REPORT
Baseline Survey on Hand, Foot and Mouth Disease

Assessment conducted by VNRC in August in Dong Nai. Photo: Quang Tuan, VNRC

Prepared by Tran Trieu Ngoa Huyen, M.D, IFRC consultant

International Federation
of Red Cross and Red Crescent Societies
# Table of contents

Summary........................................................................................................................................3  
1 Background..................................................................................................................................4  
2 Objectives ....................................................................................................................................4  
3 Description...................................................................................................................................4  
4 Results..........................................................................................................................................6  
  4.1 Demography of the Survey’s Population ...............................................................................6  
  4.2 Knowledge of HFMD ............................................................................................................8  
  4.3 Attitude of HFMD ................................................................................................................11  
  4.4 Practices of HFMD .................................................................................................................12  
  4.5 Information, Education and Communication of HFMD .......................................................15  
5 Conclusions and recommendations..............................................................................................17
Summary

This baseline survey aims to provide baseline information on knowledge, attitude, practices of the project’s targeted population in relation with Hand, Foot and Mouth Disease and to develop recommendations for communication activities.

The survey groups have enough knowledge of epidemic, symptoms, signs, day care, transmission and prevention of Hand, Foot and Mouth Disease.

In most of topics, day care worker group appear to have better and more accurate knowledge than the group of women with children under 6 years old.

The most important difference between two groups is that the rates of day care worker think the transmission of Hand, Foot and Mouth Disease through child care givers, toys and playground is higher than women. Hence, day care worker mentioned hand washing for child care givers, cleaning toys and floors where children are playing as a means of prevention.

Most of the survey group have positive attitude to prevention and care for children with Hand, Foot and Mouth Disease. The rate of paying attention to this disease in the group of day care worker is higher than women with children under 6 years old.

Most of child care givers when being asked said they wash children’s hand and their hand many times in a day. Time of hand washing of these groups is suitable for prevention campaign. Soap and antiseptic liquid have been used in most cases. Under these circumstances, the survey outcome of day care worker is better than women with children under 6 years old.

Regarding to children’s hand washing, most of them can state out the necessary steps technically. Day care workers have better practice in things such as carefully rub and clean each finger’s nails, carefully rub and clean space between the fingers and rinse the detergent out under running water tap.

The survey groups do cleaning of children’s toy and the children playground everyday or when they get dirty. Soap, antiseptic liquid or floor cleaning liquids are being used frequently. Day care workers wash children’s toys and the floors more often than the group of women with children under 6 years old.

Food for children in the survey areas is being covered frequently. Children are fed with boiled drinking water. However, the rate of day care centre boil water for children drinking is lower than the group of women with children under 6 years old.

The groups of day care centres have received communication materials regarding Hand, Foot and Mouth Disease better than the group of women with children under 6 years old. These materials have been assessed to bring much benefit to them.

In the future, the survey group would like to receive more poster, handbook, picture book and leaflets regarding information of Hand, Foot and Mouth Disease such as prevention methods, how to diagnose and ways to take care, treat a child with at home.

Recommendations of this report focus into two main themes i.e. communication channels and communication messages.
1 Background

The Vietnam Red Cross (VNRC) is implementing a project on emergency response to Hand, Foot and Mouth Disease (HFMD) in Ho Chi Minh City, Dong Nai, Binh Duong, Quang Ngai and Thanh Hoa provinces. The project’s objective is "to contribute to the reduction of illness, deaths and impact of HFMD in five severely-affected provinces in Vietnam". The implementation period is from August to November 2011.

The project interventions focus on communication of prevention messages at community level, targeting children under 6 years old, their parents, care workers and pre-school teachers, especially those from informal pre-school and day-care centres.

Communication will be done via a number of methods including inter-personal, group and using of mass media to reach both targetted beneficiaries and general population. Communication at community is expected to reach to approximate 2,250 at-risk day-care centres, mostly informal ones and some 30,000 parents of children under 6 years old in communities through direct channels.

In communication activities, baseline and endline surveys are included in the project design. The surveys are to collect data and information before and after the interventions as well as measure the effectiveness of the communication efforts.

This is the report of baseline survey before the interventions.

2 Objectives

This baseline survey has two objectives as followed

- To provide baseline information on Knowledge, Attitude and Practices (KAP) of the project’s targeted population in relation with HFMD
- To develop recommendations for communication activities on HFMD

The third objective to measure the effectiveness of the communication efforts with KAP’s improvements of the project’s targeted population will be applied for the endline survey.

3 Description

Quantitative methods

The survey applies quantitative methods. Data is collected by VNRC's staffs; while the rest of survey is done by the consultant.

Roles of the consultant are:

- Design relevant sampling size in consideration of total targeted beneficiaries
- Design tools for baseline and endline survey
- Develop guideline for VNRC's staffs to collect data
- Process data and write KAP reports in English

**Sample size**

The sample size is calculated by using this formula:

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

It is assumed that \( \alpha = 0.05; \ d = 0.05; \ p = 0.5; \) then \( n = 385 \) and adjustments such as:

- For women with children under 6 year old (U6), sample size is multiplied with design effect (assign value to 1.15) and round up to 450
- For care workers from informal day-care centres, sample is rounded up to 390

**The Survey’s Sites**

The survey conducted with 30 clusters. The unit of a cluster was a village. It was assured that larger project sites have more probability of getting into the sample than smaller sites. *Primary Sampling Unit* (PSU) was commune, *Secondary Sampling Unit* (SSU) was village and *Tertiary Sampling Units* (TSUs) were households and day-care centres.

Table 1. The survey’s sites

<table>
<thead>
<tr>
<th>Province</th>
<th>No. of project commune</th>
<th>No. of commune surveyed</th>
<th>No. of village surveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thanh Hoa</td>
<td>10</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Quang Ngai</td>
<td>10</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Binh Duong</td>
<td>20</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Dong Nai</td>
<td>20</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>HCM City</td>
<td>15</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>30</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

**The Informants**

At each village, 15 women with children under 6 year old at households and 13 day-care workers at day care centres were selected for interviews.

- Interview women with children under 6 years of age:
  
  Random selection from the household list of families with children under 6 years of age provided by the village authority.
When visiting the selected households, the project’s interviewers would ask to interview the mother of the child. If it was not possible to talk to the mother, then would interview a woman in the family who also took care of the child, for instance the grandmother, aunt, sister or housemaid.

- Interviews of day-care workers at day-care centres:

  At every day-care centre, select one day-care worker for the survey. These centers are random selected from the village’s day-care centers.

  Day-care centers are selected by the following characteristics:
  ▪ It is a private day-care center
  ▪ The day-care worker doesn’t receive salary from the state
  ▪ It may or may not have operation permit or license
  ▪ It may or may not charge some fee for childcare service
  ▪ It has at least 3 children under 6 year old

**Limitations**

The survey has been implemented as an urgent response to the fast spreading epidemic of HFMD. At the time of implementing this survey, the survey group did not have all information and on the other hand could not wait for the information on the number of women with children under 6 years of age as well as number of child care centers at the project’s sites. Therefore, PSU and SSU were selected by random choices instead of Probability Proportional to Size (PPS).

Due to the limitation of time, human resource and finance, two TSUs included households and day-care centre were selected from one SSU, and were not selected independently as two separate processes.

A short training of the survey’s questionnaire was only provided to the provincial officers of the five surveyed provinces. The consultant was not able to present at the project’s sites to guide the VNRC’s team in selection of study population nor supervise the actual process of collecting data. Instead, the local officers carried out this assignment in line with provided written guidelines.

The process to select TSUs and collect information was fully implemented by the local officers and without the quality monitoring by the survey group.

### 4 Results

#### 4.1 Demography of the Survey’s Population

The survey has been conducted at 7 districts in 5 project provinces with 772 interview tracking form. Compared with planned sample sizes, there were less of day care workers participating to
the survey because there were not enough centers for survey at Tu Nghia district, Quang Ngai province. This shortage corresponds to the adjustment of the coefficient \(d\) from 0.5 to 0.55 in the sample formula and hence does not affect to the survey result because all of day care centres have been selected for information collection.

Table 2. Informants at survey locations

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th>Women with children U6</th>
<th>Day care workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thanh Hoa</td>
<td>Trieu Son</td>
<td>60</td>
<td>52</td>
<td>112</td>
</tr>
<tr>
<td>Quang Ngai</td>
<td>Tu Nghia</td>
<td>60</td>
<td>5</td>
<td>65</td>
</tr>
<tr>
<td>HCMC</td>
<td>No 8</td>
<td>90</td>
<td>61</td>
<td>151</td>
</tr>
<tr>
<td>Binh Duong</td>
<td>Tan Uyen</td>
<td>60</td>
<td>49</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Thuan An</td>
<td>60</td>
<td>51</td>
<td>111</td>
</tr>
<tr>
<td>Dong Nai</td>
<td>Bien Hoa</td>
<td>90</td>
<td>78</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Trang Bom</td>
<td>30</td>
<td>26</td>
<td>56</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>450</strong></td>
<td><strong>322</strong></td>
<td><strong>772</strong></td>
</tr>
</tbody>
</table>

Most of informants have secondary education background upward. Day care workers have higher education background in which the mothers, rate of high school and college, university are 73.3% and 40.9%.

Chart 1. Percentage of education of informants

Other information:
- Average age of mother with children under 6 year of age is 34 and 42 of care workers.
- Each day care centre has 40 children under 6 years old and 17 under 4 years old in average. However, there are more than one third (36.2%) having no more than 5 children under 6 years old.
4.2 Knowledge of HFMD

Understanding of epidemic

Most of informants have heard of HFMD with 98.9% of women with children U6 and 98.1% of day – care workers.

Most of them provide correct answers regarding basic knowledge of HFMD such as:

- *Caused by virus* (75.3% in mother’s group and 84.8% in day care workers),
- *No cannot vaccinate* (74.0% and 79.5%);
- *No medicine for treatment* (74.9% and 80.1%); and
- *Cause death* (95.3 and 97.5%)

Other features of epidemic of HFMD were selected as follows:

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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Day Care Workers</th>
<th>Women with Children U6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous with children U4</td>
<td>90.7</td>
<td>94.1</td>
</tr>
<tr>
<td>Often happens at children U6</td>
<td>92.5</td>
<td>95.0</td>
</tr>
<tr>
<td>Children going to kindergartens or joining in groups are easy to catch the disease</td>
<td>91.3</td>
<td>95.3</td>
</tr>
<tr>
<td>Leads to epidemic</td>
<td>89.3</td>
<td>95.3</td>
</tr>
</tbody>
</table>

Understanding of its symptoms and severity

Most of informants provided correct answers to normal symptoms of HFMD. The most mentioned were *vesicle at mouth, hand-palm, foot, bottom, knee* (93.3% of women with children U6 and 96.3% of day care workers). The second is *ulceration at mouth* (77.6% and 91.3%) and *fever* (91.8% and 89.1%). Other symptoms of virus affected was also mentioned such as *tiresome* (53.8% and 67.1%); *diarrhea* (24.7% and 29.2%).

Three severe symptoms of HFMD include (i) *high fever >39 C degree, fever for over 2 days*; (ii) *often starting, crying, uneasy to sleep and* (iii) *sleepy or sleep all the time*

Chart 3. Percentage of informants understanding of HFMD’s severe signs
Understanding of transmission channels

The most mentioned transmission channels are saliva, feces and blisters of sick child. Day care workers pay attention to two other transmission channels i.e. toys, sharing utensils with the sick child and the day-care worker of the child.

Chart 4. Percentage of informants understanding of transmission channels

Understanding of prevention

Personal hygiene for children, children care givers and cleaning toys, house floors are the solutions that informants believe when being asked how to prevent HFMD. The next two solutions include safe food and isolating healthy children with the sick. The rate of group of day care worker mentioning methods of cleaning the sick child’s care giver’s hands, cleaning the toys and belongs of the sick child and letting the child stay at home when there is a child gets sick is higher than the group of women with children U6. These differences have significant statistics with $p < 0.05$; OR $[0.27 : 0.38]$ and RR $[0.66 : 0.71]$.

Table 3. Percentage of informants listing of prevention methods
In case at home or day care centre, there are sick children, the most common prevention method is isolation. Specifically:

- *Isolate and don’t let the child make any contacts with other children* (88.4% of mother group and 91.6% of day care workers)
- *Let the child stop going to the day-care centre* (65.3% and 88.8%)
- *Let the child use separate bowl, spoon etc.* (51.3% and 58.7%)

Chart 5. Percentage of informants understanding of how to prevent from HFMD

**Understanding of home care and centre care**

If children at home or day care centre get sick, most will choose to take the child to health centre and follow guidance of Medical officers (83.8% women with children U6 and 82.9% day
There are 83.9% day care workers say they will request the children stay home while only 52% of mother choose this solution.

Chart 6. Percentage of informants understanding of home care methods

<table>
<thead>
<tr>
<th>Home Care Method</th>
<th>Day Care Workers</th>
<th>Women with Children U6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not to break the vesicles or blisters</td>
<td>62.9</td>
<td>71.7</td>
</tr>
<tr>
<td>Let the child rest and avoid stimulating</td>
<td>58.7</td>
<td>45.6</td>
</tr>
<tr>
<td>Clean the child’s mouth carefully</td>
<td>55.6</td>
<td>67.3</td>
</tr>
<tr>
<td>Reduce fever</td>
<td>67.1</td>
<td>66.2</td>
</tr>
<tr>
<td>Continue to breast feed</td>
<td>61.2</td>
<td>56.7</td>
</tr>
<tr>
<td>Feed with sufficient food and drink</td>
<td>73.6</td>
<td>78.4</td>
</tr>
</tbody>
</table>

4.3 Attitude of HFMD

Most of informants have heard about HFMD, in which 98.9% of women with children U6 and 98.1% of day care workers.

The informants also show positive attitude to being awareness raising of this illness. There is a rate of 96% women with children U6 said they have done their own research or ask someone about HFMD. The corresponding rate at day care worker is 97.8%.

There are 96.7% of women with children U6 think HFMD can happen at their houses. Similarly, 88.5% of day care workers think their children can get affected at the centre. This difference has the significant statistics of p < 0.05; OR = 3.76; RR = 2.09

With the assumption that there are cases of HFMD in the village, most of the informants said they pay attention to this incident. The rate much attention of day care worker (60.9%) is bigger than women with children U6 (45.3%), with the significance of p < 0.05; OR = 0.53; RR = 0.77

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

<table>
<thead>
<tr>
<th>Attention Level</th>
<th>Day Care Workers</th>
<th>Women with Children U6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doesn’t know, no answer</td>
<td>2.5</td>
<td>1.6</td>
</tr>
<tr>
<td>No attention</td>
<td>4.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Little attention</td>
<td>28.0</td>
<td>45.3</td>
</tr>
<tr>
<td>Fair attention</td>
<td>60.9</td>
<td>45.3</td>
</tr>
<tr>
<td>Much attention</td>
<td>28.0</td>
<td>45.3</td>
</tr>
</tbody>
</table>
4.4 Practices of HFMD

Hand washing of day care worker and women with children U6

There are 64% of day care worker and 54.4% women with children U6 say they wash many times in a day. Times of hand washing:

Chart 8. Percentage of informants says about times of hand washing

<table>
<thead>
<tr>
<th>Reason</th>
<th>Day Care Workers</th>
<th>Women with Children U6</th>
</tr>
</thead>
<tbody>
<tr>
<td>when seeing the hands got dirty</td>
<td>83.5%</td>
<td>76.4%</td>
</tr>
<tr>
<td>before contacting, taking care of the child</td>
<td>64.9%</td>
<td>64.9%</td>
</tr>
<tr>
<td>before giving food to the child</td>
<td>74.0%</td>
<td>73.6%</td>
</tr>
<tr>
<td>before cooking</td>
<td>84.5%</td>
<td>84.5%</td>
</tr>
<tr>
<td>after washing or cleaning the child</td>
<td>66.9%</td>
<td>62.0%</td>
</tr>
<tr>
<td>after defecating</td>
<td>90.4%</td>
<td>81.3%</td>
</tr>
</tbody>
</table>

Most day care workers (95%) and women with children U6 (92.9%) say they use soap or antiseptic liquids for their most recent hand washing.

In general, there are 81.4% of day care workers say they always use soap or antiseptic liquid and 11.2% said they use most of the times. The corresponding rate in women with children U6 is 73.8% and 16.7%.

Chart 9. Percentage of antiseptic liquid use of care givers

<table>
<thead>
<tr>
<th></th>
<th>Day Care Workers</th>
<th>Women with Children U6</th>
</tr>
</thead>
<tbody>
<tr>
<td>always use</td>
<td>81.4%</td>
<td>73.8%</td>
</tr>
<tr>
<td>most of the time</td>
<td>11.2%</td>
<td>16.7%</td>
</tr>
<tr>
<td>sometimes use, sometimes doesn’t</td>
<td>4.3%</td>
<td>5.6%</td>
</tr>
<tr>
<td>use once in a while</td>
<td>1.2%</td>
<td>1.6%</td>
</tr>
<tr>
<td>doesn't pay attention, no answer</td>
<td>1.6%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Children’s hand washing behaviors

There are 92.2% day care workers and 89.8% women with children U6 say they always or often use soap or antiseptic liquid when washing hand for children. In the most recent hand washing, this rate of these two groups is 95% and 92.9%.
Most common time of washing hands for children before giving food to the child, after the child defecates and when seeing the child’s hands get dirty

Chart 10. Percentage of hand washing times

When being asked steps of children hand washing, most of them can state out all the required steps. According to description, day care workers have better technical practice than women with children U6 do, especially carefully rub and clean each finger’s nails, space between the fingers and rinse the detergent out under running water tap.

Table 4. Percentage of informants conducting children hand washing

<table>
<thead>
<tr>
<th>Step (Hand Washing Description)</th>
<th>Women with Children U6</th>
<th>Day Care Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use clean water, anti-bacteria hand wash liquid</td>
<td>63.8</td>
<td>74.8</td>
</tr>
<tr>
<td>Wet both hands of the child</td>
<td>81.8</td>
<td>89.1</td>
</tr>
<tr>
<td>Apply soap to both hands of the child</td>
<td>92.0</td>
<td>92.2</td>
</tr>
<tr>
<td>Carefully rub and clean 2 hands’ palms</td>
<td>81.1</td>
<td>91.6</td>
</tr>
<tr>
<td>Carefully rub and clean 2 hands’ front sides</td>
<td>74.4</td>
<td>81.4</td>
</tr>
<tr>
<td>Carefully rub and clean each fingers</td>
<td>71.3</td>
<td>80.7</td>
</tr>
<tr>
<td>Carefully rub and clean each space between the fingers</td>
<td>62.4</td>
<td>78.3</td>
</tr>
<tr>
<td>Carefully rub and clean each finger’s nails</td>
<td>54.4</td>
<td>76.4</td>
</tr>
<tr>
<td>Wash away the detergent in the wash-tub, basin</td>
<td>49.1</td>
<td>31.7</td>
</tr>
<tr>
<td>Rinse the detergent out under running water tap</td>
<td>64.9</td>
<td>84.5</td>
</tr>
</tbody>
</table>
dry the hands by clean towel or paper 67.8 82.0

Cleaning children’s toys and their playground

Most of the informants say they have washed children’s toys and cleaned children’s playground. Most of them said they have used soap and antiseptic liquid in the most recent cleaning time.

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

<table>
<thead>
<tr>
<th></th>
<th>women with children U6</th>
<th>day care workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning children’s toys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>84.4</td>
<td>93.2</td>
</tr>
<tr>
<td>Use soap and anti-septic liquid in the most recent time</td>
<td>92.5</td>
<td>98.3</td>
</tr>
<tr>
<td>Cleaning children’s playground</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>91.8</td>
<td>98.1</td>
</tr>
<tr>
<td>Use soap and anti-septic liquid in the most recent time</td>
<td>93.9</td>
<td>94.6</td>
</tr>
</tbody>
</table>

When washing children’s toys, 96.3% day care workers say they often or in most cases use soap, anti-bacteria liquid. The corresponding rate in women with children U6 is 89.7%.

Similarly, with cleaning children’s playground, the rate of informants whom always use detergent, sterilizing liquid, floor products or most of the time use it is 93.7% of day care workers and 87.9% in women. There are 3.8% day care workers and 8.2% women with children U6 say sometimes use, sometimes doesn’t use detergent, sterilizing liquid or floor products.

Both care workers and women with children U6 clean children’s toys, clean the playground and wash the children when they get dirty.

Day care workers wash children’s toys and house floors in a more frequent basis than the group of women with children U6. The table is as below:

Chart 11. Frequency of cleaning children’s toys and floor cleaning of the informants
Hygiene food practice

97.5% of day care workers mentioned they always cover children’s food. The corresponding rate in women group is 95.3%.

Regarding to boiling water for children, there are 91.9% of day care workers and 97.1% mother group say children at home and at centre all drink boiled water. It can be understood that the lower rate in day care workers is because they use ready-used water tanks in centres.

In general, the frequency of water boiling behaviors is as below:

- *Always boil* (90.7% of day care workers and 94% of mother group)
- *Most of the times boil* (1.2% and 1.6%)
- *Never boil* (5.6% and 0.7%)

4.5 Information, Education and Communication of HFMD

Most of informants say they have well received communication materials of HFMD. The rate in day care workers is higher than women with children U6.

Chart 12. Percentage of informants says they have received communication materials
The informants say communication materials of HFMD are of positive effect, and very beneficial (70.5% in day care workers and 56.4% in women with children U6) and beneficial (26.3% and 41.1%).

When being asked of favorite communication materials, all groups mentioned of posters, handbook, picture book and leaflets

Chart 13. Percentage of informants listing their favorite communication materials

Prevention methods, how to diagnose and ways to take care, treating a child with at home are the suggested contents for future communication materials of HFMD.

Table 6. Percentage of contents that informants suggested for communication campaign

<table>
<thead>
<tr>
<th></th>
<th>women with children U6</th>
<th>day care workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>prevention methods</td>
<td>77.6</td>
<td>82.6</td>
</tr>
<tr>
<td>how to recognize if a child has HFM</td>
<td>71.3</td>
<td>75.8</td>
</tr>
<tr>
<td>ways to take care and treat at home</td>
<td>70.9</td>
<td>84.8</td>
</tr>
<tr>
<td>the danger of HFM disease</td>
<td>62.4</td>
<td>65.5</td>
</tr>
<tr>
<td>ways to recognize severe signals of the disease</td>
<td>65.1</td>
<td>79.5</td>
</tr>
<tr>
<td>spreading ways</td>
<td>55.3</td>
<td>67.7</td>
</tr>
<tr>
<td>places to take children for checking and treatment</td>
<td>54.0</td>
<td>66.5</td>
</tr>
<tr>
<td>the causes</td>
<td>49.3</td>
<td>66.8</td>
</tr>
</tbody>
</table>

5 Conclusions and recommendations

The informants have enough knowledge and positive attitude and relating to HFMD. Practices of caring and prevention of the disease are rather bad, especially hand washing behaviors and isolation of sick child.

Knowledge, attitude and practice of day care workers are better than of women with children U6. The two main reasons are day care workers have higher education background and they have received more communication materials of HFMD. One more reason is because of work day care workers have more demand and motivation to explore and raise awareness of HFMD.

Recommendations of communication activities

Although research found that informant’s knowledge, attitude and practice are good, communication activities should be further promoted as the information they receive is from untraditional channels and the severity of HFMD is still on going.

- It is necessary to focus communication activities to women with children U6 because this group has lower education background and their knowledge, attitude and practice relating to HFMD lower than day care workers.

- Communication activities focus in both direct channel i.e. face to face and indirect i.e. communication materials and mass media.

- Direct communication activities include:
  - Face to face communication to child care givers at households and day care workers
  - Training and communicating in group for child care givers at home and centre

- Communication materials should include
  - Poster to stick inside houses
  - Handbook, picture book about the disease
  - Leaflets
  - Poster to stick on streets
  - CD, VCD and DVD
Recommendations of communication contents

The following topics are required to communicate to target audiences

- The danger of HFM disease
- Spreading ways
- Prevention methods at home
- Prevention methods at day care centres
- Prevention methods of sick child to healthy child
- Signs of sick children
- Signs of its severity
- How to take care and monitor sick child at home
- Hand washing techniques for children and child care givers
- Children playground washing techniques and toy cleaning
- Consultancy, checking and treatment services of HFMD available locally

Recommendation of communication messages

- The danger of this disease
  - HFMD can cause death
  - HFMD can spread out and become a pandemic
  - HFMD is dangerous because there is not yet vaccination and treatment medicines
  - HFMD is dangerous to children from 1 to 5 years old, especially children under 3
- Signs of the disease
  - It is required to be cautious when children have fever or skin rash with blister in hands, foot or mouths.
  - When these signs are found, it is required to take children to the health centre for treatment immediately.
- Taking care of the sick children
  - The sick children can be taken care of at home
  - Feed them well with food or mom’s milk if they are still at early age
  - Fever fight by taking medicine, cleaning the child, etc.
  - Teeth cleaning
  - Rest them
- Take school off, no contact with other children.
- Collect and treat excreta properly, can be with lime or ash ...
- Don’t break up children’s skin rash.
- Take children to hospital immediately if they have high fever, hard breath, tremble...

- Transmission
  - The disease is transmitted directly through saliva, secretion of skin rash or children’s feces
  - Children care givers and children’s toys are transmission channels

- Prevention
  - HFMD can be prevented
  - Eating cooked food and boiled water for prevention
  - Hand washing properly for children and care givers is prevention of HFMD
  - Often wash children’s hands with soap and clean water.
  - Wash their hands before eating, after they go for toilets and after their playing.
  - Children care givers have to wash hands many times per day with soap and clean water before food processing and before feeding and cleaning children.
  - Often clean children toys with soap, or other anti bacteria liquids.
  - Often clean houses and children playground with soap, or other anti bacteria liquids.
  - Boil or use Chloramine B 2% before washing children’s clothes and diapers.

- Hand washing
  - Hands of sick child and child carers is the transmission mediator of HFMD
  - Proper hand washing to prevent HFMD
  - Always use soap and antiseptic liquors for hand washing
  - Wash children’s hands before meals, after toilet or playing shared toys
  - Wash child carers’ hands before preparing meals, child contact and after toilet or cleaning children.
  - Areas between fingers and nails contain lots of viruses and hence need to be cleaned out
  - Hand washing under tap water and clean with a dry cloth that virus can not affect after washing

- Child toys
  - Shared toys is the transmission mediator from child to child
- Not allow healthy children to play with HFMD children for prevention of transmission
- Cleaning child toys is a way of HFMD prevention
- Clean toys before and after child playing or any time they gets dirt
- Always use soap or antiseptic liquid to clean child toys

- Children’s facet disposal
  - FHMD is transmitted through facets – and mouths
  - Facets of sick people contains HFMD viruses
  - Disposal of child facets by burying or flushing in toilets so that they can not transmitted
  - No spreading of child facets in the playground
  - Cleaning the facet dirt places with antiseptic liquid

- Children’s playground cleaning
  - House floor and child playground are the virus affected places since they have lavae, facets and secretions from HFMD child burning spots
  - Clean the house floors and child play grounds to prevent HFMD
  - When a sick child in house, clean house floors and child play grounds every day by cleaning antiseptic liquid
  - Clean house floors and child play grounds 1-2 times/ week with cleaning antiseptic liquid

- Eating cooked food and drinking boiled water
  - Eating cooked food and drinking boiled water to prevent HFMD
  - Not allow healthy child to share spoons, chopsticks, glasses and bowls with sick child
  - Properly cover children’s food and drink to prevent HFMD viruses
  - Food cookery and containers to be cleaned with soap and carefully stored
  - Soak and wash vegetables, fruits under tap water before cooking
  - Wash and peal off fruits skins to feed children