Final report: Operational Research on Menstrual Hygiene Management (MHM) Kit for Emergencies

Somalia (Dilla & Alleybadey)



Credit: IFRC October 2015

Report developed by Somali Red Crescent Society





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Introduction

Menstruation is a normal biological process and a key sign of reproductive health, yet in many cultures it is treated as something negative, shameful or dirty. The continued silence around menstruation combined with limited access to information at home and in schools results in millions of women and girls having very little knowledge about what is happening to their bodies when they menstruate and how to deal with it.

In many places, menstruation is generally not considered something to be proud of: it is surrounded by silence, shame and social taboos that are further manifested in social practices that in many cultures restrict mobility, freedom and access to normal activities and services. Menstruating women and girls are often considered impure, unclean and unfit during this period. The situation is further worsened by the lack of washing and bathing facilities, materials and spaces that can help women and girls manage the menstrual discharge with dignity and safety.

In addition to persisting taboos, women and girls' capacity to manage their periods is affected by a number of other factors, including limited access to affordable and hygienic sanitary materials and disposal options leaving many to manage their periods in ineffective, uncomfortable and unhygienic ways. In some contexts, natural materials such as mud, leaves, dung or animal skins are used to manage the menstrual flow (UNESCO 2013, Puberty Education and Menstrual Hygiene Management). As a result, menstruating girls and women often feel ashamed and embarrassed.

Due to the cultural and taboos surrounding menstruation the issues of menstrual hygiene management have been ignored or misunderstood. There is lack of information on the process of menstruation, the physical and psychological changes associated with puberty and proper requirements for managing menstruation. Despite increased attention from the global humanitarian community in addressing the menstrual hygiene management (MHM) needs of adolescent girls and women in emergency settings, this issue is often overlooked and poorly addressed.

In Somalia, not much has been done on Menstrual hygiene management but UNICEF has done some work with populations arriving in IDP camps and mobile communities. In Puntland State, for example, UNICEF and partners are responding to the MHM challenges that schoolgirls face through the Management of Maturation Project (MMP), which aims to promote healthy maturation for girls and boys through advocacy and education (UNICEF 2008).

Background

In recent years, the issue of menstrual hygiene management (MHM) in post-conflict and post-disaster settings has increasingly drawn the attention of the international humanitarian community. Despite this, menstrual hygiene continues to be overlooked and is still not effectively or comprehensively addressed in emergencies.

"Many women suffer embarrassment, infections and even risk of violence if they have to wait until dark to find a private place to change their feminine hygiene products," says Chelsea Giles Hansen, a water and sanitation delegate with the IFRC.

Given these issues, and the lack of an evidence base for interventions that improve MHM of women and girls in emergencies, the IFRC developed and initiated a pilot operational research project around MHM in emergencies in late 2012.

The project focused on understanding the needs of women and adolescent girls around menstruation in a humanitarian emergency context. Two types of MHM kit were designed for personal use by adolescent girls and women: Kit A (disposable sanitary pads) and Kit B (reusable sanitary pads/cloth).

Evidence based trials were conducted in Bwagiriza refugee camp in Burundi (refugees of Congolese origin), to determine the appropriateness, acceptability and value of the two types of MHM kits in a humanitarian context.

The IFRC secured funding from the Humanitarian Innovation Fund (HIF) and British Red Cross (BRC) to scale-up the menstrual hygiene management project and to conduct additional field-research on MHM kits, including in Somalia.

The IFRC Eastern Africa and Indian Ocean Island Regional office supported the Somali Red Crescent Society (SRCS) through the IFRC Somalia representation, to roll out the project in two SRCS clinic sites: Dilla in Boromoa branch & Alleybadey in Hargeisa branch, Somaliland.

Research Protocol and Target Population

During project development and inception, a research protocol was developed which outlined project objectives, key research questions, location, draft content of MHM kit A and MHM kit B, target group and selection criteria for inclusion in the trial of MHM kits, and an outline of research methods used.

TARGET POPULATION

The female Somali population between ages 12 to 50 years old in Dilla and Alley Bade have been identified as the target population.

Dilla and Alleybade were selected as the project locations by the SRCS Hargeisa coordination office, due to their accessible locations, vulnerable populations, low security incidences and presence of Somali Red Crescent Society (SRCS) health clinics in the community (where data on infections/irritations can be gathered, and existing female volunteers and health staff can be utilized).

The target population was segregated by age, into three distinct groups as shown below:

Group	Age group	Description
Α	12 – 17 years	Menstruating adolescent girls
В	18 – 34 years	Menstruating women of child-bearing age
С	35 – 50 years	Menstruating women prior to menopause, generally after
		child-bearing age

Methodology

Both quantitative and qualitative data was used to collect information from the study subjects.

Prior to the baseline survey the focus group discussion was carried out in both two sites.

- To get a detailed insight and understanding of the practices, restrictions, perceptions and challenges surrounding menstruation and menstrual hygiene in a Somali population; in both a peri-urban and rural context
- To get feedback from beneficiaries on the usefulness and completeness of menstrual hygiene items, in order to determine appropriate kit content for Somali trial
- To field test the IEC material developed for appropriateness, ease of understanding and content (including recommendations so revisions can be made).

In both Dilla and Alleybadey, three different focus group discussions (FGDs) were conducted with each of the specific age groups (see table above). A total of 6 FGDs were conducted with each FGD having 8 to 10 participants from each target group. The estimated duration of each FGD was 1 ½ hours.

BASELINE SURVEY STUDY DESIGN

This was a cross-sectional study among women aged 12-50 years in Alleybadey and Dilla estimated using an appropriate sample size formula for descriptive survey.

SAMPLE SIZE DETERMINATION.

OpenEpi was used to calculate the sample size with a confident Interval of 95%.

Sample size $n = [DEFF*Np(1-p)]/[(d2/Z21-\alpha/2*(N-1)+p*(1-p)]$. This gave us a sample size of 377.

N = Population size

P = Anticipated % frequency (between 0-99.99. If unknown, use 50%)

d = Confidence limits as % of 100 (absolute +/- %). In this case 5% was used

DEFF = Design effect (for cluster surveys)

The baseline survey was carried out using a structured questionnaire and was administered to women in reproductive age group 12- 50 years and a sample size of 377 was obtained but the actual questionnaire administered was 371.

A total of 188 questionnaires were administered in Dilla and 189 of questionnaires in Alleybadey. Simple random sampling techniques were used to select the study participants. Data was collected using structured and a pre-tested questionnaires.

The survey questionnaires were uploaded into MAGPI app and data collected by Somali Red Crescent Society volunteers using mobile phones. Analysis completed by IFRC staff in Nairobi.

Sampling frame

The sampling frame comprised of adolescent girls from 12 years and above and non-pregnant women aged up to 50 years residing in Dilla and Alleybadey.

Data collection and quality control

The data was collected from 12th to 26th July 2014 in Alleybadey and Dilla. During the data collection process, enumerators used simple random sampling by standing at the middle of the survey area and then throwing a pen to identify the direction and the first household to start with.

The SRCS Health Officers with the guidance of IFRC Somalia Delegation team managed the overall baseline study with the help of six trained enumerators and two supervisors from Hargeisa and Borama branches.

To minimize errors and biases, the interviewers were trained for 3 days and questionnaires were explained to them very clearly. Pre-testing of the questionnaires was done to validate the tools in ten households that were not involved in the main study. Corrections were made accordingly. The enumerators and supervisors sent the collected survey data of the day to the Magpi administrator at the coordination office (IFRC Nairobi).

There was a meeting on daily basis between the enumerators and supervisors to review the process and resolve any problems and plan for the next day activities.

Ethical approval and consent

A request letter was submitted to Ministry of Health of Somaliland pertaining to background and objectives of baseline survey for approval. Detailed information was given to the respondents in Somali language in order to obtain their consent to participate in the study.

Data entry and analysis

The data was downloaded from the Magpi website, and then analysed using Microsoft Excel 2010/2007 and Epilnfo 7. Systematic data quality controls were conducted at all levels during collection and processing. Data was edited and cleaned before analysis. Frequencies and percentages of different variables were calculated. The data was summarized and presented in the form of text, graphs and tables for ease of reference.

See Annex 1 for a full summary table of data, for all age groups

KEY RESULTS FINDINGS OF THE BASELINE SURVEY.

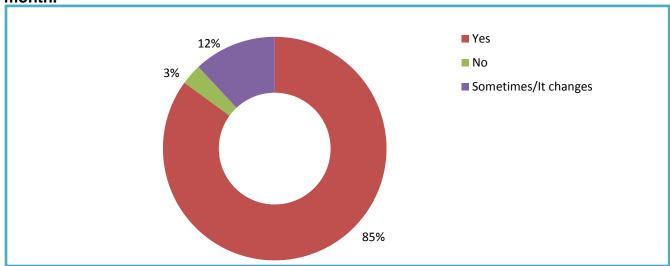
The mean age of the respondents in the survey was 25 years while the maximum and minimum respondent ages were 45 and 11 years respectively. Almost two thirds (60.4%) of the respondents have had children at the time of the interview.

Have you had any children?	Frequency	Percent
Yes	224	60.4
No	146	39.4
Total	370	99.8

Knowledge:

Majority (85.09%) of the respondents admitted that they experience regular menstrual periods while 11.9% of the respondents menstruate sometimes or on irregular basis. Similarly, the respondents were asked their knowledge on the duration (length) of a normal monthly period in which majority (84%) of the respondents perceived that the duration (length) of normal monthly period is 2-7 days followed by 8.6% who stated 7-14 days while 7.3% did not know.

Do you experience regular menstrual periods? (Bleeding from your vagina every month.



The respondents were asked the number of days they bled for during their last monthly periods and they stated an average of 5 days while the minimum and maximum days were 2 and 16 days respectively.

What do you think is the duration (length) of a normal monthly period?

Perceived Normal monthly period	Frequency	Percent
2 to 7 days	312	84.1
7 to 14 days	32	8.6
I don't know	27	7.3
Total	371	100.0

All (100%) the respondents perceived that menstruation is a normal process which begins in early adolescence..

Why do you think you get your monthly period?

The majority of girls and women interviewed knew the reasons for monthly periods. The majority (84.6%) of the respondents perceived nature as the reason of having periods while 6.2% didn't know the reasons for having periods.

Name	Frequency	Percent
God / nature	314	84.6
So I can get pregnant / have a baby	34	9.2
I don't know	23	6.2
Total		

What does it normally mean if you don't get your period anymore?

Over 47% of the respondents mentioned that they are sick if they don't get their monthly period any more while 46.9% of women/girls interviewed perceived that they are pregnant.

When you first got your monthly period, who explained to you the reason for menstruation and ways to deal with it?

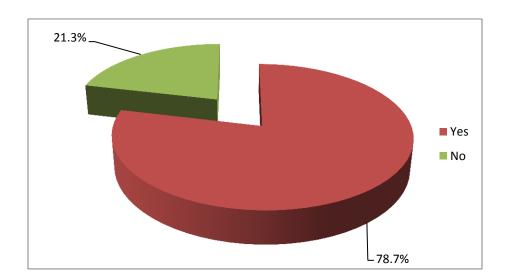
Over one third (38.3%) of the respondents stated that their mothers explained to them the reasons for menstruation and ways to deal with it; followed by 26.1% who got the information from their older sisters or cousins.

Who explained to you the reason for menstruation and ways to deal with it	Frequency	Percent
Mother	142	38.3
Grandmother	26	7.0
Friend / peer	46	12.4
Older sister or cousin	97	26.1
School teacher	20	5.4
Other	40	10.8
Total	371	100.0

When you have your monthly period, is there anything in your daily life you can't do or are restricted from doing?

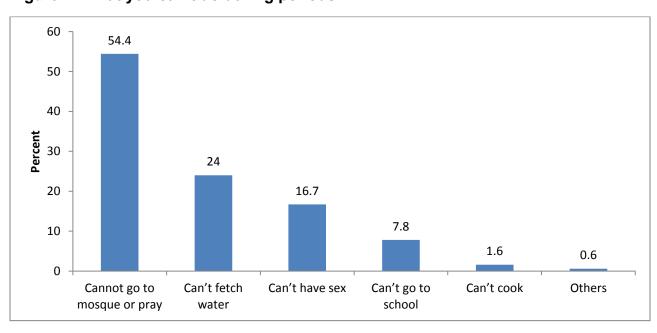
The majority (78.7%) of the respondents reported restrictions in their daily life during their monthly periods.

Figure 1: Percent distribution of the respondents reported things that restricted them doing their daily lives they have monthly periods



More than half (54.4%) of the respondents cited that they cannot go to Mosque or pray. 24% of respondents reported restrictions in fetching water, while 16.7% mentioned that they can't have sex as shown in figure 2 below:

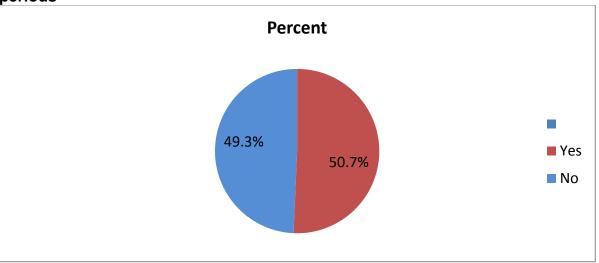
Figure 2: What you can't do during periods?



Have you ever felt embarrassed when you have your monthly periods?

Slightly more than half (50.7%) of the respondents stated that they felt embarrassed when they had their monthly periods. Upon probing, over 40% of the respondents mentioned the reasons to be blood leaking through their clothes and feeling shy when they saw their periods.

Figure 3: Percent distribution ever felt embarrassed when they had their monthly periods



The reasons for feeling embarrassed are shown in the table below:

	Frequency	Percent
Blood leaked through my clothes	150	40.4
Feel shy	37	10.0
My cloth or pad fell onto the ground	3	0.8
Someone saw me naked or washing pads	4	1.1

During your last monthly period, did you suffer any stomach, back or breast pain?

The majority (68.5%) of the respondents reported they suffered from stomach, back or breast pain. Over 36% of the respondents also mentioned that they lied down and stayed in their homes while 27% used pain killers to cope or deal with the pain.

During your last monthly period, did you suffer any stomach, back or breast pain?	Frequency	Percent
Yes	254	68.5
No	116	31.3
Total	370	99.8

How did you cope or deal with the pain?

How did you cope or deal with the pain	Frequency	Percent
Drink local remedy (tea)	19	5.1
Lie down and stay in my house	136	36.7
Take medicine / pain killer	100	27.0
Stretch my back	0	0
Others	2	0.5

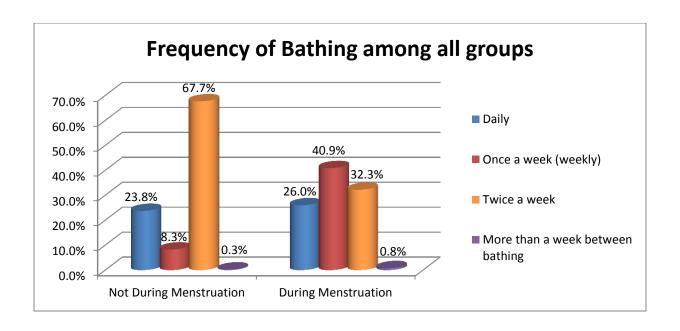
During or after your last monthly period, did you suffer any itching, irritation or smelly discharge?

Slightly less than one-fifth (19.4%) of the respondents reported that they had often suffered from itching, irritation or smelly discharge during their last monthly periods while 12.1% of the respondents reported sometimes experiencing itching, irritation or smelly discharge. Among the respondent who suffered, 62% visited health clinics to seek help while 33% did nothing or waited until it went away by itself.

The respondents were also asked whether they felt a burning sensation when they urinated. Nearly a quarter (24.8%) of the respondents affirmed that they felt a burning sensation whenever they urinate during or after their last monthly periods. Of these respondents, more than half (52%) of the respondents stated that they visited health clinics in their areas to seek for medical help while 38% did nothing or waited until it went away by itself.

When you don't have your monthly period and are NOT bleeding, how many times a day/week do you normally bath?

Two-third (67.7%) of the respondents mentioned that they bathe twice a week when they do not have their monthly periods while less than a quarter (23.8%) bathe on daily basis. Conversely, slightly more than a quarter (26.0%) of the respondents stated that they bathe daily when they having their periods while 40.9 % and 32.3 % bathe once or twice a week respectively during menstruation as shown below.



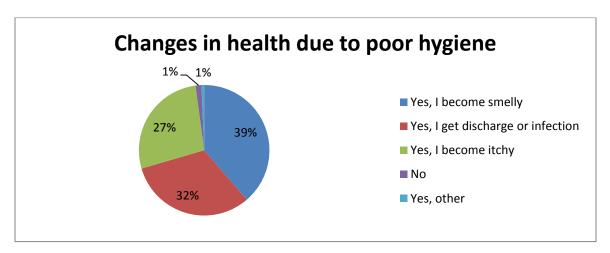
Availability of a private and comfortable place to bathe?

More than one-third (34%) of respondents reported that it is often hard to find a private and comfortable place to bathe while 26.7% of the respondents also mentioned that it is sometimes difficult to find where to bathe during and after monthly periods.

Reported changes in health due to poor personal hygiene

In a multiple response question, the majority (63%) of the respondents acknowledged that they **smell** if they do not bathe during their menses or if they use dirty or wet clothes to absorb the blood during their monthly periods. Similarly, more than half (52%) of the respondents stated that they get **discharges or infections** if they do not bathe while they are bleeding, or if they use dirty or wet clothes to absorb the blood as shown in the figure below.

Figure 4: Percent distribution of respondents who felt any changes in their health, if they don't bathe enough while they are bleeding, or if they use dirty or wet clothes to absorb the blood during their monthly periods



The majority (69.5%) of the respondents reported they use household toilets for defecation while 18.3% go to bushes or field for the same purpose and the rest -12.1%, use communal latrines or toilets. Additionally, more than half (55%) of the respondents reported difficulties in finding a private and comfortable places to use as toilets.

Menstrual practices:

For your last monthly period, what material did you use to absorb the blood?

The girls and women were asked what material they used during their last menstrual period; 44% of the respondents used clothes in underwear to absorb the blood while 19% used disposable pads and more than one-third (37%) of them bled into their clothes without protective materials. The majority (74%) of the respondents stated they change the pads two times a day while 19% change them once a day. The majority (88%) of the respondents also changed the pads in the latrines.

For the respondents that used disposable pads, 82% of them threw them in the latrine pits while 10% disposed of them in rubbish pits.

More than a third (38%) of the respondents reported having difficulties finding a private place they could comfortably change the disposable pad.

Name	Frequency	Percent
For your last monthly period, what material did you use to	-	
absorb the blood?		
Cloth in underwear	163	44
Disposable pad	70	19
Nothing, I bleed into my clothes	137	37
Total	370	100
How many times a day did you change the disposable		
pad?		
One time	14	19%
Two times	54	74%
Three times	5	7%
Total	73	100%
Where did you change the disposable pad?		
In the latrine	63	88%
In my house	4	6%
In the bathing area	3	4%
In the bushes	2	3%
Total	72	100%
Where did you throw the disposable pad once it was		
full/used?		
Throw in latrine pit	59	82%
Thrown in rubbish pile or pit	7	10%
Throw in bushes	6	8%
Total	72	100%

Cloth with underwear or 3 – Cloth tied with string or elastic;

Among the respondents who used cloth with underwear to absorb the blood during monthly period, 75% of them reported changing their cloths in the latrines while 13% change in their houses. More than half (56%) of the respondents mentioned that they often or sometimes find a private place they can comfortably change their pads. Majority (73%) of the respondents wash their clothes in the latrines while 61% dry the clothes on trees near their houses while 35% of the respondents dry them inside their houses. In addition, 71% of the respondents stated that they often or sometimes have a hard time finding a private place they can comfortably wash and dry their clothes.

Name: Cloth with underwear or 3 – Cloth tied with string or elastic;	Frequency	Percent
	rrequerioy	1 Crociii
Cloth with underwear or 3 – Cloth tied with string or elastic;		
Where did you change the cloth?		
In the latrine	123	75%
In my house	22	13%
In the bushes	12	7%
In the bathing area	6	4%
Other	1	1%
Total	164	100%
Cloth with underwear or 3 – Cloth tied with string or elastic;	104	10070
Where did you wash the cloth?		
In the latrine	123	73%
In my house	37	22%
In the bathing area	6	4%
Other	2	1%
Total	168	100%
Cloth with underwear or 3 – Cloth tied with string or elastic;		
Where did you dry the cloth?		
On trees near my house	101	61%
Inside my house	57	35%
In my latrine or bathing area	4	2%
I do not dry the cloth (use it again wet / damp)	1	1%
Other	2	1%
Total	165	100%
Cloth with underwear or 3 – Cloth tied with string or elastic;		
Is it hard to find a private place you can comfortably wash and		
dry the pad?		
Yes	57	35%
No	48	29%
Sometimes	59	36%
Total	164	100%

The majority (84.6%) of the respondents preferred to use disposable pads while 10% of the respondents opted to use clothes in underwear to absorb the blood during menstruation. Moreover, majority (85.7%) of the respondents mentioned that the pads are not available in their respective local markets and if they are, they are expensive. More than two-third (77.6%) of the respondents reported that pads are not affordable. Over 57.7% of the respondents do not always have underwear to use.

What would you prefer to use, if you could?

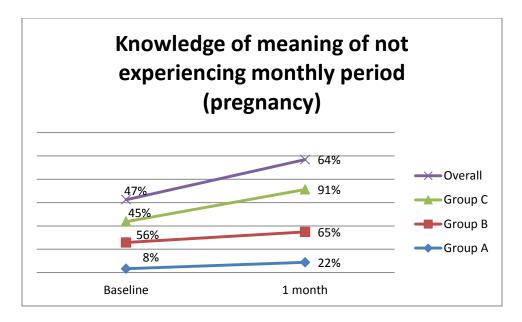
Name	Frequency	Percent
Disposable pad (e.g. Always)	314	85
Cloth in underwear	39	10.5
Tampon	11	3
Cloth in skirt or tied with string/elastic	2	0.5
Others	3	0.8
Total	369	99.4
Are these pads (or material) available here in the local market?		
Yes	46	12.4
No	318	85.7
Sometimes	6	1.6
Total	370	99.7
Are they affordable for you?	39	10.5
Yes	288	77.6
No	44	11.9
Sometimes when I have money	371	100.0
Total	371	100.0
Do you always have underwear available for you to use?		
Yes	26	7.0
No	214	57.7
Sometimes	131	35.3
Total	371	100.0

ONE MONTH POST-DISTRIBUTION SURVEY

Knowledge

The 1 month post distribution Knowledge Attitudes and Practice survey reveals that menstrual hygiene sensitization is working. Compared to the results of the first such study, a marked positive increase in knowledge on the normal duration of a monthly period (taken to be 2 to 7 days) was shown in all three age groups one month post distribution (PD) with the greatest increase seen in adolescent girls. In age group A (adolescent girls), a 20% increase in knowledge was reported 1 month after distribution. Similarly, the proportion of Group B women who reported knowing the normal length of a period increased from 86.69% to 98% while that of Group A increased from 65.57% to 80%.

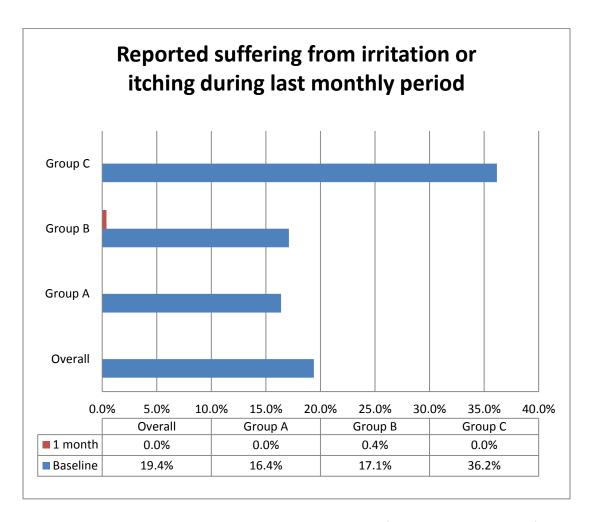
Particularly for the adolescent girls (Group A), a significant improvement (14%) was seen in knowledge about what it means to not experience a monthly period from baseline to 1 month post distribution.



Health and Infections

In each age group, there was significant reduction in adolescent girls and women who reported suffering irritation or itching during their last period one month after distribution from 16.4% (baseline) to 0% (1 month after distribution). The proportion of women (18 to 34 years old) who reported suffering from irritation or itching during their last period reduced from 17% (baseline) to 0.4% (1 month PD). The most significant reduction in reported cases of irritation and itching was in women between 35 to 50 years with a

reduction from 36.7% to 0%, and a reported overall (All age groups) from 19% to 0% as shown below.

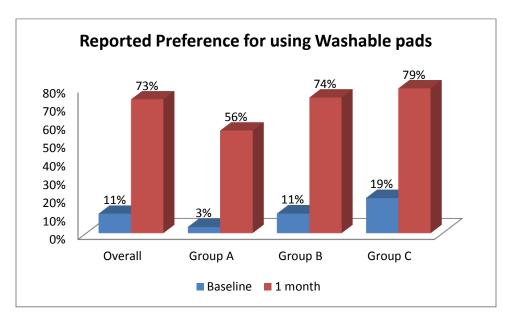


It is also important to note that an overall 24.80% of all groups reported feeling pain or a burning sensation during urination from the baseline survey, while none reported feeling pain or a burning sensation 1 month after distribution of the MHM kit.

Reported preference for Washable pads one month after distribution.

There was a variation of preference for the type of pad between the baseline and 1 month PD. At baseline, an overall 85.09% preference for disposable pads was reported among all age groups. One month after distribution of the MHM kits, there was a significant decrease in preference for disposable pads down to 22% among all age groups.

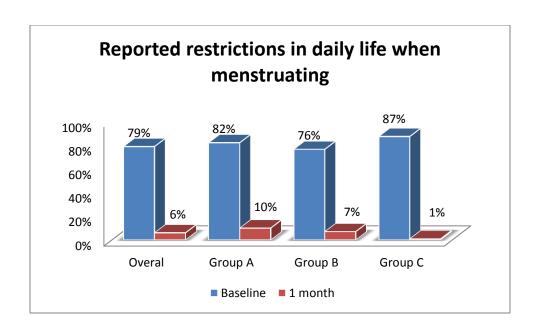
Additionally, there was a significant increase in preference for washable pads after 1 month post distribution as compared to baseline. At Baseline, 3%, 11% and 19% of adolescent girls and women in age groups A,B and C respectively preferred to use disposable pads. One month after distribution of the MHM kits, an increase in preference for washable pads was reported (56%, 74% and 79% reported in Age groups A, B and C respectively) as shown below.



Reported restrictions in daily life when menstruating

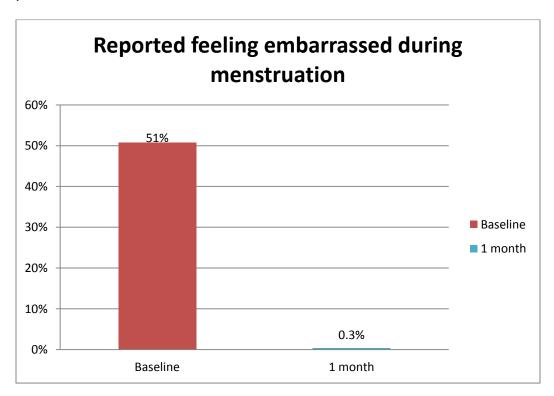
There was a significant reduction in the proportion of respondents who reported having restrictions in their daily activities during their monthly periods from Baseline to 1 month post distribution of MHM kits – from 79% to 6%.

The main restriction cited by respondents during the Baseline survey was that they could not go to the mosque or pray (54.4%). 1 month after distribution, this figure dropped to 1.6%.



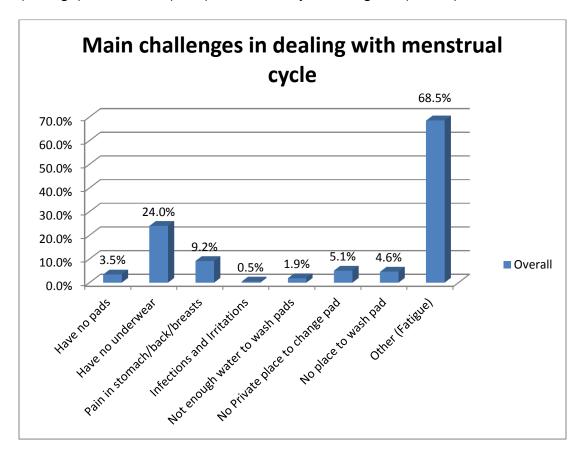
Reported feeling embarrassed

Baseline results revealed that more than half of the respondents (50.7%) cited feeling embarrassed when they had their monthly periods, mainly because blood leaked through their clothes. This figure significantly reduced 1 month after MHM kit distribution with only 0.3% of the respondents reporting feeling embarrassed during their menstrual periods as shown below.



Overall challenge of dealing with your monthly period

The main challenge cited by beneficiaries of the MHM kit C was that they did not have (enough) underwear (24%) and that they felt fatigued (68.5%) as shown below.



Comfort ability: Washable Vs. Disposable

Out of those who used the washable pads, 64% of adolescent girls, 78% of women age 18 to 34 years and 84% of women 35 to 50 years reported that the washable pad were comfortable to use. Conversely, 0.5% of overall respondents reported difficulty in using disposable pads.

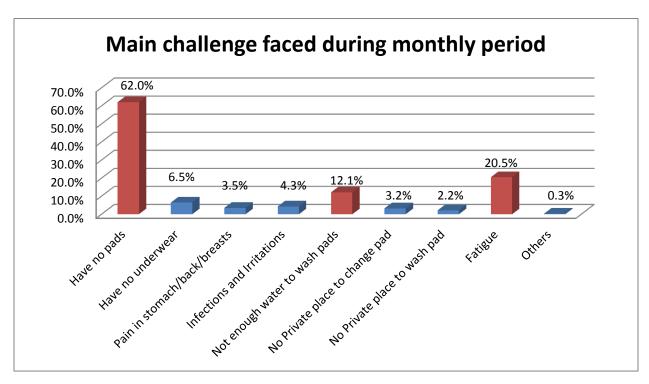
Reported difficulties in washing the pads

The lack of a private place to wash the pads was cited as the main difficulty when washing their pads by all groups (10% of adolescent girls, 5% of women aged 18-34 years and 1.3% of women aged 35-50years).

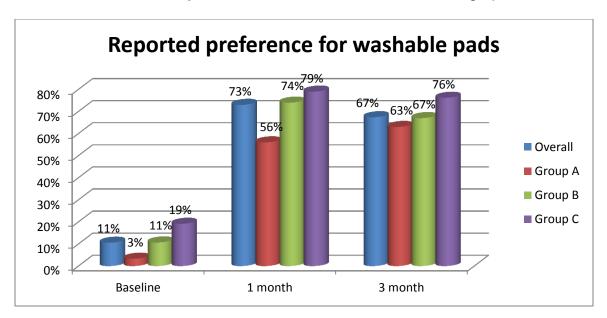
Additionally, most respondents in the 1 month follow up survey reported drying the washable pads inside their house (56.3%) or on trees near the house (13.2%);

THREE MONTH POST-DISTRIBUTION SURVEY

The main reported challenge faced by the women and adolescent girls during their monthly period was no access to pads (62%), feeling fatigued (20.5%) and lack of availability of water to wash pads (12.1%).



There was a significant marked increase in preference for washable pads among all women and girls between the baseline and 1 month survey - from 11% to 73% respectively, with a slight decrease in preference for washable pads reported between the 1 and 3 month surveys – from 73% to 67%, as shown in the graph below.



10% of women and adolescent girls who reported using washable pads for their last monthly period stated that they will not continue to use the washable pads due to: lack of water and soap, the long time it takes to wash and dry pads and lack of private places to dry their pads.

Focus Group Discussion

The following are the key points from the age-segregated FGDs held 3 months after distribution of the MHM kits:

- ➤ All groups reported significant changes after receiving and using the items in the MHM kit:
 - They are no feelings of embarrassment among women and girls as there was no risk of blood leaking out
 - School attendance among the adolescent girls had remarkably improved after receiving the kits.
 - Majority of the women in the FGD had knowledge of how to use the MHM kits
- > The women gave the following experiences using the reusable pads:
 - Majority of the women stated that they felt comfortable using the reusable pads
 - Some of the women (18 to 34 years) mentioned that there was an issue of water scarcity in the area making it difficult to wash the pads
 - One respondent mentioned the lack of a family toilet to privately wash the pads in.
 - Majority of the participants did not have a problem with the disposable pads, but mentioned that they do not currently use them (they use washable) as the disposable pads in the MHM kit were too few and only manage flows for one month. They stated that they needed more.
 - Majority of the adolescent girls (12-17 years) in the FGD preferred disposable pads over washable pads
- There was need for varied sizes of underwear particularly for the women (35-50 years)
- All groups used the laundry soap but stated that is was only enough for one month
- All groups stated that the ropes, buckets, pegs and plastic bags were useful.
- Majority of the participants used pit latrines to dispose of their pads. Some mentioned disposing of pads in bushes as there were no family latrines
- > There were no reported infections or irritations among the groups.
- The main difficulties mentioned during the FGD were:
 - Accessing MHM items like underwear and cheap pads
 - Lack of proper disposal facilities
- ➤ All women and adolescent girls expressed the importance of demonstration sessions and IEC materials during distribution and how that informed them on the use and importance of the each item in the MHM kit and increased their knowledge of hygiene and health.

Discussions and recommendations

Usage and acceptability

All women and girls who received the MHM kits reported using most or all of the items within the MHM kit.

There was a significant increase in preference for washable pads over disposable pads among all groups from 11% (baseline) to 67% (3 months after distribution). According to the survey results, the reasons for this change in preference among all groups was that the washable pads were more comfortable to use and they were able to be re-used over a long period of time and thus more cost-effective than the disposable pads. These results were also supported by Key Informant Interviews and FGD's which revealed that the disposable pads were not enough and could only manage their menstrual flows for one month.

Though there was an overall preference for washable pads over disposable pads among all groups, most beneficiaries would prefer to use disposable pads during the dry season due to lack of availability of water to wash the pads and for bathing. Despite the provision of both types of pads in the MHM kit C to support MHM needs during dry and wet seasons, the disposable pads in the kit were revealed to be insufficient in number. Sustainability of the project was also a cross cutting theme among all beneficiaries, with one of the Somalia red cross branch staff emphasizing the need for empowering women in the community to make their own pads as part of scale up activities.

The KAP survey revealed an overall increase in knowledge related to proper hygiene and menstruation among all three groups. These results were strengthened by the feedback from FGD with most beneficiaries appreciating the information and demonstration sessions during kit distribution which greatly increased their knowledge in using some of the items, of which they were previously not aware of or had never used e.g. the washable pads.

The was a 50% reduction in the feeling of embarrassment among all groups one month after distribution of the MHM kits. Consequently, there was an increase in school attendance among adolescent girls and increase in the number of women and girls going to the mosque. Furthermore, the proportion of baseline respondents who reported suffering itching, irritation or smelly discharge one month after distribution decreased significantly – from 19.41% to 0.3%. Despite the reduction in reported cases of itching and irritation, an interview with a health clinician in Dilla revealed that the health clinic receives a high number of patients with urinary tract infections (UTI's).

MHM kit content

All participants stated that they used all or most of the items in the MHM kit. Though most of the women and girls did not have a problem with the disposable pads, they stated that they were too few and could only last for one month. Additionally, during the dry season disposable pads were preferred over washable pads by some of the beneficiaries as water for washing pads was hard to come by. There were also issues with the sizes of the underwear, with the most of the women (35-50 years) stating that they needed bigger sizes.

Access to affordable pads and underwear was cited as the main issue that majority of the participants had in dealing with their menstrual periods. These finding were strengthened by the market survey which revealed that a pack of disposable pads went for \$14 while a pack of underwear went for \$4.5, both of which were too costly for most of the beneficiaries and community.

Laundry soap was shown to be very beneficial to the beneficiaries however they stated that is only lasted for one month. The IEC material was well received and understood by all groups and subsequently led to an increase in knowledge around hygiene and menstruation. The beneficiaries still used the ropes and pegs mostly for hanging their clothes. Further investigation during house hold monitoring visits revealed that they privately hanged their pads behind the house or in their bathrooms.

Water and Sanitation Facilities

In terms of solid waste management, the FGD revealed that majority of the participants disposed of their pads in latrines and bushes as they did not have access to proper disposable facilities. Failing to provide proper disposable facilities for disposing of pads could result in blocked latrines, filling of pits and risk of transmission of infection.

Women and girls need to be able to manage menstruation hygienically and access to water facilities is paramount. This however was not the case as evidenced from the baseline surveys which revealed water scarcity in Dilla and an urgent need for improvement of washing facilities in the region. These findings were supported by the 3 month post distribution survey results which revealed that over 12% of women and adolescent girls main challenge was the lack of water to wash their pads. Additionally, lack of adequate latrines in schools to comfortably change pads was noted as a challenge for some of the adolescent girls which resulted in difficulties in finding private places to dispose and change their pads.

Data Collection

Data was collected by female SRCS volunteers using Magpi on their mobile phones for data collection in Dilla and Alleybadey. However, the Magpi application did not respond effectively during the survey. There were issues with adding records in the field. Additionally, Intermittent internet connection in the SRCS office in Hargeisa, made it difficult to upload the data. While most volunteers had good capacity in using Magpi and

understanding the questions, some did not.



Somalia Red Cross Volunteer conducting KAP survey with a beneficiary in Dilla. Credit: IFRC

Furthermore, some of the new volunteers had to be trained from scratch on how to use Magpi. Lack of internet connectivity at the survey sites (Dilla and Alleybadey) compelled the volunteers to travel to Boroma and Hargeisa (in the case of Dilla and Alleybadey respectively) to upload the data collected making the data collection process very tedious and lengthy.

Recommendations

- Increase the number of disposable pads in the MHM kit C to support the women and girls during dry season and periods of water scarcity.
- National Societies should continue to sensitize and raise awareness on the link between poor hygiene and reproductive health infections in the community and incorporate MHM in other reproductive health promotion activities.
- National Societies should include menstrual hygiene management activities in their longer term development activities, looking into sustainability e.g. empowering women to develop their own pads using local materials and

- designing facilities for safe disposal of pads as well as private and hygienic latrine and washing facilities to allow for proper menstrual hygiene management.
- Advocacy with humanitarian and governmental partners in Somalia should be carried out by SRCS to promote MHM activities in their programs and improve coordination and information sharing.
- Underwear should be bigger in size and more elastic.
- Increase the number of laundry soap in the MHM Kit C
- More rigorous testing of the hardware (phones) and software (Magpi app) well in advance of the field activity.
- Allow for adequate time to train the field team, particularly new volunteers, on use of Magpi (and other data collection tools).

Conclusions and Way Forward

The initial FGDs results informed the adaptation of the MHM kit to include disposable as well as washable pads in order to enable women and girls to use disposable pads during the periods when there was no access to water, and to use the reusable cloth pads when there was sufficient access to water. The trial of the this new adapted kit (MHM Kit C), provided an evidence base for the importance and usefulness of including both types of pads. The MHM kit also demonstrated a significant improvement in knowledge, health and dignity among women and adolescent girls and the importance of mainstreaming MHM aspects into sanitation, hygiene and water related emergency interventions.

These specifications, along with the evidence gathered as part of this project can be used by agencies within the WASH sector to adapt the MHM kits to specific local contexts and enable local procurement (where appropriate). It can also assist other actors in the water, sanitation and hygiene sector to make decisions regarding the inclusion of appropriate MHM items into relief NFIs.

The success of the this and other similar trials in Uganda and Madagascar, will facilitate the inclusion of the MHM kit (reusable and disposable) into the RC/RC Emergency Relief Items Catalogue. Additionally, lessons learnt from this project will inform the development of guidelines for RC/RC National Societies on pre-positioning, appropriate uses/contexts and distribution mechanisms for MHM/hygiene/dignity kits developed and disseminated.

Annex 1:
Summary Data Table

Key indicator / question	BASELINE				1 MON	TH			3 MONTH			
	Over-	Group A	Grou p B	Grou p C	Over-	Grou p A	Group B	Group C	Over- all	Group A	Grou p B	Group C
Reported restrictions in daily life when menstruating	79%	82%	76%	87%	6%	10%	7%	1%	-	-	-	-
Reported feeling of embarrassment during menstruation	51%	59%	49%	51%	0%	0%	0%	7%	-	-	-	-
Felt pain or burning during urination, during last monthly period	25%	18%	23%	45%	0%	0%	0%	0%	-	-	-	-
Used disposable sanitary pad to absorb blood flow, for last monthly period	19%	33%	18%	6%	85%	68%	88%	88%	98%	99%	99%	93%
Where did you put the pad once it was full (Throw in latrine pit)	82%	90%	77%	100%	47%	52%	48%	40%	71%	77%	71%	60%
Where did you put the pad once it was full (Throw in rubbish pile)	10%	10%	10%	0%	25%	10%	27%	24%	9%	8%	9%	14%
Overall, main challenge of dealing with your monthly period (have no underwear)	69%	82%	70%	53%	24%	18%	20%	41%	7%	2%	5%	21%
Used washable pad (cloth in underwear) to absorb blood flow, for last monthly period	44%	46%	42%	53%	78%	64%	79%	84%	63%	52%	66%	57%
Knowledge of normal length of monthly period	84%	66%	87%	94%	94%	80%	98%	91%	94%	86%	96%	93%
Knowledge of the meaning for not experiencing monthly period (Response=pregnancy)	47%	8%	56%	45%	64%	22%	65%	91%	66%	29%	70%	93%
Knowledge of the meaning for not experiencing monthly period (Response=sickness)	47%	67%	41%	55%	31%	60%	31%	9%	29%	55%	27%	7%
Suffered itching, irritation or smelly discharge during last monthly period	19%	16%	17%	36%	0%	0%	0%	0%				
Preference: Would prefer to use DISPOSABLE pads to manage menstruation	85%	97%	84%	79%	22%	42%	20%	13%	32%	37%	33%	21%
Preference: Would prefer to use WASHABLE pads to manage menstruation	11%	3%	11%	19%	73%	56%	74%	79%	67%	63%	67%	76%
Reported difficulties in washing the Washable pads	-	-	-	-	5%	10%	5%	1%	2%	3%	2%	0%

(No private place)												
Reported difficulties in washing the Washable pads	-	-	-	-								
(No water)					4%	10%	3%	1%	3%	2%	3%	0%
Reported difficulties in washing the Washable pads	-	-	-	-								
(Blood does not wash out of cloth)					0%	2%	0%	0%	6%	2%	8%	2%
Knowledge of the result of not washing yourself	-	-	-	-					-	-	-	-
(become smelly)					52%	50%	50%	60%				
Knowledge of the result of not washing yourself	-	-	-	-					-	-	-	-
(become itchy)					47%	34%	48%	52%				
Knowledge of the result of not washing yourself	-	-	-	-					-	-	-	-
(get discharge or infection)					61%	44%	61%	75%				
Reported difficulty in using the disposable pad	-	-	-	-	1%	0%	0%	1%	4%	6%	3%	7%
Reported that the Washable pads were comfortable	-	-	-	-								
to use					77%	64%	78%	84%	54%	49%	55%	57%
Reported running out of dry clean washable pads	-	-	-	-	4%	2%	5%	3%				
Reported difficulty in washing the pads	-	-	-	-	5%	10%	5%	1%	8%	3%	11%	2%
Reported washing the reusable pad in latrine	-	-	-	-	43%	32%	44%	47%				
Reported difficulty in drying washable pads (No	-	-	-	-								
Private Place)					3%	8%	2%	3%	12%	26%	9%	7%
Reported drying the washable pad inside the house	-	-	-	-	56%	60%	56%	55%				
Overall, how satisfied are you with the MHM Kit C	-	-	-	-								
(Very Satisfied)					81%	90%	83%	68%	82%	92%	82%	64%
Overall, main challenge of dealing with your	-	-	-	-								
monthly period (Others_Feel Fatigued)					69%	68%	73%	53%	21%	37%	18%	10%
Overall, main challenge of dealing with your	-	-	-	-	-	-	-	-				
monthly period (Have no pad/cant find or afford												
pad)									62%	62%	63%	55%
Suffered stomach, back or breast pain, during last									-	-	-	-
monthly period	69%	66%	71%	57%	98%	96%	98%	100%				
Reported difficulties in finding a private place to					-	-	-	-	-	-	-	-
wash and dry the CLOTH /MATERIAL	35%	18%	39%	36%								
Sometimes have difficulties finding a private place					-	-	-	-	-	-	-	-
to wash and dry the CLOTH / MATERIAL	36%	39%	37%	28%								
Have had children (given birth prior to baseline					-	-	-	-	-	-	-	-
survey)	61%	5%	69%	87%								
Experience regular menstrual periods ("Yes")	85%	92%	87%	64%	-	-	-	-	-	-	-	-

Experience regular menstrual periods sometimes					-	-	-	-	-	-	-	-
("Sometimes it changes")	12%	7%	11%	26%								
Knowledge of menstruation as a normal					-	-	-	-	-	-	-	-
physiological process	100%	100%	100%	100%								
Sometimes suffered itching, irritation or smelly					-	-	-	-	-	-	-	-
discharge [during last monthly period]	12%	3%	15%	9%								
Have difficulty finding a private and comfortable					-	-	-	-	-	-	-	-
place to bathe	34%	25%	34%	45%								
Sometimes have difficulty finding a private and					-	-	-	-	-	-	-	-
comfortable place to bathe	27%	10%	32%	19%								
Reported defecating in a household latrine	70%	87%	68%	55%	-	-	-	-	-	-	-	-
Reported defecating in bushes or field	18%	2%	21%	28%	-	-	-	-	-	-	-	-
Have difficulty finding a private and comfortable					-	-	-	-	-	-	-	-
place to go toilet	35%	11%	38%	43%								
Sometimes have difficulty finding a private and					-	-	-	-	-	-	-	-
comfortable place to go toilet	20%	11%	22%	26%								
Used no sanitary material (bled into clothes) to					-	-	-	-	-	-	-	-
absorb blood flow, for last monthly period	37%	21%	40%	40%								
Have difficulties finding private, comfortable place					-	-	-	-	-	-	-	-
to change DISPOSABLE pad	13%	14%	14%	0%								
Sometimes have difficulties finding private,					-	-	-	-	-	-	-	-
comfortable place to change DISPOSABLE pad	25%	14%	30%	25%								
Have difficulties finding private, comfortable place					-	-	-	-	-	-	-	-
to change CLOTH / MATERIAL	36%	11%	39%	52%								
Sometimes have difficulties finding private,					-	-	-	-	-	-	-	-
comfortable place to change CLOTH / MATERIAL	20%	7%	24%	16%								
Disposable pads are available in the local market					-	-	-	-	-	-	-	-
(Response: Yes)	13%	10%	16%	5%								
Cloth in underwear' is available in the local market					-	-	-	-	-	-	-	-
(Response: Yes)	5%	0%	7%	0%								
Sanitary materials are affordable (Response: Yes)	11%	16%	11%	0%	-	-	-	-	-	-	-	-
Sanitary materials are sometimes affordable					-	-	-	-	-	-	-	-
(Response: Sometimes, when I have money)	12%	18%	11%	11%								
Always have underwear available to use	7%	8%	8%	2%	-	-	-	-	-	-	-	-
Sometimes have underwear available to use	35%	36%	36%	30%	-	-	-	-	-	-	-	-
L												