



Report

EMERGENCY SANITATION FOR INFANTS AND YOUNG CHILDREN UNDER 5 (IYCU5)

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Acknowledgments

The following report was commissioned by Save the Children UK and developed by Dr Belen Torondel and Fiona Majorin, from the London School of Hygiene and Tropical Medicine, and Mark Buttle and Prisca Benelli from SCUK.

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We would like to thank all those who contributed.

Structure of the report

The following report begins with an executive summary of key findings; it then follows with an introduction and the presentation of the methods employed to collect the data, followed in turn by the results from the review of grey literature, from the online survey and the workshop. It then concludes with a brief outline of the findings, followed by a number of annexes.

A summary of few different hardware sanitation options for infants and young children and children under 5 (IYCU5) in emergencies mentioned in the report and by the survey participants is presented in various figures across the report. These include different adaptations of latrines, potties, nappies and tools to bury faeces.

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Summary

Executive Summary

The aims of this study are to identify sanitation options for infants and young children less than five years old (IYCU5) in emergencies and management of excreta disposal options for the same age group, exploring their use and acceptability by beneficiaries. This report presents data collected from grey literature, such as emergency technical manuals, and secondly through an online questionnaire completed by 26 WASHES practitioners with a range of experiences in emergency settings, highlighting relevant experiences and programmes that addressed provision of infant and young children sanitation in emergency settings. In addition, this report introduces the results of a workshop in which possible research questions were identified and prioritised. Results of the desk study are summarised below.

“There are clear gaps in technical guidelines, on the management of excreta disposal options for IYCU5”

There are clear gaps in advice or information on sanitation or management of excreta disposal options for IYCU5 in emergencies within emergency technical guidelines. The authors of this report explored thirteen guidelines, seven recommended by the on-line survey participants and six found in searches of grey-literature. All guidelines studied highlighted the importance of considering children under five faeces’ disposal issue in programmes, however only seven of them mentioned the need of considering different child age groups. Six guidelines presented different hardware and/or software solutions to deal with children’s faeces disposal considering different age needs. However none provide actionable, step-by-step recommendations that can be used for WASH project implementation. While the level of detail about how to implement and monitor these solutions varies among the different guidelines, the significant gaps in guidelines are around Monitoring and Evaluation (M&E) of sanitation/management of excreta disposal options for IYCU5 in emergencies interventions.

Survey participants suggested that technical guidelines should consider how to take on board appropriate emergency interventions for IYCU5 during the design stage of humanitarian interventions; that they should provide

more technical specifications and appropriate hardware designs and be more specific on how to implement solutions.

More than half of humanitarian sanitation interventions reported by survey participants (65%) did not include adaptation of programmes to suit different children’s age groups. Furthermore, the gap appears wider around guidelines for infants under 2: only seven of the 13 guidelines mentioned children under 2 years of age, while all 13 mentioned some sanitation options for older children. Likewise, as evidenced by Table 1, even when mentioned, interventions targeting infants were described in less detail. Most of technical guidelines focus on where faeces should end up rather than on programme interventions to assist that process or hygiene behaviours following disposal.

In the survey, by contrast, health promotion to encourage caregivers of children to dispose of child faeces inside latrines was the intervention mentioned most frequently by survey participants (30%). Hardware interventions were also mentioned: provision of potties (by 25% of participants), provision of child friendly toilets (20%) and provision of nappies for babies (10%). None of the intervention mentioned the adaption or provision of specific hardware for water provision to perform additional hygiene practices specific to dealing with infants or young children’s faeces.

In the majority of the settings identified by survey participants child faeces ended up in open spaces: 17% of cases due to the absence of specific provision for infants sanitation and 58.8% of cases were before the implementation of child-related sanitation. In many cases M&E was absent, 70.6% reported having some type of system to monitor if the intervention was successful, but 2 respondents did not report any M&E in place.

“A set of 44 research questions has been generated and ranked based on: answerability, operational relevance, potential impact and inter-sector priority”

The workshop in January 2016 resulted in the generation and ranking of the top research questions around the topic of how to provide sanitation for IYCU5 in humanitarian contexts. The questions generated could be divided in three categories: 1) those related to programmes approaches, including new approaches or tools and considering what are the best options to deliver children sanitation through

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different channels; 2) those questions related to how we work in the field and how that can be adapted to take into account the sanitation needs of IYCU5, for example through M&E changes, or improved needs assessment; and 3) those that relate to Health and Nutrition outcomes directly, specifically delving into causality relationships and how sectors should work together in future.

Furthermore, when participants were asked to vote somewhat subjectively on what their top priority questions would be, three questions overlapped well with the more objective ranking described above. The workshop, then, in brief reiterated the findings from the grey literature review and the survey, confirming the gap of material on this subject

In conclusion, grey literature searches did not find any technical guidelines that describe adequately how to implement excreta disposal interventions, giving specific instructions on how to assess the problem, how to adapt sanitation options for adults or older children to suit the

needs of IYCU5 in different contexts, and how best to monitor and evaluate these interventions. The survey also, and the workshop showed similar results. Most of the interventions described in the survey included some hygiene component aiming to ensure that child faeces end up in latrines, and some provision of different hardware (with potties and child friendly toilets being the most frequently distributed items) but only a third of the interventions described by respondents considered the needs of different age groups.

It is also noteworthy that measures used to monitor and evaluate interventions were not always in place and when they were, there were not standardised across different interventions/organizations making comparisons difficult. This is matched by a gap in Technical Guidelines, which also fail to mention adapting programmes by age, or targeting different children's age groups, when describing appropriate M&E.

1. Introduction

Aim of the study

The aim of this study was to identify sanitation/management options for excreta disposal or infants and young children under five in emergencies and their use and acceptability by beneficiaries, as well as gaps in guidance and evidence. A grey literature search and an online survey of practitioners were used to compile this information. This was then presented to a workshop with academics and practitioners, who also contributed to the identification of options and gaps.

Definitions

Definition of 'Children' as used in this report:

"The report focuses on infants [1] and young children under 2 years of age – on the basis of the assumption that this age group requires support from a caregiver around excreta disposal and sanitation – as well as on children between 2 and 5, on the basis of the assumption that this age group is more autonomous around excreta disposal and sanitation."

Definition of 'Emergency' as used in this report:

"Humanitarian emergencies, defined as acute or chronic situations of conflict, war or civil disturbance, natural disasters, food insecurity or other crises that affect large civilian populations that result in significant excess mortality, and are beyond the capacity of the local government to cope [2]."

Phases of humanitarian crises:

"Acute, chronic or early recovery phase of humanitarian crises [3]"

Sanitation and disposal of child faeces

Diarrhoea is responsible for the deaths of an estimated 1.4 million people worldwide each year [4]. Children under five are most vulnerable and more than 700,000 children die annually of diarrhoea, making it the second leading cause of mortality after pneumonia in that age group [5].

Diarrhoeal diseases are transmitted faecal-orally from one person to another through the contamination of hands, water, fields, flies or food with faeces [6]. Other diseases are also associated with the contamination of the environment with faeces; these include trachoma [7], soil-transmitted helminths (STHs) [8] and schistosomiasis [9]. In addition,

substantial ingestion of faecal bacteria may lead to environmental enteropathy, a sub-clinical condition that can lead to under nutrition and stunting [10, 11].

Sanitation is a primary barrier to environmental contamination by faeces [12] and thus an essential prevention measure for faecal-oral diseases transmission. Despite the recognition of the importance of sanitation and large-scale efforts to improve access to sanitation, 2.4 billion people worldwide still use unimproved sanitation facilities, including nearly 1 billion people still practicing open defecation [13]. In addition, even among households with access to improved sanitation, the faeces of children, which are potentially an important source of faecal pathogens, may not end up in the latrine [14, 15].

Even though young children's faeces are often not considered to be a threat or offensive [16-18], the faeces of young children may in fact represent a significant health risk because they have the highest incidence of enteric infections [25] so their faeces are likely to contain transmissible pathogens [19]. Latrines are rarely designed for, or used by young children [20] and young children tend to defecate in areas where susceptible children could be exposed [21]. This exposure is worse for young children due to the time they spend on the ground and exploratory behaviours, including putting fingers and fomites in their mouths and geophagia [22-24]. Young children are most vulnerable to any type of faecal exposure as they are most at risk of mortality and serious sequelae associated with enteric infection [4, 26].

In a review and meta-analysis of 10 observational studies published between 1987 and 2001, Gil and colleagues (2004) found that child faeces disposal behaviours considered risky (open defecation, stool disposal in the open, stools not removed from soil, stools seen in household soil, and children seen eating faeces) were associated with a 23% increase in risk of diarrhoea (risk ratio (RR) 1.23, 95% confidence interval (CI) 1.15 to 1.32); on the other hand, behaviours considered safe (use of latrines, nappies, potties, toilets, washing diapers) were borderline protective (RR 0.93, 95% CI 0.86 to 1.00)[14]. This limited evidence suggests that child faeces disposal is an important area of WASH and child health, however wide evidence gaps remain and it continues to be an overlooked component of WASH interventions [27].

Sanitation for children in emergency settings

While sanitation for infants and young children is of importance in any setting, it may be particularly important

in emergency settings. Reasons for this include the fact that the main causes of morbidity and mortality in most complex emergencies are due to communicable diseases, including diarrhoeal diseases, which affect children below five disproportionately [28]. In the acute phase of an emergency in camp situations, diarrhoeal diseases have been responsible for more than 40% of deaths, with over 80% of deaths in children below 2 years old [28]. Children also represent a large proportion of the population in emergencies [29].

However infant and young children sanitation has been identified as a knowledge gap in a study of emergency WASH for children, with little information available on how caregivers manage their child faeces disposal in emergencies [29]. A systematic review conducted by Ramesh et. al 2015 examined the evidence on the effectiveness of WASH interventions on health outcomes in humanitarian crisis, showed that the current evidence was extremely limited and that most identified studies looked at water quality improving interventions [30]. No sanitation or child sanitation intervention was included in the review. The authors recognised that this is due to the complexity of conducting evaluations in complex emergencies settings and also due to methodological shortcomings.

Organizations working in the WASH sector have included a set of hardware and software solutions in their programmes, however one of the more complex challenges has been to change traditional habits and adoption of new solutions [31]. This is even more complicated in emergency settings where the context and setting is in itself a big challenge, and where solutions have to be adapted to the emergency context [32]. Another challenge is that the type of context does not always make an easy monitoring and evaluation system possible, therefore reports sharing lessons learnt from child sanitation programme implementation tend to be scarce [33].

The work presented in this report includes information collected from a survey of WASH implementers on guideline focusing on child faeces disposal in emergencies and any work they have been involved in on this topic. We also present guidelines and grey literature collected through a literature search.

2. Methods

i. Online survey

An online survey was designed using the Bristol Online Survey Tool (<https://www.onlinesurveys.ac.uk/>) and

distributed to staff from organizations working in the WASH sector through personal connections and word of mouth, sectorial mailing lists¹. The aim was to identify and compile guidelines, protocols, monitoring and evaluation reports and case studies related to infant and young children (<5 years old) faeces disposal in emergencies (the full questionnaire can be found in Appendix 1), complementing the grey literature search described below. The survey opened in December 2015 and closed on the 31st of January 2016. In this time-frame, 26 individuals responded. Because chain of referrals and the unknown number of mailing list members, we cannot be sure of the non-response rate.

ii. Grey literature search

We searched Open Grey (<http://www.opengrey.eu>) database for grey literature. In addition, each report included in the study was hand-searched for additional references. Search terms included different terms for the following concepts: faeces, children, sanitation and emergency (See search results in Appendix 2).

In addition, documents referred to by participants in the survey were reviewed and subsequently the websites of the following organisations were searched for relevant reports (search dates: 7-18/12/15): UNICEF, Oxfam, Save the Children, Action Against Hunger and MSF. Google searches were carried for current guidelines using the following search terms: child sanitation emergencies. Save the children also provided a master project thesis conducted in one of their field sites. Dr Belen Torondel assessed whether the reports from the searches were eligible and extracted the data.

iii. Workshop

On the 13th of January, a workshop was organized in London, with 20 participants from different organizations. Following the presentation of initial findings of the present desk study, the workshop held a brainstorming session in groups to identify research questions around Emergency sanitation for infants and young children, with the aim to decide what research questions are a priority around the field of emergency sanitation for young children and infants (<5 year olds). The participants worked in groups of 4/5 and

¹ WASH Cluster, ALNAP, Pelican, Hygiene promotion forum (google group), Community of Practice on Sanitation and Hygiene in Developing Countries (LinkedIn group)

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generated research questions that could be categorised in 4 blocks (Planning and design, implementation, M&E and other) (see figure 1). Through this exercise, they generated forty-four questions during the activity. The full list of questions generated is available in the workshop report, available upon request.

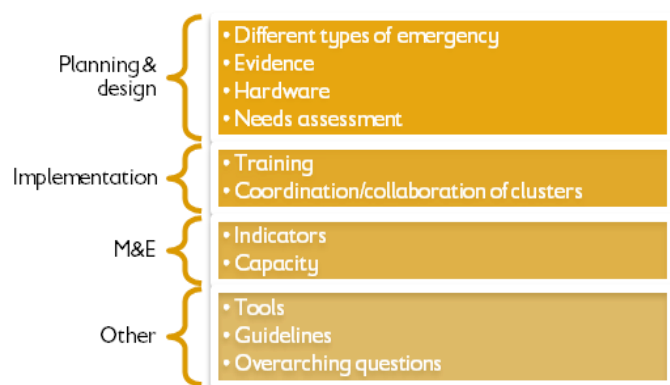


Figure 1: four blocks used to generate research questions

For an initial ranking, each participant selected the 3 most important/high priority questions that need to be answered in this field through a rough prioritization exercise, then votes were counted.

A second, more rigorous ranking exercise was completed using the criteria below. The full lists of ranking results are presented in the workshop report. Then, the questions were ranked in a more rigorous manner in order of priority using 4 criteria: a) answerability, b) operational relevance, c) potential impact and d) inter-sector priority. For each question participants could give one of 3 values for each criteria (yes, no, undecided), then a score was calculated for each criteria.

Table 1: Research questions

| Criteria | Question |
|-----------------------|--|
| Answerability | Would you say that a study to answer this research question is possible (e.g. feasible, ethical, sufficient statistical power achievable and well defined endpoints/outcomes)? |
| Operational relevance | Would you say that the outcome of this research question will bring new crucial evidence for improvement of one or several of the following components: assessment of needs, strategy and programme planning, programme implementation, monitoring and evaluation? |
| Potential impact | If this question is answered would you expect it to have a health impact on infants and young children? (assuming that there is demonstrated evidence of a causal relation between child faeces disposal and health) |
| Inter-sector priority | Is this question relevant to health and nutrition as well as WASH? |

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3. Results

i. Survey Results

The following data was extracted:

From guidelines suggested by the participants, we extracted the following information: organization, year of publication, inclusion of any type of assessment tool/programme design advice, type of programme/intervention (hardware, software), M&E indicators. Opinions about guidelines content and implementation were also collected.

From the programmes/interventions mentioned by the participants, we collected the following information: country, type of emergency setting, target population, type of programme or intervention, period of intervention, monitoring and evaluation system (indicators to measure success, use, participants' satisfaction and place where people dispose of child faeces before and after intervention). Opinions about how to improve interventions in order to achieve better child faeces disposal were also compiled.



Figure 2: List of respondents by type of organization²

a. Knowledge of guidelines and experience in implementing programmes or interventions



Figure 3: Regions of the world where respondents have experience of implementing humanitarian WASH programmes

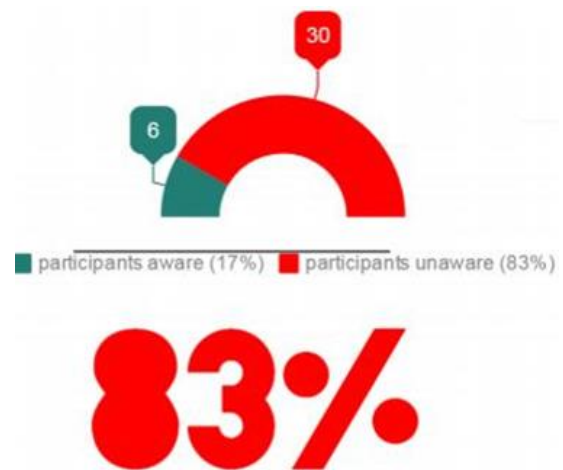


Figure 4: Percentage of participants unaware of existing guidelines.

*ZOA, Mercy Corps, ACF, Oxfam, MSF, IFRC, Samaritan's Purse, International Rescue Committee, World Bank, RedR UK, Save the children; **UNICEF, UNIDO, ECHO, ***Medical Mercy Foundation, YDN-Yemeni Development Network for NGOs, South Sudan Development Agency-SSUDA, Apt Succor Organization, PWA, IOCC, DRC, Norwegian Church Aid, RIDS, eWASH initiative, Sanitation and hygiene education initiative (SAHEI)

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At first glance, the survey indicated that there is limited awareness amongst participants/WASH practitioners of the existence of any guidelines on infant and children sanitation in emergencies: only 6 from 36 participants were aware of any existing guideline related to child sanitation in emergencies.

While the sample was non representative, we can nonetheless assume that, if a bias was present, it was favouring those who knew something about the topic. From the ones that were aware of the existence of guidelines, a further 83% have seen them implemented. From our other searches in Google and in the websites from different organizations working in emergency settings we found 7 guidelines that provided some type of recommendation about child faeces management (see appendix 3 for details on the guidelines).

b. Programmes and intervention summary

The guidelines identified presented a number of interventions. Some of these are presented in pictorial format throughout this report. Of the 36 participants, 17 reported having been involved in programmes/interventions related to child sanitation in emergencies. The range of interventions period reported was from 2 months to 5 years. Most of the target populations were mothers, children (mostly school children) or the whole community (see appendix 4 for a description of interventions). Most of the interventions took place in Africa (9), followed by Asia (6) and 1 in America (1 reported several locations). From the 17 participants who reported having been involved in different programmes/interventions, 12 of them reported that the interventions comprised a mix of hardware and software component, 3 only hardware and 2 only software.



Figure 5: Examples of scoops used for sanitation purposes³

The most reported type of intervention was health promotion to encourage caregivers of children to dispose of child faeces inside latrines, mentioned by 12 of 17 respondents. Provision of potties was the second most reported intervention (10 respondents), closely followed by the provision of child friendly toilets (8 respondents) (Appendix 4).

Of the 17 interventions reported, only 6 of them considered the needs of different age groups of children by providing a combination of 2 of the following hardware: potties and/or nappies and child friendly adapted latrines for children able to use them. Four interventions include distribution of potties, with 3 of them also including health promotion component to encourage caregivers of children to dispose of child faeces inside latrines, and 1 intervention also including distribution of disposable nappies. Participants did not report any criteria or age range to decide specific ages or methods to decide which type of hardware should be distributed.⁴

³ <http://www.slideshare.net/WaterCentre/piloting-promotion-of-low-cost-sanitary-hardware-for-sustainable-disposal-of-child-and-animal-feces-in-rural-bangladesh>

⁴ Excreta disposal in emergencies: A field manual
<http://www.unicef.org/leapro/unprotected-EDEprelims.pdf>

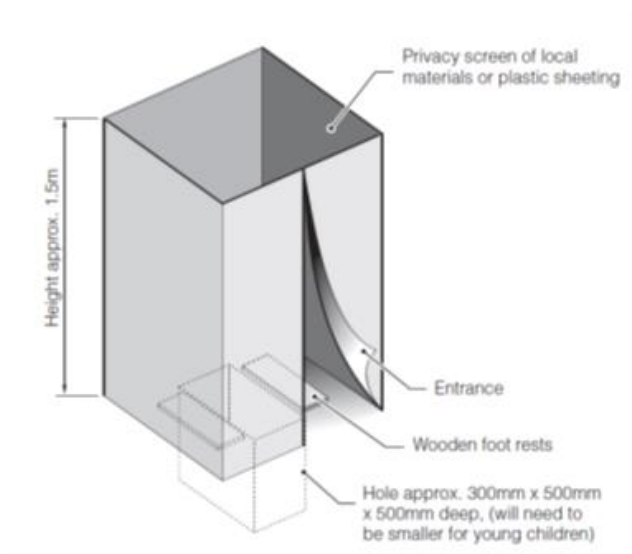


Figure 6: Shallow family latrine⁵

Hardware solutions distributed in the reported interventions:

1) Types of child friendly toilets that participants reported were implemented in their programmes (8 programmes) were:

- brightly coloured latrine promoted for children (1 programme),
- small size of shelter or latrine or changes in the superstructure (3 programmes)
- upside down adapted buckets (1 programme).
- No specification about design of child friendly latrine (3 programmes)

2) Tools or trowels for burying children's faeces for schools and camps (4 programmes).

3) Provision of potties (10 programmes).

4) Provision of nappies: Disposable and reusable nappies were distributed. (4 programmes).

5) Hygiene kits: Distribution of hygiene kits (but they did not specify what was included in the kit) (2 programme).

6) Movable and temporary household latrines. (1 programme)



Figure 7: Child-friendly adapted toilet⁶

Software solutions in the reported interventions:

1) Promotion to dispose child faeces into the latrine (12 programmes).

2) Hand washing after cleaning child bottom and after disposing faeces was the second most reported (3 programmes).⁷

3) Promotion of use of potties (2 programmes) and 1 participant specified including disposing the content of the potties into toilets.

4) Promotion of latrine use (1 programme),

5) Hand washing and promotion of typical WASH practices (4 programmes).

6) Child to child hygiene promotion (1 programme)

⁶ Source: *Emergency WASH for Children Scoping Study, 2014 (Annexes)*

⁷ *Emergency WASH for Children Scoping Study, 2014 (Annexes)*

Photo: Kerine Deniel

⁵ Source: <http://www.unicef.org/eaapro/unprotected-EDEprelims.pdf>

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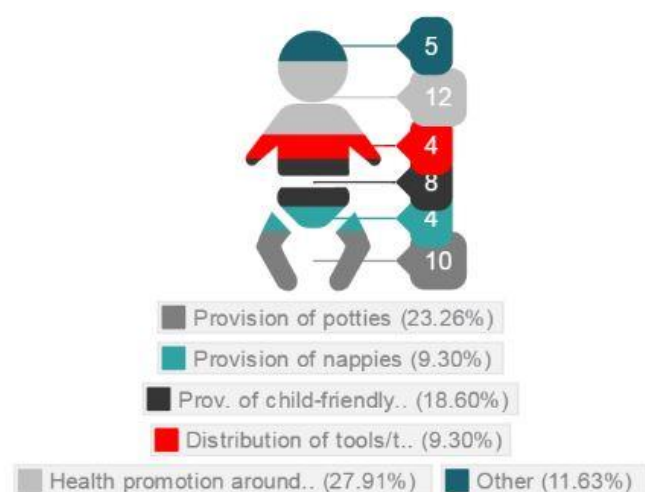


Figure 8: Type of interventions

Monitoring and evaluation (M&E):

A vast majority of participants (70.6%) reported having some type of system to monitor if the intervention was successful. But when asked what type of system they had in place, 6 participants did not report any information. From the remaining participants that reported having any type of M&E only 3 reported indicators/methods of intervention use, and two of them reported more details about the type of information or method used to collect this data (one reported using the following indicators: % of potty use, % of disposal of potty content in latrines, and % of toilet use and the other one mentioned to use KAP survey).

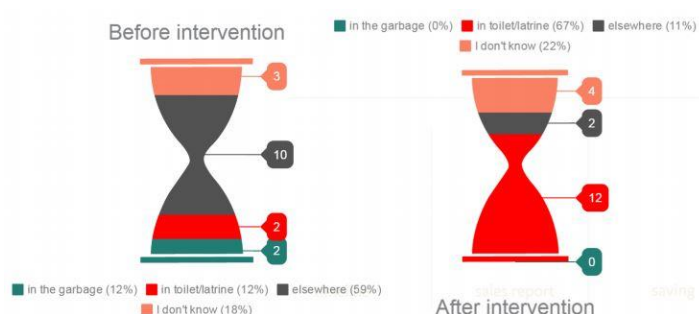


Figure 9: Changes in child faeces disposal

Four participants reported using indicators/methods to measure user satisfaction with 3 participants reported the methods used to measure satisfaction (questionnaires).

When participants were asked where the child faeces were disposed before the intervention was implemented, 10 (58.8%) reported in open spaces and 3 (17.6%) did not know.

After the intervention was delivered, 12 (70.6%) participants reported that the faeces were disposed in toilets, and 4 (23.5%) participants did not know (Figure 12). However 2 of the participants that reported child faeces ending up being disposed in toilets after the intervention did not report any system of M&E in place.

Opinions of participants about how the intervention could have been improved:

Participants of the survey were asked what type of information would be useful to know to improve programmes implementation (Appendix 5). Answers were grouped in two topics:

Programme/Intervention Assessing stage:

- Information about existing practices of child faeces dealing at household level, especially among mothers and caregivers.
- Which options would be acceptable in each setting?
- Collect baseline information about (number of children and gender, person responsible to throw child faeces, clean the child, availability, access and place of hygienic latrine.

Design of the programme/intervention:

- More hardware options available for child defecation practices (more than potties).
- More details/guidelines about how to build the hardware
- Consideration of different child ages.
- Giving mothers soap, providing adequate water for used and regular monitoring of caregivers' behaviours
- Continue activities after the emergency period⁸

⁸ Excreta disposal in emergencies: A field manual
<http://www.unicef.org/leapro/unprotected-EDEprelims.pdf>

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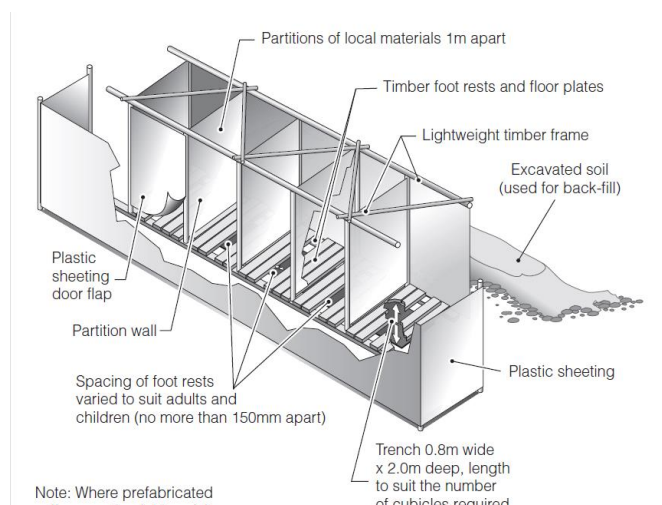


Figure 10: Trench Adapted for children²⁴

The opinions from survey participants suggested that the guidelines should provide methods to adapt the interventions to the different contexts in the design stage, they should provide more technical specifications and be more specific in directing organizations to implement solutions.

c. Working in emergency settings with no focus on child sanitation

In this section we collected data from survey participants that were involved in interventions in emergency settings but not specifically in child faeces disposal interventions.

According to the respondents, garbage was the most reported place where child faeces ended up (figure 12), followed by toilets/latrines, and elsewhere (referring to open spaces, such as open defecation sites, near the house, ponds...).

Survey Participants' Experience of Child Faeces Interventions in Emergencies



Figure 11: Number of people working in sanitation in emergency settings where no child faeces interventions have been implemented.

We asked the participants about potential interventions that can be incorporated in programmes to improve safe child faeces disposal. Of the 36 options suggested by the participants, 17 of them were related to hardware and 19 related to software interventions. With 11 participants reported that a mix of hardware and software was necessary to improve child faeces disposal (see Appendix 6).

Emergency setting without child sanitation interventions

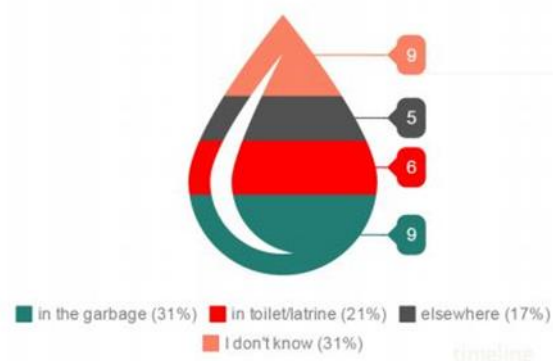


Figure 12: Percentage of places where child faeces ended up in emergency settings without child sanitation component.

The hardware interventions suggested mainly comprise: child friendly latrines with smaller holes or seats, child friendly defecation devices (potties, nappies), provision of scoops, better latrines infrastructure (well maintained, with light, easy access), distribution of items to ensure the safe transport of the excreta from the HH to the latrine, more toilets, provision of footwear, provision of water for washing.

The suggested software interventions included: health and hygiene promotion for safe disposal of child faeces mostly targeting mothers and caregivers. Other suggestions include trainings, needs assessments and work with caregivers to understand barriers to use of latrines for excreta disposal and decide which solutions would be the best, change of behaviours and attitudes of people at home, and culturally adapted training on risks associated with unsafe disposal of child faeces.

ii. Grey literature search results

Dr Belen Torondel, Fiona Majorin, together with a number of other authors from the London School of Hygiene and Tropical Medicine, are working – independently from this present study – on a systematic literature review on the topic of “Interventions to improve disposal of child faeces for preventing diarrhoea and soil-transmitted helminth infection” that is expected to be published in 2016.



Figure 13: Upside Down Bucket⁹

For this reason, peer reviewed literature was left out of the scope of this study, which however explored grey literature on the subject. As described earlier, this search led to the identification of 7 guidelines that provided some category of recommendation about child faeces management. Furthermore 39 reports were identified through the Open Grey literature search, and only 2 reported about child faeces disposal practices at household level. None of the reports were based in emergency settings (see Appendix 3).¹⁰

⁹ Source: <http://www.treksn.com/diy-camping-toilet/>

¹⁰ In addition to the grey literature described so far, a MSc student from Cranfield University was commissioned by Save the Children to conduct primary research in the Philippines in 2015.¹⁰ The author, Justine Denis, conducted a cross-sectional survey, with a sample size of 416 households, addressing the primary caregivers of children under five at the time of the typhoon and exploring their practices through self-reported questionnaires. The author furthermore conducted 12 focus group discussions. The research asked caregivers about the places where children defecated before and after the typhoon, the places where excreta ended up and the related hygiene practices (such as child bottom washing practices, hand-washing for caregivers and for children). The goal of the research was to find out



Figure 14: Toilets decorated in ways to appeal children¹¹

We found 13 guidelines in total, 7 recommended by the on-line survey participants and 6 found in grey-literature. In table 2 we present the information found in the guidelines grouped by 3 main topics: Assessment, Type of programme/intervention and M&E. We also indicated if in these sections the needs of different children group ages were included by showing the following icons:¹¹



Guidelines consider under 2 (not using latrines)



Guidelines include under 5 (using latrines)

We also presented a score for each group age and each topic, described further on the report. All the guidelines highlighted the importance of considering children under five faeces' disposal issue in programmes, but only 7 mentioned the need to consider different children age groups. With six guidelines presenting different hardware and/or software solutions to deal with child faeces disposal considering different age needs. Only 4 guidelines reported the need to include M&E indicators and none of them presented different type of indicators that capture the different children ages.

how, if at all, the 2013 typhoon had an impact on sanitation practices for infants and young children in emergencies. The study is expected to be published in 2016. While there were some challenges due to recall bias, the survey showed that infants and young children who experienced the typhoon Haiyan were primarily using latrines. However, for children's excreta disposal, practices were still to be improved to mitigate excreta left in the open. Denis, Justine (2015) Sanitation practices for infants and young children in emergencies: a case study about the aftermath of Typhoon Haiyan, Philippines. Unpublished Master Thesis, Cranfield University.

¹¹ Photograph: Martin Argles for the Guardian

<https://www.theguardian.com/commentisfree/2010/jun/26/sanitation-development>

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The degree of detail presented in the guidelines about how to implement and monitor these solutions varied among the different guidelines.

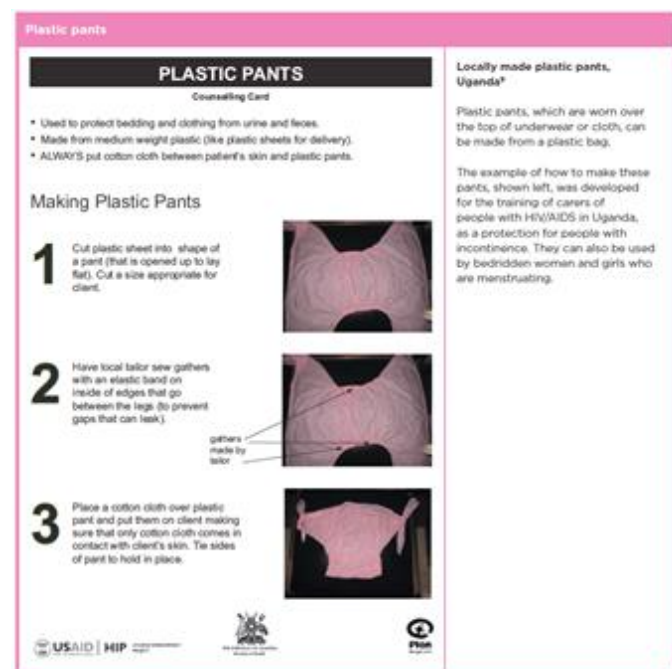


Figure 15: Locally made plastic nappies¹²

These results indicate that there are only a few guidelines that include the issue of child faeces disposal in emergency settings sector and none of these guidelines focus exclusively on children faecal disposal, including the needs of different age groups.

































Icons Key for the table at page 15-17.

- Guidelines for children under 2 yo (not using latrines), mentioned, but not in detail;
- Guidelines for under 2yo described in greater length, but still not very prescriptive;
- Actionable guidelines for under 2 years old
- Guidelines include children between 2 and 5 yo (using latrines) mentioned, but not in detail,
- Described in greater length, but still not very prescriptive;
- Actionable guidelines for children between 2 and 5 years old

¹² Plan International, USAID.Source: Emergency WASH for Children. Scoping Study, 2014 (Annexes)

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Table 2: Guidelines score

































| Organization (Year) Title | Assessment tool Program design advice (Score) ^A | Type of programme/intervention | | M&E Indicators | Comments by survey participants (if any) |
|---|---|---|---|---|---|
| | | Hardware | Software | | |
| WEDC Loughborough, Harvey, PA (2007) Excreta disposal in emergencies: A field manual¹³ |  |  |  |  | “You usually take the parts of all those guidelines that you can use to implement a water and sanitation program and the end result will be determined by various limitations such as your supply chain, security, staff etc” “One of the better guidelines”. |
| |  |  |  |  | |
| Sphere Project (2011) Humanitarian Charter and Minimum Standards in Humanitarian Response.¹⁴ |  |  |  |  | |
| |  |  |  |  | |
| UNICEF (2011) Water, Sanitation and Hygiene for School children in Emergencies, A guidebook for teachers.¹⁵ |  |  |  |  | “Good. I'd add more technical specifications” |
| |  |  |  |  | |
| WEDC (Loughborough), Jones & Reed (2005) Water and Sanitation for Disabled People and Other Vulnerable Groups |  |  |  |  | “I had limited experience after the design stage” “It is very comprehensive but not very specific”. “The level of the CCCs (outcome) means that much of the time the implementation (activity) is very context specific and driven by the experience of the staff involved”. “There's an obvious gap in taking the high level CCCs to the response level” |
| |  |  |  |  | |

¹³ <http://www.unicef.org/eapro/unprotected-EDEprelims.pdf>

¹⁴ <http://www.sphereproject.org/sphere/en/handbook/the-sphere-handbook/>

¹⁵ http://www.unicef.org/wash/files/WASH_in_Schools_in_Emergencies_Guidebook_for_teachers_.pdf

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| | | | | | |
|--|---|---|---|---|---|
| UNICEF (2010) Core Commitments for Children in Humanitarian Action¹⁶ |  |  |  |  | <p><i>"The level of the CCCs (outcome) means that much of the time the implementation (activity) is very context specific and driven by the experience of the staff involved".</i></p> <p><i>"There's an obvious gap in taking the high level CCCs to the response level"</i></p> |
| |  |  |  |  | |
| MSF (Field Research) (2013) Gender and Sanitation Tool for Displaced Populations¹⁷ |  |  |  |  | <p><i>It provides good guidance to determine gaps in provision of wash facilities and services and facilitates addressing these gaps. The tool has been used in emergencies in Ethiopia, South Sudan and CAR".</i></p> <p><i>"This tool is meant for emergencies as the consultation process is very much simplified to allow for a quick response and more effective response"</i></p> |
| |  |  |  |  | |
| MSF (2010) Public Engineering In Precarious Situations¹⁸ |  |  |  |  | <p><i>"There is limited guidance on sanitation for kids and infants".</i></p> <p><i>"Good technical reference book, but a bit gender and child "blind"</i></p> |
| |  |  |  |  | |
| World Vision (2006), Toms & MacLeod Children in Emergencies Manual¹⁹ |  |  |  |  | <p>Guidelines retrieved online but not mentioned by survey participants</p> |
| |  |  |  |  | |

¹⁶ UNICEF (2010) Core Commitments for Children in Humanitarian Action http://www.unicef.org/publications/files/CCC_042010.pdf

¹⁷ MSF (Field Research) (2013) Gender and Sanitation Tool for Displaced Populations <http://fieldresearch.msf.org/msf/bitstream/10144/311201/3/Gender+and+Sanitation+Tool+Final+Dec+8+2013+%281%29.pdf>

¹⁸ MSF (2010) Public Engineering In Precarious Situations http://refbooks.msf.org/msf_docs/en/public_health_en.pdf

¹⁹ World Vision (2006), Toms and MacLeod, *Children in Emergencies Manual* https://childprotection.wikischolars.columbia.edu/file/view/Children+in+Emergencies+Manual_World+Vision.pdf

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| | | | | | |
|---|---|---|---|---|--|
| Save the Children (2008) Child Friendly Spaces in Emergencies: A Handbook for Save the Children Staff²⁰ |  |  |  |  | Guidelines retrieved online but not mentioned by survey participants |
| |  |  |  |  | |
| SuSanA fact sheet (2009) Emergencies and reconstruction situations²¹ |  |  |  |  | Guidelines retrieved online but not mentioned by survey participants |
| |  |  |  |  | |
| Oxfam (2011) The Pocket Humanitarian Handbook²² |  |  |  |  | Guidelines retrieved online but not mentioned by survey participants |
| |  |  |  |  | |
| Oxfam (2000) Bastable, Ferron, & Hoque Guidelines for excreta disposal in emergencies²³ |  |  |  |  | Guidelines retrieved online but not mentioned by survey participants |
| |  |  |  |  | |
| Oxfam (2008) Vulnerability and Socio-Cultural Considerations for PHE in Emergencies²⁴ |  |  |  |  | Guidelines retrieved online but not mentioned by survey participants |
| |  |  |  |  | |

²⁰ Save the Children (2008) Child Friendly Spaces in Emergencies: A Handbook for Save the Children Staff http://www.unicef.org/french/videoaudio/PDFs/Guidelines_on_Child_Friendly_Spaces_-_SAVE.pdf

²¹ SuSanA fact sheet (2009) Emergencies and reconstruction situations <https://www.humanitarianresponse.info/system/files/documents/files/Sustainable%20sanitation%20alliance.pdf>

²² Oxfam (2011) The Pocket Humanitarian Handbook http://www.nirapad.org.bd/admin/soft_archive/1308562615_The%20Pocket%20Humanitarian%20Handbook.pdf

²³ Oxfam (2000) Andy Bastable, Suzanne Ferron, Enamul Hoque Guidelines for excreta disposal in emergencies [http://www.watersanitationhygiene.org/references/eh_key_references/sanitation/emergency%20sanitation/guidelines%20for%20excreta%20disposal%20in%20emergencies%20\(oxfam\).pdf](http://www.watersanitationhygiene.org/references/eh_key_references/sanitation/emergency%20sanitation/guidelines%20for%20excreta%20disposal%20in%20emergencies%20(oxfam).pdf)

²⁴ Oxfam (2008) Vulnerability and Socio-Cultural Considerations for PHE in Emergencies <http://policy-practice.oxfam.org.uk/publications/vulnerability-and-socio-cultural-considerations-for-phe-in-emergencies-126713>

iii. Workshop results

The top ten research questions, as prioritised by the process, can be found in the more detailed workshop report. However, the highest ranked questions could be divided in four sections:

- Questions related to **programmes approaches**: including new approaches or tools and considering what are best options to deliver children sanitation through different channels;²⁵
- Those relating to **how we work in the field** and how that can be adapted to take into account the sanitation needs of infants and young children, for example through;
- Monitoring and Evaluation changes or improved assessment of needs questions: how and when to involve children in programme design, who are the key informants how to design participation sessions for children.²⁶ Questions that need **further evidence** before it will be clear if they would drive field practice related changes;²⁷

- Questions that relate to **Health and Nutrition outcomes** directly, specifically delving into causality relationships.

Furthermore, interestingly, when participants were asked to vote somewhat subjectively on what their top priority questions would be, three questions overlapped well with the more objective ranking, and namely (a) what are the ranges of hardware options? Is there a viable open defecation option, including use of scoops and/or biodegradable Peepoo bags? (b) Can we have a sanitary survey within a home that is particularly child faeces focused? ; and (c) do mass distributed potties work and are appropriate and effective in reducing exposure in particular context?

Additionally, two questions from the vote were highlighted that fell outside the top 10 prioritised questions, and namely a question on whether there are particular myths that are important to dispel and a question on best options to deliver children sanitation through different channels of delivery/sectors. Both of these questions encapsulate an overall problem faced: that there are many unknowns and myths around the disposal of children's and infants' faeces, and those channels on how to take this forward have previously been unclear. Hopefully upcoming research will shed light on both of these questions.

Overall the workshop enabled a successful initial ranking of research questions, and helped to set out an achievable plan of action, which will depend heavily on the continued enthusiasm and participation of the individuals and agencies concerned.

²⁶ Changes to the way we implement in the field, including Monitoring and Evaluation approaches for tackling the issue were ranked relatively highly, for example

- (Q34) "What is already happening in M&E of other sectors that we can get sanitation for children into?"
- (Q30) "What indicators are appropriate?"
- (Q5) "Do we have appropriate assessment tools, and do we have evidence of their effectiveness?"
- (Q44) "Are the minimum standards adequate for this issue?"
- (Q41) "How to adapt [recommendations from this project] to different age groups? Less than 28 months, less than 2 years old, etc.?"
- (Q7 and 9) "How/when to involve children in assessments and design?" (Q 6) Who do you ask: who are the key informants to address to assess excreta disposal sanitation practices and challenges?" is linked to this.
- ²⁷ More general questions needing further research before being linked to fieldwork, but which were also fairly highly ranked, include:
- (Q25) "What is the interaction of hygiene and nutrition programs?" Implies we could investigate the historical links as well as future overlaps and ways to work together, for example working with IYCF teams at field level.
- (Q21) "What is the motivation of caregivers and the drivers for change around excreta disposal in emergencies?"
- (Q43) "Value For Money/cost effectiveness: are we investing enough in this? Are there lower priority things that the WASH sector should drop to focus on Infant Sanitation in Emergencies instead?"

4. Summary conclusions and main gaps identified

- In the majority of the settings before the intervention is implemented child faeces end up in open spaces/garbage, neither of which are considered safe/improved methods of child faeces disposal [34]
- There are few guidelines about how to best implement child faeces sanitation interventions in emergency context and some of them are not very specific about how to best decide which solutions or mix of solution should be applied for the specific context.
- Measures to monitor and evaluate the interventions are not always in place and when they are, they are not standardised across different interventions/organisations making comparisons difficult
- Most of the child disposal faeces programmes reported in the survey include a hygiene component. The hygiene component most reported is to ensure that child faeces end up in a latrine and also hand washing after cleaning children bottom or after disposing faeces. None of the intervention mentioned provision of adequate hardware for water provision to perform the hygiene promoted practices.
- The most reported hardware intervention was provision of potties, closely followed by the provision of child friendly toilets.
- Usually child faeces programmes do not assess what the needs of communities are and what child sanitation behaviours are practiced in these settings.
- Adaptations of programmes/interventions to different children age groups were included in a minority of the reported interventions.
- Most of the programmes focus on where the faeces should end up (suggesting latrine, potties or nappies as a main hardware component) but not much focus on the process of disposing the faeces (e.g. dealing with faeces that are already on the floor (specially babies that still don't walk) or dealing with nappies and potties). Hardware promotion options mainly focused in the first step of faeces collection, but not in the process of dealing with dirty hardware (e.g. buckets to clean nappies, or soap to rinse potties and nappies).
- The opinions from survey participants suggested that the guidelines should provide methods to adapt the interventions to the different contexts in the

design stage, they should provide more technical specifications and be more specific in directing organizations to implement solutions.

- The opinion of experts and practitioners at the workshop mirrored the findings from the grey literature review and the survey and identified as the most pressing evidence gaps required to develop strong guidelines the exploration of options (hardware options and related to delivery of programmes: and questions related to M&E.

Recommendations of future research/programs:

- Improving child sanitation programmes
 - Explore methods of how to adapt child sanitation necessities to different contexts, including hygiene promotion and water access.
 - Adapt methods used in non-emergency settings for behaviour change (e.g. Super Amma example: www.superamma.org/)
 - Projects should include child faeces management needs assessment and formative research at the beginning of the project design
 - Researching acceptability of different possible interventions to improve child faeces disposal in emergencies as well as the best ways to deliver the interventions.
 - Ensure the needs of different age groups <5 are included in the interventions
 - Ensure all steps involved in child faeces management are considered in the design of interventions (i.e. from defecation to disposal then to hygiene behaviours)
 - Create a forum for discussion and learning sharing on ways to improve/ Implement child faeces disposal interventions
 - Investigate ways in which existing intervention packages in emergencies could be modified to include a child faeces disposal component (e.g. sanitation interventions, nutrition interventions...)
 - Understanding of child sanitation-related exposures in relation to health, to inform the definition of WASH-safe/unsafe environments, which will in turn improve instruments to assess WASH provision in emergency settings and enhance monitoring.

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- Improving guidelines with recommendations of ways to assess the sanitation situation for children followed with steps on ways to implement different solutions in different contexts and monitor the interventions.
 - A number of the questions identified as priority for research could be researched together e.g. combination of various assessments questions, developing one single study looking to develop a standardised assessment method that involves children as informants to the extent appropriate.
- Monitoring and evaluation strengthening
 - Incorporate monitoring and evaluation methods to all the programmes/Intervention in order to measure success and sustainability.
 - Create standard M&E measures for infant and child sanitation that can be used in different organisations and programmes to make comparisons easier.
 - In order to measure/evaluate intervention/programme's success, different indicators could be collected at different levels: adoption of intervention, use, levels of satisfaction, health impact.
 - Routinely collect data about prevalence of child faeces disposal practices in different emergency settings.
 - Build a strong evidence base on the linkage between child faeces sanitation intervention and child health outcomes through assessing effectiveness of interventions.
 - Develop further research regarding the cost-benefit and economic sustainability of child sanitation intervention in emergency settings.
 - Assess the impact of lack of child sanitation provision in households in emergency settings on demand-side aspects, such as user satisfaction, and levels of facility.
 - Investigate ways in which monitoring and evaluation of child sanitation programmes could be strengthened

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Appendices

6. Appendices

Appendix 1: On-line questionnaire

Infant and young child sanitation in emergencies: Questionnaire

Introduction

Thank you for agreeing to take part in this questionnaire. As part of a consultancy we are doing for Save the Children we would like to find out about any guideline or work on child sanitation in emergencies. Please note this work is focused on children below the age of 5.

1. Which organization do you work for?
2. What is your job title?
3. In which region(s) do you work?
 - a. Sub-Saharan Africa
 - b. South Asia
 - c. Latin America & Caribbean
 - d. Middle East & North Africa
 - e. Europe & Central Asia
 - f. East Asia & Pacific

Guidelines

1. Do you know of or have you heard about any guidelines (from your organisation or any other) on child sanitation in emergency settings? YES/NO [if no skip to 2]

Please fill in a section for each guideline you know (we've included space for 4 but please write in the comment box if you require more space).

- 1.1. Guideline 1:
 - 1.1.1. Please briefly describe this guideline. Please include the title and year and reference and, if possible, a link to a web version of it.
 - 1.1.2. Have you ever implemented or seen the guidelines implemented? YES/NO [if no skip to 1.1.4)
 - 1.1.3. What has been your experience of implementing/ seeing this guideline implemented?
 - 1.1.4. Do you have any further comments about this guideline?
 - 1.1.5. Do you know of any other guidelines? Yes/No [if no skip to 2]
- 1.2. Guideline 2:
 - 1.2.1. Please briefly describe this guideline. Please include the title and year and reference and, if possible, a link to a web version of it.
 - 1.2.2. Have you ever implemented or seen the guidelines implemented? YES/NO [if no skip to 1.2.4)

- 1.2.3. What has been your experience of implementing/ seeing this guideline implemented?
- 1.2.4. Do you have any further comments about this guideline?
- 1.2.5. Do you know of any other guidelines? Yes/No [if no skip to 2]
- 1.3. Guideline 3:
 - 1.3.1. Please briefly describe this guideline. Please include the title and year and reference and, if possible, a link to a web version of it.
 - 1.3.2. Have you ever implemented or seen the guidelines implemented? YES/NO [if no skip to 1.3.4)
 - 1.3.3. What has been your experience of implementing/ seeing this guideline implemented?
 - 1.3.4. Do you have any further comments about this guideline?
 - 1.3.5. Do you know of any other guidelines? Yes/No [if no skip to 2]
- 1.4. Guideline 4:
 - 1.4.1. Please briefly describe this guideline. Please include the title and year and reference and, if possible, a link to a web version of it.
 - 1.4.2. Have you ever implemented or seen the guidelines implemented? YES/NO [if no skip to 1.4.4)
 - 1.4.3. What has been your experience of implementing/ seeing this guideline implemented?
 - 1.4.4. Do you have any further comments about this guideline?

Programme/intervention for child sanitation

2. Have you or your organisation ever implemented sanitation or excreta disposal interventions/ programmes in a crisis setting, which had a component that targeted children or infants <5? [Yes/no if no skip to 3]

Child sanitation in emergencies - programme or intervention 1:

Please fill in each section for each programme/ intervention

- 2.1. What was the intervention? (select all that apply)
 - 2.1.1. Provision of child friendly toilets, please specify the type: _____
 - 2.1.2. Provision of potties
 - 2.1.3. Provision of nappies for babies, please specify if they were disposable or reusable: _____
 - 2.1.4. Distribution of tools/ trowels for burying children's faeces

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2.1.5. Health promotion to encourage caregivers of children to dispose of child faeces in a certain way, please specify where caregivers were encouraged to dispose of child faeces:

2.1.6. Other, please specify _____

- 2.2. In what context and when was this intervention/programme rolled out? (Please include emergency setting, country and year)
- 2.3. Did the intervention/programme include any additional components (e.g. hygiene component or health promotion)? YES/ NO (SKIP TO 2.5)
- 2.4. Please describe the additional components.
- 2.5. What was that target population? (e.g. full community, mothers, school child, child-friendly spaces and size)
- 2.6. How was the intervention/programme implemented and how long did it take? (e.g. who delivered the intervention/ programme, how and for how long?)
- 2.7. Did you establish any system to follow up and see if the intervention/programme was successful? YES/NO (if no skip to 2.9)
- 2.8. Which type of information did you collect to measure if the intervention/programme was successful?
- 2.9. Can you suggest ways in which the intervention/programme could have been improved?
- 2.10. Do you think/ have any follow up data on whether the intervention was used and whether it was well received by the beneficiaries?
- 2.11. Where were most of the child faeces (<5 years old) ending up before the project was implemented?
 - 2.11.1. In the garbage
 - 2.11.2. In toilets/ latrines
 - 2.11.3. Elsewhere, please specify _____
 - 2.11.4. I don't know
- 2.12. Where were most of the child faeces (<5 years old) ending up after the project was implemented?
 - 2.12.1. In the garbage
 - 2.12.2. In toilets/ latrines
 - 2.12.3. Elsewhere, please specify _____
 - 2.12.4. I don't know
- 2.13. What type of information would be useful to know/learn to be able to implement better child sanitation interventions in the field?
- 2.14. Do you have any links to reports/protocols on the interventions described here?
- 2.15. Have you or your organization worked in a second intervention, different from the one you just

described specifically targeting child sanitation? [yes/no if no skip to 3]

Child sanitation in emergencies - programme or intervention 2:

- 2.16. What was the intervention? (select all that apply)
 - 2.16.1. Provision of child friendly toilets, please specify the type: _____
 - 2.16.2. Provision of potties
 - 2.16.3. Provision of nappies for babies, please specify if they were disposable or reusable: _____
 - 2.16.4. Distribution of tools/ trowels for burying children's faeces
 - 2.16.5. Health promotion to encourage caregivers of children to dispose of child faeces in a certain way, please specify where caregivers were encouraged to dispose of child faeces: _____
 - 2.16.6. Other, please specify _____
- 2.17. In what context and when was this intervention/programme rolled out? (Please include emergency setting, country and year)
- 2.18. Did the intervention/programme include any additional components (e.g. hygiene component or health promotion)? YES/ NO (SKIP TO 2.20)
- 2.19. Please describe the additional components.
- 2.20. What was that target population? (e.g. full community, mothers, school child, child-friendly spaces and size)
- 2.21. How was the intervention/programme implemented and how long did it take? (e.g. who delivered the intervention/ programme, how and for how long?)
- 2.22. Did you establish any system to follow up and see if the intervention/programme was successful? YES/NO (if no skip to 2.24)
- 2.23. Which type of information did you collect to measure if the intervention/programme was successful?
- 2.24. Can you suggest ways in which the intervention/programme could have been improved?
- 2.25. Do you think/ have any follow up data on whether the intervention was used and whether it was well received by the beneficiaries?
- 2.26. Where were most of the child faeces (<5 years old) ending up before the project was implemented?
 - 2.26.1. In the garbage
 - 2.26.2. In toilets/ latrines

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- 2.26.3. Elsewhere, please specify _____
- 2.26.4. I don't know
- 2.27. Where were most of the child faeces (<5 years old) ending up after the project was implemented?
- 2.27.1. In the garbage
- 2.27.2. In toilets/ latrines
- 2.27.3. Elsewhere, please specify _____
- 2.27.4. I don't know
- 2.28. What type of information would be useful to know/learn to be able to implement better child sanitation interventions in the field?
- 2.29. Do you have any links to reports/protocols on the interventions described here?
- 2.30. Have you or your organization worked in a second intervention, different from the one you just described specifically targeting child sanitation? [yes/no if no skip to 3]

Child sanitation in emergencies - programme or intervention 3:

- 2.31. What was the intervention? (select all that apply)
- 2.31.1. Provision of child friendly toilets, please specify the type: _____
- 2.31.2. Provision of potties
- 2.31.3. Provision of nappies for babies, please specify if they were disposable or reusable: _____
- 2.31.4. Distribution of tools/ trowels for burying children's faeces
- 2.31.5. Health promotion to encourage caregivers of children to dispose of child faeces in a certain way, please specify where caregivers were encouraged to dispose of child faeces: _____
- 2.31.6. Other, please specify _____
- 2.32. In what context and when was this intervention/programme rolled out? (Please include emergency setting, country and year)
- 2.33. Did the intervention/programme include any additional components (e.g. hygiene component or health promotion)? YES/ NO (SKIP TO 2.35)
- 2.34. Please describe the additional components.
- 2.35. What was that target population? (e.g. full community, mothers, school child, child-friendly spaces and size)
- 2.36. How was the intervention/programme implemented and how long did it take? (e.g. who delivered the intervention/ programme, how and for how long?)

- 2.37. Did you establish any system to follow up and see if the intervention/programme was successful? YES/NO (if no skip to 2.39)
- 2.38. Which type of information did you collect to measure if the intervention/programme was successful?
- 2.39. Can you suggest ways in which the intervention/programme could have been improved?
- 2.40. Do you think/ have any follow up data on whether the intervention was used and whether it was well received by the beneficiaries?
- 2.41. Where were most of the child faeces (<5 years old) ending up before the project was implemented?
- 2.41.1. In the garbage
- 2.41.2. In toilets/ latrines
- 2.41.3. Elsewhere, please specify _____
- 2.41.4. I don't know
- 2.42. Where were most of the child faeces (<5 years old) ending up after the project was implemented?
- 2.42.1. In the garbage
- 2.42.2. In toilets/ latrines
- 2.42.3. Elsewhere, please specify _____
- 2.42.4. I don't know
- 2.43. What type of information would be useful to know/learn to be able to implement better child sanitation interventions in the field?
- 2.44. Do you have any links to reports/protocols on the interventions described here?

Emergency setting where no child sanitation programme was implemented

3. Have you worked in emergency settings where no specific child sanitation component was implemented? (yes/no if no skip to 5)

Projects without child sanitation interventions

4. In emergency settings where you have worked where no child sanitation intervention was implemented, where did most child faeces end up?
- 4.1.1. In the garbage
- 4.1.2. In toilets/ latrines
- 4.1.3. Elsewhere, please specify _____
- 4.1.4. I don't know
- 4.2. From your experience, what would be possible ways to ensure child faeces end up in the latrines?
- 4.3. In such settings, did aid recipients flag child sanitation as a challenge for them through needs assessment?

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4.4. In such settings, did you inquire about child sanitation in needs assessment?

5. Do you have any other comments on child sanitation in emergency settings?
6. Do you have any contact details of someone working in the field on this topic?
7. If you would be happy to be contacted if required to discuss any of the information you provided, please write your contact details

Appendices

Appendix 2: Search terms for Open Grey

0

Search date: 30/11/2015

| Terms | Results | |
|--------------------------------------|---------|----------------------------------|
| Child* faeces disposal emergencies | 0 | infant* stool disposal refugee |
| Child* feces disposal emergencies | 0 | infant* sanitation refugee |
| Child* faeces disposal emergency | 0 | Child* faeces disposal conflict |
| Child* feces disposal emergency | 0 | Child* feces disposal conflict |
| Child* stool disposal emergencies | 0 | Child* stool disposal conflict |
| Child* stool disposal emergency | 0 | Child* sanitation conflict |
| Child* sanitation emergencies | 0 | infant* faeces disposal conflict |
| Child* sanitation emergency | 1 | infant* feces disposal conflict |
| infant* faeces disposal emergencies | 0 | infant* stool disposal conflict |
| infant* feces disposal emergencies | 0 | infant* sanitation conflict |
| infant* faeces disposal emergency | 0 | neonat* faeces disposal |
| infant* feces disposal emergency | 0 | neonat * feces disposal |
| infant* stool disposal emergencies | 0 | neonat* stool disposal |
| infant* stool disposal emergency | 0 | neonat* sanitation |
| infant* sanitation emergencies | 0 | child* faeces disposal |
| infant* sanitation emergency | 0 | child * feces disposal |
| Child* faeces disposal disaster* | 0 | child* stool disposal |
| Child* feces disposal disaster* | 0 | child* sanitation |
| Child* stool disposal disaster* | 0 | infant* faeces disposal |
| Child* sanitation disaster* | 1 | infant * feces disposal |
| infant* faeces disposal disaster* | 0 | infant* stool disposal |
| infant* feces disposal disaster* | 0 | infant* sanitation |
| infant* stool disposal disaster* | 0 | TOTAL |
| infant* sanitation disaster* | 0 | |
| Child* faeces disposal humanitarian | 0 | |
| Child* feces disposal humanitarian | 0 | |
| Child* stool disposal humanitarian | 0 | |
| Child* sanitation humanitarian | 0 | |
| infant* faeces disposal humanitarian | 0 | |
| infant* feces disposal humanitarian | 0 | |
| infant* stool disposal humanitarian | 0 | |
| infant* sanitation humanitarian | 0 | |
| Child* faeces disposal relief | 0 | |
| Child* feces disposal relief | 0 | |
| Child* stool disposal relief | 0 | |
| Child* sanitation relief | 0 | |
| infant* faeces disposal relief | 0 | |
| infant* feces disposal relief | 0 | |
| infant* stool disposal relief | 0 | |
| infant* sanitation relief | 0 | |
| Child* faeces disposal refugee | 0 | |
| Child* feces disposal refugee | 0 | |
| Child* stool disposal refugee | 0 | |
| Child* sanitation refugee | 0 | |
| infant* faeces disposal refugee | 0 | |
| infant* feces disposal refugee | 0 | |
| | | 39 |

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Appendix 3: Summary of guidelines which mention the provision of sanitation for infants and young children in emergencies

| Organization (Year) Title | Assessment tool Program design advice | Type of programme/intervention | | M&E Indicators |
|---|---|---|--|---|
| | | Hardware | Software | |
| <p>WEDC Loughborough (2007)</p> <p><i>Excreta disposal in emergencies: A field manual</i></p> | <p>-How did people dispose of excreta before the emergency? What are the current beliefs and traditions concerning excreta disposal especially regarding women and children's excreta? (do men and women or all family members share latrines, can women be seen walking to a latrine, do children use potties, is children's excreta thought to be safe?)</p> <p>- Are men, women and children prepared to use defecation fields, communal latrines or family latrines? Consult people with disabilities and those who are elderly.</p> <p>-Collect socio-demographic data.</p> <p>-Collect in-depth information from Community members about: where there are problems with excreta disposal, what sort of toilets most people have, where people dispose of children's faeces and what possible solutions people would like to see.</p> <p>-In the 1st phase of an emergency, public health promoters would remind of the importance of hand washing especially following defecation and after handling children's stools.</p> <p>-Consider whether there need to be special facilities for children through discussions with the public health promoters.</p> <p>-This issue must be discussed with mothers especially to identify whether nappies, potties or specially designed latrines will be necessary. The unsafe disposal of child stools, and failure to wash hands with soap (or ash) after coming into contact with stools, are probably the main practices which allow microbes into the environment of the vulnerable child.</p> | <p>-Deep trench latrines (Spacing of foot rests varied to suit adults and children (no more than 150mm apart)</p> <p>-Shallow family latrines (smaller hole for child)</p> <p>-Child friendly toilets for schools (open walls, art paintings, smaller holes</p> <p>-Minimum number provision of toilets</p> <p>-For rapid onset floods: Over-hung toilets(accessible and safe for children)</p> <p>-Adaptation to child age, the principal defecation sites for young children are in potties, appropriately designed toilets, nappies, and on the ground in or near homes.</p> <p>-Latrines safe for children and usable at night</p> <p>-If not latrine friendly can be design, at least make adaptations smaller latrines and squat holes.</p> | <p>-Promote hygiene at schools as they can be good agents for hygiene promotion at home.</p> <p>- Target a small number of risk practices – from the viewpoint of controlling diarrhoeal disease, the priorities for hygiene-behaviour change are likely to include hand washing with soap (or a local substitute) after contact with faeces, and the safe disposal of adults' and children's faeces.</p> <p>- Target specific audiences – these may include mothers, children, older siblings, fathers, opinion leaders, or other groups. One needs to identify who is involved in childcare, and who influences them or takes decisions for them.</p> <p>- Hand washing with soap (or ash if soap is not available) should be promoted at three key times: after defecation; after cleaning child excreta and before eating or preparing a meal.</p> | <p>1. Reduction of disease incidence.</p> <p>-Proxy indicator: use</p> <p>-Assessment: %of children using and maintaining latrines after 12 months</p> <p>2. To ensure adequate excreta disposal in line with Sphere minimum standards within six months</p> <p>-Proxy indicator: Hand washing facilities at all latrines and are maintained</p> <p>-Assessment: Hand washing demonstrations with children</p> <p>3. Monitor use (involving children):</p> <p>-Assessment: Transect and observational walks Pocket voting Activities with children (drawing...)</p> |
| <p>Sphere project (2011)</p> <p><i>Humanitarian Charter and Minimum Standards in</i></p> | <p>Consult all men, women and children of all ages on the priority hygiene items they require</p> | <p>-Care-takers of young children and infants are provided with the means for safe disposal of children's faeces</p> <p>-Toilets may be properly designed for children.</p> <p>-<i>Hand washing:</i> Users should have the means to wash their hands with soap or an alternative (such as ash) after</p> | <p>-Hygiene promotion standard1: Affected men, women and children of all ages are aware of key public health risks and are mobilised to adopt measures to prevent the deterioration in hygienic conditions and to use and</p> | <p>-Hygiene promotion: Indicator: All people wash their hands after defecation, after cleaning a child's bottom, before eating and preparing food</p> |

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| Humanitarian Response. | | <p>using toilets, after cleaning the bottom of a child who has been defecating, and before eating and preparing food.</p> <p>-There should be a constant source of water near the toilet for this purpose.</p> <p>-Burial waste: If children's faeces/ nappies are being disposed of, they should be covered with earth directly afterwards.</p> <p>-In feeding places 1 toilet/20 children (short term) 1 toilet/10 children (long term)</p> | <p>maintain the facilities provided.</p> <p>-The disaster-affected population has access to and is involved in identifying and promoting the use of hygiene items to ensure personal hygiene, health, dignity and well-being.</p> <p>-Toilets are used in the most hygienic way possible and children's faeces are disposed of immediately and hygienically.</p> <p>- Give particular attention to the disposal of children's faeces, Parents and caregivers should be provided with information about safe disposal of infants' faeces, laundering practices and the use of nappies (diapers), potties or scoops for effectively managing safe disposal</p> <p>-All women, men and children have access to information and training on the safe use of hygiene items that are unfamiliar to them.</p> | |
| <p>UNICEF (2010)</p> <p><i>Water, Sanitation and Hygiene for School children in Emergencies, A guidebook for teachers.</i></p> | <p>-Ensure that the rights and needs of children and women to a safe water supply, sanitation and hygiene are included in the WASH response plan, budget and appeal documents, and ensure that children and women are provided priority access to safe water of appropriate quality and quantity.</p> <p>- Ensure that children's WASH needs in their learning environments and child-friendly spaces are included in the WASH sector response plan.</p> | <p>-Children and women access toilets and washing facilities that are culturally appropriate, secure, sanitary, user-friendly and gender-appropriate.</p> <p>-A maximum ratio of 20 people per hygienic toilet or latrine squat hole; users should have a means to wash their hands after defecation with soap or an alternative (such as ash).</p> <p>-Set up safe temporary learning spaces for all age groups in consultation with communities and, where appropriate, establish community services – such as water supply and sanitation – around</p> | <p>-Appropriate hygiene education and information are provided to children, guardians and teachers.</p> <p>- Ensure that children, women and caregivers receive essential and culturally appropriate information on hygiene education and key hygiene practices, and that an appropriate number of hygiene education promoters are in place, trained and equipped</p> | |

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| | | <p>schools, complemented by hygiene promotion.</p> <p>-Children access safe water, sanitation and hygiene facilities in their learning environment and in child-friendly spaces. In learning facilities and child-friendly spaces:</p> <p>50 children per hygienic toilet or latrine squat hole at school; users have a means to wash their hands after defecation with soap</p> | <p>with hygiene Education materials.</p> | |
| <p>WEDC Loughborough (2005)</p> <p><i>Water and Sanitation for Disabled People and Other Vulnerable Groups</i></p> | <p>-Need for assessment situation for children with disabilities (no focus in emergency settings)</p> | <p>-Options of different hardware adapted for disability: Sanitation access support and different options for sanitation adaptation for children with disabilities.</p> | <p>-No specific methods included to promote hygiene (only infrastructure advice)</p> | <p>It includes M&E indicators</p> |
| <p>UNICEF (2010)</p> <p><i>Core Commitments for Children in Humanitarian Action</i></p> | <p>-Identify key resource people and/or institutions with specific knowledge and skills in sanitation and hygiene education and behaviour change for deployment in emergency planning and response; and collect pertinent information on sanitation and hygiene education.</p> <p>-Ensure that the rights and needs of children and women to a safe water supply, sanitation and hygiene are included in the WASH response plan, budget and appeal documents, and ensure that children and women are provided priority access to safe water of appropriate quality and quantity.</p> <p>-Ensure that children's WASH needs in their learning environments and child-friendly spaces are included in the WASH sector response plan.</p> <p>-Ensure that the WASH humanitarian response fulfils the rights and needs of children as related to toilets in their learning environments,</p> | <p>-Children access safe water, sanitation and hygiene facilities in their learning environment and in child-friendly spaces.</p> <p>-Ensure that soap is available at all times for hand washing, and that such facilities are child- and disabled-friendly, private, secure, culturally appropriate and appropriately segregated by gender.</p> | <p>Ensure that children, women and caregivers receive essential and culturally appropriate information on hygiene education and key hygiene practices, and that an appropriate number of hygiene education promoters are in place, trained and equipped with hygiene education materials.</p> <p>Set up safe temporary learning spaces for all age groups in consultation with communities and, where appropriate, establish community services – such as water supply and sanitation – around schools, complemented by hygiene promotion.</p> | <p>No indications for M&E indicators</p> |

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| <p>MSF (2013)</p> <p><i>Gender and Sanitation Tool for Displaced Populations</i></p> | <p>Tool to help to decide rapidly what and where sanitation facilities need to be built based on what women need with a minimum of effort of specialized expertise required. (Tool meant to be used in the first and second stage of emergency). Assess the necessities of women for sanitation and dealing with child faeces. They suggest to do small FGDs with women and questions to hired staff about what mothers normally do with the faeces of small children five years or younger. Questions used for assessment: Would they bring their children to use the latrines? How are babies faeces managed? Do they use cloth as nappies? How and where are they washed? How are small children's faeces managed? Are potties used? Where are they emptied? How are they cleaned? Do they use scoops? How are faeces disposed of? Thrown in bushes/in latrine/buried? At what age can children use the latrine? Is it the same for girls and boys? Why might they be prevented from using the latrine?</p> | <p>Female latrines may need to be bigger to allow extra space for children, sick or elderly relatives.(30 cm longer) Pick a technically appropriate design for the latrines and the showers and adjust based on the expected use of the facilities and preferences of the users.</p> | <p>Not reported</p> | <p>No indications for M&E indicators (But they suggest M&E interventions).</p> |
| <p>MSF (2010)</p> <p><i>Public Engineering In Precarious Situations</i></p> | <p>Checklist to prepare specific data collection related to WASH assessment within refugee/displaced persons camps or community centres.(e.g. is there safe and perennial access to facilities to women, children, disabled, handicap?</p> | <p>Provide adequate access excreta disposal facilities: (in OPD (1 for children or potties), near to paediatric wards and feeding centres Children should have latrines adapted to their size (if trench latrines, string lines 0.3 m wide, slabs with adapted dimensions. Dimensions of footrest and drop hole adapted for children. Super structure completely open. Advisable to provide latrines with handles and lighting in and around. 1 latrine/20 children Advice about how to deal with full latrine. Potties can be emptied in trench pit latrines, they should be emptied and clean after each use. Description of how to build child latrine and instructions about operation and maintenance.(TB3.06)</p> | <p>Not reported</p> | <p>No indications for M&E indicators</p> |

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| <p><i>World vision (2006)</i></p> <p>Children in Emergencies Manual</p> | <p>Child-focused Emergency Assessment:</p> <ul style="list-style-type: none"> -latrines/ toilets suitable for children nearby -children taught how to use pit latrines (if necessary) -Women's and children's views on design and safety aspects (where they do/ don't feel safe) have been sought and taken into account in design of latrines and washing facilities | <p>Prioritise the families of children with disabilities for shelter and water and sanitation support (children and their clothes may need more washing)</p> | <p>children taught how to use pit latrines (if necessary)</p> | <p>No indications for M&E indicators</p> |
| <p><i>Save the Children (2008)</i></p> <p>Child Friendly Spaces in Emergencies: A Handbook for Save the Children Staff</p> | <p>Checklist is to ensure that the physical protection needs of children are met in a Child Friendly Space.</p> <p>Are the toilets designed for children? (Note: adult-size squatting plates often pose a threat to children or they may be afraid to use them, resulting in children urinating and defecating in the stall and not in the latrine.)</p> | <p>1 toilet per 30 girls, separated from adult use</p> <p>1 toilet per 60 boys, separated from adult use</p> <p>Regular cleaning staff hired and latrine cleaning products provided.</p> <p>Adequate drainage from either sinks or toilets has been established and isolated from children</p> <p>Latrines are within 20 meters of the Child Friendly Space and in clear line of site</p> <p>Hand washing water at latrine point (1-2 lts/child/day)</p> <p>Hand washing water at Child Friendly Space center (1-2 lts/child/day)</p> <p>Soap available at washing point</p> <p>Cup washing point available with 1% chlorine solution.</p> <p>-Child Friendly Spaces Water, Sanitation, and Hygiene Kit Lists</p> | <p>Hygiene and sanitation: ensure that children wash hands with soap and water after toileting.</p> <p>Child-focused hygiene promotion in place.</p> | <p>No indications for M&E indicators</p> |
| <p>SuSanA fact sheet (2009)</p> <p>Emergencies and reconstruction situations</p> | <p>No reported</p> | <ul style="list-style-type: none"> -Adult latrines should be equipped with accessories adapting it to children (e.g. staircase, potty) -Children are not comfortable in dark latrines, therefore only providing a slab is good. A toilet without roof and door is also suitable (good when hand washing is not available). -Put the children's toilet near the adult's, especially women's -A trench for adults who then can put the children on top of their own legs when the children need to defecate. | <p>In some cultures toilets and the training should be separate for women, men and children.</p> | <p>No indications for M&E indicators</p> |

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| Oxfam (2011) The Pocket Humanitarian Handbook Oxfam | Checklist for Rapid Assessment in Emergencies: - How are children's faeces disposed of? | Latrines should be appropriately sited for privacy and security, especially for women and children | Promote effective use of distributed non- food items e.g. children's potties | No indications for M&E indicators |
| Oxfam Excreta disposal for physically vulnerable people in emergencies | The parents or carers of children with disabilities should also be involved in discussions on the needs of the child for excreta disposal. | Children with disabilities may need smaller sized facilities such as seats and handrails. Potties may be useful for small children. Hand-washing facilities provided by the latrines should be at a height and location which is easily accessible to both adults and children who have physical disabilities as well as other users. | Not reported | No indications for M&E indicators |
| Oxfam (2008) Vulnerability and Socio-Cultural Considerations for PHE in Emergencies | Children may have specific needs and small children may not be able to use the latrines or may be frightened of doing so. Ask women, men, children, and people from minority groups, people with disabilities, PLWHA and their carers, their particular needs and priorities for water, hygiene, sanitation. | -Potties can be provided for parents of small children and / or scoops for picking up children's faeces. For both of these items the users will need adequate facilities to be able to wash the items after use. -If slabs are not pre-formed and are being constructed on site, then smaller holes for children can be designed into a proportion of slabs. -Child friendly designs for latrines can also include latrines without a superstructure, where the child can defecate as though they were in the open, such as were used in Rwanda, but where they are actually defecating into a latrine pit. -Provision of cloth nappies. Care would also be needed to ensure effective disposal disposable nappies are provided. Disposable nappies can block pour flush latrines if the users do not understand their correct disposal. | Not reported | Monitor with women, men, children, the elderly, disabled people and other users how well the facilities have suited their needs and their suggestions for improvement. Use participatory techniques. Use the information for improvement. |

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Appendix 4: Programmes and interventions reported by survey participants.

| Organization | Country (year) | Type of emergency setting | Target population | Type of programme intervention | Other complementary intervention | Period of intervention implementation | M&E system Indicators/methods to measure Intervention success | Indicators/ methods to measure use | Indicators/methods to measure user satisfaction | Child faeces Before intervention | Child faeces after intervention |
|--|----------------------------|---|---|---|---|---------------------------------------|--|--|---|----------------------------------|---------------------------------|
| Medical Mercy Foundation (supported by UNICEF) | Yemen (2015) | IDP | -Mothers -School children -IDPs | Distribution of hygiene kits | Health education about the importance of hand washing | 3 months | Post-test at the end day of the project (Questionnaire?) | Post-test at the end day of the project (Questionnaire?) | Post-test at the end day of the project (Questionnaire?) | Toilets/ Latrines | Toilets/ Latrines |
| ACF | OPT Gaza (2015) | WAR For families lost their houses in the WAR. | 192 families who lost their houses. Blanket coverage for all family members | Provide movable and temporary HHs' latrines for families affected by the war and lost their houses | No | 3 months Sep-Nov 15 | Post monitoring and filling questionnaires during interviews with HHs. Satisfactions, waterborne diseases cases, and any complaints | No reported | Questionnaires and interviews to measure satisfaction | No known | Toilets/ Latrines |
| Oxfam | South Sudan (2015) | Not reported | Schools and children friendly Spaces | Provision of child friendly toilets, Distribution of tools/ trowels for burying children's faeces for schools and camps | Hygiene promotion and hand washing. teachers are trained to be hygiene club leaders | 2015-still going (6 months) | Inputs from children under age 6 were conducted and are still conducting FGDs | Not reported | Not reported | Elsewhere (open defecation) | Toilets/ Latrines |
| South Sudan Development Agency - SSUDA | South Sudan Makalal (2013) | Not reported | Child friendly spaces and full community | Health promotion to encourage caregivers of children to dispose of child faeces in a certain way (The programme was implemented through dissemination of key messages by a team of trained community Hygiene promoters and local authority officials. | Hand washing after cleaning the child and disposing the faeces | 2013 (3 months) | Reported incidents of childhood diarrhoea in health facilities, Observation of cases of children faeces thrown in HH's surroundings. | Not reported | it was well received but following the outbreak of war in December 2013 most population were displaced. | In the garbage | Toilets/ Latrines |

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Appendix 5: Opinions of how the intervention could have been improved

| Programme/Intervention | Intervention | How to improve? | What type of information would be useful to know to be able to implement programmes better? |
|--|---|---|---|
| Medical Mercy Foundation (Yemen 2015) | Distribution of hygiene kits+ Health education about the important hand washing | WASH in schools | Hand washing, using the toilets and latrines. |
| ACF (OPT Gaza 2015) | Provide movable and temporary HHs' latrines for families affected by the war and lost their houses | Change the basic material used for the cabinet and make something wider | The type of material used for construction need to be improved, provide bigger water storage capacity and improve the hot water system. |
| Oxfam (South Sudan 2015) | Provision of child friendly toilets, distribution of tools/ trowels for burying children's faeces for schools and camps+ Hygiene promotion and hand washing. teachers are trained to be hygiene club leaders | Intervention still in progress | Better resources for child friendly latrines |
| South Sudan Development Agency – SSUDA (South Sudan 2013) | Health promotion to encourage caregivers of children to dispose of child faeces in a certain way. Hand-washing after cleaning the child and disposing the faeces | Conduct assessment specifically for household behaviours relating to the disposal of faeces of children under the age of five in the area, sustained educational interventions to change the hygiene practices relating to clean up and disposal of children's faeces in emergency situation; provide hand washing soap, plastic chamber pots and construct affordable and ventilated latrines by members of the community. | Minimum standards on child and nutrition (Sphere); capacity to provide emergency supplies during emergency; advocacy skills to influence change of negative socio-cultural behaviours and attitudes towards good hygiene practices. |
| UNIDO Universal Intervention Development Organization | Health promotion to encourage caregivers of children to dispose of child faeces in the latrines. Coordination with other implementing partners to provide slabs and tools for construction of family latrines | Combine hardware interventions and software interventions to achieve | Consider age in designing sanitation interventions, consider the type of latrine slabs especially foot rest and size of hole. Younger children need potties |
| IFRC (Haiti 2010) | Provision of child friendly toilets, nappies, potties and health promotion | More toilets, better follow up | – |
| ECHO | Provision of child friendly toilets, nappies, potties and health promotion | The size of latrine are very diverse; some time there is no privacy as well for various more or less relevant reasons; for nappies and so on sometime the disposal spot is not identified or appropriate; sometime the child friendly latrine become too attractive for child and then they spend their time around which is not the goal | What the targeted child are keen with |
| International Rescue Committee (Ethiopia, 2009) | Provision of potties , Health promotion to encourage caregivers of children to dispose of child faeces in a certain way and to use potties if they can afford and to collect and dispose into latrine | Further developing the guide | – |
| Norwegian Church Aid (Sri Lanka 2009), (South Sudan 2013-2015) | Provision of potties Provision of nappies for babies | – | Like any sanitation program, a good understanding in preparedness of what community practices are would be useful. Approaches to engaging with carer groups would useful |
| MSF Spain (South Sudan 2012) | -Provision of child friendly toilets (upside down buckets adapted) -Provision of potties | Maybe more effort in focus and size of intervention | True number of children , and ability to communicate to them all |

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| Responsive to Integrated Development Services (RIDS) (Bangladesh, 2015) | Health promotion to encourage caregivers of children to dispose of child faeces inside the toilet | Regular follow-up/ monitoring done in a participatory way. | Attitude of the mothers, mother-in-laws, number of <5 children by gender in a household, person responsible to throw the child faeces, clean the child, availability of hygienic latrine near to/ inside the house |
| Save the Children (Myanmar, 2013-4) | Provision of child friendly toilets, Provision of potties. Health promotion to encourage caregivers of children to dispose of child faeces in latrines. | We tried to distribute bedpans for adults or elderly, to stop potty use by elderly, but couldn't source good quality bedpans. | More options available to practitioners (potties were more or less all we could think of). |
| MSF (Central Africa Republic 2013/14) | A potty mounted on a slab over a latrine pit with a super structure that had no door or was half open. | Many things could have been improved, but this goes beyond a little box in a survey | How mothers in the target group normally handle child sanitation and the options that would be acceptable to the mothers and children. This of course depends on where you are. |
| Save the Children (India 2008/2009/2010) | Provision of child friendly toilets, Provision of potties, Provision of nappies for babies, Distribution of tools/ trowels for burying children's faeces, Health promotion to encourage caregivers of children to dispose of child faeces in a certain way | Increase participation of children in planning phase | Existing practices, what ideas people, specially mothers have to improve the situation |
| Sanitation and hygiene education initiative (SAHEI) (Nigeria) | Provision of potties, distribution of tools/ trowels for burying children's faeces, health promotion to encourage caregivers of children to dispose of child faeces in a In the pit toilet dug or they should make small hole and bury the faeces. | giving mothers soap, providing adequate water for used and regular monitoring of caregivers behaviours | Awareness campaign |
| Save the Children (various emergencies) | Provision of child friendly toilets (pit latrines) ,Provision of potties, Distribution of tools/ trowels for burying children's faeces, Health promotion at nutrition and health centres to encourage caregivers of children to dispose of child faeces in a certain way | Sustained effort was lacking; activities were not continued after the emergency period in few cases; funding was another issue | – |

Appendices

Appendix 6: Hardware and software interventions to improve child faeces safe disposal suggested by survey participants.

| Hardware | Software |
|--|---|
| Make the toilets more child friendly | strengthen hygiene practice with the parents |
| Child friendly latrines with smaller holes or seats | Health education in their home and school |
| | Training sessions to educate mothers. Make the toilet lid suitable for children |
| Any kind of child friendly defecation devices or system to collect them easily | Hygiene promotion inclusive of children specific needs for parents and/or child attendants. |
| Provision of sanitation facilities in emergencies. | Sustained educational and campaigns on disposal of faeces. |
| Child friendly latrines with enough lighting. Clean friendly latrines Foot ware | Encourage hygiene promotion Support hygiene promotion with items and facilities |
| In the cases where family latrines are encouraged in the sites, it is easier that children faeces are disposed in the latrines. | Hygiene promotion |
| Potties, more toilets | More and better HP |
| | Awareness (excreta disposal - personal Hygiene) in emergencies |
| Also support with distribution of items to ensure the safe transport of the excreta from the HH to the latrine (particularly in the case of a camp setting where latrines tend to be communal and not always close to the dwellings) | Design programming that specifically targets the practices of caregivers for children < 5 to ensure that they use the latrines for excreta waste disposal. |
| Implementation of child friendly place | understanding of the parents |
| -Provision of potties -Making latrines child friendly -Making latrine easily accessible | - Raising awareness of caretakers to dispose it in latrine |
| 1. making sure there are enough toilets. | 2. understanding why carers don't use them for child faeces 3. Remove those barriers. |
| | Work with caregivers and human centred design to have caregivers develop possible methods, as the natural materials and tools available will be very different in each situation. |
| | More focus and time to adjust or build them, was not seen as important, as so many latrines were needed, children forgotten about. |
| | Awareness |
| | Change of attitude of the household members, special of the mothers and mother-in-law. |
| The possible is to let the child defecate on small plastic seat which available here in Sudan then throw it in the latrines | |
| By installing toilets at home instead of communal toilet blocks. | |
| Yes but more difficult due to latrine location | |
| Make child latrines more available and specific to what children want (often they want lots of light, and they see defecation as almost a social event, so they should be able to | |
| providing scoops, potties, child latrines, organizing cleaning campaigns | health / hygiene education. |
| Build more latrines | create awareness about proper disposal of child faeces |
| Make sure that families have adequate material such as potties, | Make sure families receive a culturally adapted training on risks associated with unsafe disposal of child faeces |
| Construction of adequate latrine and water for washing up | |

*Grey shade (refers to comment that include hardware and software components