Learning Lab: Making better figures: visualizing data for action

ANH2021 – 22 June
Tricia Aung (taung4@jh.edu)
What is the most appropriate graph based on key message?

Zoom Breakout – Exercise 1
KEY MESSAGE 1

“1 in 4 countries have data that show they are on track to reach WHA targets for child malnutrition, however, we lack data to assess progress in a quarter of countries.”
“1 in 4 countries have data that show they are on track to reach WHA targets for child malnutrition, however, we lack data to assess progress in a quarter of countries.”
KEY MESSAGE 2

Gender inequalities exist among men and women in ownership and/or tenure rights for agricultural land. In some countries with data available, there is a reduction in this inequality gap over time.
"Gender inequalities exist among men and women in ownership and/or tenure rights for agricultural land. In some countries with data available, there is a reduction in this inequality gap over time."
Key Message 1

1 or 2?

Country progress towards child malnutrition

WHA/SDG targets (2021 JME)

- Stunting: On track 25, Off track-some progress 25, Off track-no progress 25, Off track-worsening 25, Assessment not possible 25
- Wasting: On track 28, Off track-some progress 8, Off track-no progress 9, Off track-worsening 6, Assessment not possible 43
- Overweight: On track 17, Off track-some progress 9, Off track-no progress 17, Off track-worsening 25, Assessment not possible 17

"1 in 4 countries have data that show they are on track to reach WHA targets for child malnutrition, however, we lack data to assess progress in a quarter of countries."

Key Message 2

1 or 2?

Ownership and/or secure rights over agricultural land among adult agricultural population by gender (FAO 2020)

Gender inequalities exist among men and women in ownership and/or tenure rights for agricultural land. In some countries with data available, there is a reduction in this inequality gap over time."
Case study

Zoom Breakout – Exercise 2
Case Study

Since May 2020, the Malawi National Statistical Office (NSO) and World Bank have conducted High-Frequency Phone Surveys on COVID-19 (HFPS COVID-19) monthly. Below is data from the HFPS COVID-19 conducted between September 14-29, 2021.

| Respondents’ crop sales in September 2021 compared to that before COVID-19 |
|-------------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Very bad, much less than normal                 | Not good, less than normal | Average, normal | Good, better than normal | Exceptionally good, much better than normal |
| 10%                                             | 44%              | 17%             | 20%              | 8%              |

The NSO Commissioner of Statistics has requested that you put together a slide that conveys the key message below.

**Key Message:** Half of respondents report a drop in crop sales during COVID-19

**Question:** What types of graph(s) would you choose to communicate this?
The HFPS COVID-19 survey includes the Food Insecurity Experience Scale (FIES). Below are estimates of (1) moderate or severe and (2) severe food insecurity from the first round of the survey conducted May 26-June 14, 2020.

<table>
<thead>
<tr>
<th>Overall</th>
<th>Residence</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Wealth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall</td>
<td>Urban</td>
<td>Rural</td>
<td>Q1 (poorest)</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Moderate/Severe</td>
<td>72%</td>
<td>58%</td>
<td>75%</td>
<td>86%</td>
<td>81%</td>
<td>80%</td>
<td>67%</td>
</tr>
<tr>
<td>Severe</td>
<td>31%</td>
<td>23%</td>
<td>33%</td>
<td>42%</td>
<td>36%</td>
<td>35%</td>
<td>30%</td>
</tr>
</tbody>
</table>

The NSO Commissioner of Statistics has requested that you put together a slide that conveys the key message below.

**Key Message:** Both rural and urban households are experiencing high levels of food insecurity. More than 80% of lower income households report moderate or severe food insecurity.

**Question:** What types of graph(s) would you choose to communicate this?
Case study

Zoom Breakout – Exercise 3
Below are results from the Malawi HFPS COVID-19 survey conducted Jan 20-Feb 6, 2021 on mask compliance.

<table>
<thead>
<tr>
<th>Case Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below are results from the Malawi HFPS COVID-19 survey conducted Jan 20-Feb 6, 2021 on mask compliance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevalence of wearing a mask in last 7 days in public</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>About half of the time</th>
<th>Some of the time</th>
<th>None of the time</th>
<th>Not been in public</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2020</td>
<td>19%</td>
<td>6%</td>
<td>1%</td>
<td>7%</td>
<td>61%</td>
<td>5%</td>
</tr>
<tr>
<td>August 2020</td>
<td>56%</td>
<td>16%</td>
<td>3%</td>
<td>8%</td>
<td>15%</td>
<td>3%</td>
</tr>
<tr>
<td>September 2020</td>
<td>47%</td>
<td>23%</td>
<td>4%</td>
<td>13%</td>
<td>11%</td>
<td>1%</td>
</tr>
<tr>
<td>November 2020</td>
<td>27%</td>
<td>22%</td>
<td>5%</td>
<td>25%</td>
<td>16%</td>
<td>5%</td>
</tr>
<tr>
<td>December 2020</td>
<td>24%</td>
<td>14%</td>
<td>3%</td>
<td>30%</td>
<td>24%</td>
<td>6%</td>
</tr>
<tr>
<td>January 2021</td>
<td>64%</td>
<td>11%</td>
<td>2%</td>
<td>9%</td>
<td>5%</td>
<td>8%</td>
</tr>
</tbody>
</table>

The NSO Commissioner of Statistics has requested that you put together a slide that conveys the key message below.

**Key Message:** Over time, the proportion of the Malawians who report wearing a mask while in public all of the time has increased; in the most recent poll, very few people report never wearing a mask.
Case study

Zoom Breakout – Exercise 4
Case Study


<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td>Aug 2020</td>
<td>94%</td>
<td>92%</td>
</tr>
<tr>
<td>Sept 2020</td>
<td>96%</td>
<td>98%</td>
</tr>
</tbody>
</table>

The NSO Commissioner of Statistics has requested that you put together a slide that conveys the key message below.

**Key Message:** Between August and September 2020, access to prenatal and postnatal care improved with larger gains in urban compared to rural areas.

**Question:** What types of graph(s) would you choose to communicate this?
What is the most appropriate graph based on key message? (Revisit)

Exercise 5
“1 in 4 countries have data that show they are on track to reach WHA targets for child malnutrition, however, we lack data to assess progress in a quarter of countries.”
“1 in 4 countries have data that show they are on track to reach WHA targets for child malnutrition, however, we lack data to assess progress in a quarter of countries.”

### Country progress towards child malnutrition

<table>
<thead>
<tr>
<th></th>
<th>On track</th>
<th>Off track-some progress</th>
<th>Off track-no progress</th>
<th>Off track-worsening</th>
<th>Assessment not possible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stunting</strong></td>
<td>25</td>
<td>36</td>
<td>8</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td><strong>Wasting</strong></td>
<td>28</td>
<td>8</td>
<td>9</td>
<td>6</td>
<td>49</td>
</tr>
<tr>
<td><strong>Overweight</strong></td>
<td>17</td>
<td>9</td>
<td>32</td>
<td>17</td>
<td>25</td>
</tr>
</tbody>
</table>

**WHA/SDG targets (2021 JME)**
Gender inequalities exist among men and women in ownership and/or tenure rights for agricultural land. In some countries with data available, there is a reduction in this inequality gap over time.
Ownership and/or secure rights over agricultural land among adult agricultural population by gender (FAO 2020)

“Gender inequalities exist among men and women in ownership and/or tenure rights for agricultural land. In some countries with data available, there is a reduction in this inequality gap over time.”
Key Message 1
1 or 2?

ZOOM POLL

Country progress towards child malnutrition
WHI/SDG targets (2021 JME)

Stunting
On track: 75
Off track-some progress: 36
Off track-no progress: 5
Off track-worsening: 5
Assessment not possible: 25

Wasting
On track: 28
Off track-some progress: 8
Off track-no progress: 9
Off track-worsening: 6
Assessment not possible: 43

Overweight
On track: 17
Off track-some progress: 9
Off track-no progress: 32
Off track-worsening: 17
Assessment not possible: 25

“1 in 4 countries have data that show they are on track to reach WHA targets for child malnutrition, however, we lack data to assess progress in a quarter of countries.”

Key Message 2
1 or 2?

Ownership and/or secure rights over agricultural land among adult agricultural population by gender (FAO 2020)

“Gender inequalities exist among men and women in ownership and/or tenure rights for agricultural land. In some countries with data available, there is a reduction in this inequality gap over time.”