Sector-wide approaches (SWAps) in health
Cluster 1 – Health Policy

Impact → Improved survival (Child, maternal, adult mortality due to infectious and non-communicable diseases); Reduction in morbidity; Improved health equity; Social and financial risk protection (reduced impoverishment due to health expenditures)

Outcome → Increased services utilization and intervention coverage for essential health services; Reduced inequity; Health system strengthening

A Background

SWAps emerged in the mid-1990s in the context of debates around aid effectiveness and growing dissatisfaction with the fragmented nature of project approaches and describe an approach to development cooperation, which has gained the support of the World Bank, the WHO and bilateral donors (Hill, 2002). SWAps have been related to increased government leadership, improved donor coordination, more efficient and effective financial, planning and implementation management and improved sector stewardship as well as to more coherent sector policy (Hutton & Tanner, 2004; Shepard & Cabral, 2008), which donors have addressed on the basis of capacity building measures, policy advisory services, by promoting dialogue and advocacy and supporting the development of comprehensive health information systems. While these planning and financial management mechanisms are assumed to facilitate the achievement of national health program objectives and improve sector performance, evidence remains mostly limited to the general performance of these mechanisms (SWAp process) (Boesen & Dietvorst, 2007) and has barely addressed factors affecting the ability of SWAps to contribute to better sector outcomes and even less their impact on sector performance (Vaillancourt, 2009; Hutton & Tanner, 2004; Hill, 2002). Robust evidence on the effectiveness and long term impacts of SWAps is thus lacking both as a result of the inherent complexity of SWAps and methodological difficulties in including SWAps in rigorous evaluations and case-control studies. This Evidence Sheet synthesizes available evidence on the general performance of planning and financial management mechanisms in SWAps (SWAp process) and the impact of SWAps on sector performance (health system functioning and population health outcomes), specifically asking whether there is sufficient evidence to support common contributions of German Development Cooperation (GDC) to SWAps as means (1) to improve the SWAp process and 2) to improve health sector performance.

Key findings

a) Evidence on the impact of health SWAps on population health and health system functioning (sector performance) remains scarce but points at modest achievements. In some countries some improvements in service quality after introduction of a SWAp are visible. SWAps may contribute to strengthening the role of Ministries of Health.

b) National ownership was identified as a pivotal feature of effective SWAps.

c) Evidence on the general performance of planning and financial management in SWAps is at best mixed.

B Definitions

SWAp “An approach that involves all significant funding for the sector supporting a single sector policy and expenditure program under government leadership, adopting common approaches across the sector and progressing towards relying on government procedures to disburse and account for all funds” (Cassells, 1997). Alternative definitions were developed in different countries.

C Approaches

C1 Building individual human and institutional capacity to enhance the general performance of planning and financial management mechanisms in SWAps by facilitating government leadership

The skills and leadership capacities of individual staff members of donor agencies and partner country government institutions were shown to be crucial to the success or failure of SWAps.
In this regard, several donor agencies have set up training programs for their staff (Riddell, 2003), but no review article or comprehensive evaluation on the role of capacity building measures in facilitating government leadership could be identified. A review article by Viljanmaa (2003), however, suggests that rather than technical capacities, policy, analytical and negotiation skills with a focus on stakeholder and policy analysis as well as public financial and sectoral management should be developed. In this regard it has been noted that M&E capacity building has largely been neglected in the context of SWAps (Vaillancourt, 2009). Institutional capacity building methods were shown to depend on the degree of risk-adversity of the donor agency, with highly risk-averse agencies relying on the placement of their own experts for capacity building purposes and less risk-averse agencies putting emphasis on the capacity gains of the experience of working in SWAps without major donor involvement (Riddell, 2003).

Review articles or comprehensive evaluations on the role of institutional capacity building in improving the SWAp process could not be identified, but it has been noted that established SWAps had significant positive impacts on planning capacity, governance and broader institutional development in partner countries (Boack et al., 2011; Shepard & Cabral, 2008), which has, however, not rigorously been evaluated. According to a World Bank review of health SWAps, capacity constraints within governments were generally underestimated and not adequately planned for (Vaillancourt, 2009). With regard to donor agency capacities, it was argued that particularly high turnover rates and short term appointments common in donor agencies can undermine SWAp effectiveness (McNee, 2012).

While there are neither comprehensive evaluations nor review articles on the role of promoting dialogue and advocacy to establish more equitable partnerships and improve donor coordination, the review of health SWAps by Vaillancourt (2009) suggests that SWAps have been successful in improving sector coordination and that steps have been taken towards improving donor harmonization and alignment, which is confirmed by the case studies analyzed by Shepard & Cabral (2008). The SWAp promise of donor coordination and harmonization has, however, not completely been fulfilled owing to the fact that highly risk-adverse donors have preserved their respective planning and financial management mechanisms and many donors continue to be driven by the need to ensure the profile of their agency (McNee, 2012), substantially undermining anticipated efficiency gains in SWAps, particularly with regard to transaction costs (Boack et al., 2011; McNee, 2012). Multilateral and bilateral projects supporting dis-

ease specific efforts outside the SWAp have increased since the introduction of the SWAp in Zambia (Chansa et al., 2008).

Although it is not explicitly reflected upon the role of dialogue and advocacy in establishing equitable partnerships, available evidence suggests that SWAps have improved partnerships between partner governments and donors, as indicated by more coherent sector policies as well as more regular communication (Dickinson, 2011), but were less successful in establishing partnerships with civil society organizations (Boack et al., 2011; Foster et al., 2000). Similarly, it has been noted that health SWAps have primarily been concerned with the public sector and thereby failed to encompass the full range of actors and activities shaping the sector (Baldwin & Brown, 2001; McNee, 2012).

C3 Efficiency of policy advisory services to enhance the general performance of planning and financial management mechanisms by improving sector stewardship, national ownership and (financial) management

No review articles or comprehensive evaluation on the role of policy advisory services in improving sector stewardship and national ownership could be identified, but available evidence from six countries that embarked on health SWAps suggests that SWAps were only modestly successful in achieving improved sector stewardship (Vaillancourt, 2009).

National ownership was identified as a pivotal feature of effective SWAps (Boack et al., 2011; Hutton & Tanner, 2004) and Foster et al. (2000) suggested that a clear national vision based on a limited number of key priorities as well as a feeling of command over the SWAp process by influential government officials in partner countries were helpful in establishing or improving national ownership. In this regard, it was shown that the role of the Ministries of Health (MoH) grew stronger upon the introduction of a SWAp and in the context of the institutional framework associated with SWAps in Uganda (Jeppsson, 2002). At the same time, evidence suggests that certain donor practices including the allocation of resources in areas that are not considered national priorities as well as expenditure and results imperatives by donors can undermine ownership (Boack et al., 2011; McNee, 2012).

While no review article or comprehensive evaluation on the role of policy advisory services in enhancing the effectiveness and efficiency of (financial) management mechanisms could be identified, a case study from Zambia suggests that SWAps have not attained the envisaged (administrative, technical and allocative) efficiency improvements due to incomplete harmonization of donor procedures and reporting systems resulting in high transaction costs (Chansa et al., 2008). This is consistent with results from other studies indicating that SWAps failed to render efficiency gains and even elevated transaction costs for ministries as well as donor agencies (Shepard & Cabral, 2008; McNee, 2012; Boack et al., 2011; Foster et al., 2000). In some cases, a trade-off
between transaction costs of countries and those of donors have been observed with mixed evidence in the long term (Boack et al., 2011).

**C4** Promoting knowledge production, enhancing the general performance of planning and financial management mechanisms and supporting national health information systems

One of the notions underpinning SWAps is that a robust and timely performance information system feeds information on performance back into service delivery and policy development processes to continually calibrate and improve performance (McNee, 2012). While no review article or comprehensive evaluation on the role of M+E advisory services and the promotion of knowledge production, transfer and sharing in enhancing the general performance of planning and financial management mechanisms in SWAps could be identified, available evidence suggests that SWAps are often implemented without a comprehensive M+E system to allow for performance measurement over time (OECD, 2011). Nevertheless, a review of SWAp countries by Dickinson (2011) found that considerable process was made in developing agreed indicators for sector performance. In some SWAps, joint evaluations of multiple donors have been successfully performed based on a jointly agreed results framework thus contributing to reducing multiple reporting.

**C5** Supporting Health SWAps to improve population health (improved survival; reduction in morbidity; improved nutrition; improved health equity; social and financial risk protection; greater health equity)

As SWAps are always established on the national level, assessing effects on population health suffers from adequate comparisons. Effects on health have generally been assessed through the achievement of goals and objectives/indicator targets. According to a World Bank review of 6 health SWAps (Vaillancourt, 2009), national health objectives were only modestly achieved under SWAps. In this regard, the review notes that Bangladesh reported modest declines in IMR, MMR, U5MR but fell short of other national health objectives. This analysis, however, does not fully account for changes in funding from global health initiatives such as the Global Fund. While child nutrition indicators stagnated in Bangladesh, vitamin A and iron deficiency could dramatically be reduced. No change in IMR, MMR, U5MR and TFR was reported in Ghana between 1998 and 2006 during the first period of the SWAP. It is questionable if the health improvements in the last years in Ghana are attributable to the SWAP or rather to factors outside the health sector. In Malawi, modest declines in IMR and USMR were observed, while MMR and levels of child malnutrition remained high. Vaillancourt (2009) further found notable declines in IMR and USMR in Tanzania, modest declines in child malnutrition and no changes in maternal mortality. A review by Foster & Macintosh-Walker (2001) suggests that despite increases in health expenditure, USMR has increased since 1995 in Uganda. Ethiopia, however, registered significant declines in USMR and MMR between 1990 and 2008 which has been related to the introduction of the health SWAp (Dickinson, 2011). Findings from a review concerning the impact of SWAps on MDG 5 (maternal and reproductive health) indicate that the impact of “Paris-style aid” are more correlational than causal in nature. Best results were achieved relating to maternal health measures. Six of seven studies using Paris-style interventions find a reduced mortality ratio; in seven studies increases of up to 30 per cent in the proportions of attended birth are reported. Then again results focusing on family planning like the adolescent birth rate or uptake of ante-natal care couldn’t show any positive interdependencies (Hayman et al., 2011). While the mentioned review articles provide some evidence on the impact of SWAps on population health, no review article or comprehensive evaluation on the impact of SWAps on population health published in a peer-reviewed journal could be identified, which confirms the commonly referred to unacceptable dearth of (rigorous and independent) evidence on the health impact of SWAps (Skolnik et al., 2008; Hutton & Tanner, 2004; Dickinson, 2011; Garner et al., 2000).

**C6** Supporting Health SWAps to improve health system functioning (Increased services utilization and intervention coverage for essential health services; responsiveness of health systems)

Results from a review of health SWAps in Nepal, Bangladesh, Kyrgyz Republic, Ghana, Tanzania and Malawi (Vaillancourt, 2009), suggest that health system strengthening and service delivery objectives were only modestly achieved under SWAps. In this regard, the review points to modest improvements but low coverage of antenatal care and of the national nutrition program as well as very low use of public facilities for curative care of in Bangladesh since the introduction of SWAps. Regarding health system strengthening efforts, the review found that neither a planned hospital reform was implemented nor were anticipated partnerships between the MoH and NGOs established under the health SWAp in Bangladesh. Vaillancourt further shows that Ghana’s vaccination coverage increased but did not reach national targets and no improvements were reported in contraceptive use. Also in Ghana, planned hospital and institutional reforms were not implemented under the health SWAp, pointing at rather modest impacts of SWAps on health system strengthening efforts. Malawi’s health SWAp maintained high immunization rates but the review shows that Malawi continued to lack health infrastructure. Despite substantial investments of financial and technical support under the health SWAp, no substantial improvements in service delivery or health system strengthening could be achieved. In Tanzania, some improvements were reported in service quality and the policy and technical role of the MoH could be strengthened. Nevertheless, little progress was made in hospital reforms and the collaboration with NGOs.
According to the review, Nepal could strengthen its health information system and achieved an increase in staff in underserved areas. The review further suggests that financing made available under the health SWAp in the Kyrgyz Republic improved access and affordability of health services. While this World Bank review shows mixed but rather moderate results, a study on efficiency issues in the Zambian health SWAp published in a peer-reviewed journal, indicates that districts and hospitals were failing to overcome barriers to improved service delivery due to SWAp regulations related to expenditure ceilings (Chansa et al., 2008).

While it has been recognized that decentralization of health system structures and management can contribute to the improvement of accessibility and efficiency of health services, SWAps were found to have a centralizing tendency (Land & Hauck, 2004), which is largely due to the inherent focus on policy, planning and financing at national level (Shepard & Cabral, 2000).

D Methodology

Pubmed, the Cochrane Library, the Virtual Health Library (Biblioteca Virtual en Salud BVS) and Google Scholar were searched for English language review articles1 or comprehensive evaluations (if available) published between the years 1998 and 2012, using the following headings and text words:


Additionally, reference lists were hand-searched and the Swiss TPH SWAp website was consulted.

E Programs supported by the German Development Cooperation

Direct SWAp involvement: Bangladesh, Cameroon, Kenya, Malawi, Nepal, Rwanda, Tanzania.

F Additional resources


G References


1 Systematic reviews, systematically approached reviews and review articles

OECD (2011). Progress and challenges in aid effectiveness: what can we learn from the health sector. OECD.


H Abbreviations, terms

GDC = German Development Cooperation;
IMR = Infant mortality rate;
IS = Intervention Study;
LMIC = Low- and middle income countries;
MMR = Maternal Mortality Rate;
SWAps = Sector-wide approaches;
USMR = Under 5 mortality rate;
WHO = World Health Organization.

Sector-wide approaches; aid effectiveness; health sector; aid modalities.

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Financing mechanisms of health protection: Policy options to expand coverage

Key findings

a) Decision makers in practice opt for a combination of policy options in expanding coverage with financing mechanisms of health protection. Strategies to address non-financial barriers of access and ensure adequate quality of health services are critical for effective scaling up.

b) Rigorous and conclusive evidence on the strategy options identified in the Meng review is still not sufficiently available for LMIC; future implementation packages should therefore, where possible, integrate (quasi-)experimental evaluation methods to assess effectiveness of the approaches C1-C5 or a combination thereof.

c) GDC draws upon a wealth of practical experience across the policy options C1-C5. Knowledge sharing of available evidence and lessons learnt from research and evaluation studies should be promoted in a more systematic way.

B Definitions

Financing mechanisms of health protection include tax-funded public health services, social health insurance, employment based insurance, other privately purchased commercial insurance, community-based health insurance schemes (also called “mutuelles”) and vouchers.

Community-based health insurance (CBHI), i.e. voluntary not-for-profit insurance mechanisms with some community involvement in their management, also called micro (health-) insurance or mutual health insurance.

Social health insurance, i.e. compulsory schemes established normally at a national scale, with the aim of covering the entire population and government often paying contributions of behalf of the poorest or unemployed.

The objective of this evidence sheet is not to synthesize available effectiveness analyses as this would add little value to already existing systematic reviews (see key references below). Rather, practical examples from partner countries where German Development Cooperation (GDC) supports the implementation of any of the strategies identified in the scoping review of Meng et al. (2011) are discussed.

1 The great variety of schemes and the fact that context variables and the implementation process are critical success variables limit application of rigorous impact evaluation designs.

A Background

The share of prepayment in total health spending is the most important determinant of how equitable a health system is financed. Out-of-pocket expenditures - usually the most regressive way to pay for health – are a critical explanatory variable of underuse of services and every year expose more than 150 million persons to (catastrophic) financial risk (WHO, 2000; WHR, 2010). Tax-funded public health services and other health financing mechanisms provide poor and vulnerable groups with greater access to health care and risk protection. Policy options to expand financing mechanisms of health protection in particular to poor and vulnerable populations include both approaches that tackle more the supply-side, for example improving health care delivery (C3) through schemes such as performance-based payments, or more generally improving management and organization (C1), and strategies that address more the demand-side, e.g. modifying enrolment (C2), making contributions and premiums affordable (C4), increasing awareness of schemes and benefits (C5) (Meng et al., 2011). A theory-based impact evaluation would look at how changes in enrolment and quality of services (output) affect utilisation and health service coverage (outcome), health status, out-of-pocket expenditure and labour productivity (impact). It would further assess the influencing factors on these variables such as initial health conditions, insurance fee, copayment, moral hazard, cognitive and cultural factors (Acharya et al., 2011).

The great variety of schemes and the fact that context variables and the implementation process are critical success variables limit application of rigorous impact evaluation designs.

Impact → Health status, reduced (impoverishment due to) out-of-pocket expenditure, lower decline in labour productivity

Outcome → Utilisation, health service coverage

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The great variety of schemes and the fact that context variables and the implementation process are critical success variables limit application of rigorous impact evaluation designs.
Vulnerable populations include children, the elderly, women, low-income individuals, rural population, racial or ethnic minorities, immigrant population and persons with disabilities or chronic diseases.

C Approaches

C1 Improving management and organization (13/10)

Strategy options include improving the information system (C1a, e.g. for measurement of eligibility, enrolment and management of the scheme), staff training (C1b; improvement staff’s capacities to run the scheme), and transparent management (C1c; e.g. engaging the insured population in the design of the scheme).

In early 2000, the government of Tanzania established the National Health Insurance Fund (NHIF), a compulsory insurance scheme for public sector employees. Apart from the NHIF, voluntary prepayment schemes to expand coverage and target populations beyond the formal sector are run by government, cooperatives, non-governmental organisations and churches in all 113 districts of the country (community health funds). Experience-sharing and joint capacity building takes place within the Tanzanian Network of Community Health Funds (TNCHF) officially launched and registered as an NGO in 2003.

GIZ within the Tanzanian-German Program to Support Health (TPGS) advises in linking up different prepayment schemes and in exploiting synergies between formal and informal sectors. With technical support from GIZ the TNCHF has integrated a Centre for Health Insurance Competence (CHIC) into its organizational structure to address managerial and organizational deficits; the idea behind the innovative approach is one of knowledge transfer from a higher level institution. Member local health insurance schemes benefit from CHIC services and paid-for consultancies in the areas of organisational development, staff training, product marketing, enrolment of members, financial and risk management, cost analysis, quality assurance, contract drafting, statistics, and thus do not need to develop all personnel, managerial and organisational capacity of a fully-fledged insurance company. CHIC services include tools for evaluation (InfoSure) and financial simulations (SimIns). No robust study on evidence of impact is available for the approach, but anecdotal evidence suggests significant contributions to successful creation of basic administrative and legal conditions for expansion of health insurance and strengthened self-administrative capacity of CBHI (Fact Sheet Tanzania).

C2 Modifying enrolment (11/9)

Strategy options include simplifying the enrolment procedure (C2a), integrating sources for enrolment (C2b), changing unit of enrolment (C2c) and improving collection approaches (C2d).

The Government of India launched its national health insurance scheme Rashtriya Swasthya Bima Yojana (RSBY) in 2007 with the initial goal to provide all families living below the national poverty line with sufficient insurance to avoid impoverishment due to out-of-pocket expenditure. GIZ contributes to RSBY within the Indo-German Social Security Programme (IGSSP) closely collaborating with the Ministry of Labour and Employment, and other partners from public, private and civil society. Roll-out began in 2008 and all 28 states have opted into RSBY; they are provided with the flexibility to combine the scheme with other prepayment health financing mechanisms to expand coverage beyond the initial target group and benefit package (i.e. hospital care) insured by RSBY. Though it is too early yet for a comprehensive country-wide evaluation, preliminary evidence from case studies and state-level evaluations on aspects of enrolment, utilization and gender is available for download from the RSBY website: http://www.rsby.gov.in/Documents.aspx?ID=14.

A key innovation through which RSBY also addresses the problem that a huge share among the poor is illiterate and hard to reach with information is the value-loaded ‘smartcard’. The electronic card contains all relevant information including fingerprints and photographs to identify eligible beneficiaries and thus significantly simplifies the enrolment procedure and eliminates the need for cash and paperwork for cardholders at the time they access medical facilities. On the spot verification and issuance of smartcards is one reason for successful enrolment. Conclusive evidence on the effectiveness of the enrolment process is still not sufficiently available. Preliminary analysis of enrolment patterns suggests significant variations in take-up rates across states and districts, small gaps in terms of gender and some differences by age-cohorts which should be investigated further. Study findings also suggest some village selection through which insurers economize the enrolment procedure, but do not find evidence for cream-skimming (i.e. not enrolling older beneficiaries) (RSBY WP #2, 2010).

C3 Improving health care delivery (6/7)

Strategy options include improving health care package (C3a), controlling price of services (C3b), improving quality of services (C3c).
According to the World Health Report 2010 an estimated 20% to 40% of all health spending is wasted through inefficiency. Thus, even at the same level of spending countries can move closer to the goal of universal health coverage with its three dimensions of quality of services, financial risk protection and gap between need and utilization through improved and more wise use of resources (WHR, 2010). In Indonesia the Ministry of Health with technical assistance from the GIZ Consolidation Programme Health – Policy Analysis and Formulation in the Health Sector (PAF) has commissioned a nationwide health facility ‘costing study’ and development of a simulation tool which will allow for a better understanding of determinants of costs of service production among different health facilities at all levels of care. It will further help policy makers at the decentralized level to improve budgeting and allocate resources in accordance with need and demand. Results of the study conducted in 15 randomly selected provinces, covering 35 health centers, 121 public hospitals, 106 private hospitals and 30 district offices are still pending, yet it is expected that they will provide key information and a solid evidence base to increase efficiency and equity in resource allocation and thus contribute to improved health care delivery in general (Fact Sheet Indonesia).

C4 Making the premium affordable (5/3)

Strategy options include subsidy (C4a), sliding scale premium (C4b)

Poor and vulnerable populations often cannot afford to pay insurance premiums. One policy option to tackle financial access barriers on the demand side and expand health insurance is to set suitable premium levels to make health financing schemes affordable to eligible populations. For example government or other organizations could directly or indirectly subsidize all or part of the premiums. This is one feature of RSBY (see C2), and also the underlying principle of voucher programs where target populations (i.e. women below a certain poverty threshold) are sold vouchers at heavily subsidized rates which entitle them to use specified services at accredited health facilities. In Kenya the KfW in cooperation with the Ministry of Public Health and Sanitation (GIZ here plays a complementary role in contributing to the creation of an enabling environment for the programme) has established a voucher scheme that covers maternity care, family planning and care for survivors of gender-based violence. Evidence from systematic reviews indicates positive effects of voucher programs with regard to utilization of reproductive health services and improved quality of care, whereas evidence of impact on population health outcomes remains somewhat inconclusive (Meyer et al., 2011, Bellows et al., 2010). For Kenya, there is strong evidence that the scheme was successful in increasing poor women’s access to reproductive health services and improving capacity and quality among service providers. However, because of limited project sites, assessing the contribution of the programme to changes in maternal and neonatal mortality outcomes is difficult. Though the voucher scheme incorporates many of the key features of a health insurance there are still some question marks how the programme will fit into Kenya’s vision of a national social health insurance for all. An ongoing study within the framework of the new healthcare financing strategy ‘Healthcare for all Kenyans through Innovation’ (HAKI), currently is testing two approaches to provide evidence for decision makers: (1) Insurance premiums are paid on behalf of the poor by a third party; (2) a waiver mechanism where selected families access services for free (GHPC on Vouchers Kenya, 2012). Another recently published study from Bangladesh finds improved utilization of maternal health services and reduced financial burden of care among the effects of the pilot voucher programme and highlights the importance to combine demand-side with supply-side incentives and the need for more evaluations that assess cost-effectiveness of vouchers as compared to other approaches to improve (maternal) health (Nguyen et al., 2012).

C5 Increasing awareness of schemes and benefits (3/3)

Strategy options include awareness campaign by advertisement in media (C5a), awareness campaign targeting to specific places (C5b)

It is common for low and middle income countries that social health insurance programs are not yet developed to the fullest and are complemented by microinsurance schemes, which are more community-based and private with a limited risk pool. This is also the case in the Philippines, where 18 health microinsurance schemes mostly implemented by cooperatives co-exist with the main social National Health Insurance Program administered by the Philippine Health Insurance Cooperation (PhilHealth). Alternative prepayment health financing products are promising with regard to expanding risk protection to the vulnerable and providing them with greater access to health care. However, low take-up and retention undermine potential benefits and reflect little acceptance, which may be partly explained by a lack of understanding and lack of familiarity with the concept of insurance. Increasing awareness of schemes and benefits is therefore a key intervention to affect the demand and utilization of insurance. The GIZ Microinsurance Innovations Program for Social Security (MIPPS) has partnered with the University of Mannheim to gather information on the demand and perception of health microinsurance and evaluate the impact of a financial literacy campaign implemented in two provinces in the Caraga region of the Philippines. Preliminary results of the randomized field experiment suggest that the campaign targeting the general population through distribution of an educational brochure using a comic and simple text in local language had no effect on the treated households’ knowledge about health insurance. Some changes in attitudes can be attributed to the campaign (improvements in the perception of insurance in general and increased awareness about the financial liability related to insurance contracts), whereas with regards to behaviour and take-up the preliminary results do not provide
any conclusive evidence yet (Olapade, Frölich, 2012). Findings from India where GIZ operates within the IGSSP (see C2) indicate that health care utilization is lower in districts with lower literacy rate and educational attainment and stress the need for more awareness campaigns. A household survey conducted during roll out of RSBY in the state of Gujarat reveals that the lack of specific knowledge and little understanding of the scheme is a reason for not enrolling alongside attitudes and beliefs that the scheme is of no use. It is recommended not to provide information only via a pamphlet, but also through use of more interactive and audio-visual methods such as street plays, and to conduct more robust evaluations of these approaches (RSBY WP, 2011, GHPC on RSBY India 2011).

D Methodology

Systematic reviews for the subsector “Health financing, insurance and user fees” were searched via the 3ie find evidence advanced search function. Further references from a systematic literature search conducted by the author earlier in 2010 were included. The document management system of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH was searched using the headings (English and equivalent German translations): “health financing” and “social health insurance” to find studies and evaluations from partner countries where GDC supports implementation of the strategies C1-C5 identified in the Meng scoping review.

E Programs supported by the German Development Cooperation

Bangladesh, India, Indonesia, Kenya, Philippines, Tanzania

F Abbreviations

CBHI – Community-based health insurance ; CHIC – Centre for Health Insurance Competence ; GDC – German development cooperation ; GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH ; HAKI – Health Care for All Kenyans through Innovation ; IGSSP – Indo-German Social Security Program ; KfW – Deutsche Kreditanstalt für Wiederaufbau (German Development Bank) ; LMIC – Low- and middle income countries ; MDGs – Millennium Development Goals ; MIPPS – Microinsurance Innovations Program for Social Security ; NHIF – National Health Insurance Fund ; NGO – Non-governmental-organization ; OOP - Out-of-pocket expenditure ; RSBY – Rashtriya Swasthya Bima Yojna ; TGPSh – Tanzanian-German Program to support health ; TNHCF – Tanzanian Network of Community Health Funds ; WHO – World Health Organization ; WP – Working Paper

G Key references


4 Complete reference list is annexed.
Okebukola, P. and Ogunsakin, J. (2009): Social health insurance for improving access to care for disabled and elderly people in developing countries.

http://resources.3ieimpact.org/view/155&export=api

http://resources.3ieimpact.org/view/159&export=api

3ieBrief No.11 (2009) Financing better health care for all.
http://www.3ieimpact.org/admin/pdfs/Healthcare%20EQ11%20NOV.pdf

3ieBrief No. 12 (2009) Health insurance for the poor: myth or reality?
http://www.3ieimpact.org/admin/pdfs/Healthinsurance%20Nov%20EQ12.pdf


Country examples:

Bangladesh:

India:
Health Insurance for India’s Poor. A publication in the German Health Practice Collection, October 2011

Further case and evaluation studies and working papers available for free download:

Indonesia:
Fact Sheet: The Cost of Care: The Health Facility Costing Study
www.giz.de/Indonesia

Kenya:
Armstrong (2012) Vouchers: Making motherhood safer for Kenya’s poorest women. A publication in the German Health Practice Collection

Philippines:
Olapade, M. and M. Frölich (2012 preliminary version): The Impact of Insurance Literacy Education on Knowledge, Attitudes, and Behaviour – A Randomized Controlled Trial
Microinsurance Innovations Program for Social Security (MIPSS)–Microinsurance Newsletter No.1 – January 2010

Tanzania:
Fact Sheet (unpublished internal document) CHIC – Centre for Health Insurance Competence

Further References


Linking sexual and reproductive health (SRH) and HIV programs

Key findings

a) Evidence suggests that linking SRH and HIV services is generally beneficial and feasible, especially in family planning clinics, HIV counseling and testing centres and HIV clinics.

b) While HIV/SRH linkages and service integration strategies indicate positive results, few rigorous evaluations exist. Evidence is particularly lacking on the impact of integrated services on health, social and behavioral outcomes. Reliable cost-effectiveness data further remain scarce and do not permit to draw firm conclusions on the cost-effectiveness of service integration.

c) There is sufficient evidence to suggest that linking HIV and SRH at policy, systems and service level improves access to and uptake of services, enhances overall service quality and improves HIV and STI knowledge. Integration of HIV counseling and testing (C&T) into maternal and child health (MCH) was shown to be particularly effective and evidence further suggests that C&T uptake significantly increases when integrated into MCH in antenatal care settings.

d) Linkage should be targeted at the following priority areas: Learn HIV status and access services, optimize connections between HIV and SRH services, integrate HIV with maternal and infant health, promote safer and healthier sex.

B Definitions

Dual protection: Refers to strategies that provide protection from both unwanted pregnancy and STIs, including HIV (Gruskin et al., 2007), through the use of condoms alone, or combined with other methods (dual method use).
Integration: Refers to how different kinds of SRH and HIV services or operational programs can be joined together to ensure and perhaps maximize collective improved outcomes (IAWG for SRH & HIV Linkages, 2010).

Linkages: Refers to bi-directional synergies in policy, programs, services and advocacy between HIV and SRH (IAWG for SRH & HIV Linkages, 2010).

C Approaches

C1 Learn HIV status and access services

In an attempt to provide a setting where both VCT and other routine SRH services such as antenatal care, STI treatment and family planning (FP) services are readily accessible benefits have been attributed to offering voluntary counseling and testing (VCT) services geared towards the needs of key populations (Komatsu et al., 2011). In this regard, VCT is considered an important entry point to other HIV services, including prevention of mother-to-child transmission (PMTCT), prevention and management of HIV related diseases, and social support. Moreover it is assumed that HIV and SRH linkages as well as related service integration schemes make VCT more accessible to traditionally underserved population groups.

A review on the effectiveness, optimal circumstances, and best practices for strengthening SRH and HIV linkages by WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF (2009; n=58; LMIC) found increased HIV Counseling & Testing (C&T) uptake when C&T was integrated into MCH in ANC settings (n=16) and improved access to VCT and increased HIV C&T uptake, when integrating HIV, STI and FP services into services offered at primary health care clinics (n=10). The latter especially applied if point-of-care tests were offered. The integration of services at this level was further shown to increase the number of pregnant women who learned their HIV status at first ANC visit, and evidence also suggests that the uptake of nevirapine among women living with HIV increased (WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF, 2009). With regard to integrated service delivery options, an assessment of the impact of routine antenatal HIV testing for preventing mother-to-child transmission of HIV (PMTCT) in urban Zimbabwe indicates comparative advantages of ‘opt-out’ rather than ‘opt-in’ approaches to HIV-testing in ANC settings (Chandisarewa et al., 2007).

C2 Promote safer and healthier sex

HIV shares many aspects with other STIs, including modes of transmission, behavioral factors, potential control measures and root causes, including poverty, gender inequality and social marginalization of the most vulnerable populations (IAWG for SRH & HIV Linkages, 2010). HIV and SRH programs therefore generally focus on the same target groups and target behaviors and further promote similar messages and services (WHO, 2010). While non-barrier contraception rather than condoms have been promoted as a first-line method of protection against unwanted pregnancy (Berer, 2004), condoms are currently the only devises that protect against both STIs, including HIV, and unintended pregnancies and therefore feature in HIV and SRH programs. Program linkages are accordingly expected to increase the uptake of such dual-protection contraceptive options and are hence assumed to make an important contribution to the prevention of HIV and other STIs as well as to FP strategies.

A systematic review on the efficacy of HIV and SRH linking strategies by Kennedy et al. (2010) identified 10 peer-reviewed articles based on studies in which condom use was predominately shown to increase. In this regard, a behavioral intervention for HIV positive women, VCT for male STI clinic attenders, VCT for women attending antenatal or pediatric clinics and the provision of different SRH and HIV services to commercial sex workers showed positive effects. The remaining 3 studies showed mixed or no effects on condom use. These results are confirmed by the WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF (2009; n=58; LMIC) review, further suggesting that the increase is observed in sexually active women rather than in men. Evidence from South Africa confirms the positive impact of service integration on condom use and shows that the group exposed to full service integration (VCT into FP services) was significantly more likely to report always using a condom, testing of a partner and ever having had an HIV test (Mullick et al., 2006).

Although evidence on the impact of SRH/HIV linkages and service integration on health outcomes remains scarce (Church & Mayhew, 2009; WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF, 2009), evidence from a systematic review of the evidence for interventions linking SRH and HIV by Kennedy et al. (2010; n=35; LMIC) suggests that the promotion of safer and healthier sex by means of linkages at the policy, systems and service level contributes to reduce HIV and other STI incidence rates. In this regard, HIV incidence was shown to decrease after introducing VCT in combination with treatment for other STI in a mobile clinic (Sherr et al., 2007) and providing VCT to women recruited from prenatal and paediatric clinics along with an HIV educational video, free condoms, group discussion and spermicide (Allen et al., 1992). A randomized controlled trial (RCT) of an intervention consisting of four weekly interactive group sessions emphasizing female empowerment, HIV risk behaviors, condom use skills and supportive networks among HIV positive women in the US showed a decline in gonorrhea and chlamydia incidence (Wingood et al. 2004). With regard to the impact of service integration on health outcomes, it has been suggested that the promotion of FP for HIV positive women in integrated service settings can reduce pediatric HIV by

2 Including peer-reviewed studies and promising practices.
preventing unwanted pregnancies (Sweat et al., 2004). Post-test rates of gonorrhea reinfection were further shown to be lower than pre-test rates after offering HIV C&T to STI clinic attenders (WHO et al., 2009).

C3 Optimize the connections between HIV and SRH services

In an effort to make better use of scarce resources, avoid further fragmentation of health systems, improve quality of health service provision and comprehensively respond to the health service demands of HIV and SRH, the optimization of connections between HIV and SRH services has been identified as a priority area for linkages.

A systematic review of evidence by WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF (2009; n=58; LMIC) examined linkages between the services and suggests that linking SRH and HIV is beneficial and feasible, especially in FP clinics, HIV counseling and testing centers (C&T), and HIV clinics. In this regard, the authors refer to benefits related to STI screening and general SRH service uptake among women living with HIV when integrating SRH services into HIV clinics. The integration of SRH services into HIV C&T clinics and its progressive extension in scope was shown to increase the uptake of FP services by HIV positive women and at the same time dramatically increase the number of clients being tested for HIV. Also the integration of HIV services into FP services was shown to be feasible, improve outcomes and does not seem to increase waiting times, drive away ‘conventional’ FP clients or decrease quality of FP services (WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF, 2009; Dehne et al., 2000).

In fact, it was shown that the optimization of linkages between the services improves provider knowledge and attitudes and thereby enhances the overall quality of both SRH and HIV service provision (WHO et al., 2009). This is confirmed by a systematic review assessing the effectiveness, optimal circumstances and best practices for strengthening linkages between FP and HIV interventions by Spaulding et al. (2009; n=16; LMIC) attributing the observed service quality improvements to better interpersonal communication and counseling skills among service providers that received training in the context of service integration, which underlines the importance of ongoing capacity building to promote effective SRH/HIV linkages, as indicated by WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF (2009). Evidence further suggests that the integration of services has a positive impact on client satisfaction. In this regard, none of the studies included in a review on the effectiveness of FP services in delivering STI and HIV prevention and care by Church & Mayhew (2009; n=44; LMIC) reported negative impacts. Considering the limitations of data reflecting client satisfaction, which is often subject to courtesy bias, especially when collected at the service site, caution must, however, be exercised in interpreting these findings.

A range of different models of integrated service delivery were proposed, involving integration at provider and facility level as well as referral models (Church & Meyhuw, 2009). Evidence suggests that few countries have achieved significant scale-up of integrated service provision (Dickinson et al., 2009; Druce & Nolan, 2007), which Church & Meyhuw (2009) relate to general health system weaknesses. In this regard the authors indicate that successful program improvements were only achieved when sufficient time was taken to establish and support integrated service delivery and modify procurement, reporting and other necessary systems. Several authors further point at the need to determine appropriate linkage strategies and integration modalities based on a consideration of epidemiological factors (e.g. generalized or concentrated HIV epidemics), the structure and organization of health services, the maturity of HIV, AIDS and SRH programs and the contraceptive prevalence rate of the respective contexts as there is no blueprint for integration and linkages (Druce et al., 2006; Dehne et al., 2000; WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF, 2009; Vassall et al., 2011).

C4 Integrate HIV with maternal and infant health

In generalized HIV epidemics, antenatal care, child health care and FP are the most important health services for the implementation of provider-initiated HIV testing and counseling (PITC) (Gruskin et al., 2007). A review article on the contribution of SRH services responding to HIV by Askew & Berer (2003; LMIC) in this regard suggests that the integration of VCT into maternal and child health (MCH) is particularly effective as these services are now relatively accessible to the majority of the population and further reach a target group, which is not easily reached through conventional HIV prevention strategies. In this regard, it was shown that directionality of integration has important implications. Anecdotal evidence reviewed by Gruskin et al. (2007; LMIC) suggests that HIV services should be integrated into existing SRH services as the institutional structures tend to be more solid and the services are positively perceived by the community, facilitating access and reducing HIV related stigma.

Moreover, the reviewed evidence suggests that antenatal, delivery and post-partum services are the only entry point for preventing perinatal and breast-feeding related HIV transmission. Given the increased importance of MTCT of HIV and the efficacy of antiretroviral therapy during pregnancy, the integration of HIV with MCH services accordingly bears major potentials with regard to HIV prevention. The integration was further shown to result in net savings (Askew & Berer, 2003). Although cost effectiveness and efficiency gains are among the main arguments for linked services, reliable cost-effectiveness data remain scarce (WHO, UNFPA, IPPF-HIV, UNAIDS, UCSF,
F  Programs supported by the German Development Cooperation

The Health Programmes in Tanzania and Ruanda have started to support linking SRGR and HIV on the political and service provision level. Other programmes suitable to take up the challenge of linking SRGR and HIV are in the process of planning.

Key words
Sexual and reproductive health; HIV/AIDS; linkages; health service integration

References


AIDS – Acquired Immunodeficiency Syndrome; ANC – Antenatal care; ART – Anti-retroviral therapy; C&T – Counseling and testing; HIV - Human immunodeficiency virus; MTCT – Mother to child transmission; MCH – Mother and child health care; n.i. – not informed; PMTCT – Prevention of mother to child transmission; SRH – Sexual and Reproductive Health; STI – Sexually transmitted infection; US – United States; VCT – Voluntary HIV/AIDS counseling and testing

2 Systematic reviews, systematically approached reviews and review articles

2009; Spalding et al., 2009). Firm conclusions on the cost effectiveness of linkage at policy, systems and services level can accordingly not be drawn.

A DFID funded review on progress, barriers and opportunities for scaling up linkages for SRH, HIV and AIDS, reporting on the experience of scaling up prevention of MTCT (PMTCT) through the integration with MCH suggests that joint task forces and working groups facilitate scale-up of linkages and service integration (Druce et al., 2006). In this regard, the authors refer to the experience in Kenya where a PMTCT task force was set up and developed joint guidelines, protocols, training and supervision schedules, which has been shown to increase the number of new clients, acceptance of HIV C&T and uptake of ART prophylaxis. In Uganda, stakeholders advanced joint policies and guidelines to support delivery of VCT, PMTCT and ART services and integrated care (Druce et al., 2006; Dickinson et al., 2009). In this regard it can be suggested that effective SRH/HIV linkages depend on strong political leadership and joint SRH/HIV policy and coordination mechanisms (Dickinson et al., 2009), including collaborative resource planning processes that were shown to facilitate linkages (Vassall et al., 2011).

D  Methodology

Pubmed, the Cochrane Library, Google Scholar, the Virtual Health Library and Scopus were searched for English language review articles (if available) published between the years 1998 and 2013, using the following headings and text words:

(“family planning” OR “contraception” OR “maternal health” OR “reproductive health”) AND (“sexually transmitted diseases” OR “HIV” OR “HIV infections” OR “HIV prevention” OR “HIV testing” OR “AIDS”) AND (“health services”) AND (“integration”) OR (“linking”) OR (“linkages”).

E  Abbreviations

AIDS – Acquired Immunodeficiency Syndrome; ANC – Antenatal care; ART – Anti-retroviral therapy; C&T – Counseling and testing; HIV - Human immunodeficiency virus; MTCT – Mother to child transmission; MCH – Mother and child health care; n.i. – not informed; PMTCT – Prevention of mother to child transmission; SRH – Sexual and Reproductive Health; STI – Sexually transmitted infection; US – United States; VCT – Voluntary HIV/AIDS counseling and testing


Training and supervision of birth attendants for maternal and neonatal care
Cluster 6 – SRH and Family Planning

Impact → Reduction in maternal mortality; Reduction in newborn mortality

Outcome → Safe pregnancy and birth

A Background

Antenatal care, postnatal care and birth attendance including emergency obstetric care is an important part of the health system. There is strong evidence that reproductive, maternal and newborn health services need to be scaled up, from community level to 24 hour functioning health facilities. There is strong evidence that an increase of skilled birth attendance and emergency obstetric care improves maternal and newborn outcomes (Yakoob 2011). There is some controversy on how to upscale services and which interventions and approaches to use in different settings for obstetric care in situations where there are few doctors.

Key findings

Studies showed that community-based interventions have some positive effects on neonatal mortality but are unable to reduce maternal mortality and complications of pregnancy significantly. The evidence that exists on the effectiveness of lay home based care, such as Traditional Birth Attendants (TBA) or relatives, is limited and conflicting. The long term strategy to increase access to skilled birth attendants based in functioning Emergency Obstetric Care (EmOC) centres, or in the community with strong referral networks to quality EmOC facilities, must be universal. Strengthening professional midwifery skills is key for improving maternal mortality. The evidence indicates this does not discount a staged approach to scaling up access to skilled attendance, starting with short term investment in training and supporting community health workers and TBAs. However, reliance on TBA-training and service strategies should not delay the development of initiatives to educate more professional cadres of birth attendants.

B Definitions

A skilled birth attendant is an “accredited health professional, such as a midwife, doctor or nurse – who has been educated and trained to proficiency in skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns”.

C Approaches

C1 Additional training of health workers in the area of maternity care (“community-based packages”)

Lassi 2010 (Cochrane Review)
One review on the effects of additional training of outreach workers (residents from community who are trained and supervised to deliver maternal and newborn care interventions to her target population) namely, lady health workers/visitors, community midwives, community/village health workers, facilitators or TBAs in maternal and neonatal care included n=18 cluster-randomised and quasi-randomised trials. The review found that intervention packages that consisted of building support groups (RR 0.84, n.s.) and those that mobilized community and made home visits during antenatal and postnatal periods (RR 0.72, n.s.) had non-significant impact on maternal mortality. However, packages that provided training to traditional birth attendants (TBAs), who then made home visits during the antenatal period and during delivery, had a significant impact on reducing maternal deaths (RR 0.70, sign.).

Community-based intervention packages were associated with a significant reduction in neonatal mortality by 24%, and the results were heterogeneous. When the impact was evaluated separately for packages that built support and advocacy groups, those that provided home visitation along with community mobilization, had a significant impact on reducing average neonatal mortality by 21% and 23%.

The review found significant evidence of reduced neonatal
mortality when home-based neonatal care and sepsis management were delivered as a part of package (RR 0.43) when mothers were given health education at home (RR 0.67) and when packages provided community mobilization along with home-based neonatal treatment (RR 0.66). On the other hand, the review found non-significant impact when TBAs were trained and asked to make home visits).

Community-based intervention packages showed a 16% reduction in stillbirths. Community-based intervention packages managed to reduce maternal morbidity on average by 25%. When the effect of community-based intervention was estimated for complications of pregnancy, it had no impact in reducing any of the complications during pregnancy, including eclampsia, obstructed labour, puerperal sepsis, haemorrhage and spontaneous abortion. Significant impact was observed for referral to health facility for any complication during pregnancy. (RR 1.40, sign.). Community-based intervention packages had a non-significant impact on healthcare seeking for maternal morbidities; however it had a positive impact on healthcare seeking for neonatal morbidities. Interventions had no impact on increasing birth attendance by a healthcare provider overall or on institutional deliveries. The most successful packages were those that emphasized involving family members through community support and advocacy groups and community mobilization and education strategies, provision of care through trained CHWs via home visitation, and strengthened proper referrals for sick mothers and newborns.

C2 Task shifting: training of traditional birth attendants (TBAs) and task shifting to lesser trained health workers in the area of maternity and newborn care (Reviews from: EVIPNET/SURE/REACH/Makerere University 2010, WHO opinion, and separate studies)

Darmstadt et al. 2009
A recent review (n = 4 RCTs and quasi-experimental studies) found low to moderate quality evidence that TBA training may improve linkages with facilities (referral rates) and improve perinatal outcomes including a 30% reduction in perinatal mortality rate and an 11% reduction in birth-related neonatal mortality rate. There was also moderate quality evidence that community health workers reduced perinatal mortality by 28% and early neonatal mortality (during the first week of life) by 36%. The authors estimated costs of TBA training per TBA ranging from US$44 in Uganda to US$45-$95 in Ghana, Mexico and Bangladesh. Cost-effectiveness by the same review found a TBA assisting 30 births a year would save 1 baby every 1000 births at a cost savings of USD 3630 per life saved. Expanding the use of community health workers and providing training for TBAs may be a cost-effective approach to improving MCH outcomes and reducing inequities. However, given the limitations of the available evidence, consideration should be given to rigorously evaluating their cost-effectiveness prior to or in conjunction with scaling up.

WHO (http://whqlibdoc.who.int/publications/2011/9789241501965_module9_eng.pdf)
WHO states that “training programmes for traditional birth attendants have failed to reduce maternal mortality in the past. These short trainings were not adequate to teach an otherwise unqualified person the critical thinking and decision-making skills needed to practice.”

WHO states that “there are still gaps in the evidence addressing whether it is useful or cost-effective to make an investment in training these cadres to upgrade their skills to the level of a skilled birth attendant. However, there is strong evidence that promoting a collaboration and alliance between traditional community-based birth providers, and qualified birth attendants, based in the community and in referral facilities, extends the range of services that can be provided to women and families, increases access to health care services, and promotes referral to higher levels of care (Bhutta, 2009).”

“It has been well documented that simply training TBAs to be more effective in their traditional role, but failing to link them effectively into a community-based referral system, is a critical factor that adversely affects the relationship between TBA training and the reduction of the maternal mortality ratio (Neonatal Mortality Working Group, 2008).”

“Therefore, because the impact of well-intended TBA training on reduction of maternal mortality has not been consistently demonstrated (Ray & Salihu, 2004; Darmstadt, 2009) TBA training efforts have declined, in favour of the emphasis on skilled birth attendance.

The available evidence suggests that TBA training alone is not warranted as a standalone national strategy (Campbell et al., 2006) that would lead to achievement of the Millennium Development goal related to reduction of maternal mortality. Moreover, reliance on TBA-training and service strategies can lead countries to delay the development of initiatives to educate more professional cadres of birth attendants. However, available evidence also suggests that in countries in which skilled attendant coverage is high, training TBAs to provide key-evidence based interventions prior to referral, is a viable short-term strategy (Sibley & Sipe, 2004).”

C3 Increase skilled birth attendance through midwife-led obstetric care

Hatem 2010
A systematic review (n=11 RCTs) compared midwife-led care versus other models of care (obstetrician-led, family doctor-led
and shared models of care) for childbearing women. All of the included evaluations were conducted in high-income settings. They found that midwife-led care (1) reduces significantly the use of instruments for vaginal births; (2) probably reduces overall fetal loss and neonatal death, antenatal hospitalizations, and use of intrapartum analgesia (smaller effect sizes), (3) probably leads to little or no difference in the incidence of low-birth weight or preterm birth.

C4 Facility-based vs. home-based birth

Koblinsky 2006

The authors modeled six scenarios for scaling up skilled attendance at delivery in Bangladesh, using a mix of community workers and midwives in different delivery scenarios. They conclude that the most efficient option for increasing coverage over a 10 year period is through facility-based deliveries by mixed teams of midwives and midwife assistants.

However, the acceptability of facility-based delivery varies from setting to setting. Home-based delivery care strategies have been successful in Malaysia and contributed to low maternal mortality ratios. Given physical, social and cultural barriers to accessing facility services, evidence implies there is an argument for locating skilled birth attendants in communities for domiciliary services for specific populations. The success of experiences from the family planning field in community and doorstep delivery also indicates that flexibility in service delivery may be important for access to maternal health. The debate of facility versus community-based skilled attendance at birth is ongoing.

Intrapartum care in the community - home-based skilled birth attendants

Where the strategy to provide skilled birth attendants at home has been implemented well, such as in the Netherlands and Malaysia, success in reducing MMR has been achieved (Koblinsky 1999). Skilled attendants can ensure safe normal deliveries, conduct preventive interventions of basic care and administer first aid. However, some homes have very limited facilities that do not enable clean and safe delivery and if quick referral to an emergency and obstetrics care facility is not possible, the effectiveness of this strategy will be limited. Research from Bangladesh found midwives tended not to conduct outreach activities, instead preferring to serve those women living closer to them, raising questions about the extent to which home-based skilled birth attendants increase access (Chowdhury 2006).

Home-based traditional birth attendants and lay health workers

The evidence that exists on the effectiveness of lay home-based care, such as Traditional Birth Attendants (TBA) or relatives, is limited and conflicting. This approach is typically used in the poorest countries among the poorest rural populations where MMR is high. Jokhio et al. (2005), in a cluster randomised controlled trial in Pakistan, showed that training of TBAs, where Lady Health Workers linked trained TBAs to existing hospital care, reduced maternal mortality but not to a statistically significant extent; however, they significantly reduced perinatal mortality. The trial found that the intervention cluster had significantly lower rates of puerperal sepsis and haemorrhage; diagnosis of obstructed labour was significantly greater than in the control cluster; and women in the intervention group were more likely to be referred for EOC. Experience from Malaysia found that MMR was reduced further through the introduction of skilled home birth attendants trained in place of TBAs (Koblinksy 1999). Systematic reviews suggest that without the support of skilled referral services, investment in training lay attendants is not warranted as a major standalone national strategy as it does not reduce MMR (Campbell 2006; Sibley 2004). The vital point is connectivity to a functioning health system/service, obstetric backup support, and taking a staged approach to investment in different levels of health providers appropriate to the context.

D Recommendations

Packages of intrapartum care are effective only if they are delivered by sufficient numbers of skilled attendants who are properly equipped, and regulated. The major barrier to achieving high quality intrapartum care is the global lack of skilled attendants and other key health workers. The long term strategy to increase access to skilled birth attendants based in functioning EmOC centres, or in the community with strong referral networks to quality EmOC facilities, must be universal. Strengthening professional midwifery skills is key for improving maternal mortality. The evidence indicates this does not discount a staged approach to scaling up access to skilled attendance, starting with short term investment in training and supporting community health workers and TBAs. However, reliance on TBA-training and service strategies should not delay the development of initiatives to educate more professional cadres of birth attendants.

E Programmes supported by German Development Cooperation

- Bangladesh, Cambodia, Indonesia, Kenya, Malawi, Nepal, Tanzania

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G Abbreviations, terms

EmOC = Emergency Obstetric Care; n.s. = not significant; MMR = maternal mortality ratio; RCT = randomized clinical trial; RR = relative risk; risk (or chance) of an event relative to exposure. Relative risk is a ratio of the probability of the event occurring in the exposed group versus a non-exposed group. RR = 1: no effect, RR < 1.0: risk reduction, RR > 1.0: increased risk.
Harm Reduction for HIV prevention
Cluster 7 – HIV/AIDS

Impact → Reduction in new HIV infections (incidence) among people who inject drugs

Outcome → Reduction in risky behaviour (e.g. use of unclean injecting equipment)

A Background

There is growing consensus that HIV among people who inject drugs (PWID) is spreading more rapidly than among any other risk group. Close to 16 million people globally engage in injecting drug use (IDU), of which 3-6.6 million people are thought to be infected with HIV (Horton & Das, 2010). IDU accounts for close to one third of all HIV infections outside sub-Sahara Africa, thus representing a major driving force of the global HIV epidemic (Horton & Das, 2010). Almost 80% of PWIDs live in developing and transitional countries, with the largest proportion in Asia (Hammet et al., 2008). Nonetheless, the focus on HIV among PWID represents one of the most neglected and thus greatest shortcomings of global HIV prevention efforts. HIV transmission following the use of HIV contaminated injecting equipment represents the second most common means through which HIV is spread. The risk of HIV transmission following the use of a syringe contaminated with HIV lies between 0.63-2.4% (1 in 125 injections) (Baggaley et al., 2006) and is thus substantially higher than the risk of sexual transmission of HIV among serodiscordant heterosexual couples (0.02-0.05%; 1 in 200-5000 sexual acts) (Boily et al., 2009). As IDU represents a major route of HIV transmission globally, it is essential that HIV prevention efforts are targeted towards PWIDs.

Harm reduction for HIV prevention refers to interventions and measures designed with the key outcome of averting injection related HIV infections. Besides sharing needles and syringes there are other factors that are associated with rapid transmissions of HIV/AIDS among PWIDS. These include poor knowledge about HIV/AIDS, restricted access to sterile needles and syringes, special situations that create rapid risk-partner change and high probability to have contact with recently infected persons.

Challenges for the implementation of effective and sustainable harm reduction approaches for HIV prevention are strict drug policies and the legal situation that inhibits high-quality interventions; lasting discrimination and stigma of PWIDs which result in staying away especially from treatment services; a lack of harm reduction components in vaccination or drug distribution programmes; the need to implement measures in particular settings like prisons and problems of sustainability of interventions without continuous financial support (Sarang et al. 2006). Furthermore, the variability in risk profiles and diverse risk behaviours represent a main challenge for prevention efforts coming out from both drug and sexual behaviours (Copenhaver et al. 2006).

Key findings

Harm reduction aims to reduce the spread of HIV among PWIDs and from them to the general population.

Needle syringe programs (NSP) are effective interventions that reduce the infection risk associated with unsafe injecting practices. However, only a modest link between NSP and a reduction in HIV incidence has been found. Oral substitution treatment (with methadone or buprenorphine) has shown to positively affect risk behaviours such as injecting drug use, needle sharing and multiple concurrent partnership with decreasing HIV transmission. There is less evidence on condom use. Most effective are multiple-component HIV prevention programs. Peer education programs are associated with increased HIV knowledge, reduced equipment sharing and increased condom use especially when both drug-related and sexual-related HIV risk behaviour is focused.

B Definitions

Harm reduction refers to the policies, programmers and practices which can lessen the harms associated with the use of psychoactive drugs, accepting that many people around the world are unable or unwilling to stop using drugs (IHRA, 2010). Thus, the primary focus of harm reduction lies in preventing the social, economic and health related harms caused by drug use (such as HIV and Hepatitis infections), rather than focusing solely...
on the prevention and reduction of drug use itself. Focalizing a dignified and respectful treatment for PWIDs, harm reduction interventions require information that is correctly transferred, the compliance of behavioural aspects, drug abuse treatment and provision of condoms and sterile injection equipment (Des Jarlais & Semaan, 2008). There exist different harm reduction interventions which can be adapted to various contexts and types of drugs and which have been shown to be practical and cost-effective with a high impact on reducing adverse effects relating to drug consumption.

Examples of harm reduction interventions are:

- Needle syringe programmes (NSP)
- Oral substitution treatment (OST)
- Antiretroviral treatment (ART)
- Peer based interventions
- Other behavioural interventions (e.g. social marketing)
- Use of low dead space syringes (LDDSs)

Strategies which use a combination of different harm reduction interventions have been shown to be most effective at reducing HIV transmission among PWID (Degenhardt et al., 2010). Enabling PWID to access harm reduction services is an essential step towards achieving the human right to health and the right of protection from HIV within this high risk group. Nonetheless, harm reduction remains a highly politicised and socially sensitive issue, as PWID remain to be marginalized from society and social programs in most countries worldwide. Further the prevalence of drug use seems to be higher in countries with higher levels of inequalities and lower in countries with less inequality. Knowing this, measures that focus decreasing economic and social inequality could also reduce illicit drug use (Wodak, 2011).

C Approaches

C1 Needle Syringe Programs (NSP)

Needle syringe programs work on the principle of providing clean injecting equipment (needles and syringes), in order to decrease the frequency of injections with contaminated equipment and related risks of HIV infection. Various models of NSP exist, ranging from free provision of clean needles and syringes, exchange of used needles and syringes with clean equipment, to sale of clean injecting equipment (typically through pharmacies). These services can be either fixed points or outreach NSP or can take the form of peer distribution among PWID.

A strong evidence base exists to support the effectiveness of NSP for increasing safe injection and thereby reducing the risks associated with unsafe injecting practices (Tilson et al., 2007; Palmateer et al., 2010). Evidence based mainly on a large number of prospective studies and review papers shows that participation in multi-component HIV prevention programs that include needle and syringe exchange is associated with a reduction in drug-related HIV risk behaviour. Such behaviour includes self-reported sharing of needles and syringes, safer injecting and disposal practices, and frequency of injection. Other components in those HIV prevention programs were outreach, risk reduction education, condom distribution, bleach distribution and education on needle disinfection, and referrals to substance abuse treatment and other health and social services. Few studies have measured HIV incidence directly with regards to needle sharing. Where such studies have been conducted, only a modest link between NSP and a reduction in HIV incidence has been found (Rhodes et al., 2006), which is likely a result of insufficient coverage and availability of clean injecting equipment. Further modelling shows that using a combination approach of prevention of high coverage NSP and opioid substitution therapy (see C2, below) could lead to a reduction in HIV incidence as high as 20% after five years (Degenhardt et al., 2010).

C2 Oral substitution treatment (OST)

OST describes a form of oral treatment that is provided to opioid-dependent injecting drug users to prevent the associated risk of transmission of blood-borne viruses such as HIV and hepatitis.

A Cochrane systematic review conducted by Gowing et al. (2008) involving twenty eight studies to review the effectiveness of methadone maintenance treatment (MMT) in reducing HIV risk behaviour showed that MMT significantly reduces the frequency of IDU overall, as well as the sharing of injecting equipment. Further, the review shows that MMT is associated with a reduced number of reported sexual partners and exchange of sex for drugs or money among PWID. MMT appears to have little effect on the frequency of condom use. The review concludes that MMT leads to a reduction in risk behaviours among PWID which in turn appears to result in reductions in HIV infections overall. The authors thus advocate the use of MMT as an effective method of HIV prevention among PWID and the community at large. In addition to the raised points methadone maintenance induces societal benefits such as reduced crime rates and improved social functioning (Hammet et al., 2007).

There is strong evidence from Cochrane reviews to support the effectiveness of methadone (Mattick, 2009) and buprenorphine (Mattick, 2009a) for treating opioid dependence and the World Health Organisation (WHO) has listed these two substances as essential harm reduction drugs. Pharmacotherapy for treating cocaine or amphetamine dependence has proven to be ineffective to date (Minozzi et al, 2008). A Cochrane review further showed the use of oral naltrexone to be ineffective in treating heroin dependence (Minozzi et al., 2006).
According to Medley et al. (2009) Peer education interventions are defined as the “sharing of (HIV/AIDS) information in small groups or one to one by peer matched, either demographically or through risk behaviour, to the target population.” Therefore to target peer groups and whole communities are central rather than individual approaches. People in such programs are characterized through similar life circumstances (age, health status, level of education etc.) (Maticka-Tyndale & Barnett, 2009). Generally peer based interventions and other behavioural interventions focus on increasing awareness, transmitting knowledge and inducing behaviour change (Medley et al., 2009). Meta analyses show that most behavioural risk reduction interventions include components such as HIV/AIDS education (90%), condom use skills (69%), self-management skills as well as both drug-related and sex-related risk reduction (Copenhaver et al. 2006).

Meta-analyses have shown that peer education programs are statistically significant associated with increased HIV knowledge, reduced equipment sharing among PWIDs and increased condom use (Medley et al., 2009). Increased HIV knowledge is the most frequently assessed outcome with a lot of positive changes reported (Maticka-Tyndale & Barnett, 2009). According to studies, peer based interventions and other behavioural interventions are probable effective concerning change of norms, skills, attitudes like condom use self-efficacy as well as increased social capital for the peer educator and decreasing STD symptoms. There is insufficient evidence on the effect of interventions on abstinence and the number of sexual partners. Changing sexual behaviour of youth that are already sexually active may thus be unlikely. Meta-analyses show that the interventions’ effects on condom use tended to decay over time (Copenhaver et al. 2006). The biological impact of interventions (e.g. the effects on IV incidence) remains unclear (Medley et al., 2009).

Crucial for intervention effectiveness and program success are the selection and recruiting, training and supervision of peer educators, (Medley et al., 2009), a thorough needs assessment for program design and participation of the target community. To ensure the sustainability of the program, it is important to aim at the empowerment of the community, to develop independent structures and procedures and to include further organizations (i.a. NGOs) (Maticka-Tyndale & Barnett, 2009). Success is more likely when targeting drug risk and sexual risk behaviours together, building on valid theories and methods for behavioural change such as the social-cognitive theory, the theory of diffusion of innovations or the trans-theoretical model of behaviour change (Des Jarlais & Semaan, 2008).

**D Methodology**

A literature search for systematic reviews and controlled studies was performed covering the time period 1998-2012. The literature search was limited to PubMed and homepages of selected organizations such as WHO. The following search terms have been used for the PubMed search:((harm reduction) OR (needle exchange) OR (opiate substitution) OR (methadone)) AND (HIV OR AIDS) AND (review OR (meta-analysis) OR (practice guideline)).

**E Programmes supported by German Development Cooperation**

Kyrgyzstan, Ukraine, Nepal, regional programme in Central, South and South East Asia; support to regional HIV knowledge hubs in Zagreb and Moscow with a focus on harm reduction.

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**C3 Peer based interventions and other behavioural interventions**

As the likelihood of HIV infection following exposure to an infected syringe is dependent on the amount of blood retained within the syringe, several studies have investigated the effects of using a high dead space syringes (HDSS) versus low dead space syringes (LDSS) on HIV transmission risks. While LDSS usually consist of a one piece syringe with a non-detachable needle, HDSS are made up of a detachable needle which is connected to the syringe barrel. Thus, the volume of liquid that is retained in a HDSS following use can be up to 100-fold the volume retained in a LDSS (Zule et al., 2010). Consequently, longer periods of survival of the HI-virus have been reported within HDSS versus LDSS (Abdala et al., 1999).

A systematic review commissioned by the WHO to examine the effectiveness of using LDSS versus HDSS to reduce HIV transmission in PWID which included two cross-sectional studies revealed a 71% (RR 0.29; 95% CI: 0.18–0.46) reduced likelihood of being HIV infected among PWID who used LDSS (WHO, 2012). However, due to the limited number as well as the low quality of included studies, WHO guidelines make only a conditional recommendation for the use of LDSS within NSPs. The investigation of technical solutions such as the use of LDSS over HDSS has been described as a potentially important intervention by the WHO and should be explored further in future research.

**C4 Low dead space syringes (LDSSs)**

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F References


G Abbreviations, terms

ART = Antiretroviral treatment; 
IDU = Injecting drug use; 
LDSSs = Low dead space syringes; 
NSP = Needle syringe programmes; 
OST = Oral substitution treatment; 
PWID = People who inject drugs; 
MMT = Methadone maintenance treatment.

Condom use; HIV prevention; HIV/AIDS; harm reduction; peer based interventions; safe injection equipment; needle sharing; risk behaviour; HIV knowledge, opioid dependence.
Behaviour Change Communication Interventions for HIV/AIDS
Cluster 7 – HIV/AIDS

**Impact**
- Reduction in new HIV infections (incidence) in adults and newborns; Years of life gained for people living with HIV/AIDS

**Outcome**
- Reduction in risky behaviour (e.g. increase in condom use, less needle sharing); Increase in ART coverage (adults, children and mothers – PMTCT); Increase in people living with HIV/AIDS receiving adequate health services

**Key findings**
Behaviour Change Communication (BCC) interventions have variable effects on knowledge, attitudes and behaviour with regard to HIV/AIDS. Studies show that peer education is successful at increasing knowledge, increasing condom use, and providing youth with information and condoms; however, effects on primary or secondary abstinence and number of sexual partners are less encouraging. The effects of mass media campaigns with regard to perceived HIV risk and attitudes are positive, but it is unclear which factors make the campaigns effective or not. For the Join-In-Circuit there are only a few pre-post studies showing positive effects on knowledge and condom use but no solid evidence. The same is true for the Intergenerational Dialogue and community dialogues where some studies show an effect on people to discuss relevant issues and be aware of risks. We found some positive effects of entertainment education with long-term exposure being an impotant factor. Culture-sensitivity is important for BCCs to work.

**A Background**

Behaviour Change Communication (BCC) is a participatory and interactive process of working with individuals, communities, and societies to develop tailored messages and approaches using a variety of communication channels in order to enable them adopt health-promoting behaviours, as well as develop and maintain individual, community and societal behaviour change (FHI, 2002). Communication interventions can be carried out through training, radio, television, drama, print material, group work, individual counselling or one-to-one education (AIDSCAP, n.d.). Behaviour change strategies need to be combinations of approaches sustained over a long time period at multiple levels of influence. The effective mix varies by the health problem addressed (e.g. the HIV transmission dynamics) and depends on the profile of the populations engaging in risky activities (Coates, Richter, & Caceres, 2008).

Examples of BCC interventions commonly used in German Development Cooperation (GDC) in the areas of HIV and sexual and reproductive health and rights (SRHR) are:

- peer education
- mass media campaigns
- the Join-in-Circuit (JIC)
- community dialogue and mobilization
- intergenerational dialogue around HIV and SRHR
- entertainment education (like soap operas on HIV).

**B Definitions**

**Peer education** activities select individuals who share demographic characteristics (e.g. age, gender) or risk behaviour with a target group (e.g. intravenous drug users, adolescents or commercial sex workers) and train them to increase awareness, knowledge and encourage behaviour change among members of that same group. It is assumed that peer educators have a certain level of trust and comfort with their peers that allows for more open discussions of sensitive topics. Exchange of information is between people of similar age and status which facilitates peers learning from each other and norms and behaviours being more likely to be changed than through classical education.
Mass media have been used since more than 20 years in developed and developing countries as a tool in the combat against HIV and AIDS. In many countries communication programmes via mass media have been expanded and now strongly focus on behaviour and attitudes change, increasing HIV-related knowledge, decreasing stigma, and producing awareness. Mass media include TV, radio, video, print and the internet. Programmes may be presented in the form of shows, songs, soap operas, pamphlets, posters, interactive web sites, spots and other. They may be part of social marketing programmes, e.g. for improving adolescent reproductive health. Mass media communication is one of the core tools of Social Marketing.

The “Join-In Circuit on AIDS, Love, and Sexuality” is an HIV prevention tool used in more than 18 countries, including Bangladesh, Mongolia and Nepal; the Russian Federation and Ukraine; Mozambique, Zambia and Zimbabwe; and Ecuador and El Salvador. Initially developed by the German Federal Centre for Health Education (BZgA), it is a workshop with five or more stations, at which facilitators help participants to learn critical information about HIV through interactive problem-solving, games and conversation. Most Circuits strongly advocate for the use of condoms, the delaying of first sexual contact, faithfulness, and open discussion of prevention with sexual partners. Participants are also urged not to share needles or razor blades, to avoid high-risk situations and to take advantage of HIV counselling and testing. In little time, it can thus convey key prevention messages in an effective manner to large numbers of people belonging to groups at risk of HIV like soldiers, prisoners, workers, schoolchildren, students and other.

Community dialogues are vibrant affairs, as individuals engage in conversation and debate, respond to presentations and opinions, and participate in group activities. As part of the Community Capacity Enhancement methodology, community members use a series of tools and exercises to identify the main challenges they face regarding HIV/AIDS, understand socio-cultural dynamics that drive the epidemic locally, and equip themselves with the skills to begin addressing these challenges. Central to the success of any community conversation is skilled facilitation. Facilitators ensure that the opinions of community members are heard and respected, and help to create a safe space in which real engagement about difficult issues can take place.

The Intergenerational Dialogue approach is based on a narrative philosophy of personal and cultural development. The dialogues create spaces for reflection, for listening and for exchange, enabling the two parties to treat each other with mutual respect and appreciation. It aims at increasing communication across the boundaries of age and sex on sensitive issues such as gender relations, sexual morality or sexual and reproductive health. The methods used during the workshops ensure that each generation has the opportunity to express itself, that the generations and sexes begin to reflect on their own convictions and that agreements on topics where they can come closer together emerge.

Entertainment education (Edutainment) is the process of designing and implementing an entertainment program to increase audience members’ knowledge about a social issue, create more favourable attitudes, and change their overt behaviours regarding the social issue. It is the process of designing and implementing an entertainment program to increase audience members’ knowledge about a social issue, create more favourable attitudes, and change their overt behaviours regarding the social issue. The results can be presented through various media like street theatre, road shows, Soap operas – all of them instruments frequently used in Social Marketing Projects.

Advocacy is a policy dialogue with politicians, religious leaders and other leaders in society that are important for forming/changing the public opinion on critical issue. They also might be influenced to change legal frameworks or informal rules and regulations on condom use, sexual behaviour, abstinence, taboos, stigmatization and discrimination.

Condom social marketing (CSM) comprises the three elements of condom branding, development of a commodity logistic system, and a sustained marketing approach. It combines the supply-side to increase availability of condoms (alternative approaches would be public/free or private distribution) with different communication approaches to increase the demand for condoms (or other health products).

C Approaches

C1 Peer education

In one review supported by the WHO (Medley et al. 2009), peer education was significantly associated with an increase in HIV knowledge among all populations except transport workers. Meta-analysis of the 4 studies with people who inject drugs showed a statistically significant reduction in equipment sharing by more than 50%. 19 studies estimated condom use after peer education. Only one of three studies among youth showed positive effects on condom use, whereas two showed no effects. However, positive intervention effects (with an increase of condom use by an average of 100%) were observed among people who inject drugs, commercial sex workers, transport workers, heterosexual adults and miners. There was a moderate effect on condom use both with casual as well as regular sex partners (except in youth). Only 7 studies estimated STI prevalence or incidence. The meta-analysis found a non-significant increase in STI infection rates (used as a proxy for HIV) after peer education. The authors did not find differential effects according to the method used to recruit peers (self-nomination, target audience, snowballing). They conclude that peer education interventions were associated with moderate increase in HIV
knowledge, reduced equipment sharing (needles) among people who inject drugs, and increase condom use (except with youths). There was no consistent effect on STI rates.

In a second review (Maticka-Tyndale et al. 2009) 10 of 13 included studies on the effects of peer education assessing knowledge reported positive changes in at least one sample subgroup. Knowledge related directly to HIV (e.g. prevention methods and transmission routes) was most likely to exhibit positive changes. 8 of the 11 studies that reported qualitative results regarding the transformation of community norms provided evidence of success. Two of the three studies reported a positive change of condom self-efficacy. Results regarding primary and secondary abstinence and number of sex partners were mixed. Some major studies found no effect on abstinence in youth, and only some studies with weak designs reported success in the number of sexual partners. The negative or non-significant results were more likely to occur among males. 8 of 10 studies obtained positive results for increasing condom use. The authors conclude that peer education programmes were generally successful at increasing knowledge, increasing condom use, and providing youth with information and condoms. The effects on primary or secondary abstinence, and number of sexual partners were less encouraging. The most successful programmes (Senegal, Cameroon, and Zambia) included primarily group activities in a club-like atmosphere. The authors stress the need for community assessment (what are people doing, what cultural norms shape their sexual landscape, what they would like to know?), well-thought peer selection, community involvement, training and ongoing support of peer educators, peer supervision and retention. The authors emphasize that adults may better at conveying factual information, while peers may be better at engaging youth in conversation about norms, attitudes and behaviours.

A variety of more recent studies suggest that peer-led HIV prevention education in adolescent succeeds in improving and sustaining HIV/AIDS-related knowledge and some behaviour intentions. However, there are few methodologically sound evaluations showing sustained long-term behaviour change for this group of people (Ye 2009). A large recent review assessing 117 studies provided some support for peer interventions for HIV prevention according to outcome indicators in the domains of sexual risk behaviour, attitudes and cognitions, HIV knowledge, and substance use (Simoni 2011). However, outcomes assessed using biomarkers and other non-self-report variables were less likely to indicate intervention efficacy.

C2 Mass media campaigns

HIV-related stigma has been recognized as a significant public health issue, yet gaps remain in development and evaluation of mass media interventions to reduce stigma. A 2006 review (Bertrand et al.) examined the effectiveness of 24 mass media interventions on changing HIV-related knowledge, attitudes and behaviours. Studies were performed in Africa (n=12), Asia (n=1) and Latin America or the Caribbean (n=5). The majority examined programmes that used radio or TV, with or without other supporting media and presented pre- and post-intervention data only. 50% of studies reported positive effects on HIV knowledge measures, with effect sizes ranging from 2 to 100% improvements in the proportion of respondents with better knowledge (mostly with regard to modes of HIV transmission). The effects on perceived HIV risk were mixed. The results for condom efficacy were split between positive effects and no effects. There was only a trend towards more talking about HIV/AIDS or condom use and towards continuing abstinence or delaying sexual activity after mass media exposure. Many evaluations of TV or radio programmes and of community education campaigns failed to show significant increases in condom use. Of the six studies that did show a positive outcome for condom use, five used radio and/or TV, alone or with other media. In general, the published literature contained little empirical evidence as to what factors make an effective behaviour change communication mass media programme in developing countries. While donor agencies and nations have invested millions of dollars in mass media campaigns relatively few have been subjected to rigorous evaluation.

The Malawi ‘Radio Diaries’ (RD) program features people with HIV telling stories about their everyday lives. A study by Creel et al. (2011) evaluates the program’s effects on stigma and the additional effects of group discussion. Thirty villages with 10 participants each were randomized to listen to RD only, to the program followed by group discussion or to a control program. Post-intervention surveys assessed four stigma outcomes. Regression analyses indicated that fear of casual contact was reduced by the intervention. Shame was not reduced when the radio program was followed by discussion. The intervention reduced blame for men and not women and for younger participants but not older participants.

A recent Chinese study (Li et al. 2009) using cross sectional data showed that exposure to a specific mass media campaign was related to HIV knowledge and less stigmatizing attitudes towards people living with HIV/AIDS. However, widely held misconceptions concerning HIV continued.

C3 The Join-In-Circuit (JiC)

There is no rigorous evidence on the effects of the JiC. One study (Dawud 2003) assessed the effect of the intervention (MOVE), a communication tool developed to bring about meaningful behavioural changes by introducing the issue of HIV/AIDS through interpersonal and experience-oriented communication between the target groups and professional health promoters. The study was conducted among teachers at Kobe College of
Teacher Education in Addis Abbeba, Ethiopia, during July and August 2003. Baseline and post intervention data was collected from 359 and 264 respondents respectively who were interviewed using self-administered questionnaires. The intervention used a pre/post intervention design of almost the same groups of individuals. Respondents awareness that people can do something to prevent contracting HIV/AIDS significantly increased after the intervention. Moreover, knowledge of the three programmatic prevention methods, that is, abstaining, being faithful to one partner, and using condom were significantly high among the post intervention group. Their awareness in identifying risk behaviours also increased significantly after the intervention whereas uncertainty about getting involved in risky sexual practices decreased. Besides, misconception like healthy looking individuals are free from HIV decreased after the intervention. Generally, participants developed positive attitudes towards people living with HIV/AIDS, and towards women’s rights in sexual matters including the use of condoms. Again, their willingness to have voluntary counselling and testing for HIV significantly increased after the intervention. Yet, it is very difficult to conclude whether this intervention had impact on sexual behaviours and practices of participants based on this cross sectional study design. Activities of participants based on this cross sectional study design.

C4 Community dialogue and mobilization

Though religious organizations may be uniquely positioned to address HIV by offering prevention, treatment, or support services to affected populations, models of effective congregation-based HIV programs in the literature are scarce. One systematic review (Williams et al. 2011) distilled lessons on successfully implementing congregation HIV efforts. Peer-reviewed articles on congregation-based HIV efforts were reviewed against criteria measuring the extent of collaboration, tailoring to local context, and use of community-based participatory research (CBPR). The effectiveness of congregations’ efforts and their capacity to overcome barriers to addressing HIV was also assessed. Most congregational efforts focused primarily on HIV prevention, were developed in partnerships with outside organizations and tailored to target audiences, and used CBPR methods. A few more comprehensive programs also provided care and support to people with HIV and/or addressed substance use and mental health. Moreover, congregational barriers such as HIV stigma and lack of understanding HIV’s importance were overcome using various strategies including tailoring programs to be respectful of church doctrine and campaigns to inform clergy and congregations. However, efforts to confront stigma directly were rare, suggesting a need for further research.

C5 Intergenerational dialogue around HIV and SRHR

After a follow-up workshop on Female Genital Mutilation (FGM) in October 2003 a survey of 40 participants’ families and 40 control families was carried out in Faranah, Guinea by GTZ (2005). The aim was to determine whether and how the intervention had influenced family communication on HIV/AIDS, FGM and the quality of the relationships between the generations. The results of the study showed that, compared to the control families, the participants’ families reported significantly more communication between parents and children about sexual morality, about HIV/AIDS, about sexuality and about genital mutilation. Furthermore, the participants’ families reported significantly better family relationships and significantly more reciprocity (active interest and listening by the old as well as by the young) in those relationships than the control families. Overall, the Faranah survey showed a number of clear differences between intervention and control families four months after the end of the targeted intervention. While these differences cannot prove a causal link between the generation dialogue and the desired patterns of family communication, this study allows us to maintain the hypothesis that the intergenerational dialogues have an impact.

From 2004 onwards, the Generation Dialogue approach was implemented in three regions of Mali (Ségou, Mopti and Koulikoro) with support of the GIZ-supported Mali–German Basic Education Programme. In 2009, a comprehensive impact evaluation was undertaken, using a systematic sampling procedure to compare four intervention villages with three villages where no Dialogues had taken place. In all villages, focus group discussions and individual interviews were conducted with younger and older community members of both sexes and with community leaders, using standardized questionnaires (GTZ 2009). In contrast to the earlier Guinean study, the Mali survey covered a representative sample of all community members, not just families who had a member participating in a Dialogue. Its findings showed significant differences between intervention and control villages as a consequence of the Dialogue process. The people in the villages that had undertaken Generation Dialogues were much more willing to discuss the formerly taboo topic of female genital cutting across the sexes and the generations. Awareness of the harmful effects of female genital cutting was considerably greater in these villages, too. Overall, relations and communication between the generations were improved and older community members felt that there was more interest and respect for community traditions by the young people in their village. Yet, evidence on this issue is very scarce and more studies are needed to further assess the effect of this intervention.

C6 Entertainment education (like soap operas on HIV)

A study by Pappas-DeLuca et al. (2008) examined associations between exposure to Makgabaneng (an entertainment-education radio serial drama written and produced in Botswana to promote prevention of HIV) and outcomes related to HIV testing, including stigmatizing attitudes, intention to be tested, talking
with a partner about testing, and testing for HIV, among 555 sexually active respondents. The four measures of exposure to Makgabaneng were frequency of listening, duration of listening, talking about the program, and attentiveness to and identification with relevant characters. Data were collected approximately 18 months after the drama began airing. **Positive associations between exposure to the program and intermediate outcomes were found, including lower level of stigmatizing attitudes, stronger intention to have HIV testing, and talking to a partner about testing.** Although associations were identified with all four measures of exposure, increased duration of listening was associated with more positive outcomes than the other measures. This finding suggests that **longer term exposure to entertainment-education programming may be important for behaviour change.**

A community intervention trial (Harvey et al. 2000) was done in KwaZulu Natal, South Africa to evaluate the effectiveness of a high school drama-in-education programme. Seven pairs of secondary schools were randomized to receive either written information about HIV/AIDS or the drama. Questionnaire surveys of knowledge, attitude and behaviour were compared before and 6 months after the interventions. 1080 students participated in the first survey and 699 in the second. **Improvements in knowledge** (p=0.0002) and **attitudes** (p<0.00001) **about HIV/AIDS were demonstrated in pupils at schools receiving the drama programme when compared to pupils receiving written information alone.** These changes were independent of age, gender, school or previous sexual experience. In schools receiving the drama programme, sexually active pupils reported an increase in condom use (p<0.01).

**C7 Advocacy with politicians and religious leaders to influence public opinion**

Our review found no evidence on this particular approach.

**C8 Condom social marketing**

The systematic review/meta-analysis conducted by Sweat, M., Denison, J. et al. (2012) includes a total of six studies, one from India and 5 from sub-Saharan Africa. The effect size across all studies on behaviours such as condom use at last high risk sex is found to be modest. The authors assess the quality of all studies included as being of low methodological rigor. They assume a more substantial cumulative effect of CSM on condom use from future evaluations that should be based on a more robust design and include a longer term follow up.

Findings from systematic reviews discussing effectiveness of BCC addressing specific target groups (at school youth, sex workers, people living with HIV):

**HIV education in schools**

School-based interventions are highly effective in changing HIV-related knowledge and attitudes. The review of 10 studies from Anglophone Sub-Saharan Africa, however, did not find any significant effects with regard to changing sexual risk behaviours. Longer-term participatory interventions appear to have a better impact than information events or the pure distribution of information material, though this was tested only in one study. Critical factors with regard to impact are to have in place a clear purpose and a participatory design that promotes communication and life skills of the pupils (Ebhominhen et al. 2008). Another review confirms that more in-depth intervention show greater impact. Constraints in the school setting (lack of resources, low willingness of teachers to discuss condom use due to cultural barriers) explain why some studies did not find any impact when it comes to measuring biological endpoints (e.g. Herpes simplex infections). Other studies in school settings could report significant effects on teenage pregnancy used as a more reliable proxy indicator for HIV infection (as compared to self-reported behaviours). Educating youth about their relative risks of HIV infection is thereby important (Duflo et al., 2006).

**HIV interventions addressing sex workers**

Findings from a review of 28 (quasi)experimental studies among female sex workers (16 from Africa, 8 from Asia and 5 from Latin America) indicate that behavioural interventions together with counselling and condom branding increased condom use and were associated with a lower risk of infection with HIV/other STI. Though promotion resulted in increased uptake female condoms did not prove to be effective with regard to reduction in STI. Structural interventions with multiple components (e.g. group empowerment of sex workers, policy support) can effectively reduce HIV and STI.

**BCC addressing people living with HIV**

Findings from a review of 19 studies (including 10 behavioural interventions that were targeted exclusively at people living with HIV) provide evidence for an overall significant effect on condom use. The effect size was found to be greater among HIV positive individuals, even more among those with a serodiscordant partner. Other variables that changed as a result of the interventions were concurrent partnerships among HIV positive individuals (small positive effect) and the willingness to disclose HIV status (significant positive effect).

**D Programmes supported by German Development Cooperation**

- Burkina Faso, Cameroon, Kenya, Mozambique, Namibia, Tanzania, Zimbabwe, Social marketing countries cover: Central America and Caribics, West Africa (Mali, Sierra Leone, Senegal, Guinea,
Côte D’Ivoire, Burkina Faso, Niger, Tchad, Benin) Central and East Africa (CAR, Camaroon, Congo, Burundi, Rwanda, Uganda, Kenya, Tansania), Southern Africa (South Africa, Namibia), Asia (India, Kambodia, Thailand), Yemen

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GTZ/Supra regional project „Promotion of initiatives to end female genital mutilation (FGM)”. Good Practice: Intergenerational Dialogue in Guinea, Eschborn 2005.


Evidence Brief

Does Results-Based Financing Improve Maternal and Newborn Health?
About this Evidence Brief

This Evidence Brief is the result of a three-step process to which numerous development cooperation experts and practitioners contributed ideas and comments:

Step one – Evidence Review

As a first step a comprehensive Evidence Review (Gorter et al., 2013) was commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in cooperation with Kreditanstalt für Wiederaufbau (KfW). The authors were requested to focus on applications of results-based financing (RBF) to maternal and newborn health care and on the effects of the reviewed schemes on the performance of health care providers. They applied core principles of a systematic review, such as a pre-defined literature search and evaluation criteria and assessment of the studies’ methodological quality, but in a less rigorous manner than, for example, a Cochrane review. This allowed them to consider a larger number of papers, including 70 individual papers on specific RBF approaches and 14 reviews carried out by other researchers.

Step two – Peer Review

As a second step, the Evidence Review was peer-reviewed by a group of independent experts (Jahn et al., 2012) whose comments on it are detailed in a separate paper.

Step three – Evidence Brief

On the basis and as a result of the discussions that step one and two elicited, the German sector initiative PROFILE developed this shorter Evidence Brief, supported by the authors of the Peer Review and the Evidence Review. It is not a summary of these two earlier papers, but outlines German Development Cooperation’s position in relation to the evidence available about RBF at present.

The papers were written for experts working for development cooperation agencies, their national partners and all other actors contemplating starting RBF operations in low and lower-middle income countries. They are meant to help them decide whether to start an RBF scheme and which type of RBF scheme (or combination of RBF schemes) to choose for their specific challenges and contexts.

All three papers as well as practitioners’ views and a discussion of them can be accessed at:


Anna Gorter presenting at the Expert Talk in December at GIZ in Eschborn

Photo: Jasmin Dirinpur
Maternal and newborn health: Still a matter of life and death

This Evidence Brief discusses the effectiveness of RBF approaches in the field of maternal and newborn health in low and lower-middle income countries where giving birth is still a matter of life and death. Every day one thousand women die during pregnancy or childbirth with 99 per cent of deaths occurring in these countries (UNFPA, 2010). All leading causes of maternal deaths are complications that are preventable and treatable if adequate care, supplies and medicines are available. Newborn health goes hand in hand with the health of mothers. More than 10 per cent of babies are born pre-term and complications due to pre-term births are the leading cause of newborn deaths and the second leading cause of child deaths (WHO, 2012). Evidence-based, cost-effective interventions for the improvement of maternal and newborn health care and survival such as family planning, antenatal care, skilled birth attendance and postnatal care are well known. However, the capacity of many health systems in low and lower-middle income countries to provide such services remains insufficient. Essential services are often either unavailable, inaccessible or of poor quality.

Improving maternal and newborn health is among the most critical Millennium Development Goals (MDGs). Despite substantial progress, the current rate of progress in maternal mortality remains insufficient to achieve set targets by 2015. Reasons include limited political commitment and sector governance, a chronic lack of financial resources and severe shortages of qualified and motivated health personnel. This situation is worsened by poor health systems infrastructure as well as a lack of equipment. Such challenges on the supply-side are often aggravated by the inadequate demand for these services because of socio-cultural barriers, low education, lack of knowledge on safe motherhood and poverty. To ultimately improve health outcomes it is critical to better understand and investigate determinants of under-utilization of health services and interactions between supply and demand side factors (Duflo, 2009).

What is results-based financing in health?

RBF has received increased attention as a way to motivate individuals, teams and organizations to achieve higher outputs, efficiency and service quality in maternal and newborn health care.

However, it means different things to different people. A frequently used definition coined by the World Bank describes RBF as ‘a cash payment or non-monetary transfer made to a national or sub-national government, manager, provider, payer or consumer of health services after predefined results have been attained and verified’. This means that, for example, a health facility or a doctor receives a payment according to the number of mothers who have delivered in the facility. In one way or another, all RBF approaches pay for the outputs as opposed to paying entirely for the inputs. Whilst some RBF approaches in health focus either on improving the quality of health services (supply-side), or the uptake of health services (demand-side), others address both demand- and supply-side barriers.

In supply-side RBF approaches such as performance-based financing or performance-based contracting, incentives are paid to the provider according to performance target(s) or indicator(s), which are often linked to the number of patients treated. Examples of performance targets are the number of pregnant mothers regularly attending antenatal care, or the amount of correctly completed patient records. The key defining feature of a demand-side RBF, such as a voucher scheme, is the direct link between the payment of incentives and the intended beneficiary with the desired result or change in a specific behaviour, e.g. attending postnatal care or giving birth in a health facility. Vouchers usually entitle the mother to ask for a predefined service or service package from any provider participating in the scheme, thus giving her
Results-Based Financing (RBF)

Supply-side with a demand-side component (focus on provider)

Demand-side with a supply-side component (focus on provider and consumer)

Demand-side with no supply-side component (focus on consumer)

Performance-Based Contracting (PBC) 1
Government/donor/health insurance entity to agencies/facilities "Contracting-out"

Performance-Based Financing (PBF) 2
Government/Donor to public or private (not-for-profit) facilities "Contracting-in"

Results-Based Budgeting (RBB) 3
Government to all MOH administrative levels and public health facilities

Voucher and Health Equity Funds (HEF) 4
Government/donor to consumers and providers

Conditional Cash Transfers (CCT) 5
Government/donor to consumers

the 'purchasing power'. For example the mother receives a voucher to deliver at the health facility and then the health facility redeems the voucher in exchange for the payment provided by the operator of the voucher scheme.

Whether RBF can improve health systems and outcomes is a much debated issue among scientists and practitioners. Some argue that financial incentives matter for achieving important gains in access and coverage as well as the quality and quantity of services delivered. Others raise concerns that a strong focus on financial incentives using specific performance indicators could produce adverse effects, for example the crowding-out of intrinsic motivation, the neglect of important health-related activities which are not incentivized, and the so-called gaming (see text box).
‘Crowding-out’ and ‘gaming’

Motivational theorists distinguish between extrinsic motivation and intrinsic motivation. In extrinsic motivation, the point of motivation is outside a person, such as for example a financial incentive. In intrinsic motivation, the point of motivation is within a person, such as for example a genuine conviction or belief. Health care personnel are thought to be extrinsically and intrinsically motivated because of the nature of their work: caring for other people to make or to keep them healthy. So what happens to this intrinsic motivation if they receive specific financial rewards beyond or instead of their salary? One potential effect of financial rewards for particular types of work has become known as ‘crowding-out’. It is defined as follows: “When subjects receive monetary rewards for working [...], their intrinsic motivation for the rewarded activity decreases” (Deci & Ryan, 1985).

Another unintended side-effect of RBF is the so-called ‘gaming’: If only specific results are financially rewarded, health workers may start ‘gaming the system’, falsifying their reports in order to maximize rewards rather than changing their practice in the way intended by those who introduced the RBF approach.

Does results-based financing work?

Maternal and newborn health care services have been a major area of application of the RBF logic. A number of lower and lower-middle income countries are currently piloting RBF schemes that address the supply- and demand-side barriers in maternal and newborn health care. In the beginning, donors have had a leading role in initiating RBF schemes, but more and more countries are now starting their own RBF approaches. This Evidence Brief focuses on three RBF approaches, namely performance-based financing, performance-based contracting, and vouchers.

The effectiveness of health interventions should ideally be demonstrated by measurable reductions in morbidity and mortality. However, data on health outcomes related to RBF approaches such as maternal or perinatal mortality is hardly available. Still, the existing body of evidence suggests that RBF approaches have the potential to improve process and output parameters related to maternal and newborn health such as utilisation/coverage, quality and equity. Nevertheless, these results have to be interpreted with caution as there are also studies with non or negative effects. Thus, success largely seems to depend on a specific context and mode of implementation: What works in A must not necessarily work in B.

It is apparent that evidence on the effectiveness of RBF interventions in maternal and newborn health is still insufficient both in terms of the quality and comprehensiveness of these studies. This poses a major limitation to the interpretation of the available evidence.

Rigorously designed studies that examine RBF models in maternal and newborn health care, particularly approaches such as performance-based financing or performance-based contracting, are limited. This may be attributed to their complexity (results-based financing is not a uniform intervention, but a summary term for a range of approaches) and the fact that many RBF-related interventions are still in their pilot phases, while others are not designed as experimental, scientific intervention studies. Furthermore, while some evidence on selected health output indicators is available, evidence on short and long term health outcomes, costs and cost-effectiveness, as well as negative or unintended effects is missing.

Moreover, RBF-related interventions are so diverse (with regard to context, design and incentives), that it is an arduous task to merge studies about them into one single evidence base on the effectiveness of RBF interventions. RBF interventions are also often combined with other complementary measures and do not take place in a social or political vacuum, making it difficult to attribute results directly to them.

Classically, evidence on effectiveness is derived from population-based trials with an adequate control group. Complementary qualitative studies that are crucial to the exploration of contextual factors and people’s perceptions and that provide important insight into why and how RBF approaches work or not, are still lacking. Hence, more research is needed in this field.
Does results-based financing improve health care utilization and coverage?

The survival of mothers, newborns and children is strongly influenced by their access to adequate health services before and after birth. Yet, an estimated 35 per cent of pregnant women in lower and lower-middle income countries do not have contact with health personnel prior to giving birth, and only about 65 per cent of births are reported as being attended by skilled health personnel (United Nations, 2012). Poverty, poor infrastructure and inaccessibility of health care services are one reason for the low demand. Often the women themselves opt against delivering in a health facility due to either the poor quality of services, financial barriers, the lack of information on the risks of motherhood, or due to prevailing traditional norms. Thus, many RBF interventions aim at increasing the coverage of essential maternal and newborn health care services and reduce the financial barriers. The impact on the utilisation of incentivised services has also been the most investigated issue in RBF and findings are rather more supportive, particularly for vouchers.

There is some evidence that performance-based financing increases the utilization of maternal and newborn health services, however, it is not robust. Yet, a common finding in a number of performance-based financing and performance-based contracting studies has been that those indicators that are being measured and incentivized also show a significant improvement. For example, under the performance-based financing scheme in Rwanda (Basinga et al., 2010), the probability of women giving birth in a health facility or receiving preventive child care visits, was significantly higher than the utilisation of other services because the financial incentives for delivering these services was highest for providers.

Research on performance-based contracting shows that this approach has the potential to increase the utilisation of targeted health services. The strongest evidence of increased utilization rates exists for voucher schemes: Evaluations of voucher programmes in Pakistan (Agha, 2011), Bangladesh (Hatt et al., 2010) or Kenya (Bellows et al., 2012) all reported increased coverage of maternal, newborn and child health care services, particularly with regard to facility-based deliveries. Moreover, in Bangladesh the voucher scheme resulted in an increased proportion of women using antenatal and postnatal care services, as well as institutional deliveries and deliveries assisted by trained providers.

Does results-based financing improve service quality?

In many lower and lower middle income countries there is a lack of skilled health personnel and quality standards for procedures do not exist or are not adhered to. Furthermore, the working environment is often not conducive to delivering quality care because essential equipment is not available. Supply-side RBF approaches aim at improving the quality of services by using incentives to reduce staff absenteeism, improve the quality of reporting, the adherence to standard procedures, or the cleanliness of the facility. Demand-side incentives, such as health centre delivery vouchers for pregnant women, can have positive effects on the quality of service provision as facilities have a motivation to attract patients.

Studies show quality improvements in those performance-based financing schemes where the quality of specific services was monitored and rewarded. For example, the incentive scheme in Egypt (Huntington et al., 2010) improved those aspects of quality of care that scored points in the scheme, such as record-keeping and the non-clinical aspects of doctors’ behaviour. Likewise, in the Rwandan PBF scheme (Basinga, 2010), the quality of several critical maternal and child health care services improved. Thus, a significant increase in the probability of a woman being given a tetanus vaccination during a prenatal visit was shown. Unfortunately, little is known as to whether this quality improvement ‘spills over’ to non-incentivised services and improves the overall quality of care, or whether, on the contrary, quality improvements in some services result in quality reductions in others.

There is no evidence available as to whether performance-based contracting improves the quality of services.

Findings of research on voucher schemes have also been able to demonstrate positive effects on the quality of care. For example, a study on a voucher scheme implemented in rural Bangladesh (Hatt et al., 2010) reported an increase in deliveries assisted by trained providers. Similarly, the proportion of women who received physical and medical examinations during antenatal care visits also rose. Furthermore, the proportion of women treated in a friendly manner, and of women receiving information on where to go for pregnancy-related complications, and the use of educational materials increased. In addition, the proportion of women complaining that health personnel delayed providing services was reduced after the introduction of the vouchers. In Bangladesh, voucher facilities were also found to have more obstetric specialists or medical staff with training in emergency obstetric care, and better equipment, drugs, and supplies.
Does results-based financing improve health equity?

While maternal and newborn health care indicators have shown certain improvements over the past years, inequities in coverage are still a widespread problem. Today, the poor and rural women still have less access to services than their richer urban counterparts and poor women are still far more likely to die as a result of pregnancy or childbirth (UNFPA, 2010). Particularly RBF approaches targeting the demand-side, such as vouchers, aim to improve equitable access to maternal and newborn health services.

Only a few studies have looked at the equity outcome of RBF interventions. Besides Cambodia (Schwartz & Bhushan, 2004), where the performance-based contracting intervention districts were able to out-perform the control districts in targeting maternal and newborn health care services specifically to the poor, only limited evidence exists relating to the equity outcome of performance-based financing or performance-based contracting approaches.

On the contrary, voucher schemes tend to be designed to favor the poor, as they are targeted to meet the needs of vulnerable population groups, such as poor, pregnant mothers. Findings thus suggest that such systems are effective in increasing access to health services and accelerate the utilization of a particular service for underserved population groups. For example, in Pakistan (Agha, 2011) and Bangladesh (Hatt et al., 2010), the evidence shows that wealth disparities concerning access to maternal health services can be reduced through voucher programmes.

What are unintended side effects of results-based financing?

Alongside the positive effects, it has been suggested that RBF approaches, particularly where the focus is exclusively on financial incentives, can have adverse side effects. Yet, none of the studies reviewed, explicitly investigated negative or unintended side effects. The body of rigorous evidence on side effects of RBF in lower and lower-middle income countries is therefore close to non-existent. Nevertheless, theory, qualitative studies and anecdotal evidence suggest that focusing too narrowly on financial incentives could lead to negative side-effects, such as encouraging unintended behaviours, distortions (which undermine or ignore unrewarded activities or targets), gaming or fraud (which exaggerate or cheat on reporting rather than improve performance), widening the resource gap between rich and poor and dependency on financial incentives.

Moreover, RBF approaches are often applied in resource-poor settings which are already struggling with a wide range of structural challenges. Unless additional support is provided, they risk having limitations. This problem has been recognized in Bangladesh (Hatt et al., 2010), where the increased demand for services through the voucher scheme presented a serious challenge due to the increased workload on an already strained work force.

Health sector performance depends on a large variety of factors and the reviews have shown that despite being a strong motivator, financial incentives are not the only determinant for improved health care provision. For example, in Egypt (Huntington et al., 2010) many clinics in one of the Governorates scored higher regardless of whether they were in the incentive scheme or not. In Rwanda (Basinga et al., 2010), the performance-based financing scheme did not appear to have increased the number of prenatal care indicators or the timely completion of child immunization schedules, which were those aspects either receiving comparably little incentive payments, or were out of the control of the provider. This was also the case in Pakistan (Loevinsohn et al., 2009), where contracting out did not improve preventive service coverage due to limited control and these activities were not explicitly part of the agreement with the contracting agency.
Three practitioners’ perspectives on results-based financing

Amongst German development practitioners, a number of different views exist regarding the effectiveness of RBF approaches for improving different aspects of maternal and newborn health. In this section, three of them who took part in the implementation of RBF in German-supported programmes in partner countries share their different perspectives.1

Jean-Olivier Schmidt, GIZ: Vouchers increase poor women's utilization of maternal health services. But what about quality of care and sustainability?

In 2008, the Government of Bangladesh piloted a voucher scheme, distributing vouchers to pregnant women to cover transport costs, nutrition supplements and free maternal health services. The results showed that with strong government and donor commitment, vouchers can improve maternal health service utilization rates and effectively reach the poor:

- The voucher programme resulted in a dramatic and almost immediate uptake of care, from nationwide only 18% of births attended by skilled staff to over 60% within a few months.
- The voucher programme results suggest a reduction of poverty-related inequalities in maternal health service use, as well as the likelihood of delivery with a skilled birth attendant.

Nevertheless, it has been difficult if not impossible to assess the cost-effectiveness of the intervention. The question on whether the additional cost of 41 US $ per birth attended was worthwhile remains unanswered. Whether such substantial financial investments do also bring about structural improvements such as quality of care, has yet to be demonstrated.

Andreas Kalk, GIZ: Pay fair money for a fair job.

The question of whether to pay workers for the time spent on the job or by output (or possibly a combination of both) is as old as the history of employment itself. While it has been demonstrated that PBF programmes are capable to improve workers (and particularly health workers) performance in low income countries, it must be understood that people in these settings frequently receive only symbolic salaries which do not even cover basic needs requirements. Thus, despite the positive effects of PBF programmes in health, a number of serious limitations to performance improvement were observed:

- In those cases where financial incentives are paid to achieve certain results, performance improvement is mostly limited to those indicators that are linked to a remuneration.
- Introducing financial incentives in areas where health workers are genuinely or ‘intrinsically’ motivated, often leads to the ‘crowding-out phenomenon’, as described in the motivation theory.
- Linking financial incentives to specific results commonly leads to the ‘gaming phenomenon’ as described

Moreover, since the setting in the control districts differed from the voucher districts and the programme involved a number of other interventions besides the distribution of vouchers, it is not possible to conclude that solely removing the financial barriers to services increased utilization.

A serious concern that remains is that if the programme would cease, the situation could even be worse than before, as both health personnel and women have become used to receive a financial incentive.”

1 Their statements in full, in video and print format, can be found at http://german-practice-collection.org/en/events/expert-forum-results-based-financing-eschborn
in the motivation theory. In other words, health workers focus on those aspects that are rewarded by the programme; this leads to frequent side effects such as the falsification of performance evaluation sheets.

- Despite documented improvements, PBF schemes implicate considerable costs, both apparent and hidden. These costs include time lost through diverting the focus away from clinical works towards paper work, high administrative costs and the loss of trust in the employer-employee relationship due to intense control.

These considerations are not only backed by credible insight reports based on direct observation in hospitals, but also reflect the experience that we have made in the Rwandan PBF scheme. Taking all these aspects into account, the main message should thus be: Recognize the roots of the problem and reflect on the challenge of how to establish acceptable schemes for peoples' normal salaries! Pay fair money for a fair job, and you do not need PBF.”

**Piet Kleffman, KfW: Vouchers save mothers’ and babies’ lives.**

"Since the last census in 2009 maternal mortality in Kenya has been stagnant at 488 per 100,000 deliveries. Inadequate physical and financial access, as well as socio cultural beliefs prevent particularly poor mothers from accessing maternal health care services. This not only leads to an unacceptable loss of lives but also to a loss in development potential.

In order to tackle the problem and bring reproductive health care services closer to poor women, Kenya with support from the German Financial Cooperation (KfW) has been piloting a reproductive health voucher programme since 2005. Since the start of the programme, the voucher scheme, which includes services for family planning, skilled delivery and gender based violence, has been successful not only in improving the access to reproductive health care services, but also in improving the quality of services and the effective targeting of funds:

- By providing subsidized vouchers named ‘Kadi’ to poor pregnant women, entitling them to claim predefined reproductive health care services at a facility of their choice, the voucher programme has proven to be an ideal mechanism to increase the access to maternal health care services. From July 2006 until March 2011, the Kenyan voucher programme has provided clients with over 96,000 facility-based deliveries and over 27,000 long-term family planning methods.

- As the voucher programme pays for the outputs of the health facility, as opposed to the inputs, it has not only served as an incentive for mothers to access services, but also to service providers to improve the quality of their services. The providers of such vouchers have to meet minimum quality standards and have to participate in training programmes in order to be accredited as a voucher facility.

- Moreover, the voucher programme has allowed a high level of prioritization through targeting funds directly to those that are most in need.”
Conclusions and recommendations for German Development Cooperation

On the basis of the evidence discussed in this Brief, of practitioners’ views and case studies, the following conclusions can be drawn:

In relation to results-based financing in general:

- **Country ownership** is an important precondition for the success of RBF programmes: All stakeholders should be involved in its design and the programme needs to be aligned to existing national health strategies and policies.

- In order for certain RBF approaches to work, functional **health management and information systems (HMIS)** must be in place or strengthened, so that performance indicators can be monitored as a matter of routine.

- Health service providers who are part of an RBF scheme need **sufficient autonomy over their resources and personnel** to be able to organise themselves in such a way that they can actually meet the targets set by the given scheme.

- Before an RBF programme is started, there needs to be a **strategy for its funding in the longer term**. This is particularly important for programmes that are largely funded by development partners.

In relation to performance-based financing:

- To successfully implement performance-based financing, health systems need to possess a range of capacities: They must be able to organise independent verification and checks and balances, to operate functional HMIS, to implement rigorous and unbiased monitoring of results, to link the results in a meaningful manner to the payment of the incentives and to adjust the scheme should it promote undesired behaviours or fail to reach the intended results.

In relation to performance-based contracting:

- Contracting out involves considerable overhead costs. There needs to be a **clear rationale for its implementation** which justifies such an investment.

- When planning such a scheme, it must be checked whether any **legal impediments prohibit the contracting** out of the management of provider networks to a private (for profit or non-profit) agency.

- Health authorities that opted for performance-based contracting must possess the capacity **to oversee and steer the agencies they have contracted**: The contracts with them must be formulated accordingly, allowing them to monitor the results throughout and to apply sanctions if necessary.

In relation to vouchers:

- Whilst vouchers can be used to achieve a range of objectives, they are particularly suited to the targeting of specific populations, such as poor pregnant women. They effectively increase their use of particular services such as family planning and/or safe motherhood services and they allow the involvement of private providers to complement government structures.

- Vouchers are effective in curbing informal payments – one important barrier impeding poor populations’ access to health services.

- Vouchers may allow national health systems to gradually develop the capacities they need to implement a more comprehensive social health insurance scheme.

- To justify the high costs of voucher distribution and claims processing, **voucher programmes must be time-limited and focus on priority services**. They work better if they group related services, like in a package of maternal and newborn health services.

The following recommendations for German Development Cooperation emerged in the course of this discussion process:

**Continue to explore the potential of RBF** to improve mother and newborn care, **applying sound monitoring and evaluation measures**. Where possible, undertake research into the longer-term impacts of RBF, looking at its effects on, quality and utilization, and on the actual health of priority target groups. When monitoring and evaluating RBF programmes, check for unintended side effects at systems level, including crowding out and gaming.
Carefully consider the types and incentives and sanctions that will be used and their systemic effects, including unintended ones. Health care workers should be involved in the design of RBF programmes, since they know best how their system works, what motivates them and what does not. To appeal to both, staff’s extrinsic and intrinsic motivation, monetary incentives need to be complemented by open and transparent communication between health workers and their managers, by regular appreciation of good work as well as by supportive supervision and a well-managed staff development and career system.

Do not expect RBF to be a magic bullet, but apply it as one approach amongst others on the path to Universal Health Coverage. For each approach, whether RBF or not, check whether it contributes to Health Systems Strengthening by asking the following: (i) does it increase resources for health? (ii) does it improve access to health services, especially for the most vulnerable groups? (iii) does it pay attention to quality of services, across the board and specifically in public facilities? (iv) does it lead to efficiency gains given the scarce resources? and (v) does it protect clients against impoverishment through catastrophic health care expenditure?

List of abbreviations and acronyms

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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>GDC</td>
<td>German Development Cooperation</td>
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<td>GIZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH</td>
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<td>HMIS</td>
<td>Health Management and Information System</td>
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<td>KfW</td>
<td>Kreditanstalt für Wiederaufbau</td>
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<td>LLMIC</td>
<td>Low- and Lower Middle Income Countries</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>MNCH</td>
<td>Maternal Newborn and Child Health</td>
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<td>PBC</td>
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<td>UNFPA</td>
<td>United Nations Population Fund</td>
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References

All primary studies evaluated and used for this Evidence Brief can be found in the following two documents (see step one and two on p. 2 of this Brief):

− Gorter, A.C., Por, I. Meessen, B., (2013). Evidence Review - Results-Based Financing of Maternal and Newborn Health Care in Low- and Lower-Middle-Income Countries, Antwerpen


The following publications are specifically referred to in this Evidence Brief:


Loevinsohn, B. et al (2009), Contracting-in management to strengthen publicly financed primary health services—The experience of Punjab, Pakistan, Health Policy 91, 17–23.


Interested readers are also referred to the following systematic reviews:


