0			2
6	HIV positive people will know how to live positive (in a positive way)	0/1				1
7	How to take care of/discuss sensitive issues (in programmes/community)		1/0			1
8	How to care and provide support for HIV positive	0/1				1
Total of effects mentioned per stakeholder category		4/3	13/2	1/4	1	28

Skills needed for self-efficacy in preventing from infection are expected to come to the fore in Pratham's Reproductive Health Programme, which matches Pratham's goal. The same is true for assertiveness & negotiation skills, although target groups, the people who should acquire the skills, the people to whom it concerns, do not mention these skills-effects. Pratham employees forming the first grade inward stakeholders, have great expectations from the skills-part of the programme, in contrast to the views of the downward stakeholders, that only mention the skill to prevent from getting HIV or other Sexually Transmitted Diseases (STDs). Support organizations (donor and technical guidance) restrict their expectations in terms of skills to skill building of Pratham itself, the network organizations and their own organizations only. Where Pratham has (logically) only defined goals for target groups and their environments, Pratham's employees and peers already acquired and still expect to acquire new skills as well, due to their work for the programme.

Behaviour

Knowledge, awareness and skills can contribute to the eventual change of behaviour. Effects regarding the decrease of risky behaviour and the increase in favourable behaviour, like health seeking behaviour and risk-avoiding behaviour, are listed in Table 4.4.

Table 4.4 Positive results, category: Behaviour

Effect	Downward (n=9)	Inward (n=6)	Horizontal (n=4)	Upward (n=1)	Total
1 Respondents will share the knowledge gained & talk openly on problems and reproductive health issues and topics with relatives & friends	5/2	3/0	1/1		12
2 People take adequate precautions against HIV/STDs & engage in safe sex, use condoms correctly	1/4	2/0	0/2		9
3 Respondents will seek treatment (increase health-seeking behaviour), testing and decrease 'treatment at home'	2/3	1/0	1/1		8
4 People will avoid risky behaviour (decrease in risk behaviour) and take better control of their lives & health	2/4	2/0			8
5 Respondents will (actively) participate in the Reproductive Health Programme	1/4		0/1		6
6 Increased discussion about SRHR topics (e.g. gender), also in community, creates a different debate in the community		3/1	1/1		6
7 Respondents will motivate and encourage participation in the programme	0/4		0/1		5

8	Men approach women in a respectful way, decrease sexual abuse and gender based violence	2/1		0/2		5
9	Respondents bring acquired skills in practice (e.g. girls using negotiation skills)		2/0	0/2		4
10	Participants save their partners from getting HIV and seek treatment for partners	0/1	1/0	0/1		3
11	Less alcohol & drug (ab)use (also before sex)	0/2	1/0			3
12	Less or no more discrimination of HIV positive people, compassion with PP	0/2	1/0			3
13	Respondents propagate condom use, encourage friends to avoid risky behaviour	1/0		0/1		2
14	Engaged advisory board members can have influence on a high level			1/0	1	2
Total of effects mentioned per stakeholder category		14/27	16/1	4/13	1	76

Downward, inward and horizontal groups were all confident that behaviour will change positively due to the Reproductive Health Programme. The programme's sponsor in the upward category was the only one cautious in expecting effects in behaviour. Furthermore it is remarkable that target groups were positive in mentioning the effects, but that second grade downward stakeholders had the greatest expectations, not the target groups.

Actually every desired effect in terms of behaviour was mentioned as an expected effect. From avoiding risky behaviour to an increase in health seeking behaviour and taking adequate precautions and from a respectful approach to women to less discrimination of positive people. According to the results, Pratham does not stand alone in motivating targeted people to join the programme. A further advantage was that all target groups in the FGD mentioned to 'spread the word' and share the knowledge gained in the sessions. An interesting effect was that inward stakeholders expected increased discussion in the community, while the programme did not aim this.

Health gain & Quality of life

The results in Table 4.5 relate to increased health, decreased infections and other Sexually Transmitted Diseases and the a more subjective form of health gain: an increased quality of life.

Table 4.5 Positive effects, category: Health gain & Quality of life

Effect	Down ward (n=9)	In ward (n=6)	Horiz ontal (n=4)	Up ward (n=1)	Total
1 Participants will save themselves from HIV, reduction in HIV infections	1/3	1/0	1/2	1	9
2 Participants will get a better future, improvement in quality of life	1/2	1/0	1/2	1	8
3 Less diseases and infections (also for HIV+ people)	1/1		0/1		3
4 Health related progress (healthier society)	0/1		1/0		2
Total of effects mentioned per stakeholder category	3/7	2/0	3/5	2	22

All categories of stakeholders mentioned the long-term goal of the Reproductive Health Programme: reducing incidence of HIV, less infections, the big goals policymakers often set for programmes like Pratham’s Reproductive health Programme. This effect was however, mentioned less often than some of the knowledge/awareness effects and those in the behaviour categories. Only one target group of the programme mentioned effects in this category. This clearly distinguishes the CTA approach from economic evaluations such as Cost Effectiveness Analysis that are solely interested in the amount of HIV infections averted.

Self-confidence & Emotional effects

The programme was in some cases expected to improve the self-confidence of target groups. Other effects in Table 4.6 have to do with self-efficacy, being able to exercise the skills and use the knowledge gained in the programme, and with emotionally tinted effects.

Table 4.6 Positive effects, category: Self-confidence & Emotional effects

Effect	Downward (n=9)	Inward (n=6)	Horizontal (n=4)	Upward (n=1)	Total
1 Status/position of women will eventually improve, women (and other people in the community) are empowered	0/1	2/0	0/2	1	6
2 It increases my self confidence (self confidence of respondents)		2/1	0/1		4
3 Respondents are more at ease discussing reproductive health/sex	0/1	1/0	1/0		3
4 Participants dare to experience sex without feelings of guilt			1/1		2
5 It will have a positive effect on the relationship with our husbands (in the future)	2/0				2
6 Girls (& women) dare to demand their rights			1/0		1
Total of effects mentioned per stakeholder category	2/2	5/1	3/4	1	18

Just like the skills section, Pratham employees trust in the development of self-confidence and self-efficacy of participants of the Reproductive Health Programme, while target groups mention none of these self-confidence and self-efficacy effects. Pratham’s peers, as well as technical guide WPF also expected effects in this category.

Personal benefits & Remaining effects

Table 4.7 contains positive effects that could not be put in one of the other categories, the remaining effects mentioned in the FGDs and interviews. That these effects were hard to categorize shows from the personal character of the benefits listed in Table 4.7. The personal character of the benefits was thus a (if not the only) resemblance between the effects in this category.

Table 4.7 Positive effects, category: Personal benefits & Remaining effects

Effect	Downward (n=9)	Inward (n=6)	Horizontal (n=4)	Upward (n=1)	Total
1 Programme provides scope for Pratham & network organizations: more reach & projects in future, upscale possible (of IM) and adding new dimension to image in community		0/1	1/2	1	5
2 The programme has its reflection on our other programmes		0/1	1/1	1	4
3 The certificate we get for joining the training is like a diploma, proof and very valuable for our fieldworkers			0/1		1
Total of effects mentioned per stakeholder category	0	0/2	2/4	2	10

Because of the personal character of the effects in this category, most of the effects were only mentioned once and were recorded in Appendix 3. However, Pratham as well as its peers and sponsor expect the programme to provide scope for future projects and mention the benefit of the Reproductive Health Programme for other operations of their organization. A surprising third effect is that employees of network organizations were really thankful for WPF's 'simple' training-certificates that could serve as a diploma for them.

4.3 Negative effects

Monetary costs

Everything that costs money, for which Pratham has to pay during the cause of the Reproductive Health Programme, from material to personnel to office space, all monetary costs are listed in Table 4.8.

Table 4.8 Negative effects, category: Monetary costs

Effect	Downward (n=9)	Inward (n=6)	Horizontal (n=4)	Upward (n=1)	Total
1 Participants miss income during the training	3/2	1/0	0/1		7
2 Programme costs money (programme costs)		1/2		1	4
3 Programme uses Pratham infrastructure (opportunity costs like office space and communication lines)		1/1			2
Total of effects mentioned per stakeholder category	3/2	3/3	0/1	1	13

A cost that many of the downward stakeholders mentioned is missing income. This is an important effect, which Pratham really must keep an eye on, especially when it causes low participation in the programme. Direct costs were reported 'only' four times. These are monetary costs that will definitely occur when developing and implementing the programme, but probably considered less important or too obvious to mention.

Practical costs

Costs in Table 4.9 are not really tangible; nothing is subtracted from any bank account. Effects in this category have to do with perceived costs of practical things.

Table 4.9 Negative effects, category: Practical costs

Effect	Down ward (n=9)	In ward (n=6)	Horiz ontal (n=4)	Up ward (n=1)	Total
1 Household chores are neglected during the training	2/0				2
2 Only adolescents and women are targeted (missing other groups, like doctors, is a loss, missed opportunity)	0/2				2
3 Information people get word-to-mouth from participants can be incorrect			0/1		1
4 Staff is leaving, there is a turnover among people related to the project		1/0			1
5 Economic activity will have priority for participants (might not show up)	0/1				1
6 Programme can be stopped form higher hand quite easily			1/0		1
Total of effects mentioned per stakeholder category	2/3	1/0	1/1	0	8

All effects in this category were expected incidentally. However, the actual happening of many of the effects mentioned in the list above pose a threat for (successful) implementation of Pratham's Reproductive Health Programme. If household chores are considered more important than joining the Reproductive Health Programme, participation of women and girls will be low. The more of Pratham project employees will leave the project, the harder it gets to implement the programme, the longer it takes before Pratham is ready for implementation and the more costs there will be for the training of personnel. So none of the effects are generally expected to pose a threat for the programme, but should, again, be taken into account during development and implementation.

Emotional (intangible)

Like there can be emotionally charged benefits, emotionally charged (intangible) costs can also be expected. Some of them are listed in Table 4.10

Table 4.10 Negative effects, category: Emotional (intangible)

Effect	Down ward (n=9)	In ward (n=6)	Horiz ontal (n=4)	Up ward (n=1)	Total
1 Discussing gender takes time and is the most sensitive issue to discuss		2/0			2
2 We (Novib) and network organizations run the risk of loosing our good reputation in the community, by bringing about such a sensitive issue				1	1

None of the effects in this category was mentioned very often. An extra row in the table was considered unnecessary. The risk for Novib, Pratham and network organizations is very little because of the extensive situation analyses they carried out during development of the programme. That discussing gender takes time has a consequence for the outcome of the Reproductive Health Programme. To establish the desired impact regarding gender, Pratham's 2-day programme might not be sufficient.

Negative attitude & Social rejection

Besides the possible effect that the society accepts the programme and all of its contents, there is a possibility that the Reproductive Health Programme leads to a negative attitude and social resentment. Table 4.11 lists these kinds of effects.

Table 4.11 Negative effects, category: Negative attitude & Social Rejection

Effect	Down ward (n=9)	In ward (n=6)	Horiz ontal (n=4)	Up ward (n=1)	Total
1 Resentment from people in the community/acceptance by community difficult	0/1	2/0	0/2		5
2 Men might feel threatened (if gender and rights of women are discussed)	0/1	1/0	0/1		3
3 Debating in my organisation is a problem (discussing reproductive health) or need to discuss these issues is not recognized by some colleagues. Different reactions.		1/1	0/1		3
4 Participants might be to shy to pick up information and discuss in groups		1/1			2
5 Community might feel that Pratham is spoiling their children		1/0			1
6 Participants might feel they don't need the information			0/1		1
7 Discussing gender won't affect the older group. It will bring recognition for the problem but won't change anything	0/1				1
Total of effects mentioned per stakeholder category	0/3	6/2	0/5	0	16

Just like the expected increase in skills and self-confidence, it was predominantly Pratham employees in the inward category that were afraid of rejection by the community and disinterest and shyness in participants. None of the target groups mentioned that they would disapprove against the programme, and most of them were even sure to participate in the Reproductive Health Programme, so these 'fears' seem to be groundless. The same is true for peers, which expect the same kind of resentment in the community. The absence of support for the Reproductive Health Programme within the organizations can however become a true barrier. It is important that the environment of, for instance fieldworkers, is supportive and that the whole organization is positive about the project.

Undesirable behaviour

A little bit like the negative attitude, Table 4.12 lists negative effects that respondents expected regarding behaviour: undesirable behaviour that is expected to manifest after implementation of the programme.

Table 4.12: Negative effects, category: Undesirable behaviour

<i>Effect</i>	<i>Down ward (n=9)</i>	<i>In ward (n=6)</i>	<i>Horiz ontal (n=4)</i>	<i>Up ward (n=1)</i>	<i>Total</i>
1 People may start exploring, experimenting with (unsafe) sex	1/0	1/0	0/1		3
2 Fieldworkers are afraid to be beaten up by the community (very little)		1/0			1
3 People will disappear when talking about SRHS HIV/AIDS openly		0/1			1
Total of effects mentioned per stakeholder category	1/0	2/1	0/1	0	5

Little undesired behaviour was expected, but again it was the inward category that expects some threats. The first of these effects is the only one mentioned thrice and is countered by scientific research. Education and information on reproductive health, sexuality and safe sex reduces experimenting and unsafe sex in youth. From the FGD with fieldworkers, expected self-confidence in implementation of the programme was stronger and approved by the rest of the group. Fear of being beaten up is very small but should still be taken seriously. It is very unlikely to take place, but fieldworkers should feel confident and unrestrained in carrying out the programme.

Conclusions on the results are drawn in the next chapter. Discussion of the results and conclusions is also presented in the next chapter.

5. Conclusions and discussion

5.1 Introduction to the conclusions and discussion

When Pratham started the Reproductive Health Programme, goals were set for the outcomes of the programme. The main goals were: provide youth and adolescents with adequate information, sensitising their environment (parents and community leaders) and serve as counsellor. The overall goal for Pratham, according to their project proposal, was to reduce HIV/Aids and other STDs and RTIs that were related to the vulnerability of the target group. Other, content related goals were: increasing awareness and knowledge on rights, creating positive attitude of boys against girls and vice versa, skills-building in negotiation and communication, self-efficacy, empowering women, creating awareness of rights, improving risk perception, decreasing risk seeking behaviour and decreasing discrimination and stigma while creating a positive attitude against HIV positive people.

Different expectations

Constructive Technology Assessment of Pratham's Reproductive Health Programme showed that different stakeholders of the programme have different goals and above all different expectations regarding the effects of the programme. These goals and expectations differ in some aspects from the goals Pratham has set for the programme. Even Pratham employees mentioned expectations for the programme that cannot be found in the aims. Every goal set by Pratham was mentioned in one of the Focus Group Discussions (FGDs) or interviews, but not every stakeholder or stakeholder category mentioned every goal. Discussion of these results follows.

5.2 Conclusions and discussion of the results

Expectations regarding knowledge & awareness

From the results it became clear that the educative, knowledge-focused aspects of the programme are very important for the future participants of the Reproductive Health Programme. The downward stakeholders have great expectations regarding knowledge and awareness. This is an opportunity and a clear strength for Pratham, as they are already familiar with an educative approach. Expectations of future participants thus fit Pratham's strengths. At the same time it showed that target groups mainly expect to learn something from the programme: small effects, that are relatively easy to achieve, that are relatively easy to imagine and that follow quite easily from an educative approach. Expectations were actually even higher than Pratham aimed for: two target groups mentioned that they expected

to learn about (how to have) sexual intercourse (!); a surprising effect. Another aspect that a respondent expected to be discussed in the programme was addictions. Pratham does not need to incorporate these aspects in its programme, but they should be aware that exclusion could lead to dissatisfaction and that it could, hypothetically, lead to non-participation, if attention for these items is regarded highly important.

The awareness-related results were also mentioned by every stakeholder group and were mentioned often in Pratham's goals for the programme. The programme is thus expected to be effective concerning the aimed increase in awareness regarding reproductive health, rights and risks. Sensitising the community and environment of participants is believed to be carried out by participants themselves, as they expect share information with others.

Another expected benefit of the programme is that misconceptions and myths are cleared by the information given in the programme. Target groups, however, did not mention this effect. Pratham should be aware that these misconceptions might exist among target groups and that they might 'survive' if no attention is given to myths and misconceptions during the programme. Misconceptions must be cleared to make sure the information given in the programme is the only known and accepted 'truth' about reproductive health in the people's minds. This optimizes the eventual effectiveness of the Reproductive Health Programme.

Expectations regarding attitude and social acceptance

Downward and horizontal stakeholders had most expectations regarding these topics, in contrast to the inward stakeholders, the Pratham employees that did not expect an improved attitude and acceptance of boys against girls and vice versa. The expected curiousness in target groups is a success factor for the implementation of the Reproductive Health Programme, predicting a high degree of participation at the time of implementation. The results in this category show confidence in the social integration of the programme; openness towards the topics, openly discussing the topics, curiousness regarding the programme and the expected absence of religious barriers promise a fairly smooth implementation. The sponsor and sole upward stakeholder of the programme did not mention any of the discussed effects, but they are not really goals of sponsor Oxfam Novib either. Seen in this light, little importance should be attached to this observation. In addition, Oxfam Novib is the only stakeholder in the upward category and was in a focus group together with two respondents of a horizontal stakeholder. It is not very likely that respondents in the same FGD mention the same effects twice.

Expectations regarding skills

Pratham put a high bet on passing on skills to the target groups, in particular communication, negotiation and assertiveness skills. Pratham's goals concerning skills can be retrieved in the

effects the inward category expects for this category. The target groups however, do not expect to acquire these skills. The only skill they expect to acquire is to know how to take adequate precautions against HIV and other Sexually Transmitted Diseases (STDs). Pratham should take care not to pitch their expectations on skills building too high. Effectiveness of the programme in terms of fulfilled goals may turn out lower if aims can simply not be met. That target groups do not mention these skills as expected effects can have different reasons. They might feel they do not need the skills, they might not see the need for the skills, they might think the programme is simply not able or too short (in time) to teach them these skills, or the programme content is not clear enough about the skills it wants to pass on in the Reproductive Health Programme. Whatever the reason, Pratham should make sure to fine-tune the content regarding skills building to the target groups, if they insist on passing on these skills.

A very beneficial 'incidental circumstance' is an effect, which has already occurred. Besides the target groups, all participating organizations and stakeholders have mentioned that they acquired new skills personally by joining the (development of the) Reproductive Health Programme. Pratham's goals are (logically) only concerned with the target groups, but Pratham's organization is as well acquiring skills at fast-speed while developing the Reproductive Health Programme.

Expectations regarding behaviour

Except for the upward stakeholder category, the results for expected behaviour (change) resemble those for knowledge and awareness: most stakeholders expect quite some positive behaviour from the programme.

In addition to the positive attitude towards the programme, the expected effects regarding behaviour show that future participants are willing to join the programme and that their environment and key stakeholders in the community like religious leaders and doctors will support and encourage their participation in the Reproductive Health Programme. Participation of the (majority of the) target groups seems guaranteed and therefore of no concern to Pratham

Target groups, as well as peers and Pratham employees expect that risk-seeking behaviour will decrease and that risk-avoiding behaviour will increase, together with health-seeking behaviour. It is quite likely that a proper implementation of the programme will then at least lead to the first step to behaviour change and the accomplishment of these pre-set goals.

Downward stakeholders also expected that behaviour of boys towards girls (men against women) will become more respectful, thereby meeting another one of Pratham's goals for the programme. What Pratham also intends to achieve with the programme is to decrease discrimination and stigma against HIV positive people. The decrease in discrimination was

mentioned in some FGDs but none of the target groups expected this effect. Pratham should thus carefully prepare its content on HIV/AIDS and the non-stigmatising message to make sure to achieve their goal of banishing discrimination of HIV positive people. Strengthening the part of the programme about responsibilities of HIV Positive people towards society and vice versa and focusing on the possibilities to contribute individually are recommendations.

Expectations regarding health gain and quality of life

Every stakeholder category mentioned the decrease in HIV infections and the increase in quality of life. Both very high goals and intangible effects, often set as primary goals by policymakers. The same is true for Pratham. The overall or eventual goal of the Reproductive Health Programme is to reduce HIV infections. Even downward stakeholders mentioned this effect, although it was only one target group that expected the effect. Target groups expected more from easier-to-achieve, concrete goals and short-term effects of the programme like knowledge and the little longer-term behavioural effects. Furthermore it requires a lot from the programme before a decrease in HIV infections can be established and before they are significantly measurable. Preconditions for the decrease are for instance a certain level of knowledge, awareness, risk perception and risk-avoiding behaviour. The goal of decreasing HIV infections is in accordance with many Reproductive Health Education and HIV Prevention programmes alike, but Pratham should not forget that the first steps in sensitising the community and providing knowledge are at least as important as the high goal of averting HIV infections in this stage of the programme and with the current level of knowledge in target groups.

Expectations regarding self-confidence and emotional effects

This is again a category of effects of which Pratham employees of the inward category expect a lot, but where target groups don't mention any effect regarding an increase in self-confidence. It seems to be an effect that could turn out to be a bonus of the programme but not an effect Pratham should concentrate on in the first place.

Expectations regarding negative effects and costs

The most important cost mentioned is that target groups could miss income if they join the Reproductive Health Programme. If the sessions take place on an inconvenient time and possible participants prefer their economic activities to participation in the sessions of the programme, the Reproductive Health Programme will turn into a failure. Even though participants expected they would join the programme, if their economic activity is more important to them, they will not join the programme. Pratham has two possibilities to counter this threat. First is to make sure the sessions are held on a convenient time, for instance in the

evenings or on Sundays. Another option is to pay adolescents and women for their participation, to compensate for their missed income. Besides taking away the sole reason for target groups to stay away, paying participants gives a clear signal that Pratham cares about their participation and that participating in the programme is a serious affair. Paying participation is of course an extra cost for the programme, but Pratham should consider it a serious option. If all targeted people will for instance join the full programme for €1,- per person, which is quite an amount of money for most inhabitants of slums, the total extra cost for the programme is 'only' €7000,-. Participation of the full amount of targeted people is then guaranteed. It depends on the total budget of the programme and the percentage of the budget, how seriously the option should be taken into consideration. However, if for instance only half of the targeted amount of people participates, the cost per participant might much higher than when every targeted person joins because he or she is paid. Most other expected negative effects predicting some barriers to successful implementation were not mentioned very often and/or were countered in amount and intensity by the belief that the community and targeted participants would welcome the Reproductive Health Programme.

5.3 Recommendations for Pratham

Extensive discussion of the results and the conclusions drawn in the last paragraph yield some recommendations for Pratham to steer or fine-tune the development and implementation of the Reproductive Health Programme.

First of all the missing income-issue should be solved. Pratham should investigate two options. First is to plan the sessions in evenings or in weekends, so that participants do not miss any income. Future participants should be interviewed about the likeliness they will join the programme in evenings or weekends. The second option that should be investigated is the extra cost of paying participants to join the programme. What money would be available? How much should be paid to make people participate? Both options should be taken into serious consideration and to ascertain the aimed reach of 5000 adolescents and 2000 women after phase two of the programme, choosing one of these two options is probably inevitable.

A second recommendation for Pratham is to reconsider the aims regarding skill building in participants. Pratham probably aimed too high concerning the skills and the programme might lack sufficient time to achieve the desired effect. Target groups do not expect skills building regarding negotiation, communication and assertiveness in the programme. Pratham could provide supplementary courses or sessions to teach these skills, because they are an important step towards risk-avoiding and health-seeking behaviour. For the Reproductive Health Programme, Pratham should not place a too high bet regarding expected skills gained.

The same recommendation actually goes for the effects concerning self-confidence. The only difference is that no goals were stated for self-confidence. Pratham should take care not to have to high expectations for this category of effects. For such effects to take place, some more courses, time, help and counselling are needed than the proposed Reproductive Health Programme can achieve in its present form.

The third and last recommendation is about focus. Most of Pratham's goals will probably be achieved, if goals on skills are downsized a bit. An expectation of the target group Pratham should be prepared for, is questions on how to have sexual intercourse and information on addictions (mainly from women who are suffering from their husband's addictions) The programme does not need to be changed according to these expectations, but Pratham should be able to explain why it was not included in the programme. Furthermore, the part of the programme regarding non-discrimination and non-stigmatisation of HIV positive people and the responsibilities of HIV positive people towards society and vice-versa, should be stressed, to make sure this goal is met. The same holds for the existence of myths and misconceptions. They are believed to exist but target groups did not expect them to be cleared by the programme. Pratham must make clear that the information they give is the only correct information and show that some generally believed myths are misconceptions.

5.4 An initial questionnaire for Pratham

The results of the Constructive Technology Assessment of the Reproductive Health Programme can be used in another way. The results can be used to economically evaluate the programme after implementation: a post-implementation cost-effectiveness analysis with a broad societal approach. If an expected positive effect takes place, the Reproductive Health Programme was effective in that way. The same holds if an expected negative effect does not show up after implementation. If for instance a certain behavioural effect was not mentioned by any of the target groups, then does this imply that this effect stays out?

A start for an initial questionnaire for Pratham is made in this paragraph, the beginning of a tool to evaluate the programme. The questions are meant for the target groups of the programme.

A list with questions Pratham could use:

- About what topics did you learn during the Reproductive Health Programme?
- What are ways of transmission of HIV?
- What are risks of HIV and STDs?
- What do you know about HIV?
- What can you do to protect yourself against HIV and other STDs?

- Did you learn how to negotiate condom use? How would you start such a discussion?
- Did you learn how to discuss sexuality? Did you already practice skill? How did you discuss sexuality?
- Did you decide to join the programme on your own or did someone tell you to?
- Were you encouraged to join the programme? By whom?
- Was there anyone who was against your participation in the programme? Why? Who?
- Did you share the things you learned with people in your environment? With whom did you share? What topics did you share information on?
- Would you dare to discuss topics of reproductive health or sexuality with your friends? With your family? With your partner?
- Did you have sexual intercourse after the Reproductive Health Programme? Did you have safe sex?
- Did you go to see a doctor after the Reproductive Health Programme? What did you ask him for?
- What is your opinion about the other sex? Did your opinion change due to the programme?
- Did you encourage friends or family to join the Reproductive Health Programme?
- Did the programme make you feel confident?
- Did you face any costs because of the programme?
- Was there anything you could not do because you joined the programme?
- Did you have misconceptions about reproductive health before the programme? Did the programme clear these misconceptions?
- What do you think about HIV positive people?

These and many more questions can be asked, fitted to the results of the CTA as well as to the objectives of the Reproductive Health Programme. The questions can again be categorized in knowledge, attitude/acceptance, skills, behaviour et cetera and some specific questions can be asked to specific target groups. The young adolescents should again not be asked after their sexual activity and questions about negotiation skills and the feel of empowerment are more important to girls than to boys.

References

- AccountAbility. (2005). *Stakeholder Engagement Standard – Exposure Draft* -. London: Author. Retrieved April 11, 2007 from <http://www.accountability21.net/uploadstore/cms/docs/SES%20Exposure%20Draft%20dtv.pdf>
- Bender, D.E. & Ewbank, D. (1994). The focus group as a tool for health research: issues in design and analysis. *Health Transition Review*. 4(1). 63-79.
- Bertrand, J.T. (2006). Introduction to the Special Issue on Cost-Effectiveness Analysis. *Journal of Health Communication*. 11(Sup.2). 4-6.
- Bertrand, J.T. & Solis, M. (2000). *Evaluating HIV/AIDS Prevention Projects: A Manual for Nongovernmental Organizations*. MEASURE Evaluation Manual series, No. 10. Retrieved April 13, 2007, from http://www.synergyaids.com/documents/HIVPreventionProj_NGOEval.pdf
- Bhola, H.S. (2000). A Discourse on Impact Evaluation. *Evaluation*. 6(2). 161-178.
- Bosmans, M., Cikuru, M.N., Claeys, P., & Temmerman, M. (2006). Where Have All the Condoms Gone in Adolescent Programmes in the Democratic Republic of Congo. *Reproductive Health Matters*. 14(28). 80-88.
- Bunce, A., Guest, G., Searing, H., Frajzyngier, V., Riwa, P., Kanawa, J., & Achwal, I. (2007). Factors Affecting Vasectomy Acceptability in Tanzania. *International Family Planning Perspectives*. 33(1). 13-21.
- Ende, J. Van den, Mulder, K., Knot, M., Moors, E., & Vergragt, P. (1998). Traditional and Modern Technology Assessment: Toward a Toolkit. *Technological Forecasting and Social Change*. 58(1). 5-21.
- Folch-Lyon, E. & Trost, J.F. (1981). Conducting Focus Group Sessions. *Studies in Family Planning*. 12(12), 443-449.

Frick, K.D. (2006). Cost-Effectiveness Studies of Behaviour Change Communication Campaigns: Assessing the State of the Science and How to Move the Field Forward. *Journal of Health Communication*. 11(Sup.2). 163-173.

Frith, H. (2000). Focusing on Sex: Using Focus Group Discussions in Sex Research. *Sexualities*. 3(3). 275-297.

Garcia, S.G., Yam, E.A., & Firestone, M. (2006). "No Party Hat, No Party": Successful Condom Use in Sex Work in Mexico and the Dominican Republic. *Reproductive Health Matters*. 14(28). 53-62.

Gupta, S.D. (2003). *Adolescent and Youth Reproductive Health in India. Status Policies, Programs, and Issues*. Jaipur: POLICY Project.

Hummel, J.M. (2001). *Supporting medical technology development with the analytic hierarchy process*. Proefschrift. Rijksuniversiteit Groningen. Retrieved April 13, 2007 from: <http://dissertations.ub.rug.nl/FILES/faculties/medicine/2001/j.m.hummel/thesis.pdf>

Hutchinson, P., Lance, P., Guilkey, D.K., Sjahjahan, M. & Haque, S. (2006). Measuring Cost-Effectiveness of a National Health Communication Program in Rural Bangladesh. *Journal of Health Communication*. 11(Sup.2). 91-121.

Hutchinson, P. & Wheeler, J. (2006). The Cost-Effectiveness of health Communication Programs: What Do We Know? *Journal of Health Communication*. 11(Sup.2). 7-45.

Hutton, G., Wyss, K. & N'Diekhor, Y. (2003). Prioritization of prevention activities to combat the spread of HIV/AIDS in resource constrained settings: a cost-effectiveness analysis from Chad, Central Africa. *International Journal of Health Planning and Management*. 18(2). 117-136.

Krick, T., Forstater, M., Monagan, P. & Sillanpaa, M. (2005). *From words to action: The Stakeholder Engagement Manual Volume 2: The Practitioner's Handbook on Stakeholder Engagement*. Retrieved April 16, 2007, from [http://stakeholderresearch.com/assets/downloads/From%20Words%20to%20Action,%20Volume%202,%20The%20Practitioner's%20Handbook%20on%20Stakeholder%20Engagement%20\(2005\).pdf](http://stakeholderresearch.com/assets/downloads/From%20Words%20to%20Action,%20Volume%202,%20The%20Practitioner's%20Handbook%20on%20Stakeholder%20Engagement%20(2005).pdf)

Lee, J. (2004). *NGO Accountability: Rights and Responsibilities*. Retrieved April 10, 2007 from <http://www.casin.ch/web/pdf/ngoaccountability.pdf>

Lloyd, R. (2005). *The Role of NGO Self-Regulation in Increasing Stakeholder Accountability*. Retrieved April 10, 2007 from [http://www.oneworldtrust.org/documents/SelfReg%20\(final\)July05.pdf](http://www.oneworldtrust.org/documents/SelfReg%20(final)July05.pdf)

Marseille, E., Morin, S.F., Collins, C., Summers, T., Coates, T.J. & Kahn, J.G. (2002). *Cost-Effectiveness of HIV Prevention in Developing Countries*. Retrieved May 11, 2007 from <http://hivinsite.ucsf.edu/InSite?page=kb-08-01-04>

Maynard-Tucker, G. (2000). Conducting Focus Groups in Developing Countries: Skill Training for Local Bilingual Facilitators. *Qualitative Health Research*. 10(3), 396-410.

Merkerk, R.O. van, & Smits, R.E.H.M. (2007). Tailoring CTA for emerging technologies. *Technological Forecasting and Social Change*. Article In Press. Retrieved March 29, 2007, from http://www.sciencedirect.com/science?_ob=ArticleListURL&_method=list&_ArticleListID=591935738&_sort=d&view=c&_acct=C000024538&_version=1&_urlVersion=0&_userid=499905&md5=b524eab74a1630fae83ef1dae57fa8f9

Mitchell, R.K., Agle, B.R., & Wood, D.J. (1997). Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts. *Academy of Management Review*, 22(4). 853-886.

NACO. (2004). *Facts and Figures. HIV Estimates – 2004*. Retrieved November 20, 2007, from: http://www.nacoonline.org/facts_hivestimates04.htm

Ornetzeder, M., & Rohracher, H. (2006, September 11). *Using Constructive Technology Assessment and Lead User Approaches in Search for Sustainable Technology. Theoretical Considerations and Practical Implications*. Paper presented at SPRU 40th Anniversary Conference – The Future of Science, University of Sussex, Brighton, UK. Retrieved March 26, 2007, from <http://www.sussex.ac.uk/Units/spru/events/ocs/viewpaper.php?id=246>

Pratham Education Initiative. (2007). *Proposal for Integrating Sexuality and Reproductive Health Education in Pratham's Educational programme*. Retrieved March 20, 2007, from Pratham in personal communication.

Schot, J.W. (1992). Constructive Technology Assessment and Technology Dynamics: The Case of Clean Technologies. *Science, Technology, & Human Values*. 17(1). 36-56.

Schot, J. (2001). Towards New Forms of Participatory Technology Development. *Technology Analysis & Strategic Management*. 13(1). 39-52.

Schot, J., & Rip, A. (1996). The Past and Future of Constructive Technology Assessment. *Technological Forecasting and Social Change*. 54(2-3). 251-268.

Sweat, M., Kerrigan, D., Moreno, L., Rosario, S., Gomez, B., Jerez, H., Weiss, E. & Barrington, C. (2006). Cost-Effectiveness of Environmental-Structural Communication Interventions for HIV Prevention in the Female Sex Industry in the Dominican Republic. *Journal of Health Communication*. 11(Sup.2). 123-142.

UNFPA. (2002). *UNFPA Costing Database*. Retrieved March 21, 2007, from Janneke Saltner at UNFPA in personal communication.

UNFPA (2004a). *Programme Manager's Planning Monitoring & Evaluation Toolkit. Tool Number 2: Defining Evaluation*. Retrieved March 16, 2007 from <http://www.unfpa.org/monitoring/toolkit/defining.pdf>

UNFPA (2004b). *Programme Manager's Planning Monitoring & Evaluation Toolkit. Tool Number 3: Purposes of Evaluation*. Retrieved March 16, 2007 from <http://www.unfpa.org/monitoring/toolkit/purposes.pdf>

UNICEF. (2004). *Mapping India's Children: UNICEF in action*. Brighton: Myriad Editions Limited.

Varkevisser, C.M., Pathmanathan, I. & Brownlee, A. (2003). *Designing and Conducting Health Systems Research Projects. Volume 1: Proposal Development and Fieldwork*. Amsterdam: KIT Publishers. Retrieved May 14, 2007, from <http://www.idrc.ca/openebooks/069-1/>

Appendix 1 - Goals of the Focus Group Discussions

For some respondents, goals are mentioned for a group of stakeholders but in a separate group also. An addition for the separate stakeholder (respondent) is then made.

Focus Group:

Coordinator Pratham, Programme consultant, Trainer, Head Pratham Gujarat & Account manager

Goals:

- Explore differences in expected effects of the programme between these people who are all employed by Pratham but who are all separate stakeholders
- Explore (expected) effects that emerge during (the development of) the programme. All these stakeholders are involved in the development of the programme
- Explore expected effects of specific parts of the programme on any stakeholder during development and after implementation of the programme. These people decide on the contents of the programme and therefore should be able to come up with effects that specific parts of the programme
- Explore the expected effects of the programme for Pratham as an organization and for all of its subparts (departments, people) during development and after implementation of the programme. All of the people would probably have a different idea and this can be the most interesting goal of the FGD with these people
- Explore expected costs and benefits of the programme during development and after implementation, including monetary costs and tangible benefits. The account manager, head of Pratham and project coordinator should be able to provide information on this and they are probably the only stakeholders that have information on monetary (out-of-the-pocket) costs of the project

Focus Group:

Fieldworkers

Goals:

- Explore what change the fieldworkers expect to bring about in the community
- Explore specific effects the fieldworkers expect to happen to the different target groups (specify for adolescents boys, girls and women)
- Explore specific effects the fieldworkers expect to happen to friends and relatives of the adolescents and women

- Explore what effects the training has already brought about in the personal lives of the fieldworkers
- Explore effects on the families and friends of the fieldworkers that have already occurred and what effects they still expect to happen
- Explore what difficulties the fieldworkers expect when implementing the programme in the community
- Explore costs and benefits of the programme for the fieldworkers personally during the complete programme (development and intervention)
- Explore costs and benefits the fieldworkers expect the target groups to have during and after implementation

Stakeholder:

All target groups

Goals:

- Explore whether participants would join such a training and why (or why not)
- Explore what participants expect to learn from the programme
- Explore what participants think they will do, after they joined the training
- Explore whether participants expect the information given about gender and gender differences to change social interaction among girls and boys and men and women.
- Explore whether participants expect things they are unable to do while attending the programme
- Explore barriers to attending for the participants of the programme
- Explore what participants think that girls and boys/women/friends of their age will learn from the programme
- Explore what participants expect from the different parts of the programme
- Explore explicit costs and benefits participants expect to face during or after the programme

Adolescents 15-19, women and men:

- Explore if participants expect to change their sexual behaviour after they got the information in the programme

Women and men:

- Explore what parents (if applicable) expect their adolescent kids to learn from the programme

Men:

Constructive Technology Assessment of Reproductive Health Programmes in India

- Explore what men think their wives will learn and whether their wives will join the programme
- Explore whether men expect there are barriers for their wives to attend the programme

Stakeholders:

Indirectly affected stakeholders of the 'downward accountability' group: (HIV) Positive people in the community, Religious Leaders and Health Service Providers (HSPs). The in-depth interviews with the advisory board will also contain these questions

Goals:

- Explore what these stakeholders expect adolescents and women to learn from the programme
- Explore what changes these stakeholders expect to take place in the community
- Explore what these people expect about the content of the programme
- Explore what these stakeholders think the effects of the different topics in the programme will be.
- Explore whether respondents would have joined the programme if they were offered the possibility.
- Explore explicit costs and benefits these stakeholders expect to have from the programme

HIV Positive people:

- Explore what positive people expect the participants in the programme to learn specifically about HIV/Aids
- Explore if positive people expect a change in the way they are treated or approached by people in the community
- Explore if positive people expect their lives in the community to change due to the programme

Health Service Providers (HSPs) in the community (In-depth interview):

- Explore whether HSPs in the community expect a change in demand for their services and if so, what will change
- Explore whether HSPs in the community expect a change in the questions with which their patients come to them

Religious leaders in the community (In-depth interview):

- Explore whether HSPs in the community expect a change in the questions with which people in the community come to him.

Members of the advisory board

- Explore effects on a micro and a macro level
- Explore effects that the advisory board expects for future policy, future programmes and on other organizations that deal with HIV/Aids/Reproductive Health in India.
- Explore threats that members of the advisory board expect for implementation of the programme

Appendix 2 - List of questions used in FGDs and interviews

Part 1: Questions for FGDs in the field (all questions, mixed, not every question applies for each group)

1. Do you think you would join the programme in your community and why (or why not?)
2. Do you think your wife would join the programme? Why (or why not)?
3. What do you expect to learn from the programme?
4. What do you think that you will do after joining the programme? Will the programme change the way you do certain things?
5. What do you think boys / girls / women of your age (your friends) will learn from the programme?
6. Do you think you would share the information you got in the programme with friends and relatives who did not attend the programme? What information would you share?
7. Would you discuss the content of the programme with friends? Why? (Or why not?) Which part of the programme would you discuss? Which one not?
8. Do you think there are things you will be unable to do when you attend the programme during two days?
9. Do you expect any barriers to attending the programme? What barriers? Why?
10. What effects do you expect the programme to have on your contact with boys / girls, in social interaction? Why?
11. Do you think information in the programme can change the way boys think about girls / girls think about boys? Why?
12. What do you expect to learn from the 'knowing your body' part?
13. What do you expect to learn from the part on HIV/Aids?
14. If applicable, what do you think your adolescent kids will learn from the programme?
15. Do you expect your wives to experience any barriers against joining the programme?
16. If we talk about how sexual behaviour can be the cause of some disease, do you think you will change your sexual behaviour?
17. In our programme we are going to talk about rights of women & girls in general, as well as reproductive rights. What do you expect from this part of the programme?

Part 2: Questions for interviews with health service providers, religious leaders, members of the advisory board and the FGD with positive people

1. What do you expect the participants in the programme to learn from the programme?
2. And what do you expect them to learn about HIV/Aids specifically?
3. Do you think information on HIV/Aids can change the behaviour of participants? Why? (Or Why not?) How can it change?
4. If you had had the opportunity to join a training on HIV/Aids, would you have joined it? Why? (Or why not?) Would it have changed the situation you're in now in any way? How? Why?
5. Do you expect any changes to take place in the community when adolescents and women get information on HIV/Aids? What changes do you expect?
6. Do you expect any changes in the way positive people in the community are treated or approached by people in the community? Why? (Or why not?) What changes do you expect?
7. Do you expect you own lives to change due to the programme? Why? (Or why not?) And in what way?
8. Do you expect a change in the questions with which people in the community come to you due to the information in the programme we give in the programme? What changes do you expect to occur?
9. Do you expect a change in demand for your services in the community after adolescents and women in the community got our training? Why? (Or why not?) And what changes do you expect?
10. What effects do you expect the programme to have on the community/on your patient base?
11. What do you expect from the content of the programme? Why?
12. Do you expect adolescents will join the programme? And Women? Why? (Or Why not?)
13. Would you promote participation in the programme among adolescents and women? Why? (Or why not?)
14. What effects do you expect the programme to have on a macro-level? (Effects for India, Gujarat, Ahmedabad, Communities)
15. What effects do you expect the programme to have on a micro-level? (Participants)
16. What do you expect from discussing gender?
17. What do you expect from discussing body parts (reproductive organs) and changes that happen to the body in puberty?
18. What do you expect from discussing Sexually Transmitted Diseases and Reproductive Tract Infections, their symptoms, causes, treats and prevention?

19. What effects do you expect from the session on HIV/Aids?
20. Do you expect the programme will have an effect on future policy, future programmes and on other organizations that deal with reproductive health and HIV/Aids? Why? What effects do you expect?

Part 3: Questions regarding costs and benefits (explicitly), for the end of the discussion. The last two do not apply to target groups.

1. Do you expect to face any costs because of the programme? What costs?
2. Do you expect to get any benefits from the programme? What benefits?
3. Do you expect participating adolescents and women to face any costs?
4. What benefits do you expect the participants to have?

Appendix 3 - List of remaining effects

Knowledge & Awareness					
<i>Effect</i>	<i>Down ward (n=9)</i>	<i>In ward (n=6)</i>	<i>Horiz ontal (n=4)</i>	<i>Up ward (n=1)</i>	<i>Total (n=20)</i>
1 Programme gives equal rights to learn, also for girls & illiterates	1/0				1
2 Our organization learns a new approach in a new field			0/1		1
3 Participants get answers on their queries & questions	0/1				1
4 It's a step towards life-useful education			0/1		1
5 HIV/AIDS cannot be discussed in isolation. Programme solves this			1/0		1
6 Chance to test Intervention Mapping in an Asiatic setting			1/0		1
7 Attention for gender, HIV/AIDS and sexual development in education (is something new)				1	1
8 Separate organizations we were already sponsoring are now cooperating				1	1
9 Improvement in the quality of education by integrating Reproductive Health				1	1
10 People know what to ask for at the doctor			0/1		1
11 Young people get the information they're longing for			1/0		1

Attitudes and social acceptance					
<i>Effect</i>	<i>Down (n=9)</i>	<i>In (n=6)</i>	<i>Horiz (n=4)</i>	<i>Up (n=1)</i>	<i>Total</i>
1 Belief that joining hands can put pressure on the government			0/1		1
2 We believe the programme is good (because designed by Pratham)	0/1				1
3 Future programmes will be more friendly to people			0/1		1
4 Programme will motivate HIV/Positive people			0/1		1
5 Belief that Pratham is good at sharing experiences, e.g. through media			0/1		1
6 Adolescents dare to tell stories to fieldworkers, belief they're the best to tell			0/1		1
7 More groups show interest in the Reproductive Health Programme		1/0			1
8 Countering tendency of barriers governments are putting to sexuality education				1	1

Behaviour					
<i>Effect</i>	<i>Down (n=9)</i>	<i>In (n=6)</i>	<i>Horiz (n=4)</i>	<i>Up (n=1)</i>	<i>Total</i>
1 People will ask questions (especially in 'knowing your body')	0/1				1

Constructive Technology Assessment of Reproductive Health Programmes in India

2	If successful the government will mainstream the programme in education			0/1		1
3	People delay the onset of sexual intercourse		1/0			1

Health gain & quality of life

<i>Effect</i>	<i>Down (n=9)</i>	<i>In (n=6)</i>	<i>Horiz (n=4)</i>	<i>Up (n=1)</i>	<i>Total</i>
1 Decrease in the threat of HIV (saving people from the trap of death)			0/1		1
2 Treatment of STDs stops pain during sexual intercourse		1/0			1
3 Range & reach great in India, effect can turn out to be great			1/0		1
4 Quality of peoples sex lives improves		1/0			1

Self-confidence & Emotional effects

<i>Effect</i>	<i>Down (n=9)</i>	<i>In (n=6)</i>	<i>Horiz (n=4)</i>	<i>Up (n=1)</i>	<i>Total</i>
1 Willpower of HIV positive people will increase			0/1		1
2 The programme will motivate HIV positive people			0/1		1
3 Past experience gives confidence that we can achieve this programme			0/1		1
4 Our organization gets national recognition through the network			0/1		1
5 Fieldworkers are more at ease with this programme		0/1			1
6 Enjoying the project		1/0			1
7 Enrichment through partnership WPF/Novib			1/0		1

Personal benefits & Remaining effects

<i>Effect</i>	<i>Down (n=9)</i>	<i>In (n=6)</i>	<i>Horiz (n=4)</i>	<i>Up (n=1)</i>	<i>Total</i>
1 Non-formal teens are easier to reach than formal (school-going) teens			0/1		1
2 If advocated well, the programme can be mainstreamed in education			0/1		1
3 New links with other organizations established who can emerge as partners		0/1			1
4 Chance in this project to pay attention to prevention (of HIV/AIDS/STDs)			1/0		1
5 Participants can put questions anonymously		1/0			1
6 We can publish articles on the project			1/0		1
7 Project provides a welcome addition to our 'recipybook'			1/0		1
8 Project can be added to Novib's Best Practices				1	1
9 Programme is only a marginal increase in the amount of work for our department		0/1			1

Monetary costs (tangible)					
<i>Effect</i>	<i>Down (n=9)</i>	<i>In (n=6)</i>	<i>Horiz (n=4)</i>	<i>Up (n=1)</i>	<i>Total</i>
1 Cost for my employer; I'm not paid for my advisory work			0/1		1
2 Time expense			0/1		1
3 Monetary expense in the community		1/0			1
4 Donor might refuse at an upscale point (when investment is already made)		0/1			1
5 Programme support (overhead) was not calculated till now		0/1			1
6 Technical support from The Netherlands is quite costly			1/0		1
7 WPF had to use money meant for other purposes			1/0		1
8 Programme could provide honorarium to participants				0/1	1

Practical costs					
<i>Effect</i>	<i>Down (n=9)</i>	<i>In (n=6)</i>	<i>Horiz (n=4)</i>	<i>Up (n=1)</i>	<i>Total</i>
1 Environment should be given importance			0/1		1
2 Adults could disturb the sessions with adolescents			0/1		1
3 The feudal system of the community might get threatened			0/1		1
4 Motivating participants to get themselves tested on HIV/AIDS misses			0/1		1
5 Use of IM makes focus on results & sustainability low			0/1		1
6 Use of Intervention Mapping is cumbersome and too mechanical/technical			0/1		1
7 More specific information on addiction would be better for women	0/1				1
8 IM is not completely used because of its complexity			1/0		1
9 We have to little time to carry out IM in a good way			1/0		1
10 We have to travel a lot			1/0		1
11 India is not one of WPF's core countries			1/0		1
12 Pratham has another donor to manage		0/1			1

Emotional (intangible) costs					
<i>Effect</i>	<i>Down (n=9)</i>	<i>In (n=6)</i>	<i>Horiz (n=4)</i>	<i>Up (n=1)</i>	<i>Total</i>
1 To little stress on Care and support of HIV/AIDS positive people			0/1		1
2 Network partners might get frustrated because of complexity of IM			1/0		1