

2. Overview

2.1. Objective and Key Research Questions

Objective

In order to gain a clearer understanding of the effectiveness, optimal circumstances, and best practices for strengthening SRH and HIV linkages, a systematic review of the literature was conducted.

Key Research Questions

The following key research questions guided our review:

- What linkages are currently being evaluated?
- What are the outcomes of these linkages?
- What types of linkages are most effective and in what context?
- What are the current research gaps?
- How should policies and programmes be strengthened?

2.2 Definitions

2.2.1. Linkages and Integration

Linkages can occur at multiple levels. In order to capture all of these levels, we used the following broad definition of linkages:

Linkages: Policy, programmatic, services and advocacy of bi-directional synergies between SRH and HIV/AIDS services.

Linkages are bi-directional, either combining HIV-related topics with ongoing SRH issues, and, conversely, SRH-related topics with ongoing HIV issues.

In contrast to linkages, which exist at multiple levels, integration is defined at the service delivery level only:

Integration: Different kinds of SRH and HIV services or operational programmes joined together to ensure and perhaps maximize collective outcomes.

2.2.2. SRH and HIV Interventions

The following SRH and HIV intervention categories were originally identified in the WHO/UNFPA/IPPF/UNAIDS Framework for Priority Linkages (2005a) and were adapted for our review. We modified the definition of SRH to include gender-based violence prevention and

management, and we also adapted the HIV categories to better reflect components of service provision programmes.

SRH interventions are divided into five components:

1. **Family planning.** This category includes any kind of contraceptive service provision, family planning counselling, or education, including abortion and pre-conception planning.
2. **Maternal and child health care.** This category includes any service provision or intervention related to antenatal care, delivery, postnatal care, and breastfeeding.
3. **Gender-based prevention and management.** This category includes efforts to prevent gender-based violence (GBV), including education and awareness activities, and post-violence care, including support services and post-violence or post-rape care.
4. **Sexually transmitted infection prevention and management.** This category includes prevention, diagnosis, treatment, counselling, education, and partner-related services for sexually transmitted infections (STIs) other than HIV.
5. **Management of other SRH issues.** This category includes any intervention related to prevention, treatment, or care of other SRH issues, including infertility, gynecologic fistula, reproductive cancers, and menopausal care.

HIV interventions are divided into five components:

1. **HIV prevention, education, and condoms.** This category includes any intervention designed to prevent the spread of HIV to an uninfected individual by working with HIV-infected, HIV-uninfected, or unknown sero-status individuals. It includes both behavioural interventions (such as education, counselling, needle exchange, condom promotion and distribution, mass media) and biomedical interventions (such as microbicides, pre- or post-exposure prophylaxis, and circumcision).
2. **HIV counselling and testing.** This category includes any form of testing to diagnose HIV, including voluntary counselling and testing (VCT) and provider-initiated testing and counselling (PITC).
3. **Element 3 of PMTCT.** This category includes any intervention that is intended to prevent HIV transmission from an infected mother to her child, according to the third element of the WHO four-element prevention of mother-to-child transmission (PMTCT) strategy (WHO, 2002). This includes antiretroviral therapy, safe delivery practices (including cesarean delivery and vaginal cleaning), and infant-feeding interventions. While we recognize that the WHO four-element strategy is intended to be a comprehensive approach, for the purposes of clarity in this review, we feel that elements one, two, and four of the WHO strategy fit within other categories of HIV/AIDS services. Specifically, element one, primary prevention of HIV infection, fits within our HIV category of HIV prevention, education, and condoms (column 1 of the matrix); element two, prevention of unintended pregnancies among HIV-infected women, would be considered a linkage between family planning and psychosocial support and positive living for people living with HIV (PLHIV) (box 5 of the matrix); and element four, care and support for HIV-infected women, their

infants, partners, and families, fits within our categories of clinical care and psychosocial support for PLHIV (matrix columns four and five). Therefore, for the purposes of this review, interventions related to elements one, two, and four of the WHO comprehensive PMTCT strategy are classified in these respective categories, rather than under the column for element 3 of PMTCT.

4. **Clinical care for PLHIV.** This category includes biomedical or traditional/alternative treatment for PLHIV, including antiretroviral therapy, treatment for opportunistic infections, pain management, palliative care, and other clinical care.
5. **Psychosocial and other services for PLHIV.** This category includes psychosocial support for people living with HIV/AIDS, non-health-related programmes for PLHIV (such as food, transportation, and housing), stigma reduction, and general positive living interventions for PLHIV. All SRH interventions given to PLHIV are included in this category of HIV intervention if they do not fit into any of the other categories.

2.2.3. Peer-Reviewed Studies and Promising Practices

This review is divided into two components, which we have labeled **peer-reviewed studies** and **promising practices**. The peer-reviewed study review component is a systematic search and analysis of the peer-reviewed literature, limited to those papers that present rigorous study designs addressing intervention efficacy. We purposely included multiple types of study design – not just randomized controlled trials – to capture a broad spectrum of evaluations. However, despite the broad inclusion criteria of the peer-reviewed studies, we are aware that many programme evaluations simply present programme statistics without a comparison group, or are published in report form and never make it to the peer-reviewed literature. Although this is a less rigorous form of evaluation, these publications still provide some data that may help to assess intervention effectiveness. To address this issue and capture this type of evidence, we have included a component on promising practices. The promising practices component is meant to include a broader selection of what counts as evidence, and includes evaluations (peer-reviewed or otherwise) of SRH-HIV linkage interventions conducted in resource-limited settings that provide some sort of evaluation component.

Given the different nature of these two forms of literature, we have presented them separately in this report. We used slightly different search methodologies, inclusion criteria, and formats for presenting results for each component. Therefore, we present methods and results (sections 3, 4 and 5 of this report) separately for peer-reviewed studies and promising practices. However, findings from both components are combined for the overall findings, conclusions, and recommendations (section 6 of this report).

The use of the term “promising practices” should not be interpreted as capturing best practices, or only interventions with positive results. Rather, it should be understood as capturing SRH-HIV linkage intervention evaluations with a lower level of evidence, regardless of whether the evaluation results were positive or negative.

2.3. Matrix

The matrix in Figure 1 was created to classify the different types of SRH and HIV linkage interventions. In this matrix, the columns represent HIV interventions, while the rows represent SRH interventions, using the definitions provided in section 2.2.

Figure 1. Matrix of SRH and HIV intervention linkages

	HIV prevention, education, & condoms ⁽ⁱ⁾	HIV counselling and testing	Element 3 of PMTCT ⁽ⁱⁱ⁾	Clinical care for PLHIV	Psychosocial and other services for PLHIV
Family planning	L1	L2	L3	L4	L5
Maternal and child health care	L6	L7	L8 ⁽ⁱⁱⁱ⁾	L9	L10
GBV prevention and management	L11	L12	L13	L14	L15
STI prevention and management	L16	L17	L18	L19	L20
Other SRH services	L21	L22	L23	L24	L25

(i) Studies integrating HIV prevention, education and condoms and SRH services (column one) were not included in the final analysis as they have been reviewed elsewhere (Kirby, 2007; Foss, 2007, and WHO/UNAIDS, 2006).

(ii) Comprehensive PMTCT includes the following four elements (WHO, 2002):

1. Prevent primary HIV infection among girls and women.
2. Prevent unintended pregnancies among women living with HIV.
3. Reduce mother-to-child transmission through antiretroviral drug treatment of prophylaxis, safer deliveries and infant feeding counselling.
4. Provide treatment and support to women living with HIV and their families.

(iii) Studies reporting interventions on element 3 of PMTCT not linked to other areas of SRH were excluded from the review as they have been reviewed elsewhere (Volmink, 2007; Wisonge, 2005; Madi, 2007).

3. Methods

3.1. Peer-Reviewed Studies

3.1.1. Inclusion Criteria

An article was included in the peer-reviewed studies component of this review if it met the following criteria:

1. Published in a peer-reviewed journal between January 1, 1990 and December 31, 2007.
2. Presents post-intervention evaluation data of an SRH-HIV linkage intervention.
3. Uses a pre-post or multi-arm comparison of individuals who received the intervention versus those who did not (according to the study design categories described below) to assess quantitative outcomes of interest (as described below).

Study design

To include a wide variety of levels of evidence, this review included any intervention study design involving a pre-post or multi-arm comparison of individuals or groups who received the intervention versus those who did not. This included the following study designs:

1. **Randomized trial – Individual (experiment):** Minimum two study arms; random assignment of individuals to study arm.
2. **Randomized trial – Group (experiment):** Minimum two study arms; random assignment of groups (couples, classrooms, towns, etc.) to study arm.
3. **Non-randomized “trial” – Individual:** Minimum two study arms; assignment of individuals to study arm, but not done randomly.
4. **Non-randomized “trial” – Group:** Minimum two study arms; assignment of groups to study arm, but not done randomly.
5. **Before-after study:** Pre- and post-intervention assessment among the same individuals. One study arm and one follow-up assessment period.
6. **Time series study:** Pre-intervention and several post-intervention assessments among the same individuals. One study arm and multiple follow-up assessment periods.
7. **Case-control study:** Two groups defined by outcome measures, one consisting of cases and one consisting of controls. To be included, the study must compare outcomes between those who got the intervention and those who did not.
8. **Prospective cohort:** Two or more groups defined by exposure measures and followed over time.
9. **Retrospective cohort:** Two or more groups defined by exposure measures, but uses previously collected or historical data.
10. **Cross-sectional:** Exposure and outcome determined in the same population at the same time. To be included, the study must compare outcomes between those who got the intervention and those who did not.

11. **Serial cross-sectional:** When a cross-sectional survey is conducted in a population at multiple points in time with different people in that population. To be included, the study must compare outcomes between those who got the intervention and those who did not.

Studies were required to include a quantitative comparison of individuals or groups who received the intervention versus those who did not. Studies could have either a control or a comparison group. A control group is a study arm that does not receive any type of intervention. A comparison group is a study arm that receives an intervention, which may be the standard of care, a less-intensive form of the intervention, or a separate intervention unrelated to the integration of SRH and HIV/AIDS.

Outcome measures

Any biological, behavioural, programmatic, knowledge, or cost outcome was considered eligible as a primary outcome. Both HIV-related outcomes and SRH outcomes were included, as were both individual-level and programme-level outcomes. Programmatic outcomes, such as access and uptake of services, were included as primary outcomes, but process outcomes, such as number of commodities distributed or number of providers trained, were not included as primary outcomes for peer-reviewed articles.

Language

No language restrictions were imposed and translations were sought where necessary.

Populations

No restrictions were imposed upon the types of populations served by these interventions. This review includes interventions in both high- and low-income countries, as defined by the World Bank (World Bank, 2007), interventions with youth and adults, and interventions with both general populations and specific high-risk populations, such as injecting drug users (IDUs) and commercial sex workers (CSWs).

Clarifications to inclusion and exclusion criteria

The following decisions were made to clarify the inclusion criteria. These decisions were applied during the screening process:

1. **Circumcision:** Studies looking at the effectiveness of circumcision to prevent HIV, either for the circumcised man or for his partner, were not included in this review. Instead, we refer readers to the results of the Cochrane review of this topic by Siegfried et al. (2003).
2. **Provider training:** Studies that trained providers to carry out SRH-HIV linkage interventions, then evaluated the success of training (through pre/post examinations of provider knowledge, for example), but that did not evaluate the efficacy of the actual

intervention as it was provided to clients, were considered process evaluations and were included in the promising practices component.

3. **Surveillance:** Studies that conducted HIV testing among SRH populations purely to determine HIV sero-prevalence, but that did not examine the intervention effects of HIV testing, were not considered interventions and were excluded from the review.
4. **School-based education:** Studies that reported on in-school education to prevent HIV and STIs and/or pregnancy were not included in this review. Instead, we refer readers to the results of the systematic review of this topic recently completed by Kirby et al. (2007).
5. **PMTCT:** By definition, all PMTCT interventions are conducting an HIV intervention with a SRH population (pregnant women and newborns), and so should be included as linkages in this review. However, numerous other reviews have examined the efficacy of PMTCT interventions alone, and for the purposes of this review we are most interested in identifying linkages between PMTCT and other SRH interventions. Therefore, studies that only assessed the efficacy of antiretrovirals, cesarean delivery, vaginal cleaning, or infant-feeding interventions to prevent transmission of HIV from mother to child were not included in the review. Instead, we refer readers to the Cochrane reviews of these topics by Volmink et al (antiretrovirals) (2007), Read et al (cesarean delivery) (2005), Wiysonge et al (vaginal cleaning) (2005), and Madi et al (infant feeding) (2007). To reflect the fact that PMTCT interventions that are not linked to other areas of SRH were excluded from the review, we have blacked out Box L8 in the linkage matrix: Linkages between PMTCT and maternal and infant care (section 2.3). However, if any of these interventions are linked with other SRH interventions, such as family planning, gender-based violence, STIs, or other SRH issues, then they are included in the review under the appropriate linkage category. Also, as mentioned earlier in the definition of element 3 of PMTCT, interventions related to elements one, two, and four of the WHO PMTCT strategy are not classified as PMTCT interventions, but are included in this review under the other linkage categories in which they fit.

3.1.2. Search Strategy

To compile the most complete list of articles meeting the inclusion criteria, four different methods were used to search the literature: electronic database searching, handsearching of the reference lists of key journals, cross-referencing of the reference lists of related articles and reviews, and interpersonal communication with experts in the fields of SRH and HIV.

Electronic databases

The following electronic databases were searched:

1. PubMed (including MEDLINE and AIDSLINE)
2. Cumulative Index to Nursing and Allied Health Literature (CINAHL)

3. EMBASE (Excerpta Medica)

Search terms

Electronic database searching was based on all possible combinations of each HIV/AIDS term with each SRH term and each study design term listed below:

HIV/AIDS terms: HIV, AIDS

SRH terms: sexual health, reproductive health, family planning, reproductive counselling, reproductive planning, maternal health, women's health, reproductive rights, contraception, contraceptive, birth control, birth spacing, condoms, oral contraceptives, microbicides, diaphragm, IUD, cervical cap, abortion, male involvement, pregnancy termination, antenatal care, prenatal care, postnatal care, pregnancy, labor and delivery, obstetric care, gender based violence, intimate partner violence, domestic violence, domestic abuse, sexually transmitted infections, sexually transmitted diseases, STI, STD, partner notification, gonorrhea, chlamydia, herpes, syphilis, genital ulcer disease, syndromic management, cervicitis, bacterial vaginosis, trichomoniasis, HPV, human papilloma virus, UTI, urinary tract infections, vaginal discharge, urethral discharge, infertility, gynecologic fistula, reproductive cancer, cervical cancer, uterine cancer, ovarian cancer, vaginal cancer, testicular cancer, prostate cancer, pap smear, menopause

Study design terms: RCT, non randomized trial, before after study, time series study, case control study, prospective cohort, retrospective cohort, cross-sectional, randomized controlled trial, randomized clinical trial, controlled clinical trial, random*, control*, prospective*, [NOT animal*]

Final list of search terms entered into electronic databases

(HIV OR AIDS) AND ((sexual health) OR (reproductive health) OR (family planning) OR (reproductive counselling) OR (reproductive planning) OR (maternal health) OR (women's health) OR (reproductive rights) OR contraception OR contraceptive OR (birth control) OR (birth spacing) OR condoms OR (oral contraceptives) OR microbicides OR diaphragm OR IUD OR (cervical cap) OR abortion OR (male involvement) OR (pregnancy termination) OR (antenatal care) OR (prenatal care) OR (postnatal care) OR pregnancy OR (labor and delivery) OR (obstetric care) OR (gender based violence) OR (intimate partner violence) OR (domestic violence) OR (domestic abuse) OR (sexually transmitted infections) OR (sexually transmitted diseases) OR STI OR STD OR (partner notification) OR gonorrhea OR chlamydia OR herpes OR syphilis OR (genital ulcer disease) OR (syndromic management) OR cervicitis OR (bacterial vaginosis) OR trichomoniasis OR HPV OR (human papilloma virus) OR UTI OR (urinary tract infections) OR (vaginal discharge) OR (urethral discharge) OR infertility OR (gynecologic fistula) OR (reproductive cancer) OR (cervical cancer) OR (uterine cancer) OR (ovarian cancer) OR (vaginal cancer) OR (testicular cancer) OR (prostate cancer) OR (pap smear) OR menopause) AND (RCT OR (non randomized trial) OR (before after study) OR (time series study) OR (case control study) OR (prospective cohort) OR (retrospective cohort) OR cross-sectional OR (randomized controlled trial) OR (randomized clinical trial) OR (controlled clinical trial) OR random* OR control* OR prospective* NOT animal*)

Handsearching

Handsearching was conducted on the following key journals:

1. AIDS
2. JAIDS
3. AIDS Care
4. AIDS Education and Prevention
5. AIDS and Behavior
6. Sexually Transmitted Infections
7. Sexually Transmitted Diseases
8. International Journal of STD & AIDS
9. Health Policy and Planning
10. Health Policy
11. Family Planning Perspectives
12. Perspectives on Sexual and Reproductive Health
13. International Family Planning Perspectives
14. Reproductive Health Matters

The tables of contents of these journals were searched from January 1990 through December 2007, with the exception of the International Journal of STD and AIDS, which was only available from January 1996 to December 2007. Articles that looked potentially relevant were compared with the full list of articles generated by electronic database searching to determine if they had already been identified. If they had not been identified, the title and abstract were screened to determine if the inclusion criteria were met.

Cross references

The reference lists of selected reviews, articles, websites, and reports related to SRH and HIV linkages were reviewed for additional citations. Though not systematic, this process was extensive, due to the additional searching conducted for promising practices documents (see section 3.2 for promising practices methodology and additional search strategies).

Interpersonal communication

Preliminary results from this review were circulated via email to a variety of experts in the fields of SRH and HIV. These experts were asked to suggest additional articles that the original searches may have missed.

3.1.3. Data Extraction

Each article was read and data were extracted by two separate members of the study team. Differences in data extraction or interpretation of studies were resolved by discussion and consensus.

For each study, the following information was extracted and is presented in the following tables:

Table 1: Study descriptions: Information on study authors, matrix cells, location, setting, target group, years of programme, years of evaluation, name of programme, intervention, study design, unit of analysis, sample size, age, gender, and length of follow-up.

Table 2: Study outcomes: Information on study authors, intervention, study design, reported numerical outcomes and results (health, behavioural, knowledge/attitudes, and process), and text summary of outcomes.

Table 3: Study rigour: Assessment of study rigour on a 9-point scale, with minimum score (low rigour) of 1 and maximum score (high rigour) of 9. Studies receive one point for meeting each of the following criteria: (1) Study design includes pre/post intervention data, (2) Study design includes control or comparison group, (3) Study design includes cohort, (4) Comparison groups equivalent at baseline on socio-demographics, (5) Comparison groups equivalent at baseline on outcome measures, (6) Random assignment (group or individual) to the intervention, (7) Participants randomly selected for assessment, (8) Control for potential confounders, (9) Follow-up rate $\geq 75\%$. This scale was based on the 8-point rigour assessment scale for systematic reviews of HIV behavioural interventions by the Johns Hopkins – WHO Synthesizing Intervention Effectiveness project (Kennedy, 2007; Denison, 2008).

Table 4: Integration implementation: Information on integration direction, setting, goal of the study, format of integration (on-site, referral, etc.), components of integration, promoting factors, inhibiting factors, recommendations, and any other relevant information reported in the study.

3.2. Promising Practices

3.2.1. Inclusion Criteria

For evaluations that did not meet the rigorous inclusion criteria for the peer-reviewed studies portion of the review, we conducted a comprehensive search to identify and synthesize programme-level integration evaluations and summaries (described here as “promising practices”). We wanted to capture programmatic evidence, which may not be rigorously evaluated, but may still contain very useful information for determining current programmes and practices. The use of the term “promising practices” should not be interpreted as capturing best practices, or only interventions with positive results. Rather, it should be understood as capturing SRH-HIV linkage intervention evaluations with a lower level of evidence, regardless of whether the evaluation results were positive or negative.

We included articles, reports and programme summaries in the promising practices component if they met the following criteria:

1. Published between January 1, 1990 and December 31, 2007, or if publication date is unclear, presents data on a programme that was completed after January 1, 1990.

2. Presents evaluation data (process or outcome data) or lessons learned from an SRH-HIV linkage programme.
3. Programme/project was implemented in a low- or middle-income country. For the purpose of this review, we focused on low- and middle-income countries, as categorized by the World Bank (2007).

We considered evaluation data to be any information that helps determine whether the intervention was successful or not. This included either quantitative or qualitative data of health, behavioural or process outcome data. We also included programme summaries or programme presentations and “lessons learned” as reported by programme implementers.

Clarifications to inclusion and exclusion criteria

In a similar process to that used with peer-reviewed studies, we made the following decisions clarifying the inclusion and exclusion criteria. These decisions were applied during the screening process.

Exclusion criteria:

1. **Circumcision:** Studies looking at the effectiveness of circumcision to prevent HIV, either for the circumcised man or for his partner, were not included in this review. Instead, we refer readers to the results of the Cochrane review of this topic by Siegfried et al. (2003).
2. **Surveillance:** Studies that conduct VCT among SRH populations purely to determine HIV sero-prevalence, but do not include any programmatic components, were not considered interventions and were excluded from the review.
3. **Prevention of mother-to-child transmission (PMTCT):** By definition, all PMTCT interventions are conducting an HIV intervention with a SRH population (pregnant women and newborns), and so should be included as linkages in this review. However, numerous other reviews have examined the efficacy of PMTCT interventions alone, and for the purposes of this review we are most interested in identifying linkages between PMTCT and other SRH interventions. Therefore, studies that only assessed the efficacy of antiretrovirals, cesarean delivery, vaginal cleaning, or infant-feeding interventions to prevent transmission of HIV from mother to child were not included in the review. Instead, we refer readers to the Cochrane reviews of these topics by Volmink et al. (antiretrovirals) (2007), Read et al. (Cesarean delivery) (2005), Wiysonge et al. (vaginal cleaning) (2005), and Madi et al. (infant feeding) (2007). To reflect the fact that PMTCT interventions that are not linked to other areas of SRH were excluded from the review, we have blacked out Box L8 in the linkage matrix: Linkages between PMTCT and maternal and infant care (section 2.3). However, if any of these interventions are linked with other SRH interventions, such as family planning, gender-based violence, STIs, or other SRH issues, then they will be included in the review under the appropriate linkage category. Also, as mentioned earlier in the definition of element 3 of PMTCT, interventions related to elements one, two, and four of the WHO PMTCT strategy are not classified as

PMTCT interventions, but are included in this review under the other linkage categories in which they fit.

4. **HIV testing of pregnant women:** In addition, we did not identify programme- or policy-level assessments of HIV testing options (for example, routine HIV testing to pregnant women). This would have been captured under PMTCT, and as we did not search for strictly PMTCT studies, we did not identify these in this review.
5. **Education only:** Reports of programmes providing only education to prevent HIV and STIs and/or pregnancy were identified in our screening, but were not included in the review. A list of identified programmes is included in the appendix, section 8.4. We also refer readers to the recently completed systematic review of this topic by Kirby et al (2007).

3.2.2. Search Strategy

The following websites were searched for relevant programmes:

- “Resources for HIV/AIDS Sexual and Reproductive Health” website (www.hivandsrh.org)
- Addis Ababa Conference, “Linking Family Planning and HIV/AIDS in Africa” posted on the conference website (http://www.jhsph.edu/gatesinstitute/policy_practice/leadership_forums/fp-hivmtg/agenda.html)
- Implementing Best Practices in Reproductive Health – Knowledge Gateway” website (www.ibpinitiative.org) [online forum for HIV-SRH integration, including library of relevant documents from participating organizations]
- Websites of relevant SRH and HIV/AIDS organizations, specifically: Advance Africa, Catalyst Consortium, CEDPA, DFID, EngenderHealth, FHI, ICRW, INFO Project, IGWG, IPPF, IntraHealth International, Global Fund, JHPIEGO, JHUCCP, John Snow Inc., Management Sciences for Health, Partners in Population and Development, PATH, Pathfinder, PEPFAR, Pop Council, PSI, UNFAO, UNFPA, and UNAIDS.

In addition, we screened article abstracts that were identified in the peer-reviewed studies database search, but did not meet rigour for inclusion in the peer-reviewed studies portion. Finally, an e-mail was distributed to experts in the field to identify relevant programmatic reports. Experts were identified at organizations such as FHI, WHO, Global AIDS Alliance, CSIS, and Johns Hopkins Bloomberg School of Public Health, among others.

For programmes that were identified but had missing or inadequate evaluation data, one e-mail request attempt was made to contact authors/programme directors, when contact information was available, for written evaluation materials.

Classification of included programmes

The report sources and goal of the promising practices studies were broad. As a result, the reporting format as well as the rigour of study design varied. In our analysis of the promising practices we distinguished between high and low study design rigour. Programmes meeting the peer-reviewed study design rigour, but had not been published in a peer-reviewed journal were classified as “Level 1” promising practices. Programmes with no formal study design, but nonetheless included some level of programme evaluation were classified as “Level 2” programmes.

Additionally, in presenting the programmes meeting our inclusion criteria, we split them up according to programme, rather than reporting by country or document. A handful of reports addressed programmes of integration either in multiple countries or multiple unrelated programmes carried out in a particular region. In order to maintain consistency with other intervention programmes we report on, we extracted information on individual programmes reported in these summary reports. Therefore, the number of reports we identified is lower than the number of programmes summarized.

3.2.3. Data extraction

Data were extracted from each evaluation by a member of the study team into the same four tables as used for peer-reviewed articles (see section 3.1.3. for a detailed description of the data extracted in each table). While the extraction information is the same, data from Level 1 and Level 2 programmes were collected in separate tables for ease of analysis. In addition, we did not evaluate rigour (table 3) for level 2 programmes, because by definition these programmes did not meet the minimal study design characteristics to be included in level 1 programmes, and thus would almost all have had a rigour score of 0.

Table 1: Evaluation descriptions (Level 1 and Level 2)

Table 2: Evaluation outcomes (Level 1 and Level 2)

Table 3: Evaluation rigour (Level 1 only)

Table 4: Integration implementation (Level 1 and Level 2)