An Evidence Gap Map on Adolescent Well-being in Low- and Middle-income Countries: A focus on the domains of protection, participation, and financial and material well-being

Study protocol

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Office of Research - Innocenti
January 2018
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For readers wishing to cite this document we suggest the following form:


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The Office of Research – Innocenti receives financial support from the Government of Italy, while funding for specific projects is also provided by other governments, international institutions and private sources, including UNICEF National Committees.

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Photo front cover: Bernard Chazine
Lumbi, DRC, 2015. Two teenagers from Kinshasa who attend Lumbi high school, located in the middle of the sub-equatorial jungle. The school complex, comprising all levels from elementary to high school, is run by the Passionist nuns, and renowned in the Congo. Many parents in Kinshasa (400 kilometers away) send their children here. It can take up to thirty hours to travel from the nearest town of Masi-Manimba to Lumbi (35 kilometers) during the rainy season.
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1. OBJECTIVES OF THE EVIDENCE GAP MAP

The objective of this evidence gap map (EGM) is to provide an overview of the existing evidence on the effectiveness of interventions (at the macro, meso and micro levels) aimed at improving adolescent well-being in low- and middle-income countries (LMICs). The evidence gap map (EGM) will focus on the key outcome domains of protection, participation and livelihoods. Interventions and outcomes related to transferable skills and youth employment will, however, be excluded from the livelihoods domain as these have been covered in other EGMs. This EGM will focus on aspects of livelihoods related to financial and material well-being only.
2. INCLUSION CRITERIA

The criteria used to consider studies for inclusion in this EGM are set out below.

2.1 TYPES OF STUDY AND RESEARCH DESIGN

Only studies that are explicitly impact evaluations or systematic reviews will be included.

For the purposes of this EGM, an impact evaluation is a study that explicitly measures the impact of an intervention or programme using an experimental or quasi-experimental design. Mixed methods evaluations that use these designs will be included.¹

Impact evaluations that use any of the following research designs and methodologies will be considered for inclusion:

- Studies using an experimental design – i.e. randomized controlled trial (RCTs);
- Quasi-experiments or natural experiments that have taken steps to establish a reasonably credible counterfactual, by using one or more of the following designs and/or methods:
  - Regression discontinuity design (RDD);
  - Propensity score matching (PSM);
  - Instrumental variables (IV) estimation or other methods using instrumental variables such as Heckman two-step approach;
  - Difference-in-differences (DID); and
- Mixed methods studies – these may include a combination of quantitative and qualitative designs, but must use one of the above methodologies as part of the mixed methods approach.

A systematic review is a high-level overview of primary research related to a research question, which tries to identify, select, synthesize and appraise all high quality research evidence relevant to that question. Systematic reviews seek to collate all of the evidence that fits pre-specified eligibility criteria, and aim to minimize bias by using explicit and systematic methods (Cochrane Library, n.d.).

Systematic reviews will be included that:

- Synthesize empirical studies which use either experimental or quasi-experimental designs to evaluate interventions; and
- Clearly state the methods used for searches, screening, data collection and synthesis.

These aspects will be quality assessed using the methodology detailed in Appendix 4. The EGM will include only those systematic reviews with conclusions in which it there is high or medium confidence following this quality appraisal.

¹This definition was adopted from other EGMs developed by the International Initiative for Impact Evaluation (3ie) to narrow the scope and make the findings comparable to other similar outputs. The United Nations Evaluation Group adapts a broader definition of impact evaluation than provided here, one which includes various non-experimental designs. See Impact evaluation in UN agency evaluation systems: Guidance on selection, planning and management (UNEG, 2013), retrieved from http://www.uneval.org/document/detail/1433
Systematic reviews will be excluded if they set out to include experimental or quasi-experimental studies but did not find suitable studies upon which to base an analysis of effectiveness. Such studies do not provide any conclusions, or present any relevant evidence, and are thus inappropriate for inclusion in the EGM.

2.2 TYPES OF PARTICIPANT TARGETED BY THE INTERVENTIONS STUDIED

The interventions studied focused on adolescents in LMICs.

‘Adolescent’ is widely defined (including by UNICEF) as a person aged between 10 and 19 years. Some studies may include interventions that straddle the child, adolescent and youth age groups, and other studies may not disaggregate target groups into the adolescent age range of 10 to 19 years. Therefore, while the primary focus is on ages 10 to 19 years, the EGM will include:

- Studies where 50 per cent of the sample’s target age range falls within the adolescent age range. For example, studies where the target age range of the intervention is 10 to 24 years would be included, but studies where the target age range of the intervention is 16 to 24 years would be excluded; and

- Studies that provide only an average age of the sample, as long as this falls within the adolescent age range. For example, studies with a sample with an average age of 15 years would be included, but studies with a sample with an average age of 20 years would be excluded.

Studies that are vague on the age range covered by the intervention will be excluded at the full-text screening stage, even if the stated focus is adolescents.

2.3 THEMATIC SCOPE

This EGM will focus on interventions that aim to improve adolescent well-being and which sit within the thematic domains of protection and participation, and specific subsets of the livelihoods domain. Excluded from the scope of this EGM are the health and education domains, and subsets of the livelihoods domain that relate to transferable skills and employment generation. This exclusion will avoid the duplication of information covered by other EGMs, either published or in development, which focus on these domains.

2.3.1 Included thematic domains

Protection

The protection domain refers to adolescents feeling a stable sense of physical safety and security, and having access to legal support. Key aspects of the protection domain include personal identity and bodily integrity, along with the ability to have fulfilling and supportive relationships and to feel protected in their families, among their peers, in their schools, and in their social and virtual environments.

Participation

The participation domain refers to adolescents being socially, politically and civically active. This includes the ability for adolescents to participate and voice their needs/demands, and to assert
accountability for rights vis-à-vis decision makers at home, within their communities, at the level of local governance and beyond. It also includes the ability to organize in a safe and supportive environment among peers, and to develop and exercise leadership skills.

**Financial and material well-being**

The financial and material well-being domain refers to adolescents being prepared and supported for equal participation in sustainable, non-exploitative and productive work. It also includes the capability of adolescents to secure, have and use assets. A caveat is that interventions related to transferable skills and employment generation will be excluded from this EGM, as they are already covered by another EGM (Rankin et al., 2015).

### 2.3.2 Excluded thematic domains

**Health**

The health domain refers to adolescents attaining their highest physical health and mental well-being. Studies that focus only on physical health-related issues will be excluded. Such issues include: physical ailments; the prevention and clinical treatment of bodily and physical health conditions, including obesity and infectious diseases; the prevention and clinical treatment of sexually transmitted infections and HIV/AIDS; early/adolescent pregnancy; interventions during and after pregnancy directed towards reproductive health, including antenatal and post-natal care; and adolescent mortality. Interventions for alleviating mental disorders such as depression will also be excluded.

In practice, it may be difficult to exclude some studies that focus on health-related interventions, as there is some crossover with the protection domain. As such, we will consider those health-related studies that include evidence on norms and harmful practices such as child marriage, or on psychological conditions that are an outcome of discrimination or harmful practices.

**Education**

The education domain refers to adolescents being actively engaged in learning in formal or non-formal education systems. Studies that focus only on formal school-based interventions leading to purely academic outcomes such as educational achievement, school enrolment, gender parity in educational attainment, and youth employment will be excluded.

In practice, it may be difficult to exclude some studies that focus on education-related interventions, as there is some crossover with the participation and livelihoods domains. As such, we will consider second-chance education and literacy, and other interventions taking place in the school setting that have an impact on our outcomes of interest.

**Transferable skills and employment generation**

Interventions related to employment generation will be excluded. This includes interventions aimed at providing youth with the tools to gain and succeed in employment and in sustainable and non-exploitative/productive work.
2.4 GEOGRAPHIC FOCUS

The EGM will present evidence for LMICs as defined by the World Bank (World Bank, n.d.-a). Upper-middle-income countries will be included and high-income countries excluded. Systematic reviews that have a global view will be excluded if their focus is predominantly on high-income countries. Those in which 50 per cent or more of the studies synthesized contain evidence on interventions in LMICs will be included. Also included will be those reviews containing information on high-, middle- and low-income countries, where the findings are clearly disaggregated by region or country, and the findings for low- and middle-income regions or countries are presented separately.

2.5 PUBLICATION PERIOD

Studies published from the year 2000 onwards will be included. This date is significant because it was the year in which the United Nations Millennium Development Goals were ratified. Restricting the publication period of included studies will also serve to generate the most relevant search results, since adolescent well-being is a relatively new policy area.

2.6 LANGUAGE RESTRICTIONS

Searches will be conducted in English, but studies written in English, French or Spanish will be considered for inclusion. Searching in bibliographic and organizational databases that index and publish studies written in French and Spanish will target publications in those languages. The research team includes French and Spanish speakers, who will be able to apply the screening protocol and later code the included studies.
3. INCLUDED INTERVENTIONS AND OUTCOMES

3.1 INTERVENTIONS

3.1.1 Individual and interpersonal level

**Financial support to individuals (cash transfers, loans and grants):** Direct monetary support to individuals, including for social protection purposes (e.g. allowances or transfers to marginalized and vulnerable groups), to protect individuals from the impacts of poverty, humanitarian shocks, etc., and to support the build-up of assets. Cash transfers can be unconditional or conditional; conditional cash transfers require some action or commitment by recipients (e.g. school attendance) and need not be repaid. Other grants or loans include seed money to support various purposes such as continuing education, livelihoods training, entrepreneurship, and the promotion and setting up of new businesses.

**Material/in-kind support to individuals:** Interventions that provide non-financial support such as food vouchers, educational materials to support education, and employment vouchers.

**Psychosocial support:** Psychological support such as counselling and therapy, cognitive behavioural therapy and anger management sessions.

**Socio-emotional learning and life skills sessions:** Interventions supporting soft skills such as public speaking, presentation and teamwork skills, as well as social and emotional skills such as working and socializing with the opposite sex, developing equitable gender attitudes and handling relationships.

**Second-chance education and literacy classes (for adolescents who drop out of school):** Formal and non-formal educational interventions for adolescents who have dropped out of school or have never had the chance to enrol. This category of interventions also includes classes delivered in a language other than the official language(s) of a country, to widen access to education among speakers of other languages.

**Auxiliary services:** Interventions targeting adolescents that support infrastructure or services, including, but not limited to, extension activities in agriculture, roads and health care. Such interventions can take the form of technical assistance in agriculture, links to veterinary or plant health offices for those pursuing agricultural work, or links to childcare services for adolescents. These interventions often complement and support cash transfers and other grants and loans, by linking beneficiaries to appropriate services and support.

3.1.2 Group and community level

**Financial support to groups (cash transfers, loans and grants):** Direct monetary support to groups or communities. These interventions can take the form of grants or loans for collective activities such as group farming and group-based entrepreneurial activities. They can also take the form of conditional or unconditional cash transfers.
Material/in-kind material support to groups: This refers to all in-kind and non-personal/group support. Non-financial support directed towards groups rather than individuals includes educational materials and sports equipment for schools and clubs.

Financial literacy and savings schemes: Interventions that impart knowledge and skills in relation to managing money, including earning, saving and investing money. This category includes interventions that support the creation of savings groups, and savings schemes such as monthly savings and credit facilities, microfinance and financial cooperatives.

Norm change and community sensitization: Interventions targeted towards the gatekeepers of societal norms and values rather than towards adolescents themselves. These include programmes that work on raising awareness of adolescent-related issues among gatekeepers, or sensitizing gatekeepers to such issues, which include gender- and age-based discrimination and harmful practices. Gatekeepers include religious leaders, parents, men and boys.

Support groups: Interventions providing social support to adolescents, including, but not limited to, teenage mothers and victims of violence. Support can be provided through the formation of adolescent groups, gender-based violence monitoring groups peer-to-peer learning groups and other self-help groups.

Advocacy and campaigns: Interventions in the form of communication activities such as media campaigns, posters, community rallies and door-to-door programmes, which raise awareness of issues related to adolescent well-being.

Adolescent empowerment and engagement: Programmes that promote among adolescents knowledge of participation, community involvement, and engagement in community affairs and in decision-making processes that affect their lives.

Local clubs, safe spaces and information centres: Programmes that focus on establishing recreational and information services such as clubs, libraries and information centres.

3.1.3 Policy and institutional level

Human rights mainstreaming, access to justice and legal reforms: Reforms to make laws, legislation and policies responsive to adolescents’ differential needs. Such activity includes the application of human rights norms in line with international standards.

Institutional capacity building: Interventions aimed at government agencies (such as the police, judiciary and health services) and non-governmental service providers with the aim of improving service delivery. This category includes interventions intended to change systems and processes, as well as training for staff and front-line workers.

Prevention and response services for violence: Interventions that work towards the prevention of violence, including violence monitoring groups and redressal mechanisms for survivors of violence. Examples of redressal mechanisms include shelter homes and one-stop centres that provide medical and legal support as well as a place of refuge for survivors of violence.
3.2 OUTCOMES

This section outlines what is included in the different outcome categories across the four domains of the EGM.

3.2.1 Protection

Protection-related attitudes, knowledge and skills

These outcomes include, but are not confined limited to:

- Knowledge and attitude change towards accessing and using protective mechanisms (such as courts, police stations, and local women’s and adolescents’ groups);
- Knowledge and attitude change towards harmful practices, including female genital mutilation/cutting (FGM/C), sexual violence and abuse, intimate partner violence, child marriage, drug abuse and antisocial behaviour;
- Resilience, problem-solving, confidence and the ability to respond to victimization; and
- Sense of belonging, including the perceived extent of isolation, and the sense of having access to adequate social support systems.

Free and safe movement

- Safe spaces and shelter, including infrastructure that ensures mobility and safe congregation; and
- Outcomes that address restrictions on the mobility of adolescents, enabling them to move freely and safely and thus participate in meetings and socialize in the community.

Connection to family, peers and community

- Actual physical and virtual connectedness, including the extent of isolation, and the return or reintegration of adolescents in their homes or communities. It also refers to the reported presence of social support systems for adolescents.

Violence

- Sexual violence and abuse, including intimate partner violence;
- Physical violence, abuse and punishment; detention; emotional violence; bullying and harassment; and homicide; and
- Corporal punishment.

Child marriage, harmful practices

- Child marriage;
- Harmful practices such as FGM/C, dowry system, son bias and other forms of gender- and age-based discrimination; and
- Suicide and self-harm rates.
**Child labour and exploitation**
- Adolescent involvement in hazardous, unpaid and illegal labour and crimes such as drug trafficking, smuggling and robbery;
- Child labour, slavery and bonded labour; and
- Trafficking.

3.2.2 Participation

**Participation-related attitudes, knowledge and skills**
- Confidence; social, cognitive, non-cognitive and emotional skills such as the confidence to speak in public and express one's opinion without fear; self-confidence and self-efficacy; and
- Demonstrable pro-social behaviour, i.e. voluntary behaviour intended to benefit another. Pro-social norms include reciprocity, social responsibility, altruism and volunteerism, as well as the ability to interact and work productively with diverse groups. This category of outcomes also includes skills related to social interaction.

**Access, decision-making and agency**
- Access to family and community resources;
- Decision-making in the household, in school and in local governance;
- Engagement of adolescents in advocacy and awareness groups (youth clubs, unions, advocacy and self-help groups, and violence monitoring groups);
- Involvement in developmental programming (including in the delivery of programmes); and
- Interpersonal communication, increased social networks and social interactions, and increased participation in community activities.

**Information and communication technology (ICT)**
- Access to and benefit from ICT (e.g. through use of the Internet and mobile phones).

3.2.3 Financial and material well-being

**Financial literacy, knowledge and skills**
- Financial literacy, which includes the attitudes, knowledge and skills required to manage money, save and make suitable investment decisions.

**Income generation**
- Explicit outcomes related to changes in adolescent wages and income. This category does not include outcomes related to participation in income-generating activities or household-level income.

**Savings and assets**
- Actual ability of adolescents (not households) to save and to have savings (e.g. the ability to open a bank account and deposit savings);
3.2.4 Enabling environment

**Social norms, and attitudes towards adolescents**

- Changes in gender attitudes and norms (including perceptions of masculinity and femininity, and attitudes towards women’s and girls’ roles);
- Involvement of gatekeepers (including men and boys), family and community in enabling adolescents, including by changing discriminatory norms and practices; and
- Extent of respect from and appreciation by family and community members.

**Legal norms**

- Adolescents’ rights to inclusion and participation are protected by law; and
- Application of legislation in line with international norms and standards.

**Service capacity**

- Capacity of individual front-line workers (governmental and non-governmental) to deliver adolescent-friendly services.

**Access to services**

- Access to and affordability and availability of facilities relevant to adolescents (play and recreational activities, libraries, meeting halls, counselling centres, information centres); and
- Access to and availability of preventative and protective services for adolescents, including adolescent protection systems, counselling services, and security and justice services.

3.3 CROSS-CUTTING THEMES

3.3.1 Cross-sectoral effects

- Did the intervention have an impact in two or more outcome domains? For example, a cash transfer intervention might have had an impact on child labour (protection domain) and savings and assets (financial and material well-being domain).

3.3.2 Subjective well-being

- Does the study include any evidence of the intervention’s impact on subjective well-being measures such as ‘happiness’, ‘life satisfaction’ and ‘aspirations for the future’?

3.3.3 Preventative interventions

- Does the study explicitly indicate that the intervention was preventative in nature?
3.3.4 Long-term impacts
- Does the study explore the intervention in terms of generational impacts, longer-term impacts on social norms and practices, or on reducing household poverty?

3.3.5 Gender
- Does the study include coverage of gender-related issues, as they relate to both adolescent girls and boys, and the relationships between them? Are the effects of the intervention disaggregated by gender?

3.3.6 Cost-effectiveness
- Does the study include an explicit cost-effectiveness or cost-benefit analysis for the intervention?
4. SEARCH STRATEGY

4.1 SEARCH TERMS

The key search terms and synonyms to be used are detailed below. The research team will employ one of two search strategies – long-form or short-form – according to the search capabilities offered by each data source. The search terms are formulated around the proposed population, intervention, outcome, geographical focus and research design categories.

For bibliographic indices that have the capability to conduct complex Boolean searches with long search strings, the long-form search strategy will be used. The short-form search strategy will be applied when using institutional websites and repositories with more limited functionality. Where independent resource centres have organized their document libraries into predefined categories, the relevant keywords or the closest synonyms will be selected from their lists.

4.2 LONG-FORM SEARCH STRATEGY

4.2.1 Intervention keywords

1. TI, AB, SU: ((financial OR material OR “in-kind”) N3 (grant OR support OR loan)) OR ((saving) N3 (scheme OR group OR support OR training OR club)) OR “financial literacy” or “cash transfer” OR stipend

2. TI, AB, SU: interpersonal OR psychosocial OR “psycho-social” OR “socio-emotional” OR counselling OR therapy OR cognitive OR “non-cognitive” OR “noncognitive” OR “life-skill” OR “second chance education” OR “peer support” OR “non-formal education” OR “non formal education” OR mentoring OR tutoring

3. TI, AB, SU: (norm N3 (change OR attitude OR behaviour OR sensitization)) OR empowerment OR outreach OR advocacy OR engagement OR campaign OR “support groups” OR “safe spaces” OR “information centres”

4. TI, AB, SU: polic* OR institution* OR agenc* OR mainstreaming OR “capacity building” OR service OR “service delivery” OR prevent* OR response OR “legal reform” OR “justice reform” OR “judicial reform” OR “human rights”

5. 1 OR 2 OR 3 OR 4

4.2.2 Outcome keywords

6. TI, AB, SU: ((physical OR sexual OR emotional OR “intimate partner”) N1 (violence OR abuse OR harassment)) OR (child* N3 (labo?r OR exploitation OR traffick*)) OR protection OR “child protection” OR “early marriage” OR “child marriage” OR “harmful practices” OR dowry OR bullying OR “illegal work” OR “self harm” OR suicide

7. TI, AB, SU: ((participation OR responsibilit* OR engagement OR voice) N3 (civic OR cultural OR social OR political)) OR (access N3 resources) OR agency OR member OR club OR association OR group OR union OR council OR vot* OR “information and communications technology” OR “ICT”
8. TI, AB, SU: ((financial OR material) N1 (wellbeing OR “well-being”)) OR “income generation” OR saving OR asset OR account OR wages

9. TI, AB, SU: ((access* OR afford* OR available*) N3 (service OR facility* OR activity*)) OR (capacity N3 (frontline OR workers OR service OR government OR institution OR agency)) OR “adolescent friendly service” OR “protective service”

10. TI, AB, SU: ((gender OR wom?n OR girl) N3 (discrimination OR equality OR bias OR attitude)) OR law OR justice OR “legal norm” OR “legislation” OR “social norm” OR rights OR “time poverty” OR “son bias”

11. TI, AB, SU: (transition) N3 (adult OR child OR teen* OR adolescent*)

12. 6 OR 7 OR 8 OR 9 OR 10 OR 11

4.2.3 Adolescent-related keywords

13. TI, AB, SU: adolescent* OR “young people” OR “young adult” OR youth OR teenager OR “young women” OR “young men” OR boy OR girl OR son OR daughter OR children OR “after school”

4.2.4 Impact evaluation keywords

14. TI, AB: ((impact AND (evaluat* or assess* or analy* or estimat*)) OR (effect* AND (evaluat* or assess* or analy* or estimat*)))

15. TI, AB: experiment* OR “randomi?ed control trial” OR “RCT” OR “quasi experiment*”

16. TI, AB: (match* N4 (propensity OR coarsened OR covariate OR statistical OR characteristic*))

17. TI, AB: (“difference* in difference*” OR “difference-in-difference*” OR “differences-in-difference*” OR “double difference*” OR (“fixed effect*” AND (interaction AND term)))

18. TI, AB: (“instrument* variable”) OR (“IV” N2 (estimation OR approach))

19. TI, AB: (“regression discontinuity”)

20. TI, AB: (random* N4 (trial OR allocat* OR intervention* OR control*))

21. TI, AB: (programme* OR intervention* OR project OR projects)

22. 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20

23. 21 AND 22

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2 These come from the 3ie list of impact evaluation keywords (Rankin et al., 2015, pp. 27–28).
4.2.5 Study type keywords

24. TI, AB: (“programme* evaluation” OR “project evaluation” OR “evaluation research” OR “impact evaluation” OR “impact assessment” OR “impact analysis” OR “natural experiment”)

25. TI, AB: { systemic* N2 review* } OR “meta-analy*” OR “meta analyze*”

26. 24 OR 25

4.2.6 Developing country free text

27. TI, AB: “East Asia” OR “South East Asia” OR “South-east Asia” OR “Pacific” OR “Pacific Islands” OR “American Samoa” OR Cambodia OR China OR Fiji OR Indonesia OR Kiribati OR “Democratic Republic of Korea” OR “North Korea” OR Laos OR Malaysia OR “Marshall Islands” OR Micronesia OR Mongolia OR Myanmar OR Palau OR “Papua New Guinea” OR Philippines OR Samoa OR “Solomon Islands” OR Thailand OR “Timor-Leste” OR Tonga OR Tuvalu OR Vanuatu OR Vietnam

28. TI, AB: “Eastern Europe” OR “Central Europe” OR “Central and Eastern Europe” OR “Commonwealth of Independent States” OR “Central Asia” OR Balkans OR Albania OR Armenia OR Azerbaijan OR Belarus OR “Bosnia and Herzegovina” OR Bulgaria OR Georgia OR Kazakhstan OR Kosovo OR “Kyrgyz Republic” OR “Kyrgyzstan” OR Macedonia OR Moldova OR Montenegro OR Romania OR Russia OR “Russian Federation” OR Serbia OR Tajikistan OR Turkey OR Turkmenistan OR Ukraine OR Uzbekistan

29. TI, AB: “South America” or “Latin America” or “Central America” OR “Caribbean” OR Argentina OR Belize OR Bolivia OR Brazil OR Colombia OR “Costa Rica” OR Cuba OR Dominica OR “Dominican Republic” OR Ecuador OR “El Salvador” OR Grenada OR Guatemala OR Guyana OR Haiti OR Honduras OR Jamaica OR Mexico OR Nicaragua OR Panama OR Paraguay OR Peru OR “St. Lucia” OR “St. Vincent and the Grenadines” OR Suriname OR Venezuela

30. TI, AB: “Middle East” OR “Middle-east” OR “North Africa” OR “Maghreb” OR Algeria OR Djibouti OR Egypt OR Iran OR Iraq OR Jordan OR Lebanon OR Libya OR Morocco OR Sudan OR Syria OR Tunisia OR Palestine OR “West Bank” OR Gaza OR Yemen

31. TI, AB: “South Asia” OR Afghanistan OR Bangladesh OR Bhutan OR India OR Maldives OR Nepal OR Pakistan OR “Sri Lanka”

32. TI, AB: “East Africa” OR “Eastern Africa” OR “Southern Africa” OR “Horn of Africa” OR “Sahel” OR “sub-Saharan Africa” OR Angola OR Botswana OR Burundi OR Comoros OR Eritrea OR Ethiopia OR Kenya OR Lesotho OR Madagascar OR Malawi OR Mauritius OR Mozambique OR Namibia OR Rwanda OR Somalia OR “South Africa” OR “South Sudan” OR Swaziland OR Tanzania OR Uganda OR Zambia OR Zimbabwe

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3 These are adapted from the 3ie list of study topic area keywords (Rankin et al., 2015, p. 28).

4 These are adapted from the 3ie list of low- and middle-income country free text words (Rankin et al., 2015, pp. 28–29), combined with the World Bank’s 2017 list of low- and middle-income country lending groups.
33. TI, AB: “West Africa” OR “Central Africa” OR “Great Lakes” OR Benin OR “Burkina Faso” OR “Cabo Verde” OR Cameroon OR “Central African Republic” OR Chad OR “Democratic Republic of Congo” OR “Republic of Congo” OR “Côte d’Ivoire” OR “Equatorial Guinea” OR Gabon OR Gambia OR Ghana OR Guinea OR “Guinea-Bissau” OR Liberia OR Mali OR Mauritania OR Niger OR Nigeria OR “Sao Tome and Principe” OR Senegal OR “Sierra Leone” OR Togo

34. TI, AB: ((developing OR “less-developed” OR “less* developed” OR “under developed” OR underdeveloped OR “middle-income” OR “low income” OR “low-income” OR underserved OR “under served” OR deprived OR poor*) N2 (countr* OR nation OR population OR world OR state OR economy OR economies)) OR (“third world” OR “LMIC” OR “L&MIC” OR “LAMIC” OR “LDC” OR “LIC” OR “lami countr*” OR “transitional countr*”) OR (low* N2 (gdp OR gnp OR “gross domestic” OR “gross national” OR “per capita income”))

35. 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34

4.2.7 Combined searches

36. 5 AND 12
37. 13 AND 36
38. 23 OR 26
39. 35 AND 37 AND 38

4.2.8 Search syntax key

TI = Search in title
AB = Search in abstract
SU = Search in subject keywords
N = Proximity indicator, e.g. N3 means that the words are within three words of each other, regardless of their order
* = Truncation, e.g. adolescen* finds all variations of the root ‘adolescen’, including adolescent, adolescents, adolescence
? = Wild-card letter, for alternative spellings of the same word, e.g. sensitization and sensitisation

4.3 SHORT-FORM SEARCH STRATEGY

4.3.1 Adolescent-related keywords

1. adolescent OR adolescence OR youth OR “young people” OR teenager OR child OR children

4.3.2 Outcome- and domain-related keywords

2. protection OR “early marriage” OR “child marriage” OR violence OR abuse OR harassment OR bullying OR “child labour” OR “self harm” OR suicide
3. participation OR engagement OR voice OR member OR club OR association OR group OR union OR council OR vote OR “access to resources”

4. “financial wellbeing” OR “financial well-being” OR “material wellbeing” OR “material well-being” OR “income generation” OR saving OR asset OR account OR wages

5. access OR accessibility OR affordability OR “adolescent friendly service” OR “protective service” OR capacity

6. law OR justice OR “legal norm” OR legislation OR “social norm” OR “gender equality” OR discrimination OR bias

4.3.3 Document type keywords

7. impact OR evaluation OR assessment OR analysis OR “systematic review” OR “meta analysis” OR “meta-analysis” OR experiment OR “randomised control trial” OR “RCT” OR “quasi experiment”
5. METHODOLOGY: SEARCHES, SCREENING, CODING, AND QUALITY ASSESSMENT

5.1 SYSTEMATIC SEARCHES

5.1.1 Database searches
The search strategy detailed in the previous section will be applied online across a wide range of database sources, including citation and journal indices, research and evaluation repositories, resource centres and other search engines. The proposed list of database sources is included in Appendix 1. Its variety of sources is designed to capture peer-reviewed materials and grey literature.

The lead researchers will conduct the long-form searches in bibliographic indices, while research assistants will be given guidance and training to conduct the short-form searches in other databases.

5.1.2 Expert consultations
Consultations with experts will run alongside the online literature searches. During the scoping phase, a selection of policymakers, practitioners and academics working in this area will be asked to recommend studies for inclusion in the EGM, including grey literature that is difficult to obtain online.

5.1.3 Reference checking
The references of key documents (including those generated by search results and recommended by experts) will be checked, both after the expert consultation stage and again during screening stage. Those studies that meet the inclusion criteria will be coded and included in the EGM.

5.2 SCREENING
All references generated by the systematic searches will be stored using Zotero, the reference management software. Some initial keyword searches will be conducted to remove documents that do not meet the inclusion criteria.

Once all irrelevant documents have been removed from the list, this will be transferred to EPPI-Reviewer 4 software so that a more in-depth screening can be conducted. Documents will be screened first by title, then by abstract and finally by full text. Research assistants will conduct this work following the screening protocol presented in Appendix 2.

5.3 CODING
Studies for inclusion in the EGM will be coded in a Microsoft Excel spreadsheet. Appendix 3 provides detailed information on the data to be recorded and coded for each document.

5.4 QUALITY APPRAISAL OF SYSTEMATIC REVIEWS
The lead researchers will appraise any included systematic reviews (not individual impact evaluations) using the International Initiative for Impact Evaluation (3ie) quality appraisal method. See Appendix 4 for the 3ie checklist for judging how much confidence to place in a systematic review of effects.
6. SCREENING AND CODING ACCURACY AND CONSISTENCY

6.1 SEARCHING
The search strategy to be applied for each database/source will be discussed and agreed by the lead researchers and the research assistants before the searches are undertaken. Any variation made to a strategy will be recorded. The lead researchers will check the search results before the documents are transferred into EPPI-Reviewer for screening.

6.2 TEST SCREENING
To test the screening process, and to ensure that the research assistants are familiar with it, 35 randomly selected documents generated from test searches will each be screened by the research team at the title, abstract and full-text levels. The results will be compared, with particular attention paid to inclusion and exclusion decisions. Any discrepancies will be discussed by the entire team and reconciled.

6.3 TEST CODING
Following the test full-text screening, documents which meet the inclusion criteria will be coded by the entire team. This will help to test the coding process and the applicability of the framework to the evidence base.

6.4 TITLE AND ABSTRACT DOUBLE-SCREENING
The lead researchers will review (double-screen) the first 90 studies on the initial bibliographic list. Any discrepancies will be discussed with the research assistants and corrections made. Random checks will be made following the title and abstract screening stages.

6.5 FULL-TEXT DOUBLE-SCREENING
The lead researchers will review (double-screen) the first 90 studies screened by each researcher. Any discrepancies will be discussed and corrections made. The lead researchers will check (double-screen) the final list of included studies in its entirety prior to the coding stage.

6.6 CODING CONSISTENCY
At the start of the coding process, all of the lead researchers and research assistants will code the same 10 randomly selected documents. Discrepancies will be discussed and differences reconciled to ensure consistency. During the coding process, all studies will be double-coded by the lead researchers for accuracy and consistency.

6.7 QUALITY APPRAISAL ACCURACY
The quality appraisal of all systematic reviews will be conducted by the principal researcher and reviewed by a researcher with expertise in quantitative research design.
REFERENCES


### APPENDIX 1: DATABASES TO BE CONSULTED

#### BIBLIOGRAPHIC INDICES

<table>
<thead>
<tr>
<th>Index</th>
<th>Provider (interface)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Development and Adolescent Studies</td>
<td>EBSCOhost</td>
</tr>
<tr>
<td>EconLit</td>
<td></td>
</tr>
<tr>
<td>Education Abstracts</td>
<td></td>
</tr>
<tr>
<td>Education Resources Information Center (ERIC)</td>
<td></td>
</tr>
<tr>
<td>Humanities Abstracts</td>
<td></td>
</tr>
<tr>
<td>Bibliography of Asian Studies (BAS)</td>
<td></td>
</tr>
<tr>
<td>ScienceDirect</td>
<td>Elsevier (ScienceDirect interface)</td>
</tr>
<tr>
<td>Scopus</td>
<td>Elsevier (Scopus interface)</td>
</tr>
<tr>
<td>SciELO Citation Index</td>
<td>Web of Science</td>
</tr>
<tr>
<td><em>(includes Spanish and Portuguese language documents from Latin America, Spain and Portugal)</em></td>
<td></td>
</tr>
<tr>
<td>PsycINFO</td>
<td>Ovid</td>
</tr>
<tr>
<td>MEDLINE</td>
<td></td>
</tr>
<tr>
<td>Social Policy and Practice</td>
<td></td>
</tr>
</tbody>
</table>

#### RESEARCH AND INDEPENDENT INSTITUTION WEBSITES

<table>
<thead>
<tr>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Initiative for Impact Evaluation (3ie) Impact Evaluation Repository</td>
</tr>
<tr>
<td>Eldis</td>
</tr>
<tr>
<td>Overseas Development Institute</td>
</tr>
<tr>
<td>UNICEF Office of Research - Innocenti</td>
</tr>
<tr>
<td>African Journals Online (AJOL)</td>
</tr>
</tbody>
</table>
# DONOR AND INTERNATIONAL DEVELOPMENT AGENCY WEBSITES

<table>
<thead>
<tr>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department for International Development (UK) (DFID) Research for Development Outputs (R4D)</td>
</tr>
<tr>
<td>The World Bank Documents and Reports website</td>
</tr>
<tr>
<td>Swedish International Development Cooperation Agency (SIDA)</td>
</tr>
<tr>
<td>Inter-American Development Bank</td>
</tr>
<tr>
<td>United States Agency for International Development (USAID) Development Experience Clearinghouse</td>
</tr>
<tr>
<td>African Development Bank Evaluation Reports</td>
</tr>
<tr>
<td>International Development Research Centre (IDRC)</td>
</tr>
</tbody>
</table>

# SYSTEMATIC REVIEW DATABASES

<table>
<thead>
<tr>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochrane Database of Systematic Reviews</td>
</tr>
<tr>
<td>Campbell Systematic Reviews</td>
</tr>
<tr>
<td>Systematic Reviews (3ie repository)</td>
</tr>
</tbody>
</table>
APPENDIX 2: SCREENING PROTOCOL

<table>
<thead>
<tr>
<th>SCREENING QUESTIONS</th>
<th>NO</th>
<th>YES</th>
<th>UNCLEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TITLE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make quick judgements to exclude documents based on the following screening questions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you cannot exclude, or if you’re unclear after checking against all criteria, then it must be forwarded for abstract screening.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Was the study or review published before 2000?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IF YES, THEN EXCLUDE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Is the study written in English, French or Spanish?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IF NO, THEN EXCLUDE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Is this a biomedical trial of a product, medication or procedure?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IF YES, THEN EXCLUDE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Is the study ONLY focused on treating or preventing physical health conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For example:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The prevention and treatment of purely physical ailments and physical health</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>conditions, including obesity and infectious disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The prevention and treatment of HIV/AIDS and other sexually transmitted infections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Early/adolescent pregnancy and pregnancy-related health (including antenatal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and post-natal care)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Mortality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IF YES, THEN EXCLUDE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Is the study ONLY focused on the prevention and treatment of mental health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>conditions, such as depression?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IF YES, THEN EXCLUDE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• INCLUDE for now if focused on psychosocial interventions with reported changes related to self-confidence, emotional skills, self-efficacy and pro-social behaviour.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• INCLUDE for now if focused on the prevention of and changes in attitudes towards harmful practices such as child marriage, female genital mutilation/cutting and sexual violence.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note: In practice, it may be difficult to exclude some studies that focus on mental health-related interventions because there is some crossover with the protection and participation domains. If unclear, then include for now.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Adapted from the 3ie screening protocol (Rankin et al., 2015, pp. 32-34).
### SCREENING QUESTIONS

<table>
<thead>
<tr>
<th>6. Is the study or review focused on a country or countries classified as low- or middle-income (including upper-middle-income)?</th>
<th>NO</th>
<th>YES</th>
<th>UNCLEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>• For ‘global’ systematic reviews, include those where 50 per cent or more of the studies synthesized contain evidence on interventions in low- or middle-income countries.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Also include those where the findings are clearly disaggregated by region or country, and the findings for low- and middle-income regions or countries are presented separately from the findings for high-income countries.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IF NO, THEN EXCLUDE**

**Note:** If unsure on which countries are low- and middle-income countries (LMICs), see [http://data.worldbank.org/country](http://data.worldbank.org/country)

<table>
<thead>
<tr>
<th>7. Is the study an IMPACT EVALUATION or a SYSTEMATIC REVIEW of an intervention/series of interventions?</th>
<th>NO</th>
<th>YES</th>
<th>UNCLEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>• IMPACT EVALUATIONS evaluate an intervention, policy and/or programme.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SYSTEMATIC REVIEWS synthesize and/or evaluate the impacts of several different interventions, policies and/or programmes?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IF NO, THEN EXCLUDE**

**Note:** EXCLUDE all theoretical or conceptual studies, or those that measure the impact of any phenomenon other than an intervention, policy and/or programme

**Note:** All the studies that we consider valid for inclusion measure the impact and effectiveness of interventions on one or more outcomes (e.g. the impact of cash transfers on child labour).

**Note:** For our purposes, an intervention could be a local project, a broader programme or the implementation of a policy. The intervention may be implemented by any of a range of actors, including donors, host governments, local councils, non-governmental organizations and/or local civil society organizations.

<table>
<thead>
<tr>
<th>8. Is the study clearly focused ONLY on children under 10 or on young people or adults over 19?</th>
<th>NO</th>
<th>YES</th>
<th>UNCLEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note:</strong> e.g. if the title indicates that the study only focuses on infants, newborns or babies.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IF YES, THEN EXCLUDE**

**ABSTRACT**

- Repeat questions 3 to 8 to see if the abstract provides more detail.
- Then move on to questions 9 to 12.
- The document must be forwarded to full-text screening if you cannot exclude based on any of these criteria.
- Only code as ‘UNCLEAR after abstract screening’ if you think it warrants further viewing by Shiv or Anita as you are unsure if the subject matter meets our inclusion criteria and think the document could possibly be eliminated before full-text screening.
### SCREENING QUESTIONS

<table>
<thead>
<tr>
<th>NO</th>
<th>YES</th>
<th>UNCLEAR</th>
</tr>
</thead>
</table>

9. If the study includes adolescents aged 10 to 19 years as part of a larger target age range:
- Does 50 per cent of the target age range or the average of the sample fall within the adolescent age range?
- If an average age of the sample is provided, does this fall within the age range of 10 to 19 years?

*Note: For example, we would include studies where the target age range of the intervention is 10 to 24 years, but we would exclude studies where the target age range of the intervention is 16 to 24 years. We would include studies where the average age of the sample is 13 years, but exclude those where the average age is 20 years.*

**IF NO, THEN EXCLUDE**

10. Is the study ONLY focused on youth-employment-related interventions and outcomes, for example:
- Interventions such as direct placement in jobs, job vouchers and internships?
- Interventions aimed at providing adolescents with tools to gain, remain or succeed in employment such as career counselling, and technical and vocational education and training?
- Outcomes related to employability such as those that relate to employment trends, the type of jobs that adolescents are involved in and employment behaviours such as entrepreneurial self-confidence?

**IF YES, THEN EXCLUDE**

INCLUDE for now if focused on interventions that contribute to financial and material well-being such as by increasing incomes, savings or assets.

11. Is the study ONLY focused on academic interventions AND/OR outcomes such as educational achievement and schooling, school enrolment and gender parity in educational attainment?

**IF YES, THEN EXCLUDE**

INCLUDE for now if focused on school-based, non-formal or extra-curricular interventions that have an effect upon protection, participation, or financial and material well-being.

12. Are the methods clearly identified and clearly NOT among the methodologies for impact evaluations or systematic reviews we consider?

We consider the following:
- Experimental:
  - Randomized controlled trials
- Quasi-experimental (uses statistical techniques to create a counterfactual):
  - Difference-in-differences (or double difference)
  - Instrumental variables approaches
  - Propensity score matching (or other matching techniques)
  - Regression discontinuity design
- Systematic reviews, synthetic reviews or meta-analyses that aim to evaluate interventions.
### SCREENING QUESTIONS

<table>
<thead>
<tr>
<th>IF YES, THEN EXCLUDE</th>
<th>NO</th>
<th>YES</th>
<th>UNCLEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code all impact evaluations to ‘INCLUDE IE for full-text screening’.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code all systematic reviews to ‘INCLUDE SR for full-text screening’.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FULL TEXT**

- Repeat questions 6 and 9 to 12 to see if the full text provides more detail.
- Then move on to questions 13 to 15.
- Only code ‘UNCLEAR after full-text screening’ if you think the document warrants further viewing by Shiv or Anita as you are unsure if the subject matter meets our inclusion criteria or you are unsure of the methodology/design used.
- Those documents that meet all other criteria (population, geography and thematic) but which are excluded on the basis of methodology/design (questions 14 or 15) should be coded to ‘Other IE or SR’.

13. Does the study evaluate a policy, programme or intervention directed at improving outcomes in one of the following domains?

**Note:** Compare against the framework/inclusion criteria summary rather than the overall goal of the study. There might be specific outcomes covered in the study that meet our inclusion criteria.

- **Protection:** Adolescents feel a stable sense of physical security, personal identity and bodily integrity; have fulfilling and supportive relationships; and feel protected in their families, among their peers, in their schools, and in their social and virtual environments.
- **Participation:** Adolescents are able to voice their needs/demands and assert accountability for rights vis-à-vis decision makers at home, within their communities, at the level of local governance and beyond. They are able to organize in a safe and supportive environment among peers, and develop and exercise leadership skills.
- **Financial and material well-being:** Adolescents develop the capability, knowledge and skills to secure, to have and to use assets.
- **Enabling environment:** Changes in the context or environment that affect adolescent well-being. This includes changes in social and legal norms, in the capacity of service delivery providers, and in the accessibility and/or affordability of services relevant to adolescents.

**IF NO, THEN EXCLUDE**

If in doubt, cross-reference the interventions and outcomes with the EGM framework.

14. If the study is an IMPACT EVALUATION, does it use one of the following impact evaluation methodologies?

- a) Randomized controlled trial (RCT)
- b) Regression discontinuity design (RDD)
- c) Propensity score matching (PSM) (or other matching method)
- d) Instrumental variables (IV) estimation (or other methods using instrumental variables such as Heckman two-step approach)
- e) Difference-in-differences (DD) with a test for parallel trends assumptions

**Note:** The study may also use methods in addition to those listed here (such as regression with controls); it may use a primary evaluation methodology not listed (such as in a natural experiment); or it may use a mixed methods approach that includes qualitative evaluation, but it must do so in addition to one of the above methods (a–e).
**SCREENING QUESTIONS**

<table>
<thead>
<tr>
<th>IF YES, THEN INCLUDE</th>
<th>NO</th>
<th>YES</th>
<th>UNCLEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF IT IS A SYSTEMATIC REVIEW, CONTINUE TO QUESTION 15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the impact evaluation passes questions 1 to 13, but is ultimately excluded at question 14, it should be filed in the 'Other IE or SR' folder.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Is the study described as a SYSTEMATIC REVIEW, synthetic review or meta-analysis?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IF YES, does the review:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Concern the effectiveness or impact of interventions, programmes or policies?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Predominantly include studies undertaken in LMICs (over 50 per cent of the countries should be LMICs)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Synthesize experimental or quasi-experimental studies?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Clearly describe methods used for searches, screening, data collection and synthesis?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IF NO, THEN EXCLUDE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>If the systematic review passes questions 1 to 13, but is ultimately excluded at question 15, it should be filed in the 'Other IE or SR' folder.</td>
<td></td>
</tr>
<tr>
<td>Exclude systematic reviews that set out to include experimental or quasi-experimental studies but which did not find suitable studies upon which to base an analysis of effectiveness.</td>
<td></td>
</tr>
</tbody>
</table>
**APPENDIX 3: DATA TO BE RECORDED**

The table below details the data to be recorded and coded on the Microsoft Excel spreadsheet for each study that passes the evidence gap map inclusion criteria.

<table>
<thead>
<tr>
<th>SECTION</th>
<th>DATA</th>
</tr>
</thead>
</table>
| Bibliographic data       | • Bibliographic data (author/s, publication date, title, journal name, publisher)  
                           | • Hyperlink to the publication (DOI URL if it is a journal article – check on http://www.crossref.org)  
                           | • Abstract or summary (abstracts or summaries that are readily available will be copied and pasted into the database; a new summary will be written for any publication lacking a readily available abstract or summary) |
| Document details         | Study type (select one option):  
                           | • Impact evaluation  
                           | • Systematic review  
                           | Document type (select one option):  
                           | • Peer-reviewed journal article  
                           | • Grey literature  
                           | Language (select one option):  
                           | • English  
                           | • French  
                           | • Spanish  
| Geographic focus         | Regional focus (multiple options can be coded):  
                           | • CEE/CIS (Central and Eastern Europe and the Commonwealth of Independent States)  
                           | • EAP (East Asia and the Pacific)  
                           | • ESA (Eastern and Southern Africa)  
                           | • LATAM (Latin America and the Caribbean)  
                           | • MENA (Middle East and North Africa)  
                           | • South Asia WCA (West and Central Africa)  
                           | • Global (see criteria for inclusion)  
<pre><code>                       | Enter country or countries (free text) |
</code></pre>
<table>
<thead>
<tr>
<th>SECTION</th>
<th>DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research design</td>
<td>Code applicable options (multiple options can be coded):</td>
</tr>
<tr>
<td></td>
<td>• Randomized controlled trial (RCT)</td>
</tr>
<tr>
<td></td>
<td>• Regression discontinuity design (RDD)</td>
</tr>
<tr>
<td></td>
<td>• Propensity score matching (PSM) or other matching method</td>
</tr>
<tr>
<td></td>
<td>• Instrumental variables (IV)</td>
</tr>
<tr>
<td></td>
<td>• Difference-in-differences (DID)</td>
</tr>
<tr>
<td></td>
<td>• Mixed methods (qualitative in addition to one of the above approaches)</td>
</tr>
<tr>
<td></td>
<td>• Other impact evaluation (enter free text)</td>
</tr>
<tr>
<td></td>
<td>• Systematic review (code only for systematic review)</td>
</tr>
<tr>
<td>Age range</td>
<td>Actual age range covered (enter minimum and maximum ages)</td>
</tr>
<tr>
<td></td>
<td>Code applicable options (multiple options can be coded):</td>
</tr>
<tr>
<td></td>
<td>• Children under 10 (0 to 9)</td>
</tr>
<tr>
<td></td>
<td>• Young adolescents (10 to 12)</td>
</tr>
<tr>
<td></td>
<td>• Mid-adolescence (13 to 15)</td>
</tr>
<tr>
<td></td>
<td>• Older adolescents (16 to 19)</td>
</tr>
<tr>
<td></td>
<td>• Young people over 20 (20-plus)</td>
</tr>
<tr>
<td>Gender focus (of the intervention being studied)</td>
<td>Code one option:</td>
</tr>
<tr>
<td></td>
<td>• Male</td>
</tr>
<tr>
<td></td>
<td>• Female</td>
</tr>
<tr>
<td></td>
<td>• All (all genders)</td>
</tr>
<tr>
<td>Interventions and outcomes</td>
<td>Interventions and their respective outcomes should be recorded on the spreadsheet. Enter the relevant two-letter code for each. Several outcomes may be measured for each intervention.</td>
</tr>
<tr>
<td>Time taken between intervention end-date and the measuring of outcomes</td>
<td>CODE FOR IMPACT EVALUATIONS ONLY</td>
</tr>
<tr>
<td></td>
<td>• Actual period between intervention end-date and the most recent year that outcomes were measured (i.e. the start and end years)</td>
</tr>
<tr>
<td></td>
<td>Code applicable options (multiple options can be coded):</td>
</tr>
<tr>
<td></td>
<td>• Short-term (0 to 2 years)</td>
</tr>
<tr>
<td></td>
<td>• Medium-term (3 to 6 years)</td>
</tr>
<tr>
<td></td>
<td>• Long-term (7 years plus)</td>
</tr>
</tbody>
</table>
### DATA

<table>
<thead>
<tr>
<th>SECTION</th>
<th>DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-cutting themes</td>
<td>Code applicable options (multiple options can be coded):</td>
</tr>
<tr>
<td></td>
<td>• Cross-sectoral impacts (interventions that have impacts in two or more outcome domains)</td>
</tr>
<tr>
<td></td>
<td>• Preventative interventions</td>
</tr>
<tr>
<td></td>
<td>• Long-term impacts</td>
</tr>
<tr>
<td></td>
<td>• Gender cost-effectiveness (only code if there is an explicit and clear section on cost-effectiveness)</td>
</tr>
<tr>
<td></td>
<td>• Subjective well-being</td>
</tr>
</tbody>
</table>
### APPENDIX 4: QUALITY APPRAISAL PROCESS FOR SYSTEMATIC REVIEWS

This is the International Initiative for Impact Evaluation (3ie) checklist for judging how much confidence to place in a systematic review of effects. It has been taken from Snilstveit et al. (2013, pp. 27–32).

<table>
<thead>
<tr>
<th>Checklist for making judgements about how much confidence to place in a systematic review of effects (adapted version of SURE checklist: )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assessed by:</strong></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
</tr>
</tbody>
</table>

#### Section A: Methods used to identify, include and critically appraise studies

**A.1 Were the criteria used for deciding which studies to include in the review reported?**

- Did the authors specify:
  - Types of studies
  - Participants/ settings/ population
  - Intervention(s)
  - Outcome(s)

**Coding guide - check the answers above:***

- YES: All four should be yes
- NO: All four should be no
- PARTIALLY: Any other

**Comments (note important limitations or uncertainty)**

**A.2 Was the search for evidence reasonably comprehensive?**

- Language bias avoided (no restriction of inclusion based on language)
- No restriction of inclusion based on publication status
- Relevant databases searched (Minimum criteria: All reviews should search at least one source of grey literature such as Google; for health: Medline/ Pubmed + Cochrane Library; for social sciences IDEAS + at least one database of general social science literature and one subject specific database)
- Reference lists in included articles checked
- Authors/experts contacted

**Coding guide - check the answers above:**

- YES: All five should be yes
- PARTIALLY: Relevant databases and reference lists are both reported
- NO: Any other

**Comments (note important limitations or uncertainty)**
### A.3 Does the review cover an appropriate time period?

*Is the search period comprehensive enough that relevant literature is unlikely to be omitted?*

- Yes
- Can't tell (only use if no information about time period for search)
- No
- Unsure

**Coding guide:**

YES: Generally this means searching the literature at least back to 1990

NO: Generally if the search does not go back to 1990

CAN'T TELL: No information about time period for search

**Note:** With reference to the above – there may be important reasons for adopting different dates for the search, e.g. depending on the intervention. If you think there are limitations with the timeframe adopted for the search which have not been noted and justified by the authors, you should code this item as a NO and specify your reason for doing so in the comment box below. Older reviews should not be downgraded, but the fact that the search was conducted some time ago should be noted in the quality assessment. Always report the time period for the search in the comment box.

**Comments (note search period, any justification provided for the search period, or uncertainty):**

### A.4 Was bias in the selection of articles avoided?

*Did the authors specify:*

- Independent screening of full text by at least 2 reviewers
- List of included studies provided
- List of excluded studies provided

- Yes
- Partially
- No

**Coding guide:**

YES: All three should be yes, although reviews published in journals are unlikely to have a list of excluded studies (due to limits on word count) and the review should not be penalised for this.

PARTIALLY: Independent screening and list of included studies provided are both reported

NO: All other. If list of included studies provided, but the authors do not report whether or not the screening has been done by 2 reviewers review is downgraded to NO.

**Comments (note important limitations or uncertainty):**
### A.5 Did the authors use appropriate criteria to assess the quality and risk of bias in analysing the studies that are included?*

<table>
<thead>
<tr>
<th>Yes</th>
<th>Partially</th>
<th>No</th>
</tr>
</thead>
</table>

**Coding guide:**
- **YES:** All three should be yes
- **PARTIALLY:** The first and third criteria should be reported. If the authors report the criteria for assessing risk of bias and report a summary of this assessment for each criterion, but the criteria may be only partially sensible (e.g. do not address all possible risks of bias, but do address some), we downgrade to **PARTIALLY.**
- **NO:** Any other

**Comments (note important limitations or uncertainty)**

### Section B: Methods used to analyse the findings

#### B.1 Were the characteristics and results of the included studies reliably reported?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Partially</th>
<th>Not applicable (e.g. no included studies)</th>
</tr>
</thead>
</table>

**Coding guide:**
- **YES:** All three should be yes
- **PARTIALLY:** Criteria one and three are yes, but some information is lacking on second criteria.
- **NO:** None of these are reported. If the review does not report whether data was independently extracted by 2 reviewers (possibly a reporting error), we downgrade to **NO.**
- **NOT APPLICABLE:** if no studies/no data

**Comments (note important limitations or uncertainty)**

#### B.2 Are the methods used by the review authors to analyse the findings of the included studies clear, including methods for calculating effect sizes if applicable?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Partially</th>
<th>No</th>
<th>Not applicable (e.g. no studies or no data)</th>
</tr>
</thead>
</table>

**Coding guide:**
- **YES:** Methods used clearly reported. If it is clear that the authors use narrative synthesis, they don’t need to say this explicitly.
- **PARTIALLY:** Some reporting on methods but lack of clarity.
- **NO:** Nothing reported on methods
- **NOT APPLICABLE:** if no studies/no data
Comments (note important limitations or uncertainty)

B.3 Did the review describe the extent of heterogeneity?
☐ Yes
☐ Partially
☐ No
☐ Not applicable (e.g. no studies or no data)

Coding guide:
YES: First two should be yes, and third category should be yes
PARTIALLY: The first category is yes
NO: Any other
NOT APPLICABLE: if no studies/no data

Comments (note important limitations or uncertainty)

B.4 Were the findings of the relevant studies combined (or not combined) appropriately relative to the primary question the review addresses and the available data?

How was the data analysis done?
☐ Descriptive only
☐ Vote counting based on direction of effect
☐ Vote counting based on statistical significance
☐ Description of range of effect sizes
☐ Meta-analysis
☐ Meta-regression
☐ Other: specify
☐ Not applicable (e.g. no studies or no data)

How were the studies weighted in the analysis?
☐ Equal weights (this is what is done when vote counting is used)
☐ By quality or study design (this is rarely done)
☐ Inverse variance (this is what is typically done in a meta-analysis)
☐ Number of participants (sample size)
☐ Other: specify
☐ Not clear
☐ Not applicable (e.g. no studies or no data)

Did the review address unit of analysis errors?
☐ Yes - took clustering into account in the analysis (e.g. used intra-cluster correlation coefficient)
☐ No, but acknowledged problem of unit of analysis errors
☐ No mention of issue
☐ Not applicable - no clustered trials or studies included

Coding guide:
YES: If appropriate table, graph or meta-analysis AND appropriate weights AND unit of analysis errors addressed (if appropriate).
PARTIALLY: If appropriate table, graph or meta-analysis AND appropriate weights AND unit of analysis errors not addressed (and should have been).
NO: If narrative OR vote counting (where quantitative analyses would have been possible) OR inappropriate reporting of table, graph or meta-analyses.
NOT APPLICABLE: if no studies/no data
CAN’T TELL: if unsure (note reasons in comments below)
### Comments (note important limitations or uncertainty)

#### B.5 Does the review report evidence appropriately?

- [ ] Yes
- [ ] No
- [ ] Partially
- [ ] Not applicable

**Coding guide:**

**YES:** Both criteria should be fulfilled (where applicable)

**NO:** Criteria not fulfilled

**PARTIALLY:** Only one criteria fulfilled, or when there is limited reporting of quality appraisal (the latter applies only when inclusion criteria for study design are appropriate)

**NOT APPLICABLE:** No included studies

*Note on reporting evidence and risk of bias: For reviews of effects of ‘large n’ interventions, experimental and quasi-experimental designs should be included (if available). For reviews of effects of ‘small n’ interventions, designs appropriate to attribute changes to the intervention should be included (e.g., pre-post with assessment of confounders).*

Please specify included study designs and any other comments (note important limitations or uncertainty):

#### B.6 Did the review examine the extent to which specific factors might explain differences in the results of the included studies?

- [ ] Yes
- [ ] Partially
- [ ] No
- [ ] Not applicable

**Coding guide:**

**YES:** Explanatory factors clearly described and appropriate methods used to explore heterogeneity

**PARTIALLY:** Explanatory factors described but for meta-analyses, sub-group analysis or meta-regression not reported (when they should have been)

**NO:** No description or analysis of likely explanatory factors

**NOT APPLICABLE:** e.g. too few studies, no important differences in the results of the included studies, or the included studies were so dissimilar that it would not make sense to explore heterogeneity of the results

**Comments (note important limitations or uncertainty)**
### Section C: Overall assessment of the reliability of the review

<table>
<thead>
<tr>
<th>C.1 Are there any other aspects of the review not mentioned before which lead you to question the results?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Additional methodological concerns – only one person reviewing</td>
</tr>
<tr>
<td>- Robustness</td>
</tr>
<tr>
<td>- Interpretation</td>
</tr>
<tr>
<td>- Conflicts of interest (of the review authors or for included studies)</td>
</tr>
<tr>
<td>- Other</td>
</tr>
<tr>
<td>- No other quality issues identified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C.2 Are there any mitigating factors which should be taken into account in determining the reviews reliability?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Limitations acknowledged</td>
</tr>
<tr>
<td>- No strong policy conclusions drawn (including in abstract/ summary)</td>
</tr>
<tr>
<td>- Any other factors</td>
</tr>
</tbody>
</table>

*Use comments to specify if relevant, to flag uncertainty or need for discussion*

<table>
<thead>
<tr>
<th>C.3 Based on the above assessments of the methods please provide a summary of the quality of the review</th>
</tr>
</thead>
</table>

Strengths and limitations should be summarised above, based on what was noted in Sections A, B and C.

### NOTES

1. Adapted from Supporting the Use of Research Evidence (SURE) CoLLaboration. SURE checklist for making judgements about how much confidence to place in a systematic review. In: SURE guides for preparing and using policy briefs. [www.evipnet.org/sure](http://www.evipnet.org/sure)

2. **Risk of bias** is the extent to which bias may be responsible for the findings of a study.

   **Bias** is a systematic error or deviation from the truth in results or inferences. In studies of the effects of social, economic and health care interventions, the main types of bias arise from systematic differences in the groups that are compared (selection bias), the intervention that is provided, or exposure to other factors apart from the intervention of interest (performance bias/contamination), withdrawals or exclusions of people entered into a study (attrition bias) or how outcomes are assessed (detection bias) and reported (reporting bias). Reviews of social science studies may be particularly affected by reporting bias, where a biased subset of all the relevant data and analyses is presented.

   Assessments of the risk of bias are sometimes also referred to as assessments of the **validity** or **quality** of a study.

   **Validity** is the extent to which a result (of a measurement or study) is likely to be true.

   **Quality** is a vague notion of the strength or validity of a study, often indicating the extent of control over bias.