# Q2: What are the effective interventions for preventing child abuse and its mental health consequences?

### Background

There is substantial amount of evidence that child abuse leads to mental disorders in future life. A long list of mental disorders has been found to be consequent to child abuse (WHO, 2009; Gilbert et al, 2009; Gershoff, 2002). Health systems commonly have to deal with the physical and mental health consequences. Health care systems at primary and secondary level need to develop skills on how to prevent child abuse and how to provide secondary prevention in terms of early identification and treatment and preventing further aggravation of the problem.

# Population/Intervention(s)/ Comparator/Outcome(s) (PICO)

Population: children and adolescents

Interventions: home visiting, parent education, child sex abuse prevention, abusive head trauma prevention, multi-component interventions, media-

based interventions, and support and mutual aid groups

Comparator: treatment as usual

Outcomes: prevention of child abuse/maltreatment

reduction of risks of abuse/maltreatment

overall performance at school and family

user and family satisfaction

improvement in physical health

## List of the systematic reviews identified by the search process

#### **INCLUDED IN GRADE TABLES OR FOOTNOTES**

The following two systematic reviews were identified, both are recent.

- Mikton C, Butchart A (2009). Child maltreatment prevention: a systematic review of reviews. Bulletin of World Health Organization, 87:353-61.
- MacMillan H et al.(2009). Interventions to prevent child maltreatment and associated impairment. Lancet, 373:250-66.

The first review was a review of reviews which applied the tool for the assessment of multiple systematic reviews (AMSTAR). It also included the second recent review which had been released as an e-version in 2008.

## **PICO table**

Serial	Intervention/Comparator	Outcomes	Systematic	Comments
No			reviews/relevant studies	
1	Seven main types of intervention: home visiting, parent education, child sex abuse prevention, abusive head trauma prevention, multicomponent interventions, media-based interventions, and support and mutual aid groups.	Physical abuse, sexual abuse, neglect, or emotional abuse perpetrated by a parent or caretaker against a child (bullying and witnessing intimate partner violence were excluded)	Mikton & Butchart (2009).	More comprehensive, better graded and has covered the second review as well.
2	Home-visiting programmes—the Nurse—Family Partnership population-level parenting programme;	Child physical abuse and neglect; Child protection reports; Maternal self-reported	MacMillan et al (2009).	Search strategy not clear enough

In-hospital and clinic strategies	child abuse;
show;	Substantiated child
School-based educational	maltreatment, out-of-
programmes prevent child	home placements, and
sexual abuse;	reports of injuries;
Specific parent-training	Abusive head injuries;
programme;	Children's knowledge
Cognitive-behavioural therapy;	and protective
Foster care placement	behaviours;
measures.	Psychological abuse;
	Recurrence of physical abuse or neglect.

# Narrative description of the studies that went into the analysis

Mikton & Butchart (2009) was a systematic review of reviews which focused on seven main types of intervention: home visiting, parent education, child sex abuse prevention, abusive head trauma prevention, multi-component interventions, media-based interventions, and support and mutual aid groups. Of the 3299 identified titles, 26 met the inclusion criteria which summarized 298 publications on primary single outcome evaluation studies and another 85 reviews and commentaries. Six of them were metaanalyses. They graded the quality of systematic reviews using AMSTAR score from 1-11 and graded evidence of effectiveness using scores of 1-5, and measured the impact both on direct outcome measures and risk factors.

Below is the Table 1 from the WHO publication by Mikton & Butchart 2009. You may refer to the footnote to learn about their grading system.

Table 1. Effectiveness scores for universal and selective child maltreatment prevention interventions, according to a systematic review of reviews

Overall evaluation	Other Chaffin, 2005™	Rubin et al., 2001 33	0lds et al., 2007 ∞	0lds et al., 2000 <sup>38</sup>	MacMillan et al., 2007 <sup>30</sup>	Mace, 2000 <sup>29</sup>	Krugman et al., 2007™	Kees & Bonner, 2005 27	Hébert & Tourigny, 2004≈	Daro & McCurdy, 2007 <sup>26</sup>	Chaffin & Schmidt, 2006™	Comprehensive reviews	MacIntyre & Carr, 2000 <sup>23</sup>	MacMillan, 2000zz	Klevens, 200321	Holzer et al., 2006™	Higgins et al., 200619	Billukha et al., 200517	Systematic reviews	Sweet & Appelbaum, 2004 <sup>15</sup> Zwi et al., 2007 <sup>16</sup>	MacLeod & Nelson, 2000 <sup>14</sup>	Lundahl et al., 200613	Geeraert et al., 200412	Meta-analyses* Davis & Gidycz, 2000 <sup>11</sup>	Bull et al., 2004 10	Barlow et al., 20069	Review of reviews		Reviews by type
4 5	ယ	4	4	4	4		4	ω 51		5	ယ			51			ω σ	5 (39%)		3 5 (0.24) <sup>d</sup>	5 (0.41)°				ယူ	4 5		Direct Risk measure factor	Home visiting
5 4				5			ω	01		ω				S		4				24) <sup>d</sup>		5 (0.45)				3		Risk Direct factor measure	ng Parent education programmes
5										4						C)						5 (0.52)	5 (0.29)			O1		Risk factor	ent ation mmes
ယ					ယ	ယ	ယ	ω	ω	4	ω		ω	ω						ω				ω				Direct measure	Sexual abuse prevention
5					5	O1	S	O	O1	4			O	51						O]				5 (1.07)				Risk factor n	buse
4		ယ					4								ω													Direct Risk measure factor	Abusive head trauma
4								4						ယ							5 (							Direct F measure fa	Multi- component interventions
4																					5 (0.58)°					ω		Risk I factor m	nt ons
ယ		ယ								ယ											U1							Direct measure	Media- based public awareness
4										ယ											5 (1.26)°							Risk factor r	iblic ess
မ																					5 (0.38)°					22		Direct Risk measure factor	Support and mutual aid groups

to be effective or, if no explicit judgment given, found to have no effect in two of more well-designed studies or a systematic review; 3, judged to have insufficient, weak, or mixed evidence supporting it; 4, judged to be promising or, if no explicit judgment given, found to be supported by one well-designed study; 5, judged to be 1, judged to be harmful or, if no explicit judgment given, found to have a detrimental effect in two or more well-designed studies or a systematic review; 2, judged not

effective or, if no explicit judgment given, found to be supported by two or more well-designed studies or a systematic review.

In several cases it was not possible to distinguish between evaluations of effectiveness involving direct measures or risk factors.

Only significant effect sizes reported.

Total mean effect size for (proactive) programmes for all outcomes (out-of-home placements, direct and proxy measures of child maltreatment, measures of parent attitudes, observation of parent behaviour, measures of home environment).

Effect sizes for different types of outcomes: behaviour change: odds ratio, OR: 6.76; increase in questionnaire-based knowledge: OR: 0.59; increase in vignette-

### Results of analyses, including statistical summaries

Overall effectiveness score (1-5) for "home visiting" was calculated to be 4 for the direct outcome measure and 5 for the risk factor.

Overall effectiveness score (1-5) for "parent education programmes" was calculated to be 4 for the direct outcome measure and 5 for the risk factor.

Overall effectiveness score (1-5) for "sexual abuse prevention" was calculated to be 3 for the direct outcome measure and 5 for the risk factor.

Overall effectiveness score (1-5) for "abusive head trauma" was calculated to be 4.

Overall effectiveness score (1-5) for "multi-component interventions" was calculated to be 4 for the direct outcome measure and 4 for the risk factor.

Overall effectiveness score (1-5) for "media based public awareness" was calculated to be 3 for the direct outcome measure and 4 for the risk factor.

Overall effectiveness score (1-5) for "support and mutual aid groups" was calculated to be 3.

### **Methodological limitations**

The methodological limitations come from the reviews themselves and the outcome evaluations they were based on. Internal validity problems included lack of control group in 15% of publications which increased to 18.9% to 23.9 % for sexual abuse and parent education respectively. Studies were non-randomized in 27.5% of cases. The mean AMSTAR score of 6.3 indicated the quality of reviews to be moderate.

### Directness (in terms of population, outcome, intervention and comparator)

Over 99% of the studies came from high income countries. Otherwise directness is high.

## **Narrative conclusion**

At least four of the seven interventions - home-visiting, parent education, abusive head trauma prevention and multi-component interventions - show promise in preventing actual child maltreatment. Three of them - home visiting, parent education and child sexual abuse prevention - appear effective in reducing risk factors for child maltreatment. Strength of evidence is however weakened because of the methodological problems and the fact that great majority of studies were conducted in high income countries.

## Additional information that was not GRADEd (safety and tolerability issues, cost, resource use, and other feasibility issues, if appropriate)

The second systematic review (MacMillan et al, 2009) provided more details on what works and how. The information was incorporated in the recommendations.

#### References

WHO (2009). World Report on Violence and Health. Geneva, World Health Organization. whqlibdoc.who.int/publications/2002/9241545615\_chap3\_eng.pdf . accessed 25 August 2009.

Gilbert R et al (2009). Burden and consequences of child maltreatment in high-income countries. Lancet, 373:68-81.

Gershoff E (2002). Corporal punishment by parents and associated child behaviours and experiences: A meta-analytic and theoretical review. *Psychological Bulletin*, 128:539–79.

Mikton C, Butchart A (2009). Child maltreatment prevention: a systematic review of reviews. Bulletin of World Health Organization, 87:353-361.

MacMillan H et al (2009). Interventions to prevent child maltreatment and associated impairment. Lancet, 373:250-66.

## From evidence to recommendations

Factor	Explanation
Narrative summary of the evidence	There are two recent systematic reviews on prevention of child abuse: Mikton & Butchart, 2009 and MacMillan
base	et al, 2009. The first one is more comprehensive, better graded and has covered the second review as well.
	This systematic review covered all available systematic reviews of which 26 met the inclusion criteria which
	summarized 298 publications on primary single outcome evaluation studies and another 85 reviews and
	commentaries. The review focused on seven main types of interventions: home visiting, parent education, child
	sex abuse prevention, abusive head trauma prevention, multi-component interventions, media-based

	of the review was its reliance on studies fro high income countries.
Summary of the quality of evidence	The mean AMSTAR score of 6.3 indicated the quality of reviews to be moderate.
Balance of benefits versus harms	The only perceived harm could be the involvement of inexperienced non specialized health care workers in sensitive areas such as sexual abuse. The issue of confidentiality is very important as well. On the other hand the right of the children and the ethical principle of protecting their rights from abuse and torture are of paramount importance. Most of the evidence comes from high income countries with better quality services. In view of the high physical and psychological impact of children's abuse; if well conducted and well monitored, the benefits of preventing child abuse overweighs the perceived harms.
Values and preferences including any variability and human rights issues	Universal passion for children and the UN conventions including the one against torture provide high amount of uniform support for the interventions. How to deliver the interventions should of course be flexible and culturally sensitive.
Costs and resource use and any other relevant feasibility issues  Recommendation	Costs of training and transportation in case of home visiting need to be considered. However focussing on high risk families and involvement of community volunteers will reduce costs.

Non-specialized health facilities should facilitate home visiting and offer parent education to prevent child abuse, especially among at risk individuals and families.

Strength of recommendation: STANDARD

Non-specialized health facilities should collaborate with school based "sexual abuse prevention" programmes which should be facilitated in schools where the availability of personnel and cultural context are conducive to such interventions.

Strength of recommendation: STANDARD

School based "sexual abuse prevention" programmes should be integrated within the ongoing programmes at the district level on violence and injury prevention and other school health programmes, if available.

Strength of recommendation: STANDARD

#### **Update of the literature search – June 2012**

In June 2012 the literature search for this scoping question was updated. The following systematic review was found to be relevant without changing the recommendation:

Barlow J, Johnston I, Kendrick D, Polnay L, Stewart-Brown S. Individual and group-based parenting programmes for the treatment of physical child abuse and neglect. Cochrane Database of Systematic Reviews 2006, Issue 3. Art. No.: CD005463. DOI: 10.1002/14651858. CD005463.pub2. (Edited (no change to conclusions), published in Issue 4, 2008.)