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# Private Sector Engagement in Sexual and Reproductive Health and Maternal and Neonatal Health

## A Review of the Evidence

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**\* The contents of this review are the work of Johns Hopkins University and do not necessarily reflect the views or policies of DFID.**

# Contents

<b>Abbreviations</b> .....	<b>1</b>
<b>Executive Summary</b> .....	<b>2</b>
<b>1. Introduction</b> .....	<b>5</b>
<b>2. Methodology</b> .....	<b>7</b>
2.1. Analytical framework .....	7
2.2. Search Strategy .....	8
2.3. Rating the strength of the Evidence .....	9
2.4. Supplements from the Grey Literature .....	10
<b>3. The Evidence in Sexual and Reproductive Health</b> .....	<b>11</b>
3.1. Family Planning .....	11
3.2. Safe Abortion Services .....	21
3.3. Sexually Transmitted Infections (STIs) .....	22
3.4. Gender-Based Violence (GBV) .....	24
3.5. Access to SRH for Adolescents .....	26
3.6. Access to SRH for marginalised populations .....	29
<b>4. The Evidence in Maternal and Neonatal Health</b> .....	<b>31</b>
4.1. Antenatal Care .....	31
4.2. Delivery Care .....	33
4.4. Summary of evidence in MNH .....	49
<b>5. Further Issues for Consideration</b> .....	<b>50</b>
5.1. Regulation .....	50
5.2. Dual Practice .....	51
5.3. Accreditation .....	51
5.4. Fragile states .....	52
5.5. Crowding-out and crowding-in .....	53
5.6. Gender differences in the evidence .....	53
<b>6. Options for engaging the private sector</b> .....	<b>55</b>
6.1. Working with the for-profit, formal sector .....	55
6.2. Working with the informal sector .....	57
6.3. Working with the not-for-profit sector .....	58
<b>7. Conclusion</b> .....	<b>60</b>
7.1. Expanding access for the poor .....	60
7.2. Quality of care/products .....	62
7.3. Cost-effectiveness .....	64
<b>Annex 1: Bibliography</b> .....	<b>66</b>

## Abbreviations

ANC	Antenatal Care
BCC	Behaviour Change Communication
BPL	Below Poverty Line
CBHI	Community-Based Health Insurance
CBW	Community-Based Workers
CCTs	Conditional Cash Transfers
CDKs	Clean Delivery Kits
CHI	Community Health Insurance
CHS	Commune Health Stations
CPR	Contraceptive Prevalence Rate
CSOs	Civil Society Organisations
CSWs	Commercial Sex Workers
CYPs	Couple Years of Protection
EmOC	Emergency Obstetric Care
FBOs	Faith-Based Organisations
FP	Family Planning
GBV	Gender-Based Violence
JSY	Janani Suraksha Yojana
LBW	Low Birth Weight
MNH	Maternal and Neonatal Health
MVA	Manual Vacuum Aspiration
NGOs	Non-Governmental Organisations
P4P	Pay for Performance
PMTCT	Prevention of Mother to Child Transmission
PPH	Postpartum Haemorrhage
QOC	Quality of Care
RH	Reproductive Health
SDIP	Safe Delivery Incentive Programme
SES	Socio-Economic Status
SMART	Safe Motherhood Applied Research and Training
SRH	Sexual and Reproductive Health
STIs	Sexually Transmitted Infections
TBAs	Traditional Birth Attendants
YFS	Youth Friendly Services

## Executive Summary

Most poor people in most poor countries get most of their healthcare from private rather than public sources. This paper reviews current evidence about the way in which the private sector delivers Sexual and Reproductive Health (SRH) and Maternal and Neonatal Health (MNH) services. The paper focuses on three particular issues – equity, quality and cost-effectiveness.

The private sector covers all health providers who are not directly managed and paid by the state. It includes for-profit and not-for-profit providers in the formal sector (who are generally trained, and licensed to practice or sell medicines), as well as the mass of informal providers, and shop-keepers who sell medicines.

The review draws mainly on evidence published in peer-reviewed journals, and grades the strength of the evidence using WHO's scale of 1-5. 'Grey' literature is included where it meets a minimum standard. A range of sources were searched, and about 50 papers on SRH and 100 papers on MNH were included in the final review.

Although there is some published literature on private healthcare in developing countries, most of it is about market interventions in the way providers organise their work, the majority of them donor-funded. These have been divided into two categories – 'service delivery' such as training or franchising, and 'financing' such as vouchers.

### Equity

Very few of the studies reviewed here provide any evidence on the question of equity. The population, households or patients being studied are rarely differentiated by socio-economic status. On the other hand, many interventions were targeted at the poor, for example by being located in poor areas, or by access being restricted to those in receipt of some other benefit such as government-run schemes providing cash or subsidised food to the poor.

The strongest evidence for government and donor-funded interventions involving the private sector to improve access for the poor came from three types of intervention – social franchising for family planning; government-run Conditional Cash Transfers (CCTs) for antenatal care (ANC) and safe delivery by public, NGO and for-profit providers; and governments contracting private providers to provide obstetric care. CCTs in India and Mexico have increased utilisation of ANC and safe delivery services by the poor, because the subsidy is targeted at the poor. Contracting can be a successful supply-side intervention, for example in Cambodia with NGOs and in Gujarat, India with for-profit obstetricians, improving access for the poor while motivating the providers. There is also some evidence that social marketing is effective at widening access (though obviously it does not reach the very poor who cannot afford to pay for the product or service). Making a highly effective drug such as misoprostol, for the prevention and treatment of post-partum haemorrhage (PPH), available to informal private providers at village level and thus to the poorest women, has a strong equity effect.

### Quality

There is strong evidence that quality of care (QOC) given by private providers can be improved by selected interventions. Training private providers in family planning (FP) and, as noted above, enabling them to dispense misoprostol; giving vouchers for SRH to marginalised groups such as sex-workers; and social marketing of clean

delivery kits, all work well to improve quality. Conditional cash transfers also improve the quality of antenatal care, but their impact on family planning quality has not been assessed.

Training might be expected to improve QOC, as might franchising, but the evidence for both is mixed. Training community-based workers to administer injectable contraceptives has expanded both choice and quality almost everywhere, but training TBAs in safe delivery, and pharmacists and private providers in syndromic management of STIs, has had mixed results. Reimbursing private providers through CCT and voucher schemes improved the quality of ANC in Mexico and of SRH for marginalised groups in Nicaragua by compensating providers to provide adequate numbers of services and adequate nutritional supplements. Moreover, there is some moderate evidence that if contracting and vouchers are set up as competitive schemes, they push providers to do better by their clients in order to increase business for themselves.

### **Cost effectiveness**

Of the three criteria, there is least evidence for cost-effectiveness. It is rare to find a prospectively designed study that has built cost-effectiveness in from the beginning. A few strong studies point to the cost-effectiveness of contraceptive social marketing globally; of SRH vouchers for high risk groups in Nicaragua; and of community-based administration of misoprostol for prevention of PPH in India.

### **Sexual and Reproductive Health (SRH)**

For SRH, the strongest evidence for market interventions showed that franchising can expand private sector access to family planning for the poor; social marketing of FP messages and products can improve access for everyone (though not necessarily the poor) and raise awareness and knowledge; that private sector community-based workers can be trained to administer injectable contraceptives with a high quality of care; that social marketing is as or more cost-effective than other channels for getting contraceptives to those who want them and for increasing demand, and for reaching adolescents; and that vouchers can improve QOC for marginalised populations, and is cost effective compared to having no voucher program to expand access to SRH.

### **Maternal and Neonatal Health (MNH)**

The strongest evidence in support of market interventions in MNH is that conditional cash transfers provide better access to ANC for the poor, and better QOC; and that social marketing can expand access to iron and folic acid supplements for pregnant women. To improve safe delivery, conditional cash transfers and contracting give the poor better access and can improve quality of care, while social marketing of clean delivery kits can improve QOC. In postpartum care the administration by community-based private providers of misoprostol to prevent and treat PPH gives better access for all, better quality of care, and is cost-effective compared to home births attended by a TBA whose only recourse for PPH was to arrange referral.

### **Other Issues**

The literature on six other issues is also reviewed: regulation; dual practice; accreditation; fragile states; crowding-out and crowding-in; and gender. (This literature is generally descriptive so we have not rated the strength of the evidence).

There is little in the public health literature about government regulation of the private health sector in developing countries. What has been examined (and not very critically) mostly concerns private pharmacies and does not specifically address SRH/MNH issues. Yet regulation (or lack thereof) is especially important for the poor

as they not only waste money on providers or products that do not work and which keep them sick, but they are further impoverished by fees and charges.

Dual practice, by which salaried public sector providers operate private practices at the same time, raises particular issues with respect to the poor, as such providers usually provide better quality care with shorter waiting times at their private clinics. The literature suggests that there are no easy solutions to abuse of dual practice, though one point of consensus is that context-specific reasons for dual practice must be understood before designing any regulatory or other response. Few experts advocate an 'all or nothing' approach.

There is little discussion in the literature on accreditation for SRH and MNH. It used to be that only governments could regulate, and only professional associations could accredit, but nowadays these functions are being taken over by private entities. For example, franchising is a way of combining non-state regulation and accreditation by an agency other than a professional association. Franchising, insurance, voucher and contracting schemes can deny participation to non-performing or non-compliant providers, though not all do so.

There are many examples of SRH and MNH services being delivered in fragile states, mostly by NGOs. But there is little in the literature evaluating these interventions. Weak government and the absence of bureaucratic impediments in fragile states means there are opportunities for innovation and for scaling-up faster than would be possible in a more peaceful situation, but the results are often difficult for government to oversee and regulate, and the short-term gains may be at the expense of longer-term strengthening of the overall health system.

We did not find a single study providing adequate evidence about the impact on the whole market of introducing subsidised products and services. The main concern is that new entrants to the commercial sector will be discouraged (crowding out), but where the financing mechanism is set up to encourage competition among providers, there is a potential for spill-over improvements in quality of care throughout some or all of the market.

As for gender, the great majority of the evidence for MNH focuses on women, which seems appropriate and obvious except in the case of communications campaigns targeted at male involvement. The SRH literature should, but does not always, have something to say about gender, often because the study design does not account for or is not aimed at finding sex differentials in outcomes. Men often self-treat STIs with inappropriate medicines bought without a prescription from shops, but there is little evidence about this.

### **Options for Engaging the Private Sector**

There is a broad range of options for working with the for-profit formal sector (doctors, nurses, etc.) in SRH/MNH, from training to contracting to voucher schemes. Options for engaging the informal sector (TBAs, drug sellers, traditional healers etc) are more limited, but include provision of subsidised products through social marketing, and training and ongoing supervision through social franchising/accreditation. But their status as unlicensed providers does make it difficult for governments to engage the informal sector. Working with the not-for-profit sector (NGOs, faith-based organizations, etc.) requires government or donor funding to this sector for franchising, social marketing, voucher management, and contracted service delivery. There are options for engagement at all levels but these vary greatly by context and scope.

## 1. Introduction

As the Terms of Reference (TORs) for this review point out, for-profit companies and service providers and non-profit organisations (such as NGOs, faith-based organisations and community-based organisations) provide a substantial share of health care in developing countries. The five-yearly Demographic and Health Surveys (DHS) suggest that the private sector provides 51% of health care in Sub Saharan Africa, 66% in South-East Asia and as much as 79% in South Asia.<sup>1</sup>

To date, most government and donor-funded initiatives to improve maternal, newborn and reproductive health have tended to focus on what can be done to improve skills, resource management and referral systems within the public sector. The additional impact that could be achieved through the private sector has received little attention.

But there is some evidence that the private sector will not naturally emphasize reaching the poor, and efforts need to be made to ensure better targeting. Because of this, the TORs conclude that 'A more systematic approach to the role of private sector delivery and its impact in delivering SRH and MNH for the poor is needed.' Two questions are posed:

- What is the evidence that the private sector can deliver SRH and MNH for the poor?
- What is and is not 'best practice' in private sector delivery of SRH and MNH interventions?

Johns Hopkins University (JHU) produced a paper for the World Bank in April 2010 on 'Engaging the Private Sector in Maternal and Neonatal Health in Low and Middle Income Countries'. DFID then commissioned this evidence review from JHU.

For the purposes of this review, the 'private sector' is understood to be the non-governmental sector in which the health providers are not directly managed and paid by the state. The private sector is comprised of a vast array of providers and other stakeholders who can be found in the formal and informal sectors. Private sector actors are present at every level of the continuum of care - household, community and facility - and they are involved in a range of functions. These include: patient care, drug and other commodities provision, behaviour change communication (BCC), management of health services, contract management, training and social marketing.

In terms of 'who' is the private sector, we have included the:

- Formal, for-profit sector: physicians, nurses, midwives, other facility staff, trained pharmacists; pharmaceutical, media and other companies;
- Informal for-profit sector: Traditional Birth Attendants (TBAs), traditional healers, drug sellers/ compounders/dispensers, general shops,
- Formal Not-for-profit sector: Non-Governmental Organisations (NGOs), Faith-Based Organisations (FBOs), Civil Society Organisations (CSOs) and educational institutions.
- Informal not-for-profit sector: volunteer Community Health workers;

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<sup>1</sup> More data on the volume of private sector services may be found at the Private Healthcare in Developing Countries website: <http://ps4h.org/globalhealthdata.html>

Section 2 describes the methodology used for the search and selection of the peer-reviewed and grey literature used in this paper, and the way in which we graded the strength of the evidence.

Sections 3 and 4 review the evidence for private sector engagements in Sexual and Reproductive Health (SRH), and in Maternal and Neonatal Health (MNH) respectively. SRH is divided into family planning (FP), abortion, sexually transmitted infections (STIs), gender-based violence (GBV), adolescent reproductive health and reproductive health for marginalised populations. MNH is divided into antenatal care (ANC), safe delivery care, and post-partum Care.

The evidence is reviewed against the three criteria (equity, quality and cost-effectiveness) The narrative gives an indication of the strength of the data and/or of the study design in each cited paper, and this is reflected in an 'Evidence Rating' of 1-5 for each paper. This appears in the reference itself, for example (Janisch, 2010, ER3). Both successful and not-so-successful interventions are described. Where there is simply no evidence to review, this is clearly stated.

Where a paper does not have an Evidence Rating in the reference, this is because it has been cited not as 'evidence' but for some other reason, for example (Walford, 2009) in Section 6.

Section 5 discusses six additional issues relevant to private sector delivery of SRH/MNH services:

- Regulation
- Dual practice
- Accreditation
- Fragile states
- Crowding out and crowding in
- Gender differences in the evidence

Section 6 uses the framework developed in Walford's paper "Should DFID work more with the private sector in health" (Walford, 2009) to present options for governments and donors to engage the private sector to improve access to, quality of and cost effectiveness of SRH and MNH services. There is a table for each of the categories of private sector, organised by health area and market intervention. Each market intervention is evaluated for its potential contribution to achieving the MDGs and serving the poor, risks/challenges to implementation and an initial assessment of the way forward and scaling up.



## 2. Methodology

### 2.1. Analytical framework

Extensive literature in health economics has developed the policy rationale for intervention in health markets by showing how the motivations of patients and providers in the private sector will exclude adequate provision of several public goods in health care. The three leading public goods that are under-supplied by an unregulated private sector are those addressed in this review, namely:

#### 1. Equity - access to care by the poor

There are differences in the degree to which there is a socially shared concern for the poor, but the well-being of the poor is a public good. The low profit margins available to providers from caring for the poor and the low ability of the poor to pay for services will lead to inequality in access for services. (Arrow, 1963)

#### 2. Quality of Care

Health care provision is characterized by asymmetric information in which providers know more about the goods and services that will make the patient healthy than the patient does. Providers can exploit this advantage. If it is costly to provide better quality services, and the consumer cannot observe the quality being provided, then consumers will not receive the optimal quality of services (Arrow, 1963, Rice 1998). Establishing and financing systems that change the providers' incentive to provide high quality is thus a public good. Although regulation is commonly used, it is but one approach to supplying this public good.

#### 3. A Cost-Effective Mix of Services

Although private providers may know of many preventive health interventions that could improve health more cheaply than the curative interventions, their ability to profitably provide these services is inhibited because of insufficient demand. An inefficient mix of services being provided across the population is a drain on scarce resources and improving the mix is a public good. (Reinhardt, 2001)

These are the criteria against which we assess all of the evidence in this review.

Some SRH and MNH interventions with the private sector involve the distribution of drugs such as contraceptives or care such as assisted deliveries. However in the literature reviewed here many of the "interventions" are typically interventions in the way private health providers organize their work in markets. We term these "market interventions", and divide them into those attempting to alter the service delivery side, and those which try to change the financial flows.

Table 1 presents a simple schematic detailing the three criteria, the two major health areas and the interventions therein, and the two categories of market interventions and the corresponding mechanisms within each.

It should be noted that many of the health issues will necessarily overlap, as will the market interventions, in terms of the 'problems' they seek to address. For example, abortion services may be categorized under SRH as well as MNH, while a contracting mechanism may also involve a voucher component. An attempt is made to minimise repetition in the narrative through cross-referencing sections.

**Table 1: The Analytical Framework**

Public health policy goals: The THREE ASSESSMENT CRITERIA	
1) Equity: Ensuring access for the poor 2) Quality of services 3) Cost-effective use of scarce health resources	
Health Issues	
<b>Sexual and Reproductive Health (SRH)</b> <ul style="list-style-type: none"> <li>• Family Planning (FP)</li> <li>• Abortion</li> <li>• Sexually Transmitted Infections (STIs), including HIV</li> <li>• Gender-Based violence (GBV)</li> <li>• Adolescent SRH</li> <li>• SRH for marginalised groups</li> </ul>	<b>Maternal and Newborn Health (MNH)</b> <ul style="list-style-type: none"> <li>• Antenatal Care (ANC)</li> <li>• Delivery care</li> <li>• Post-partum care</li> </ul>
Market interventions	
<b>In service delivery</b> <ul style="list-style-type: none"> <li>• Training</li> <li>• Provision of services</li> <li>• Regulation</li> <li>• Accreditation</li> <li>• Franchising</li> <li>• Marketing subsidised health commodities / social marketing</li> </ul>	<b>In financing</b> <ul style="list-style-type: none"> <li>• Contracting               <ul style="list-style-type: none"> <li>◦ Pay for performance</li> </ul> </li> <li>• Demand-side financing               <ul style="list-style-type: none"> <li>◦ Conditional cash transfers</li> <li>◦ Vouchers</li> </ul> </li> <li>• Insurance</li> <li>• Microfinance</li> </ul>

## 2.2. Search Strategy

The major part of this exercise was a critical assessment of a broad range of peer-reviewed literature to identify the evidence on private sector service delivery and financing strategies in SRH and MNH.

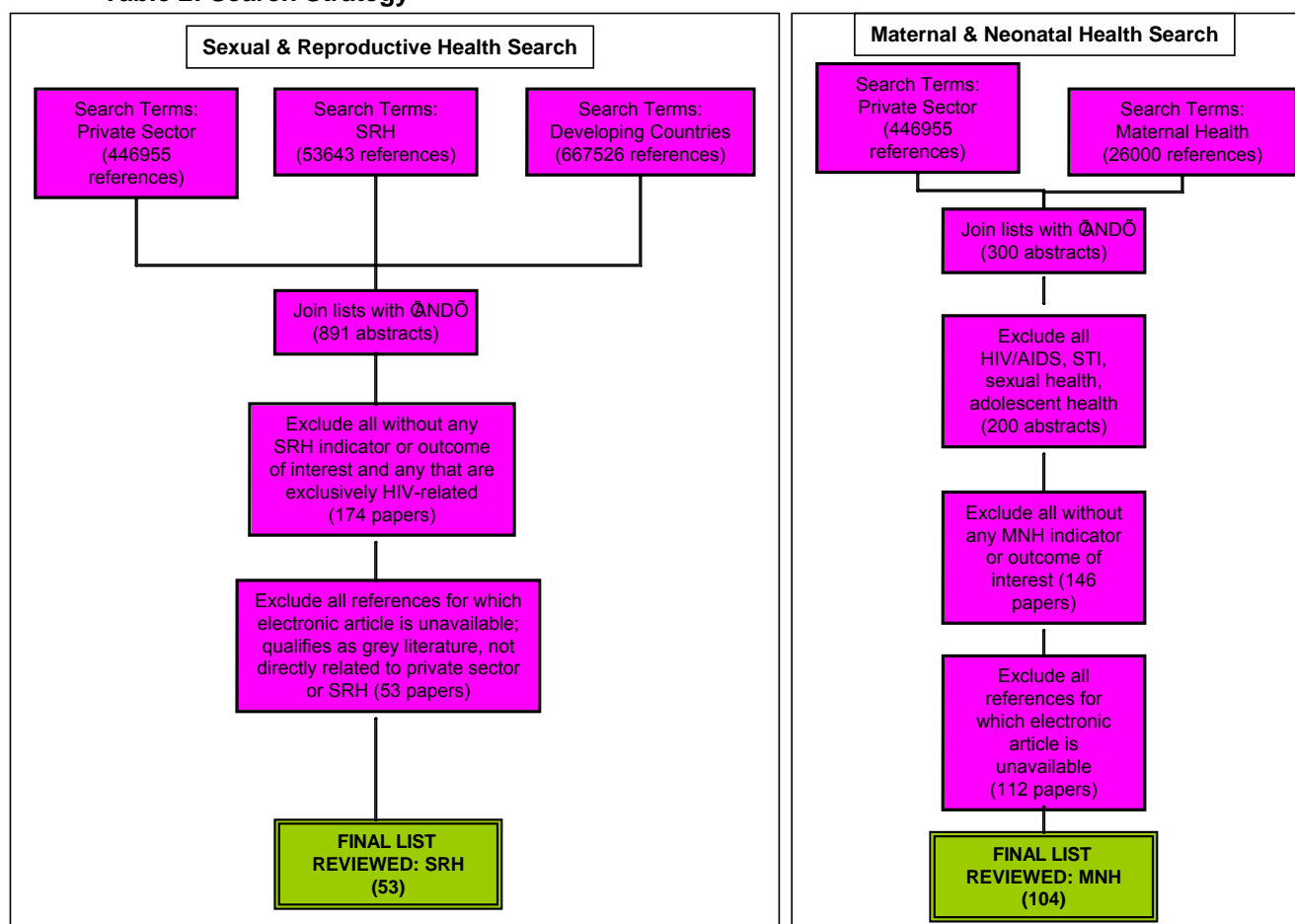
SRH and MNH indicators were not the sole focus of every relevant paper. In many cases, programmes aspired to improve health system performance in a wide range of areas, including SRH and maternal care. To set boundaries, our review omitted studies that were completely generic exercises in improving the function of health systems. Each paper needed to include an overt mention of impact on SRH and/or MNH. Most studies looked at ways to improve the process and function of the health systems relevant to SRH and MNH.

Not surprisingly, almost none of the studies of MNH were large enough to identify reduction of mortality as a primary outcome. Mathematical models are used in some papers to estimate the number of maternal lives saved.

Table 2 below provides a flow-chart of how abstracts from the peer-reviewed literature were screened, and papers reviewed for final inclusion in this paper. Note that the SRH-search algorithm differs slightly from the MNH algorithm as the latter was performed at an earlier date for the World Bank, with slightly different parameters. HIV, including Prevention of Mother to Child Transmission (PMTCT), was deliberately excluded from the MNH search, which also focused more on maternal health than on purely neonatal outcomes.

With respect to SRH, HIV-related studies were included that fell within the wider ambit of integrated STI services and safer sexual behaviour outcomes.

**Table 2: Search Strategy**



## 2.3. Rating the strength of the Evidence

Once the literature search was whittled down to only those studies addressing at least one indicator of interest, all peer-reviewed papers were judged for inclusion in this paper on a scale of 1-5. The methodology was adapted from the GRADE quality assessment criteria developed by WHO (WHO Recommendations for the Prevention of Postpartum Haemorrhage, Geneva, 2007, Annex 3).

5 = Randomized community or health facility-based trial; large sample size; strong statistical analysis; strong conclusions.

4 = Quasi-experimental design; reasonable sample size; conclusions based on statistical analysis; or for a review article, includes meta-analysis or systematic review and provides strong data-based conclusions.

3 = Secondary data analysis and/or descriptive data analysis; sample size large or small; some statistical analysis.

2 = Descriptive; small sample size; weak conclusions.

1 = Faulty study design; OR no statistical analysis; OR weak conclusions.

Grades were assigned by two reviewers in the case of SRH papers and three reviewers for the MNH papers. If their initial grades were different they discussed the grading and settled on one.

To illustrate this process, take two papers that study the impact of training on maternity care. Alisjahbana et al did a longitudinal matched case-control study of TBA training in Indonesia, following 2275 intervention and 1000 non-intervention pregnant women who sought care from TBAs. They looked at six major outcomes of interest. (Alisjahbana, 1995) The strong design of the study, large sample size and successful efforts to match intervention and non-intervention women combined with a set of clear conclusions led this paper to receive a grade of '5.' Conversely, Chukudebelu et al conducted an evaluation of an intervention to train 15 aides from four private maternity facilities in Nigeria. (Chukudebelu, 1997) Given the low sample size, the use of a pre- and post-training written test to evaluate impact of the training and minimal analysis, we rated this paper as '1.'

## 2.4. Supplements from the Grey Literature

The second part of this review included informative case studies, anecdotes and project reviews from discussions with key informants and experts as well as from the grey literature. Specifically, we sought out internal research papers from implementing agencies such as Population Services International and Abt Associates; looked at relevant World Bank, WHO and UNFPA reports and working papers; and reviewed references cited by HLSP for another review done for the DFID Private Sector retreat in July 2010. Papers and case studies were selected if they contribute to the core evidence-base of peer reviewed literature. Even if rigorous statistical analysis was not performed, a good description of an interesting model or intervention merited inclusion in this review.

As with the peer-reviewed literature, we have included only those pieces from the grey literature which evaluate market interventions, and excluded those which simply provide background information about the intervention.

## 3. The Evidence in Sexual and Reproductive Health

### 3.1. Family Planning

Family planning can be readily categorised under both SRH and MNH, given its direct relevance to both. We include the analysis of FP in both. Some of the market interventions discussed – such as franchising – are applicable more widely to reproductive health (RH), inclusive of FP. (Note, condom use for disease prevention is covered in the STI section).

#### **Market interventions in Service Delivery**

##### **3.1.1.1. Training**

Training is a leading strategy to improve quality and cost-effectiveness of FP service delivery. Very little of the literature is devoted to evaluation of training interventions in FP, in and of themselves. (It is worth noting at the start that there is little about pre-service training in FP).

There are interventions to expand method choice by training lower level workers – be they public or private sector. Administration of injectable contraceptives by community health workers was found to be generally “safe and effective” in a recent evidence review of 16 projects in nine countries. (Stanback et al, 2010 ER 3). Some of the providers who were trained were staff in private sector pharmacies and drug shops. While the review seems to have been done well, this paper only presents a summary of the results, giving enough detail only to merit an evidence rating of 3. The review explicitly flagged the need for future research to examine the quality and safety of programs that train people working in private pharmacies to administer injectable contraceptives.

A large-scale example of an FP training initiative is the Gold Star Clinic Program in Egypt (Robinson, 2007, ER2). Robinson did not do an objective evaluation of the Gold Star programme, and hence cannot show evidence of effectiveness. One part of years of investments by major donors and the government of Egypt designed to expand access to FP services and commodities has been the USAID-funded Clinical Services Improvement Project. The resulting CSI Association has now become an NGO that accredits for-profit and NGO facilities (such as those of the Egyptian Family Planning Association, EFPA). CSI provided in-service training at existing and new EFPA clinics and they soon became models of care – so much so that the government followed suit by implementing a similar ‘Gold Star’ program for public facilities (Khalifa, et al. 2001). The government’s efforts led to the development of a quality checklist against which both public and private sector FP clinics were rated. Clinics that passed the checklist were awarded the Gold Star to display and given cash rewards that were often used to reinvest in the clinics. The success of this project started a cascade of other projects under which a total of 3800 facilities were involved, with 1450 of them accredited with the Gold Star by 1998. (Robinson, 2007, ER2. See also JHU *Communication Impact!* Nov 1998).

**Table 3: Assessment of TRAINING in FP against the 3 criteria**

Intervention and Context	Three criteria of assessment			Evidence Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Training informal providers to administer injectables in Latin America and Asia	Not assessed	Safe and effective administration of injectables by public and private sector Community-Based Workers (CBWs)	Not assessed	3-4	Phillips, 1982; Garza-Flores, 1998; Leon, 2001; Fernandez, 1997; McCarraher, 2000; Stanback, 2007
Training independent private providers followed by quality rating system in Egypt	Not assessed	Improved	Not assessed	2	Robinson, 2007

### 3.1.1.2. Franchising

Unlike the “one-off” training discussed above, which does not include any contractual arrangements for sustaining behaviour change, more recent literature on FP training for the private sector includes building an ongoing relationship with the providers. The term “social franchising” encompasses these strategies.

Social franchising represents a type of ‘contracting’ whereby a (typically) private provider agrees to join a branded franchised chain and maintain certain quality standards, and often pays an agreed fee structure. In exchange, the franchising agent (often an INGO such as PSI) does demand-generation such as interpersonal communication and mass media advertising; trains the clinic staff; supplies products such as contraceptives, and sometimes equipment. Franchise members usually agree to join and stay as active participants because of the promise of increased business. (Stephenson, 2004, ER3)

Several studies on franchising FP and SRH have been reviewed here. Overall, the papers seem to be of strong quality (mostly rated 3-4) with reasonable sample sizes and competent study designs. Taken as a whole, the various studies show strong evidence of the impact of franchising to increase uptake of FP services, and moderate evidence of increased utilisation by the poor. The papers also present moderate evidence of improved QOC. Only the paper by Shah et al (Shah 2009, ER4) addressed cost effectiveness, and was not able to provide conclusive evidence in this regard.

Stephenson et al (2004, ER3) did a comparative review of three franchise experiences from Ethiopia, Pakistan and India.

- The Ethiopian ‘Ray of Hope’ network was run by Pathfinder International and provides FP and RH services in three regions with membership from formal (clinic-based physicians/nurses) and informal sector (TBAs, CBWs) providers.
- In Pakistan, Greenstar (affiliated with Population Services International) and Key (affiliated with Futures Group) networks were compared, though the latter was primarily socially marketing pills and injectables and never claimed to be a

'franchise' as it did not provide the ongoing support from visiting doctors which is a central part of Greenstar's operation. Both were largely urban-based and offered FP services and branded FP commodities.

- The Indian Janani network, which operates in Bihar and aims to expand access to FP, STI and abortion services and products to the rural areas through formal and informal providers as well as shops.

The authors reported mixed results for almost every indicator they attempt to measure across the three settings, except that franchise clinics acquired more family planning clients than non-franchised ones. Only in Pakistan did the franchised clinics get more clients with other reproductive health needs – such as for ANC, delivery, and tetanus toxoid immunisation. There was little or no evidence that franchised clinics attracted more poor clients than they had before.

Shah et al (Shah 2009, ER4) developed a more comprehensive measure of FP service quality and re-analyzed the Pakistani and Ethiopian data from the Stephenson paper. Shah's analysis was able to compare franchised private FP providers to non-franchised FP private providers. In both countries, the franchised ones delivered better quality of care than the non-franchised ones. In Pakistan, franchised and non-franchised providers both drew 20-21% of their patients from the lowest socioeconomic quintile. In Ethiopia, franchised providers drew 22% whereas non-franchised private providers drew 29% from the bottom quintile. This may have been because providers self-select into franchising arrangements (the survey was not prospective so it could not verify this), so we cannot be sure how much of the impact is due to the contractual arrangement and how much is due to self-selection (Shah, 2009, ER4). There is a lesson here for monitoring any pro-poor impact of this or indeed any intervention with for-profit providers, that the baseline needs to be done before the intervention even starts.

McBride and Ahmed (2001, ER2) looked at Greenstar's impact on the poor and argue that access to FP services and products had increased among urban low-income groups, because Green Star chooses areas where poor people live as sites for franchised clinics. (The paper also assumes that if a private clinic in one of these areas has signed up for Green Star then ipso facto the range of family planning services and products increases). (McBride, 2001, ER2).

Agha (2007, ER3) undertook a study of the Sewa franchise network in Nepal operated by the Nepal Fertility Care Centre. The Sewa network of paramedics and nurses was launched to offer quality FP, STI and other RH services and products in the rural district of Rupandehi. The authors show that while quality of care improved under franchising, uptake of reproductive health services did not, most likely because there were plenty of other providers of similar services. Moreover, the data supports a possible 'substitution effect' whereby existing FP users switched from non-franchise to Sewa clinics. (Agha, 2007, ER3).

Decker and Montagu (2007, ER2) evaluated the youth SRH services offered by the providers of the Kisumu Medical Education Trust (KMET) franchise network in Kenya. Though the study design had relatively small sample sizes, the authors found a 'marginally statistically significant increase' in that youth visiting KMET clinics were more likely to receive FP counselling and to be using a modern method than youth visiting non-franchise clinics. (Decker, 2007, ER2).

**Table 4: Assessment of Franchising in FP against the three criteria**

Intervention and Context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost -Effectiveness		
Social franchises in Ethiopia and Pakistan	Franchised providers drew 21-22% of their clients from bottom asset quintile	Private franchised providers had better quality of care than private non-franchised	Franchised providers high cost per client in Ethiopia, lower cost per client in Pakistan	4	Shah, 2009
Social franchises in Ethiopia, India and Pakistan	Non-specific increase in utilisation of FP services across all 3	Mixed results	Not assessed	3	Stephenson, 2004
Social franchise in Pakistan	Urban poor benefited but difficult to control prices across clinics	Standardising quality across franchises problematic	Not assessed	2	McBride, 2001
Social franchise in Nepal	No clear increase in utilisation	Improved	Not assessed	3	Agha, 2007
Social franchise in Kenya	Slightly increased likelihood of receiving FP method	Improved	Not assessed	2	Decker, 2007
Social franchise in Vietnam	Suggestion that lower-income groups may use franchised outlets more; Increased use of franchise sites by existing clients but not by new clients; never married women not accessing franchise services as much as ever-married	Repeat use by existing clients indicates improved perceived and actual QOC	Not assessed	4	Ngo, 2010

A recent study (Ngo, 2010, ER4) looks at a government-led initiative to brand and franchise public sector Commune Health Stations (CHS) in Vietnam to increase uptake of RH and FP services. In a pilot 38 out of 191 CHS were franchised in two provinces, with services and fees standardised across franchises. Training was provided in conjunction with Marie Stopes International while a professional marketing agency was hired to generate demand through print media and television.



A quasi-experimental design was used to evaluate franchised clinic performance against controls on the indicators of RH service use and FP service use. The authors found that during the period of the intervention, client volumes increased at franchised CHS and declined at non-franchise sites, but that the increase in volume was due to repeat visits from the same clients as opposed to new clients. This might indicate better counselling at the franchise clinics to encourage clients to return with problems and questions, but does not necessarily support the claim of widening access to services. Moreover, RH and FP services were accessed more frequently at the franchise sites by ever-married women, suggesting that never-married women preferred to go elsewhere. Farmers (who are generally lower income in Vietnam) tended to use the franchise clinics more than non-farmers (Ngo, 2010, ER4).

### 3.1.1.3. Social Marketing

Social marketing combines theories of behaviour change with commercial market practices to promote concepts, products and behaviours of social value. The term “merit good” is used to refer to products and services whose promotion is in the society’s interest. Social marketers essentially “sell” merit goods (Chapman, 2003) and society’s interest in distributing these goods enables social marketers to justify receiving public subsidies to facilitate wider distribution.

*Strength of the evidence:* Harvey (2008, ER4), Chapman (2003, ER4) and Barberis (1997, ER4) have performed reviews of multiple social marketing programs, yielding strongly rated papers while Van Rossem (2000, ER4) uses a strong study design with large sample size to assess the Horizon Jeune program. These studies provide moderate strength evidence that SM increases access to FP products and messages, though access by the poor is not measured. Barberis provides strong evidence of the cost effectiveness of CSM. In studying the question of price/income and utilisation, both Ciszewski (1994, ER3) and Agha (1997, ER3) have done well-designed studies of Bangladesh and Pakistan to give moderate evidence that increasing price has a negative impact on utilisation (though direct causality could not be established).

Social marketing has contributed to increasing the Contraceptive Prevalence Rate (CPR) in various countries by delivering an increasing share of Couple Years of protection (CYPs). Harvey notes that over the period 1985-2005 CYPs from social marketing grew 9-fold, whereas overall CYPs only doubled. (Harvey, 2008, ER4). In Pakistan, social marketing’s share of CYPs has increased every year for the last four years (Greenstar project report, 2009).

As social marketing is supported by public and philanthropic subsidies, these efforts need to expand the total market for contraceptives, not just take over the public or commercial sector’s share of the market. A ‘total market approach’ provides free contraception to the poorest. As a consumer’s income increases and/or preferences grow more sophisticated, he/she can be persuaded to switch to a ‘higher end’ product within the same method category, the higher price of which can then cross-subsidise cheaper products for more consumers (Harvey, 2008, ER4). Eventually, the social marketing consumer may ‘graduate’ to a full-priced product from the for-profit commercial sector, while the poorest of the poor and those not in the cash economy will still continue to rely on the free products offered by the public sector.

Chapman and Astatke (2003, ER4) of PSI conducted a systematic review of social marketing for DFID in 2003 in which they covered 29 studies of RH/FP programs.

They found that social marketing is effective in expanding access to FP/RH knowledge, services and products and in effecting positive behaviour change. With respect to equity, the authors note that the socio-economic status (SES) profile of social marketing consumers tends to be lower than that of consumers of commercial brands and higher than that of those who use public sector product – supporting the premise of the Total Market Approach. However, not enough evidence could be found to support social marketing's overall impact on equity. Quality of care is not directly addressed in the FP/RH studies reviewed by Chapman (Chapman, 2003, ER4).

Van Rossem (2004, ER4) and Meekers evaluated the PSI-sponsored "Horizon Jeune" social marketing programme to promote adolescent reproductive health products and services in urban Cameroon. The analysis yielded positive statistically significant differences in condom sales and FP use among youth before and after exposure to the campaign when compared with youth who had never exposed to the campaign (Van Rossem, 2000, ER4).

**Pricing** Three studies have looked at the question of price, two of them at the impact of price increases and one at whether income effects purchase. Not surprisingly, all three conclude that price does matter.

In Bangladesh condom sales fell by 29% after the price went up by 60%. (Ciszewski, 1994, ER3). In Pakistan, the price of both SMP's socially marketed condom and that of the government's condoms doubled, after which condom sales plummeted by over 70%. This was the same year that SMP decided to sell its condoms to the market segment of low-income groups, indicating the delicate balance between the competing objectives of sustainability and serving the poor (Agha, 1997, ER3). As a corollary, Agha also found that the lower people's income, the less likely they are to use modern methods of FP. (Agha, 2000, ER4).

**Cost effectiveness** Barberis and Harvey have reviewed 14 large family planning service delivery programs according to dollars spent per CYP; in their review, CSM remains the second most cost-effective 'delivery modality', behind sterilisation and ahead of clinics not offering sterilisation, and community-based distribution. (Barberis, 1997, ER4).

**Table 5: Assessment of Social Marketing in FP against the three criteria**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost -Effectiveness		
Review of CSM programs globally	Couples using SM FP products increased 800% in 20 years	Not assessed	Not assessed	4	Harvey, 2008
Evidence review of SM programs, 29 of which are FP/RH	Not enough evidence to address equity	Not assessed	Not enough evidence	4	Chapman, 2003
PSI <i>Horizon Jeune</i> SM program in urban Cameroon	Increase in condom sales and FP use by youth	Not assessed	Not assessed	4	Van Rossem, 2000
Study of 14 large FP programs globally	Not assessed	Not assessed	CSM is second most cost effective delivery modality	4	Barberis, 2000
<b><i>Pricing/Income</i></b>					
Study of impact of price increase on SM commodities in Bangladesh	Poor are negatively impacted by CSM product price increases; financial access to contraceptives severely affected	Not assessed	Not assessed	3	Ciszewski, 1995
Study of impact of price increase of condoms in Pakistan	Poor are negatively impacted by condom price increases; Financial access to condoms severely affected	Not assessed	Not assessed	3	Agha, 1997
Study of association of income and modern method use in Pakistan	Low income is negatively associated with modern method use; Low income is a deterrent for modern method use	Not assessed	Not assessed	4	Agha, 2000

**Market Interventions in Financing****3.1.1.5. Conditional Cash Transfers (CCTs)**

CCTs are government programmes that give money to a (usually) means-tested target group *conditional* on the recipients performing certain actions (though using family planning is rarely one them). Most of the evidence comes from large-scale CCT programs in Latin America. In this

section we review papers that address using CCTs to promote FP, but will revisit CCTs later as we evaluate their role in other areas of SRH and MNH.

Mexico's *Oportunidades* targets low-income rural households. It started in 1997 and remains one of the largest and most documented CCT programmes in the world. Feldman et al (2009, ER4) applied a solid study design with large sample size to provide strong evidence that *Oportunidades* did not have any impact on FP use and spacing (neither was a condition). They found small, but significant, positive effects on FP use and spacing at the first time point in 2000, but saw this effect disappear by 2003. There was no difference in FP use between poor rural beneficiaries and non-beneficiaries.

These findings on FP are somewhat echoed in Stecklov's review of Mexico's *Oportunidades*, as well as other CCTs in Honduras and Nicaragua and their effect on fertility. The programme in Honduras incentivised families to such an extent with child services benefits that fertility actually went up a bit, which was an unintended consequence. The CCTs had no effect on fertility in Nicaragua and Mexico, signalling that other factors have a greater bearing on contraceptive use than just financial and geographic access. (Stecklov, 2007)

**Table 6: Assessment of the impact of Conditional Cash Transfers on FP**

Intervention and context	Three CRITERIA of assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of impact of <i>Oportunidades</i> CCT in Mexico on FP use	<i>Oportunidades</i> was means tested to deliver benefits exclusively to the poor; it has not had an impact on increasing FP use and birth spacing	Not assessed	Not Effective for FP use hence not cost effective	4	Feldman, 2009

### 3.1.1.6. Vouchers

Voucher programmes distribute a voucher that entitles the recipient to get free or subsidised services from providers (who may be private, NGO or government) who are enrolled in the scheme. Most voucher schemes have been funded by donors and managed by an agency set up for the purpose. Vouchers can be targeted to means-tested beneficiaries, and the providers can be pre-specified and quality-tested. Governments and donors select a range of agencies to run these programmes.

Four studies on three voucher programmes are reviewed here, from Kenya, Cambodia and Nicaragua. None of the papers use complex analysis, but the results are positive and (unsurprisingly) show that vouchers lead to higher use of subsidised services. The sample sizes for two of the Nicaragua studies are small, while the other two have larger sample sizes.

Janisch et al (Janisch, 2010, ER3) have recently published preliminary findings from a voucher scheme implemented in five districts in Kenya. This was launched in June 2006 and distributed subsidised vouchers to means-tested women for Safe Motherhood, Family Planning and Gender Violence Recovery Services. The

scheme was designed to offer women choice, as the vouchers could be redeemed at any one of several accredited public, for-profit private and faith-based providers. Janisch et al are doing a pre/post comparison of uptake of IUDs and implants (so-called 'long-term methods') which shows that participating facilities are doing more of these than they were before the intervention. The authors attribute the success to a good system of verifying eligibility and targeting the poor; strong voucher management agencies in the five districts; and eager and engaged providers, who said that competition for voucher business motivated them to improve quality.

Meuwissen and colleagues (Meuwissen, 2006a, ER4) have published a series of papers on a large-scale voucher program to promote adolescent SRH services in Nicaragua. This scheme distributed almost 30,000 vouchers to youth, entitling them to access services at any of four government, ten NGO and five private for-profit clinics. One study (with a small sample size) was specifically designed to evaluate the effectiveness of the program in improving and sustaining FP service quality. Statistically significant effects were seen for joint (i.e. provider-client) decision-making on method adoption.

A second study of the same programme, also with a small sample, found increased knowledge of contraception among the participating providers, but no improvement in attitudes towards contraceptive use by adolescents (Meuwissen, 2006b, ER3). A third paper looked at the question of access and equity of services using a quasi-experimental design with a large sample size. Overall, recipients of vouchers had better knowledge but not higher use of FP than non-recipients. (Meuwissen, 2006c, ER4).

Considering the reasonable study designs, the evidence on vouchers seems credible enough to be able to conclude that well-targeted and well-monitored voucher schemes can improve some aspects of access and quality of care.

**Table 7: Assessment of Vouchers for FP against 3 criteria**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Study of RH/maternity care/GBV voucher scheme in 5 districts of Kenya	Vouchers were targeted well to the 'economically disadvantaged'; Increased uptake of FP counselling and modern method adoption	Quality of services maintained through strong monitoring of contracts	Not assessed	3	Janisch, 2010
Study of impact of voucher scheme to increase RH/FP services use by poor adolescents in Nicaragua	Not assessed	Improved FP product provision and joint decision making	Not assessed	3	Meuwissen, 2006a
	Not assessed	Mixed results	Not assessed	3	Meuwissen, 2006b
	Voucher scheme designed for poor adolescents; Better knowledge of FP, but no increased FP use among voucher recipients	Not assessed	Not assessed	4	Meuwissen, 2006c

### 3.1.1.7. Financing

In many countries small-scale financial support has been given to private sector providers to establish or improve their business, though generally all at limited scale. Almost none of these involve SRH, but there is one paper evaluating an FP-related microfinance initiative.

Chee et al (Chee, 2003, ER2) evaluated the Summa Foundation's support to a single large medical centre in Nairobi, AAR Health Services. Note that a study of just one facility is weak evidence. The support comprised a loan for capital expansion, clinical training and technical assistance in marketing. This was designed specifically to increase new acceptors of FP among its membership, enable AAR to provide a full range of FP services and to shift FP service delivery from the public to private sector in a cost-effective manner. The evaluation showed that it was easier for AAR to meet the terms of their financial agreement by attracting FP users from competitors, than persuading existing clients to become new users of FP. The main reason for new FP users switching to AAR was the improvements that the new financing enabled, notably that AAR got a face-lift and received free advertising to generate demand for

their services. Among the brand-switching clients, this was highly cost-effective if one only considers the number of new FP users coming into AAR, but in the eyes of the donors who sought to use the loan as a pay-for-performance tool, the AAR experience failed to transform money into an increase in the total number of people using FP.

**Table 8: Assessment of Financing for FP against 3 criteria and in context of poverty**

Intervention and context	Three criteria of assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Study of MF support to AAR facility in Nairobi to increase FP use	No assessment of this, but poor unlikely to use the large urban clinic	Improved	Not cost-effective in serving new FP users	2	Chee, 2003

## 3.2. Safe Abortion Services

There are few studies evaluating interventions to improve access, quality, and cost effectiveness of private sector abortion. A significant sub-section of the abortion literature addresses the issue of sex-selection abortions, which, while largely promoted through the private sector, will not be discussed in this paper.

### Market Interventions in Service Delivery

#### 3.2.1. Training

There is literature on the need to train pharmacists on the proper dispensing and use of medical abortifacients (Lara, 2006; Billings, 2009), but no corresponding evaluations can be found of interventions to do so. It is the same with training the informal sector such as TBAs and traditional healers as ‘facilitators’ to access safe abortion services (Ramachandar, 2002; Duggal, 2004b). Other than pieces documenting the substantial fees charged by the private sector for abortion (Duggal, 2004a), we have not come across papers that rigorously evaluate interventions among private abortion providers.

The grey literature describes several programmes to improve abortion service delivery through the private sector. These include training of providers in the use of manual vacuum aspirators (MVA), training in medical methods such as misoprostol or mifepristone, and training to improve counselling. A recent study by the Population Council estimated that there are over 900,000 induced abortions every year in Pakistan by a wide range of private sector providers (trained obstetricians, nurses, traditional healers, TBAs and others) (Sathar, 2007, ER1). Providers can be trained in a franchise setting as in the case of Janani in India (Ref: Montagu, 2002) while distribution of MVAs and medical abortion can be promoted through branding and social marketing – as IPAS is currently doing with MVAs through its marketing partner WomanCare Global (IPAS, 2010).

### 3.2.2. Franchising

The Janani franchise network in Bihar, India includes abortion (Montagu, 2002) while the Ray of Hope franchise network in Ethiopia (Stephenson, 2004) and Greenstar (Dawn, 2008) in Pakistan both offer post-abortion care. PSI is currently promoting branded medical abortifacients through pharmacies in Nepal, Cambodia and India (PSI, 2010). US-based Gynuity Health Projects is partnering with international NGOs and pharmaceutical companies to introduce medical abortion and/or misoprostol for post-abortion care in new settings (Gynuity, 2010).

No studies have looked at the cost-effectiveness of specific abortion promotion services in the private sector.

### **Market interventions in financing for abortions**

Nothing specific to abortion can be found in the literature on market interventions to promote demand-side financing. It is possible that microfinance, insurance and/or voucher schemes exist to promote SRH/MNH service access that includes abortion services as one of its components, but this is not explicitly stated in any of the studies reviewed here.

## 3.3. Sexually Transmitted Infections (STIs)

This section reviews the evidence around market-based interventions to promote access to, quality of, and cost-effectiveness of STI services.

The literature provides ample evidence of two things - self-treatment for STI symptoms, primarily through pharmacies and drug shops; and provision of STI treatment by various actors in the private for-profit and not-for-profit sector, informal and formal. Abellanosa has found that most commercial sex workers in Cebu, Philippines used antibiotics without prescription for prophylaxis and treatment of presumed STIs (Abellanosa, 1996, ER2). Similarly, 75% of clients attending STI clinics in Ghana had self-treated with antimicrobials before coming to the clinic (Adu-Sarkodie, 1997).

On the pharmacy side, several studies have been conducted, mostly using simulated clients with STI symptoms as well as in-depth questionnaires, to assess the level of STI knowledge and practices among pharmacy staff and drug-sellers. All attest to poor knowledge of the national or WHO syndromic management guidelines, wrong drug selection and/or improper drug dosing (Viberg, 2009; Chalker, 2000; Kwena, 2008, ER2). A Zambian study of traditional healers showed that they routinely recommend herbal remedies to clients with STI symptoms, to induce diarrhoea and vomiting (Ndulo, 2001, ER1). Nuwaha et al found that 60% of people with STIs in a rural district of Uganda sought care from a traditional healer and/or self-treated.

In South Africa private general practitioners were found to prescribe cheaper, poorer quality and less convenient drugs to their poorer patients with STIs (Chabikuli, 2002, ER2). Other studies from Uganda and India reiterate that people perceive poor quality in the public sector and better quality in the private sector; that poorer people tend to use the public sector; and that people tend to choose the same sort of provider as their social peers. (Nuwaha, 2006; Rani, 2003).



## **Market interventions in Service Delivery for STIs**

### **3.3.1. Training**

This review found only one evaluation of an STI- training intervention targeted at pharmacists in the peer-reviewed literature. Adu-Sarkodie et al used a case-control study with simulated patients to assess the effectiveness of training on people working in pharmacies who claimed to be pharmacists, in Accra in Ghana. While the sample was too small to detect statistically significant differences, the study (a case-control design comparing those outlets which had received training with those which had not did record improvements in syndromic management at all pharmacy outlets that had received training (Adu-Sarkodie, 2000, ER3).

More papers have been published on training formal sector private providers. In Bangladesh an ICDDR,B project (Matlab) has trained physicians and established STI services for men within 4 MCH clinics, each serving a population of 25,000. This has been thoroughly described (Hawkes, 1998; Collumbien, 2000) but not yet evaluated. Walker et al's randomised control trial over 5 years in Uganda covered a population of 176,000 with 36 participating private providers. They found that the intervention group showed significantly higher likelihood of proper diagnosis, correct treatment and adequate drug stocks. (Walker, 2001, ER3)

**Table 9: Assessment of Training on STI Services**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of impact of training of pharmacists in syndromic mgmt in Accra	Not assessed	Training of pharmacy outlets improved syndromic management but not condom counselling (underpowered study)	Not assessed	3	Adu-Sarkodie, 2000
Study of impact of training of private providers in Uganda	Not assessed	Training of private providers improved QOC	Not assessed	3	Walker, 2001

### **3.3.2. Social marketing of products and services**

Though PSI and other NGOs have been marketing STI treatment kits (typically a full course of antibiotics, educational pamphlets, provider referral cards and condoms) for several years now, only one study could be found to evaluate such an intervention. The MSTOP project in Cameroon marketed a branded STI kit to 22 primary health care clinics and three pharmacies. The study showed that patients seemed responsive to the marketing and adherent to the regimen. However, providers had not been adequately oriented and counselled on syndromic management, resulting in distrust by them of the product, which they were reluctant to sell. (Crabbe, 1998, ER3).

**Table 10: Assessment of social marketing for STIs**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of PSI MSTOP program to SM STI kits in Cameroon	Pharmacy sales of STI kits shows expanded use; no assessment of the poor	Not assessed	Not assessed	3	Crabbe, 1998

**Market Interventions in Financing for STIs**

One study was identified which evaluated a financing intervention to address expansion and improvement of access to, quality of care of and/or cost- effectiveness of STI services. This is described below in Section 3.6.2.

**3.4. Gender-Based Violence (GBV)**

Only two GBV-related interventions have been evaluated and published in the peer-reviewed literature. There is some grey literature on GBV interventions, almost all of which are by NGOs and fairly small scale.

**Market Interventions in Service Delivery**

This review could not find any papers evaluating private sector service delivery models in GBV.

Wagman (Wagman, 2010)<sup>2</sup> may yield some insights, as she is just completing an evaluation into a community-based initiative to prevent physical and sexual interpersonal violence in Rakai district, Uganda, in a research collaboration between Makerere University and the Bloomberg School of Public Health at Johns Hopkins University.

**Market Interventions in Financing**

The Kenyan voucher scheme (Janisch, 2010, ER3, described above in the FP section) sought to improve access to gender violence recovery services through the provision of free vouchers to poor women. The services included clinical assessment by a trained provider, radiology and other lab tests, drugs, surgical procedures and counselling. The only data collected was number of vouchers disbursed, redeemed and reimbursed. It is worth noting that the design was changed midway to provide the vouchers free-of-charge, as GBV was considered to warrant free and immediate access to services (unlike FP or safe motherhood).

The IMAGE project in Limpopo Province, South Africa (Intervention with Microfinance for AIDS and Gender Equity) compares villages (all very poor) receiving a combined MF and health intervention with ones receiving only MF, and ones receiving nothing, using mixed methods to evaluate impact on a number of indicators of interest. Over a dozen papers have been published out of the IMAGE project, of which three have addressed GBV. The cluster randomised trial has a good sample size and seems to be well-designed. Three papers are of note.

<sup>2</sup> Manuscript submitted to *Journal of Violence against Women*

Hargreaves et al (Hargreaves, 2010, ER3) found that the HIV training, community mobilization and counselling training could be successfully rolled out and scaled up alongside a conventional MF intervention. Pronyk (Pronyk, 2008, ER3) then studied the effect of the intervention on reducing GBV and HIV risk through the generation of social capital as a mediator. While the study design, power and proxies used to measure social capital all seem valid, the authors' strong favourable conclusions are not justified by the statistical results, which are marginally significant at best. Finally, one of the most recent papers (Kim, 2009, ER4) evaluates the addition of the HIV/GBV component to the MF core intervention and its impact on health outcomes. The combined intervention shows decreased risk of experiencing GBV in the previous year compared with the villages that had no intervention at all, and fewer people condoning GBV compared with the MF only group. All other GBV outcomes showed no significant differences.

**Table 11: Assessment of microfinance and health intervention on GBV**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Combined MF and health intervention in rural Limpopo province, South Africa	More poor women living in Limpopo Province could potentially benefit from the intervention; Potential to scale up IMAGE intervention good	Not assessed	Not assessed	3	Hargreaves, 2007
	Marginally significant results showing generation of social capital (among the poor participants) may lead to reduced GBV/HIV risk	Not assessed	Not assessed	3	Pronyk, 2008
	To the extent that the intervention population is poor, the addition of GBV/HIV component reduced the poor's risk of experiencing GBV; Adding GBV/HIV component to MF intervention shows decreased risk of experiencing GBV	Not assessed	Not assessed	4	Kim, 2009

## 3.5. Access to SRH for Adolescents

### Market Interventions in Service Delivery

#### 3.5.1. Training

A partnership led by the Lusaka District Health Management Team in collaboration with the international NGOs CARE, John Snow International (JSI) and UNICEF trained providers and peer educators and set up 'Youth Friendly RH services' (YFS) in Zambia. All eight of the YFS clinics and two non-YFS clinics were evaluated (Mmari, 2003, ER3). While the intervention itself is relatively small in scale (8 clinics), the use of mixed methods to evaluate impact strengthens the quality of the study. While the YFS clinics scored higher on the 'youth-friendliness' measures, utilisation of the YFS clinics was no better compared to the controls. In the absence of strong community support, youth continued to visit traditional healers for their needs. This study did not provide a socioeconomic profile of the youth accessing services.

**Table 12: Assessment of Youth Friendly Services intervention for ARH against 3 criteria and in context of poverty**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of impact of multi-NGO implemented project to run youth friendly service clinics in Zambia	Utilisation of YFS clinics no better than non-YFS clinics due to absence of community support; no assessment of the poor	Youth friendliness scores were higher in intervention clinics	Not assessed	3	Mmari, 2003

#### 3.5.2. Social marketing of ARH products and messages

PSI's social marketing program in Cameroon was targeted at youth to increase awareness and use of ARH products and services. An early evaluation (Van Rossem, 2000, ER4) using before-and-after cross-sectional surveys showed significant positive increases in awareness and use of condoms, as well as improvements in sexual behaviours and self-efficacy among youth. The programme later used mass media and interpersonal communications to promote condom use and/or abstinence among adolescents. Using the same sort of before-and-after surveys Plautz et al (Plautz, 2007, ER4) were able to show good coverage of the target group as well as substantial increases in condom use with males showing increased use with casual as well as regular partners. No difference on frequency of sexual activity was found as a result of the abstinence component of the campaign.

Neither of the studies comments on the interventions' impact on the poor.

**Table 13: Assessment of Social Marketing interventions for ARH against 3 criteria and in context of poverty**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of PSI Horizon Jeune SM programme for condom/HIV in urban Cameroon	No assessment of impact on the poor	Not assessed	Not assessed	4	Van Rossem, 2000
Study of PSI 100% Jeune SM programme in urban Cameroon	No assessment of impact on the poor	Not assessed	Not assessed	4	Plautz, 2007

### **Market Interventions in Financing**

#### **3.5.3. Microfinance and health intervention**

The IMAGE project (see discussion in the GBV section above) attempted to enhance intra-parent-teen communication about sex and HIV in a component implemented alongside a microfinance intervention. This well-designed cluster randomized trial has yielded two papers which give moderate to strong evidence of improved intra-household communication on HIV and sexuality.

Phetla (Phetla, 2008, ER3) found that adults reported improved communications with their own or their friends' children regarding sex and sexuality. However, children did not report improvements in communicating with their parents. The qualitative analysis from the study shows improvements in the quality of communication with more specific and actionable messaging. Kim et al (Kim, 2009, ER4) found only one measure to be significant, namely improvement in intra-household communication in the micro-finance-and-health combined intervention group compared with the no-intervention group. No differences were found when compared with the MF-only group.

**Table 14: Assessment of Microfinance and health intervention on ARH**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Combined MF and health intervention in rural Limpopo province, South Africa	Not assessed. Adults reporting better/more communication with children but not vice versa	Quality of communication in household improved	Not assessed	3	Phetla, 2008
	Access by poor not assessed.	Not assessed	Not assessed	4	Kim, 2009

### 3.5.4. Vouchers for ARH

The Nicaraguan voucher programme (see the FP section above) was specifically targeted at adolescents. (Meuwissen, 2006c, ER4) showed a predictable increased use of SRH services and knowledge of STIs among youth who redeemed vouchers – they had self-selected into the sample. Another study with a weaker study design and small sample size (based on only 16 simulated patients compared to 3009 real ones for the other study) found that voucher recipients perceived the quality of care of the SRH services to be better than it was before the voucher scheme (though female voucher users who were mothers or pregnant did not report this). (Meuwissen, 2006d, ER3).

**Table 15: Assessment of Vouchers for ARH against 3 criteria and in context of poverty**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of impact of voucher scheme to increase RH/FP services use by poor adolescents in Nicaragua	Not assessed	Improved STI knowledge and ARH practices of providers	Not assessed	3	Meuwissen, 2006b
	Voucher scheme is designed for poor adolescents, but did not get vouchers to out-of-school youth (presumably poor) as well as to youth in school. Increased use of SRH services and knowledge of STIs among youth who redeemed vouchers	Mixed results	Not assessed	4	Meuwissen, 2006c
	Not assessed	Improved perceived QOC by youth but not among females with children	Not assessed	3	Meuwissen, 2006d

One of the three Nicaragua voucher studies is better designed (rating = 4) than the other two (rating = 3) which either have small sample sizes or limited outcome measures. Hence, we would qualify the evidence as moderately strong in presenting the voucher scheme's positive impact on QOC and access to SRH services.

### 3.6. Access to SRH for marginalised populations

With respect to expanding access for *marginalised populations*, three studies are reviewed here which address promoting SRH services to commercial sex workers (CSWs) and other high risk populations.

#### **Market Interventions in Service Delivery**

##### **3.6.1. Commercial Sex Workers**

Carrera et al (Carrera, 2005, ER3) analysed two clinics run by MSF-Holland in Cambodia which targeted CSWs. The data showed good uptake of SRH services by both CSWs and non-CSWs, though with higher STI cure rates among the latter group. Moreover, a cost and cost-effectiveness analysis revealed higher overall costs than expected and low cost-effectiveness over time of the programme.

A study from India (Guinness, 2005, ER3) looked specifically at the role of scale in determining the cost-effectiveness of 14 NGO-sponsored SRH programmes targeting CSWs in Andhra Pradesh and Tamil Nadu states. The authors identified a U-shaped average cost curve pointing to the need for context-specific consideration of the optimal size and costs of such programmes. Neither of these studies provided a socio-economic profile of the beneficiaries.

**Table 16: Assessment of SRH Services for the Marginalised**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by marginalised groups	Quality of Care	Cost - Effectiveness		
Study of SRH service delivery for CSWs in Cambodia	Increase in uptake of SRH services by CSWs and general population in Cambodia, indicating a targeting problem	Good cure rates for STIs	Declining cost-effectiveness over time	3	Carrera, 2005
Review of cost-effectiveness of SRH service delivery programs for CSWs in Tamilnadu and Andhra Pradesh	Not assessed	Not assessed	U-shaped average cost curve suggests consideration of optimal scale of programmes to determine greatest cost-effectiveness	3	Guinness, 2009

## **Market Interventions in Financing**

### **3.6.2. Vouchers**

The voucher scheme providing SRH services to these high-risk groups was more expensive than the status quo or 'no scheme', it had far higher rates of successful STI treatment than 'no scheme', suggesting that the scheme is cost-effective in meeting the public health goal of reducing disease burden because the targeting is so good and the treatment under the voucher scheme is much more effective (Borghi, 2005). The study did not comment on the scheme's impact on the poor.

**Table 17: Assessment of Vouchers for SRH Services for the Marginalised against the three Criteria and in the context of the poor**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by marginalised groups	Quality of Care	Cost – Effectiveness		
Study of vouchers for SRH for marginalised groups in Nicaragua	Not assessed	Higher rates of cured STI cases in voucher redeemers than non-redeemers	Cost effective in the context of higher rates of STI cure	4	Borghi, 2005

### **3.1.7 Summary of evidence in SRH**

The strongest evidence for market interventions in SRH are:

- By raising awareness and knowledge, social marketing of FP messages and products can improve access for everyone who is reached by the advertising and promotion. (Harvey, 2008, Chapman, 2003, Van Rossem, 2000)
- Private sector community-based workers can be trained to administer injectable contraceptives with a high quality of care (Robinson, 2007, Stanback, 2010 and 2007)
- Social marketing is as or more cost-effective than other channels for getting contraceptives to those who want them, and for increasing demand among those (Barberis, 1997)
- Social marketing can expand access to ARH products and messages (Van Rossem, 2000, Plautz, 2007)
- Vouchers can improve QOC for marginalised populations, and is cost effective compared to having no voucher program to expand access to SRH (Borghi, 2005)



## 4. The Evidence in Maternal and Neonatal Health

This section presents a discussion of market interventions to promote antenatal care (ANC), delivery and postpartum care. Most of them are part of larger projects that address the continuum of maternity care. We include interventions that improve neonatal health where this is included in the design or strategy *alongside* maternal outcomes. We do not review evidence that addresses neonatal outcomes alone, as this would go beyond the scope of this paper.

### 4.1. Antenatal Care

#### Market Interventions in Service Delivery

##### 4.1.1. Social marketing of iron-folic acid supplements

A series of papers have been published on a public-private partnership to produce and market iron-folic acid supplements to women of reproductive age in Vietnam, Philippines and Cambodia respectively. (Berger, 2005, ER3; Garcia, 2005, ER1; Kanal, 2005, ER2) These studies are generally of poor quality, but they all report increased brand recognition and increased use of the supplements by women. They do not break these down by socio-economic status.

**Table 18: Assessment of Social Marketing of iron-folic acid supplements**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
SM program for iron-folic acid supplements in Vietnam	Good brand recognition and use by target group; no assessment of impact on the poor	Not assessed	Not assessed	3	Berger, 2005
SM program for iron-folic acid supplements in Philippines	Increased brand awareness among target group; no assessment of impact on the poor	Not assessed	Not assessed	1	Garcia, 2005
SM program for iron-folic acid supplements in Cambodia	Increased knowledge of anaemia and intention to continue using; no assessment of impact on the poor	Not assessed	Not assessed	2	Kanal, 2005

## **Market Interventions in Financing**

### **4.1.2. Conditional Cash Transfers**

One of the aims of the Mexican conditional cash transfer (CCT) programme 'Oportunidades' has been to improve birth outcomes through better maternal nutrition and improved quality and utilisation of ANC services by low-income rural women.

*Barber et al* did well-designed studies to evaluate this, which give strong evidence to support their positive impact on improving QOC, increasing birth weight (due to prenatal nutrition supplements) and increasing utilisation of ANC among poor women. The first study (Barber, 2008, ER4) assessed quality as well as utilisation of ANC services, using the number of procedures (such as measuring fundal height and checking blood pressure, for example) as a proxy for quality of care. They found that providers who participated in the CCT programme performed a significantly higher number of recommended ANC procedures than those from the control group. Beneficiaries received a significantly higher number of prenatal procedures than non-beneficiaries. (Barber, 2008, ENR4)

**Table 19: Assessment of CCTs on Antenatal Care**

Intervention and context	Three CRITERIA of assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Study of impact of <i>Oportunidades</i> CCT in Mexico	Positive impact on rural poor women; Increase in uptake of ANC services among CCT participants	Improved QOC among participating providers	Not assessed	4	Barber, 2008
	Positive impact on rural poor women; Decreases in LBW and increases in BW indicating good uptake of nutritional supplements mandated of pregnant women	Not assessed	Not assessed	5	Barber, 2008
Effectiveness trial in Honduras of CCT vs. supply side cash support to increase ANC, PNC, child healthcare	Intervention rolled out in 70 of poorest municipalities so poor did benefit; Increase in uptake of ANC among household CCT arm compared to service improvement arm	Not assessed	Not assessed	4	Morris, 2004

The CCT programme included nutritional supplementation. Barber found that birth-weight increased and that the incidence of low birth weight (LBW) babies also

significantly declined. These results can be directly attributed to the nutritional supplements, which all pregnant women had to take as a condition of receiving the cash (Barber, 2008, ER5).

Prior to Barber's work, Morris et al (Morris, 2004, ER4) did a robust evaluation of a trial in Honduras which randomly assigned the 70 municipalities with the highest levels of malnutrition to one of three interventions - CCT, strengthening local health teams, and both of these. A control group received neither intervention. All participating municipalities were rural and most of the people were poor. Three indicators were monitored using mothers' reports - ANC, postnatal care (PNC) and use of child health services. There were significant increases (18-20%) in ANC utilisation in municipalities receiving CCT-only, with no similar finding in the service delivery strengthening arm of the trial. (CCT+service also saw significant increases but the authors downplay this as the service component was not well implemented due to difficulties in transferring funds to the local health teams. This was a well designed evaluation, but not an entirely well implemented intervention).

## 4.2. Delivery Care

### Market Interventions in Service Delivery

#### 4.2.1. Training

There is little evidence that training private sector providers to improve their MNH skills works. The only results in the published literature are associated with social franchising (Ngo, 2010, Agha, 2007 and Shah, 2009). Two descriptive studies from Nigeria (Chukudebelu, 1997, ER1) and India/Yemen (Geyoushi, 2003, ER1) discuss some positive results of very small-scale efforts to train hospital aides, and physicians and nurses respectively. In Indonesia TBAs and private physicians and community-based midwives in health centres and birthing homes were trained, and community mobilisation was done as well. TBAs were more likely to refer complications, but the overall rate of facility-based delivery remained low (Alisjahbana, 1995, ER5).

The Population Council piloted the *Safe Motherhood Applied Research and Training (SMART)* project in two districts of Pakistan (one intervention and one control site). This very labour-intensive intervention combined training of TBAs, other community members and government health staff with extensive community mobilisation. The project saw similar results in terms of skilled birth attendance, ANC and TBA referral rates among both sites but the intervention district exhibited a statistically significant decline in perinatal mortality from 81 to 63 per 1000 live births. Use of CDKs increased significantly in the intervention site only. (Population Council, 2006, ER3).

The evidence on training TBAs is unclear. Ever since WHO changed its policy on TBAs in the early 90s, discouraging the full integration of TBAs into health systems and advising against formal training for them, researchers have turned to the question of what role TBAs can play in reducing mortality, and especially in referring women with complications to a facility.

**Table 20: Assessment of Training on Delivery Care**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of small training effort among hospital aides in Nigeria	Not assessed	Improved QOC among participating private hospital aides but small sample size, poor study quality	Not assessed	1	Chukudebelu, 1997
Study of small training effort among physicians and nurses in India/Yemen	Not assessed	Improved QOC among participating private physicians and nurses but small sample size, poor study quality	Not assessed	1	Geyoushi, 2003
Training of TBAs, midwives & physicians along with community mobilisation, facilities/ transportation upgradation in Indonesia	Not assessed	TBAs still did 85%+ of deliveries with poor referral rates. BUT, in intervention area, significantly more women likely to deliver at a facility if they had intrapartum complications.	Not assessed	5	Alisjahbana, 1995
Study of intervention to train TBAs and public sector facility workers along with community mobilisation in a rural district of Punjab, Pakistan	Increase in use of CDKs; impact on poor not assessed	No significant improvement in QOC	Not assessed	3	Population Council, 2006
Review of evidence of TBA training programmes and referral rates	Not assessed	TBA training can lead to small effects on TBA referral & maternal service use	Not assessed	5	Sibley, 2004a
Meta-analysis of TBA training studies globally	Not assessed	TBA training can lead to improved knowledge, attitude, practices with only small decreases in peri-neonatal mortality	Not enough evidence to assess	5	Sibley, 2004b
Study of a trial to train TBAs in rural Larkana District of Sindh province in Pakistan	Intervention was implemented in a largely rural, poor district so the poor benefited from the perinatal death decreases	Training TBAs associated with reductions in perinatal mortality but not MMR	Not assessed	5	Jokhio, 2005

Sibley et al suggest that the quality of studies around this question is poor, that the process of TBA danger sign recognition and referral is complex, and that overall, the effects of training on maternal outcomes and TBA behaviour may be small at best (Sibley, 2004a, ER5). A more comprehensive meta-analysis on TBA training and pregnancy outcomes reveals similar unimpressive results on referral and EmOC utilisation patterns (Sibley, 2004b, ER5).

Jokhio et al found significant reductions in perinatal mortality in a poor district in Sindh, Pakistan attributable to TBA training with provision of clean delivery kits, but no analogous findings for reducing maternal deaths (Jokhio, 2005, ER5). Other than studies deploying misoprostol to TBAs, there is no literature that suggests that simply training TBAs is associated with reductions in maternal mortality.

#### **4.2.2. Promotion of free Clean Delivery Kits**

While many TBA training programmes include training and use of clean delivery kits (CDKs), two strong papers look at the CDK question on its own. Balsara et al (Balsara, 2009, ER4) found significant improvement of most delivery practices by TBAs and other birth attendants in Egypt after training on and provision of CDKs free of charge to TBAs and pregnant women. Moreover, more women being served by those TBAs using the CDKs went to ANC. Darmstadt and colleagues were able to show a decrease in umbilical cord infections in the newborn and a small but statistically significant decrease in maternal puerperal infections in a study of the same intervention in Egypt (Darmstadt, 2009, ER4). Neither study presented a socioeconomic profile of the beneficiaries of the intervention.

**Table 21: Assessment of CDK Provision to TBAs and Pregnant Women**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Study of provision of CDKs to TBAs and mothers in Egypt	Increased rates of ANC for TBAs using CDKs; impact on poor not assessed	Improved QOC of most delivery practices among TBAs using CDKs	Not assessed	4	Balsara, 2009
	Not assessed	Improved delivery practices for TBAs using CDKs as evidenced by decreased umbilical cord and puerperal infections	Not assessed	4	Darmstadt, 2009

#### 4.2.3. Expanding Skilled Birth Attendance at the Community Level

('Community level' is defined as at home or in a community-based birthing centre, or at the midwife's home.)

In developing countries, discussion has been underway about harnessing the private sector cadre of midwives to ameliorate the human resource crisis in skilled attendance. In South Asia, for example, thousands of trained midwives are either completely inactive, or active in the health sector doing everything but delivering babies (British Council, 2005). Midwives are not practicing their trade either because they are not employed by facilities to do so (they are hired more as nurses aides), or because it is difficult to start a private midwifery practice (British Council, 2005).

In a purely descriptive study, Rolfe et al (Rolfe, 2007, ER1) studied a group of 60 midwives retired from government service in Tanzania who had attempted to set up private practices following a legislative change allowing this. Most faced substantial logistical and financial difficulties in start-up, business management and maintenance of the practice. Moreover, there was little demand for their services as most of the people were poor and expected to access these midwives' services for free as they did when the midwives worked in the public sector.

**Table 22: Assessment of Private Midwifery Practices in Delivery Care**

Intervention and context	Three criteria of assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of set up of private practices by retired govt midwives in rural and periurban Tanzania	Under-utilisation of private midwifery services due to expectations of services from the public sector; Did not increase access to midwifery services in these poor communities	Not assessed	Not assessed	1	Rolfe et al, 2008

#### 4.2.4. Facility-based interventions

We can comment on the strength of the evidence for the impact of financing schemes (which we do under the Financing Market Interventions section below) but there is little or nothing on private sector providers' quality of clinical care. Nor is there any literature comparing the impact on the poor as opposed to the non-poor.

#### 4.2.5. Social Franchising

Franchising has been discussed at length under the FP section of this paper. The studies provide moderate evidence that franchising can result in increased utilisation of services in general, and can increase or maintain utilisation by the poor. The studies do not provide conclusive evidence supporting superior cost-effectiveness of franchising. These examples include franchises that offer a range of ANC, delivery and/or postnatal care services. The relevant franchise networks reviewed under the FP section of this paper are Sewa in Nepal (Agha, 2007, ER4), Ray of Hope in Ethiopia, Janani in India, and Greenstar in Pakistan (Stephenson, 2004, ER3; Shah, 2009, ER4), and the Government Social Franchise in Vietnam (Ngo, 2010, ER4).

#### Market Interventions in Financing

#### 4.2.6. Conditional Cash Transfers

The Government of India's *Janani Suraksha Yojana* (JSY), a large-scale CCT to increase ANC and institutional deliveries was reviewed in 2010 (Lim, 2010, ER5). JSY began in 2005, giving cash to eligible (i.e. poor) pregnant women in better-off states, and to all pregnant women in the ten 'focus' states with the highest NMR and MMR. The CCT is in exchange for three ANC visits at either public or private facilities, and then either an institutional delivery (again public or private) or a home birth with a skilled birth attendant.

Lim's review is a well-designed study with large sample sizes, and provides very strong evidence of the positive impact of the CCT in increasing ANC and institutional deliveries, though it did not always reach the poor. The study found significant increases in uptake of ANC and institutional deliveries among women receiving the JSY benefit, but large state-to-state variations. The analysis by SES shows that not all of the poorest, least-educated women have benefited from the scheme. In fact, a

positive association was found between uptake of services and level of education and household wealth, indicating that there were non-financial barriers to uptake, and highlighting the need to refine the targeting algorithms of the scheme.

While the Lim study did not assess quality of care per se, the authors suspect that the reason for the limited impact on maternal mortality may have been that QOC declined, with the rapid increase in demand for maternity services without concurrent improvements in infrastructure and human resources.

Powell-Jackson et al (Powell-Jackson, 2009, ER3) did a qualitative study early on in the implementation of Nepal's Safe Delivery Incentive Programme (SDIP) to illuminate the key factors hindering progress of this CCT. The SDIP gave cash to any woman delivering in a facility or at home with a skilled attendant; gave an incentive to the health workers involved in the delivery; and provided free health care to women from the 25 poorest districts. While this is a government-sponsored CCT involving mainly public sector maternity services, the cash incentives for providers can be likened to the sort of 'Pay-for-performance' scheme often employed by the private sector. The authors attributed the overall poor performance of the intervention to poor communication of the programme details to district level bureaucrats and families; unclear system for verifying eligibility; uncertainty of donor funding streams; and undermining of other areas of the health system.

**Table 23: Assessment of CCTs on Delivery Care**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Study of CCT to increase skilled attendance of deliveries in rural Nepal	Has not seen increase in institutional deliveries; Intervention designed to improve access for the poor but targeting was inadequate	Not assessed	Not assessed	3	Powell-Jackson, 2009
Study of national CCT to increase ANC, institutional deliveries and use of SBAs in India	Poor women have benefited but need for better targeting indicated; Significant increase in ANC and institutional deliveries	Not assessed but indications of overburdened maternity facilities	Not assessed	5	Lim, 2010



#### 4.2.7. Vouchers

The two studies below provide weak-to-moderate evidence of the ability of voucher schemes to increase the proportion of poor women who give birth with someone skilled in attendance.

The KfW-funded voucher scheme in Kenya (Janisch, 2010, ER3) is the stronger of the two. The breakdown of providers contracted by the scheme (not utilisation by provider type) was 39% public, 35% private, 19% FBO, and 7% NGO. Described in the FP section above, it also had a Safe Motherhood arm. Janisch et al found significant improvements in the uptake of skilled attendance services by poor women after the introduction of the voucher scheme. The authors attribute this success to the improvements in quality of care fostered by the competitive nature of the scheme (though this attribution is only based on statements of the health providers themselves during a workshop), as well as the availability of extra cash for investment from the reimbursements; a rigorous monitoring and regulation system; and a strong voucher management system.

Ir et al (Ir, 2010, ER2) reviewed a voucher scheme combined with a Health Equity Fund in three rural districts of Cambodia. This is managed by managed by NGOs but implemented by public sector clinics. Vouchers were given for the ANC, delivery and PNC visits while the HEF covered all other related OOP costs (drugs, transportation, etc. This was implemented with the aim of increasing skilled attendance at birth among poor women. The authors note a 'sharp increase' in the utilisation of skilled service providers in voucher districts, but because these districts also had a health equity fund scheme as well as a performance-based contracting programme operating, it is difficult to isolate the effect of the vouchers.

**Table 24: Assessment of Vouchers for Delivery Care**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Study of RH/maternity care/GBV voucher scheme in 5 districts of Kenya	Increase in skilled attendance among poor women	Not assessed directly but indication of improved QOC	Not assessed	3	Janisch, 2010
Study of voucher scheme to increase SBA use in 3 rural districts of Cambodia	Increase in use of SBA but causal link with voucher scheme in question; Targeted at rural poor but results unclear	Not assessed	Not assessed	2	Ir, 2010

#### 4.2.8. Microfinance

Agha (Agha, 2004, ER3) compared 15 private sector midwives in Uganda who received business skills training and micro-finance to improve their practices (with the prospect of more loans after they repaid the initial loan), to 7 who did not receive micro-finance. The clients of the micro-financed clinics graded the quality of care higher than did the clients of the control clinics on four of eight indicators of quality. Women were also more likely to go back to the intervention clinics than were clients of the control clinics. This was competent quasi-experimental design, but the sample size is small and the outcome indicator – QOC as perceived by clients – is not robust enough to draw any useful conclusions about microfinancing as a way of improving quality of delivery care for the poor.

**Table 25: Assessment of Microfinancing in Delivery Care**

Intervention and context	Three criteria of assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Study of 15 MF midwifery clinics in Uganda	Not assessed	Perceived QOC at microfinanced midwifery practices better than at controls	Not assessed	3	Agha, 2004

#### 4.2.9. Insurance

Insurance coverage for health services can reduce financial barriers to women delivering with skilled attendants, by lowering the financial outlay at the point-of-service. A substantial body of peer-reviewed and grey literature exists on insurance reforms and initiatives that are not specific to MNH. We only review papers examining impact of insurance on MNH. The quality of the evidence is reasonable, but the results are mixed.

Soors et al (Soors, 2008, ER3) reviewed the potential of Community Health Insurance (CHI) schemes in sub-Saharan Africa to increase access to emergency obstetric care (EmOC), by doing several case studies, mostly from consultations with implementers. Country analyses include, for example, risk-spreading for EmOC in a CHI scheme in Uganda; a review of obstetric care service coverage among 366 CHI schemes in West Africa; CHI reimbursement of transportation costs in Mali. They draw four conclusions: 1) risk pooling for obstetric emergencies can spread the cost as these are still relatively rare events; 2) financing for obstetric emergencies is prioritised under many CHI schemes as it is viewed as a need from the supply and demand sides; 3) improvements in the supply of EmOC and predictability of fees make this service easier to include in CHI schemes and 4) CHI schemes' coverage of EmOC is complementary to other initiatives aimed at expanding access to EmOC.

Abt Associates in Mali (Franco, 2006, ER3) found that women who participated in the Community Based Health Insurance scheme were more likely to attend ANC (58%) than their uninsured counterparts (35%). It is unclear from the study whether the insurance simply sorted families according to their propensity to use services or actually stimulated new utilisation. Furthermore, insurance was not associated with

an increase in utilisation of skilled birth attendance, nor was there a clear relationship between income and utilisation.

The MURIGA program in Guinea was launched as a pilot in 1997 and now covers 17 districts of the country (c.10% of the population). The plan covers all women of reproductive age (not just the poor) and guarantees ANC, transport for delivery, and facility delivery (vaginal or c-section). Premiums are very low as it is highly subsidised in rural areas. Less than 10% of the target population has enrolled and there are very few facilities with trained staff. QOC is a big problem given that essential obstetric care is often not available at the health centres. But enrolment is limited also because of confusing subscription guidelines and lack of community involvement. The evaluation of this scheme has not provided definitive results, as significant increases were seen in ANC and skilled attendance in both MURIGA and non-MURIGA groups within the same time frame. (Ndaiye, 2008, ER4, Smith, 2008 ER4, Bennett, 2004, ER3).

An insurance plan implemented by the government with social mobilisation done by Caritas Mauritanie started in 2002, and then expanded to other main cities and some rural areas in 2007. It is funded by the Ministry of Foreign Affairs of France. It covers only pregnant women (and not just poor pregnant women) in Mauritania, and has seen promising results. The plan covers all elements of a pregnancy, childbirth (including emergencies) and postnatal care for a fixed fee of US\$22. It was launched in the capital city and has now spread to smaller cities. ANC and assisted delivery rates have seen sharp increases, but the plan may be growing faster than the health system can handle – QOC appears to have declined as evidenced by, for example, decreasing use of the partograph, and increasing haemorrhage case fatality rates. The facilities are not being maintained properly, which also suggest that insurance revenue is being allocated to salaries rather than capital maintenance in these areas (Renaudin, 2007).

National insurance systems are in their infancy, so there is little evidence of better maternal health. Ghana now has over 60% of its population enrolled in a national health insurance scheme, but there has been no accompanying rise in rates of institutional delivery there (Sulzbach, 2009, ER4). The better-off are more likely to enrol in the Ghanaian system, and they are the same people who were already most likely to have a facility delivery. However, household surveys find that participants are reporting lower out-of-pocket expenditures on ANC and delivery care than non-participants.

In reviewing these studies, the impact of insurance schemes on the poor is rarely evaluated. A recent policy brief by Morestin & Ridde (Morestin, 2009, ER3) and reviews this question based on available evidence, albeit not specifically in the context of MNH. They note that the poor are under-represented in most schemes in Africa which were reviewed by the authors, largely because they cannot afford to pay the premium (though innovative payment mechanisms have been tested). No clear conclusions can be drawn about service utilisation by the insured poor as compared with the insured non-poor. However, it is clear that the insured – be they poor or not – are far more likely to use services than the non-insured.

**Table 26: Assessment of Insurance Schemes on Delivery Care**

Intervention and context	Three criteria of assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
Review of Community Health Insurance schemes in Sub Saharan Africa to increase access to EOC	CHIs have potential to increase access to EOC; Risk pooling can spread the cost of EOC adequately to make the premiums more affordable	Not assessed	Not assessed	3	Soors, 2008
Study of impact of CHBI in Mali on SBA use and ANC	Mixed results: scheme saw increased ANC use but no impact on assisted deliveries; No clear relationship between income and utilisation of services	Not assessed	Not assessed	3	Franco, 2006
Study of impact of MURIGA insurance scheme in Guinea to increase SBA/ANC use	Unclear results: both scheme & control groups have increased ANC and delivery utilisation	Lack of infrastructural capacity in EOC	Not assessed		Ndaiye, 2008
Study of Mauritania's obstetric risk insurance scheme	ANC and assisted delivery rates have increased	QOC deteriorating with demand outpacing infrastructural improvements	Not assessed	4	Renaudin, 2007
Study of impact of Ghana's national insurance plan on ANC and deliveries	No increase in rate of institutional deliveries; higher SES people more likely to join plan; Lower OOP costs for ANC and deliveries can have	Not assessed	Not assessed	4	Sulzbach, 2009

Intervention and context	Three criteria of assessment			Rating	Source
	Access by the poor	Quality of Care	Cost – Effectiveness		
	a positive impact on the poor				
Effect of CHIs in Senegal, Mali and Ghana on access to maternity services	Increase in use of delivery services in Mali and Senegal but not in Ghana where only complicated deliveries are covered	Not assessed	Not assessed	4	Smith, 2005
Policy brief on community based health financing	Can improve coverage for all and for the poor	QOC can improve	Not assessed	3	Bennett, 2004
Policy brief on how insurance schemes serve the poor in Africa	Insured utilise services more than uninsured; but the poor are underrepresented amongst the insured; The insured poor are more likely to use (and hence benefit from) services than the uninsured poor.	Not assessed	Not assessed	3	Morestin , 2009

#### 4.2.10. Contracting Services

One solution for expanding and improving health service delivery has been contracting, which is proving popular with donors and governments with rising tax revenues - the former for countries emerging from conflict, or with very weak public health systems, and the latter where private providers are already plentiful and can be enticed to join schemes. Contracting arrangements are typically divided into two categories: contracting out of services and management and contracting in of technical assistance such as management and training. Most schemes reviewed here are the latter. All these studies are good quality and yield strong evidence for the positive impact of contracting on ANC, institutional deliveries and service utilisation in general among the poor. There is also evidence (though less strong) of improved QOC.

Loevinsohn et al (Loevinsohn, 2005, ER5) reviewed contracting of primary health care services. While not addressing MNH outcomes specifically, they concluded that in the contexts where it was used, contracted services were much more effective than government-run services as measured against quality-of-care and other performance indicators. Impact on the poor was not studied. Contracting relationships which afford a greater degree of autonomy to the contractor yielded better results than those with more government control. A general caveat on contracting is that it is most common where government-run services are limited. The literature on contracting does not support claims that it is superior to other administrative systems.

The Chiranjeevi Scheme of the state government of Gujarat in India is a recent and large-scale MNH private sector contracting schemes (Mavalankar, 2009, ER4). After concluding that its own health service could not be improved enough to persuade poor women to opt for institutional deliveries, the government started signing up private sector obstetricians. The state pays each doctor a fixed sum of about \$40 per delivery by women who have a government-issued 'Below Poverty Line' card (BPL). To avoid doctors cherry-picking only uncomplicated cases, they have to sign up for batches of 100 cases at a time (they receive half the anticipated fees up-front as an incentive to join the scheme). They can do more if there is more demand. There is no extra payment for C-sections. Women also get a voucher for transport. A TBA who refers and accompanies a woman to the facility receives a fixed fee from the doctor. The pilot started in Oct 2005 and by Dec 2008 over 850 obstetricians had been contracted with the Government – a number much higher than was expected. (Mavalankar, 2009, ER4).

Two noteworthy reviews have been published on Chiranjeevi: one on service utilisation and one on the financial aspects. Mavalankar et al (Mavalankar, 2009, ER4) have produced a largely descriptive study which explains how the scheme works. They attribute the interest from private obstetricians to the promise of significant additional income. Most importantly, they report that institutional deliveries by the poor have risen from 27% to 50-60%, and the authors estimate that maternal mortality may have fallen by as much as 90% (though not all women who die after being referred to tertiary care are necessarily captured in the data collection).

Bhat et al (Bhat, 2009, ER4) analysed the economics of the scheme and showed that the beneficiaries saved an average US\$75 in out-of-pocket expenditures. The scheme was effective in targeting the poor, but not all poor people chose to use the service, indicating that they faced non-financial barriers as well. Qualitative interviews with clients indicated overall satisfaction with the operation of the scheme. (See also Raman, A. Venkat, Warner James B, Public-private partnerships in health care in India: lessons for developing countries. (p. 72) New York, NY Routledge). .

Since 2003 Afghanistan has seen one of the largest national programmes to contract out primary health care services, mainly to NGOs. Over 75% of the population lives in a district where services have been contracted. While the contracts address all primary health (which is predominantly MCH), there is one study focused on MNH. Arur et al (Arur, 2010, ER4) evaluated three different contracting-out models, with varying degrees of autonomy for the contractor, and one model of contracting-in, and compared these with non-contracted government services. All of the contracting-out models increased service utilisation more than the other two comparators, though, like Loevinsohn, the authors were not able to show that any one model was significantly more effective than the other.

While at least nine countries have large-scale contracting of health services (serving 50,000 to 30 million people), only in Cambodia were districts randomly assigned to contracting-out, contracting-in or no-contracting arrangements, to deliver care through a mix of private and public sector facilities. Bloom et al evaluated this project in 2006, and included key MNH indicators (Bloom, 2006, ER5). The most striking and statistically significant findings were that in the contracting-in districts, ANC visits went up by 36 percentage point and deliveries at a facility by 18 points; in the contracting-out districts deliveries at a facility went up by 30 points. OOP expenditure was lower in contracting-in districts but in contracting-out ones it was no different to the non-contracted districts. Moreover, the authors indicate improvements in QOC, (as defined by) lower absenteeism, increased availability of 24-hour care and increased supervision both set of contracted districts compared to the non-contracted ones. The results between contracting-in and contracting-out were mixed across indicators so the authors were unable to conclude that one was more efficient than the others.

Some governments have been experimenting with a characteristically for-profit sector incentive strategy - pay for performance (or 'P4P'), with bonuses for improvements in utilisation and quality of care. Basinga et al (Basinga, 2010, ER5) have recently published the first rigorous evaluation of a P4P scheme in a low-income country, Rwanda. The rate of institutional delivery increased by 21% and the quality of antenatal care improved by 8% over baseline in the P4P districts, with no change in the non-P4P districts. P4P did not seem to effect whether women have any ANC at all, or on completing four ANC visits – possibly because the bonus for these was smaller. The impact, if any, on neonatal health is harder to tease out. Basinga found that P4P not only incentivised providers to perform better, but actually made more resources available some of the bonus money was spent on improving QOC.

**Table 27: Assessment of Contracting on Delivery Care**

Intervention and context	Three Criteria of Assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
Review of contracting of PHC services globally	Increased utilisation of health services under contracted vs. govt-run care	Improvements in QOC under contracted vs. govt-run care	Not assessed	5	Loevinsohn , 2005
Studies of Chiranjeevi Scheme to contract out maternity care in Gujarat to increase institutional deliveries	Sharp increases in institutional deliveries in Chiranjeevi; Increased access to maternity services for the poor	Not assessed but indication of improved QOC due to competitive nature of scheme	Not assessed	4	Mavalankar , 2006
	Targeting was adequate in Chiranjeevi and therefore expanded access to services to the needy/poor; Decreased OOP expenditures on deliveries have positive impact on poor	Not assessed	Not assessed	4	Bhat, 2009
Study of contracting of PHC services in Afghanistan	Uptake of PHC/MCH services increased in contracted out; Positive impact on the poor, assuming that the majority of post-war Afghans are low-income/poor	Not assessed	Not assessed	4	Arur, 2010



Study of contracting of maternity care in Cambodia	Increases in ANC visits and health facility deliveries in contracted districts; Reduced OOP expenditures at drug sellers and traditional healers due to use of public sector facilities may positively impact poor	Improvement in QOC (24-hr care; less provider absenteeism; increased supervision)	Not assessed	5	Bloom, 2006
Study of Pay for Performance (P4P) scheme in Rwanda to increase institutional deliveries	Rate of institutional deliveries increased	Quality of prenatal care improved; P4P payments reinvested back in practices	Not assessed	5	Basinga, 2010

### 4.3. Postpartum care

#### Market Interventions in Service Delivery

The only market intervention found that deals strictly with postpartum care addresses misoprostol given at home for treatment and prevention of postpartum haemorrhage (PPH). (Prata, 2005, ER5) was a case-control study from Tanzania looking at the effectiveness of training TBAs in the recognition of PPH and treatment with misoprostol in the home. A follow-up (Prata 2009, ER5) was a review of a range of safe motherhood interventions globally and concluded that misoprostol for treatment of PPH (including home-based) is highly effective in saving maternal lives. (Pagel, 2009, ER5) modelled PPH and sepsis in sub-Saharan Africa to determine how effective community-based availability of misoprostol and antibiotics would be in averting maternal deaths.

Recent studies have tested the safety and efficacy of administration of misoprostol at home births by unskilled attendants who have been trained. (Prata 2005, ER5; Prata 2009, ER5; and Pagel, 2009, ER5). These studies are of uniformly high quality and offer very strong evidence for community-based misoprostol administration to prevent and treat PPH. The intervention increases access to PPH prevention at the home; is of high quality; and is cost effective in averting maternal death and disability. None of these studies have looked at the impact on the poor.

Modelling (Pagel, 2009, Sutherland, 2010) shows that administration of misoprostol in the home by a TBA who was trained to do this properly is cost-effective in terms of costs per death averted compared to the standard care that a woman would receive during a home birth i.e. no use of uterotonics in the third stage of labour. (Bradley, 2006, ER3; Prata, 2009, ER5; Sutherland, 2009, ER3; Sutherland, 2010, ER3).

Sutherland (Sutherland, 2010. ER3) compared two strategies: giving misoprostol to 100% of woman at third stage of labour (prevention), and waiting to see which women bled 500cc during third stage of labour and giving misoprostol only to them (treatment). The treatment strategy was cheaper per DALY than the prevention strategy. Both were more cost-effective than doing nothing, but the former is much cheaper for rapid scale-up in resource-poor settings.

**Table 28: Assessment of Community-Based Misoprostol on Postpartum Care**

Intervention and care	Three criteria of assessment			Rating	Source
	Access by the poor	Quality of Care	Cost - Effectiveness		
effectiveness of misoprostol given at home Africa and Asia	Increases access to PPH prevention and treatment in the home; impact on the poor not assessed	Safe and effective administration of misoprostol	Cost effective, i.e., cost saving, in averting maternal death	5	Prata, 2005; Prata, 2009; Pagel, 2009;
effectiveness of misoprostol given at home Africa and Asia	Increases access to PPH prevention and treatment in the home; impact on the poor not assessed	Safe and effective administration of misoprostol	Cost effective, i.e., cost saving, in averting maternal death	3	Bradley et al, 2007; Sutherland, 2009
Simulation study of cost effectiveness of use of misoprostol in India for treatment vs. prevention of PPH	Not assessed	Not assessed	Cost effective in use for treatment & prevention of PPH compared to conventional management of PPH	5	Sutherland, 2010

### **Market Interventions in Financing**

No studies addressing market interventions in financing of postpartum care services could be identified for this review.

## 4.4. Summary of evidence in MNH

The strongest evidence in support of market interventions in MNH are:

In ANC - conditional cash transfers (better access to ANC for the poor, and better QOC); and expanding access in general to iron folic acid supplements for pregnant and reproductive age women.

In delivery care - conditional cash transfers (better access for the poor); contracting service delivery (better access for the poor); and social marketing of clean delivery kits (better QOC).

In postpartum care – community-based administration of misoprostol in home births to prevent and treat PPH (better access for all, better quality of care, and cost-effective compared to home births attended by a TBA whose only recourse for PPH was to arrange referral).

## 5. Further Issues for Consideration

There are six other issues germane to policy-makers' consideration of private sector strategies - regulation; dual practice; accreditation; fragile states; crowding-out and crowding-in; and gender. (This literature is generally descriptive so we have not rated the strength of the evidence).

### 5.1. Regulation

There is little in the public health literature about government regulation of the private health sector in developing countries. What has been examined (and not very critically) mostly concerns private pharmacies and does not specifically address SRH/MNH issues. Smith (Smith, 2009) discusses in general terms the potential role of pharmacies in healthcare; Wijesinghe (Wijesinghe, 2007) describes the compliance of private pharmacies to good pharmacy practice in Sri Lanka, and Goodman (Goodman 2007) has examined the way drug shops in Tanzania sell anti-malarials.

Regulation (or lack thereof) is especially important for the poor as they not only waste money on providers or products that do not work and keep them sick (and may even make them worse), but they are further impoverished. (Xu et al, 2003, "Household catastrophic health expenditure: a multicountry analysis." *Lancet* 362(9378): 111-7). In the discussion of STIs above, we noted how in South Africa private GPs prescribe cheaper, less convenient and poorer quality drugs for STI treatment to lower-income clients, evidence of the vulnerability of the poor in environments where regulation is weak or absent (Chabikuli, 2002).

Feeley et al (Feeley, 2009) make the case that the struggles and failures of regulation represent a two-way phenomenon, as the private sector has legitimate concerns about how the government exercises its stewardship role. Mistrust between public and private sectors is exacerbated by outdated or unreasonable regulatory laws; poor enforcement (often involving corruption); little reward for quality care; and overall, a lack of understanding by the government of the realities of operating a for-profit business.

Tibandebage and Mackintosh (Tibandebage et al, 2005) have looked at the way health care transactions operate in Tanzania, and where there may be opportunities for 'merited trust' and abuse, with particular focus on the poor. They point to case studies of trust-building between providers and poor patients through flexible or deferred payment schemes by faith-based and other non-government organizations. They also cite the potentially positive impact of policy that might institutionalise strong referral networks to reduce transaction costs for the poor, as well as free drugs and services for the poor. (Ref: Tibandebage P and M Mackintosh. 2005. The market shaping of charges, trust and abuse: Health care transactions in Tanzania. *Soc Sci Med.* 61(7): 1385-95).

Bloom (2008) observes that capacity constraints in low and middle income countries have inhibited success at health system regulation and that there is a need for innovations involving the private sector. (See Bloom G, Standing H, Future health systems: Why future? Why now? *Special Issue of Social Science and Medicine*; 2008. Volume 66, Issue 10, Pages 2067-2075)

## 5.2. Dual Practice

Dual practice (salaried public sector providers who operate private practices at the same time) raises particular issues with respect to the poor. In almost all countries, such providers usually provide better quality care with shorter waiting times at their private clinics. They may refer public sector clients to their private practices for follow-up or additional care, in order to charge higher fees, or for especially profitable services such as abortion. (Gruen, 2002, Garcia-Prado, 2007). Public sector workers may show up late for work at the public sector facility or leave early, thereby diminishing access to care for clients who cannot afford to go to private facilities. This also drains public sector financial resources (Gruen, 2002; Garcia-Prado, 2007).

Health providers have historically had grievances about public sector employment. These include, but are not limited to: inadequate compensation, lack of opportunities for continuing medical education, and the absence of an attractive, transparent career path in the civil service; lack of an enabling environment at the workplace including poor infrastructure, lack of medicines and inadequate or ill-maintained equipment; lack of respect by superiors and/or patients; and posting to remote or insecure stations (Eggleston, 2006; Jumpa, 2007).

The literature suggests that there are no easy solutions to abuse of dual practice. Discussion of policy or regulatory approaches ranges from outright bans to quality control. One point of consensus is that context-specific reasons for dual practice must be understood before designing any regulatory or other response. Few experts advocate an 'all or nothing' approach – to either completely ban dual practice or turn a blind eye (Ferrinho, 2004; Garcia-Prado et al, 2007) Ferrinho (2004) offers a typology of 6 variants of dual practice, estimate the prevalence, discuss concerns like brain drain and motivations for dual practice. They note its contextual and nuanced expression. Garcia-Prado (2007) also discusses nuances and contextual factors to consider in policy responses. (See Garcia-Prado, A. and P. Gonzalez (2007). "Policy and regulatory responses to dual practice in the health sector." *Health Policy* 84(2-3): 142-52.)

## 5.3. Accreditation

Even the poorest countries have professional associations of physicians and nurses, which play an accreditation role, mostly around licensing after pre-service training; and accreditation of training institutions and of in-service training programs. These associations set standards of accreditation for all practitioners of their trade, whether private or public. The standards of accreditation for some countries fall short of what international WHO standards might be. For example, maternity care professionals in Pakistan been quoted as complaining that midwifery graduates in some areas of Pakistan can get their licences without having delivered a single baby (British Council, 2005).

There is little discussion in the literature on accreditation for SRH and MNH. It used to be that only governments could regulate, and only professional associations could accredit, but nowadays these functions are being taken over by private entities. For example, franchising is a way of combining non-state regulation and accreditation by an agency other than a professional association.

If providers are invited to participate in an insurance or voucher or contracting scheme on the basis of their ability to comply with pre-determined requirements, the scheme should in theory be able to deny participation to non-performing or non-

compliant providers (Franco, 2006, ER3; Bennett, 2004, ER4; Janisch, 2010; Arur, 2010). This is harder to implement in areas with few providers, as the poor would lose out if the scheme were to be too strict. In most efforts to improve provider performance the limiting factor that inhibits linking payments to performance is not the power of the providers, but under-investment by the payers in continuously monitoring relevant performance indicators. It takes well-funded human resources to be regularly gathering information on outcomes and processes of care – for example Greenstar in Pakistan spends 20-30% of its \$12m operating budget on monitoring and research. (McBride, 2001, ER3). Bishai estimates that in Myanmar, for every dollar of commodities delivered to its franchised providers, PSI spends \$0.50 on oversight. (Bishai, D “A conceptual framework for costing the work of a social franchise” presented at First Global Symposium on Health Systems Research November 2010 Montreux )

Franchising has the potential to improve accountability because the franchisee stands to gain so much in the way of training, credibility and new business generated by the advertising. This can all ultimately lead to more business. Ejection from a franchise is a last resort and very difficult to enforce. Even if a provider were ejected, it is almost impossible to stop her or him continuing to display signage. Many providers respond positively to coaching, or to interventions as simple as telling them how their performance compares to that of their peers (Montagu, 2002). The prospect of increased profit is not the only incentive for providers joining a franchise - professional identity and recognition feature heavily in the decision to join (Stephenson, 2004; Montagu, 2002).

The incentives to abide by the standards of a franchising scheme must be attractive to the potential franchisees. For example, the nurses and doctors in the current Greenstar franchise in Pakistan make most of their income from curative care and not family planning, which will always constitute a small part of their business. Hence, some may not care to invest a lot of energy in adhering to the quality standards required by the franchise. On the other hand, in Greenstar's new family health franchise 'Good Life' the maternal and child health business will constitute a major share of providers' incomes and clientele, and therefore may motivate providers better to adhere to quality standards (Greenstar, 2009).

In the Chiranjeevi scheme in Gujarat, private obstetricians clearly saw the benefit of joining the scheme and abiding by its requirements as their reimbursements were tied to compliance, and participation in the scheme gave them a guaranteed level of business and increased client numbers (Mavalankar, 2009).

## 5.4. Fragile states

DFID defines fragile states as 'those states where the government cannot or will not deliver core functions to the majority of its people'. Such states typically have poor social (and particularly health) indicators; are liable to lapse back into conflict; have faltering or stagnant economic growth; and increasing levels of extreme poverty (Eldis, 2010). An intervention which is tried and tested in a non-fragile state may not work in a fragile one.

There are many examples of SRH and MNH services being delivered in fragile states, mostly by NGOs. But there is little in the literature evaluating these interventions. Evidence from Afghanistan (Smith, 2008; Arur, 2010), Cambodia (Ir, 2010; Bloom, 2006), Ethiopia (Stephenson, 2004) and Rwanda (Basinga, 2010) has been covered above and suggests that because the government cannot provide

services, not-for-profits are encouraged by donors to step in to provide SRH/MNH, including rebuilding infrastructure and local human resource capacity (Arur, 2010, ER4; Ir, 2010, ER2; Loevinsohn, 2005, ER5).

Palmer et al warn of the dangers of disregarding transparent and fair procurement processes when there is pressure to build up services quickly, as has occurred in some parts of Afghanistan (Palmer, 2006).

Weak government and the absence of bureaucratic impediments in fragile states means there are opportunities for innovation and for scaling-up faster than would be possible in a more peaceful situation. Examples include the experience with contracting services in Afghanistan (Arur, 2010) and the rapid growth of PSI's network of 'Sun' private providers to cover more than half of all Myanmar's townships (Schlein) Schlein, K., Drasser, K., and Montagu, D. (2010). Clinical Social Franchising Case Study Series: Sun Quality Health, Population Services International/Myanmar. San Francisco: The Global Health Group, Global Health Sciences, University of California, San Francisco.

GBV is known to be high in conflict and post-conflict environments (MSF, 2010; IRC; 2010) but this review could find nothing in the peer-reviewed literature that evaluates GBV-related interventions in conflict environments.

## 5.5. Crowding-out and crowding-in

We did not find a single study providing adequate evidence about the impact on the whole market of introducing subsidised products and services. The main concern is that new entrants to the commercial sector will be discouraged (crowding out). Chapman et al's 2003 review of social marketing for DFID argued that commercial markets are not cannibalised by social marketing products (Chapman, 2003) but systematic evidence of this is not available.

Another concern is leakage. There is money to be made by selling subsidised commodities at full price in the market. Whereas stealing free products is clearly theft, in Pakistan significant amounts of Greenstar's Novodol oral contraceptive were being bought by wholesalers and exported to countries like Iran for substantial profit (Greenstar, 2009). This was possible partly because the price was so low (because it was marketed at those on low incomes, and donors wanted it to be affordable to the poor) but also because such 'diversion' is exactly what free markets are good at.

In cases where the financing mechanism is set up to encourage competition among providers, there is a potential for spill-over improvements in quality of care throughout some or all of the market. Janisch claimed this had happened in Kenya under the Vouchers for Health scheme (Janisch, 2010), as did Agha in Uganda amongst micro-financed midwifery clinics (Agha, 2004). In the Chiranjeevi Scheme, even the public sector providers (who were not part of the scheme) were motivated to expand the scope of their services, maintain quality and compete with the private sector (Mavalankar, 2009).

## 5.6. Gender differences in the evidence

For the MNH initiatives, by default, the great majority of the evidence focuses on women, which seems appropriate and obvious except in the case of communications campaigns targeted at male involvement.

Under SRH, however, the literature should, but does not always, have something to say about gender, often because the study design does not account for or is not aimed at finding sex differentials in outcomes. The annotated bibliography in the annex provides details on gender-specific findings where they exist in the papers reviewed. The evidence review in Section 4 does not, for the most part, discuss differential outcomes by gender as this was not one of the assessment criteria, and not central to our analysis of impact on the poor overall.

However, some observations may be made.

- Self-treatment of STIs (with medicines bought without prescription from shops and pharmacies) varies by gender across countries (Adu-Sarkodie, 1997).
- Men and women in couples tend not to agree with each other when reporting sexual and other risk behaviours such as alcohol and drug use, which varies by country context (Witte, 2007).
- Desired number of children varies by gender almost everywhere (Becker, 2007; Becker, 2001).
- Almost all other reproductive health issues vary by gender, and this variation applies to consumer choices of public or private provider; and by the gender of the provider.
- STI care-seeking behaviour varies by gender. For example, women in Nairobi wait an average of 14 days to seek care for STIs compared with a 5-day wait for men (Fonck, 2002). Nuwaha et al found no differences by sex in use of the informal sector for SRH needs in Uganda (Nuwaha, 1999).
- Stigma around sexual activity and HIV/STIs points to the need to adapt behaviour change strategies and provider counselling training and community mobilisation strategies to reduce barriers for young women and men to access SRH services (Mmari, 2003).
- Men's needs have often been neglected in reproductive health policy and services. In particular, in most developing countries most men with STIs self-medicate or go to private, often unqualified providers, rather than to public sector or NGO clinics, which they see as being for women. (Guttmacher Institute, 'In Their Own Right: Addressing the Sexual and Reproductive Health Needs of Men Worldwide', 2008. Collumbien M, Hawkes S. Missing men's messages: does the reproductive health approach respond to men's sexual health needs? *Cult Health Sex* 2000;2:135-50)



## 6. Options for engaging the private sector

The tables below present the different options covered in this review, set out in the same way as in Walford's paper "Should DFID work more with the private sector in health" (Walford, 2009). This lays out the options for engaging the three main categories of players in the private sector – for-profit, formal sector; informal sector; and not-for-profit sector, advantages for the MDGs, risks/challenges, and initial assessment.

### 6.1. Working with the for-profit, formal sector

The evidence points to several possible ways of working with the for-profit actors in the formal sector – i.e., trained physicians, nurses and midwives. As a general observation, most of the options outlined in Table 29 below are valid only where qualified and willing private sector providers exist. Franchising, voucher schemes and contracting modalities can only work where a critical mass of for-profit providers are operating. While voucher schemes typically include public sector providers as well as those from the private sector, a good balance between the two ensures choice for the consumer, coverage and competition. CCTs and insurance schemes may work in predominantly public sector service settings but typically include private sector providers to achieve better reach and coverage. Regulation of the for-profit sector remains a ubiquitous and difficult problem for resource-poor countries.

**Table 29: Working with the for-profit, formal sector**

Option	Advantages for MDGs	Risks/Challenges	Initial Assessment
Regulation	No direct impact on MDGs but can improve QOC	Need long term commitment by government to institutionalise and strengthen regulatory bodies; Fundamental change in social norms is needed to lower corruption	Donors can encourage long term work on regulation, but should channel funds to higher priority initiatives
Accreditation/ franchising	Can improve QOC and control service fees to increase utilisation by low-income people; maintains ongoing contact with provider to sustain practice improvements	Need for accreditation is context-dependent; Can leave out the poor if fees still too high; underserved areas may not be covered by franchises; Activity of the central franchisor supplies a public good and requires ongoing support; providers' perceived value added by the franchisor is contingent on local market conditions	Large scale coverage and adherence to quality standards possible for more lucrative services (i.e., deliveries); many ongoing franchises in place (Summary at sf4health.org); Fewer evaluations on MDG effects
Vouchers	Extends financial cover to low-income people to increase utilisation; can improve QOC	Need to tie the vouchers to qualifying sites and manage quality and access there; Can leave out the poor if subsidies not distributed properly, or if cost of voucher still too high; needs strong management to avoid corruption	Can achieve large-scale coverage
Conditional Cash Transfers	Has a poverty focus; can also have a women's empowerment focus; can increase utilisation	Need to target subsidies; can over-incentivise consumer; needs large inputs of funding	Can achieve large-scale coverage
Microfinancing	Can improve QOC, leading to increased utilisation	Need to clearly define mutual objectives in contract and monitor closely	Difficult to expand to scale; evidence for effectiveness not strong
Insurance, i.e. schemes that include private providers	Extends financial cover for low-income people to increase utilisation	Premiums may still be too high for many; need concurrent investments in infrastructure/QOC; need reliable large-scale funding stream (CBHI needs lower levels of funding but needs subsidies)	May still leave out the poor, but can achieve coverage on a large scale in settings where private providers are available
Contracting	Increases utilisation of services by the poor; can reduce OOP costs, thereby reducing poverty	Can crowd out public sector if public sector is not weak; needs strong contract monitoring	In contexts of weak public sector and robust private sector, has potential for scale up

## 6.2. Working with the informal sector

Table 30 below lays out the more limited options for engaging informal sector actors, who may include traditional birth attendants (TBAs), drug sellers and traditional healers, among others. The volume of clients seen in this sector (Ndulo, 2001; Chalker, 2000, Viberg, 2009) offers one rationale to engage these providers in basic, but effective, ways. Other reasons to bring these players into the ambit of a wider strategy for SRH and MNH are three-fold: 1) to reduce harmful practices, 2) to encourage simple, correct measures to promote health and 3) to persuade informal sector agents to act as facilitators to channel clients to the formal sector for appropriate care. To this end, options for engagement include: regulation, provision of subsidised products through social marketing, provision of training and ongoing supervision through social franchising.

Regulation of the informal sector is much more difficult than regulating the formal sector because of the numbers, types and geographic distribution of these agents, and because they are generally working illegally so governments refuse to even acknowledge their existence. The more practicable options for engagement seek to promote tested and approved subsidized products among this group – such as CDKs and STI kits – alongside some basic training or orientation on healthful practices such as hand-washing before delivery or syndromic management of STIs. The training can also serve to discourage harmful practices such as cutting the umbilical cord with unhygienic implements, or prescribing diuretics for urethral discharge. The product provision and training do not have to go hand-in-hand, but often do.

**Table 30: Working with the informal sector (TBAs, drug sellers, traditional healers)**

Option	Advantages for MDGs	Risks/Challenges	Initial Assessment
Regulation	No direct impact on MDGs but can improve QOC	Very difficult to regulate the large number of actors in this sector; requires significant capacity	No short-term gains possible; long-term work needs to be undertaken by government
Social marketing, marketing of subsidised products	Assures quality of products at subsidised prices to increase utilisation; selling to this sector will increase reach and distribution	Can still price out the poor; need large marketing/media budgets; in the case of STI treatment kits and CDKs, need strong training component	Can achieve large-scale coverage
Training / orientation	Can reduce wrong practices, thereby improving QOC and reducing morbidity; can encourage referral to formal sector providers	One-off trainings can be ineffective; need to include in a wider strategy for MNH/SRH; requires ample follow-up and supervision	Good for achieving limited objectives and increasing referrals
Social franchising	Goes beyond training by including ongoing supervision	Requires ongoing support for core support and supervision; Opposition at times from health professionals' groups	Many groups already doing this. Few evaluations to assess whether impact is achieved via provider selection or provider behaviour change.

### 6.3. Working with the not-for-profit sector

The not-for-profit sector includes providers who are affiliated with non-governmental organizations (NGOs) (international and national) and faith-based institutions (FBOs). These actors play a crucial part in service delivery in SRH/MNH in many low-income countries and in fragile states where for-profit agencies may not be able to make a living given the limited disposable incomes of clients, and reluctance of donors and governments to fund their cost structures.

The primary mode of 'engagement' with this sector is funding – either directly from donors, or through governments. Every option that is listed in Table 31 is in one way or another, the result of funding to perform a certain task such as social marketing, or provision of SRH services, or management of a voucher scheme. And in just about every case, the major challenge to implementing the said option is capacity. For all of the engagement modalities, varying degrees of expertise and specialised capacity is required of the implementing not-for-profit agency.

**Table 31: Working with the not-for-profit sector (NGOs, CSOs, faith-based)**

Option	Advantages for MDGs	Risks/Challenges	Initial Assessment
Accreditation/ franchising, i.e. funding NGOs to operate franchise networks	Can improve QOC and control service fees to increase utilisation by low-income people	Need adequate capacity to run franchise network; may not focus on the poor or marginalised (user fees can pose obstacles)	Successful franchises are being operated by experienced NGOs; donors can mandate focus on the underserved
Social marketing, marketing of subsidised products, i.e. funding NGOs to do social marketing	Selects products to subsidise based on needs of poor and cost-effectiveness Assures quality of products at subsidised prices to increase utilisation	Requires specialised and substantial HR capacity; can still price out the poor; need large marketing/media budgets Potential to crowd out unsubsidised suppliers	Can achieve large-scale coverage through reputable experienced NGOs
Vouchers – funding NGOs to be voucher management agents, as well as providers of care in voucher schemes	Extends financial cover to low-income people to increase utilisation; can improve QOC	Needs strong management capacity; Can leave out the poor if subsidies not targeted properly, or if cost of voucher still too high	Successful examples in operation today
Microfinancing provided by not-for-profit agencies	Can improve QOC, leading to increased utilisation	Requires specialised technical capacity	Difficult to expand to scale; unclear results on MDGs
Insurance, i.e. schemes that include non-profit providers; CBHI schemes operated by not-for-profits	Extends financial cover for low-income people to increase utilisation	CBHI needs highly specialised capacity to operate; needs steady stream of subsidies	Can achieve results on a smaller scale but evidence is still weak in SRH/MNH
Contracting, i.e. funding not-for-profit agencies to provide services	Increases utilisation of services by the poor; can reduce OOP costs, thereby reducing poverty	Need strong contractual arrangements and robust monitoring system to ensure deliverables are met; user fees may price out the poor	In contexts of weak public sector and capable not-for-profit sector, has potential for scale up
Provision of training and supplies by not-for-profits	Improves QOC to increase utilisation	One-off trainings are ineffectual; difficult to institutionalise within wider health reform	Widely practiced with good results for improving QOC; unlikely to be able to scale up

## 7. Conclusion

The evidence presented in this review includes disparate study designs, country settings, interventions and conclusions, but it does lend itself to some coherent observations about the role of the various market interventions in the context of the three criteria of interest – equity, quality and cost-effectiveness.

### 7.1. Expanding access for the poor

The criterion of interest addressed most frequently by the literature appears to be the access and equity issue. Table 32 below presents a snapshot of the evidence that private sector in SRH/MNH can expand access for the poor. Market interventions are categorised by the strength of the evidence reviewed and by health area.

The strongest evidence in support of private sector interventions expanding access for the poor relate to:

- Conditional cash transfers for ANC and delivery care; and
- Contracting for delivery care

Not surprisingly, CCTs tend to be successful demand-side initiatives in increasing utilisation of ANC (Barber, 2008a, 2008b; Morris, 2004; Lim, 2010) and delivery services (Lim, 2010) by the poor – i.e., if you pay people to do something like use a health service, they will use it. The key ingredient to the success of a CCT in expanding access is effective targeting of subsidies. Contracting appears to be a successful supply-side intervention in terms of achieving improved access -- as in the case of Chiranjeevi, Rwanda, Cambodia and Afghanistan - with a strong motivational push given by the reimbursements themselves in exchange for compliance with tightly monitored contracts.

Several other studies present strong evidence that the following interventions expand access overall

- Social marketing of
  - FP products and messages
  - adolescent reproductive health products and messages
  - iron folic acid supplements for pregnant and reproductive age women
- Community based administration of misoprostol for the prevention and treatment of PPH

Neither of these has been evaluated specifically for its impact on access by the poor. Social marketing campaigns in MNH and SRH have been successful in expanding overall access to actionable health information, accredited services and quality products. However, most of the standard market surveys used to measure social marketing campaigns' impact are interested in coverage in general and do not assess the SES profile of the population reached by the campaign. The evidence on training of community-based agents on the administration of misoprostol for the prevention and treatment of PPH uniformly supports the notion that this is an important intervention to expand access to a life-saving drug at the household level, though none of these studies assess the impact on the poor specifically.

Several different market mechanisms in service delivery and financing give mixed results or results of only moderate strength under different health areas, indicating the need for further research in these areas.

No studies were found to provide any evidence as to the impact of private sector interventions to expand access to safe abortion services for the poor.

Table 32. Evidence on expanding ACCESS for the poor

Health area	Strong evidence	Moderate evidence (mixed results)	Weak evidence
<b>SRH</b>			
FP		<b>Vouchers</b> (Janisch, 2010; Meuwissen, 2006c)	<b>Microfinance*</b> (Chee, 2003)
		<b>Social marketing*</b> (Harvey, 2008; Chapman, 2003; Van Rossem, 2000)	
		<b>Franchising</b> (Shah, 2009; Stephenson, 2004; McBride, 2001; Ngo, 2010)	
Abortion	<i>No studies evaluating private sector abortion interventions' impact on access</i>		
STIs		<b>Social marketing*</b> (Crabbe, 1998; Van Rossem, 2007; Keating, 2006)	
GBV		<b>Microfinance &amp; health</b> (Hargreaves, 2010 Pronyk, 2008; Kim, 2009)	
ARH	<b>Social marketing*</b> (Van Rossem, 2000; Plautz, 2007)	<b>Microfinance &amp; health</b> (Phetla, 2008; Kim, 2009)	<b>Youth friendly services*</b> (Mmari, 2003)
		<b>Vouchers</b> (Meuwissen, 2006c)	
SRH for marginalised		NGO service delivery* (Carrera, 2005)	
<b>MNH</b>			
ANC	<b>Social marketing of iron folic acid*</b> (Berger, 2005; Garcia, 2005; Kanal, 2005)	<b>TBA training*</b> (Population Council, 2006 Jokhio, 2005)	
	<b>CCT</b> (Barber, 2008; Morris, 2004; Lim, 2010)		
Delivery	<b>CCT</b> (Lim, 2010)	<b>TBA training*</b> (Population Council, 2006; Jokhio, 2005)	

Health area	Strong evidence	Moderate evidence (mixed results)	Weak evidence
	<b>Contracting</b> (Loevinsohn, 2005; Mavalankar, 2009; Bhat, 2006; Arur, 2010; Bloom, 2006; Basinga, 2010)	<b>Vouchers</b> (Janisch, 2010)	<b>Vouchers</b> (Ir, 2010)
		<b>Insurance</b> (Soors, 2008; Ndaiye, 2008; Smith, 2005; Bennett, 2004; Renaudin, 2007; Morestin, 2009)	
Post-partum care	<b>Community-based misoprostol administration*</b> (Prata, 2005, 2009; Pagel, 2009; Bradley, 2007; Sutherland, 2009)		

\* Only expansion of access/utilisation overall considered, not specifically assessed for the poor

## 7.2. Quality of care/products

The second criterion this review uses to evaluate the evidence is the quality of healthcare services and products.

Table 33 below shows that strong evidence exists to support the impact of the following market interventions in improving QOC:

- Training in FP
- Vouchers for SRH for marginalised populations
- CCT impact on quality of ANC
- Social marketing of clean delivery kits
- Community based administration of misoprostol for prevention of PPH



**Table 33. Evidence on improving QUALITY of care/products**

Health area	Strong evidence	Moderate evidence (mixed results)	Weak evidence
<b>SRH</b>			
FP	<b>Training</b> (Phillips, 1982; Garza-Flores, 1998; Leon, 2001; Fernandez, 1997; McCarraher, 2000; Stanback, 2007)	<b>Franchising</b> (Shah, 2009; Stephenson, 2004; McBride, 2001; Agha, 2007; Decker, 2007; Ngo, 2010)	<b>Financing</b> (Chee, 2003)
		<b>Vouchers</b> (Janisch, 2010; Meuwissen, 2006a, 2006b)	
Abortion	<i>No studies evaluating QOC of private sector abortion interventions</i>		
STIs		<b>Training</b> (Adu-Sarkodie, 2000; Walker, 2001)	
GBV	<i>No studies evaluating QOC of private sector GBV interventions</i>		
ARH		<b>Youth friendly services</b> (Mmari, 2003)	
		<b>Vouchers</b> (Meuwiseen, 2006b, 2006c, 2006d)	
SRH for marginalised	<b>Vouchers</b> (Borghi, 2005)	<b>NGO service delivery</b> (Carrera, 2005)	
<b>MNH</b>			
ANC	<b>CCT</b> (Barber, 2008a)		
Delivery	<b>Social marketing of CDKs</b> (Balsara, 2009; Darmstadt, 2009)	<b>TBA training</b> (Population Council, 2008; Sibley, 2004a, 2004b; Jokhio, 2005)	
		<b>Microfinance</b> (Agha, 2004)	
		<b>Contracting</b>	

Health area	Strong evidence	Moderate evidence (mixed results)	Weak evidence
		(Loevinsohn, 2005; Bloom et al 2008, 2006; Basinga, 2010)	
Post-partum care	<b>Community-based misoprostol administration</b> (Prata, 2005, 2009; Pagel, 2009; Bradley, 2006; Sutherland, 2009)		

### 7.3. Cost-effectiveness

Of the three criteria, we found the least amount of evidence for the cost-effectiveness question. With health service delivery interventions, it is rare to find a prospectively designed study that builds a cost-effectiveness component in from the beginning. On the financing side, these market interventions are typically not designed with cost-effectiveness in mind, but rather focus on increasing financial access to services and possibly on quality improvement.

Still, Table 34 shows that a few notable studies provide strong evidence as to the cost-effectiveness of:

- contraceptive social marketing globally (Barberis, 1997)
- scale-up of safe abortion service delivery in Mexico City (Hu, 2007) and India (Goldie, 2010) through simulation models
- vouchers for SRH services for high risk groups in Nicaragua (Borghi, 2005)
- Community based administration of misoprostol for prevention of PPH in India (Sutherland, 2009) and in simulation models (Bradley, 2007; Prata, 2010; Sutherland, 2010).

We were not able to identify any studies to provide evidence on the cost effectiveness of private sector interventions for STIs, GBV, ARH, ANC and/or delivery services.

**Table 34. Evidence on COST-EFFECTIVENESS**

Health area	Strong evidence	Moderate evidence (mixed results)	Weak evidence
<b>SRH</b>			
FP	<b>Contraceptive social marketing</b> (Barberis, 1997)		
Abortion	<i>No studies evaluating cost-effectiveness of private sector abortion interventions</i>		
STIs	<i>No studies evaluating cost-effectiveness of private sector STI interventions</i>		
GBV	<i>No studies evaluating cost-effectiveness of private sector GBV interventions</i>		
ARH	<i>No studies evaluating cost-effectiveness of private sector ARH interventions</i>		
SRH for marginalised	<b>Vouchers</b> (Borghi, 2005)	<b>NGO SRH service delivery</b> (Carrera, 2005; Guinness, 2005)	
<b>MNH</b>			
ANC	<i>No studies evaluating cost-effectiveness of private sector ANC interventions</i>		
Delivery	<i>No studies evaluating cost-effectiveness of private sector Delivery interventions</i>		
Post-partum care	<b>Community-based misoprostol administration</b> (Prata, 2005, 2009; Pagel, 2009; Bradley, 2007; Sutherland, 2009, 2010)		

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