BASELINE SURVEY REPORT
ON KNOWLEDGE-ATTITUDE-PRACTICE
RELATED TO HAND-FOOD-MOUTH DISEASE
OF CHILD CARE GIVERS AT COMMUNITIES

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Summary

This baseline survey was carried out to
- Collect information on Knowledge-Attitude and Practice related to Hand-Food-Mouth disease (HFMD) of child care givers at communities, and
- Provide recommendations for Information-Education-Communication (IEC) activities within the program’s activities.

The surveyed groups had enough knowledge of epidemics and symptoms of the disease. The lower understanding level was on questions related to transmitting channels, prevention methods, severe signs of the disease and ways to take care of sick children at home. The surveyed group at informal day care centres had better knowledge of the disease compared to the ones at households.

The majority of the surveyed child care givers thought that HFMD could happen to the children they were taking care of. The informants at child-care centres showed more positive attitude toward learning about the disease than those at households and they also expressed more interest if there was cases of HFMD happened in their communities. They cared because they thought HFMD was dangerous to the life of a child and it could transmit from one to another.

The surveyed group at child-care centres practiced hand washing more regularly than those at households. This group also used soap, anti-bacteria liquid to wash their hands or children’s hands more often.

The practice of hand washing for children at day care centres was much better compared to at households. The household group did not pay attention to steps to clean fingers, between fingers, nails and rinse off soap under running tap. At day care centres, children of 3 years of age could wash their hands by themselves, with the supervision of the child care givers.

If counted within the last week, majority of the surveyed people confirmed that did clean floors, children playing grounds and children’s toys. The day care centres’ group practiced these cleaning tasks more often than the household group. They did the cleaning almost everyday.

The surveyed group at day care centres used soap, antiseptic substances when cleaning children’s toys with higher rate compared to the same practice at household group. There is no statistical difference on the frequency of using soap, antiseptic substances for floor cleaning between the two surveyed groups.

The practice of boiling water for children’s drinking was regularly done. Most of the surveyed said that the water that their children most recently drank was boiled. The majority said they covered well the food for children in most cased.

Most of the surveyed people said they knew about HFMD mainly through mass media. Information on the disease on mass media was saturated and targeted groups needed to be informed more deeply and focused more on behavioral changing levels. Thus direct communication channels between individuals to individuals and individuals and groups needed to be more focused.
1 Overview

In 2011, Hand-Foot-Mouth Disease (HFMD) exploded in Vietnam. As a member of the National Steering Committee for preventing dangerous and emergency epidemics, Vietnam Red Cross (VNRC) actively participated in information-education and communication (IEC) activities in order to prevent the epidemic. These activities contributed significantly to reducing the ratio of the HFMD patients, fatalities and controlling the disease.

In March 2012, HFMD exploded again with more serious level. Figures from The Ministry of Health (MOH) revealed the ratio of patients was 7.5 times higher compared to the previous year. Facing this situation, the Provincial People Committees and the Ministry of Health requested VNRC continued to support the disease prevention tasks through implementing IEC activities at grassroot levels conducted by their Volunteer Networks.

IEC activities of VNRD will focus on the two target groups which are childcare givers at households and at informal day-care centres at communities. IEC messages are planned to focus on the topics of hygienic practices, especially hand washing, to prevent HFMD.

The IEC program of VNRD will be implemented in 9 months. As planned, there will be baseline survey on Knowledge-Attitude and Knowledge (KAP) relating to HFMD of targeted groups before intervention activities in order to provide recommendations for IEC activities and serves the ground for evaluating the IEC activities at the end of the program.

2 The Objectives and Focus Points

2.1 The purpose and objectives

The purpose of the survey is to assess pre-intervention in KAP in HFMD among target groups, including family members and informal daycare givers of children under 5 year-old within HFMD operation in 2012.

The results of the baseline KAP survey will be used for two primary purposes. One, it would inform the design of the behaviour change communication in HFMD of the VNRC and two, it would be used as part of International Federation wide evidence and knowledge base on the results of the project interventions.

The baseline KAP survey will have the following specific objectives:

- To collect quantitative data using the existing set of questionnaires that fit in the overall objective of the program
- To computerize primarily data that compatible for data processing and analysis following social scientific method

The survey will document the results of baseline KAP survey and inform VNRC’s interventions in emergency response to HFMD.
2.2 Key questions and focus points

Key questions for the baseline survey are:
- What level of KAP of community members in HFMD?
- Which communication that has been distributed in HFMD?
- Which communication content and materials preferred by target audience?

The survey will focus on subjects relating to HFMD for instance:
- Basic information of target groups
- Knowledge of HFMD
  - Epidemiology factors relating to the disease
  - Ways to identify children with HFDM
  - Ways to identify severe symptoms of HFMD
  - Transmiting channels and preventions of HFMD
  - How to take care of affected children at home
- Attitude relating to HFMD
  - Interest and learning about HFMD
  - Interest on risks and affected cases at community
- Practices on HFMD preventions at community
  - Washing hand of child care givers
  - Washing hand of children
  - Cleaning toys and utensils of children
  - Cleaning floor where children playing
  - Eating and drinking hygiene
- IEC activities
  - IEC channels that were already received
  - IEC channels suitable for the future
  - IEC Contents and messages for the future

3 Methods and Approaches

3.1 The survey conducting group

The survey conducting group includes one independent consultant and the National Disater Response Team (NDRT) of VNRC. This group works under the support and coordination of The International Red Cross program officer.
The roles of the consultant and the NDR team of VNRD are as below:

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Roles of Consultant</th>
<th>Roles of the NDRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>▪ Design the evaluation</td>
<td>▪ Give comments for the questionnaires</td>
</tr>
<tr>
<td></td>
<td>▪ Adjust the questionnaires</td>
<td>▪ Make plans for site activities</td>
</tr>
<tr>
<td>Data collecting</td>
<td>▪ Provide guidelines on choosing targets for interviews</td>
<td>▪ Select targets for interviews</td>
</tr>
<tr>
<td></td>
<td>▪ Answers on the questionnaires</td>
<td>▪ Conduct interviews at sites</td>
</tr>
<tr>
<td>Process, Analyse and Write</td>
<td>▪ Entry the data</td>
<td>▪ Give inputs for the draft report</td>
</tr>
<tr>
<td>Reports</td>
<td>▪ Analyse the data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Write the report in Vietnamese and English</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Finalise the report after all parties’ input and comments</td>
<td></td>
</tr>
</tbody>
</table>

### 3.2 Information Sources

#### Quantitative Information

Quantitative information is collected from child care givers at households and informal day care centres at communities.

Criteria to choose households and informal day care centres are as below:

- **Household:**
  - There is a child from 1 to 5 years of age living together
  - Random selection from the children control list of village authorities regardless of their family’s situations of finance, culture and religion.

- **Informal day care centres at communities:**
  - Is private children day care unit, established by private people
  - Children day care givers don’t receive salary from the State
  - May have or may not have a licence for child care provider
  - May or may not collect fees for childcare services
  - Take care of at least 3 children from 1 to 5 years of age
Qualitative Information
The survey also collects qualitative information from the following sources:
- Survey reports on HFMD in the South
- Indepth interviews with officers in charge of HFMD’s IEC and epidemic prevention at Local Health Stations, Health Education and Communication Centres and Red Cross units at provinces.
- In-deep interviews with child care givers at households and informal children day care centres at communities. Participatory obervation skills is integrated with in-deep interview processes.

3.3 Quantitative Sample Size
Sample size is calculated specifically for child care givers at households and informal children day care centres at communities following this formular:

\[ n = \frac{p \left(1 - p \right)}{d^2} \left( \frac{1 - \alpha}{2} \right) Z^2 \]

With the assumption \( \alpha = 0.05; \ d = 0.1; \ p = 0.5 \) and adjustment design coefficient is 1.5 then sample size for each surveyed group is \( n = 146 \).

The NDR together with the locals already chose randomly 20 hamlets/ area at 20 communes/ward to prepare for the evaluation. In each hamlet, the NDR team randomly chose 7 households from the list of households that have a child from 1 to 5 years of age for interviews.

With informal children day care centres at communities, even though the number of those centres that participated in the surveys was less than the sample size, this still ensures that the NDR already selected all informal children day care centres existing in the hamlets/ward to collect information.

Sample size in reality of the survey is as the followings:
- Household, \( n = 146 \)
- Informal children day care centres, \( n = 70 \)

3.4 Points for consideration
This survey is carried out during the exposition of the HFMD in Southern provinces and the NDR team needs to have a prompt reality situation survey on knowledge, attitude and practice to serve for IEC activities.

Due to not having enough information on the quality of the beneficiaries at each commune that gets intervention, the sites for Primary Sampling Unit (PSU) was
identified promptly by random choice approach instead of the method of Probability Proportional to Size (PPS).

Households and informal children daycare centres participated in the surveys were also selected at the same locations, and not selected separately as two independent target groups.

4 Basic information of surveyed target groups

Total there are 216 child care givers participated in the quantitative survey at 8 provinces.

Table 1. Number of participants for the survey at different sites

<table>
<thead>
<tr>
<th>Province</th>
<th>Household</th>
<th>Informal day care center</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Giang</td>
<td>14</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Ben Tre</td>
<td>24</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Long An</td>
<td>14</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>Vinh Long</td>
<td>14</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Soc Trang</td>
<td>19</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>Dong Thap</td>
<td>14</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Quang Ngai</td>
<td>28</td>
<td>9</td>
<td>37</td>
</tr>
<tr>
<td>Da Nang</td>
<td>19</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>146</strong></td>
<td><strong>70</strong></td>
<td><strong>216</strong></td>
</tr>
</tbody>
</table>

The majority of the survey’s participants were women (90.3%). The average age of informal children day care givers at communities (46 year old) is higher compare to average age of child care givers at households (39 year old), with the difference valued for statistics is 7.4 year old.

In general, both groups of child care givers at households and informal day care centres don’t have a high education background. At each group, less than half of informants had finished high schools or above. There is 2.7% of informants at households said they could not read or write.

Statistical calculation has shown that there is no difference on learning capacity between the two groups involved in the survey interviews.
The biggest informal children day care center currently takes care of 70 children from 1 to 5 years of age with 52 children of 1 to 3 years of age. At households, the largest number of children is 9 children.

There are cases where in one household, there are children of the family and also its neighbor children. This meant it is obvious that there are high risks of transmitting HFMD from the household’s children to its neighboring children and vice versa. If there are 14 children from 1 to 5 years old in one household then there will have 9 children from 1 to 3 and 3 out of the total children are sending away for day care services.

### Table 2. The number of children in different ages at households and day care centres

<table>
<thead>
<tr>
<th>Number of</th>
<th>households</th>
<th>day care centres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>min</td>
<td>max</td>
</tr>
<tr>
<td>children from 1 to 5 years of age</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>children from 1 to 3 years of age</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>children go to day care centres</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

### 5 Knowledge, Attitude and Practice relating to HFMD

#### 5.1 Knowledge

**Epidemic understanding of the Disease**

A majority of the survey (rate 90.3%) believed that HFMD can cause death. Most gave correct answers about figures of the disease for example it is caused by
virus (76.4%), impossible for preventive vaccinating (75.5%) and cannot treat (73.1%). Majority of cases also understood that the disease can spread into big epidemics (85.2%) and can spread among children playing together (85.2%).

The group of informants at day care center has better understanding of the disease epidemiology figure than the group at households.

Chart 2. Percentage of informants understanding of HFMD’s epidemiology

Understanding on the transmitting channels and prevention for HFMD

The transmission channel for the disease most mentioned was through the affected child’s saliva. Next channel is via toys or sharing utensils with affected children and their vesicles.

The affected child’s care giver was also mentioned as a mean to spread the disease with the rate of 47.7% for both groups. This rate is higher than the rate for child care givers at informal day care centres, however this doesn’t make statistical difference.

Chart 3. Percentage of informants understanding of transmission channels
Most of the informants could tell the prevention methods for HFMD, with order of priorities from more effective to less effective and these methods relating to practice (i) keep personal hygiene, (ii) eat and drink hygienically, and (iii) isolate affected children or transmission channels.

Table 2. Percentage of informants listing of prevention methods

<table>
<thead>
<tr>
<th>Prevention Methods</th>
<th>Households</th>
<th>Day Care Centres</th>
<th>2 Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>wash and clean the sick child’s hands</td>
<td>68.5</td>
<td>81.4</td>
<td>72.7</td>
</tr>
<tr>
<td>wash and clean the sick child’s care giver’s hands</td>
<td>64.4</td>
<td>75.7</td>
<td>68.1</td>
</tr>
<tr>
<td>wash and clean the toys and belongs of the sick child</td>
<td>58.9</td>
<td>77.1</td>
<td>64.8</td>
</tr>
<tr>
<td>wash and clean the areas where the sick child playing</td>
<td>55.5</td>
<td>72.9</td>
<td>61.1</td>
</tr>
<tr>
<td>let the child drink well boiled water, eat well cooked food</td>
<td>63.0</td>
<td>70.0</td>
<td>65.3</td>
</tr>
<tr>
<td>separate the sick child with other children</td>
<td>50.0</td>
<td>75.7</td>
<td>58.3</td>
</tr>
<tr>
<td>let the children stay at home when there is a sick child</td>
<td>51.4</td>
<td>64.3</td>
<td>55.6</td>
</tr>
<tr>
<td>cover the mouth when cough if contacting the child</td>
<td>37.7</td>
<td>57.1</td>
<td>44.0</td>
</tr>
<tr>
<td>keep the child at a safe distance for saliva if contacting</td>
<td>35.6</td>
<td>47.1</td>
<td>39.4</td>
</tr>
</tbody>
</table>

Understanding of the disease’s symptoms

Most of the informants in the survey were able to list the signs of HFMD. The most mentioned symptom is (i) fever; (ii) blister, vesicle at mouth, palm, foot, bottom, knee (iii) ulceration at mouth. Other symptoms of digestion system affected by virus such as tiredness and diarrhea were less mentioned.

Chart 4. Percentage of informants understanding of HFMD’s symptoms
**Understanding of the severe signals of HFMD**

Severe signals of HFMD were not listed fully by both groups. The most mentioned signal was high fever about 39 C degree for over 2 days with the rate of 79.6%. The next signal with more than half of informants mentioned was nerve signs for instance the child often starts, cries, is uneasy to sleep (57.4%) and sleepy or sleeps all the time (50.9%).

Table 3. Percentage of informants understanding of HFMD’s severe signs

<table>
<thead>
<tr>
<th></th>
<th>households</th>
<th>day care centres</th>
<th>2 groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>fever &gt;39 C degree for over 2 days</td>
<td>76.7</td>
<td>85.7</td>
<td>79.6</td>
</tr>
<tr>
<td>often starting, crying, uneasy to sleep</td>
<td>52.1</td>
<td>68.6</td>
<td>57.4</td>
</tr>
<tr>
<td>sleepy or sleep all the time</td>
<td>50.7</td>
<td>51.4</td>
<td>50.9</td>
</tr>
<tr>
<td>convulsion, fainting</td>
<td>43.8</td>
<td>55.7</td>
<td>47.7</td>
</tr>
<tr>
<td>difficult to breathe, breathe fast, not even</td>
<td>37.7</td>
<td>55.7</td>
<td>43.5</td>
</tr>
<tr>
<td>can’t walk or stand straightly, shaking...</td>
<td>32.9</td>
<td>42.9</td>
<td>36.1</td>
</tr>
<tr>
<td>vomit many times</td>
<td>23.3</td>
<td>37.1</td>
<td>27.8</td>
</tr>
<tr>
<td>skin appears purple signs</td>
<td>24.0</td>
<td>32.9</td>
<td>26.9</td>
</tr>
<tr>
<td>doesn’t know</td>
<td>13.0</td>
<td>12.9</td>
<td>13.0</td>
</tr>
</tbody>
</table>

**Understanding of how to take care the HFMD affected child**

When a child is doubted with HFMD, 2 out of 3 informants (68.6% at day care centres and 69.2% at households) said the child should be taken to hospitals for checking and then follow health officers’ advice. The informants have not had a full understanding of taking care of the affected children at home.

Chart 5. Percentage of informants understanding of home based care methods
Most of the informants at day care centres (84.3%) knew that when a child was affected with HFMD, they needed to let the child at home so that he/she will not transmit the disease to others. This rate at informants at households is 56.2%. This is a statistical difference.

Chart 6. Percentage of informants understanding how to take care the affected child

<table>
<thead>
<tr>
<th>Action</th>
<th>Day Care Centres</th>
<th>Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect and clean the child’s feces</td>
<td>54.3%</td>
<td></td>
</tr>
<tr>
<td>Boil, bleach the child’s clothes before washing</td>
<td>48.6%</td>
<td></td>
</tr>
<tr>
<td>Let the child use separate bowl, spoon…</td>
<td>60.0%</td>
<td></td>
</tr>
<tr>
<td>Don’t let the child make any contacts with other children</td>
<td>77.1%</td>
<td></td>
</tr>
</tbody>
</table>

5.2 Attitude of the informants towards HFMD

Majority of the informants remembered that they had heard about HFMD, which counted 97.1% at day care centres and 95.2% at households. They knew about HFMD mainly through mass media. Child care givers at communities said they knew about the disease from inspection visits of the public health authority.

- *In the last 2 years, from time to time I heard about this disease on TV.*
- *Heard on TV, radio and speakers also talked about this*
- *Then people from public health also came to check, they talked about hand food mouth disease something, also they gave some medical stuff to clean the house, and gave some leaflets.*

Extracted from some in-depth interviews

The informants at day care centres had more positive attitude in learning about the disease compared to the ones at households group. The rate for the question if they ever self studied or heard about the disease at day care centres and households were 91.4% and 76%. This difference has a statistical meaning. The informants’ main source of information to learn more about the disease is their acquaintances who they rated having an understanding about the disease. They also learned by paying attention more to the information related to the disease when accidentally ran across it somewhere.
- I have a niece/nephew working at the (commune heath) station so I call to ask.
- Last time I went to the hospital to visit my brother’s child at Pediatrics, I saw some leaflets about the disease so I just wanted to see what it was, then brought it home and stick it on the wall where children wash hand.
- Watch TV talking about it I let it on to watch them speaking about the disease, and not turn into another channel.

Extracted from some in-depth interviews

The majority (67.1% at day care centres and 77.4% at households) thought that HFMD could happen to the children they were taking care of. There is no statiscal difference in the answer rate of these two groups.

When presented the case that in their town or village there was a child affected with HFMD, more than half of the surveyed group at day care centres (55.7%) said they ‘very much caring’, this rate is higher compared to the household group and this has statistical meaning.

Generally speaking, the majority of the surveyed groups showed attention about the disease, at fair and much attention levels.

Chart 7. Percentage of informants showing attention to HFMD cases in the village

They paid attention because the disease is dangerous to children’s lives and can be transmitted to other children.

- Of course I care about this, this disease can kill people
- This disease transmits to other children, so if in the village there is an affected child then I have to worry for my children
- I heard that this disease can transmit easily and there is no prevention medicine, so I must worry about it.

Extracted from some in-depth interviews
5.3 Daily Practices on HFMD

5.3.1 Hand washing of child care givers and children

The frequency of hand washing practice

The rate of hand washing of child care givers with ‘wash many times in a day’ at day care center group was higher than for those at household group. This has statistical difference, with the result of 2 groups at 65.7% and 45.2% respectively.

Chart 8. Percentage of informants says about times of care giver’s hand washing

The majority of child care givers said they washed children’s hands whenever they saw their hands dirty (74.3% by the informants at day care centres and 67.8% at household group). Those who said they washed children’s hands many times per day at both groups were rated at 60% and 47.9% respectively.

At day care centres, children above 3 years of age could wash their hand by themselves with the guidance of the child care givers.

The number of children’s hand washing was reported at a day care center as below:

- Children come to class, have breakfast and children wash mouths and hands 1st time after eating
- Children study, play, wash hand 2nd time before having lunch
- Children wash mouths and hands 3rd times after lunch
- Children wake up, have a shower (hand washing 4th time) and have afternoon food
- Children wash mouths and hands 5th time and parents come to pick them home

Extracted from some in-depth interviews
Chart 9. Percentage of informants’ answer on times of children’s hand washing

Steps in children’s hand washing

Steps in children’s hand washing at day care centres were much better followed than in the surveyed group at households. The household group paid less attention to steps such as the followings:

- Carefully rub, clean each finger
- Carefully rub, clean the spaces between each finger
- Carefully rub, clean each nail
- Carefully rinse off the soap under running water tap

Table 4. Percentage of informants practising children’s hand washing

<table>
<thead>
<tr>
<th>Steps in hand washing</th>
<th>Households</th>
<th>Day Care Centres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use clean water and anti-bacteria handwash liquid</td>
<td>61.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Wet both hands of the child</td>
<td>70.5</td>
<td>92.9</td>
</tr>
<tr>
<td>Apply soap to both hands of the child</td>
<td>70.5</td>
<td>90.0</td>
</tr>
<tr>
<td>Carefully rub and clean both hands’ palms</td>
<td>64.4</td>
<td>84.3</td>
</tr>
<tr>
<td>Carefully rub and clean both hands’ front sides</td>
<td>52.7</td>
<td>81.4</td>
</tr>
<tr>
<td>Carefully rub and clean each finger</td>
<td>45.9</td>
<td>78.6</td>
</tr>
<tr>
<td>Carefully rub and clean each space between the fingers</td>
<td>46.6</td>
<td>74.3</td>
</tr>
<tr>
<td>Carefully rub and clean each finger’s nails</td>
<td>39.0</td>
<td>58.6</td>
</tr>
<tr>
<td>Carefully rinse off the soap under running water tap</td>
<td>37.0</td>
<td>71.4</td>
</tr>
<tr>
<td>Dry the hands by clean towel or paper</td>
<td>58.9</td>
<td>72.9</td>
</tr>
</tbody>
</table>
Using of soap and antiseptic liquid for hand washing

The surveyed group at day care center used soap, antiseptic liquid to wash their own hands or the children’s hands more regularly than the child care givers at households did. Approximately three out of four interviewees at day care centres said that they ‘always use soap/antiseptic liquid’ while only about a half at household group had the same frequency. This difference has statistical meaning.

Chart 10. Percentage of antiseptic liquid usage’s frequency for hand washing

With the most recent hand washing, the majority of informants said that they did use soap or antiseptic liquid for it. There is no statistical difference between the two surveyed groups at day care centres and households.

- The rate of using soap, antiseptic liquid for hand washing of child care givers at day care centres and households was 94.3% and 84.2%.
- The rate for using soap, antiseptic liquid for hand washing of children at day care centres and households was 92.9% and 84.9%.

5.3.2 Cleaning children’s toys, floors and playing grounds

The frequency

The surveyed group at day care centres cleaned floors, playing grounds of children many times more on a daily regular base than the group at household did, with the rate 86.4% and 64.2% respectively. The number of informants at day care centres who said they cleaned floors every week, before/after children playing or whenever they saw floors dirty was higher than at households. This difference has statistical meaning.

At in-depth interviews, child care givers said they cleaned floors, playing ground of children everyday, as soon as all children returned home in the afternoon.
The surveyed groups cleaned children’s toys less frequently than cleaned floor or children playing ground. If to compare between the two groups, the day care center child care givers cleaned children’s toys less frequent than the household group, with statistical difference.

There was 5.7% day care centres and 3.4% households said their children did not have toys therefore this practice was not surveyed.

**Cleaning of floors and children’s toys in the most recent week**

If counted to the recent last week, most of the informants said they did clean floors and children’s playing grounds. This rate was higher at day care centres, with statistical difference. Majority of the informants informed they did clean children’s toys. There was no difference between 2 surveyed groups.

**Table 5. Percentage of informants cleaning children’s toys and playground**

<table>
<thead>
<tr>
<th></th>
<th>households</th>
<th>day care centres</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning children’s playground</td>
<td>84.2</td>
<td>94.3</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Cleaning children’s toys</td>
<td>79.5</td>
<td>84.3</td>
<td></td>
</tr>
</tbody>
</table>
Usage of soap and antiseptic liquid

In the most recent time of cleaning toys and floors, most of the informants said they did use soap or antiseptic liquid. The rate of ‘did use soap/antiseptic liquid’ of the informants at day care centres was 93.2% for cleaning toys and 90.9% for cleaning floors. The similar rates at household group were 82.8% and 90.2%.

The rate of informants at day care centres who ‘always’ use soap/antiseptic liquid when cleaning children’s toys was higher than the rate at household group. This difference has statistical meaning. Qualitative survey showed that day care centres often had many toy sets. They took turns to clean, dry and give to children for playing.

There is no statistical difference about the frequency in using soap/antiseptic liquid when cleaning floors between the 2 surveyed groups.

Table 6. Percentage of antiseptic liquid usage’s frequency for cleaning floors, toys

<table>
<thead>
<tr>
<th></th>
<th>clean floors</th>
<th>clean toys</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>house-holds</td>
<td>day care centres</td>
</tr>
<tr>
<td>always</td>
<td>65.0</td>
<td>77.3</td>
</tr>
<tr>
<td>most of the time</td>
<td>17.9</td>
<td>13.6</td>
</tr>
<tr>
<td>sometimes</td>
<td>7.3</td>
<td>1.5</td>
</tr>
<tr>
<td>use once in a while</td>
<td>3.3</td>
<td>1.5</td>
</tr>
<tr>
<td>never, rarely used and doesn’t pay attention</td>
<td>6.5</td>
<td>6.1</td>
</tr>
</tbody>
</table>

5.3.3 Hygienic practices in food and drink

The practice of boiling water for children to drink was done regularly. The answer ‘always’ was noticed with the rate of 80% at day care centres and 69.2% at households. The correlative rates for the answer ‘boil well in most cases’ were 4.3% and 15.8%. There is no statistical difference between the two groups.

Chart 13. The percentage of informants and frequency of water boiling
The majority (88.6% at day care centres and 87.0% at households) said that the water the children just drank most recently was boiled. The rate of using purified water jug for drinking counted for about 3% at each group.

Most of the informants said they always cover well food in many cases, with the rate of 98.6% at day care centres and 93.2% at households.

### 5.4 Information, Education and Communication of HFMD

Not many of the surveyed people said they received IEC materials about HFMD. The day care center group received more IEC materials than the household group, with the rate of 60% and 45.2%. This is a statistical difference.

The child care givers at day care centres said that local authorities and public health officers came to check and provide them some IEC materials.

- As people from public health and People Committee also came to check, then deliver materials for us
- Public heath people did come down, told us how to wash hand, gave us paper show how to wash hand with 6 steps

*Extracted from in-depth interviews*

Most of the informants who received IEC materials highly appreciated these materials. 90.5% informants at day care centres and 83.3% at households said that the materials they received were (very) useful.

In the future, the surveyed groups want to continue receive IEC materials on HFMD such as leaflets, big posters to stick inside the house and handbooks, picture books. Child care givers at day care centres paid attention more to IEC materials than the household group did.

**Chart 14. Percentage of informants listing their favorite communication materials**

<table>
<thead>
<tr>
<th>Communication Material</th>
<th>Day Care Centres</th>
<th>Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaflets</td>
<td>75.7</td>
<td>70.0</td>
</tr>
<tr>
<td>Poster to stick inside houses</td>
<td>62.3</td>
<td>39.0</td>
</tr>
<tr>
<td>Handbook, picture book</td>
<td>70.0</td>
<td>44.3</td>
</tr>
<tr>
<td>CD, VCD, DVD</td>
<td>44.3</td>
<td>33.6</td>
</tr>
<tr>
<td>Things with printed contents</td>
<td>25.7</td>
<td>20.5</td>
</tr>
</tbody>
</table>

The contents for communication on HFMD most suggested by groups were how to identify an affected child, severe signals of the disease and methods to prevent it. The surveyed group at day care centres answered this question more than the group at households did.
Table 7. Percentage of contents that informants suggested for communication

<table>
<thead>
<tr>
<th></th>
<th>households</th>
<th>day care centres</th>
<th>2 groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>the danger of HFMD</td>
<td>46.6</td>
<td>60.0</td>
<td>50.9</td>
</tr>
<tr>
<td>how to recognize if a child has HFMD</td>
<td>73.3</td>
<td>84.3</td>
<td>76.9</td>
</tr>
<tr>
<td>ways to recognize severe signals</td>
<td>59.6</td>
<td>77.1</td>
<td>65.3</td>
</tr>
<tr>
<td>ways to take care and treat at home</td>
<td>52.1</td>
<td>80.0</td>
<td>61.1</td>
</tr>
<tr>
<td>the causes</td>
<td>45.2</td>
<td>65.7</td>
<td>51.9</td>
</tr>
<tr>
<td>Transmitting ways</td>
<td>51.4</td>
<td>72.9</td>
<td>58.3</td>
</tr>
<tr>
<td>prevention methods</td>
<td>60.3</td>
<td>81.4</td>
<td>67.1</td>
</tr>
<tr>
<td>places for checking and treatment</td>
<td>36.3</td>
<td>52.9</td>
<td>41.7</td>
</tr>
</tbody>
</table>

The surveyed groups seemed want to receive information of HFMD via mass media channels and direct communication from the commune health officers or community officers. The informants at day care centres mentioned about IEC materials more often than the ones at household group.

Table 8. Percentage of informants’ suggestions for communication channels

<table>
<thead>
<tr>
<th></th>
<th>households</th>
<th>day care centres</th>
<th>2 groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass media (TV, radio, public speaker…)</td>
<td>94.4</td>
<td>77.1</td>
<td>80.1</td>
</tr>
<tr>
<td>Commune officers (Heath, Red Cross, Women Union, Youth…)</td>
<td>61.9</td>
<td>72.9</td>
<td>59.7</td>
</tr>
<tr>
<td>Community officers (Volunteers, hamlet officers…)</td>
<td>42.9</td>
<td>48.6</td>
<td>40.7</td>
</tr>
<tr>
<td>IEC materials</td>
<td>30.8</td>
<td>58.6</td>
<td>39.8</td>
</tr>
<tr>
<td>IEC events</td>
<td>24.6</td>
<td>38.6</td>
<td>26.9</td>
</tr>
</tbody>
</table>

Local public health and Red Cross officers tended to choose direct communication channels rather other channels.

- **TV and radio, newspapers talked a lot about the disease, people also knew briefly what it is**
- **The phase for mass media already passed, now it must be direct communication to each household, each group to change behaviors**

Extracted from in-depth interviews
6 Conclusions and recommendations

The surveyed groups had pretty sufficient knowledge about epidemics and symptoms of HFMD. The groups need to be provided more knowledge related to transmitting channels, prevention methods, severe signals of the disease, ways to take care of affected children and prevention care for other children.

The attitude of the surveyed groups towards the disease was positive, showed by their actively learning about the disease and expressing concerns if there was the epidemic disease at communities.

Practices on prevention of the disease were not good. The cleaning of floors and children’s toys was not done regularly. The child care givers at household group cleaned children’s toys very few times and the steps in hand washing for children did not meet hygienic requirements.

IEC activities need to pay attention more to child care givers at households and especially to spontaneous groups of child care givers. Direct communication channels need to be focused.

6.1 Communication targets

- The project continues to focus IEC activities on the two targeted groups at informal day care centres and child care givers at households.
- The project makes a list of informal day care centres at communities and collect more information related to the number of children, children’s ages, sanitation conditions and professional skills of child care givers.
- Volunteers of The Red Cross will be responsible for collecting the list and also information of informal day care centres. This task needs to be carried out in a subtle and flexible approach to have good cooperation of these centres. Avoid making this list in manners of checking and administration penalizing under local authorities’ activities.

6.2 Information-Education-Communication (IEC) activities

IEC Approach Strategies

- Establish the Volunteer Networks at communities for the Red Cross and train them with necessary skills, who then will play key roles in IEC activities and in supervision of behavioral changes as well as the epidemics’ situations.
- Continue to make use of the mass media channels available in stage 1 for instance (i) IEC via clips on TV, (ii) IEC via posters posted at public places. These activities are carried out in order to “awaken” the communities and create favorable conditions for direct IEC activities.
- Focus on direct IEC to individuals, child-care givers at households and informal day care centres. This activity is to be conducted by the Volunteer Networks.

- IEC materials will also be provided to support IEC activities of the Volunteer Networks and the targeted groups for behavioral changes.

**Establish and train the Volunteer Networks**

During the process of establishing the Volunteer Networks, the following factors should be considered:

**Necessary criteria for a volunteer are:**

- Have the community’s respect
- Enthusiastic for the Red Cross voluntary activities
- Can arrange time for the project’s activities

**Other priority criteria required from the volunteer members, including**

- Women with experience on nursing babies
- Have education at least from high schools and above
- Have means for transport

**Things need for consideration during the Volunteer Networks’ establishment**

- Should not assign more work to the existing Health Collaborator Networks (HCN) without a discussion and an agreement about the project’s work. Should not give this HCN the new name “the Red Cross project’s Volunteer Networks”.

- Should not use local authority agencies’ staff such as hamlet leaders, policemen, public health officers, Women Union’s members etc. as the volunteers for the project. They are local authority forces to support grassroot volunteers in implementing the project’s activities, but they do not play as volunteer roles for the project.

- Should not use money and other material support to promote or mobilise the volunteers for the project’s volunteer networks.

The volunteer networks need to have trainings about the following topics:

- Knowledge, attitude and skills related to Hand-Food-Mouth disease (HFMD)
  - Knowledge on symptoms, severe signs, transmitting ways, prevention and how to take care of affected children at households
  - Attitude towards the danger of HFMD and the explosion of the epidemics at communities
  - Hand-washing steps for child-care givers and affected children
- Ways to prepare antiseptic liquids and to wash and clean children’s toys, playing ground floors

- Information-Education-Communication skills
  - Knowledge about behavioral changes, processes in behavioral changes and challenges of community members during the process of changing their behaviors
  - Skills of communication between individuals
  - Skills of communication among groups
  - Skills of communication at community events

- Skills to work as a member of the Volunteer Networks
  - Skills on planning and reporting monthly IEC results
  - Skills on monitoring and supervising the process of behavior’s changes, monitoring and reporting on the disease’s explosion
  - Skills on working in groups or teams of the project’s volunteer networks

**Continue to implement IEC activities on mass media of phase 1 to communities**

- Update the content and message of the communication clip on TV which existed in phase 1. After that, continue to broadcast this clip on the national TV as well as the local TV at the project’s provinces.

- Continue IEC campaign at communities, following the model existed in phase 1. This activity will be conducted by the local Red Cross, with the integration of cultural or music activities specified for each local area.

- Update the contents and message of posters and banners created in phase 1. These communication tools will be used in IEC campaigns at communities and stucked at public areas. These posters will also be delivered to households, day care centres and schools, etc.

**Direct communication to targeted groups and individuals**

- This activity will be carried out by the project’s volunteers, with the support and direct supervision of the Red Cross staff at commune levels and members of the Red Cross branches at hamlets.

- The project’s volunteers need to divide sites and numbers of informal day care centres in order to implement IEC activities and supervise hygiene practices as prevention against HFMD. To avoid being overloaded, one volunteer should be in charge of approximately 50 households, and all informal day care centres in their assigned location.

- The project’s volunteers should have regular monthly meetings to report about IEC activities, behavioural changes’ process of targeted individuals and groups, about the epidemics’ progressing situation in the last month and to
plan for the next month. All issues and difficulties during the implementation of IEC activities will also be shared, discussed and supported with advice and solutions in these regular meetings.

- Direct IEC activities should include:
  - Direct communication to individuals who give care to children at households and informal day care centres.
  - Training and communication to small groups of child care givers at households and those employed at day care centres.

**Supporting for IEC activities**

- IEC materials include:
  - Leaflet, multi-fold pictures
  - Big size posters with water-resistant quality for sticking at hand washing areas, restrooms.
  - Picture books, coloring books with pictures related to HFMD
  - Common daily personal things such as key ring, drinking glass, mug etc with words or images relating to HFMD

- Together with IEC activities, there should be supports for hygienic practices, especially support to informal day care centres at communities such as soap to wash hands, antiseptic liquids to clean floors and children’s toys etc.

### 6.3 IEC contents and messages

**IEC contents**

The main contents as below need to communicate to target groups:

- The epidemics and the danger of the disease
- Transmission ways of the disease
- Ways to prevent the disease when there has not yet affected case in the area
- Ways to prevent the disease from affected child to healthy children
- Doubtful signals or signs to know affected children with HFMD
- Signs to know when the disease gets severe
- Steps to take care and monitor affected children at home
- Technical steps in hand washing for children and child care givers
- Ways to mix cleaning products or antiseptic liquids for cleaning floors and children’s toys.
- Technical steps to clean floors and children’s toys
- Services relating to HFMD for counseling, checking and treatment available at the local areas

**Communication Messages**

- The epidemic and danger of the disease
  - HFMD can cause death
  - HFMD can spread and develop into huge epidemic problem
  - HFMD has not had neither prevention vaccines nor treatment medicine
  - HFMD often happens to children from ages of 1 to 5 year old and is dangerous for children under 3 years of age

- The transmitting ways of HFMD
  - HFMD is easy to transmit to others due to low hygienic situation
  - HFMD transmits via the channel of feces-mouth
  - HFMD transmits via direct contacts with salvias and vesicles or faces of affected children
  - Child care givers and children toys are intermediate channels for transmitting the disease

- Prevention when there has not yet affected cases
  - HFMD can be actively prevented
  - Eat and drink well cooked food to prevent HFMD
  - Washing hand properly for children and child care givers is to prevent HFMD
  - Washing hands many times per day for children with soap under running water tap
  - Washing hands many times per day for children before their eating, after defecating and urinating, playing or any time when their hands get dirty
  - Child care givers must wash their hands many times per day with soap and under running water tap
  - Child care givers must wash their hands carefully before preparing food, before giving food to children, after using cleaning for children or anytime when their hands get dirty
  - Everyday, clean up the house, playing places of children and children’s toys
  - Every week, clean well children’s toys with soap, Chloramine B 2% or common antiseptic liquids
  - Every week, clean well floors, playing groups of children with soap, Chloramine B 2% or common antiseptic liquids
- Prevention against HFMD when there is affected case/s in the household or day care centres
  - Clean and collect and process the affected child’s feces with Chloramine B, powered lime or coal ashes etc.
  - Soak the affected child’s clothes and napkins with Chloramine B 2% before washing
  - Separately wash the affected child’s clothes and dry them directly under the sunlight
  - Separate the affected child within 10 days and until all vesicles on their mouth and hands and feet disappear
  - Every day, clean well the affected child’s toys with soap, Chloramine B 2% or common antiseptic liquids
  - Everyday, clean well the floors and the playing grounds of the affected child with soap, Chloramine B 2% or common antiseptic liquids

- Doubtful signals of HFMD
  - Need to closely monitor and doubt about HFMD when a sick child has fever and vesicles in their palms, feets or mouths
  - When there is any doubtful signs, the child needs to be transported to the health station for checking, treatment and care guidances

- Taking care of the affected child at home
  - The affected child can be taken care at home
  - Feed the child well, if the child is under breast or bottle-feeding then continue to feed them the same way
  - Reduce their fever (using medicine tablets, pills, healthy herbal water etc)
  - Clean their mouth and teeth carefully and hygenically
  - Not to break vesicles on the affected child’s body
  - Let the affected child rest, avoid stimulating them

- Monitor severe signals of HFMD
  - When there are severe signals observed, need to urgently transport the child to health stations for checking, treatment and care guidance
  - Severe signals of HFMD include:
    - High fever about 39 C degree and lasts for over 2 days
    - Sleepy, sleep all the time or wake up crying, crying all the time, difficult to sleep, cramping, fainting
    - Can’t walk or stand straight, shaking, weak hands and legs
    - Difficult to breath, breathe fast, uneven rhythm
Vomit many times

Appear purple veins under skin

- Washing hands following 6 steps
  - Wash hands properly to prevent HFMD
  - 6 steps of hand washing:
    Wet both hands with clean water, apply soap to hand palms, and rub 2 hand palms against each other
    Use one hand palm and its fingers to scroll into the other hand and rub each finger and hand palms carefully on both hands
    Use one hand palm rubs the other hand’s front side and vice versa
    Use fingers’ tops of one hand to clean well spaces between the other hand’s fingers and vice versa
    Gather 5 finger tops of one hand and rub against the other hand’s palm by twisting them around a few times and vice versa
    Rinse off all the soap from both hands under clean running water, then dry the hands by clean towel or tissues