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First author, year published, country, year study / intervention, title	Study design, outcome variables	Participants	Intervention	Reported results, discussion
Barbey A 2001 **Bangladesh** 1998-2001 Dinajpur Safe Motherhood Initiative. Final Evaluation Report	Quasi-experimental design (posttest-only) *Outcome variables* Location of delivery; knowledge of obstetric complications.	Intervention, comparison and control sites, each site: - women (ever married, aged 13-49, who had given birth in the last one year prior to the survey) n=400 - their husbands n=400 - decision makers n=200 - care takers of the newborns n=200 - community agents n=100	Facility interventions: upgrading facilities; and community interventions: birth planning (BP) and community support systems (CmSS)	Aim of the study was to measure accomplishments of effects of Quality of Care and community mobilisation activities on EmOC utilisation. Results include: 44% of women in the intervention area knew 3 or more of the 5 pregnancy danger signs (compared to 4% in the comparison and 6% in the control sites); utilisation rate of EmOC services in the intervention area significantly increased from 16% to 39.8% in the intervention area, compared to an increase of 11% to 12% in the control area. Furthermore, the percentage of the total births in facilities increased from 2.4% to 10.5% in the intervention area; from 7.2% to 12.1% in the comparison area and from 4.5% to 5% in the control area. The establishment of community support systems had an impact on behaviour, on average 39% of the village households participated in a CmSS. Out of the 150 women who experienced an obstetric emergency during the study period, 62 made use of the resources of a CmSS (emergency fund moneys; transport to the health facility). *Discussion* The initiative is the first to measure the effect of quality of care at health facilities and community mobilisation activities on the use of EmOC. Because of limitations in the study design and the interconnectedness between QoC and community mobilisation it was not possible to disaggregate the effect of each intervention on EmOC utilisation rates. Aside from increase in utilisation there were other positive intervention outcomes, such as regular use of data in the facilities and overall increased performance and empowerment of staff members. Key challenges include involving men (decision-makers) and dealing with understaffing. Notes on sustainability and scaling-up: the BP card focused on danger signs and preparedness, which have been missing in many of the ANC messages. The positive findings led to scaling-up of the intervention. Many components of the CARE Birth Planning card have been incorporated into the Government of Bangladesh national Birth Planning card.
Bhutta Z 2008 Alma-Ata: Rebirth and Revision 6 Interventions to address maternal, newborn, and child survival: what diff erence can integrated primary health care	Systematic review	223 randomised controlled trials; 52 systematic reviews; 173 observational studies	Various including: tetanus, folate, vitamin A supplementation, breastfeeding, kangaroo care, health-system interventions	*Abstract*: several recent reviews of maternal, newborn, and child health (MNCH) and mortality have emphasised that a large range of interventions are available with the potential to reduce deaths and disability. The emphasis within MNCH varies, with skilled care at facility levels recommended for saving maternal lives and scale-up of community and household care for improving newborn and child survival. Systematic review of new evidence on potentially useful interventions and delivery strategies identifies 37 key promotional, preventive, and treatment interventions and strategies for delivery in primary health care. Some are especially suitable for delivery through community support groups

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strategies make?				and health workers, whereas others can only be delivered by linking community-based strategies with functional first-level referral facilities. Case studies of MNCH indicators in Pakistan and Uganda show how primary health-care interventions can be used effectively. Inclusion of evidence-based interventions in MNCH programmes in primary health care at pragmatic coverage in these two countries could prevent 20–30% of all maternal deaths (up to 32% with capability for caesarean section at first-level facilities), 20–21% of newborn deaths, and 29–40% of all postneonatal deaths in children aged less than 5 years. Strengthening MNCH at the primary health-care level should be a priority for countries to reach their Millennium Development Goal targets for reducing maternal and child mortality.
Family Care International Burkina Faso 2007 **Burkina Faso** 2001-2006 Testing approaches for increasing skilled care during childbirth: Key findings from Ourgaye, Burkina Faso	Quasi-experimental design (pretest-posttest) *Outcome variables* Antenatal care; normal delivery care; complicated delivery care; postpartum care; characteristics associated with skilled care seeking during childbirth; effect of the intervention on care-seeking.	Participants HH survey: women with recent pregnancies (within the last two years). *Baseline* HH: n=5,825 pregnant women within last 2 yr: n=7,452 husbands: n=4,708 *End-line* HH: n=5,879 women: n=7,569 husbands n=4,708	Interventions at facility level (strengthen physical infrastructure; address equipment gaps; improve provider skills) and at the community level (BCC, SCI promotion interventions)	The aim of the research was to evaluate the availability and quality of skilled care in the intervention districts, its financial and cultural accessibility, and changes in use of skilled care over time. *Findings*: - Antenatal care: significant increase from 80 to 94% in intervention district (in control sites: 74 to 78%). A majority of women are not receiving ANC counselling on danger signs (60%). - Normal delivery care: vast increase of delivery at health facilities from 26 to 57% (in control site: 29 to 36%), and decrease of delivery with assistance of TBAs (39 to 13%). - Complicated delivery care: small increase in proportion of women who delivered at facility when experiencing complications: 57 to 65%. Significant increase in percentage of poor women with complications delivering at health facility from 15 to 66%. - Postpartum care: overall increases in postpartum check-up for babies (both sites). Small increase post partum check-up for women (intervention site: 40 to 57%; control site: 16 to 22%). - Characteristics associated with skilled care seeking during childbirth: women with higher exposure to the campaign more delivery in health facility (49 vs 64%). - Effect of the intervention on care-seeking: an association between husband involvement and delivery at health facility was found in both sites, though the association greater in the control sites. Use of skilled care has levelled out among income groups in the intervention sites: from 145 to 55% in the poorest and from 44% to 60% in the richest quintile. No change in pattern was observed in the control site.
Family Care International Kenya 2007	Quasi-experimental design (pretest-	Participants HH survey: women	Different sets of interventions at	The aim of the research was to evaluate the availability and quality of skilled care in the intervention districts, its financial and cultural accessibility, and changes in use of skilled

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Kenya 2001-2006 Testing approaches for increasing skilled care during childbirth: Key findings from Homabay and Migori Districts, Kenya	posttest) *Outcome variables* Antenatal care; normal delivery care; complicated delivery care; postpartum care; characteristics associated with skilled care seeking during childbirth; effect of the intervention on care-seeking.	aged 15-49 and their co-resident husbands *Baseline* HH: n=5,332 women: n=5,243 husbands: n=2,340 *Endline* HH: n=6,331 women: n=5,371 husbands: n=2,617	both sites at facility level (strengthen physical infrastructure; address equipment gaps; improve provider skills) and at the community level (BCC, SCI promotion interventions)	care over time. *Findings*: - Antenatal care: at the intervention site significant increase in the use of antenatal care during pregnancy and postpartum care for newborn and maternal care. However no change in care-seeking during delivery was found. Encouraging outcome was the increase in young women who delivered in a facility. A majority of women were not receiving information on danger signs during pregnancy. - Normal delivery care: small increase in births at health facility (both districts). Interestingly the capacity / readiness of a health facility did not appear to influence women's use of the facility. - Complicated delivery care: little change in care-seeking patterns. - Postpartum care: increase in both districts of newborn check-ups (average from 60 to 90%). Number of women receiving postpartum check-ups increased, however remained low: average: 14% (both sites). - Characteristics associated with skilled care seeking during childbirth: strong differences in one of the intervention sites (Homabay): large decrease in institutional births among women of poorest quintile, suggesting they had more difficulties in accessing maternity care. In both districts involvement of men was strongly associated with delivery at health facility.
Family Care International **Tanzania** 2007 **Tanzania** 2001-2006 Testing approaches for increasing skilled care during childbirth: Key findings from Igunda district**,** Tanzania	Quasi-experimental design (pretest-posttest) *Outcome variables* Antenatal care; normal delivery care; complicated delivery care; postpartum care; characteristics associated with skilled care seeking during childbirth; effect of the intervention on	Participants HH survey: women aged 15-49 and their co-resident husbands *Baseline* HH: n=4,262 women: n=4,381 husbands: n=2,449 *Endline* HH: n=4,804 women: n=5,585 husbands: n=3,145	Interventions at facility (strengthen physical infrastructure; address equipment gaps; improve provider skills) and at the community level (BCC, SCI promotion interventions)	The research aimed to evaluate the availability and quality of skilled care in the intervention districts, its financial and cultural accessibility, and changes in use of skilled care over time. *Findings*: - Antenatal care: increase in use of AC during delivery (content and provision of essential diagnostic functions). However, counselling on danger signs was reported only among 50% of the interviewed. - Normal delivery care: small increase in utilisation of health facilities in intervention site (64% to 68%), small decrease in control sites. - Complicated delivery care: encouraging outcomes in terms of proportion of women who sought treatment at a facility (increase from 80 to 93%), compared to no increase in the control district. Also proportion of women who experienced complication who delivered at facility increased from 69 to 82%. - Postpartum care: no improvements observed. Less than half of the women received counselling or check-up. Percentage of babies receiving check-up high (80%) at baseline and almost 100% at end-line.

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	care-seeking.			- Characteristics associated with skilled care seeking during childbirth: significant changes regarding exposure to key BCC messages and information in the intervention district, especially birth preparedness messages and increased safe motherhood awareness at the community. - Effect of the intervention on care-seeking: the survey results indicate that age, educational status, distance from a facility and wealth were all found to be significantly associated with skilled care-seeking during childbirth. Endline results showed small narrowing of the gap between poorest and richest quintiles. In intervention and control district strong relation between husband involvement and skilled care-seeking during childbirth (irrespective of wealth, education, distance to facility).
Jokhio A 2005 **Pakistan** 1998 An Intervention Involving Traditional Birth Attendants and Perinatal and Maternal Mortality in Pakistan	Experimental design (randomized controlled trial) *Outcome variables* Perinatal and maternal mortality (primary). Others include: major complications of pregnancy; referral for EmOC; type and place of delivery	Pregnant women n=19,557 (intervention and control group)	Training TBAs	The study aimed to provide evidence on the effectiveness of maternity services. The intervention (training of TBAs) was associated with a significant reduction in perinatal mortality (of about 30% in the intervention group). The estimated reduction in maternal mortality was similar but not statistically significant, even despite the large size of the trial. Interventions did not involve changes in availability or the access to existing emergency care. There was no significant increase in the percentage of women who delivered at a public or a private health facility. *Discussion* Results of the trial confirm results of a cluster randomised trial in Nepal (Manandhar, 2004) in which a 30% reduction in neonatal mortality and a 78% reduction in maternal mortality was observed in the clusters exposed to different community based interventions. Both studies confirm the possibility of large improvements induced by interventions at the community level in terms of perinatal health, and to some extent in maternal health.

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Manandhar D **2004** **Nepal** 2001-2003 Effect of a participatory intervention with women's groups on birth outcomes in Nepal: cluster-randomised controlled trial	Experimental design (randomized controlled trial) *Outcome variables* Neonatal mortality rate; stillbirths; maternal deaths; uptake of antenatal and delivery services; home care practices; infant morbidity; health-care seeking	Pregnant women, n=28,931	Women's group participation to harness the power of community planning and decision making to improve maternal and newborn care (involving locally based facilitators)	The study monitored birth outcomes in a cohort of 28,931 women, of whom 8% joined a women's group. The aim of the study was to assess the effect of a participatory intervention with women's groups. Findings include: neonatal mortality rates in intervention areas were lower than in control areas (26.2 per 1,000 and 39.6 respectively) and showed a neonatal mortality reduction of 30%. Also the maternal mortality was significantly lower in the intervention areas. Stillbirth rates were similar in both groups. The MMR was 69 per 100,000 livebirths in the intervention area, compared to 341 per 100,000 livebirths in the control area. Women in the intervention clusters were more likely to have antenatal care, institutional delivery, trained birth attendance, and hygienic care compared to the women in the control groups. *Discussion* The intervention seems to bring about changes in home-care practices and health-care seeking for both neonatal and maternal morbidity. Researchers comment though that further investigation is necessary, because cluster-randomized trials are susceptible to bias. Also the study had to deal with security problems in the second year. The intervention seemed acceptable: 95% of the groups remained active at the end of the trial despite the fact there were no financial incentives and that opportunity costs incurred by women spending time away from other tasks. In addition to the research, a cost-effectiveness analysis of the intervention. The intervention differs from conventional health education approaches because it addressed demand-side as well as supply-side issues; also it emphasised participatory learning rather than instruction only. The study is one of few controlled studies that looked at the effect of participation as a key element in primary health care.
Pfitzer A (eds) 2004 **Indonesia** Not stated Preventing Postpartum Hemorrhage in Home Births: The Indonesia Experience	Quasi-experimental design *Outcome variables* Coverage of uterotomics (oxytocine or misoprostol), emergency referrals	Women before and after childbirth n=1,811	Training of community midwives to practice AMTSL (active management of the third stage of labour), community-based distribution of misoprostol	The purpose of the study was to demonstrate the Safety, Acceptability, Feasibility, and programme Effectiveness (SAFE) of community-based distribution of misoprostol for prevention of PPH in rural Indonesia. Women in the intervention area were 24% less likely to perceive excessive bleeding, 31% less likely to need an emergency referral, and 47% less likely to need an emergency referral for PPH. Coverage of uterotonics was significantly higher than in the comparison area (94% versus 77%). *Discussion* The study team concluded that the safety, feasibility, and acceptability of home-based distribution of misoprostol were sufficiently established by the Postpartum Haemorrhage Study results. Women were aware that the medication might result in some short-duration

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				side effects and knew what to do when side affects occurred. The combination of the use of AMTSL using oxytocin provided by a midwife and the use of misoprostol by the woman herself if a midwife is not available has great potential for expanding the prevention of PPH.
Villar J 2001 **Argentina, Cuba, Saudi Arabia, Thailand** WHO antenatal care randomised trial for the evaluation of a new model of routine antenatal care	Experimental design (randomised controlled trial) *Outcome variables* maternal and peri-natal outcomes (birth weight, pre-eclampsia / eclampsia, severe postpartum anaemia, treated urinary-tract infections)	Pregnant women (attending prenatal care) n=24,526	New model of antenatal care	The trial was set up to compare the standard model of antenatal care (eight visits), with a new model (goal-oriented activities implemented on a four-visit schedule). Findings: women attending clinics assigned to the new model had a median of five visits compared with eight visits in the standard mode. More women in the new model were referred to higher levels of care (13 vs. 7%), but rates of hospital admission, diagnosis and length of stay were similar. The groups had similar rates of low birth weight and urinary-tract infections. For pre-eclampsia, the rates were slightly higher in the new model. Adjustment by several confounding factors did not modify this pattern. For severe postpartum anaemia there was a large protective effect of the new model in the country with the largest increment in the provision of iron supplementation. Secondary outcomes suggest no clinically important differences between the two models. Women and providers were in general satisfied with the care received, though some women assigned to the new model expressed concern about the timing of the visits. There was no cost increase, and in some settings the new model decreased costs. Overall, the trial showed that for women without previous or current complications, a reduction in the number of visits including goal-oriented, effective activities is not associated with increased risk for them or their infants. *Discussion* Interpretation of the result is that the provision of routine antenatal care by the new model seems not to affect maternal and perinatal outcomes. It could be implemented without major resistance from women and providers and may reduce cost. Although providers are unlikely to achieve actual cost savings, resources such as staff and buildings, and the time of women and families, will be freed for extension of the service into more effective care provision or other activities. Finally, the new model appears to be accepted by users and providers.

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Debpuur C 2002 **Ghana** 1996-1999 The impact of the Navrongo Project on contraceptive knowledge and use, reproductive preferences, and fertility	Quasi-experimental study (pretest-posttest) *Outcome variables* Reproductive change, fertility (contraceptive knowledge; awareness of supply sources; reproductive preferences, contraceptive use)	Married women n=8,998	Deployment of nurses to communities; use of traditional social cooperation to mobilise support for community health and family planning services	The study was conducted to test the hypothesis that introducing health and family planning services in a traditional African societal setting will impact on reproductive change. Findings show that knowledge of methods and supply sources increased as a result of exposure to project activities. Also that deployment of nurses to communities was positively associated with the emergence of preferences to limit childbearing. Fertility impact is evident in all treatment areas, most prominently in areas where nurse-outreach activities are combined with strategies for involving traditional leaders and male volunteers in promoting the programme. In the initial three years of project exposure reduced the total fertility rate by one birth, comprising a 15 % fertility decline relative to fertility levels in comparison communities, representing a decline of one birth in the total fertility rate. *Discussion* Findings indicate that fertility can be reduced with supply-side approaches; however contraceptive use (CU) is not the only fertility determinant responsible for fertility decline (abstinence and delayed marriage also impacted on fertility decline). It is suggested that a contraceptive norm has yet to replace traditional means of fertility control, even in areas where the project has begun to have an impact. Project experience suggests that even minor and temporary lapses in programme intensity can lead to discontinuation of CU. The programme clearly indicated the incremental effect of a comprehensive community-mobilisation strategy (combining nurse-outreach and *zurugelu*, traditional social cooperation) causing the greatest fertility impact.
Chin-Quee D 2007 **Nicaragua** 2004-2005 Counseling tools alone do not improve method continuation: further evidence from the decision-making tool for family planning clients and providers in Nicaragua	Quasi-experimental design (posttest-only) *Outcome variables:* Overall and method-specific contraceptive use and continuation	Clients of family planning providers n=1,472	WHO Decision-Making Tool	The study assessed the impact of the WHO Decision-Making tool (DMT) on method continuation and counselling experiences with family planning providers. The study showed that the clients of providers who were trained in the use of DMT flipchart did not have higher overall method or method-specific contraceptive use rates. Women in the control group reported even higher rates of contraceptive use than in the experimental group (86% vs. 80%). There was no improvement in the contraceptive continuation rates. *Discussion* Findings are in line with other researches that it is possible to increase the quality of FP services but that such interventions are not associated with contraceptive use or higher continuation rates. Many factors seem to influence a woman’s decision to continue, such as side-effects, lack of husband’s support and difficulty in accessing the method.

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First author, year published, country, year study / intervention, title	Study design, outcome variables	Participants	Intervention	Reported results, discussion
Douthwaite M 2005 **Pakistan** 1993-1998 Increasing contraceptive use in rural Pakistan: an evaluation of the Lady Health Worker Programme	Quasi-experimental design (posttest only) *Outcome variables* Contraceptive use	*Endline*: all ever married women aged 15-49 yrs n=5,161 (intervention area n=4,015 intervention; control area n=1,146)	Lady Health Worker Programme (LHWP)	The programme evaluation aimed to provide a nationally representative picture of the functioning of the LHWP and to assess the programme's impact by comparing LHW areas with non-programme control areas. Results include: data suggest a higher level of contraceptive use in the rural LHW areas, a result that is consistent with the hypothesis that LHWs have played a role in increasing contraceptive use in the population they serve. Logistic regression is used to investigate the net effect of LHWP on the current use of modern reversible methods. 13% of married women living in rural LHW areas were using a reversible modern method (compared to 7% in the control areas). Overall 30% were using some form of family planning, compared to 21% in the control areas and 22% national prevalence. *Discussion* Despite design limitations, the study provides strong evidence that the LHWP has succeeded in integrating family planning into doorstep provision of preventative health care and in increasing the use of modern reversible methods in rural areas. The LHWP is similar to a family planning programme in Bangladesh were TFR fell from 6.3 children tot 3.3 children in 20 years.
Hennink M 2005 **Pakistan** 1999-2002 The impact of franchised family planning clinics in poor urban areas of Pakistan	Quasi-experimental design (pretest-posttest) *Outcome variables* Knowledge, contraceptive use and unmet need for family planning	Married women *Baseline*: n=5,338 *Endline*: n=5,502	Introduction of new family planning clinics	To aim of the study was to determine the impact of new family planning clinics on knowledge, contraceptive use and unmet need for family planning among married women in poor urban areas of 6 secondary cities of Pakistan. Results show that the clinics contributed to a 5 percent increase in overall knowledge of FP methods and an increase in knowledge of female sterilization and the IUD of 15% and 7% respectively. Distinct effects were found on the adoption of individual methods of contraceptive use. Condom use remained the most commonly used method (30%), however declined with 7%. A significant rise was seen in female sterilisation (8% increase), making it the second most commonly used method (22%). Unmet need for FP declined in 2 sites, whereas impacts on the other sites were variable. Although the new clinics are located within poor urban communities, users of services were not the urban poor, but rather select subgroups of the local population. *Discussion* Half of women at baseline expressed unmet need for family planning. The new clinics demonstrated influence on knowledge and method use. Also the study identified important distinctions between groups of users of the new clinics, indicating that the clinics although located in poor urban communities also served groups living outside the catchment area (willing to travel some distance and paying for services), and were not being used as a source

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				for FP by the poorest groups. Nevertheless the presence of the clinics and the activities of the community-based distribution workers have influenced poor local women to practice contraception (mainly female sterilization). Findings from this study confirm other studies on the importance of community-based family planning worker (outreach worker) in improving contraceptive knowledge and adoption. Regarding the influence on unmet need for FP, the initial impact of the new clinics is greater in areas where the demand for *limiting births* exceeds the demand for *spacing births*, also showing a greater impact on contraceptive acceptance.
RamaRao S 2003 **Developing Countries** The Quality of Family Planning Programs: Concepts, Measurements, Interventions, and Effects	Meta-analysis *Outcome variables* quality of care; client/patient satisfaction; user perspective	21 studies published between 1990 – 2003	System-wide interventions; interventions to expand contraceptive use; tools to improve quality; targeted interventions	This study reviews the major research and interventions concerning readiness and quality of care in family planning programmes aiming to: identify and describe the principal methodological research including conceptual frameworks, perspectives, and tools for measuring and improving quality; to describe the results from various intervention studies; and to assess what is known about the effect of such interventions. The review suggested that interventions that improve client–provider interactions show the greatest promise. Good quality of care results in such positive outcomes as clients' satisfaction, increased knowledge, and more effective and longer use of contraceptives. *Discussion* The researchers conclude that despite the availability of a considerable amount of theoretical research on concepts and frameworks, measurement, and methodology regarding quality in family planning programmes, the number of rigorous experimental studies is limited. A significant finding of the review is that many innovative ideas for improving quality are being tested in a variety of service-delivery settings, though the efforts remain largely undocumented. In instances where adequate documentation exists, no systematic attempts at evaluation appear to have been made. The small numbers of rigorous studies of interventions that have been published to date indicate that quality can be improved and that good care has beneficial effects. Those interventions that show the most promise are the ones that facilitate a better interaction between clients and providers (by means of training providers in interpersonal communication and information exchange or by the use of job aids). The empirical evidence on interventions that aim to improve quality through processes of problem identification and resolution is limited. Better physical infrastructure does not always result in better care. Some aspects of quality of care, such as interpersonal communication, can be improved without recourse to large investments in staff, equipment, or supplies. The number of experimental studies that have examined the direct effect of an intervention on such aspects of client behaviour as contraceptive continuation or achievement of reproductive intentions is

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				limited. Based on the studies reviewed, a firm conclusion cannot be drawn that interventions have a direct and significantly positive effect on contraceptive continuation.
Snyder L 2003 A Meta-analysis of the Effectiveness of Family Planning Campaigns in **Developing Countries**	Meta-analysis *Outcome variables* Use of modern contraceptives; family planning; KAB (knowledge, attitudes, behaviour); communication with partner, friends	39 campaigns that received US funding between 1986 and 2001	Family Planning campaigns	On average, the largest effect of the campaign (both sexes) was on knowledge of modern family planning methods (from 76% before the campaign to 88% after the intervention). There were also positive effects for partner communication about family planning (increase from 39% to 46%), approval of family planning (79% before and 85% after the campaign), slight increase in behavioural intentions (54% to 61%) and slight increase in use of modern methods of FP (31% to 37%). The behavioural results were similar to that found for domestic campaigns on diverse topics. Exposure to campaigns (average 71%) was higher than exposure to domestic (US) campaigns (36%). *Discussion* Results should be interpreted tentatively due to the relative small number of studies for some of the outcome variables. Study is the first meta-analysis of communication campaigns to include other outcomes besides behaviour change.
The World Bank 2004 **Malawi** 1999-2003 Implementation Completion Report. Population and Family Planning Project Malawi	Quasi-experimental design (pretest-posttest) *Outcome variables:* Contraceptive use	Representative samples from pilot and control districts (numbers not stated)	Community Based Distribution (CBD) of population and family planning services (through the public sector)	The study focused on hard to reach, rural areas assessing impact of CBD on contraceptive use. Results indicate a rapid increase in contraceptive prevalence through CBD (almost doubled in the pilot sites). The survey found that CPR rose from 20% to 36%. Women are using modern contraceptives at younger ages. There was a striking increase in the number of women who receive their FP supplies from Community-Based Distribution Agents and non-users of family planning reported increased contact with FP suppliers. *Discussion* The lessons learned indicate that rapid increase in contraceptive prevalence is possible in rural Africa through Community Based distributors. The project was successful due to a balanced focus on both demand and supply issues. Demand was increased through a very effective multimedia Information, Education and Communication campaign.

Overview studies combating sexually transmitted infections

First author, year published, country, year study / intervention, title	Study design, outcome variables	Participants	Intervention	Reported results, discussion
Bertrand J 2006 **Developing countries** 1990-2004 Systematic review of the effectiveness of mass communication programs to change HIV/AIDS related behaviors in developing countries	Systematic review of 24 (quasi-) experimental, non-experimental designs *Outcome variables* Knowledge of HIV transmission; perceived risk of contracting HIV/AIDS; self-efficacy to negotiate condom use or protect oneself; discussion with others about HIV/AIDS or condom use; abstinence from sexual relations; reduction in high-risk sexual behaviour; condom use	Adult population	Mass media interventions (except social marketing programmes)	The review systematically examined the effectiveness of 24 mass-media interventions on changing HIV-related knowledge, attitudes and behaviour. The interventions were published from 1990 through 2004. A summary of the main results: - Knowledge of HIV transmission: half of the studies reported positive effects on knowledge measures (ranging from 2 to 100% improvements in the proportion of respondents with better knowledge); of the remaining studies roughly half showed positive effects for some measures or population subgroups. - Perceived risk of contracting HIV/AIDS: the six studies that evaluated perceived HIV risk were evenly distributed over the categories positive effects, no change or mixed results. - Self-efficacy to negotiate condom use or protect oneself: four studies evaluated self-efficacy to protect oneself or convince a sex partner to use a condom. The findings were evenly split between positive effects and no effects. - Discussion with others about HIV/AIDS or condom use: six studies measuring this outcome with split results among positive, mixed or no effects regardless of who the discussions were with and whether they were about AIDS or condoms. - Abstinence from sexual relations: only three studies measured this outcome, each using different measures; the results were positive or mixed. - Reduction in high-risk sexual behaviour: a clear majority of eight studies in this category yielded positive effects. The studies measured different aspects of the phenomenon, including the number of sexual partners, percentage of men engaging in casual sex, percentage avoiding sugar daddy and percent avoiding commercial sex workers. *Discussion* The review yielded mixed results on the effectiveness of the mass media to change HIV-related behaviours in developing countries. On most of the outcomes there was no statistically significant impact. Only on 2 of the 7 studies with the outcome variables of knowledge and reduction of high risk behaviour showed a positive effect of the mass media. Many of the studies had a weak design; also the campaigns included did not include a comprehensive

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				behaviour change programme (mass media and community level activities). Also it was not possible to assess what makes some campaigns more effective than others (because of focus, study design, and other limitations: small sample size, no control group etc). Despite the high investments of donors in campaign, few were subject to a rigorous evaluation, and few addressed the costs and cost-effectiveness of mass communication programming.
Sangani P **2004** **Tanzania, Uganda (2 studies), Peru, South Africa** *Cochrane Database of Systematic Review* 2004, Issue 3. Population-based interventions for reducing sexually transmitted infections, including HIV infection	Systematic review of experimental designs *Outcome variables* Frequency of STIs, including HIV infection; quality of STI treatment; treatment-seeking behaviours and utilisation of services; safer sexual behaviour	General adult populations and people with STIs	Any population-based STI-intervention including: IEC campaigns; improved STI services; integration of STI case finding into FP, antenatal care and other health services; mass treatment of whole communities.	The review was conducted to determine the impact of population-based STI interventions on the frequency of HIV infections, frequency of STIs and the quality of STI management. Five trials were included in the review (selection criteria were: randomised controlled trials in which the unit of randomisation was either a community or a treatment facility). Results include: the review demonstrated limited evidence from community-based randomised controlled trials for the effectiveness of STI control as a HIV prevention strategy. Improved STI treatment services have been shown to reduce HIV incidence in only one trial and in a particular environment characterised by an emerging HIV epidemic (low and slowly rising prevalence), where STI treatment services were poor and where STIs were highly prevalent. There is no evidence for benefit from mass treatment of communities, at least for the regimen (antibiotics) tested in Rakai (Uganda). There are however other compelling reasons why STI treatment services should be strengthened: available evidence suggested that when health service interventions are effectively implemented, they can substantially improve the quality of STI service provision, at least in the short term. *Discussion* One of the trials shows an increase in the use of condoms, a marker for improved risk behaviours. Further community-based randomized controlled trials that test a range of alternative STI control strategies are needed in a variety of different settings. Such trials should aim to measure a range of factors including health seeking behaviour and quality of treatment, as well as HIV, STI and other biological endpoints.

Overview studies preventing unsafe abortion

First author, year published, country, year of study / intervention period, title	Study design, outcome variables	Participants	Intervention	Reported results, discussion
Billings D 2005 **Latin America** 1991-2002 Postabortion care in Latin America: policy and service recommendations from a decade of operations research	Review of non- and quasi-experimental studies *Outcome variables* Information and counselling; quality of services; MVA use; etc	Various	Various	A review of post-abortion care projects in Latin America gives a description of 10 major PAC operations researches conducted in public sector-hospitals in seven Latin American countries (between 1991- 2002). In summary, the interventions led to significant improvements in the quality of services and reductions in cost. The studies showed that following relatively modest interventions, the majority of eligible patients were being treated with MVA, a method preferred for safety and other reasons over the method conventionally used in the region (sharp curettage). Other studies showed improvements in contraceptive counselling and services when they were integrated with clinical treatment of abortion complications, resulting in substantial increased contraceptive acceptance. *Discussion* The studies collectively provide strong evidence that uptake of MVA by trained providers is both feasible and desirable. The reorganisation of PAC as an ambulatory service is key in reducing the average length of stay (ALOS) and has the potential to reduce costs. Furthermore, result from the studies emphasise the need to link post-abortion treatment and counselling on contraceptives.
Dao B 2007 **Burkina Faso** 2004 Is misoprostol a safe, effective and acceptable alternative to manual vacuum aspiration for postabortion care? Results from a randomised trial in Burkina Faso, West Africa	Randomised trial *Outcome variables* Completed abortion following initial treatment	447 consenting women with incomplete abortion	600 micrograms dose of oral misoprostol; manual vacuum aspiration (MVA)	To complement Burkina Faso's PAC programme, the study sought to assess the role of a single 600 micrograms dose of oral misoprostol as an alternative to MVA for evacuation of the uterus following incomplete abortion. Also the study intended to validate the efficacy results reported in Uganda (see: Weeks, 2005). The study took place in two university teaching hospitals in Burkina Faso, among women presenting with incomplete abortion. *Findings*: regardless of treatment assigned, nearly all participants had a complete uterine evacuation (misoprostol = 94.5%, MVA = 99.1%). Acceptability and satisfaction ratings were similar and high for both misoprostol and MVA, with three out of four women indicating that the treatment's adverse effects were tolerable (misoprostol = 72.9%, MVA = 75.8%). The majority of women were 'satisfied' or 'very satisfied' with the method they received (misoprostol = 96.8%, MVA =97.7%), expressed a desire to choose that method again (misoprostol = 94.5%, MVA = 86.6%) and to recommend it to a friend (misoprostol = 94.5%, MVA = 85.2%). *Discussion* Six hundred micrograms of oral misoprostol is as safe and acceptable as MVA for the

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				treatment of incomplete abortion. Operations research is needed to ascertain the role of misoprostol within postabortion care programmes worldwide.
Johnson B 2002 **Zimbabwe** 1996-1997 Reducing Unplanned Pregnancy and Abortion in Zimbabwe through Postabortion Contraception	Prospective intervention study *Outcome variables* Post-abortion family planning	Women admitted in hospital for PAC and with desire to postpone next pregnancy with at least 2 years n=982	Post-abortion family planning services	The study assessed the quality and effectiveness of post-abortion FP services through subject interviews and pregnancy tests. Results included: during the follow-up period, significantly more women used higher effective methods of contraception, significantly fewer unplanned pregnancies occurred, and fewer repeat abortions were performed at the intervention site than the control site. *Discussion* Result offered compelling evidence that ward-based contraceptive services provided to women treated for incomplete abortion can significantly reduce subsequent unplanned pregnancies. The results also suggest that post-abortion FP services can reduce the incidence of repeat abortion.
Tesfaye S 2006 **Ethiopia** 2000, 2004 Expanding our Reach; An Evaluation of the Availability and Quality of Postabortion Care Services in Three Regions in Ethiopia between 2000 and 2004	Quasi-experimental study design (pretest-posttest) *Outcome variables* Availability and quality of PAC services (more provision of services, performance of MVA, provision of postabortion contraceptives, and skilled providers trained in MVA clinical skills)	*Baseline* survey providers n=119 *Follow-up* survey providers n=119	Intervention package of training; technical assistance; provision of equipment and supplies; advocacy; operations research	The study in Ethiopia was conducted to assess the effectiveness of a mixed set of interventions at the community, facility and national level. In summary, overall the intervention appeared effective in improving PAC outcomes (more provision of services, performance of MVA, provision of post-abortion contraceptives, and skilled providers trained in MVA clinical skills). Regarding the overall availability and quality of PAC services: capacity increased in the intervention facilities (57 to 79%), and remained relatively constant in the comparison facilities. The intervention was also associated with increased contraceptive services as part of PAC (rising from 25 to 73% in the intervention sites, compared to 23% to 32% in the comparison sites). MVA use rose from 6 to 18% in the comparison facilities, compared to 50% (from 14%) in the intervention sites. Community awareness increased (29% compared to 8% in the comparison sites). The capacity to provide uterine evacuation (UE) increased from 57% to 79% in the intervention facilities; availability of MVA instruments also increased. *Discussion* Interestingly, progress was also reported at the comparison sites. An outcome which may have resulted from a nation-wide effort to improve PAC services across the health system in Ethiopia complemented with increased commitment from various stakeholders, increased NGO activity and increased knowledge and availability of MVA in the medical community. An area of concern is the fact that only one in three health centres is able to provide emergency transportation for patients with severe complications. Creative community-based efforts that have worked elsewhere - such as community-savings for emergency transport - may prove

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				their use in the Ethiopian context. Another area of concern is the contraceptive availability (as part of the PAC procedure) which appeared to decline between 2000 and 2004 (all 119 facilities), probably as a result of shortages in funding for contraceptives because of donor withdrawal. On the other hand, the availability of MVA equipment increased, however other shortages (drugs, essential supplies) remain a problem thereby hampering sustainability of PAC services. Furthermore, quality of care (i.e. relief / pain medication) is an issue considering the large amount of women not receiving proper medication for pain relief. Only a limited a majority of women not receiving pain medication.
Warriner I K 2006 **South Africa, Vietnam** 2003, 2004 Rates of complication in fi rst-trimester manual vacuum aspiration abortion done by doctors and mid-level providers in South Africa and Vietnam: a randomised controlled equivalence trial	Randomised controlled equivalence trial *Outcome variables* Complication of abortion	South Africa: 1160 women Vietnam: 1734 women	First trimester manual vacuum aspiration abortion (done by mid-level providers)	The study aimed to assess whether the safety of first-trimester manual vacuum aspiration abortion done by health-care providers who are not doctors (mid-level providers) is equivalent to that of procedures done by doctors in South Africa and Vietnam, where mid-level providers are government trained and accredited to do first-trimester abortions. Women presenting for an induced abortion at up to 12 weeks' gestation were randomly assigned to a doctor or a mid-level provider for manual vacuum aspiration and followed-up 10–14 days later. The primary outcome was complication of abortion. Complications were recorded during the abortion procedure, before discharge from the clinic, and at follow-up. *Findings*: in both countries, rates of complication satisfied the predetermined statistical criteria for equivalence. There was one immediate complication related to analgesics. Delayed complications were caused by retained products and infection. *Discussion* With appropriate government training, mid-level health-care providers can provide first-trimester manual vacuum aspiration abortions as safely as doctors can.
Weeks 2005 **Uganda** 2001, 2002 A Randomized Trial of Misoprostol Compared With Manual Vacuum Aspiration for Incomplete Abortion	Randomised trial *Outcome variables* Completion of evacuation (abortion)	317 women with clinically diagnosed incomplete first-trimester abortions	Manual vacuum aspiration; misoprostol	The objective of the study was to compare the safety, efficacy, and acceptability of misoprostol and manual vacuum aspiration for the treatment of incomplete abortion in a hospital setting in Kampala, Uganda. Three hundred seventeen women with clinically diagnosed incomplete first-trimester abortions were randomised to treatment with either manual vacuum aspiration or 600 g misoprostol orally to complete their abortions. All women received antibiotics posttreatment and were followed up 1–2 weeks later. *Findings*: regardless of treatment allocation, nearly all women in the study successfully completed their abortions with either oral misoprostol or manual vacuum aspiration. Complications were less frequent in those receiving misoprostol than those having manual vacuum aspiration. In the 6 hours after treatment, women using misoprostol reported heavier bleeding but lower levels of pain than those treated with manual vacuum aspiration. Rates of

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				acceptability were similarly high among women in the 2 treatment groups. *Discussion* For treatment of first-trimester uncomplicated incomplete abortion, both manual vacuum aspiration and 600 g oral misoprostol are safe, effective, and acceptable treatments. Based on availability of each method and the wishes of individual women, either option may be presented to women for the treatment of incomplete abortion.

Overview studies reproductive rights, gender issues, sexual health, sexual and gender-based violence

First author, year published, country, year study / intervention, title	Study design, outcome variables	Participants	Intervention	Reported results, discussion
Al-Sabir A 2004 **Bangladesh** 2000-2002 Integration of Reproductive Health Services for Men in Health and Family Welfare Centers In Bangladesh	Quasi-experimental (pretest-posttest) *Outcome variables* Male attendance clinics; receipt of RTI and STI services for men; providers knowledge to identify and treat RTIS and STIs; men using FP services at HFWC	Men attending HFWC *Baseline:* n=286 *Endline*: n=300 Service providers: *Baseline:* n=127 *Endline*: n=163	Training service providers; inclusion of RTI and STI in Health and Family Welfare Centres (HFWC); promotion awareness and mobilization of drug supplies	The study aimed to evaluate men's access and acceptance of male reproductive health services within the existing government female-focused delivery system. The intervention did result in a substantial increase of male clients in the intervention sites; however the majority came for general health problems. Encouraging was the fact that male attendance at the clinic did not adversely affect women's seeking care behaviour – on the contrary, the number of female visits to the intervention sites also increased; a result that was sustained after project implementation. *Discussion* Though small in numbers, consultation of RTI and STI clients did increase, among both males and females. This result confirms the hypothesis that if RTI and STI services are introduced in Health and Family Welfare Centres and people are informed about them, they will use the services. In terms of sustainability and scaling-up of the programme the researchers are cautious. Pre-test did reveal the limited knowledge on STIs of providers. Therefore, follow-up and practical training will be needed to sustain the improved management of STIs and RTIs.
Babalola S 2006 **Nigeria** 2003-2004 Impact of a communication programme on female genital cutting in eastern Nigeria	Quasi-experimental design (pretest and posttest) *Outcome variables* Psychosocial variables; intentions not to perform FGC	*Baseline:* men (n=426) and women (n=531) *Endline:* men (n=386) and women (n=585)	FGC elimination communication programme (multichannel approach: community and mass-media)	The study describes a FGC elimination communication programme in Enugu State and assesses its impact in changing relevant knowledge, attitudes and behavioural intentions regarding FGC. Study results indicate a significant improvement among the intervention group, in terms of intentions not to perform FGC. *Discussion* Researchers conclude that because of the considerable variations in FGC prevalence within the areas, a wider generalisation of the data was not possible. Data do show the advantage of using a mixed approach of exposure to the mass media in combination with community activities, such as advocacy at local level, cultural events, community meetings and development of local action plans to eliminate FGC.
Varkey L 2004 **India** 2001-2002	Quasi-experimental design (pretest-posttest) *Outcome variables* Family planning in	Pregnant women *Baseline* n=1,067 *Endline* n=632	Comprehensive model of maternity care (MiM: training of providers, IEC, new clinical practice)	The aim the study was to investigate the feasibility, acceptability and costs of a new, more comprehensive, model of maternity care that encouraged husband participation in their wives antenatal and postpartum care. The researchers concluded that men in the intervention areas accompanied their wives to the clinics and participated actively in the intervention. There were significant changes in FP knowledge and behaviours of both men and women. There was little acknowledgement of STI risks although knowledge and use of dual protection did increase.

Overview studies reproductive rights, gender issues, sexual health, sexual and gender-based violence

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Involving Men in Maternity Care in India	postpartum period; knowledge on pregnancy danger signs; syphilis (test); gender roles; decision-making			Syphilis testing of pregnant women was greatly improved. While 16% of the control clinic clients were tested, 92% of the intervention clinic clients had test early in the pregnancy. Clients who participated in the intervention reported more discussions with providers and more satisfaction with family planning methods. The new services were feasible and sustainable for Employees' State Insurance Corporation (ESIC) in terms of provider time and increase in material costs. *Discussion* Despite limitations (some degree of contamination and underrepresentation of ESIC clients) the study indicated that male participation was feasible and acceptable. Both men and women supported the involvement of men.

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Agha S 2002 **Sub-Saharan Africa** 1994-1998 A Quasi-Experimental Study to Assess the Impact of Four Adolescent Sexual Health Interventions in Sub-Saharan Africa	Quasi-experimental design (pretest-posttest) *Outcome variables* Health beliefs (susceptibility to sexual risks, benefits of taking action, barriers to taking action, self-efficacy) and health behaviour (sexual activity, pregnancy prevention, condom use)	**Botswana** Youth aged 13-22 *Baseline* n=1,606 *Endline* n=1,633 **South Africa** youth aged 17-20 *Baseline* n=221 *Endline* n=204 **Cameroon,** youth aged 13-18 *Baseline* n=1,002 *Endline* n=2,396 **Guinea**, youth *Baseline* n=2,016 Endline n=2,005	Social Marketing for Adolescent Sexual Health (SMASH) (peer education, youth friendly service outlets, promotion)	**Cameroon**: intervention reached most adolescent population. The intervention was also implemented for longer period than the other three. The Cameroon project stands out as the only having the desired effect in three areas of women's health behaviour: sexual activity, pregnancy prevention and condom use, in part explained by the fact that the programme was able to reach a substantial portion of the target population. **Botswana**: the intervention reached a substantial population, however in absence of a radio station youth in the comparison site were also exposed to the mass media component of the intervention. Female outcome was higher, among men there was evidence of a reduction in casual relationship. **South Africa**: a newly established radio station reached only a fragment of the target population. The intervention had few net positive effects on young women. The poor quality of data for men precluded the evaluation of the full impact of the intervention. **Guinea**: the intervention in Guinea relied primarily on sponsored events (soccer games) which usually have a low educational content and limited reach. Furthermore because males are more likely to attend soccer games, a relatively small proportion of the adolescents in the intervention area were exposed to sexual health messages. Guinea had the least impact on Health Belief indicators.
Dickson K 2007 **South Africa** Does setting adolescent-friendly standards improve the quality of care in clinics? Evidence from South Africa	Quasi-experimental case-control design *Outcome variables* Quality of care; level of accreditation (set of 10 adolescent-friendly standards and 41 corresponding criteria)	11 public health clinics involved in the adolescent-friendly programme and 11 control clinics	LoveLife Programme	The study formed part of a large community-based cross-sectional survey to evaluate the impact of the LoveLife programme. This study determined whether setting and implementing adolescent-friendly (AF) standards improve the quality of adolescent services in clinics. The study results suggest that the programme does improve the quality of adolescent services in clinics. For instance, NAFCI clinics were more inclined to conduct a community assessment and develop a service plan based on the assessment. Meeting of the standards improved over time; furthermore the support by a trained supervisor proved to be important. *Discussion* Researchers conclude that also a number of control clinics were able to meet part of the standards. This may be attributed to the fact that some of the 'quality of care' criteria are not restricted to adolescent-friendly services, for example infection control or the availability of medical supplies and drugs. Other studies also confirm that the mere fact of having YF services in place does not guarantee increased access. Increasingly it is understood that

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				adolescent friendly programmes - and determinants of adolescent health seeking behaviour – need to entail community support and acceptance of the intervention. Overall conclusion is that setting standards and criteria improve the quality of services in clinics. The standards and criteria should be set on the basis of characteristics of AF services and quality of care indicators. Best results can be achieved when a facilitator trained in quality improvement methods supports the clinics.
Erulkar A 2004 **Kenya** 1997 and 2001 Behavior Change Evaluation of a Culturally Consistent Reproductive Health Program for Young Kenyans	Quasi-experimental design (pretest and posttest) *Outcome variables* Changes in young people's sexual initiation; safer sex behaviour; discussion of reproductive health issues with adults	Unmarried young people aged 10-24, *baseline* n=1,544 Young people aged 10-24 *endline* n=1,865	Culturally consistent reproductive health programme (package of community-based education, advocacy and subsidized clinical services)	The aim of the study was to measure behavioural changes associated with a culturally consistent RH programme for young people in Kenya. Young people in the project areas improved their sexual and reproductive health behaviour, in comparison to the control areas where the healthy behaviour of males and females declined on all six indicators measured, among others: declining use of condoms and abstaining from sex. The project was associated with considerable changes in young people's sexual and reproductive health-related behaviour, and behaviour change appeared to differ for boys and girls. Females in the project site were significantly more likely than those in the control area to adopt secondary abstinence, and less likely to have had three or more sex partners. Males in the project area were more likely to use condoms than those in the control site. Both males and females in the project site were more likely to discuss sexual and reproductive health issues with a nonparent adult than were young people in the control site. *Discussion* The project was unique in a number of ways: it was acceptable to the community. Also the period of intervention was presumed long enough to affect young people's behaviour (except delay in age of sexual initiation) Measures of ARH behaviour in the control area did worsen which may in part reflect an increase in campaigns by religious sects in Kenya against family planning clinics. Behaviour changes also differed by gender. The intervention is also unique because it was designed and managed by the local community and was consistent with local culture and traditions, and demonstrated that indigenous systems in Africa can be adopted for programmes and can help improve the reproductive health status of young people in Sub-Saharan Africa.
Gallant M 2004 **Sub Saharan Africa** 1994 - 2002	Review of quasi-experimental studies *Outcome variables*	11 studies of programmes implemented between 1994 - 2002	School based education and prevention programmes (HIV/AIDS risk	The study reviewed education and prevention programmes (school-based HIV/AIDS risk reduction programmes) for youth in Africa. Most evaluations were quasi-experimental designs with pre–post test assessments. The programme objectives varied, with some targeting only knowledge, others attitudes, and others behaviour change. *Findings*: ten of the 11 studies that assessed knowledge reported significant improvements. All seven that assessed attitudes

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School-based HIV prevention programmes for African youth	Knowledge, attitude, intentions and behaviours (on: risk reduction, contraceptives, sexual behaviours etc.)		reduction)	reported some degree of change toward an increase in attitudes favourable to risk reduction. In one of the three studies that targeted sexual behaviours, sexual debut was delayed, and the number of sexual partners decreased. In one of the two that targeted condom use, condom use behaviours improved. *Discussion* The results of this review suggest that knowledge and attitudes are easiest to change, but behaviours are much more challenging. The review provides details about programmes and identifies characteristics of the most successful programmes. Clearly, however, more research is needed to identify, with certainty, the factors that drive successful school-based HIV/AIDS risk reduction programmes in Africa.
Kirby D 2005 Impact of Sex and HIV Education Programs on Sexual Behaviors of Youth in Developing and Developed Countries	Review	Various	Various	A literature review was conducted to assess the impact of sex and HIV education programmes on sexual behaviours of youth in developing and developed countries. The review consisted of 83 evaluations, of which 18 took place in developing countries. Half of the programmes evaluated focused on only preventing HIV/STIs; nearly one-third covered both HIV/STIs and pregnancy; and nearly one-fifth focused only on pregnancy. Virtually all the programmes encouraged specific risk reduction and protective behaviours. About half of the studies reviewed lacked sufficient statistical power to detect meaningful programme effect on behaviour. The problem of insufficient power was aggravated by the fact that the studies had to divide their samples into various sub-samples. Overall, the results of the review strongly indicate that the programmes were far more likely to have a positive impact on behaviour than a negative impact. Two-thirds of the studies found a significant positive impact on one or more of the sexual behaviour (initiation of sex, frequency of sex, number of sexual partners, condom use and sexual risk taking) or on pregnancy rates and STI rates. Only 7 percent found a significant negative impact. One-third had a positive impact on two or more behaviours or outcomes. In general, the patterns of findings for all the studies were similar in both developing and developed countries. The evidence was strong regarding the positive effects of the programmes on relevant knowledge, awareness of risk, values and attitudes, self-efficacy and intentions: the very factors specified by many psychosocial theories being the determinants of behaviour. Most of the programmes reviewed increased knowledge about HIV/STIs and pregnancy. Programmes appeared more successful when in the development stage multiple people with varied backgrounds were involved and when the curriculum addressed relevant needs and assets of the target group, including activities consistent with community values. Furthermore,

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				effective curricula commonly created a safe environment for youth, focused on clear goals of preventing HIV/STI and/or pregnancy, focused on specific behaviour and helped the students to personalise the information. A curriculum also was more successful when it addressed risks and protective factors affecting sexual behaviour and included activities to change these factors. When it comes to the implementation of the programme, effective programmes commonly selected and trained educators and secured at least minimal support from authorities. *Discussion* The researchers conclude that there is a need for more rigorous studies of promising programmes in developing countries. On the programmatic side, one of the recommendations addresses the issue of viewing HIV, other STIs and pregnancy as part of a component in a larger initiative that can reduce sexual risk-taking behaviour, rather than viewing them in isolation.
Magnani R 2001 **Brazil** 1997-1999 Impact of an Integrated Reproductive Health Program in Brazil	Quasi-experimental design (pretest-posttest) *Outcome variables* Sexual behaviour; contraceptive use; student's use of public health clinics	Students: 4,800 (both surveys)	Integrated ARH project (the linkage and integration of school- and clinic based SRH)	The study aimed to measure the impact of an integrated school- and health-clinic based ARH initiative. Results indicate that the intervention had no effect on sexual or contraceptive use behaviour or increased use of public clinics. The project was successful in increasing the availability of sexual and reproductive health information at project schools: a finding consistent with expectations. *Discussion* The evaluation findings are consistent in indicating a lower-than expected level of project impact. Some positive effects were found in terms of an increased flow of SRH-information from a school-based source. The evidence indicates that the referral system implemented in project schools was not effective; instead young people in Bahia tend to use clinics at convenient locations and of perceived high quality services. In addition, evidence from this study is in line with other studies indicating that the service use of adolescents is not so much related to the youth-friendliness of the clinic, but moreover are associated with the level of community's acceptance (social norms) of such services for young people.
Mathur S 2004 **Nepal** 1998-2003	Quasi-experimental study design (pretest-posttest) *Outcome variables*	Household survey *Baseline*, n=965, *Endline* n=1,003 Adolescent survey	Participatory approaches in improving services and outcomes for youth reproductive	The research scientifically tested the effectiveness of the participatory approach in defining and addressing the reproductive health concerns of adolescents. Results indicate that the participatory approach (PA) did yield positive results. Although the effect is only marginally more positive in terms of basic indicators of youth reproductive health (knowledge of STD symptoms, and on HIV/AIDS), though showing mixed results in terms of CU. The PA was

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Youth Reproductive Health in Nepal: Is Participation the Answer? And **Malhotra A** 2005 **Nepal** 2001-2003 Nepal: The Distributional Impact of Participatory Approaches on Reproductive Health for Disadvantaged Youth	RH knowledge, behaviour, attitude and service use (prenatal care, institutional birth, knowledge of HIV/AIDS transmission)	(14-21) *Baseline* n=724, *Endline* (14-25 n=979 Adult survey (30+) *Baseline* n=752, *Endline* n=654 Service provider *Baseline* n=59, *Endline* n=62	health (small scale community-based)	substantially more effective in improving RH antecedents and outcomes such as age at marriage, prenatal care, institutional delivery and increased male awareness of RH needs of women. The most substantial effect was in terms of the broader, more contextual factors that influence YRH, as well as capacity building, empowerment, and sustainability. Project results indicate that the existence of an enabling environment for good reproductive health has improved at the study sites because the PA has generated a new mindset in the community, with a deeper understanding of YRH and its implications. The progress in thinking of urban young and adult women was remarkable. At the endline rural women had reached the point where urban women were at the baseline. Despite the fact that participatory processes are time- and resource-intensive, in the long run the results may be much more cost-effective than the intermediate results from other approaches. *Discussion* Overall conclusion is that the participatory approach was most successful in when it come to empowerment and accountability issues, which are essential in improving health for the poor. The study confirms that in addition to macro-level efforts, small scale and community based interventions can successfully be used to achieve these outcomes. PA allows clients to enhance their linkages with (local) social and health systems.
Mensch B 2004 **India** 2001, 2003 The effects of a Livelihoods Intervention in an Urban Slum in India: Do Vocational Counseling and Training alter the Attitudes and Behaviour of Adolescent Girls?	Quasi-experimental (pretest and posttest) *Outcome variables* Gender role attitudes; mobility; self-esteem; self-efficacy; RH knowledge; social skills; work expectations; time use	Adolescents aged 14-19 (both sexes, married-unmarried, in-out school) *Baseline* n=3,199 (male n=1,516, female n=1,683) *Endline* n=6,148 (male n=3,073, female n=3,075)	Integration of livelihood activities into CARE's reproductive health programme for slum dwellers (ASRHA)	The study looked into the effect of an experimental intervention for girls aged 14-19 (RH information, vocational counselling and training) on their attitudes and behaviour. Results indicate that for several outcome variables the overall effect was in the expected direction (enhanced gender role attitudes, knowledge of spaces for meeting; self-esteem, social skills, group membership, RH knowledge and mean hours spent at leisure activities). On the other hand, the intervention had only a minimal effect on the attitudes and behaviour of young girls, including increased social skills and knowledge of safe places for girls to meet and self-identification as a group member. *Discussion* The reason for such a minimal result may in part be attributed to methodological difficulties, including the underrepresentation of participants in the both surveys. Secondly, conducting a longitudinal survey in urban slum areas was more problematic than anticipated. Also the duration of the intervention may have been too short to generate significant altering of behaviour and attitudes. In addition, not all outcome variables were appropriate to measure the impact of the intervention.

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Meuwissen L 2006 **Nicaragua** 2000-2002 Improving sexual and reproductive health care for poor and underserved girls: Impact of a voucher program on access and quality of primary care in Nicaragua	Quasi-experimental design (posttest-only) *Outcome variables* Use of SRH care; knowledge and use of contraceptives and condoms	Female adolescents (aged 12 – 20): voucher received n=904 nonreceivers n=2,105.	Voucher programme	The purpose of the study was to evaluate a competitive voucher programme that aimed to make sexual and reproductive health care accessible to adolescents from disadvantaged areas of Managua. Voucher receivers had a significant higher use of SRH care compared with nonreceivers, 34% versus 19%. The highest influence was seen among respondents at schools, where the use of the vouchers was 24% relative to 6% in nonreceivers. Voucher receivers answered significantly more questions correctly that were related to the knowledge of contraceptives and STIs, in comparison to nonreceivers. At schools, sexually active voucher receivers had a significant higher use of modern contraceptives than nonreceivers (48% vs 33%). In the neighbourhoods, condom use during the last sexual contact was significantly greater among voucher receivers compared to nonreceivers. *Discussion* A relative simple intervention was successful in increasing access to SRH care for poor and underserved girls. Many adolescents appeared willing to protect themselves against the risk of sexual intercourse. Results suggesting that access to SRH care can play an important role in changing youth behaviour and increase the use of contraceptives, and condoms. Though it remains to be seen whether the impact will be sustained beyond the voucher programme (eg. when financial support to the programme ceased, and guidance to the provider has disappeared). In addition, knowledge and access alone appear not be sufficient to change adolescent behaviour; other factors such as the social (parental) and legal acceptability of providing condoms to adolescents may influence contraceptive use among adolescents. Key finding of the intervention was that accessible health care of good quality can make an important contribution to helping a considerable proportion of girls use SRH care and diminishing the risks of sexual relations, even without change in the social context of the girls.
Mishra A 2003 **India** 2001-2002 Improving Adolescent Reproductive Health Knowledge and Outcomes through NGO Youth-Friendly Services	Quasi-experimental design (pretest-posttest) *Outcome variables* Knowledge and health outcomes (changes in perception, knowledge and attitude with	Adolescent boys and girls, *baseline* n=4,255 (boys and grils), endline n=779 (girls only)	Adolescent-Friendly Reproductive Health Services Programme	The study was undertaken to assess the extent of changes in awareness/knowledge and opinion/attitude among participants at the time of programme registration and at the point of programme completion. The study assessed changes in perception, knowledge, and attitude with respect to puberty, menstruation, gender discrimination, family planning, maternal health, HIV/AIDS transmission and prevention, and conflict resolution, and to compare the effects of long-term and short-term (camp and school) interventions on these changes. Another objective was to measure the feasibility and effectiveness of youth-friendly services, e.g. the effect of iron supplementation among adolescent girls participants on haemoglobin levels. Statistical significant increases were noted in changes in physical characteristics during puberty; knowledge on the four modes of HIV/AIDS transmission and use of HIV/AIDS preventive measures and on modern and dual methods of contraception and protection role of the condom.

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	respeoct to puberty, menstruation, gender discrimination, FP, maternal health, HIV/AIDS transmission and prevention, conflict rsolution)			For girls in the 10-14 age group, awareness of sexual harassment increased. The highest increase has been in the recognition that an important means of creating gender equality is sending both boys and girls to school. The change in desire for less than 3 children has increased, while the desire for three or more children and the belief that the number of children is up to God's will decreased significantly. *Discussion* The programme intervention has been effective in significantly improving the knowledge of adolescent girls an in providing services such as health checkups, counselling and iron supplementation. Significant changes were found among all age groups and educational levels; and a change in haemoglobin level among the adolescent girls.
PSI 2000 **Botswana, Cameroon, Guinea, South Africa** 1994-1998 Social Marketing for Adolescent Sexual Health: Results of Operations Research Projects in Botswana, Cameroon, Guinea and South Africa	Quasi-experimental design (pretest-posttest) *Outcome variables* Health beliefs (susceptibility to sexual risks, benefits of taking action, barriers to taking action, self-efficacy) and health behaviour (sexual activity, pregnancy prevention, condom use)	**Botswana** urban youth aged 13-22 *Baseline* n=1,606 *Endline* n=1,633 **South Africa** youth aged 17-20 *Baseline* n=221 *Endline* n=204 **Cameroon** youth aged 13-18 *Baseline* n=1,002 *Endline* n=2,396 **Guinea** youth *Baseline* n=2,016 Endline n=2,005	Social Marketing for Adolescent Sexual Health (SMASH) (peer education, youth friendly service outlets, promotion)	The four evaluations were undertaken to determine the impact of youth oriented social marketing techniques as a way to raise awareness of sexual and reproductive health problems and encourage young people to take protective action. Results showed that all four country programmes were successful in improving awareness of the benefits of taking protective action – such as using condoms or abstaining from sex – and in reducing barriers (shyness to buy, difficulty in discussing with parents) to use condoms. The programmes had less impact on young people's perceptions about their susceptibility to reproductive health problems and on actual behaviour – sexual activity and condom use. Generally – in all four countries - the programmes had much greater effect among young women than among young men. *Discussion* Results suggesting that interventions of less than 2 to 3 years are not likely to bring about changes in adolescent behaviour – although they can improve knowledge and attitudes that lead to behaviour changes. The project experience also suggest to use a mix of mass media and interpersonal communication based on the assessment of the local situation, as well as to integrate with an already existing social marketing programme. Researchers identify the need for more research on how to fine-tune messages for maximising impact and addressing gender differences.
Williams T 2007	Quasi-experimental study design (posttest-only)	**Ghana** youth aged 17-22 n=3,416 (1,836	African Youth Alliance Programme	Objective of the evaluation was to determine whether exposure to AYA's comprehensive, integrated programme resulted in improved adolescent sexual and reproductive health (ASRH) knowledge, attitudes, and sexual behaviours among male and female youth age 17-22 in areas

Overview studies promoting the sexual and reproductive health of adolescents

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Ghana, Tanzania, Uganda 2000-2005 Evaluation of the African Youth Alliance Program in Ghana, Tanzania, and Uganda. Impact on Sexual and Reproductive Health Behavior among Young People	*Outcome variables* Exposure, antecedent outcomes (knowledge, self-efficacy etc) and behavioural outcomes (delay sexual debut, condom use etc)	females and 1,580 males) **Tanzania** youth aged 17-22 n=1,900 (1,179 females and 721 males) **Uganda** youth aged 17-22 n=3,176 (1,548 females and 1,628 males)	(comprehensive programme including YFS, BCC, Life-Planning Skills, advocacy)	where AYA worked in Ghana, Tanzania and Uganda. Results from the evaluation show that a significant number of young people in AYA implementation areas were reached by AYA programmes and were able to recall ASRH messages, although the degree of exposure varied by country and by type of intervention. Results further demonstrated a significant positive impact of AYA on several variables, most notably condom use, contraceptive use, partner reduction, and several self-efficacy and knowledge antecedents. Overall, the impact of AYA on ASRH behaviours and their antecedents was greater for young women than for young men, especially in Ghana and Uganda. *Discussion* Results of the impact evaluation indicate evidence of significant, positive AYA treatment effects on sexual knowledge, attitudes, and behaviour. Across all three AYA countries evaluated, there were more treatment effects for females; and, among sexually active females, there were significant positive effects on: condom use at first sex, always use condom with current partner, and modern contraceptive use at first and last sex. Researchers (JSI) conclude that a comprehensive, multi-component approach such as AYA's can be effective in improving some key ASRH variables. The programme was an unprecedented innovation to implement a multi-sectoral model and build the capacity required for government and her development partners to sustain and scale-up SRH and HIV prevention programmes for young people. These results demonstrate the model's success at achieving behaviour change among young people reached by the programme and that the model has contributed to an enabling and sustainable programme environment that will continue to support ASRH programming.

Overview integrated services

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Baek C 2007 **South Africa** Not stated Key Findings from an Evaluation of the mothers2mothers Program in KwaZulu-Natal, South Africa	Quasi-experimental design (pretest-posttest) *Outcome variables* PMTCT knowledge; disclosure of HIV-status; receipt and ingestion of Nevirapine; infant feeding intentions and practices; FP intentions and practices; referral and follow-up for care; psycho-social well-being.	*Baseline:* HIV-positive pregnant women aged 18-49 n=182 HIV-positive postpartum women (12 wks or less) n=178 *Endline:* HIV-positive pregnant women n=345 HIV-positive postpartum women n=350	m2m, peer support programme	The central question of the evaluation was whether the intervention succeeded to increase HIV-positive women's utilisation of key PMTCT services and in improving their psychosocial well-being, PMTCT knowledge and behaviour. Results indicate that the programme achieved a substantial coverage of both pregnant and postpartum women, with almost 60% of women reporting that a mentor mother talked with them at least once while the mothers were pregnant or during their lat pregnancy. PMTCT knowledge did not significantly greater among participants. Nearly half of all pregnant and postpartum women interviewed reported two or more interactions with a mentor mother. High rates of disclosure to someone than non-participants (95% vs 85%). No difference in Nevirapine receipt by programme exposure for pregnant women. Formula feeding was the most common method of infant feeding mentioned, though the formula was not distributed by either the facility or the programme. A vast majority of the postpartum programme participants reported using contraception. Postpartum programme participants reported substantially higher rates of having a CD4 test during their last pregnancy and knowing their CD4 count. With respect to psychosocial wellbeing, pregnant participants were more likely to report feelings they could do thing to help themselves, cope with taking care of the baby, and live positively in comparison to non-participants. m2m keeps women linked to health facilities, which is especially important after delivery as that has been an identified weakness of many PMTCT services. Most findings suggest positive changes at site level after 1 year of implementation. *Discussion* The study was limited in terms of study design (non-randomisation and small sample sizes). Evaluation relied on self-reported data and did not use biological markers. Results represent proxy measures for reducing vertical transmission. Despite limitations study gives insight in role of peer support and the fact that the study not took place in a controlled clinical environment makes results more useful for stakeholders.

Overview integrated services

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KIT/WHO/LRIG 2006 Integration of sexuality into SRH and HIV/AIDS counselling interventions in developing countries: *a systematic review* (draft)	Systematic review	-	-	Based on a systematic review into the integration of sexuality into SRH and HIV/AIDS counselling interventions in developing countries, researchers conclude that only limited insights were found into what the content of sexuality counselling is, or should be. None of the 27 studies included in their review explicitly assessed the outcome of sexuality issues related to the counselling. Most studies only measured the effect of services, not the *impact* of sexuality counselling itself. The studies did not provide direct evidence for the effect of sexuality counselling on health outcomes but instead identified contributing factors to reported outcomes.