



Challenges and  
potential solutions  
for adolescent girls in  
urban settings: a  
rapid evidence review  
Annexes

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## Appendix 1: Database Search Process and Results

Results of Database Searches in Scopus<sup>1</sup> (accessed 9 and 12 September, 2016)

| Key word 1            | Key word 2 | Key word 3           | Number of hits                    | Hits for specific age range 10- 14 +/-2 years | Evaluations of actual programmes | Interesting but not available online/at LSE |
|-----------------------|------------|----------------------|-----------------------------------|---|----------------------------------|---|
| Girl*                 | Slum*      | Program*             | 29                                | 6   | 2                                | 2   |
| Girl*                 | Slum*      | Interven*            | 21 (about 14 overlaps with above) | 2   | 0                                | 1   |
| Girl*                 | Slum*      | Involve*             | 13 (lots of overlap)              | 2   | 0                                | 2   |
| Girl*                 | Slum*      | Evaluat*             | 12 (lots of overlap)              | 2   | 1                                | 0   |
| Girl*                 | Slum*      | scheme               | 0                                 | 0   | 0                                | 0   |
| Girl*                 | Slum*      | project              | 4                                 | 0   | 0                                | 0   |
|                       |            | model                | 21 (too much overlap)             | All used above                                | Used above                       | As above                                    |
| 10-14                 | Slum*      | -                    | 3                                 | 1 (but not relevant)                          | 0                                | 0   |
| Very young adolescen* | Slum*      | Program*             | 57                                | Most about reproductive health, TBC, HIV,     | Very few                         | 1 (requested)                               |
| Very young adolescen* | Slum*      | Program* and Evalua* | 7 (all fields)                    | Lots of overlap 1                             | 2                                | 0   |
| Very young adolescen* | Slum*      | Program*             | 12 in social science field only   | 3 (2 overlap)                                 | 1                                | 0   |
| Age                   | Slum*      | Program*             | 116                               | Maybe 5 new finds                             | 1                                | 1 (menstruation)                            |

1 Scopus 4 subject Areas: Life Sciences (> 4,300 titles); Health Sciences (> 6,800 titles); Physical Sciences (> 7,200 titles); Social Sciences & Humanities (> 5,300 titles)

| Key word 1              | Key word 2 | Key word 3 | Number of hits | Hits for specific age range 10- 14 +/-2 years | Evaluations of actual programmes | Interesting but not available online/at LSE |
|-------------------------|------------|------------|----------------|---|----------------------------------|---|
| <b>14</b>               | Slum*      | Program*   | 20             | Maybe 2 new finds                             | 1                                | 0   |
| <b>10</b>               | Slum*      | Program*   | 85             | 0 new finds                                   | 0                                | 0   |
| <b>Boy*</b>             | Slum*      | Program*   | 4              | 0 new finds                                   | 0                                | 0   |
| <b>early adolescen*</b> | Slum*      | Program*   | 2              | 0 new finds                                   | 0                                | 0   |

## Results of Database Searches in IBSS (International Bibliography of the Social Sciences)<sup>2</sup> (accessed 13/14 September, 2016)

| Key word 1   | Key word 2       | Key word 3             | Number of hits | Number of relevant hits | Number of new hits |
|--|------------------|------------------------|----------------|-------------------------|--------------------|
| Girl*  | Slum* or favela* | Program* or intervene* | 6              | 5                       | 2                  |
| (Girl* OR (early adolescen* OR very young) AND (slum* OR favela*) AND (program* OR initiate)) AND slum       |                  |                        | 12             | 6                       | 2                  |
| All (girl* OR (early adolescen* OR boy) AND (slum* OR favela*) AND slum)                                     |                  |                        | 24             | 16                      | 1                  |
| (10-14 year old) AND (slum* OR favela*)  |                  |                        | 16             | 0                       | 0                  |
| Girl* AND (slum* OR favela*) AND (scheme* OR program*) OR (initiative* OR intevent*) OR (project* OR model*) |                  |                        | 3              | 3                       | 0                  |
| Girl* AND (slum* OR favela*) AND scheme* OR (initiative* OR intevent*) OR (project* OR model*)               |                  |                        | 2              | 2                       | 0                  |
| (10-14 year old) AND slum*   |                  |                        | 35             | 3                       | 1                  |
| (early adolescent*) AND (slum* OR favela*)   |                  |                        | 3              | 2                       | 0                  |
| (14 year*) AND slum*   |                  |                        | 6              | 1                       | 0                  |
| (10 yea*) AND slum*  |                  |                        | 76             | ?                       | 1                  |
| (years old*) AND slum*   |                  |                        | 11             | ?                       | 0                  |
| (young people) AND slum*   |                  |                        | 14             | ?                       | 1                  |
| (young people) AND dwelling*   |                  |                        | 20             | 0                       | 0                  |
| (young people) AND shanty*   |                  |                        | 3              | 0                       | 0                  |
| Slum* AND boy*   |                  |                        | 6              | 0                       | 0                  |

<sup>2</sup> Search only included peer reviewed journal articles from anthropology, economics, political science, and sociology that were published in 2006-2016



### Google Scholar (accessed 14 September, 2016)

| Key words   | Number of hits                       | Number of new hits |
|---|--------------------------------------|--------------------|
| Slum OR favela OR settlement '10-14 year old' (Notes: focus on health issues,   | 119                                  | 19                 |
| Young Adolescents in Urban Areas of Low and Middle Income Countries urban (Notes: GS focus on mental health and health) | 18,400 (went through first 100 hits) | 16                 |
| Slum or favela and "very young adolescents"   | 44                                   | 20                 |
| slums evaluation adolescents OR girls "conditional cash transfers"  | 624 (first 20)                       | 3                  |
| slum housing girls program OR intervention OR evaluation  | 16700 (first 20)                     | 2                  |

### The Lancet Database (accessed 16 September, 2016)

| Key words                   | Number of hits | Number of new hits |
|-----------------------------|----------------|--------------------|
| Slum* AND review* AND girl* | 22             | 1                  |
| Slums* AND girls*           | 67             | 1                  |

### Taylor & Francis online (accessed 16 September, 2016)

| Key words   | Number of hits | Number of new hits |
|---|----------------|--------------------|
| Slum* and 10-14 year old* and intervention* and randomised control trial* | 73             | 1                  |

## Appendix 2: Research Evidence

### Research Evidence: Health

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions   | Notes                      |
|---|---|--|---|---|----------------------------|
| Akther, Nasreen; Begum, Nadia; Chowdhury, Shahanaz and Sultana Sabiha (2012) 'Knowledge on Reproductive Health Issues Among the Unmarried Adolescent Girls', Journal of Family and Reproductive Health, 6:4,169-76. | Bangladesh<br>Dhaka slum<br>Health<br>Reproductive Health Knowledge<br>10-19 year old girls | A cross-sectional descriptive study was carried out among 150 unmarried adolescent girls of Vashantek slum in Dhaka via face-to-face interviews using a semi-structured questionnaire from January to June 2008.<br><br><b>Aim:</b> to assess the level of knowledge of the adolescent girls regarding reproductive health issues.<br><br><b>Results:</b> The mean age of the respondents were 16 years ranging from 10-19 years. Out of 150 respondents, 130 had history of menstruation and median age of menarche was 13 years. | Accurate knowledge was high among the adolescents with secondary level education.<br><br>Around three-quarters of the respondents had sufficient knowledge about hygienic menstrual practices. The majority of girls could identify the legal age of marriage. Three-fifths of the respondents had no knowledge on the importance of family planning, or of contraceptive methods. Most had heard of AIDS but half had no knowledge of causative factors.<br><br>More than two-fifths had no knowledge on how AIDS is transmitted. Majority had no knowledge on symptoms of AIDS and three-fifths had no knowledge on prevention of AIDS. | Formal, informal and special educational programmes could educate adolescent girls on reproductive health issues. The government should focus more attention and resources on this. | No age- specific analysis. |



| Author(s)/<br>Publication  | Country/ Key<br>words   | Methods/Objectives  | Findings   | Explanation/ Policy<br>suggestions   | Notes                      |
|--|---|---|--|--|----------------------------|
| <p>Alamgir, Mithun; Mahboob, Sarwar; Ahmed, Shakil Khan; Islam, Shofiquil; Gazi, Shafinaz and Ahmed, Afsana (2012) 'Pattern of Injuries Among Children of Urban Slum Dwellers in Dhaka City', Journal Dhaka National Medical College Hospital, 18:1, 24-8.</p> | <p>Bangladesh<br/>Dhaka slum<br/>Health Injuries<br/>Mean age 9 years old</p> | <p>This cross-sectional study was conducted among children aged 18 years and below in Korail slum, near Gulshan Lake, Banani, Dhaka, from March to June 2007 to ascertain the pattern of injuries and the risk factors associated with those injuries. Data were collected using cluster sampling techniques.</p> <p>The total numbers of children under study in the surveyed households were 486 and out of them 210 were injured. The prevalence of injury in the sample group was therefore 43.2% or 432 per 1000 children.</p> | <p>Nearly half (47%) of the participants were between 10 and 15 years of age and only around 2% were 15-18 years old. The mean age was 9 years. Male-female ratio was almost 1:1 and injury rate did not vary with respect to sex. The highest injury rate was observed among &lt;5 year old children (49%) and the lowest among those aged 15-18 years (39%). However, variation in age specific injury rates was not remarkable. The highest number of child injury was due to burns (33%), followed by road accidents (29%) and occupational injury (14%). Other causes of child injuries were falls on the street (8%), animal bites (4%), falls from trees (1.5%), drowning (2%), falls from rooves (3%), electrical burns (1.5%), poisoning (1%) and chemical burns (0.5%) respectively.</p> | <p>Child injury is allegedly a 'public health menace' in Bangladesh. It is a significant cause of morbidity although most of the injuries can be prevented if proper preventive strategies are adopted by all concerned. This involves dedicated identification of risk.</p> | <p>No gender analysis.</p> |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions  | Notes  |
|--|---|--|--|--|--|
| <p>Arora, Monika; Tewari, Abha; Dhavan, Poonam; Nazar, Gaurang; Stigler, Melissa; Juneja, Neeru; Perry, Cheryl and Reddy, Srinath (2013) 'Discussions With Adults and Youth to Inform the Development of a Community-based Tobacco Control Programme', Health Education Research, 28:1, 58-71.</p> | <p>Health<br/>Delhi slums<br/>Tobacco use<br/>10-19<br/>year olds</p> | <p>Project Advancing Cessation of Tobacco in Vulnerable Indian Tobacco Consuming Youth (ACTIVITY) is a community-based, randomised intervention trial group targeting disadvantaged youth (aged 10–19 years) residing in 14 low- income communities (slums and resettlement colonies) in Delhi, India. Article discusses the findings of 22 Focus group discussions (FGDs) conducted with 10-19 year olds to inform the development and test the appropriateness of Project ACTIVITY's intervention model. NB This is not a programme evaluation</p> | <p>Participants said that tobacco use begins as early as 6–10 years of age. Most believed that nearly 50% of young boys and 20% of young girls in the community used tobacco.</p> <p>Girls were perceived to consume more smokeless tobacco products and older females were also reported to smoke bidi (locally produced cigarettes). With regard to young tobacco consumers, it was indicated that non-school going, homeless and street children were more likely to be tobacco consumers.</p> <p>The findings of the FGDs revealed: (i) youth and adults had limited knowledge about long-term health consequences of tobacco use; (ii) socio- environmental determinants and peer pressure were important variables influencing initiation of tobacco use; (iii) lack of motivation, support and sufficient skills hinder tobacco cessation, and (iv) community involvement is important for creating tobacco free norms.</p> | <p>Younger age groups should be specifically targeted in tobacco control programmes.</p> <p>The results from FGDs aided in finalising the intervention model for Project ACTIVITY and guided its intervention development.</p> <p>A major limitation of the survey was its reliance on a self- reported method of data collection. Intentional deception, poor memory, or misunderstanding the question(s) can all contribute to an underestimation or overestimation of the true prevalence of tobacco use.</p> | <p>No distinction between girls and boys and older and younger adolescents.</p> <p>Very much oriented around 'individual behaviour'.</p> |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes  |
|--|---|--|--|---|--|
| <p>Beguy, Donatien; Ndugwa, Robert and Kabiru, Caroline W. (2013) 'Entry into Motherhood Among Adolescent Girls in Two Informal Settlements in Nairobi, Kenya', <i>Journal of Biosocial Science</i>, 45:6, 721-42.</p> | <p>Kenya<br/>Nairobi slums<br/>Health<br/>Sexual behaviour<br/>15-19 year old females</p> | <p>In this paper, data collected from 897 female adolescents aged 15–19 years in 2 slums in Nairobi are analysed to investigate patterns and determinants of early motherhood in two informal settlements in Nairobi, Kenya, using Kaplan–Meier estimates and Cox regression models.</p> | <p>The contribution of adolescent childbearing to total fertility rates in many sub-Saharan African countries is higher than in other parts of the world.</p> <p>Around 15% of these adolescents have had a child. The findings show that marriage, being out of school and negative role models in peer, family and school contexts are associated with early childbearing among females aged 15–17 years.</p> <p>For adolescents aged 18–19 years, school attendance considerably delays entry into motherhood while marriage hastens its timing. Furthermore, older adolescents with high levels of social control (parental monitoring or perceived peer orientation to disapproval of antisocial behaviours) and individual controls (high religiosity and positive orientation to schooling) are likely to delay childbearing.</p> | <p>Programmes aiming to reduce risky sexual behaviours that could lead to childbearing among adolescents should be introduced early, and before the onset of sexual activity.</p> <p>The findings underscore the need to identify and address risk factors and reinforce protective ones in order to improve sexual and reproductive health (SRH) outcomes of adolescent girls in Nairobi slum settlements.</p> | <p>The sample population is out of the RER age range (15-19) but interesting findings and evidence to support focusing on 10-14 year olds.</p> |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives   | Findings   | Explanation/ Policy suggestions  | Notes   |
|---|--|--|--|--|---|
| <p>Catino, Jennifer (2012) The Health of Vulnerable Adolescent Girls: A Strategic Investment for Double Return (New York: Population Council). <a href="http://www.popcouncil.org/uploads/pdfs/2012PGY_GirlsFirst_Health.pdf">http://www.popcouncil.org/uploads/pdfs/2012PGY_GirlsFirst_Health.pdf</a> (accessed 1 November 2016)</p> | <p>Overview<br/>Health<br/>Issues, risks and needs<br/>Health promotion<br/>Adolescent girls</p> | <p>Overview of different education programmes and innovative strategies for improving girls' health.</p> <p>One example mentioned repeatedly is the Population Council's 'Abriendo Oportunidades' (AO/Opening-up Opportunities) programme designed to reach and empower indigenous girls aged 8–18 in rural Guatemala.</p> | <p>Provides some statistics about health issues faced by girls in the transition to puberty (e.g. FGM, paid work, withdrawal from school, pregnancy, violence). However the report is more focused on adolescent girls' wants and needs – and recommendations for programmes with some short examples given (but no evaluations).</p> <p>Also lists tools and material that can be used by practitioners for health education.</p> | <p>An ongoing need exists for bringing essential health information and services to vulnerable girl subgroups where they can be found: early, when they are still in school; in their communities; in their workplaces; and through health institutions and facilities where these girls are more likely to congregate (markets, neighbourhood shops/ kiosks, churches, local nongovernmental organisations, and community-based organisations). Alternative approaches and strategies will also be required to reach these girls appropriately and to improve their health and safety, including outreach and community-based distribution of health commodities; mobile health services; and social marketing and use of emerging technologies, such as mobile phones.</p> <p>ICTs may help deliver timely crucial information to girls and help them connect with each other and with networks and services that can enhance their health, safety, and wellbeing.</p> | <p>Good overview.</p> <p>No specific focus on 10-14 year olds, or on urban areas and slums.</p> |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives   | Findings   | Explanation/ Policy suggestions  | Notes  |
|---|--|--|--|--|--|
| <p>Cortez, Rafael; Saadat, Seemeen; Marinda, Edmore and Odutolu, Oluwole (2016) Adolescent Fertility and Sexual Health in Nigeria: Determinants and Implications, Discussion paper 103667 (Washington DC: World Bank) <a href="http://documents.worldbank.org/curated/en/507641468190770251/Adolescent-fertility-and-sexual-health-in-Nigeria">http://documents.worldbank.org/curated/en/507641468190770251/Adolescent-fertility-and-sexual-health-in-Nigeria</a> (accessed 16 November 2016)</p> | <p>Nigeria<br/>Peri-urban area<br/>Karu near capital Abuja<br/>Health<br/>Sexual behaviour<br/>10-19 year olds</p> | <p>This study examines the determinants of adolescent sexual behaviour and fertility in Nigeria, with particular focus on knowledge, attitudes and behaviours of adolescents aged 10- 19 years old in Karu Local Government Authority (LGA), a peri-urban area near the capital city of Abuja.</p> <p>Using the last three waves of Demographic and Health Surveys (2003, 2008, 2013), FGDs, stakeholder interviews, and a specialised survey were conducted with 643 girls and boys aged 10-19 years old in Karu LGA.</p> | <p>The national median age at sexual debut for adolescent girls and boys is between 15 and 16 years of age. This resonates in Karu LGA with a median age of 14.8 years for girls and 15.3 years for boys.</p> <p>For girls, sexual debut is often associated with marriage or cohabitation, which in turn, is a strong predictor of adolescent fertility. Poverty is another strong predictor, with the odds of becoming pregnant being twice as high for adolescents in the lower wealth quintiles compared with their counterparts in the richest quintile in the country.</p> <p>While adolescents' knowledge of contraception has increased from under 10% to over 30%, use of health services among adolescents for SRH (and contraception) is limited due to factors such as fear of stigma, embarrassment, and poor access to services.</p> | <p>Challenges for improving adolescent SRH outcomes relate to:</p> <ul style="list-style-type: none"> <li>i) the paucity of data, especially on 10-14 year olds;</li> <li>ii) availability and access to youth-friendly services and the Family Life and HIV Education (FLHE);</li> <li>iii) reaching out-of-school adolescents with SRH information; and</li> <li>iv) ambiguities and gaps in Federal law and customs on age at marriage, and generating support for the legal age at marriage of at least 18 years old.</li> </ul> <p>Addressing these barriers at the State and sub-regional levels is likely to be critical in improving adolescent wellbeing.</p> | <p>Not peer reviewed.</p> <p>Slightly older ages.</p> <p>No analysis of 10-14 year olds.</p> |

| Author(s)/<br>Publication  | Country/ Key<br>words   | Methods/Objectives  | Findings  | Explanation/ Policy<br>suggestions  | Notes   |
|--|---|---|---|---|---|
| Dash, Bijayalakshmi (2012) 'Knowledge of Adolescent Girls Regarding Reproductive Health Care', Nursing Journal of India, 103:4, 157-9.                           | India Slum<br>Reproductive<br>health knowledge                | A study was conducted among 84 adolescent girls residing in the urban slum, Niladribihar, in Khurda district of Odisha.   | Sex and sex education continue to be taboo. The analysis showed that the deficient reproductive healthcare available to them could result in health problems. Young mothers, especially those under 16, have a heightened likelihood of serious health risks. The risk of death in childbirth is five times higher among 10-14 year-olds than among 15-19 year-olds and, in turn, 10 times higher among 15-19 year-olds as among 20-24 year-olds. | Improve adolescent girls knowledge of, and access to, reproductive healthcare. Nursing professionals in hospital settings can contribute significantly in this area.              | Could only download page 1.                               |
| Indupalli, A. S. (2009) 'Health Status of Adolescent Girls in an Urban Community of Gulbarga District, Karnataka', Indian Journal of Public Health, 53:4, 232-4. | India<br>Rajapur<br>Health Anaemia<br>13-19 year old<br>girls | A community-based cross-sectional study was carried out among 250 adolescent girls aged 13 -19 years in an urban community of Gulbarga from April 2004 to March 2005. | Objective was to assess health problems and suggest measures for improvement of health status of adolescent girls.<br><br>It was observed that 94% had anaemia, 27.6% suffered from chronic energy deficiency while 46% had other health problems and 37.2% had menstrual problems.   | Anaemia appears to be a grave public health problem, which could be addressed through distribution and intake of iron-folic acid tablets either in schools or at household level. | Study site described as an urban community not as a slum. |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes  |
|---|--|--|---|--|--|
| <p>Izutsua, Takashi; Tsutsumi, Atsuro; Islam, Akramul; Kato, Seika; Wakai, Susumu and Kurita, Hiroshi (2006) 'Mental Health, Quality of Life, and Nutritional Status of Adolescents in Dhaka, Bangladesh: Comparison Between an Urban Slum and a Non-slum Area', <i>Social Science and Medicine</i>, 63:6, 1477-88.</p> | <p>Bangladesh<br/>Dhaka slum and non- slum areas<br/>Mental health<br/>11-18 year olds</p> | <p>Compares non-slum areas and slums to identify the factors associated with mental health problems. A sample of 187 boys and 137 girls from non-slum settlements, and 157 boys and 121 girls from slums between 11 and 18 years of age, were interviewed with a questionnaire consisting of a Bangla translation of the World Health Organisation Quality of Life Assessment Instrument (WHOQOL-BREF), a Self-Reporting Questionnaire (SRQ), and Youth Self- Report (YSR) alongside other questions. The height and weight of the respondents were also measured.</p> | <p>All significant differences in demographic characteristics, anthropometric measures, and WHOQOL-BREF were found to reflect worse conditions in slum than in non-slum areas.</p> <p>Contrarily, all differences in SRQ and YSR were worse in non-slum areas for both sexes, except that the 'conduct problems' score for YSR was worse for slum boys.</p> <p>Mental states were mainly associated with school enrolment and working status. Worse physical environment and QOL were found in slums, along with gender and area- specific mental health difficulties. Slum adolescents had lower school enrolment rates, lower literacy rates, lower family incomes, lighter physical weights, lower body-mass-index, and higher rates of child labour. Height of female subjects was also significantly less in slums and implied long- term malnutrition in female slum sample group. QOL in the environmental domain for both sexes, and the social relationships domain for males were worse in slums.</p> | <p>The higher the socioeconomic status the worse the mental status. Thus, non-slum adolescents may be able to express anxiety when they face stress, whereas slum adolescents may not be able to learn or practice this highly cognitive procedure but rather vent their frustrations by 'acting out' through various forms of disaffected behaviour as they get older.</p> <p>Recommendations: increase the school attendance of children. Some adolescents are important breadwinners in slums, hence short-time, mobile teaching teams could be deployed in slums in the early morning or late evening may help to make it possible for working adolescents to receive education, and acquire strategies for risk avoidance and self-defence. A high percentage of the male slum adolescents displayed conduct problems, specific risky behaviours such as drug use or sexually risky behaviour should be studied with regard to mental health for interventions.</p> | <p>11-18 year olds.<br/><br/>Not very gender specific.</p> |

| Author(s)/<br>Publication   | Country/ Key<br>words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes  |
|---|--|--|--|---|--|
| Kabiru, Caroline W.;<br>Beguya, Donatien;<br>Undie, Chi-Chi; Zulu,<br>Eliya Msiyaphazi and<br>Ezeh, Alex C. (2010)<br>'Transition into First<br>Sex Among<br>Adolescents in Slum<br>and Non- slum<br>Communities in<br>Nairobi, Kenya',<br>Journal of Youth<br>Studies, 13:4, 453-71. | Kenya<br><br>Nairobi slums<br><br>Korogocho<br>Viwandani<br><br>2 non-slum<br>settlements<br><br>Health<br><br>Sexual behaviour<br><br>12-15 year olds | Study based on two waves<br>of the Education Research<br>Programme (ERP), a<br>longitudinal population-<br>based study in two slum<br>(Korogocho and Viwandani)<br>and two non-slum<br>settlements (Harambee and<br>Jericho), in Nairobi, Kenya.<br><br>The ERP has been following<br>children aged 5–19 years in<br>these four communities<br>since 2005. | Transition to first sex is influenced by age,<br>slum residence, perceived parental<br>monitoring, and peer behaviour. For<br>females aged 12–15 years, only perceived<br>parental monitoring and delinquent<br>behaviour had a significant effect on the<br>chances of becoming sexually active.<br><br>Among girls in this age group, for each<br>additional unit increase of parental<br>monitoring and delinquent behaviour, the<br>chances of transitioning to first sex<br>increased by 10% and 40% respectively.<br><br>For 12–15-year-old boys, only residence<br>was significantly associated with transition<br>to first sex.<br><br>Slum residents were 10 times more likely<br>to become sexually active than their<br>counterparts living in non-slum areas.<br><br>Older age and slum residence were<br>significantly associated with greater odds<br>of making the transition to first sex. | It is important to consider the<br>social and environmental contexts<br>when examining pathways to first<br>sexual intercourse among<br>adolescents.<br><br>There is a need to focus on young<br>adolescents, particularly those<br>growing up in resource-poor<br>settings, or those who are out of<br>school, since these young people<br>may be more likely to make the<br>transition to first sex and hence, be<br>more vulnerable to negative health<br>outcomes stemming from<br>precocious sexual activity.<br><br>The paper also highlights the need<br>to strengthen mothers' and<br>fathers' capacity to adapt their<br>parenting strategies to the needs<br>of their changing/evolving<br>adolescents. | Slum/non slum<br>comparison.<br><br>Emphasis on<br>behaviour and<br>parenting<br>strategies. |



| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes  |
|---|--|--|--|---|--|
| Kabiru, Caroline W.; Beguy, Donatien; Ndugwa, Robert; Zulu, Eliya Msiyaphazi and Jessor, Richard (2012) “Making It”: Understanding Adolescent Resilience in Two Informal Settlements (Slums) in Nairobi, Kenya’, <i>Child and Youth Services</i> , 33:1, 12-32. | Kenya<br>Nairobi<br>Slums<br>Korogocho<br>Viwandami<br>Health<br>Sexual behaviour<br>12-19 year olds | Study of 1,722 never-married adolescents<br><br>Separate analysis of younger (12–14 years) and older (15–19) adolescents<br><br>Resilience defined as positive academic and behavioural outcomes (i.e. academic achievement, civic participation and avoidance of risk behaviours) | Adolescents perceiving greater parental monitoring and greater peer disapproval of risk behaviour are more resilient than those with low social controls.<br><br>The fact that the findings are notably stronger for the older cohort than for the younger cohort is of interest. A possible reason for the observed age- cohort difference in amounts of variation explained by the multivariate analysis is, as noted earlier, the greater prevalence of risk behaviour among older adolescents.<br><br>By the same token, the multivariate account of variation in resilience was 17% in the older cohort and 11% in the younger cohort, with both accounts being significant.<br><br>Among the older adolescents, females scored higher on the resilience index.<br><br>Increased length of stay in the slum was associated with lower resilience. | Study findings also underscore the need for policies and programmes protection that offer young people living in slums access to education and recreational services as well as opportunities for civic engagement.<br><br>There is an apparent need to involve parents as informal social control agents in programmes that address risk behaviour of their adolescent children. | No gender analysis.<br><br>No 12-14 year old analysis. |

| Author(s)/<br>Publication   | Country/ Key<br>words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes   |
|---|--|--|--|---|---|
| Kimani-Murage, Elizabeth W.; Holding, Penny A.; Fotso, Jean-Christophe; Ezeh, Alex C.; Madise, Nyovani J.; Kahurani, Elizabeth N. and Zulu, Eliya Msiyaphazi (2011) 'Food Security and Nutritional Outcomes Among Urban Poor Orphans in Nairobi, Kenya', Journal of Urban Health, 88:2, 282-97. | Kenya<br>Nairobi<br>Slum<br>Korogocho<br>Viwandani<br>Health<br>Orphans<br>Nutrition<br>6-14 year olds | <p>The study examines the relationship between orphan- hood status, nutritional status and food security among children living in the rapidly-growing slum settlements of Nairobi, Kenya.</p> <p>The study was conducted between January and June 2007 with 1,235 children aged 6–14 years, living in Korogocho and Viwandani.</p> <p>The mean age of participants was 11 years.</p> | <p>The results show that orphans were more vulnerable to food insecurity than non-orphans and that paternal orphans were the most vulnerable orphan group. However, these effects were not significant for nutritional status, which measures long-term food deficiencies. The results also show that the most vulnerable children are boys, those living in households with the lowest socioeconomic status, with many dependents, and those headed by women adults with low human capital (low education).</p> | <p>This study provides useful insights to inform policies and practice that seek to identify target groups and intervention programmes to improve the welfare of orphans and vulnerable children living in urban poor communities.</p> <p>Orphans are a diverse group and have different vulnerabilities.</p> | <p>Not a longitudinal study.</p> <p>Some gender analysis.</p> |

| Author(s)/<br>Publication  | Country/ Key<br>words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes  |
|--|---|---|--|--|--|
| Kunnuji, Michael (2014) 'Basic Deprivation and Involvement in Risky Sexual Behaviour Among Out-of-School Young People in a Lagos Slum', Culture, Health and Sexuality, 16:7, 727-40. | Nigeria<br>Lagos<br>Slum<br>Iwaya<br>Health<br>Trans-actional sex<br>10-19 year old girls | <p>Data from a survey of 480 out-of-school girls aged 10 to 19 years, residing in Iwaya.</p> <p>Study participants were selected through a census of all girls within the age bracket of 10 to 19 years who were out of school at the time of the study.</p> <p>The mean and median ages of the participants were 16 and 17 years (29% were 10-14).</p> <p>The major reason for not attending school was lack of financial capacity to do so.</p> <p>Onset of penetrative sex average age was 15 years.</p> | <p>Found that food deprivation of out-of-school girls (aged 10-19 years) is related to their having penetrative sex.</p> <p>Housing and clothing deprivation is not significantly associated with involvement with multiple sexual partners. Food deprivation is associated with being sexually active and involvement in multiple sexual partnerships. Girls who suffer food deprivation are more likely to be involved in penetrative sex earlier and/or to be involved in multiple sexual partnerships than those who do not suffer food deprivation. Since sexual partners are typically older than the girls, it is concluded that one incentive for girls' sexual involvement with men is the provision of food. The idea that deprivation can lead to the evolution of adaptive 'deviant' behaviour (Lea and Young, 1984) is supported by young girls' partnerships with older men (cross-generational sex) who meet their food needs in a situation of deficiency, which is synonymous with slum living.</p> | <p>Girls are socialised into the awareness that having multiple sexual partners can be an effective survival strategy.</p> <p>To address this problem, state-run poverty alleviation programmes should give attention to young girls experiencing food deprivation. Also, intervention programmes in the area of young people's reproductive wellbeing should be mindful of the specificities facing out- of-school young people in slums, many of whom are confronted with the challenge of survival. Such programmes should be designed to address issues of basic deprivation through empowerment, skills acquisition, entrepreneurial training and job creation.</p> | <p>The author did not ask about reasons for having sex.</p> <p>No separate analysis between 10-14 and older girls.</p> |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes  |
|---|--|---|--|--|--|
| <p>Mabala, Richard (2006) 'From HIV Prevention to HIV Protection: Addressing the Vulnerability of Girls and Young Women in Urban Areas', <i>Environment and Urbanization</i>, 18:2, 407–32.</p> | <p>Sub-Saharan Africa<br/>Urban areas<br/>Health<br/>HIV<br/>Overview<br/>10-14 year old girls</p> | <p>There is a need to revisit prevention methodologies with regard to HIV/AIDS, especially in relation to urban areas. Unlike with other epidemics where the physical and social environments are recognised to play a key role in transmission, HIV/AIDS has become the terrain of moralists, who insist that individual behaviour drives the epidemic and who pour millions of dollars into individual behaviour change programmes. This is done despite the reality that HIV/AIDS flourishes in situations of poverty, and is further compounded by inequity and lack of social cohesion, affecting those in such environments most acutely.</p> | <p>It is estimated that 25% of sex workers in Cape Town are children, half of whom are aged 10–14.</p> <p>Yet at the age of 12, except for those infected through parent to child transmission (and sexual abuse), almost no adolescent girls are HIV+. Six years later, in high-prevalence countries, 10–20% are infected.</p> <p>The paper also looks at how the physical environment (including the effects on the immune system of malnutrition, helminths and bilharzia) and social environment affect the vulnerability of adolescent girls and young women, who have often migrated to town, live and work in squatter areas, are isolated, and are victims of sexual exploitation and abuse.</p> | <p>The very high number of orphans that existed before HIV/AIDS, and that has increased further as a result of the epidemic, compounds the situation.</p> <p>This paper builds on the above to highlight the inadequacy of current behaviour change interventions, quite apart from the fact that the most vulnerable are not even reached by interventions.</p> <p>It argues for deliberate and systematic attention to be paid to girls and young women, to ensure that they are identified, included and allowed to participate in developing a protective environment and safe spaces in the community, in schools and in their livelihoods that will enable them to better protect themselves from HIV infection.</p> <p>This requires addressing the underlying factors (including the impact of globalisation) driving the continued spread of the HIV/AIDS epidemic.</p> | <p>Overview of women and children.</p> <p>Not own research.</p> <p>No gender analysis.</p> |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes                                    |
|---|--|---|--|--|--|
| Madise, Nyovani; Zulu, Eliya Msiyaphazi and Ciera, James (2007) 'Is Poverty a Driver for Risky Sexual Behaviour? Evidence From National Surveys of Adolescents in Four African Countries', African Journal of Reproductive Health, 11:3, 83-98. | Burkina Faso<br>Ghana<br>Malawi<br>Uganda<br>Health<br>HIV<br>Sexual behaviour<br>12-19 year old | Under the auspices of a five-year study entitled 'Understanding HIV Risks among Youth: Protecting the Next Generation', nationally- representative surveys of adolescents were conducted in 2004 in four African countries: Burkina Faso, Ghana, Malawi, and Uganda.<br><br>Approximately 19,500 male and female adolescents aged 12-19 years were interviewed in the four countries to gather information on their sexual experiences together with a range of information on their socio-economic status, schooling, childbearing, contraception, HIV knowledge, and other information. | Findings show some evidence of an association between wealth status and age at first sexual intercourse among female adolescents. The observed higher likelihood of initiating first sex among poorer females is consistent with the assumption of disadvantaged women having earlier sexual debut in order to gain access to cash and gifts. Poverty can also contribute to early sexual debut through premature exposure and socialisation into sexual activity, as has been observed in children living in slum areas where accommodation is very cramped and where it is very common for children to sleep in the same room as their parents. Around 9% of girls mentioned an expectation of gifts or money as their reason for having sex and another 19% of girls reported that their first sexual intercourse was forced or that their partner had insisted. For females, the ability to negotiate for use of condoms may be harder if they have received gifts or money. | From this study, which used data from more than 19,000 adolescents in four African countries, poverty appears to influence early sexual debut, especially among females, and the poor are less likely to be using condoms. Therefore, poverty – and slum residence-, in its influence on sexual behaviour and access to services, can affect HIV transmission. Ethnicity is an important variable indicating that social and cultural factors also influence young people's sexual behaviour.<br><br>HIV prevention programmes must identify ways of making the poor less vulnerable to risky sexual behaviour and devise strategies for improving condom usage among the poorest. Such programmes need to take account of strong social and cultural contexts that influence young people's sexual behaviour. | No specific analysis of 12-14 year olds. |

| Author(s)/<br>Publication   | Country/ Key<br>words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions   | Notes   |
|---|--|--|---|---|---|
| Marston, Milly;<br>Beguy, Donatien;<br>Kabiru, Caroline W.<br>and Cleland, John<br>(2013) 'Predictors of<br>Sexual Debut Among<br>Young Adolescents in<br>Nairobi's Informal<br>Settlements',<br>International<br>Perspectives on<br>Sexual and<br>Reproductive Health,<br>39:1, 22–31. | Kenya<br>Nairobi slums<br>Korogocho<br>Viwandani<br>Health<br>Sexual activity<br>12-24 year olds | Data was drawn from Wave 1 (2007–2008) and Wave 2 (2009) of the 'Transition to Adulthood' study, which collected information about key markers of the transition to adulthood and social, demographic and psychosocial characteristics of male and female youth living in two informal settlements in Nairobi, Kenya. Logistic regression analyses were used to examine variables associated with experience of sexual debut in Wave 2 among youth who were aged 12–16 and sexually inexperienced during Wave 1. | <p>Among the 1754 youth in the sample, 92 experienced sexual debut between survey waves.</p> <p>For both males and females, sexual debut was positively associated with having permanently dropped out of school, having never attended school, and having experienced severe family dysfunction.</p> <p>Lack of parental supervision was a predictor of sexual debut among males only, whereas having low aspiration for schooling and employment was a predictor among females only.</p> <p>Surprisingly, young women, as well as men, who did not have high self-esteem, were less likely than those who perceived themselves to be attractive and socially confident, to engage in first sex between waves.</p> <p>School appears to protect both males and females against early sexual debut.</p> | <p>Important predictors in driving sexual behaviour in this age group are family dysfunction, parental supervision, civic participation and self-esteem. Further studies are warranted to elucidate how these factors can be addressed in prevention programmes targeting young adolescents.</p> <p>Programmes that increase parental involvement might reduce risk behaviour.</p> <p>Programmes which encourage women's aspirations are potentially likely to reduce early sexual debut.</p> | <p>Study did not control for potential confounding variables that might influence early sexual debut.</p> <p>Reliance on self-reported information on sexual debut (subject to bias).</p> |

| Author(s)/<br>Publication   | Country/ Key<br>words                          | Methods/Objectives   | Findings   | Explanation/ Policy suggestions  | Notes   |
|---|--|--|--|--|---|
| Mathur, Manu Raj;<br>Tsakos, Georgios;<br>Parmar, Priyanka;<br>Millett, Christopher J.<br>and Watt, Richard G.<br>(2016)<br>'Socioeconomic<br>Inequalities and<br>Determinants of Oral<br>Hygiene Status<br>among Urban Indian<br>Adolescents',<br>Community Dentistry<br>and Oral<br>Epidemiology, 44: 3,<br>248–54. | India<br>Health<br>Oral hygiene<br>12-15 years | A cross-sectional study<br>among 1386 adolescents<br>aged 12– 15 years from<br>three different socio-<br>economic groups according<br>to area of residence. Level<br>of oral hygiene was<br>examined clinically using the<br>Simplified Oral Hygiene<br>Index (OHI-S), and an<br>interviewer- administered<br>questionnaire. | Poor oral hygiene was observed in<br>50.2% of the adolescents.<br><br>There was a socioeconomic gradient in<br>poor oral hygiene, with higher<br>prevalence observed at each level of<br>deprivation.<br><br>These differences remained statistically<br>significant after adjusting for various<br>demographic variables, standard of<br>living, social capital, social support and<br>health- affecting behaviours for urban<br>slum-dwelling adolescents and middle-<br>class adolescents respectively. | Area of residence emerged as a far<br>stronger socioeconomic predictor for<br>poor oral hygiene, than material,<br>psycho-social and behavioural<br>factors. | No access to full<br>article.<br><br>No gender<br>analysis. |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes   |
|--|---|---|--|---|---|
| Muindia, Kanyiva; Mudegeb, Netsayi; Beguya, Donatien and Mberua, Blessing (2014) 'Migration and Sexual Behaviour Among Youth in Nairobi's Slum Areas', <i>African Population Studies</i> , 28:3, 1297-309. | Kenya<br>Nairobi<br>Slums<br>Korogocho<br>Viwandani<br>Sexual behaviour<br>Migration<br>12-22 year olds | <p>The study merged three datasets: the Urbanisation, Poverty and Health Dynamics programme (UPHD) transitions to adulthood study 2007 dataset, the UPHD migration component dataset 2006-2007 and the routine household poverty dataset 2007-2008.</p> <p>3200 individuals with records in the three datasets were included in the analytical sample.</p> <p>Cox proportional hazards model was used for timing of first sex among migrants and logistic regression for determinants of 'risky' sexual behaviour (that is derived on the basis of seven issues including carrying of weapons to school, getting into fights and carrying drugs.)</p> | <p>As many as 81% of females in the data sets had engaged in sexual intercourse before the age of 15 compared with 64.9% of males. Further, 85.3% of females had more than one sexual partner compared with 64.1% among males.</p> <p>Those with a secondary school education or higher were 49% less likely to be involved in sexual relationships early compared with those with primary education.</p> <p>Migration has been found to affect the number of sexual partners, but not the age of sexual debut.</p> <p>Among adolescents in Nairobi's slums, migration is not associated with a higher likelihood of engaging in 'risky' sexual behaviour. However, youth exhibiting 'problem behaviour' are more likely to have their first sexual experience soon after migration.</p> | <p>The fact that youth identified with 'problem behaviour' are more likely to have in sex soon after having migrated to the city from rural areas highlights the benefits of (natal/sending) families having monitoring mechanisms in place in recipient destinations to watch over migrant youth since monitoring appears to reduce the likelihood of sexual debut soon after migration.</p> <p>Parental presence has been shown to have positive effects on youth's sexual behaviour.</p> | <p>Little gender analysis.</p> <p>No data on religiosity.</p> |



| Author(s)/<br>Publication   | Country/ Key<br>words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes  |
|---|---|---|--|---|--|
| Ndugwa, Robert P.; Kabiru, Caroline W.; Cleland, John; Beguy, Donatien; Egondi, Thaddeus; Zulu, Eliya Msiyaphazi and Jessor, Richard (2011) 'Adolescent Problem Behavior in Nairobi's Informal Settlements: Applying Problem Behavior Theory in Sub-Saharan Africa', Journal of Urban Health, 88:2, S298-317. | Kenya<br>Nairobi slums<br>Korogocho<br>Viwandani<br>Health<br>Sexual behaviour<br>12-19 years old | Two datasets linked with the Nairobi Urban Health and Demographic Surveillance System (NUHDSS) were merged:<br><br>Urbanisation, Poverty and Health Dynamics programme (UPHD) transitions to adulthood (TTA) 2007 dataset and the Education Research Programme (ERP) component dataset 2008 (N=1722).<br><br>The study explores the appropriateness of a particular theoretical framework – 'Problem Behaviour Theory' to account for variation in problem behaviour among adolescents in informal settlements around a large, rapidly urbanising city in sub-Saharan Africa. | Adolescent involvement in 'problem behaviours' such as delinquency, tobacco use, alcohol abuse, other illicit drug use, early sexual intercourse, aggression, or risky driving, can compromise health, development, and successful transitions to adulthood.<br><br>Females were significantly less likely to be involved in multiple problem behaviours. However, being male, and living alone or with neither biological parent, were both associated with an increase in problem behaviour. | Observed differences in adolescent problem behaviours due to differences in parental living arrangements highlight the importance of having parental monitoring and support, and limiting the effects of parental deprivation in these urban communities where other family-related social networks may not be available to young adolescents.<br><br>Problem behaviours can, of course, be influenced by many social-structural factors that the current study was unable to measure such as limited opportunity, corruption, poor schooling and teacher absenteeism, community disorganisation, and other social and environmental factors. | Possible bias in responses: socially- and culturally-desirable responding. |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes  |
|---|---|---|--|--|--|
| Pilger, Daniel; Heukelbach, Jorg; Khakban, Adak; Oliveira, Fabiola Araujo; Fengler, Gernot and Feldmeier, Hermann (2010) 'Household-wide Ivermectin Treatment for Head Lice in an Impoverished community: Randomised Observer-blinded Controlled Trial', <i>Bulletin of the World Health Organisation</i> , 88:2, 90-6. | Brazil<br>Favela (slum)<br>Fortaleza<br>Health<br>Head lice<br>5-15 year olds | The sample consisted of 132 children without head lice who lived in a slum in north-eastern Brazil.<br><br>Randomisation of the households of the study participants into an intervention and a control group and prospectively calculated the incidence of infestation with head lice among the children in each group. In the intervention group, all of the children's family members who lived in the household were treated with Ivermectin; in the control group, no family member was treated. | Children in the intervention group remained free from infestation with head lice significantly longer than children in the control group. The median infestation-free period in the intervention group was 24 days (interquartile range, IQR: 11– 45), as compared with 14 days (IQR: 11–25) in the control group (P = 0.01). Household-wide treatment with Ivermectin proved significantly more effective among boys than among girls (P = 0.005). After treatment, the estimated number of annual episodes of head lice infestation was reduced from 19 to 14 in girls and from 15 to 5 in boys.<br><br>Female sex and extreme poverty were independent risk factors associated with a shortened disease-free period. Across countries and cultures, girls are more susceptible to head lice infestation, primarily due to gender related differences in social behaviour. In this study girls benefited less than boys from household-wide treatment. | In an impoverished community, girls and the poorest of the poor are the most vulnerable to head lice infestation. To decrease the number of head lice episodes per unit of time, control measures should include the treatment of all household members. Mass treatment with Ivermectin may reduce the incidence of head lice infestation and associated morbidity in resource-poor communities. | It is unclear why girls benefit less from treatment. |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes  |
|---|--|---|---|--|--|
| Rani, Alka; Sharma, Manoj Kumar and Singh, Amarjeet (2016) 'Practices and Perceptions of Adolescent Girls Regarding the Impact of Dysmenorrhea on Their Routine Life: A Comparative Study in the Urban, Rural, and Slum Areas of Chandigarh', International Journal of Adolescent Medicine and Health, 28:1, 3-9. | India<br>Slum<br>Chandigarh<br>Health<br>Menstruation pain<br>11-18 year old girls | Study aims: to estimate the prevalence and compare the impact of Dysmenorrhea on routine life among adolescent girls; to compare the perceptions and practices associated with Dysmenorrhea.<br><br>A cross-sectional study was conducted in urban, rural and slum areas of Chandigarh, India. As many as 300 girls in the 11-18 year age group who had experienced menarche, were included in the study. A questionnaire was used. | Prevalence of Dysmenorrhea was 61.33%. Sickness or absenteeism due to Dysmenorrhea was reported by 24.45% of girls.<br><br>Most common symptoms experienced during menstruation were stomach aches (reported by 139 girls) backache (107) and general body pain (80). Only 11.63% of the girls ever visited physician due to pain during menstruation and 71 girls said they skipped meals.<br><br>Due to a lack of knowledge of pain management practices many girls' school attendance decreased during menstruation. | Formal as well as informal channels of communication, such as mothers and peers, need to be targeted for the delivery of such information, particularly linking instructions on menstrual hygiene to an expanded programme of health education in schools. | No access to full article.<br><br>No analysis focusing on 10-14 year olds. |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives   | Findings   | Explanation/ Policy suggestions  | Notes                   |
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| <p>Santhya, K.G. and Jejeebhoy, Shireen J. (2015) 'Sexual and Reproductive Health and Rights of Adolescent Girls: Evidence from Low- and Middle-income Countries', <i>Global Public Health</i>, 10:2, 189-221.</p> | <p>LMICs<br/>Overview<br/>Health<br/>Sexual and reproductive health<br/>15-19 year old girls</p> | <p>This paper reviews the evidence on sexual and reproductive health (SRH) and rights of adolescent girls LMICs in light of the policy and programme commitments made at the International Conference on Population and Development (ICPD).</p> <p>The report analyses progress since 1994, and maps challenges in, and opportunities for, protecting young female adolescents' health and human rights.</p> | <p>Findings indicate that many countries have yet to make significant progress in delaying marriage and childbearing, reducing unintended births, and narrowing gender disparities which put girls at risk of poor SRH outcomes.</p> <p>Expanding health awareness or enabling access to SRH services advised.</p> <p>While governments have reaffirmed many commitments, policy development and programme implementation fall far short of realising these commitments.</p> | <p>Future success requires: increased political will and engagement of young people in the formulation and implementation of policies and programmes; increased investments to deliver at scale comprehensive sex education and health services that are approachable and non- judgemental; safe spaces for programmes - especially those working with vulnerable girls; engaging families and communities.</p> <p>Stronger policy-making and programming also require expanding the evidence on adolescent health and rights in LMICs for both younger and older male and female adolescents.</p> | <p>Older age range.</p> |

| Author(s)/<br>Publication  | Country/ Key<br>words   | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes   |
|--|---|---|---|--|---|
| Selmouni, F.; Zidouh, A. Nejjari, C. and Bekkali, R. (2015) 'Acceptability of the Human Papilloma virus Vaccine Among Moroccan Parents: A Population- based Cross- sectional Study', <i>Eastern Mediterranean Health Journal</i> , 21:8, 555-63. | Morocco<br>6 regions<br>Urban<br>Sub-urban<br>Rural<br>Health<br>Sexual health<br>HPV vaccination<br>12-15 year old girls | This study aimed to explore parental acceptability of human papilloma virus (HPV) vaccination for their daughters in Morocco.<br><br>A cross-sectional survey was carried out among mothers and fathers of girls aged 12–15 years at 12 middle schools from six regions of Morocco. | Despite weak knowledge of genital warts and HPV infection, acceptability of the HPV vaccine was 77% among mothers and 69% among fathers. Only 9% of mothers and 7% of fathers were against administration of the HPV vaccine to their daughters.<br><br>Predictors of parent's acceptance of the HPV vaccine were living in precarious housing/slums and low household income (for mothers) and living in urban areas (for fathers). Fathers living in urban areas were more likely to accept the HPV vaccination than those living in suburban or rural areas. | Data about the public's awareness and acceptability of the HPV vaccine are lacking in the Eastern Mediterranean Region.<br><br>These results will be useful for preparing the introduction of the HPV vaccine in health ministry programmes. | No mention of slums.<br><br>No analysis on the basis of religion. |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes   |
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| <p>Sharanya, Thanapathy (2014) 'Reproductive Health Status and Life Skills of Adolescent Girls Dwelling in Slums in Chennai, India', <i>The National Medical Journal of India</i>, 27:6, 305-10.</p> | <p>India<br/>Chennai<br/>Slums<br/>Health<br/>Reproductive health<br/>13-19 year old girls</p> | <p>A cross-sectional study was conducted among 130 slum-dwelling adolescent girls, aged 13- 19, using a multistage sampling method from five slums in Chennai, south India.</p> <p>Girls' reproductive and menstrual morbidity and personal and environmental menstrual hygiene were assessed to determine their reproductive health- seeking behaviour and life skills.</p> | <p>Ninety-five (73%) girls reported menstrual morbidity and 66 (51%) had symptoms suggestive of reproductive/ urinary tract infection. Of the girls surveyed, 55 (42%) were married. Nearly 25% of the married girls had a history of abortion and 18% had self- treated with medications for the same.</p> <p>Contraceptive use among ever-married girls was 23%. Even though 75% of respondents knew about HIV/ AIDS, their knowledge of modes of transmission and prevention were low (39% and 19%, respectively). Almost 39% of respondents reported shame or insecurity as the key barrier for not seeking reproductive healthcare.</p> <p>Around 52% had low life skill levels.</p> <p>Menstrual morbidity was high among those with low life skills, symptoms suggestive of reproductive/ urinary tract infection were high among those who were married before 14 years of age.</p> | <p>Adolescent slum-dwelling girls are vulnerable to poor reproductive health due to lack of awareness about reproductive health and limited life skills.</p> <p>Community-level life skill education, sex education and behaviour change communication for slum- dwelling adolescents could be part of a more effective adolescent reproductive and sexual health programme.</p> | <p>No age- specific analysis.</p> <p>Access to abstract only.</p> |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes  |
|--|---|---|---|--|--|
| Somrngthong, Ratana (2013) 'Depression Among Adolescents: A Study in a Bangkok Slum Community', <i>Scandinavian Journal of Caring Sciences</i> , 27:2, 327-34. | Thailand<br>Bangkok<br>Slum<br>Klong Toey<br>Health<br>Mental health<br>Depression<br>12-22 year olds | <p>Study aimed to assess the level of depression and to describe the relationship between depression and quality of life (QoL) for adolescents living in one of the largest slum communities in Bangkok.</p> <p>Data from 871 adolescents in a Bangkok slum community were randomly collected by a survey that utilised a socio-demographic questionnaire, the Centre for Epidemiologic Studies Depression (CES-D) scale for measuring depression, and the Thai version of the World Health Organization Quality of Life Brief (WHOQoL-BREF)</p> <p>assessment to measure quality of life (i.e. perception of position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations and concerns).</p> | <p>One-third of all respondents exhibited depressive symptoms (34.9%): 26% of adolescents indicated that they had a 'poor' quality of life.</p> <p>Multiple regression analysis showed an association between depression and three factors: quality of life (<math>p &lt; 0.001</math>), position in the family (<math>p = 0.04</math>) and the adolescent's place of origin (<math>p = 0.02</math>).</p> <p>Females were more likely than males to have depressive symptoms (40.4% 27.6% respectively). For all stages of adolescence combined, there were strong statistically significant differences in the distribution by gender and the level of depression (<math>p &lt; 0.001</math>). Quality of life and depression were found to be significantly associated for both (and each) genders (<math>p &lt; 0.001</math>). There was an inverse correlation between the presence of depressive symptoms and the scores for quality of life; for instance, the lower the presence of depressive symptoms, the better the score for quality of life.</p> | <p>Quality of life was found to be the factor with the greatest influence on the level of depression.</p> <p>Interventions for adolescent depression may be more effective if gender, age group and family participation in the adolescent's development are considered in the planning.</p> <p>Approaches should be multi-disciplinary and broached through a 'community partnership' approach that includes the participation of parents of adolescents.</p> <p>This is particularly relevant to the Klong Toey slum, which is characterised by limited cooperation between organisations resulting in fragmentation and redundancy of services.</p> | No discussion of gender inequalities nor how gender socialisation may encourage/ hinder discussions about mental health. |

| Author(s)/<br>Publication  | Country/ Key<br>words  | Methods/Objectives  | Findings   | Explanation/ Policy<br>suggestions   | Notes                               |
|--|--|---|--|--|-------------------------------------|
| Srivastava, Anurag;<br>Mahmood, Syed E.;<br>Srivastava, Payal M.;<br>Shrotriya, Ved P. and<br>Kumar, Bhushan<br>(2012) 'Nutritional<br>Status of School-age<br>Children - A Scenario<br>of Urban Slums in<br>India', Archives of<br>Public Health, 70:1,<br>8. | India<br>Uttar Pradesh<br>Bareilly Slums<br>Health<br>Nutritional status<br>5-15 year olds | A cross-sectional study,<br>which explored nutritional<br>status in school-age slum-<br>dwelling children and<br>analysed factors associated<br>with malnutrition using a<br>pre- designed and pre-<br>tested questionnaire,<br>anthropometric<br>measurements and clinical<br>examinations from<br>December 2010 to April<br>2011 in urban slums of<br>Bareilly, Uttar-Pradesh,<br>India.<br><br>All children aged 5-15 years<br>from these slums were<br>examined.<br><br>A total of 512 children (297<br>boys and 215 girls) were<br>interviewed and examined. | Most of the school-age slum- dwelling children in<br>the study had poor nutritional status. No<br>significant association was found between gender<br>and nutritional status of children.<br><br>The mean height and weight of boys and girls in<br>the study group was lower than CDC 2000 (Centres<br>for Disease Control and Prevention) standards in all<br>age groups.<br><br>Regarding nutritional status, prevalence of stunting<br>and underweight was highest in the 11-13 year age<br>group whereas prevalence of wasting was highest<br>in the 5-7 year age group. Except refractive errors,<br>all illnesses are more common among girls, but this<br>gender difference is statistically significant only for<br>anaemia and rickets. The risk of malnutrition was<br>significantly higher among children living in joint<br>families, children whose mother's education was<br>low and children with working mothers. Girls were<br>more underweight than boys and this was<br>attributed to gender bias and parental preferences<br>for male children. | Interventions such as<br>skills-based nutrition<br>education, fortification of<br>food items, effective<br>infection control, training<br>of public healthcare<br>workers and delivery of<br>integrated programmes<br>are recommended.<br><br>The results highlighted a<br>higher prevalence of<br>malnutrition among<br>younger children<br>suggesting younger age<br>groups should be targeted<br>for nutritional surveillance<br>and associated<br>interventions. | No results for 10-<br>14 age group. |



| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives   | Findings   | Explanation/ Policy suggestions  | Notes  |
|--|--|--|--|--|--|
| Swahn, Monica H.; Braunstein, Sarah and Rogers, Kasirye U. (2014) 'Demographic and Psychosocial Characteristics of Mobile Phone Ownership and Usage Among Youth Living in the Slums of Kampala, Uganda', The Western Journal of Emergency Medicine, 15:5, 600-3. | Uganda<br>Kampala<br>Slums<br>Street children<br>Health Behaviour<br>14-24 years old | In sub-Saharan Africa, there appears to be a dramatic increase in mobile phone ownership. The purpose of this study is to determine the prevalence and correlates of mobile phone ownership and use among difficult-to-reach youth.<br><br>Conducted in May and June of 2011 to quantify and describe high-risk behaviours and exposure in a 'convenience sample' of urban youth (N=457) living on the streets or in slums, 14-24 years of age, who were participating in a Uganda Youth Development Link drop-in centre for disadvantaged street youth. Chi-square analyses were computed to determine associations between mobile phone ownership and usage and demographic and psychosocial correlates. | Overall, 46.9% of youth reported owning a mobile phone and ownership did not vary by sex, but was more common among youth older than 18 years of age. Mobile phone ownership was also more common among those who reported 'taking care of themselves' at night, current drug use and those who traded sex for money, food or other items. | The findings indicate that research using mobile phones may be both feasible and desirable with hard-to-reach populations living in slums as well as those who use drugs or are engaged in commercial sex.<br><br>Moreover, mobile phones may also be suitable for injury-specific research. | Age range is 14 and over.<br><br>No gender analysis. |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives   | Findings  | Explanation/ Policy suggestions   | Notes                    |
|---|--|--|---|---|--------------------------|
| Wadgave, Hanmanta V.; Jatti, Gajanan M. and Ahankari, Shashikant (2014) 'Menstrual Problems in Adolescent Girls of Slum Areas', Indian Journal of Public Health Research and Development, 5:1, 69-71. | India<br>Solapur<br>Urban slums<br>Health<br>Menstrual problems<br>Young girls | In this community-based cross-sectional study, 400 adolescent girls were interviewed from ten urban slums within the Solapur Municipal Corporation area, India.<br><br>Menstrual problems are highly prevalent in adolescent girls.<br><br>Study focused on menstrual problems in adolescent girls and their variation with the age. | The average age of the participant was 16 years. 302 (75.5%) of the girls in the study had either one or more menstrual problem. The most common menstrual problem was dysmenorrhea (45%), followed by oligo menorrhea (15.25%), menorrhagia (13.75%) and poly menorrhea (8.25%).<br><br>Prevalence of dysmenorrhea and oligo menorrhea was greater in the higher age group while menorrhagia and poly menorrhea decreased with older age.<br><br>Menstrual problems in general became significantly less as the age of the adolescents advanced. | The significant number of adolescent girls reporting different types of menstrual problems indicates a need to formulate appropriate counselling and management plans/policies to address these issues. | Access to abstract only. |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes   |
|--|--|---|--|---|---|
| <p>Watson-Jones, Deborah; Mugo, Nelly; Lees, Shelley; Mathai, Muthoni; Vusha, Sophie; Ndirangu Gathari and Ross, David A. (2015) 'Access and Attitudes to HPV Vaccination Amongst Hard-To- Reach Populations in Kenya', <i>PLoS ONE</i>, 10:6. <a href="http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123701">http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123701</a> (accessed 15 November 2016)</p> | <p>Kenya<br/>Rural<br/>Kajiado County<br/>Urban Nairobi Slum<br/>Korogocho<br/>Health<br/>Sexual health<br/>HPV vaccines</p> | <p>Human papillomavirus vaccination (HPV) programmes to prevent the incidence of cervical cancer need to reach vulnerable girls.</p> <p>A situation assessment was conducted to assess community services in Maasai nomadic pastoralist communities in Kajiado County and in urban Korogocho informal settlement, Nairobi, followed by focus group discussions (FGDs) (n=14) with community and religious leaders, teachers, parents, girls aged 11–13 and boys aged 13–17, and interviews (n=28) with health workers, parents, youth, and community and religious leaders.</p> | <p>Absenteeism rates for female pupils ranged between 1 and 25% daily. Reasons for female absenteeism and school drop- out cited in FGDs and interviews included girls being expected to contribute to household income and to provide food for themselves and their younger siblings. In Korogocho slum, other reasons included parental pressure for girls to sell alcohol and drugs, violence at home, or because girls were begging or engaging in sex work. In the pastoralist Kajiado County, pregnancy and early marriage were reported as key reasons for leaving school as it was considered culturally unacceptable for girls to restart school following these life events.</p> | <p>Given the high level of support for a vaccine against cervical cancer and the experience of reaching pastoralist and slum- dwellers for other immunisations, implementing an HPV vaccine programme should be feasible in such hard-to-reach communities. It may require additional delivery strategies in addition to the standard school-based delivery, with the vaccine offered at multiple venues, potentially through a campaign approach. The vaccine should be offered to girls as young as possible (9–10 years).</p> <p>Potential barriers to successful implementation of the vaccination programme: illiteracy, lack of access to information; low parental support, religious beliefs, negative peer influences, lack of incentives, fear of being asked private questions, being pregnant, menstruating at the time of vaccination, balancing household chores, ignorance, Engagement in sexual activity, being sick at the time of vaccination, migration.</p> | <p>No specific analysis of responses by gender.</p> |

## Research Evidence: WASH

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes             |
|--|---|---|---|--|-------------------|
| Abrahams, Naeemah; Mathews, Shanaaz and Ramela, Petunia (2006) 'Intersections of "Sanitation, Sexual Coercion and Girls' Safety in schools"', Tropical Medicine and International Health, 11:5, 751–6. | South Africa<br>Townships WASH<br>Toilets in schools<br>Girls over 16 years old | Study explored the intersections of sanitation, sexual coercion and girls' safety in schools in South Africa through focus groups (n= 81 across three focus groups).<br><br>Three public high schools participated: two schools in an urban area and the third in a semi-rural area.<br><br>Students came from the surrounding townships.<br><br>The study was conducted between October 2002 and February 2003 | Toilets had inadequate or no sanitation and lacked the capacity to serve the menstrual needs of females.<br><br>Both their use and avoidance were risky for female students and discouraged hygienic practices.<br><br>Experience of sexual violence from male students and teachers was a major issue, but unrelated to school toilets. Male teachers used various strategies and opportunities to gain sexual access to the girls and previous experience of victimization prevented the girls from reporting these acts.<br><br>However, girls also reported that toilets were unsafe during class time because of boys and gangs who hid in them. | The results highlight the need to reduce the incidence of harassment.<br><br>Solutions: Girls to assist in the maintenance of toilet hygiene as well as to promote respect and dignity among students and teachers.<br><br>At one school, students wanted a balustrade separating girls from boys at the tuck shop queue to address the sexual harassment.<br><br>School management can also be supported in initiating disciplinary procedures against sexual harassment from boys and male teachers. | Out of age range. |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes   |
|---|---|--|--|---|---|
| Brookes, Heather and Higson-Smith, Craig (2004) 'Responses to Gender-based Violence Against Girls in Schools', in Andrew Dawes and Craig Higson-Smith (eds) <i>Sexual Abuse of Young Children in Southern Africa</i> , (Pretoria: Human Sciences Research Council), 110–29. | South Africa<br>Urban Townships<br>Rural areas<br>WASH<br>School Toilets<br>Violence<br>Girls school attendance | This work merged data from two qualitative studies:<br><br>Qualitative study one: urban townships in Gauteng, a rural settlement in KwaZulu- Natal, Cape Flats and a white urban township<br><br>Qualitative study two: 12 primary schools in Kwa Zulu-Natal and Gauteng provinces | Gender violence varied across schools and could be explained by schools' understanding of, and attitudes towards, gender violence.<br><br>Both studies identified toilets as important sites where cases of sexual violence were reported to have taken place. | Teacher monitoring of in-school toilet blocks resulted in a reduction of reported instances of gendered violence. | Focuses more on violence than WASH.<br><br>No 10-14 age group analysis. |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes  |
|---|---|---|--|---|--|
| <p>Gonsalves, Gregg S.; Kaplan, Edward H. and Paltiel, A. David (2015) 'Reducing Sexual Violence by Increasing the Supply of Toilets in Khayelitsha, South Africa: A Mathematical Model', PLoS ONE, 10:4, e0122244. <a href="http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0122244">http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0122244</a> (accessed 15 November 2016)</p> | <p>South Africa<br/>Khayelitsha<br/>Urban township<br/>WASH<br/>Toilets</p> | <p>The study developed a mathematical model linking risk of sexual assault to the number of sanitation facilities and the time women must spend walking to a toilet.</p> <p>Defined composite societal cost function, comprising both the burden of sexual assault and the costs of installing and maintaining public chemical toilets.</p> <p>By expressing the total social costs as a function of the number of available toilets, the authors were able to identify an optimal (i.e. cost-minimising) social investment in toilet facilities.</p> | <p>Major risk factors for sexual assault include inadequate indoor sanitation and the need to travel to outdoor toilet facilities. The authors predicted how increasing the number of toilets in an urban township (Khayelitsha, South Africa) could reduce both the economic costs and the incidence and social burden of sexual assault.</p> <p>There are an estimated 5600 toilets in Khayelitsha and concurrent 635 sexual assaults resulting in US\$40 million of combined social costs each year. Increasing the number of toilets to 11300 would minimise total costs (to \$35 million) and reduce the number of sexual assaults to 446. Higher toilet installation and maintenance costs would be more than offset by lower sexual assault costs. Probabilistic sensitivity analysis showed that the optimal number of toilets exceeds the original allocation of toilets in the township in over 80% of the 5000 iterations of the model.</p> | <p>Improving access to sanitation facilities in urban settlements will simultaneously reduce the incidence of sexual assaults and overall costs to society.</p> <p>Since analysis ignores the many additional health benefits of improving sanitation in resource- constrained urban areas (e.g., potential reductions in waterborne infectious diseases), the optimal number of toilets identified here should be interpreted as conservative.</p> | <p>Not specifically focused on 10-14 year old girls.</p> |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes                  |
|--|--|--|---|--|------------------------|
| Lusambili, Adelaide (2011) "It is our Dirty Little Secret": An Ethnographic Study of the Flying Toilets in Kibera Slums, Nairobi', STEPS Working Paper 44, (Brighton: STEPS Centre) <a href="http://steps-centre.org/wp-content/uploads/Flying_Toilets1.pdf">http://steps-centre.org/wp-content/uploads/Flying_Toilets1.pdf</a> (accessed 1 November 2016) | Kenya<br>Nairobi<br>Slum<br>Kibera<br>WASH<br>Toilets  | Community-based organisation toilets were funded by UNICEF and other non-governmental organisations.<br><br>These toilets were clean and had separate facilities for children, women, and men. But these facilities were few and far between and they remained locked during the day and were inaccessible at night. | Toilets are few and expensive with no free land for expansion. As poverty imposes competing needs, poor Kiberians choose to buy water rather than paying for toilets as they have the option of using 'flying toilets,' wherein residents relieve themselves in a polythene bag and throw it into the street or in front of a neighbouring house who does the same until the bag reaches a drainage canal already full of garbage. Some people throw the bags onto their own tin roofs, later collecting the rainwater that runs off. | Pre-teen children feared falling inside pit latrines because most of the toilets were not designed for their use. Children falling into pit latrines is common, and many respondents complained about the dangerous situation.<br><br>'Flying toilets' are dirty and unhygienic, yet for the majority of slum-dwellers, serve as a practical 'solution' to the challenges of human waste disposal under conditions of inadequate infrastructure. | No age group analysis. |
| Mitchell, Claudia (2006) 'Geographies of Danger: School Toilets in sub-Saharan Africa', in Olga Gershenson and Barbara Penner (eds) Ladies and Gents (Philadelphia: Temple University Press), 62–74.   | South African township<br>Butare, Rwanda<br>Mbabane, Swaziland<br>WASH<br>Toilets School girls | Schoolgirls in townships in South Africa, just outside of Butare, Rwanda and in Mbabane, Swaziland, were asked to identify safe and unsafe spaces in their school environments.  | Girls in all three contexts identified toilets as sites of anxiety and fear, and locations where boys and men might bully them, or harass and sexually assault them.<br><br>Girls' lower social status is represented by their access to and issues with toilet facilities.   | 'Toilet audits' were suggested as one way to better understand whether in-school sanitation facilities were potential sites of violence for girls.   | Ages unclear.          |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes                                       |
|---|---|--|--|---|---|
| Nallari, Anupama (2015) "All We Want Are Toilets Inside Our Homes!": The Critical Role of Sanitation in the Lives of Urban Poor Adolescent Girls in Bengaluru, India', Environment and Urbanization, 27:1, 73-88. | India<br>Bengaluru<br>Slum<br>WASH<br>Toilets Girls   | Qualitative study on how a lack of access to adequate sanitation facilities affects the lives of adolescent girls in urban poor India. Study draws specifically on the experiences of four girls, each living in one of four settlements in Bengaluru, India, as well as conversations with a larger group of girls. | Findings revealed that where sanitation facilities are sorely lacking, adolescent girls face many deprivations (education, free time, privacy and independent mobility) and risks (sexual harassment and assault, health risks, etc.), and that this inadequacy can be a structural pathway for cyclical gender-based disempowerment and injustice.        | Girls enter their adolescent years with a number of restrictions that limit their capacity to fend for themselves. Especially in poor settlements, the lack of attention to sanitation services can further compromise their lives by depriving them of education, self-confidence and a healthy life, in effect reinforcing and perpetuating their gendered exclusion.   | Ages unclear.<br>Very small sample.         |
| Netsayi, Noris Mudege and Zulu, Eliya Msiyaphazi (2011) 'Discourses of Illegality and Exclusion: When Water Access Matters', Global Public Health, 6:3, 221-33.   | Kenya<br>Nairobi<br>Korogocho<br>Viwandani<br>Slum WASH<br>Water access<br>All ages including 12-14 year olds | This paper examines the politics and underlying discourses of water provisioning and how residents of Korogocho and Viwandani slum settlements cope with challenges relating to water access.<br><br>Qualitative data drawn from 36 focus group discussions (FGDs) with slum residents.                              | Water problems have less to do with provisioning and more to do with unequal distribution and marginalisation of slum areas in urban development plans.<br><br>Poor water management, lack of equity-based policies and programmes, and other slum-specific features such as land-tenure systems and insecurity exacerbate water-supply problems in slums. | Water supply in slum communities can only improve with the direct and active involvement of governments in infrastructural development and oversight of the water-supply actors.<br><br>Innovative public-private partnerships in water provision and the harnessing of existing community efforts to improve the water supply would go a long way towards improving the water supply for rapidly growing urban poor populations in Africa. | FGDs included some 12 year old respondents. |



| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes  |
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| Sommer, Marni; Ferron, Suzanne; Cavill, Sue and House, Sarah (2015) 'Violence, Gender and WASH: Spurring Action on a Complex, Under-documented and Sensitive Topic', Environment and Urbanization, 27:1, 105–16. | Overview of > 30 countries<br>Urban and peri-urban<br>Slums<br>Rural areas<br>WASH<br>Water<br>Sanitation<br>Access | Systematic search of 275 grey and peer- reviewed literature including reports, case studies, and articles concerning WASH and violence.<br><br>Meetings with 100 professionals also contributed to the toolkit by sharing their experiences and practices and reviewing the toolkit. | Findings collated from a wide range of anecdotal and case study evidence, including those identified in this article from over 30 countries, as well as other studies which have attempted to quantify the scale of the problem of enhanced vulnerability to violence experienced by particular constituencies when accessing water and sanitation services. | Recommendations on how to reduce vulnerabilities to violence in relation to WASH: engaging girls and women in sanitation facility design in schools and other locations (e.g. refugee camps) in order to assure that they feel safe using the end product; ensure that gender-specific latrines and bathing facilities are located at a distance agreed with users; adding strong doors and locks; improving lighting in latrines; where possible building family latrines or latrines shared among a few families to reduce the vulnerability to violence in using communal latrines.<br><br>The physical or verbal fighting that occurs at water collection points needs attention, particularly on behalf of the children fetching water for their families, as well as the issues of domestic violence that women encounter if they do not adequately meet the household water needs as expected by their husbands. | No mention of specific age groups.<br><br>Case studies provided. |

| Author(s)/ Publication  | Country/ Key words                           | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes  |
|---|--|---|---|--|--|
| Thompson, Jennifer A.; Folifac, Fidelis and Gaskin, Susan J. (2011) 'Fetching Water in the Unholy Hours of the Night: The Impacts of a Water Crisis on Girls' Sexual Health in Semi-Urban Cameroon', <i>Girlhood Studies</i> , 4:2, 111–29. | Cameroon<br>Buea town<br>Semi- urban<br>WASH | A school competition engaged youth and key water sector stakeholders in a dialogue about the water crisis in Buea town. | Girls and women in some contexts must travel long distances in search of water sources, while in other contexts they may wait until evening to seek out a field or private place in order to relieve themselves under the cover of darkness. Girls described fearing having to fetch water at night, reporting how the lack of water forces them to travel farther away and later into the evening to meet their families' daily water requirements. This in turn places them at increased risk of sexual harassment, abuse and rape. Girls described how vulnerability to violence while accessing water creates feelings of fear, anxiety and stress. | The vulnerability to violence experienced by girls and women in particular when working to meet their and their households' daily needs for water and sanitation, is a significant and under- addressed aspect of the global water and sanitation challenge.<br><br>There needs to be better documentation of the assault and attack risks to girls and women when they collect water. | Semi-urban.<br>Not age- specific.<br>Not slum- specific.<br>No access to full article. |

## Research Evidence: Violence

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings  | Explanation / Policy | Notes                            |
|---|---|--|---|----------------------|----------------------------------|
| Austrian, Karen;<br>Muthengi, Eunice;<br>Riley, Taylor; Mumah,<br>Joyce; Kabiru, Caroline<br>and Abuya, Benta A.<br>(2015) <i>Adolescent Girls<br/>           Initiative-Kenya<br/>           Baseline Report</i><br>(Nairobi: Population<br>Council)<br><a href="http://www.popcouncil.org/uploads/pdfs/2015PGY-AGI-K_BaselineReport.pdf">http://www.popcouncil.org/uploads/pdfs/2015PGY-AGI-K_BaselineReport.pdf</a><br>(accessed 1 November<br>2016) | Kenya<br>Rural Wajir<br>Urban<br>Kibera<br>Slum<br>Violence<br>Education<br>Sex<br>11-14 year old girls<br>The Adolescent Girls<br>Initiative- Kenya<br>(AGI-K)<br>Baseline study | Baseline study for a two year<br>programme with 11-14 year old<br>girls.<br>Kibera N= 2394 girls Wajir N= 2150<br>girls<br>Computer-Assisted Personal<br>Interviewing (CAPI) using tablet<br>computers.<br>By building girls' assets through a<br>combination of education, social,<br>health, and economic interventions,<br>there is potential to change their life<br>course. The data generated from<br>AGI-K baseline will help the<br>programme understand the kinds of<br>interventions that are best<br>positioned to this effect. | Education: One in four girls in Wajir and less than<br>1% of girls in Kibera have never attended school.<br>Around one-quarter of the girls in Wajir were in<br>the expected class relative to their age, compared<br>with 71% of girls in Kibera. In Kibera, older girls<br>were more likely to be behind in their schooling,<br>indicating that progression through grades might<br>also be poor. Sex: 2% of girls in both samples<br>were sexually active. Finance: Over 40% of girls in<br>Kibera had access to cash which they spent on<br>their daily needs; fewer than 30% had any savings.<br>In Wajir, less than 1% of girls reported having<br>savings. Violence: equal proportions of young girls<br>in both Kibera and Wajir agreed that 'a husband is<br>justified in beating a wife'. A higher proportion of<br>girls in Wajir agreed with reasons such as 'going<br>out without telling him', 'refusing to have sexual<br>intercourse' and 'burning food'. | N/A                  | Baseline study for intervention. |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes                               |
|---|---|--|---|--|-------------------------------------|
| Bruce, Judith (2011)<br>Violence Against<br>Adolescent Girls: A<br>Fundamental<br>Challenge to<br>Meaningful Equality<br>(New York: Population<br>Council)<br>( <a href="http://www.popcouncil.org/uploads/pdfs/2012PGY_GirlsFirst_Violence.pdf">http://www.popcouncil.org/uploads/pdfs/2012PGY_GirlsFirst_Violence.pdf</a> (accessed 1 November 2016)) | Sub-Saharan Africa<br>Asia<br>Research overview<br>Violence<br>Adolescent girls | Mapping of research<br>evidence and<br>programmes which aim<br>to reduce violence<br>against adolescent girls. | Mapped girls experience of<br>violence according to country<br>and how violence impedes girls'<br>access to services.<br><br>Publication highlighted data<br>from regions with a high<br>proportion of sexual assaults<br>among girls, as well as sub-<br>national hotspots for child<br>marriage and large differences<br>between partner ages<br>(indicative of intergenerational<br>sexual relationships). | Recommendations:<br><br>Devote more resources to building<br>'protective assets' of girls identified as most<br>risk by, for example, building the<br>professional skills of established authority<br>figures or working with potential<br>perpetrator populations; use girls'<br>knowledge to design prevention, mitigation,<br>reporting procedures, and treatment<br>programmes; create regularly available<br>platforms and spaces for girls, particularly<br>those at the highest risk of exploitation;<br>anchor programmes with girls as the core<br>client: Reach out to others selectively and<br>based on girls' assessments; protect girls as<br>they seek justice. | Rich source of<br>data/ statistics. |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions   | Notes   |
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| <p>Hallman, Kelly K.; Kenworthy, Nora J.; Diers, Judith; Swan, Nick and Devnarain, Bashi (2015) 'The Shrinking World of Girls at Puberty: Violence and Gender-divergent Access to the Public Sphere Among Adolescents in South Africa', <i>Global Public Health</i>, 10:3, 279-95.</p> | <p>South Africa<br/>Urban township<br/>Rural community<br/>Violence<br/>Public spaces<br/>Adolescent boys and girls</p> | <p>This study explores the relationship between perceived violence and adolescent access to the public sphere according to sex, school grade and urban-rural residence.</p> <p>Participatory mapping was undertaken with single-sex groups of grade 5 and grade 8-9 children in KwaZulu- Natal. The study was conducted in one urban township and one rural community.</p> <p>Students in one primary and one secondary school in each area participated, resulting in four groups per community: grade 5 girls, grade 5 boys, grade 8-9 girls and grade 8-9 boys.</p> | <p>Relative to grade 5 students, wide gender divergence in access to the public sphere was found at grade 8-9. Girls' interaction with public spaces were seen to 'shrink' with puberty, while that of boys' expanded. At grade 5, female- defined community areas were equal or larger in size than those of males. Community area mapped by urban grade 8-9 girls, however, was only one- third that of male classmates and two-fifths that of grade 5 girls. Conversely, community area mapped by grade 8-9 boys was twice that of grade 5 boys. Similar differences emerged in the rural site. No female group rated a community space as more than 'somewhat safe'.</p> <p>Although curtailed spatial access is intended to protect girls, grade 8-9 girls reported most places in their small navigable areas as very unsafe. Expanded geographies of grade 8-9 boys contained a mix of safe and unsafe places.</p> | <p>Reducing girls' access to the public sphere does not increase their perceived safety, but may instead limit their access to opportunities for human development. The findings emphasise the need for better violence prevention programming for young adolescents.</p> <p>South Africa is one of the few countries in sub-Saharan Africa where violence exerts a higher toll on adolescents than do transport accidents. According to South Africa's National Injury Mortality Surveillance System, the leading cause of death among 10-19-year-olds in 2008 (the most recent year available) was violence (36%), followed by transport accidents (30%), non- transport accidents (15%) and suicide (13%), with the remaining causes undetermined (6%)</p> | <p>Innovative methods.<br/>Gender analysis.</p> |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes  |
|--|---|---|--|--|--|
| Khan, Fatima (2015) 'Combating Sexual Violence Using Community- based Intervention Tools in Informal Settlements', <i>Agenda</i> , 29:3, 128-33. | Kenya<br>Nairobi<br>Slums<br>Sexual violence tool kit<br>Adolescent girls | This article explores how a toolkit can be used as an intervention-based strategy by listening to girls when developing innovative solutions to the challenges they face in adverse settings. | Girls' safety and security is often compromised in homes and neighbourhoods which experience high rates of poverty and limited economic and social opportunities.<br><br>In informal settlements, girls' health and wellbeing is threatened due to risks of domestic abuse and/or sexual violence.<br><br>The toolkit promotes the use of arts-based methodologies (particularly drawings, photo voice, and mapping) as effective and valuable research approaches which provide routinely ignored and silenced girls with a platform for articulating their concerns. | The toolkit highlights several methods for engaging different grassroots stakeholders in developing girl-led recommendations for policymakers, organisations, and government officials in order to combat sexual violence in slums.<br><br>Formal, informal and special education programmes may help to educate adolescent girls on reproductive health issues. | No specific 10-14 age analysis.<br><br>Arts-based methods. |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions  | Notes   |
|--|---|--|--|--|---|
| Travers, Kathryn; Ranganath, Maya and Alana Livesey (2013) Adolescent Girls' Views on Safety in Cities - Findings from the Because I am a Girl: Urban Programme Study in Cairo, Delhi, Hanoi, Kampala and Lima (Working: Plan International)<br><a href="http://violence-wash.lboro.ac.uk/vg/w/Supporting-documents/VGW-4-Good-practice-Safety-Audits/TS4-C-2-A-Plan-BIAAG-WICI-Habitat-Adolescent-girls-views-on-safety-in-cities-2013.pdf">http://violence-wash.lboro.ac.uk/vg/w/Supporting-documents/VGW-4-Good-practice-Safety-Audits/TS4-C-2-A-Plan-BIAAG-WICI-Habitat-Adolescent-girls-views-on-safety-in-cities-2013.pdf</a> (accessed 1 November 2016) | Cairo<br>Delhi<br>Hanoi<br>Kampala<br>Lima<br>Violence<br>Safety<br>11-23 year olds | A five-country qualitative study with girls and women from 11-23 years of age, which is part of the 'Because I am a Girl Urban Programme'.<br><br>Methodology: interviews, social cartography and girls' 'safety walks' – a walk performed by the girl participants in their city as a means of identifying factors that made them feel safe and unsafe. | In Delhi, only 3% of girls reported always feeling 'safe' when using public transport. Girls identified issues in the built environment including street lighting, lack of proper public toilets, and garbage on the roads as affecting their feelings of safety. The issue of clean and accessible public toilets was especially important to them.<br><br>In Kampala, adolescent girls expressed a general sense of exclusion from public space; 80% reported feeling 'very unsafe' or 'unsafe' in public spaces, such as markets, roads and recreational centres due to high incidents of rape and theft.<br><br>Lima was also perceived as a dangerous city where the respondents felt insecure to walk on the streets, and were greatly concerned with the high level of crime. | Girls across the five cities shared similar ideas on their ideal city: access to emergency services such as hospitals; access to basic services: public toilets, clean water; spaces for play and leisure; road infrastructure including traffic lights and pavements;<br><br>markets and shopping areas; schools; transit routes and bus stations in their communities; cleanliness and waste baskets at every corner of the street; organised housing (unlike the slums in which they live); religious institutions. | No specific age-range.<br><br>Innovative methods. |

## Research Evidence: Education

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes                    |
|---|--|--|--|---|--------------------------|
| <p>Abuya, Benta A. (2010) <i>Understanding Obstacles to Educational Attainment: Perspectives of Poor, Urban Girls From Nairobi, Kenya</i> (Pennsylvania: The Pennsylvania State University Graduate School, College of Education)</p> <p><a href="file:///C:/Users/Martina/Downloads/Abuya_BentaDissertation_Final.pdf">file:///C:/Users/Martina/Downloads/Abuya_BentaDissertation_Final.pdf</a> (accessed 1 November 2016)</p> | <p>Kenya<br/>Nairobi<br/>Slum<br/>Education<br/>Adolescent girls</p> | <p>Interviews conducted with twenty school girls, fourteen teachers and ten girls who had dropped out of school.</p> | <p>This study established that the social construction of girls affected their educational attainment, and also affected the perceptions of others in the community about girls, and how girls viewed themselves. This added to the risk of not performing well in school.</p> <p>Negative views of girls permeated into families and influenced the ways in which parents treated their daughters.</p> <p>The social construction and associated negative attitudes provided a fertile ground for sexual harassment both in and out of school.</p> <p>For girls at school, the school cushioned girls from negative events in the households.</p> | <p>Girls reported feeling afraid (of sexual harassment) as they walked to and from school every day. The study identified the consequences of sexual harassment on girls, including to be risk of contracting disease(s), reduced interest in learning, and psychological effects.</p> <p>From the perspective of school dropouts, the study showed the importance of financial resources and counselling resources for continued attendance of school. School lunch programmes enabled girls to continue coming to school. Other practical suggestions for facilitating girls' school attendance included working to tackle sexual harassment in schools, a walking school bus (whereby girls travel in groups), implementation of sexual offences act to cover sexual offences in school, and provision of sanitary towels for girls.</p> | <p>No specific ages.</p> |



| Author(s)/ Publication  | Country/ Key words                       | Methods/Objectives   | Findings  | Explanation/ Policy suggestions   | Notes                 |
|---|--|--|---|---|-----------------------|
| Mugisha, Frederick (2006) 'School Enrolment Among Urban Non-slum, Slum and Rural Children in Kenya: Is the Urban Advantage Eroding?', <i>International Journal of Educational Development</i> , 26:5, 471-82. | Kenya<br>Nairobi<br>Slums<br>Adolescents | Data drawn from the Kenyan Demographic and Health Survey (KDHS) for 1993, 1998 and 2003.<br><br>A comparison of school enrolment in Nairobi slums is done using the KDHS-type Nairobi Cross-Sectional Slum Survey for 2000.<br><br>Data from focus group discussions collected in the slums of Nairobi provide the context for discussion. | School enrolment is higher in urban non-slum than in urban slum areas, and is higher in slums than in rural areas at younger ages. However, this is only true up to age 9 for females and 11 for males, after which school enrolment for slum children declines at a more pronounced than among their rural counterparts.<br><br>The corresponding ages at which school enrolment among rural children begins to visibly decline are 13 years for males and 14 years for females. | Children living in slums face particular challenges in terms of staying enrolled in school, especially as they grow older, relative to their rural counterparts. The paper provides context-specific illustrations using qualitative data to explore this issue.<br><br>Those concerned with provision and expansion of education in urban slum areas should be mindful of how these factors (school quality, access to secondary school in transition from primary school, living conditions, vulnerability to coercion into risky behaviours and child labour) serve to undermine slum-dwelling children's schooling efforts.<br><br>Further understanding and research into this topic is necessary. | Urban-rural analysis. |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes   |
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| <p>Nayak, Pallavi; Singh, Paya; Tripathi Neeraj; Mishra, Akash and Mishra, R.N. (2016) 'Determinants of School Enrolment of Children in Slums of Varanasi', <i>Indian Journal of Community Health</i>, 28:1, 71-7.</p> | <p>India<br/>Varanasi<br/>Slums<br/>Education<br/>School enrolment<br/>Mothers of children aged 5-15 years</p> | <p>The data was collected in 2011-12 from 15 randomly selected slums (out of 227) in which a total of 893 families were contacted, and mothers with children aged 5-15 years interviewed.</p> <p>In addition to child history on age, sex and school enrolment, the family background characteristics were recorded e.g. religion, caste, and family size as well as age, education and occupation of both mother and father.</p> | <p>A total of 31% of children aged 5-15 years were not enrolled in school at the time of the survey. Nearly half (45%) of children aged 5-7 irrespective of sex had not been enrolled, while among those aged 8-15 years, significantly more female (24%) than male children (17%) had not been enrolled indicating a higher proportion of educationally deprived girls.</p> <p>Non-enrolment in schools of children aged 5-7 years was affected by religion, education of father and age and education of mother; while for children aged 8-15 years caste/religion, family size and education of both father and mother mattered.</p> <p>Compared to Hindus, non- school enrolment was much higher among Muslims in both child age groups (44% in Hindus and 62% in Muslims for the children of age group 5-7 years and 19% Hindus and 42% Muslims for the children of age group 8-15 years). Low school enrolment was observed in families of relatively larger size and also correlated with low literacy levels of parents.</p> | <p>Interventions are needed to encourage attitudinal changes around schooling of both male and female children in slum communities.</p> | <p>More research needed to explore the effect of caste.</p> |

| Author(s)/ Publication  | Country/ Key words               | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes  |
|---|----------------------------------|--|---|--|--|
| Njie, Haddy; Manion, Caroline and Badjie, Musukuta (2015) 'Girls' Familial Responsibilities and Schooling in The Gambia', <i>International Education Studies</i> , 8:10, 48-62. | The Gambia<br>Education<br>Girls | <p>Study focuses on the relationship between girls' education and heavy domestic workloads.</p> <p>This is explored in relation not only to academic performance but also to the value that girls assign to schooling at the post- primary level, using a qualitative, inductive phenomenological- approach, combined with a descriptive survey.</p> | <p>Familial responsibilities can work against the goal of gender equality in and through formal education. Although access to girls' schooling has improved in Gambia, there is still a profound tension between the values parents assign to female education and the gender socialisation of girl children in preparation for their socially expected future roles as mothers and caretakers of their families. Girls are allowed to attend formal schooling, but they are expected to 'remain feminine' both within and outside formal schooling spaces. Gender inequity in this regard is especially acute at the secondary school level.</p> | <p>Arguably, societal pressure for girls to subscribe to 'feminine' norms has a negative effect on their academic performance and lasting consequences on the ways they construe their opinions and values about their gender roles, social status and future employment capabilities.</p> | <p>Not slum-specific.</p> <p>Age group is unclear.</p> |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives  | Findings  | Explanation/ Policy suggestions   | Notes                               |
|--|---|---|---|---|-------------------------------------|
| <p>Sen, Atreyee, (2011) 'Surviving Violence, Contesting Victimhood: Communal Politics and the Creation of Child-Men in an Urban Indian Slum, South Asia', <i>Journal of South Asian Studies</i>, 34:2, 276-97.</p> | <p>India<br/>Hyderabad<br/>Sultanpur<br/>Slum Violence<br/>9-14 year old boys</p> | <p>This ethnographic study explores the emergence of violent child identity politics in the urban slum of Sultanpur in Hyderabad, India, a Muslim-dominated ghetto in the northern quarters of Hyderabad, which has been marked by decades of hostilities between Hindus and Muslims.</p> | <p>Muslim male children are frequently humiliated by ordinary passers-by and sometimes attacked by rioting mobs.</p> <p>To counter their victimhood and organise their own retribution, sections of local boys in Sultanpur, between 9 and 14 years of age, coordinated themselves into child squads.</p> <p>They patrolled the slum borders and common public places, establishing disciplinary control over fragile aspects of ghetto life. The male child squads not only prevented members of other communities from entering the slum, but also monitored the movements of other residents, often physically assaulting local women who were caught having affairs with Hindu men. The power, presence and practices of these child squads upturned traditional structures of male and female authority, contested conventional notions of male childhood and sustained nascent masculinities.</p> | <p>Children of Sultanpur performed masculinities not just to survive a fragile male childhood, but also to retain some enjoyable aspects of it such as playing football, flying kites, or meeting friends without the constant fear of defeat or death.</p> | <p>Focus on 9-14 year old boys.</p> |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes                                      |
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| <p>Unwin, Tim; Tan, Mel and Pauso, Kat (2007) 'The Potential of e- Learning to Address the Needs of Out-of-School Youth in the Philippines', <i>Children's Geographies</i>, 5:4, 443-62.</p> | <p>Philippines<br/>Urban areas<br/>Education<br/>ICTs<br/>Out-of- school adolescents</p> | <p>Focus group discussions (FGDs) designed to explore the learning and skills-based needs of out-of-school youth in the Philippines, with a particular focus on their reasons for leaving school, their current activities and employment, how they acquire skills and knowledge, what they want to learn about, their use of Information and Communication Technologies (ICTs), and their future employment plans.</p> <p>The context for the FGDs was the development of a programme of e- learning through ICT Centres to be delivered in support of the country's 5 million out-of-school youth.</p> | <p>The dominant explanation for leaving school was because of cost. Although no fees are payable, respondents said that they still had to pay the cost of travelling to school, for books and materials, and for special projects in which they might get involved.</p> <p>Other reasons given for leaving formal education included illness, parental unemployment, pregnancy, parental disagreements, and the need to earn an income.</p> <p>Several of the young males mentioned that they were 'simply lazy', and others said that they had become involved in crime or substance abuse.</p> | <p>Recommendations:</p> <ul style="list-style-type: none"> <li>• provide more resources for schools</li> <li>• identify learning resources that will be of benefit to out-of-school youth as well as children living and working on the streets</li> <li>• create relevant learning content that will enable those not in school to gain the expertise necessary for them to participate more fully in the societies in which they live</li> <li>• adopt a cautious approach to the use of new ICTs in supporting the education of out- of-school youth</li> <li>• involve users in the programme design such that it is not overly top-down and externally driven.</li> </ul> <p>Greater attention should be awarded to the gendered differences noted, with girls choosing to leave school, or being told to do so by their parents, for the benefit of their siblings, compared to boys who spoke of drifting away from school (suggesting a greater degree of personal choice and autonomous decision making.</p> | <p>No specific age or gender analysis.</p> |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes                                 |
|---|---|--|---|--|---------------------------------------|
| Bagchi, Subrata Sankar (2006) 'Child Labour in Kolkata', <i>Asian Anthropology</i> , 5:1, 131-44. | India<br>Kolkata<br>Slums<br>Work<br>Child labour<br>5-14 year olds | Anthropological research which aims to increase understanding of child labour and its cultural and familial dimensions.<br><br>The sample comprised boys (n=471) and girls (n=426) who were child labourers from three areas in Kolkata. | Child labourers are engaged in hazardous and strenuous informal employment that has become less gainful over time. Among the children interviewed and observed in this research, just over half were 10–14 years old and the rest were between 5–9 years old. More than three- quarters of children in the younger group and more than 90% of those in the 10–14 year old group were child labourers.<br><br>Nearly 80% of child labourers were either non-literate or could sign their names only. Less than one-tenth of those who were literate were girls, and for both girls and boys, the vast majority learned their letters in non- formal school settings or outside of schools entirely. Similarly, while more than half the boys had spent between one and three years in school, nearly all the girls had not had any schooling at all. | The main reason children gave for their families not sending them to school was their immediate family's need for their financial contribution. They also frequently mentioned their families being unable to afford the school fees, their own need to make money for survival, and less frequently, the need to help in the family business.<br><br>The study recognises that marginalised child labour is part of the informal economy and continues to be driven by globalisation. | No specific focus on 10-14 year olds. |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions   | Notes  |
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| <p>Del Franco, Nicoletta (2016) <i>Time to Look at Girls: Adolescent Girls' Migration in Bangladesh</i> (Geneva: Swiss Network for international studies) <a href="http://www.snis.ch/system/files/research_report_bangladesh_2016.pdf">http://www.snis.ch/system/files/research_report_bangladesh_2016.pdf</a> (accessed 1 November 2016)</p> | <p>Bangladesh<br/>Dhaka<br/>Bauniabandh<br/>Bhola<br/>Slums<br/>Migration<br/>Rural-urban<br/>11-23 years old females</p> | <p>This study was based on questionnaires and the life stories of 60 respondents, and explored the motivations underpinning adolescent girls' rural-urban migration.</p> | <p>In areas where migration for garment work affects a great number of households, it is becoming more socially acceptable for girls to migrate independently. Migrant working girls are regarded as an important resource for natal households. Daughters' migration for work means they are less likely to be married-off in their early teens. Young women with failed marriages may also migrate because divorce/separation brings shame upon the girl and her family and diminishes the chances of a second marriage in the same area.</p> <p>Some girls moved to Dhaka to escape difficult family situations, such as conflictive relations with step-parents, mistreatment or feeling uncared for. Very few claimed expressly that they wanted to gain more freedom, do something for themselves and/or avoid to be married early. Girls did not perceive their choice to migrate as forced but felt responsible for their families and wanted to contribute to their livelihoods.</p> <p>Most of the migrants also reported feeling isolated.</p> | <p>N/A</p> <p>Around two-thirds of the migrants underlined that migration and work had a positive impact on their sense of self-hood and self-esteem, that their mobility has increased, and that they have more decision-making power in their daily life. Those who migrated at an early age and who earn a higher income said they feel particularly entitled to have a greater say in personal and family decision-making. For the majority of Bengali (female) adolescent migrants, living in Dhaka provides more opportunities for them to develop a network of female and male friends than living in a village.</p> | <p>No specific focus on 10-14 year olds.</p> <p>Qualitative study of migrants.</p> |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes                                       |
|--|---|--|--|---|---|
| Erulkar, Annabel; Mekbib, Tekle- Ab; Simie, Negussie and Tsehai Gulema (2006) 'Migration and Vulnerability among Adolescents in Slum Areas of Addis Ababa, Ethiopia', <i>Journal of Youth Studies</i> , 9:3, 361-74. | Ethiopia<br>Addis Ababa<br>Slums<br>Migration<br>Work<br>10-19 year old adolescents | <p>This study uses data from a population- based survey of over 1076 adolescents aged 10–19 in slum areas of Addis Ababa, with the aim of exploring patterns of migration and their role in transitions to adulthood.</p> <p>The study focusses on adolescents' living arrangements, education, work, time use, social networks, marriage and HIV.</p> | <p>A total of 23% of boys and 45% of girls had migrated to the city, mostly from rural areas, and mainly for educational reasons or work; these differences were statistically significant.</p> <p>This disparity may owe to different drivers of migration between young girls and boys, with nearly one- quarter of female migrants having moved to escape early marriage in their rural homes (23%). Most of the girls (60%) migrated during early adolescence (10–14 years), when girls are most likely to have their marriages arranged.</p> <p>None of the girls who migrated to escape marriage did so with their parents, but rather with other relatives or on their own. Migrants in this study were more vulnerable than natives in terms of lacking parental presence, schooling, and social connectedness.</p> <p>As many as 87% of working female migrants were in low-status occupations such as domestic work. Compared with working natives, migrants earned considerably less, with differences being particularly striking for girls.</p> | <p>Young adolescent migrants, most of whom are girls, are 'falling through the cracks' of policy and programmes and in need of increased attention.</p> <p>Lines can blur between children engaged 'voluntarily' in domestic work and those who have been trafficked.</p> | No 10-14 age specific or gendered analysis. |



| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes                                       |
|---|--|---|---|--|---|
| Erulkar Annabel and Mekbib, Tekle-Ab (2007) 'Invisible and Vulnerable: Adolescent Domestic Workers in Addis Ababa, Ethiopia', <i>Vulnerable Children and Youth Studies</i> , 2:3, 246-56. | Ethiopia<br>Addis Ababa<br>Slums<br>Migration<br>Work<br>Domestic workers<br>10-19 year olds | A population-based study of adolescents in two low-income, slum areas of Addis Ababa, Merkato area and Kazanchis, which are among the city's poorest and most densely-populated areas.<br><br>Descriptive analysis was conducted to compare female domestic workers with other adolescent girls and boys in terms of background, working patterns, self-esteem and social connections, and exposure to HIV and adolescent programmes. | Around 15% of the female adolescent population were domestic workers, most of whom had migrated from rural areas.<br><br>Domestic workers were less likely to be educated or to live with parents compared with other categories of adolescents. They worked extremely long hours for low pay, earning a mean income of US\$6 per month.<br><br>Domestic workers appeared to have lower self-esteem and fewer friends than other adolescents, as well as lower levels of HIV knowledge and minimal participation in existing adolescent programmes.<br><br>Adolescent domestic workers are highly vulnerable yet largely invisible, despite their relatively large numbers. | The exploitation of young migrant domestic workers is related to their social isolation and inability to find other sources of employment. | No 10-14 age specific or gendered analysis. |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes  |
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| Mehrotra, Santosh and Biggeri, Mario (2010) 'Children in Home Worker Households in Pakistan and Indonesia', <i>International Journal of Manpower</i> , 31:2, 208–23. | Pakistan<br>Indonesia<br>Work<br>Home workers<br>Gender issues<br>7-15 year olds | The data are drawn from two ad hoc surveys and country studies carried out in Pakistan and Indonesia in 2000/2001. The paper examines the incidence of and reasons for child work in home-worker households, including work conditions, gender differences and implications for child schooling.<br><br>A bivariate probit is applied to analyse the determinants of child activity status. | Children from home worker households have a higher probability of working. There is notable evidence indicating a 'feminisation' of home work among children, particularly in Pakistan.<br><br>Over half of 7-12 year old girls surveyed were working while only a third of the boys were. Of the 13-15 year olds, 95% of girls were working compared to half of the boys.<br><br>In Indonesia children of home worker households were at school and a lower proportion of girls aged 7-15 year olds, were 'only working' in Indonesia compared to Pakistan.<br><br>The mother's education, income and assets in the household were important determinants of the child's activity status.<br><br>Collective action played a role in the increase of children in education as well as working. The number of hours that children work in Pakistan suggests that their ability to effectively undertake school-related activities is likely to be impacted. | Although child labour is common in home-based manufacturing activities in the informal sector in most Asian developing countries research on child labour remains scarce.<br><br>Major policy implications for home workers include schooling and health and safety issues and promotion (such as training and help with marketing and access to loans). | No distinction made between rural and urban settings.<br><br>No age specific analysis. |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives   | Findings  | Explanation/ Policy suggestions   | Notes                  |
|--|--|--|---|---|------------------------|
| Montgomery, Heather (2014) 'Child Prostitution as Filial Duty? The Morality of Child-rearing in a Slum Community in Thailand', <i>Journal of Moral Education</i> , 43:2, 169-82. | Thailand<br>Outskirts of tourist resort<br>Slum<br>Child sex workers<br>6-17 year olds | Ethnographic fieldwork carried out between 1994 and 1995.<br><br>Interviews with children, gathering life stories and participant observation with a view to critically reflect on the universality of child rearing goals by conducting research on child-rearing practices which appear to actively harm children by threatening their survival and their wellbeing. | In contrast to international principles of child rights and protection, in some circumstances parents appear to pursue child-rearing practices that actively harm children, threaten their survival and inhibit their ability to grow up to be effective adult members of their communities.<br><br>This article discusses these issues in the case of one group of child prostitutes in Thailand and their families at a particular point in time. Although the work they did was physically dangerous and difficult, both parents and children claimed that their families were loving and functional and that selling sex was a way to keep the family together.<br><br>Selling sex was more casual for boys than for girls. Boys usually did other work such as construction or pimp work too. Girls tended to be more invested in staying and living in the slum and supporting their mothers who rarely worked. | Morality was constructed in terms of child-parent reciprocity rather than sexual transgression.<br><br>This article acknowledges children's pride in themselves as 'good children' who have moral courage and resilience rather than as passive victims of abuse. | Ethnographic research. |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes  |
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| <p>Payne, Ruth (2012) 'Agents of Support: Intra- generational Relationships and the Role of Agency in the Support Networks of Child-headed Households in Zambia', <i>Children's Geographies</i>, 10:3, 293-306.</p> | <p>Zambia<br/>Urban and rural areas<br/>Slums<br/>Households<br/>Children- headed- households<br/>Children under 18</p> | <p>Article based on small-scale ethnographic research with 11 child-headed households (CHHs) in rural and urban Zambia between 2004 and 2008 in four urban and rural areas.<br/><br/>It explores the role of children and young people's agency in the context of their intergenerational relationships.</p> | <p>Findings include how CHH members construct networks of support both within and outside these households, paying particular attention to the inconsistency of sibling relationships and the role of non-kin relations in peer support as an example of 'extending the family'.<br/><br/>Examples are given of transformations in sibling relationships, and gendered patterns of household spending.<br/><br/>Children and young people are involved in actively constructing their life-worlds and maintaining networks of support and exchange in which they are not solely recipients.</p> | <p>The paper argues for greater acknowledgement of children and young people's agency in the context of constructing and maintaining networks of support to ensure policy and practice is responsive to the fact that CHH members are agents of support rather than simply recipients of support or 'beneficiaries'.</p> | <p>Small sample.<br/><br/>Ethnographic research.</p> |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes   |
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| Bartlett, Sheridan (2008) Climate Change and Urban Children: Impacts and Implications for Adaptation in Low- and Middle-income Countries, <i>Environment and Urbanization</i> , 20:2, 501-19. | Overview<br>Climate change impacts<br>Urban<br>Slums<br>Poverty<br>Children | <p>This paper explores the potential impacts of climate change and extreme weather events on children’s health, learning and psychosocial wellbeing, and considers the implications for family coping strategies for children.</p> <p>In many urban areas, the risks children face are bound to be intensify by climate change. Most of the people and enterprises at most serious risk from extreme weather events and rising sea levels are located in urban slums in low- income countries, which are often in the most hazardous areas – flood plains or other areas at risk of floods, places at risk from landslides, sites close to industrial wastes.</p> | <p>Heat: greatest vulnerability to heat stress for young children; high vulnerability to respiratory diseases and vector borne diseases; highest vulnerability to malnutrition</p> <p>Heavy rains/cyclones: higher risk of death and injury than for adults; more vulnerable to waterborne diseases and to malaria; risk of acute malnutrition; reduced options for play and social interaction; likelihood of being removed from school /put to work, as income is lost; higher risk of neglect, abuse and maltreatment associated with household stress and/or displacement; long-term risks for development and prospects</p> <p>Floods: highest rates of death for children; highest health risks from salinisation of water supplies; long-term developmental implications.</p> <p>Drought: young children at highest health risk from inadequate water supplies, malnutrition, and exploitation.</p> | <p>Many urban settlements are unserved by the kind of infrastructure which can be strengthened and adapted to withstand more extreme climatic conditions and extreme weather events – Recommendations for an adaptation agenda that focuses on the realities for children. Preparatory measures are considered, as well as responses to extreme events and to changes in weather patterns.</p> <ul style="list-style-type: none"> <li>• Ensuring children’s optimal health and nutrition</li> <li>• Strengthening families’ and households’ capacity to cope</li> <li>• Maintaining, restoring and enhancing the potential for children’s daily routines and activities</li> <li>• Respecting children’s capacities; allowing them the chance for active involvement</li> </ul> | <p>No analysis of 10-14 year olds.</p> <p>No gender analysis.</p> |

## Research Evidence: Slum Regeneration

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes  |
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| <p>Chatterjee, Sudeshna (2014) <i>Analysing the Impact of JnNURM-funded Slum Redevelopment Projects on Children Across India</i> (New Delhi: Action for Children's Environments) <a href="http://www.acetrust.net/pdf/B_SUP-Synthesis-Report.pdf">http://www.acetrust.net/pdf/B_SUP-Synthesis-Report.pdf</a> (accessed 1 November 2016)</p> | <p>India<br/>New Delhi<br/>Slums<br/>Redevelopment<br/>Children</p> | <p>Bernard van Leer Foundation supported Action for Children's Environments (ACE) to develop multiple case studies analysing the impact of slum redevelopment projects funded by Basic Services to the Urban Poor (BSUP) under the Jawaharlal Nehru National Urban Renewal Mission (JnNURM) on the lives of children living in slums across India.</p> <p>The case studies included eight slum redevelopment projects located in six cities in five states.</p> | <ul style="list-style-type: none"> <li>• Lack of structures for children's participation in local area development: Despite active and committed groups and organisations involved with community development and community mobilisation, children and young people tend to have no formal networks for engaging in activities for social and environmental change</li> <li>• Lack of integrative planning makes the city risky for slum children. For example, children might seek out play and recreation opportunities in parks, playgrounds and vacant land outside the slum, sometimes travelling 2 km away from their homes on foot, crossing streets with heavy traffic and taking unnecessary risks.</li> </ul> | <p>Recommendations:</p> <ul style="list-style-type: none"> <li>• Mobilise existing youth clubs for mapping and identification of social and environmental problems that put children and young people at risk.</li> <li>• Introduce Children's groups to include children above 8 years and up to 14 years to be involved in local area monitoring, maintenance and planning and design.</li> <li>• An integrated planning approach could have provided safer access to the places which commonly attract children from resource-deprived slums, such as parks, playgrounds and markets in the local areas.</li> </ul> | <p>No specific age group or gender analysis.</p> |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes  |
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| <p>Chatterjee, Sudeshna (2015) 'Making Children Matter in Slum Transformations: Lessons from India's National Urban Renewal Mission', <i>Journal of Urban Design</i>, 20:4, 479-506.</p> | <p>India slums<br/>Re- development<br/>Citizen participation<br/>Children</p> | <p>This paper looks at two successful slum redevelopment projects under India's flagship urban renewal mission, which mandate citizen participation and inclusive planning to create planned equitable cities. In the context of two redevelopment projects in Karimadom redevelopment in Thiruvananthapuram city in Kerala and Gandhi Nagar redevelopment in Pune City in Maharashtra.</p> <p>Article examines how children's concerns are addressed and children's wellbeing is affected in the projects.</p> | <p>The country pays little or no attention to children and youth in urban development and planning of cities including slum redevelopment. This directly violates the rights of many children to an adequate standard of living.</p> <p>The two case studies represent different design and planning approaches to in-situ redevelopment: (1) replacing the slum with flats; and (2) selective infill houses.</p> <p>In both projects the spaces available to children were inadequate and often exposed children to environmental and social hazards. The most awarded project, Karimadom, has failed children and families because it compromised on other elements including infrastructure networks. In Gandhi Nagar, improvements in networked infrastructure did not include community facilities or public places in keeping with trends in infill housing in Indian slums where only the structure of homes, rather than community services, is accorded attention.</p> | <p>Despite spatial constraints, a more child-centred environmental design approach is needed in future slum redevelopment in India to configure layouts that offer choice, allow change, and are comprehensive, culturally- appropriate, climatically- responsive and well-integrated into the local area. This should involve creating new and/or enhanced community play areas for children by improving the quality of common spaces and existing community facilities, and strengthening links between the community and the city.</p> | <p>No specific age group or gender analysis.</p> |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes  |
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| Makau, Jack (2011) "Like we don't have enough on our hands already!": The Story of the Kenyan Slum Youth Federation', <i>Environment &amp; Urbanization</i> , 23:1, 203–6. | Kenya<br>Nairobi<br>Kambi Moto<br>Slum<br>Slum-dweller federation<br>Sustainability | This article describes a case study from the youth federation that is aligned to Kenya's Slum-Dwellers Federation. | <p>Slum-dweller federations, like many other social movements, cater for the youth in their constituencies. This is critical to their relevance as agents of change and contributes to the sustainability of movements.</p> <p>However, youth formations are not merely scaled-down versions of the movements: often they grapple with a set of dynamics unique to their needs and interests at a crucial transitional period in life, and promote youth-relevant activities.</p> <p>Mothers in the slum became the youth federation biggest supporters. Mentoring was the first and strongest element of the movement's journey to institutionalisation.</p> <p>The federation formed a football team, acrobatic and dance troupes, a study group, and a waste collection business. income generation and mentoring'.</p> | <p>The members felt strongly about doing something for youth by youth: 'We do not have to change this to be federated. We share issues in common that we can federate around – education, recreation'.</p> <p>As members come of age they leave and new initiatives tend to have to start from fresh, although the prior mentoring of children by the federations initiators have helped to maintain impetus. It is only sustainable because the children who had been mentored are making up the movement. This demonstrates the importance of mentoring to sustainability and legacy.</p> | <p>One case study.</p> <p>No age- specific or gender analysis.</p> |



| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes                               |
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| Tutu, Raymond Asare (2014) 'Dilemmatic Experiences of Young Migrants in Accra, Ghana: The Merciless Hands of Pirate Urbanisation and landlordism', <i>Journal of Housing and the Built Environment</i> , 29:4, 637-56. | Ghana<br>Accra<br>Old Fadama<br>Slum<br>Housing<br>Migration<br>Pirate landlords<br>10-23 year olds | <p>To accomplish the goal of understanding the dynamics of internal migration among young people from the north of Ghana to Old Fadama, an Accra slum in the south of the country.</p> <p>Article explores the housing and environmental stressors encountered by young migrants and their proposed strategies to deal with these stressors.</p> <p>It also shows how government policies are dealing (or not) with these stressors. The study used a mixed-methods approach, 104 semi- structured interviews and 5 focus group discussions with young migrants (aged 10–29) in Old Fadama. Three quarters of participants were women; Mean age 20.3</p> | <p>Stressors (e.g. poor accommodation, fires and poor sanitation), which are directly linked to 'pirate urbanisation' and landlordism constituted 49% of total responses regarding the stressors which migrants encounter. Stressors which are indirectly related to same phenomena such as malaria/ mosquitoes constituted 22 % of stressors faced. Poor accommodation (shelter) constituted 16 % of all responses about the stressors young slum dwellers face.</p> <p>Squatters, with holdings which allow them to rent out rooms (petty landlordism), receive high returns on investment at the expense of young lessees. For example, in the case of young migrants living in a single room with many others, the decision to add a roommate or not is determined primarily by the landlord. Driven by profit motives, landlords often refuse to respond to urgent requests for roof repairs or carpentry work on their substandard structures. Migrants may suffer additionally from mosquitoes or leaky roofs.</p> | <p>Suggestions requiring individual/group agency (non-sovereign power) include learning a trade and amicable settlement of disputes, while suggestions requiring governmental assistance include protection from social institutions, education, and slum upgrading. Perhaps non-governmental organisations could be called upon to improve the lives of those in the slum.</p> <p>The organisations could help settle disputes and help ensure the rights of young lessees to reduce the impacts of landlordism.</p> <p>Additionally, sovereign power vested in governmental institutions, although suggested as a tool with the potential to effect social change in Old Fadama through the engagement of life quality elements, which include formal education and proactive assistance, is lagging behind.</p> | No age-specific or gender analysis. |

## Appendix 3: Programme Evaluations and Programmes Overviews

### Programme Evaluations

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes  |
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| Baird, Sarah; Garfein, Richard; McIntosh, Craig and Özler, Berk (2012) 'Effect of a Cash Transfer Programme for Schooling on Prevalence of HIV and Herpes Simplex Rype 2 in Malawi: A Cluster Randomised Trial', <i>The Lancet</i> , 379:9823, 1320-9. | Malawi<br>Zomba<br>Rural<br>Cash transfers<br>Never-married females aged 13-22 | Assessment of the efficacy of a cash transfer programme to reduce the risk of sexually-transmitted infections (STIs) among girls.<br><br>A sample of a total of 88 enumeration areas assigned to receive the the intervention and 88 as controls were investigated<br><br>Participants received random numbers by area to receive conditional or unconditional cash payments (intervention group) or nothing (control group). | For the 1289 individuals enrolled in school at baseline with complete interview and biomarker data, weighted HIV prevalence at 18 month<br><br>follow-up was 1% (seven of 490 participants) in the combined intervention group versus 3% (17 of 799 participants) in control group (who did not get the cash transfer). In the intervention group, no difference between conditional versus unconditional intervention groups for weighted HIV prevalence or weighted HSV-2 prevalence. For individuals who had already dropped out of school at baseline, there was no significant difference between intervention and control groups for weighted HIV prevalence or weighted HSV-2 prevalence.<br><br>Effects are supported by changes in self-reported sexual behaviour; no effects on age of sexual debut or unprotected sex. | Cash transfer programmes can reduce HIV and HSV-2 infections in adolescent schoolgirls in low income Settings.<br><br>Schooling could be considered to be a 'social vaccine' to prevent the spread of HIV.<br><br>Structural interventions that do not directly target sexual behaviour change can be important components of HIV prevention strategies.<br><br>The cash transfer programme decreased the prevalence of HIV and HSV-2 infection after 18 months in girls aged 13–22 years who were enrolled in school at baseline. | Rural programme.<br><br>Out of age range.<br><br>Absence of baseline data for HIV and HSV-2 makes comparison of incidences between trial groups impossible.<br><br>Programme impacts on the 18 month prevalence of these infections are subject to scrutiny. |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes  |
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| <p>Bansal, P.G.; Toteja, G.S.; Bhatia, N.; Vikram, N.K. and Siddhu, A. (2016) 'Impact of Weekly Iron Folic Acid Supplementation With and Without Vitamin B12 on Anaemic Adolescent Girls: A Randomised Clinical Trial', <i>European Journal of Clinical Nutrition</i>, 70:6, 730-7.</p> | <p>India<br/>Health programme<br/>Folic Acid supplements<br/>Girls</p> | <p>Funded by: M/s Cyano Pharma Private Limited, Indore.</p> <p>Randomised double- blind clinical trial to assess and compare the impact of weekly iron folic acid (IFA) supplementation with or without vitamin B12 on reduction in the prevalence of anaemia and on blood/serum levels of haemoglobin, serum ferritin, folic acid and vitamin B12.</p> <p>Methods: A total of 446 mild (100-119 g/l) and moderate (70-99 g/l) anaemic volunteer adolescent girls were identified and randomised into two groups.</p> <ul style="list-style-type: none"> <li>Weekly supervised supplementation given for 26 weeks.</li> </ul> | <p>In India, approximately 70% of all adolescent girls are anaemic (haemoglobin &lt;120 g/l).</p> <p>There was a reduction in the prevalence of anaemia by 35.9% in Group A and 39.7% in Group B (P &gt; 0.05).</p> <p>A total of 63.3% participants had deficient vitamin B12 levels (&lt;203 pg/ml) at baseline, which reduced to 40.4% after intervention with Cyanocobalamin, whereas no change was observed in Vitamin B12 status in the other group.</p> <p>Significant reduction (P = 0.01) in the prevalence of serum ferritin deficiency (&lt;15 ng/ml) was observed in the group supplemented with vitamin B12 (from 36.5 to 6.4%) as compared with the other group supplemented with only IFA (from 39.1 to 15.2%).</p> | <p>Study shows that IFA supplementation with or without vitamin B12 is an effective measure to prevent anaemia. Although addition of vitamin B12 had similar impacts on improving haemoglobin status as IFA alone, it resulted in better ferritin status.</p> <p>More multi-centre studies with a longer duration of supplementation or higher dose of vitamin B12 may be undertaken to assess the possible impact of vitamin B12 on improving haemoglobin levels in the population.</p> <p>** ferritin is used as a diagnostic test for iron deficiency anaemia.</p> | <p>No specific age group (10-14) analysed.</p> |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes   |
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| <p>Erulkar, Annabel; Mekbib, Tekle- Ab; Simie, Negussie and Gulema, Tsehai (2006)</p> <p>‘Differential Use of Adolescent Reproductive Health Programmes in Addis Ababa, Ethiopia’, <i>Journal of Adolescent Health</i>, 38:3, 253-60.</p> | <p>Ethiopia</p> <p>Addis Ababa</p> <p>Slums</p> <p>Health programmes</p> <p>Males and females</p> | <p>Funded by: UNICEF Ethiopia and DfID</p> <p>Population-based surveys among over 1000 adolescents aged 10-19 in slum areas of Addis Ababa, Ethiopia.</p> <p>An inventory of youth programmes including youth centres and peer education programmes was compiled in the study area.</p> <p>Separate focus group discussions (FGDs) were conducted with adult males and females (6FGDs) (aged 22–60 years) and youth (16FGDs) (boys and girls, aged 10–19 years). Each group included 8–10 participants. A total of 46 adults and 148 youth participated.</p> | <p>This study examines the coverage and utilisation of existing adolescent programmes in Addis Ababa, Ethiopia.</p> <p>Note: Household listing data from the 2000 Ethiopia DHS reveals that 36% of Addis Ababa girls aged 10 to 19 years live with neither parent, compared with only 16% of boys the same age. Results of FGDs:</p> <p>Eight peer education programmes and six youth centres were operating in the study area.</p> <p>20% of boys and only 7% of girls had visited a youth centre in the last year; 27% of boys and 15% of girls had had contact with a peer educator.</p> <p>Older adolescents, especially boys, were more likely to utilise programmes.</p> <p>Girls who work long hours and who are isolated are less likely to access and benefit from programmes.</p> | <p>Recommendations: Greater targeting of different characteristic of the adolescent population is needed in the design and content of adolescent reproductive health programmes.</p> <p>Programmers should pay attention to the specific circumstances of young people in local settings, particularly vulnerable, hard-to-reach sub-groups of adolescents, including girls.</p> | <p>10-19 used but no dedicated analysis of 10-14 year olds</p> <p>Although most programmes did include the age band 10 to 19, some did not target adolescents below age 15.</p> |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes   |
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| <p>Erulkar, Annabel and Muthengi, Eunice (2009) 'Evaluation of Berhane Hewan: A Program to Delay Child Marriage in Rural Ethiopia', <i>International Perspectives on Sexual and Reproductive Health</i>, 35:1, 6-14.</p> | <p>Ethiopia<br/>Amhara<br/>Rural area<br/>Berhane Hewan<br/>10-19 year old girls</p> | <p>Funded by: the Ethiopia Ministry of Youth and Sport and the Amhara Regional Bureau of Youth and Sport.</p> <p>Study of the 2004-2006 programme seeking to delay child marriage (<b>50% of girls in the</b> Amhara area are married before their 15th birthday) through group mentoring, providing support to enable girls to remain in school, non-formal education, livelihood training, and community awareness interventions.</p> <p>Programme gave a goat to each girl who remained unmarried after the 2 year project (worth USD 20).</p> | <p>At baseline, rates of marriages for girls aged 10-14 were similar in the two villages; at endline the number of girls aged 10-14 included in the study who were married in the previous two years in the intervention village was zero whereas in the control village the figure was 5%. 10-14 year olds in intervention communities were three times more likely to be in school compared with control group.</p> <p>15-19 year old girls were more likely to be married by endline survey (families may hold off marrying their girls up to the age where they could still qualify for programme benefits). (Ethiopian law now prohibits marriage under age 18).</p> <p>Girls in the programme were also more knowledgeable on HIV, STIs, and family planning, and were three times more likely to have used any family planning.</p> | <p>Girls reported particular satisfaction with the mentor- led clubs. They felt that participation in these groups improved their school attendance, helped delay their marriages and taught them about contraception.</p> <p>Study highlights the need for further research specifically examining the balance of power and health effects of marriages in later adolescence. It is unclear if measures of wellbeing are still low for girls married in later adolescence compared with adult marriages.</p> <p>Delaying marriage age by just a few years has significant impacts on a girl's life prospects and the demographic burden, in general.</p> <p>Community is an integral part of the intervention.</p> | <p>Baseline and endline surveys.</p> <p>No follow-up to confirm whether delay in marriage is correlated with changing social norms.</p> |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes   |
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| <p>Krishnan, Pramila and Krutikova, Sofya (2013) 'Non-cognitive Skill Formation in Poor Neighbourhoods of Urban India', Labour Economics, 24:c, 68-85.</p> | <p>India<br/>Mumbai<br/>Slums<br/>Akanksha programme<br/>Adolescents</p> | <p>Akanksha is a local NGO that has been active in Mumbai for 18 years. Programme aim: to raise the non- cognitive skills of deprived children over the long-term (self- esteem; life evaluation) through a ten level programme taught in daily, three-hour long after-school sessions. Levels 1-7: emphasise having a good time and building up non-cognitive skills.</p> <p>Levels 8-10: prepare adolescents for employment and build their life skills.</p> <p>Lessons incorporate activities with sports, art and drama components. There is also a mentoring scheme and additional regular workshops around traumatic events</p> <p>Intervention group: n=58<br/>Control group: n=46</p> | <p>Those enrolled in Akanksha have demonstrably greater non-cognitive skills.</p> <ul style="list-style-type: none"> <li>Substantial impacts on both self-esteem and self-efficacy (of around one standard deviation).</li> <li>Less evidence of impact on life evaluation and aspirations.</li> <li>-Both self-esteem and self-efficacy are positively related to success in school-leaving examinations and initial labour market outcomes.</li> </ul> <p>Sample consists of children who were enrolled in the mid-1990s, and came from 4 different Mumbai slum areas.</p> <p>Around 15–20 children 6-7 years old per community were admitted in this first cohort and taught in a centre usually located at a local school hall.</p> <ul style="list-style-type: none"> <li>Parents had to make sure their children were enrolled in primary school.</li> </ul> | <p>It's difficult to measure skill accumulation over short term.</p> <p>Evidence from the psychology literature suggests strongly that these skills are unstable in early childhood and adolescence and are most stable (and hence measurable) between early adulthood and middle age.</p> <p>Programme has grown rapidly. Akanksha is currently working with over 3500 children in 58 centres and 6 schools in Mumbai and nearby city of Pune. Current attrition rates are 4% per year — the bulk of dropout occurs within the first two years of enrolment, mainly because of moves by the family or school timetable changes.</p> | <p>No specific gender analysis<br/>Average age 19 in study.</p> |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives   | Findings  | Explanation/ Policy suggestions  | Notes  |
|---|--|--|---|--|--|
| Mekbib, Tekle-Ab and Molla, Mitike (2010) 'Community Based Reproductive Health (RH) Intervention Resulted in Increasing Age at Marriage: The Case of Berhane Hewan Project, in East Gojam Zone, Amhara Region, Ethiopia', <i>Ethiopian Journal of Reproductive Health</i> , 4:1, 16-25. | <i>Ethopia</i><br>Amhara<br>Rural areas<br>Berhane Hewan<br>10-19 year old girls | A programme of the Ethiopia Ministry of Youth and Sport and the Amhara Regional Bureau of Youth and Sport.<br><br>Study of the 2004- 2006 programme seeking to delay child marriage (50% of girls in the Amhara area are married before their 15 <sup>th</sup> birthday) through group mentoring, providing support to enable girls to remain in school, non-formal education, livelihood training, and community awareness interventions.<br><br>9 in-depth interviews plus 150 survey respondents among fathers, mothers and husbands of girls who were participants of the Berhane Hewan project. | Community conversation, social mobilisation and school material support could be used as major intervention components to replicate the Berhane Hewan programme.<br><br>Providing school supplies were influential in keeping girls in school (88% of fathers, 92% of mothers and 60% of husbands). Delaying marriage reasons: - Community Conversations mentioned most often by respondents (76% fathers, 66% mothers and 84% husbands).<br><br><ul style="list-style-type: none"> <li>Group mobilisation of girls was mentioned by 68% of fathers, 66% of mothers and 78% of husbands.</li> </ul> | Economic incentives were important early on, but lost import once dialogues began to shift.<br><br>School material support is required to increase opportunities for girls education.<br><br>Family planning knowledge: Community conversation, Group meetings by mentors, House-to-house visits by mentors were mentioned first, second and third, respectively as intervention components that brought about improvements. | The programme elements and sequencing which are critical to success remains unclear.<br><br>No access to full article. |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives  | Findings  | Explanation/ Policy suggestions  | Notes  |
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| Mitra, Sugata and Dangwal, Ritu (2010) 'Limits to Self-Organising Systems of Learning— the Kalikuppam Experiment', <i>British Journal of Educational Technology</i> , 41:5, 672–88. | India<br>Rural areas<br>Kalikuppam programme<br>Education<br>ICT<br>10-14 year olds | <p>Testing self-organised learning of 10–14 year old Tamil-speaking children in a remote Indian village.</p> <p>They learn about basic molecular biology, initially on their own with a Hole-in-the-Wall public computer facility, and later with the help of a mediator without knowledge of this subject (n=34 children).</p> <p>Comparison with similarly- aged children at a nearby average-below average performing state government school who were not fluent in English but were taught this subject and another group of children at a high- performing private school in New Delhi who were fluent in English and had been taught this subject by qualified teachers.</p> | <p>Village children who only had access to computers and Internet-based resources in the Hole-in-the-Wall learning stations achieved test scores comparable with those at the local state school and, with the support of the mediator, equal to their peers in the privileged private urban school.</p> <p>Further experiments were conducted with unsupervised groups of 8– 12 year-olds in several English schools using the Internet to study for GCSE questions they normally would be examined on at the age of 16.</p> | <p>There are opportunities for self-organised and mediated learning by children in settings where they would otherwise be denied opportunities for good, or indeed any, schooling.</p> <p>This approach can be enhanced by the use of local or online mediators.</p> | <p>Rural study.</p> <p>A 14 year old girls became the mentor.</p> <p>No specific age group or gender analysis.</p> |



| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives  | Findings  | Explanation/ Policy suggestions   | Notes   |
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| Peña, R.; Quintanilla, M.; Navarro, K.; Martínez, J.; Castillo, V.; Pérez, W. and Källestål, C. (2008) 'Evaluating a Peer Intervention Strategy for the Promotion of Sexual Health- Related Knowledge and Skills in 10- to 14-Year-Old Girls. Findings from the "Entre Amigas" Project in Nicaragua', <i>American Journal of Health Promotion</i> , 22:4, 275-81. | Nicaragua<br>'Entre Amigas' project<br>Health<br>Gender<br>10-14 year old girls | Subjects A total of 599 girls were surveyed, 60% non-intervened and 40% intervened.<br><br>Intervention consisted of<br>i) meetings in which girls talked and worked with other girls,<br>ii) mothers taking an active role in the peer groups, and/or<br>iii) girls were watching the soap opera "Sexto Sentido".<br><br>The study measured changes in sexual knowledge and gender vision. | Girls participating in the peer groups were twice as likely to have satisfactory sexual health- related self-esteem as those who did not participate.<br><br>11% of the girls achieved satisfactory self-esteem as a result of the (peer groups × mothers) interaction and<br><br>15% due to the (peer groups × mothers × "Sexto Sentido") interaction.<br><br>Girls participating in the peer groups were three times as likely to have satisfactory gender visions; if exposed to all three components, they were almost four times as likely to develop 'satisfactory' gender visions. | Peer methodology, participation of a female family member, and an educational soap opera seem beneficial in promoting sexual health-related knowledge and gender vision in young girls. | No access to full article.<br><br>Unclear about mothers' role and rural-urban region. |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes  |
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| Rotheram- Borus, Mary Jane; Lightfoot, Marguerita; Kasirye, Rogers and Desmond, Katherine (2012) 'Vocational Training with HIV prevention for Ugandan Youth', <i>AIDS and Behavior</i> , 16:5, 1133-7. | Uganda<br>Kampala<br>Slums<br>HIV prevention programme<br>Street Smart programme<br>13-23 year olds<br>Homeless youth | <p>Evidence-based intervention adapted for high risk youth in slums in Kampala Uganda.</p> <p>'Street Smart' programme is aimed predominantly at homeless youth and tries to reduce sex, alcohol, and drug-use transmission- related acts.</p> <p>Pilot study, young people in Street Smart programme were randomised to receive vocational training immediately (Immediate) or four months later (Delayed).</p> <p>2005-2006, 100 youth were recruited from two different youth centres in the slums of Kampala, Uganda. Each participant's initial assessment and the 4- and 24-month follow-up assessments were conducted by the same interviewer. Retention was 85% at 4 months and 74% at 24 months.</p> | <p>Employment increased dramatically: Only 48% had ever been employed at recruitment, 86% were employed from months 21 to 24 post recruitment. Over two years, decreases were recorded in the number of sexual partners, mental health symptoms, delinquent acts, and drug use; condom use increased.</p> <p>Vocational training consisted of apprenticeships with local artisans for training in hairdressing, catering, tailoring, mechanics, electronics, carpentry, cell phone repair, and welding. Youth attended classes regularly for 4–8 hours, 5 days a week; no more than five youth were assigned to each artisan. Artisans received 5-day training and topics included: how to talk to youth, conflict resolution, HIV prevention, how to have conversations with youth about HIV and how to cope with unprofessional behaviour (e.g., tardiness, hygiene problems).</p> | Providing employment in low income countries, in conjunction with HIV prevention, may provide sustained support to young people to prevent HIV acquisition. | No specific age-analysis or focus on gender. |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes  |
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| <p>Sahni, Urvashi (2012) <i>From Learning Outcomes to Life Outcomes: What Can You Do and Who Can You Be? A Case Study in Girls' Education in India</i>, Working Paper 4, (Washington DC: Center for Universal Education at the Brookings Institution).</p> | <p>India<br/>1 school Gomtinagar in Lucknow, India<br/>Education<br/>PRERNA school<br/>Afternoon school for girls</p> | <p>Prerna (which means 'inspiration') is an all-girl formal school run by a private NGO (Study Hall Educational Foundation). This model school was built around a critical feminist pedagogy. Prerna was founded in 2003 and covers all grades from pre-school to grade 12. It has reached 5000 girls.</p> <p>The school meets in the afternoon to accommodate the needs of girls whose economic circumstances require that they work (of lowest castes and poorest slums).</p> <p>Community and parental engagement are important parts; parents have to sign to protect their girls from child marriage. Pedagogy is engaging, interactive and activity-based. Curriculum is enriched with a strong emphasis on English fluency, sports, martial arts, music, art and drama encouraging girls to develop a strong voice. The relevance of the curriculum is enhanced with explicit empowerment and gender studies.</p> | <ul style="list-style-type: none"> <li>• Good retention, graduation, academic performance.</li> <li>• Each child is given a snack every day, which helps boost attendance, and regular health check-ups are conducted free of charge for students.</li> <li>• Teachers are engaging and interactive, and use activity- based learning approaches. <ul style="list-style-type: none"> <li>• incorporation of critical dialogues throughout its lessons, creating a space where girls can think about issues of gender equality and talk through and understand the oppression they face every day.</li> <li>• gender equality is built into its curriculum and taught like other subjects with the goal of developing girls' ability to challenge and resist discrimination.</li> </ul> </li> <li>• Computer and vocational training are also provided to equip girls with skills that enable them to participate in income-generating activities other than domestic work.</li> </ul> <p>The results have been good in retention, graduation, academic performance, and job transitions.</p> | <p>Prerna students outperform national and state averages on indicators of attendance, completion, and language and mathematics achievement.</p> <p>A total of 90% of Prerna's six cohorts of students have completed grade 10, compared with the national average of 39%. And of those who complete grade 10, 88% go on to tertiary education.</p> <p>Its empowerment curriculum is now being used by 106 public schools in India.</p> | <p>Document no longer digitally available.</p> |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings  | Explanation/ Policy suggestions   | Notes   |
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| Sinclair, Jake; Sinclair, Lee; Evans, Otienoc; Mulinge, Munyae; Kappahn, Cynthia and Golden, Neville H. (2013) 'A Self-defence Program Reduces the Incidence of Sexual Assault in Kenyan Adolescent Girls', <i>Journal of Adolescent Health</i> , 53:3, 374-80. | Kenya<br>Nairobi<br>Korogocho<br>Kariobangi North<br>Slum<br>Self- defence programme<br>14-21 years old girls | <p>To analyse impacts of 6-week self-defence programme for high school girls in Nairobi slum.</p> <p>Population-based survey of 522 high school girls in the urban slum Korogocho (intervention group) and Kariobangi North (control group) in Nairobi, Kenya</p> <p>A total of 522 girls (mean age, 16.7 ± 1.5 years; range, 14–21 years) completed same surveys at baseline, and 489 at 10- month follow-up.</p> <p>A standardised 6-week self-defence programme is effective in reducing the incidence of sexual assault in slum-dwelling high school girls in Nairobi.</p> | <p>At baseline, 24.5% reported sexual assault in the prior year, with the majority (90%) reporting assault by someone known to them (boyfriend, 52%; relative, 17%; neighbour, 15%; teacher or pastor, 6%).</p> <p>In the self-defence intervention group, the incidence decreased from 24.6% at baseline to 9.2% at follow-up (<math>p &lt; .001</math>),</p> <p>In control group, the incidence remained unchanged (24.2% at baseline and 23.1% at follow-up; <math>p = .10</math>).</p> <p>A total of 215 girls in the intervention group (56.4%) reported having used the self- defence skills to successfully fight off an attacker and avoid the assault in the year after the training. Of these, 108 (50%) used verbal skills alone, 71 (33%) started with verbal skills and then added physical skills, and 36 (17%) used physical skills alone.</p> | <p>Cost benefit analysis: The basic self-defence programme evaluated in this study was taught in &lt; 12 hours, followed by several additional booster sessions. Training was provided at a cost equivalent of \$1.75 USD per student, a fraction of the estimated \$86 currently spent on immediate medical aftercare services for each sexual assault victim treated in Africa (excluding mental health treatment, unwanted mental health treatment or treatment of unwanted pregnancy, sexually transmitted infections, or HIV/AIDS).</p> <p>With adequate resources, this standardised, manual- based intervention could be replicated at multiple sites.</p> | <p>Age group is 14-21.</p> <p>Not a cluster randomised trial.</p> <p>No linking of individual respondent based line and follow up data.</p> |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy   | Notes                   |
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| <p>Ssewamala, Fred M.; Ismayilova, Leyla; Mckay, Mary; Sperber, Elizabeth; Bannon, William and Alicea, Stacey (2010) 'Gender and the Effects of an Economic Empowerment Program on Attitudes Toward Sexual Risk-Taking Among AIDS-Orphaned Adolescent Youth in Uganda', <i>Journal of Adolescent Health</i>, 46:4, 372-8.</p> | <p>Uganda<br/>Rural areas<br/>Sexual health among orphans<br/>SUUBI intervention<br/>Mean age 13.7</p> | <p>Adolescents (average age 13.7 years) who had lost one or both parents to AIDS from 15 schools randomly assigned to either experimental (n=135) or control condition (n=142).</p> <ul style="list-style-type: none"> <li>• Participants assigned to the control condition received the usual care for orphaned children, consisting of counselling and educational related supplies.</li> <li>• All participants received health education.</li> <li>• Participants assigned to the SUUBI-programme received the usual care plus: 1. 12 1-2 hour workshops over a 10- month period focused on assets-building and financial planning incl. saving, education and small business development; 2. monthly mentorship programme for adolescents with peer mentors on planning and life options; 3. a matched child savings account.</li> </ul> | <p>Adolescents in the experimental condition, in addition to usual care, also received support and incentives to save money toward secondary education.</p> <p>Finding suggests that</p> <p>SUUBI intervention may have increased boys' protective attitudes towards sexual risk- taking behaviours but probably did not benefit girls in an equivalent way.</p> <p>Girls in the control group actually became more accepting of risky sexual behaviours at the 10- month follow-up, yet girls in SUUBI intervention group maintained their original degree of protective attitudes. The intervention appears to have benefited girls in SUUBI intervention, but probably in a different way and to a lesser extent than for the males.</p> <p>Although adolescent boys and girls within the experimental condition saved comparable amounts, the intervention appears to have benefited girls, in regards to the attitudes towards sexual risk-taking behaviour, in a different way and to a lesser extent than boys.</p> | <p>Future research should investigate the possibility that adolescent girls might be able to develop equally large improvements in protective attitudes towards sexual risk- taking through additional components that address gendered social norms.</p> | <p>Rural programme.</p> |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives  | Findings   | Explanation/ Policy   | Notes  |
|---|---|---|--|---|--|
| <p>Tucker Halpern, Carolyn; Mitchell, Ellen M.H.; Farhat, Tilda and Bardsley, Phil (2008) 'Effectiveness of Web-based Education on Kenyan and Brazilian Adolescents' Knowledge About HIV/AIDS, Abortion Law, and Emergency Contraception: Findings From TeenWeb', <i>Social Science and Medicine</i>, 67:4, 628–37.</p> | <p>Nairobi and Rio de Janeiro<br/>Teen<br/>Web project<br/>Health<br/>14-16 years old<br/>School pupils</p> | <p>Reports results from an evaluation of the TeenWeb project, a multi-year, web-based health education intervention implemented in two urban settings: Nairobi, Kenya (N = 1178 school students) and Rio de Janeiro, Brazil (N = 714 school students).</p> <p>A quasi-experimental, school-based pre-test/post-test design was implemented at each study site to determine if easy access to web-based reproductive health information, combined with 'priming' about reproductive health topics, would result in improved knowledge and attitudes about topics such as condom use, access to HIV testing, emergency contraception and abortion laws.</p> | <p>Students in web-access schools completed one web-based module approximately every 6–8 weeks, and in return, had access to the Internet for at least 30 min. Students were encouraged to access project-supplied web-based health information, but they could choose anything.</p> <p>Most measures showed statistically significant differences between students in 'web' and 'comparison' conditions at post-test, but only around half of the differences were in the hypothesised direction.</p> <p>Results of an embedded experiment employing more directed feedback tripled the likelihood of correctly reporting the duration of emergency contraception effectiveness.</p> <p>Review of URL logs suggests that the modest results were due to inadequate exposure to educational materials.</p> | <p>Little evidence is available about the utility of web-based health education for students in low resource settings.</p> <p>Future intervention should focus on teen's purposeful searching for health information when they are in personal circumstances of unmet health needs.</p> | <p>14-16 age group.</p> <p>No mention of slum or gender-specific analysis.</p> |

## Mental Health Programmes

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives  | Findings  | Explanation/ Policy | Notes  |
|---|--|---|---|---------------------|--|
| Ager, Alastair; Akesson, Bree; Stark, Lindsay; Flouri, Eirini; Okot, Braxton; McCollister, Faith and Boothby, Neil (2011) 'The Impact of the School-based Psychosocial Structured Activities (PSSA) Program on Conflict- affected Children in Northern Uganda', <i>Journal of Child Psychology and Psychiatry</i> , 52:11, 1124-33. | Uganda<br><br>School-based<br>Psychosocial<br>Structured<br>Activities (PSSA)<br><br>Mental Health         | Displaced children aged 7–12 years in primary schools.<br><br>Approach is designed to enhance resilience, coping skills, self-esteem and future planning through structured activities around play therapy, art, drama in 15 × 60 min sessions delivered over course of five weeks.<br><br>N = 403 primary school students (mean age 10.23 years) from 12 schools (8 interventions) in Uganda 12 month follow | Significant improvement in participants' wellbeing, as measured by parents and children (but not teachers). Evidence from parent and teacher suggest girls make greater progress than boys.   | N/A                 | No specific mention of slums or urban areas. |
| Mueller, Joanne; Alie, Collin; Jonas, Beatrice; Brown, Elizabeth and Sherr, Lorraine (2011) 'A Quasi- experimental Evaluation of a Community-based Art Therapy Intervention Exploring the Psychosocial Health of Children Affected by HIV in South Africa', <i>Tropical Medicine and International Health</i> , 16:1, 57–66.        | South Africa<br><br>Children affected by HIV and AIDS aged 8–18 in deprived community<br><br>Mental health | Community- based psychosocial intervention consisting of art education activities designed to build a sense of self-worth, empowerment and emotional self-control Programme implemented in school by trained youth workers.<br><br>N = 297 youth aged 8–18 years from one school  | Sessions were led by team of trained and supervised 'youth ambassadors'.<br><br>Being violent towards others and witnessing violence in the home were key predictors of weak feelings of self-efficacy.<br><br>Significant programme effects on self-efficacy scores.<br><br>No programme effect on scores for depression, emotional and behavioural wellbeing, or self-esteem. | N/A                 | No specific mention of slums or urban areas  |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives   | Findings  | Explanation/ Policy suggestions | Notes   |
|--|--|--|---|---------------------------------|---|
| <p>Kumakech, Edward; Cantor-Graae, Elizabeth; Maling, Samuel and Bajunirwe, Francis (2009) 'Peer-group Support Intervention Improves the Psychosocial Wellbeing of AIDS Orphans: Cluster Randomized Trial', <i>Social Science and Medicine</i>, 68:6, 1038–43.</p> | <p>Children aged 10–15 years reported to have lost one or both parents due to AIDS<br/>Mental health</p> | <p>Peer-support intervention aims to encourage participants to reflect, challenge and face difficult experiences and to develop coping skills Twice-weekly peer support exercises held in classroom for 10 weeks.<br/>Teachers trained to deliver intervention.<br/>Cluster-randomised control trial</p> | <p>Significant reduction in:</p> <ul style="list-style-type: none"> <li>• anxiety scores</li> <li>• depression scores</li> <li>• anger scores</li> </ul> <p>Peer-group support exercises were originally intended for adults but were adapted for children.</p> | <p>N/A</p>                      | <p>No specific mention of slums or urban areas.</p> |



| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes   |
|--|--|---|--|--|---|
| <p>Smith, Edward A., Palen, Lori-Ann; Caldwell, Linda L.; Flisher, Alan J.; Graham, John W.; Mathews, Catherine; Wegner, Lisa and Vergnani, Tania (2008) 'Substance Use and Sexual Risk Prevention in Cape Town, South Africa: An Evaluation of the HealthWise Program', <i>Prevention Science</i>, 9:4, 311–21.</p>       | <p>South Africa<br/>Cape Town<br/>Township<br/>Secondary school students grades 8–9 (mean age 14 years)<br/>HealthWise Programme<br/>Mental health</p> | <p>School-based leisure, life skills and sexuality education intervention in which 12 lessons provided in grade 8 followed by 6 booster sessions in grade 9. Programme delivered by class teachers. Schools with greatest investments in teacher training and implementation reported more positive outcomes in student motivation.<br/>N = 2193 adolescents (mean age 14 years)<br/>Life Orientation curriculum taught in control schools.</p> | <p>Significant increase in:</p> <ul style="list-style-type: none"> <li>• intrinsic motivation</li> <li>• perception of condom availability in intervention group.</li> </ul> <p>Control group had 'steeper increase' in recent and heavy use of alcohol and cigarettes than programme participants indicating positive programme effects on alcohol and cigarette use.</p> | <p>N/A</p>   | <p>No specific gender analysis</p>  |
| <p>Ball Cooper, Laurie and Fletcher, Erin K. (2013) <i>Reducing Societal Discrimination Against Adolescent Girls Using Social Norms to Promote Behaviour Change</i>, (London: Girl Hub).<br/><a href="http://www.girleffect.org/media?id=3046">http://www.girleffect.org/media?id=3046</a> (accessed 16 November 2016)</p> | <p>LMIC<br/>Programme overview<br/>Social norms<br/>Behaviour<br/>Adolescents 10-19 years old</p>  | <p>Review of programmes that aim at reducing societal discrimination against adolescent girls in LMICs.<br/>Overviews of programmes targeted at social norms, including marketing campaigns; multi-faceted community interventions and legal reforms evaluated with respect to social norms (e.g. compulsory schooling, inheritance law).</p>   | <p>Some programmes had unintended consequences (e.g. when boys in the 'Soul Buddyz', an 'edutainment' intervention run by the Soul City NGO in South Africa), are narrated as subjects and girls as the object of their desire in the plot line of a programme.</p>  | <p>Paucity of evidence as to the effectiveness of social norms interventions in reducing discrimination<br/>Many programme evaluations have methodological shortcomings<br/>More quasi-experimental study designs should be used</p> <ul style="list-style-type: none"> <li>• Importance of targeting the correct audience effectively to bring about behaviour change.</li> </ul> | <p>Doesn't specifically discuss the impacts of programmes in urban slums.</p> |

| Author(s)/ Publication   | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes  |
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| <p>Barry, Margaret; Clarke, Aleisha M.; Jenkins, Rachel and Patel, Vikram (2013) 'A Systematic Review of the Effectiveness of Mental Health Promotion Interventions for Young People in Low and Middle Income Countries', BMC Public Health, 13:835.</p>   | <p>LMIC<br/>Mental health<br/>Meta study</p>                             | <p>A 2013 review of mental health promotion interventions for young people aged 6 to 18 in LMICs found moderate to high evidence of impact for both school-based and community-based interventions in terms of emotional and behavioural outcomes.</p>  | <p>Of the 22 reviewed interventions, programmes included focus on life skills, recreation and resilience training, cognitive behavioural strategies, family skills building, and psychosocial interventions for children affected by armed conflict.</p>   | <p>The review findings highlight the potential of multicomponent programmes, which partner delivery of school-based social and emotional skill training with parents and the local community. In some cases, gender-differentiated effects were observed, signifying the need for further gender-specific research.</p>  | <p>Meta study<br/>List of 22 interventions reviewed (5 of them reviewed in this RER as it speaks to slums and 10-14 year olds)</p> |
| <p>Blanc, Ann K., Melnikas, Andrea; Chau, Michelle and Stoner, Marie (2013) <i>A Review of the Evidence on Multi-sectoral Interventions to Reduce Violence Against Adolescent Girls</i>, (London: Girl Hub).<br/><a href="http://www.girl-effect.org/medi_a?id=3013">http://www.girl-effect.org/medi_a?id=3013</a><br/>(accessed 16 November 2016)</p> | <p>LMIC<br/>Programme overview<br/>Violence prevention and reduction</p> | <p>Review of multi-sectoral programmes aimed at reducing violence<br/>Based on internet search. Search strategy yielded 45 studies. Included were 14 studies that have been completed or are still ongoing.<br/>Programmes reviewed include Biruh Tesfa (Ethiopia), Better Life Options (India), Ishraq (rural Upper Egypt), and Stepping Stones (for 15-26 year old men, various countries).</p> | <p>Findings:<br/>Lack of methodologically-rigorous evaluations of tested multi-sectoral intervention strategies. However, there are ongoing evaluations that will increase the evidence base.<br/>Increasing level of economic empowerment of adolescent girls may be effective in reducing violence when accompanied by programmes which also build self-efficacy and other skills.</p> | <p>Longitudinal evaluations could be especially useful for assessing the impact of interventions on adolescent girls. Building 'protective' social, economic and health assets during childhood and early adolescence are likely to yield longer-term benefits. 'Legacy' effects can arguably only be observed after a period that is longer than initial evaluations undertaken on project completion, for example, later marriage, less violence in later adolescent and adult life, greater female labour force participation and so on.</p> <ul style="list-style-type: none"> <li>It can be difficult to obtain approval for research that involves collecting data on young girls under the age of consent.</li> </ul> | <p>Many programmes address rural areas</p>   |

| Author(s)/ Publication   | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions  | Notes   |
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| Bruce, Judith and Hallman, Kelly (2008) 'Reaching the Girls Left Behind', <i>Gender and Development</i> , 16:2, 227- 45.   | Overview of some Population Council- funded youth and HIV- prevention programmes  | Example of Population Council programmes such as Biruh Tesfa ('Bright Future', Ethiopia), and others that are incorporated in main text if the target group included 10-14 year-olds.                | Overview of youth programmes, with relevant reports published 2006-2016, included in the text.   | The policy analyses and programme experiences presented in this article emphasise the crucial importance of addressing girls' social, economic, and health vulnerabilities, and building-up their protective assets. Without such measures, a substantial proportion of vulnerable girls will be 'left behind', and as a result will carry a rising and disproportionate share of HIV infection in decades to come.  | An informative overview of Population Council programmes for adolescents.   |
| Catino, Jennifer (2012) The Health of Vulnerable Adolescent Girls: A Strategic Investment for Double Return (New York: Population Council). <a href="http://www.populationcouncil.org/uploads/pdfs/2012PGY_GirlsFirst_Health.pdf">http://www.populationcouncil.org/uploads/pdfs/2012PGY_GirlsFirst_Health.pdf</a> (accessed 2 November 2016) | LMIC<br>Overview Programmes<br>Health<br>Education programmes<br>Adolescent girls | Particular mention is made of The Population Council's 'Abriendo Oportunidades' (AO/Opening-up Opportunities) programme designed to reach and empower indigenous girls aged 8–18 in rural Guatemala. | Provides some statistics about health issues that girls face in the transition to puberty (e.g. FGM, paid work, withdrawal from school, pregnancy, violence). But report is more about wants and needs, and recommendations for future programmes with brief examples. No evaluations, but itemisation of tools and materials which can be used by practitioners for health education.<br><br>It is also suggested that ICTs may help deliver timely information to girls and help them connect with one other and with networks and services which can enhance their health, safety, and wellbeing. | Recommendations:<br><br>Bring essential health information and services to vulnerable girl subgroups early, wherever they can be found (e.g. in schools, community centres and neighbourhood shops and store, workplaces, markets, churches, NGOs).<br><br>Alternative approaches and strategies to reach these girls appropriately and to improve their health and safety, include outreach and community-based distribution of health commodities, mobile health services, and social marketing and use of emerging technologies, such as cell phones. | Useful overview of programmes but no evaluation.<br><br>Focus is not exclusively on 10-14 year-olds in urban areas. |

| Author(s)/ Publication  | Country/ Key words  | Methods/Objectives   | Findings   | Explanation/ Policy suggestions   | Notes   |
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| Hallman, Kelly; Stoner, Marie; Chau, Michelle and Melnikas, A.J. (2013) <i>A Review of Control- comparison Interventions on Girls and Health in Low- and Middle- income Countries</i> , (London: Girl Hub). <a href="http://www.girl-effect.org/media?id=3012">http://www.girl-effect.org/media?id=3012</a> (accessed 16 November 2016) | LMIC<br>Overview<br>Health programmes<br>Adolescent girls | The thematic breakdown of the 49 featured studies is as follows: <ul style="list-style-type: none"> <li>• 18 have a primary focus on HIV/AIDS.</li> <li>• 18 have a primary focus on sexual and reproductive health.</li> <li>• 6 have a primary focus on mental health.</li> <li>• 2 have a primary focus on non-communicable disease.</li> <li>• 49 studies' characteristics:</li> <li>• Approximately one-half are single-sex girl-only interventions.</li> <li>• Half include girls younger than 14 years of age.</li> <li>• One-third target school- enrolled girls with classroom- based content.</li> <li>• One-half took place in rural areas only, 20% in urban areas, and 27% in mixed urban and rural settings.</li> <li>• 60% involved random allocation of the intervention to participants.</li> <li>• 63% had a follow-up period longer than 12 months; 29% followed up after 24 months or more.</li> </ul> | Continued: <ul style="list-style-type: none"> <li>• Costing information was found for 20%</li> <li>• 61% were multi-level, engaging actors in addition to the targeted girl herself</li> <li>• One-quarter of studies incorporated school retention or school re- entry</li> <li>• 27% incorporated cash or in-kind incentives or offered credit</li> <li>• 31% included training in financial education or saving</li> <li>• 20% offered vocational training</li> <li>• 29% incorporated training in health, economic, social or legal rights</li> <li>• -45% had programme content designed for an age range of six years or less and/or a school grade range of three or fewer years</li> <li>• One-half offered girls a safe space in the community in which to meet.</li> </ul> | The interventions with greatest demonstrable impact on health status, health behaviours or health mediators for girls had the following common characteristics.<br><br>The majority were: <ul style="list-style-type: none"> <li>• single-sex, girl-only and not mixed interventions;</li> <li>• included girls younger than 14 years of age;</li> <li>• were offered to rural populations;</li> <li>• had a follow-up period of more than 12 months;</li> <li>• used a multi-level intervention approach;</li> <li>• provided a safe space in the community for girls to regularly meet in groups;</li> <li>• offered financial education or savings training;</li> <li>• had a rights training element;</li> <li>• employed age- or grade- specific targeting and content;</li> <li>• collected cost-benefit data.</li> <li>• conducted follow-ups in the longer-term.</li> </ul> | Half the studies includes girls younger than 14 years of age. |

| Author(s)/ Publication  | Country/ Key words                   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions   | Notes   |
|---|--------------------------------------|---|--|---|---|
| <p>Quisumbing, Agnes R. and Kovarik, Chiara (2013) Investments in Adolescent Girls' Physical and Financial Assets: Issues and Review of Evidence, (London: Girl Hub). <a href="http://www.girl-effect.org/media?id=3042">http://www.girl-effect.org/media?id=3042</a> (accessed 16.11.2016)</p> | <p>LMIC<br/>10-19 year-old girls</p> | <p>The paper provides a brief overview of the importance of economic assets to girls.</p> <p>Review of 38 programmes/ interventions/policy reforms, out of which 30 evaluations could be identified (1) those directed at girl's households/families ; (2) those directed at girls themselves; and (3) those attempting to change rules, procedures, and laws underlying the ability of girls to acquire, accumulate, and retain control of assets The paper focuses, in particular, on multi- sectoral/ integrated investments, with the goal of highlighting existing and promising research and programming in this area, as well as identifying critical gaps and future opportunities.</p> <p>Examined programmes include:</p> <ul style="list-style-type: none"> <li>• cash transfers</li> <li>• child savings accounts</li> <li>• combining a safe social space with livelihood and life-skills training and community participation.</li> <li>• -family law and inheritance law.</li> </ul> | <p>For adolescent girls in LMICs, the ability to own and control assets can contribute to improved livelihoods and a pathway out of poverty. Different types of assets, from natural resource capital to political capital, could be a means through which girls can invest in their own present and future wellbeing as they move through adolescence and into adulthood.</p> <p>The majority of the programmes reviewed, and for which evaluations have been conducted, are targeted at adolescent girls themselves, with other family members engaged to a lesser extent. Few programmes have focused on changing rules and laws governing property rights.</p> | <p>Having focused upon on the need to strengthen poor adolescent girls' ability to invest in and accumulate physical and financial assets, the paper concludes by summarising the extent of the evidence thus far, highlighting priorities for researchers and policymakers, and providing recommendations on the way forward by creating a supportive environment at the community and national level and by creating a mind-set that supports learning and innovation by practitioners.</p> | <p>The programmes that are listed either don't fall within the 10-14 age range or are not specifically focussed on slums.</p> |

| Author(s)/ Publication  | Country/ Key words   | Methods/Objectives  | Findings   | Explanation/ Policy suggestions  | Notes   |
|---|--|---|--|--|---|
| <p>Wamoyi, Joyce; Mshana, Gerry; Mongi, Aika; Neke, Nyasule; Kapiga, Saidi and Changalucha, John (2014) 'A Review of Interventions Addressing Structural Drivers of Adolescents' Sexual and Reproductive Health Vulnerability in Sub-Saharan Africa: Implications for Sexual Health Programming', <i>Reproductive Health</i>, 11:88</p> | <p>Sub-Saharan Africa<br/><br/>Sexual and Reproductive Health<br/><br/>14-24 year olds</p> | <p>A narrative summary of interventions in sub-Saharan Africa (SSA) addressing the structural drivers of adolescents' SRH risk, exploring pathways of change, and highlighting areas for further work</p> <p>Methods: 33 abstracts and summary reports were retrieved and perused for eligibility in the review.</p> <p>Review was limited to interventions conducted in SSA which attempted to tackle gender norms or inequities in livelihoods and poverty, and were aimed at vulnerable young people (aged 14-24 years).</p> <p>15 documents met inclusion criteria and were read in full. Papers and reports were manually-reviewed and 15 interventions that met the criteria for inclusion were summarised in a table format.</p> | <p>Most of the interventions addressed multiple structural factors, such as social norms, gender inequality, and poverty.</p> <p>Some interventions focused on reducing economic drivers which tend to increase sexual risk behaviours.</p> <p>Others focused on changing social norms and thus sexual risk behaviours through communication and education.</p> <p>Social norms addressed included gender inequality, gender violence, and child socialisation. The interventions included components on comprehensive sexuality and behaviour change, and communication and parenting, using different design and evaluation methods.</p> | <p>There are encouraging efforts towards addressing structural drivers among adolescents in SSA.</p> <p>There is a need for interventions to have a clear focus, with a clear idea of how to influence change, and have a rigorous evaluation strategy assessing how the intervention reduces vulnerability to HIV.</p> <p>Important lessons included the need for a flexible intervention design when addressing adolescents, the need for coordinated effort among different stakeholders.</p> | <p>Interesting case studies.</p> <p>Focus on 14-24 year olds.</p> |

*Gender and Adolescence: Global Evidence (GAGE) is a nine-year longitudinal research programme building knowledge on good-practice programmes and policies that support adolescent girls in the Global South to reach their full potential.*

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