Executive summary

Following the flash flood emergency in the Solomon Islands on 3 April 2014, the Guadalcanal Department of Health performed rapid health and WASH assessment in many of the flood-affected communities in Guadalcanal Province. A total of 125 communities across North of Guadalcanal Province were assessed from 8 to 16 April 2014. This report documents the findings of the assessments and highlights a number of areas that require urgent follow-up actions by the Health, WASH, and Food Security clusters.

Key reported findings included:

- Only 10% of assessed communities report adequate clean water
- Only 28% of communities report a functional toilet
- 66% of communities report that more than 50% of the population defecate in the open
- Only 4% of communities report adequate food while 27% have received food assistance
- Only 29% of births have been attended by a skilled personnel
- Only 21% of the communities have received health promotion messages

Recommended urgent priorities include:

- Systematically upgrade the Guadalcanal response with initial steps to include strengthening the Guadalcanal Emergency Operations Centre
- Urgent and detailed review of these preliminary assessment findings by the Health, WASH and Food Security Clusters, with timely and appropriate follow-up actions
- Prioritize infrastructure rehabilitation to assure access to inaccessible communities, with particular attention to Health Zone 6 in North-Central Guadalcanal
Background

From April 1-3, 2014, heavy rain from a tropical depression caused severe flooding in Honiara and Guadalcanal Province (pop. 64,609 and 93,613, respectively, 2009 Census). Multiple rivers burst their banks washing away houses and affecting an estimated 10,000 people in Honiara and 40,000 in Guadalcanal Province. There are approximately 10,000 displaced persons in evacuation centres (ECs) in Honiara and an unknown number in Guadalcanal. The combination of damaged or destroyed bridges and deep mud in the badly flood-affected North-central Guadalcanal Province has further limited road access and currently many affected area can only be reached by boat, restricting assessment and relief efforts. North-central Guadalcanal, where most of the population are located, is characterized by extensive plains and multiple rivers that flow from the mountains in the south to the flat, open and flood-prone areas of the North.

A substantial multi-sector emergency relief effort led by the Government of the Solomon Islands and supported by multiple United Nations Agencies, Non-Governmental Organizations (NGOs), and foreign governments, has provided substantial assistance to many of the affected population, especially in Honiara.

Despite serious access challenges, the Guadalcanal Department of Health conducted rapid health, WASH, and food security assessments across much of Northern Guadalcanal Province. The information in this report refers only to the communities assessed and extrapolation to all communities within the affected Health Zones should be conducted with caution.

Methods

Five assessment teams started assessments on 8 April 2014 using a standardized rapid assessment form (Annex 1) modified from the *Inter-Agency Standing Committee (IASC) Initial Rapid Assessment (IRA): Field Assessment Form*. The modified form has four components:

1) General population characteristics
2) Water and sanitation
3) Population health
4) Health facilities

Each assessment teams was composed of 3-4 nurses from the Guadalcanal Health Division. Target communities were chosen by the Guadalcanal Emergency Operations Centre [Health] and the assessment teams based on likelihood of flood impact and ability to access by vehicle or boat. Assessment forms were completed by the assessment teams in the field using a combination of qualitative and quantitative methods including direct observation and interviews with community residents.

Completed forms were collected at the end of each day at the Guadalcanal EOC and entered into a Microsoft Access database for descriptive analysis. Data for this report is based on assessments conducted from 8-16 April, 2014.
*Health Zone boundaries as presented in Figure 1 are approximate only
Results

A total of 125 rapid community assessments were performed in Guadalcanal Province from 8-11 April 2014, of which 16, 8, and 91 assessments were conducted in Health Zones 1, 5, and 6 respectively (Figure 1). The assessments focused on the Health Zones that were most heavily impacted. The detailed results aggregated by Health Zone are listed in Table 1.

Approximately 52% of the population in the three heavy affected Health Zones was assessed. The aggregated data suggests there is ongoing population movement with 19% of the communities reporting an increasing population, 13% reporting a decreasing population, and 65% reporting no change since the floods. When examined by Health Zone, the data suggests the greatest population movement is in Health Zone 1 where 8/16 (50%) of the communities reported increasing population. Zone 5 and Zone 6 reported no or less population movement.

The difference between total pre-disaster water sources and total post-disaster water sources providing clean water was highest in Zone 6 communities where only 97 of the 296 water sources (33%) were reported as providing clean water post-disaster. A total of 13/125 (10%) of communities reported enough clean water with Zone 5 (1/18 communities, 6%) and Zone 6 (7/91, 8%) reporting the lowest, and Zone 1 (5/16, 31%) reporting the highest rates. Open defecation appears very common in all zones; 83 of the 125 assessed communities (66%) reported >50% of the population currently practice open defecation; 10% and 6% of communities reported defecation within 20 meters of shelters and water sources, respectively. Only 28% of communities reported functional toilets.

Twenty-six flood-related injuries were documented. Only 5/17 (29%) of deliveries since the disaster were attended by skilled personnel; but, no post-disaster pregnancy-related complications were reported. Bednets were available in 46% of communities and 38% of communities reported that all residents have access to bednets. Post-disaster outbreak rumours were reported by 8% of communities. Twenty-one percent (21%) of communities report that health promotion activities have been conducted. Three percent (4%) report sufficient food and 27% report post-disaster food distributions.
<table>
<thead>
<tr>
<th>Zone 1 - Marara</th>
<th>Zone 5 - Aola</th>
<th>Zone 6 - Good Samaritan</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total estimated Health Zone population (MHMS data 2013)</td>
<td>20263</td>
<td>12042</td>
<td>31826</td>
<td>64131</td>
</tr>
<tr>
<td>Total number of communities</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Total number of assessed communities</td>
<td>16</td>
<td>18</td>
<td>91</td>
<td>125</td>
</tr>
<tr>
<td>Total estimated population of assessed communities (quick estimate by Ministry of Health staff member)</td>
<td>5502</td>
<td>5686</td>
<td>22046</td>
<td>33234</td>
</tr>
<tr>
<td>Number of communities in which the population has been officially counted (systematic count by police or NGO)</td>
<td>4</td>
<td>2</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Number of communities which everyone has access to a mosquito net</td>
<td>7</td>
<td>9</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>Total number of births attended by skilled personnel within the communities post-disaster</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Total number of visibly pregnant mothers within the assessed communities post-disaster</td>
<td>12</td>
<td>5</td>
<td>75</td>
<td>92</td>
</tr>
<tr>
<td>Total number of births within the communities post-disaster</td>
<td>2</td>
<td>2</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Total number of cases of fever and rash post-disaster</td>
<td>29</td>
<td>10</td>
<td>112</td>
<td>151</td>
</tr>
<tr>
<td>Total number of cases of diarrhea post-disaster</td>
<td>13</td>
<td>11</td>
<td>121</td>
<td>145</td>
</tr>
<tr>
<td>Total number of cases of ARI post-disaster</td>
<td>70</td>
<td>5</td>
<td>228</td>
<td>303</td>
</tr>
<tr>
<td>Total number of injury cases post-disaster</td>
<td>14</td>
<td>0</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>Total number of pregnancy-related complications post-disaster</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total number of cases of dengue post-disaster</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total number of unaccompanied children</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Total number of cases of diarrhea post-disaster</td>
<td>13</td>
<td>11</td>
<td>121</td>
<td>145</td>
</tr>
<tr>
<td>Total number of communities that have an adequate food supply</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total number of communities that have received health promotion messages</td>
<td>2</td>
<td>13%</td>
<td>0</td>
<td>24</td>
</tr>
</tbody>
</table>
Conclusions

The Guadalcanal Health Department systematically assessed 125 communities in the most affected Health Zones in Northern Guadalcanal Province. The assessments were intended to provide a rapid overview of the health situation of the affected populations, not to provide detailed sector-specific information. The assessment sites were not randomly selected and extrapolation to all communities in the affected areas should be conducted with caution.

However, despite the limitations, a number of findings suggest serious health, water, sanitation, and food security issues. Specific areas of concern include:

- Only 10% of assessed communities report adequate clean water
- Only 28% of communities report a functional toilet
- 66% of communities report that more than 50% of the population defecate in the open
- Only 4% of communities report adequate food while 27% have received food assistance
- Only 29% of births have been attended by a skilled personnel
- Only 21% of the communities have received health promotion messages

Although all areas assessed require enhanced attention, the available data indicates Health Zone 6, covering the floodplains of central-northern Guadalcanal, and with the largest population of the Province, is the most seriously affected with the most concerning health and WASH metrics.

Recommendations

1. Systematically upgrade the Guadalcanal response with initial steps to include supporting and strengthening the Guadalcanal Emergency Operations Centre
2. Urgent and detailed review of these assessment findings by the Health, WASH and Food Security Clusters, with timely and appropriate follow-up actions
3. Prioritize Guadalcanal infrastructure rehabilitation to assure access to inaccessible communities, with particular attention to Health Zone 6
Annex 1 – Solomon Islands Ministry of Health and Medical Services Post-Disaster Community Assessment Form

Solomon Islands Ministry of Health and Medical Services
Post-Disaster Community Assessment Form

Assessment Team
Evac. Centre/Community/Village Name:

Is this an
☐ Evacuation Centre  ☐ Village/Community  ☐ Other

<table>
<thead>
<tr>
<th>Name (Team Leader first)</th>
<th>Institution</th>
<th>Title/position</th>
<th>Profession/qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. Summary

Date(s) of field assessment __/____/____ - ____/____/____
Principal contact(s) at the site ____________________________
Position in community ____________________________
Telephone # ____________________________

Primary problems and priorities identified by the affected population
**Section 1 – Population Description**

### 1. Registration:

#### 1.2.1 Are the crisis affected people being registered, or have they been registered (Check one)?

- □ Yes  □ No  □ Not necessary  □ DNK

#### 1.2.2 If yes, by which institution(s)?

### 1. Size of crisis-affected population:

#### 1.3.1 Total estimated current population of site:  

### 1.3.2 Source of these population data (several responses possible)

- □ Estimate by local authorities
- □ Estimated from # households and # people per household
- □ Estimate by affected population  □ Census/name list (specify date of census) ______________
- □ Registration  □ Other (specify) ____________

### 1.3 Movement to and from this site:

#### 1.4.1 Is the population at this site increasing, decreasing, or staying about the same?

- □ Increasing  □ Decreasing  □ About the same

### 1.4 Displaced population (only complete this section if part or all of the affected population is made up of internally displaced people and/or refugees)

#### 1.4.1 Name for place of origin of displaced people (If different displaced groups are in this site, indicate the origins separately for each.)

#### 1.4.2 Organization of the settlement (Check all that apply. If refugees and IDPs are present in this site and you want to perform specific analysis for each group, use separate questionnaire per group)

- □ Camp in rural area
- □ Staying with host families in a rural area
- □ Camp in urban area
- □ Staying with host families in an urban area
- □ DNK
- □ Collective settlement in large buildings
- □ Other (specify)

#### 1.4.3 Relations between the displaced and the host community? (Check all that apply.)

- □ Host community willing to assist  □ Tensions  □ Other (specify)  □ DNK

### 1.5 People dead, missing or injured due to the crisis

#### 1.6.1 Dead

#### 1.6.2 Missing

#### 1.6.3 Injured

### 1.6 Vulnerable groups:

#### 1.6.1 If there is information suggesting that some groups are under- or over-represented (e.g. women or girl children, ethnic minorities), explain here:

#### 1.6.2 Estimated number of unaccompanied children: # ____
## Section 2 – Water Supply, Sanitation and Hygiene

### 2.1 Water supply

#### 2.1.1 Water resources

<table>
<thead>
<tr>
<th>Number of water sources in the area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of functional water sources providing clean water</td>
<td></td>
</tr>
<tr>
<td>Is there enough clean water supply for this area?</td>
<td>□ Yes □ No</td>
</tr>
</tbody>
</table>

#### 2.1.2 # of minutes on average it takes to collect total water supply for a household (incl. travel, waiting and filling the containers)

- □ 0 - 15
- □ 15 - 30
- □ 30 - 60
- □ > 60

### 2.2 Sanitation:

#### 2.2.1 Percentage of people currently using each of the places listed below to go to defecate

<table>
<thead>
<tr>
<th>In the open, not in a defined and managed defecation area (ie. seaside or bush)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In a defined and managed defecation area</td>
</tr>
<tr>
<td>In public toilets (pit latrines, pour-flush latrines, flushing toilets etc.)</td>
</tr>
<tr>
<td>In family toilets and shared family toilets (pit latrines, pour-flush latrines, flushing toilets etc.)</td>
</tr>
<tr>
<td>□ DNK</td>
</tr>
</tbody>
</table>

Check that each column adds up to 100

#### 2.2.2 Average number of users per functioning toilet

- □ ≤ 20
- □ 21 - 50
- □ 51 – 100
- □ > 100
- □ DNK

#### 2.2.3 Total # of functioning toilets

- □ DNK

#### 2.2.4 If there are latrines, are there separate facilities for girls and women? □ Yes □ No

#### 2.2.5 Is there adequate lighting? □ Yes □ No

#### 2.2.6 Presence of faeces (human or animal) on the ground on and around the site

- □ substantial presence close to shelters (<20m)
- □ no substantial
- □ substantial presence close to water sources (<20m)
- □ no substantial

### 2.3 Household Items

<table>
<thead>
<tr>
<th>Proportion of households possessing: (tick appropriate box)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### Soap

- □ < ¼
- □ ≥ ¼, < ½
- □ ≥ ½, < ¾
- □ ≥ ¾
- □ DNK

#### Mosquito nets (in good condition)

- □ < ¼
- □ ≥ ¼, < ½
- □ ≥ ½, < ¾
- □ ≥ ¾
- □ DNK

#### Narrow-necked water container (e.g. Jerrycan)

- □ < ¼
- □ ≥ ¼, < ½
- □ ≥ ½, < ¾
- □ ≥ ¾
- □ DNK

### 2.4 Are there LLIN’s present within the area (evacuation centre/village, etc.)? □ Yes □ No

#### 2.4.1 Does everyone in this area have an LLIN to use? □ Yes □ No
2.5 What are the priorities expressed by the population concerning water supply, sanitation and hygiene?

Section 3 – Health Risks and Health Status

3.1 Health Profile

3.2 Main health concerns

Morbidity (disease in population)

3.2.1 Main health concerns reported by health professionals

<table>
<thead>
<tr>
<th></th>
<th># cases in last 7 days</th>
<th># deaths in last 7 days</th>
<th># cases in last 7 days</th>
<th># deaths in last 7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever and rash</td>
<td></td>
<td></td>
<td>Dengue</td>
<td></td>
</tr>
<tr>
<td>Malaria</td>
<td></td>
<td></td>
<td>Injuries</td>
<td></td>
</tr>
<tr>
<td>Diarrhoea</td>
<td></td>
<td></td>
<td>Pregnancy-related</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>conditions</td>
<td></td>
</tr>
<tr>
<td>Acute Respiratory</td>
<td></td>
<td></td>
<td>Other (Specify):</td>
<td></td>
</tr>
<tr>
<td>Infections</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.2 Have there been any reports of any unusual increases in illness or rumours of OUTBREAKS?
□ No □ Yes (Specify) ______

3.2.3 Patients suffering from CHRONIC DISEASES for which sudden interruption of therapy could be fatal and are NOT able to receive treatment

<table>
<thead>
<tr>
<th></th>
<th># Patients not able</th>
<th>Total # in need</th>
<th># Patients not able</th>
<th>Total # in need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td></td>
<td></td>
<td>Epilepsy</td>
<td></td>
</tr>
<tr>
<td>Insulin-dependent</td>
<td></td>
<td></td>
<td>Others (Specify)</td>
<td></td>
</tr>
<tr>
<td>diabetes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kidney disease (in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>need of dialysis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.3 Has the community received any food supplies? □ Yes □ No

3.5 Is this food supply adequate? □ Yes □ No

3.6 Has the community received any health promotion messages? □ Yes □ No
3.7 If so, how did the community receive these messages? □ Radio □ Clinic □ News □ Health Talks □ Other

3.8 What are the priorities expressed by the population concerning health?