Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

*BMJ Open*

Data quality assessment tool for nuitrition indicators

Data quality assessment tools for *health center*

| 1. **Health center Checklist** | | |
|---|---|---|
| **Person Interviewed ( title)** | | |
| **Health center Name** | | |
| *(Interviewer: Please verify if the following equipment is available in the* Health center*)* | | |
| **1. Equipment** | | |
| 1.1.  Computer  (give a number) | 1. yes | 0. no |
| 1.2. Data Back-up Unit (e.g. CD, flash disc) | 1. yes | 0. no |
| 1.3. Printers | 1. yes | 0. no |
| 1.4. UPS | 1. yes | 0. no |
| 1.5. Generators | 1. yes | 0. no |
| 1.6. Regular telephone | 1. yes | 0. no |
| 1.7. Access to the internet | 1. yes | 0. no |
| 1.8. Calculator | 1. yes | 0. no |
| **2. Utilities** | | |
| 2.1. Is there an electricity supply? | 1. yes | 0. no |
| 2.2. How often is the electricity supply interrupted?<br>  0. Never/occasionally    1. Once a month    2. Twice a month     3. Weekly      4. Daily | | |
| 2.3. Is the room, where the computer hardware is kept, air-conditioned? | 1. yes | 0. no |
| **3. Availability of registers, forms** | | |
| *Type of record, report or register* | Have you run out of this form in the past 6 month? If so, why? | |
| *3.1 Integrated Management of Neonatal and Childhood Illnesses (IMNCI) register* | 1. yes<br>**Reasons:** | 0. no |
| *3.2. Comprehensive and Integrated Nutrition Service for <5 years children tally sheet* | 1. yes<br>**Reasons:** | 0. no |
| *3.3 Outpatient Therapeutic Program (OTP) card* | 1. yes<br>**Reasons:** | 0. no |
| *3.4  Stabilization Centre (SC) register* | 1. yes<br>**Reasons:** | 0. no |
| *3.5 Stabilization Centre (SC) tally sheet* | 1. yes<br>**Reasons:** | 0. no |
| **4. Trained staff** | | |
| Are there staff members who received any training in the recording, processing, or reporting of health information during the last two years? If yes; | | |
| **4.1. HMIS** | | |
| 4.1.1. Health officer | 1. yes | 0. no |
| 4.1.2. Nurse | 1. yes | 0. no |
| 4.1.3. Health information technician (HIT) | 1. yes | 0. no |
| 4.1.4. Other (specify) | | |
| **4.2. CHIS** | | |
| 4.2.1. Health officer | 1. yes | 0. no |
| 4.2.2. Nurse | 1. yes | 0. no |
| 4.2.3. Health information technician (HIT) | 1. yes | 0. no |
| 4.2.4. Other (specify) | | |
| **4.3. DHIS2** | | |

1

| | | |
|---|---|---|
| 4.3.1. Health officer | 1. yes | 0. no |
| 4.3.2. Nurse | 1. yes | 0. no |
| 4.3.3. Health information technician (HIT) | 1. yes | 0. no |
| 4.3.4. Other (specify) | | |

**Technical factors- Health center**

| | | |
|---|---|---|
| 18 | Does a tally sheet exist? | 1. Yes, Observed<br>0. No |
| 19 | Do data processing procedures exist? | 1. Yes, Observed<br>0. No |
| 20 | Does the facility produce the following? | |
| 20.1 | Calculate nutrition indicators of the facility | 1. Yes, Observed<br>0. No |
| 20.2 | Comparisons with Woreda targets | 1. Yes, Observed<br>0. No |
| 20.3 | Comparisons with National targets | 1. Yes, Observed<br>0. No |
| 20.4 | Comparisons among types of nutrition services coverage | 1. Yes, Observed<br>0. No |
| 20.5 | Comparisons of nutrition services data over time (monitoring over time) | 1. Yes, Observed<br>0. No |
| 21 | Does a procedure manual for nutrition services data collection (with definitions) exist? | 1.Yes, Observed<br>0. No |

| **Data Completeness- at Health center level for the last six months** | | | | | | | |
|---|---|---|---|---|---|---|---|
| 22 | What is the number of Health posts in the catchment area that are supposed to report nutrition indicators? | | | | | | |
| 23 | What is the number of Health posts in the catchment area that are actually reporting nutrition indicators | | | | | | |
| 24 | How many nutrition data indicator is the health center supposed to receive on the HMIS monthly report? | | | | | | |
| 25 | How many nutrition data indicator is the health center receive on the HMIS monthly report? | | | | | | |
| 26 | How many nutrition indicators does the health center need to report on in the HMIS monthly report? | | | | | | |
| 27 | Does the health center keep copies of HMIS monthly reports sent by health posts? | 1. Yes<br>0. No | | | | | |
| 28 | Does the health center keep copies of HMIS monthly reports sent to the woreda health office? | 1. Yes<br>0. No | | | | | |
| 29 | Count the number of monthly reports submitted by the health posts for the last 6 months | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 |
| | | | | | | | |
| 30 | | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 |

2

|  | Count the number of monthly reports submitted to the woreda health office by the health center for the last 6 months |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| 31 | Does the health center fill the monthly report form completely | 1.Yes, Observed 0. No |  |  |  |  |  |  |  |
| 32 | Count the number of nutrition indicators that are supposed to be filled in by this facility but left blank without indicating "0" for the last 6 months reports |  |  |  |  |  |  |  |  |

| Data timeliness- at Health center level for the last six months | | | | | | | |
|---|---|---|---|---|---|---|---|
| 33 | When are you expecting to receive the HMIS report from health posts? | | | | | | |
| 34 | Does the health center record receipt dates of the HMIS monthly report? | 1.Yes | 0.No | | | | |
|  | If yes, check the dates of receipts for the last six months | | | | | | |
|  |  |  | HP 1 | HP 2 | HP 3 | HP 4 | HP 5 |
| 34.1 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 34.2 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 34.3 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 34.4 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 34.5 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 34.6 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 35 | When are you expected to submit HMIS report to woreda health office? |  |  |  |  |  |  |
| 36 | Does the health center have a record of submitting data on time to woreda level? | 1.Yes 0.No |  |  |  |  |  |
|  | If yes, check the dates of submission for the last six months | | | | | | |
| 36.1 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 36.2 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 36.3 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 36.4 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 36.5 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |
| 36.6 | Month (specify) | 1.Before deadline 0. After deadline |  |  |  |  |  |

**Data Accuracy Check- health center level for the last six months**
**Cluster report from all the health posts**

| 37 | Manually count the number of following data items from the HMIS monthly reports for the last 6 months. Compare the figures with the reports from the computer or paper database. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Indicator** | | | | | | | |
| | **Denominator** | | | | | | | |
| | Month (specify) | Number of <5 children received VAS | | Number of <5 children With SAM | | Total number of children received GMP (< 2 years ) | | Number of children with two doses of Deworming (2-5 years) |
| | | HMIS report received from health post aggregated | HMIS report send to woreda health office | HMIS report received from health post aggregated | HMIS report send to woreda health office | HMIS report received from health post aggregated | HMIS report send to woreda health office | HMIS report received from health post aggregated | HMIS report send to woreda health office |
| 37.1 | | | | | | | | |
| 37.2 | | | | | | | | |
| 37.3 | | | | | | | | |
| 37.4 | | | | | | | | |
| 37.5 | | | | | | | | |
| 37.6 | | | | | | | | |

**Data Accuracy Check- health center level for the last six months Name of health post …………………………………….**

| 38 | Manually count the number of following data items from the HMIS monthly reports for the last 6 months. Compare the figures with the reports from the computer or paper database. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Indicator** | | | | | | | |
| | **Denominator** | | | | | | | |
| | Month (specify) | Number of <5 children received VAS | | Number of <5 children With SAM | | Total number of children received GMP (< 2 years ) | | Number of children with two doses of Deworming (2-5 years) |
| | | HMIS report received from health post | HMIS report send to woreda health office | HMIS report received from health post | HMIS report send to woreda health office | HMIS report received from health post | HMIS report send to woreda health office | HMIS report received from health post | HMIS report send to woreda health office |
| 38.1 | | | | | | | | |
| 38.2 | | | | | | | | |

4

| | | | | | | | | |
|------|--|--|--|--|--|--|--|--|
| 38.3 | | | | | | | | |
| 38.4 | | | | | | | | |
| 38.5 | | | | | | | | |
| 38.6 | | | | | | | | |