HUMANITARIAN ACADEMY · HUMANITAIRES JOBS

Mini MBA Programmes and MEAL: design, manage and prove impact

Course handout · Week 5 : The monitoring system: MEAL plan, data quality and remote monitoring

A programme of exactly 3 months (12 weeks, 144 hours) to design, manage and evaluate humanitarian programmes: needs assessment and severity, results chain and indicators, targeting and cash transfers, planning and budget, MEAL plan and data quality, sampling, analysis, accountability, evaluation, impact measurement, value for money and adaptive management. Corrected numerical exercises, three monthly exams with case studies, and a verifiable diploma from the Humanitarian Academy.

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Week 5 : The monitoring system: MEAL plan, data quality and remote monitoring

Objectives

- Build a complete and proportionate MEAL plan, from the data collection form to the management decision.
- Assess and improve data quality along five dimensions, and organise regular quality checks.
- Organise monitoring in inaccessible areas: remote monitoring, third-party monitoring and triangulation.

The MEAL plan: the backbone of monitoring

The **MEAL plan** describes how each indicator will be measured, by whom, when, and for what decision. It takes the form of a table: indicator, definition, baseline, target, source and method, frequency, disaggregation, person responsible for collection, person responsible for analysis, use (monthly review, donor report, targeting adjustment).

It covers four types of monitoring:

- **Activity and output monitoring**: what has been done, against the plan (distribution registers, attendance lists, worksite sheets).
- **Outcome monitoring**: changes among people (baseline, midline and endline surveys; post-distribution monitoring).
- **Context monitoring**: prices, access, security, population movements, and indicators for the logframe's critical assumptions.
- **Accountability monitoring**: complaints and feedback received, response time, satisfaction, participation (week 8).

The cost of the MEAL plan must be in the budget: staff, tools, transport, surveys, evaluations. A range of 3 to 10% of the project budget is usual; a pilot project whose effect is to be demonstrated can justify more.

> The best test of a MEAL plan: for each indicator, can you name the meeting where it will be discussed and the decision it can trigger? If not, ask yourself whether it needs to be collected.

From collection tools to the dashboard

The data chain has five links: **collection**, **entry and storage**, **cleaning**, **analysis**, **dissemination**. Mobile data collection (KoboToolbox, ODK, CommCare) has replaced paper in most contexts: automatic checks at entry (value ranges, required fields, skip logic), geolocation and timestamps, direct upload to the server.

A good form is designed from the analysis plan: first write the tables you want to produce, then the questions needed and only those. It is tested in the field with real respondents before deployment, then a version is frozen; any later change is documented, because it makes data before and after incomparable.

Cleaning follows written rules: duplicates, outliers (a household of 45 people, food expenditure of 2,000 USD per week), inconsistencies (a married 3-year-old), interviews that are too short (under 10 minutes for a 40-minute questionnaire). A value is never corrected without a source; it is flagged, checked with the enumerator or removed, and a cleaning log is kept.

The **dashboard** shows few indicators, with the target, the trend and a colour code according to thresholds set in advance. It is updated at the pace of decisions: weekly for distributions, monthly for intermediate outcome indicators.

Data quality: five dimensions

A **data quality assessment** (DQA) checks five dimensions:

Dimension	Question	Example of a problem
Validity	Do the data measure what the indicator intends?	Counting people trained instead of those applying the practice.
Reliability	Are methods stable across places, people and periods?	Two offices calculate the cure rate differently.
Precision	Is the margin of error small enough for the decision?	A sample of 50 households to track a 5-point change.
Timeliness	Do the data arrive in time to decide?	The monthly report arrives six weeks after the end of the month.
Integrity	Are the data protected against errors and manipulation?	The same officer enters, approves and corrects payment lists.

The most concrete method is **verification by recount**: choose a sample of sites, recount from primary sources (registers, forms) and compare with the reported figures. A **verification ratio** of 1.00 is perfect; a tolerance is set, for example between 0.95 and 1.05. Above 1.05, the reported figures are inflated; below 0.95, activities are not being reported.

Example. A health centre reports 1,240 consultations; the recount of the registers finds 1,085. Ratio: 1,240 / 1,085 = 1.14. The centre over-reports by 14%: the cause must be understood (double counting of follow-up visits, pressure on targets) before any sanction.

Quality checks during data collection

Quality is decided during collection, not afterwards. The standard checks:

- **Training and testing** of enumerators, with a written test and mock interviews; enumerators who fail do not collect data.
- **Direct supervision** of part of the interviews (for example 5%).

- **Back-checks**: 10% of households are re-interviewed on a few stable questions (household size, type of shelter). A low agreement rate for one enumerator signals errors or fabricated interviews.
- **Daily remote checks**: interview duration, GPS coordinates (interviews all in the same place), time (interviews at 3 a.m.), distribution of answers by enumerator (an enumerator whose households all have exactly 5 members).

Fabricated data ("curbstoning") are more frequent than people think when enumerators are paid per interview, under quota pressure, or sent to dangerous areas. Preventing them requires realistic targets, daily pay rather than piece rates, and checks announced in advance.

> A MEAL manager who never finds an error is not looking hard enough. Publishing internally the errors found and corrected strengthens confidence in the figures.

Remote monitoring and third-party monitoring

In areas inaccessible to staff (insecurity, restrictions), **remote monitoring** combines several sources to make up for the lack of visits:

- **Local partners** or local staff who have access, with standardised tools and evidence (geotagged photos, signed lists).
- **Third-party monitoring** (TPM): an independent company or organisation, often required by donors, which verifies a sample of activities.
- **Phone calls** to a random sample of beneficiaries (post-distribution monitoring by phone).
- **Remote data**: satellite imagery (camps, crops, destruction), mobile operators' transaction data, price data.
- **Community feedback** via a toll-free line and messaging.

Remote monitoring has **limits**: phone samples biased towards households with phones, often represented by men; risks of pressure on partners; transfer of security risks to local staff. This must be stated in reports, partners must be properly paid for this work, and they must not be asked to take risks the organisation would refuse for its own staff.

Triangulation is the rule: a distribution is considered verified when at least two independent sources agree (for example a signed list and calls to a sample of beneficiaries).

Making monitoring useful: from data to decision

Monitoring rarely fails for lack of data; it fails because nobody uses them. Three mechanisms make monitoring useful:

- **Alert thresholds** set in advance: if waiting time at distributions exceeds 3 hours, if the rate of unresolved complaints exceeds 20%, if the price of the basket rises by more than 10%, a predefined action is triggered.
- **Regular reviews** where the programme, MEAL, logistics and finance teams look at the same figures together and decide. The minutes record the decisions, who is responsible and the deadline.

- **Feedback to people and teams**: present to communities what has been learned and changed; show enumerators what their data were used for.

The independence of MEAL matters. If the MEAL manager reports only to the project manager whose results they measure, the temptation to smooth over bad figures is strong. A dual reporting line (operational to the project, technical to a country or headquarters MEAL manager) protects the quality of information.

Exercise: check the data quality of three sites

Situation. A nutrition project reports the admissions of three sites for one month. Site 1: reported 320, recounted 312. Site 2: reported 410, recounted 342. Site 3: reported 198, recounted 205. Tolerance: ratio between 0.95 and 1.05. Back-checks on the coverage survey show an agreement rate of 96% for all enumerators except one (61%), whose interviews last on average 9 minutes against 35 for the others.

Task. 1) Calculate the verification ratios and interpret them. 2) What do you do with the suspect enumerator's data? 3) What preventive measures do you propose?

Answer. Site 1: 320 / 312 = 1.03, within tolerance. Site 2: 410 / 342 = 1.20: over-reporting of 20%, to be investigated (double counting, pressure on targets, fraud). Site 3: 198 / 205 = 0.97, within tolerance (slight under-reporting). Total reported 928 against 859 recounted: the monthly report must be corrected and the donor informed. The suspect enumerator's data are set aside and some of their households re-interviewed; if falsification is confirmed, their interviews are redone or removed, and the cause is addressed (quotas, pay per interview). Prevention: daily pay, daily checks of duration and GPS, announced back-checks, realistic targets.

Key takeaways

- The MEAL plan links each indicator to a method, a person responsible, a frequency and a decision.
- Five dimensions of data quality: validity, reliability, precision, timeliness, integrity.
- Verification ratio = reported figure / recounted figure; beyond the tolerance, investigate before sanctioning.
- Back-checks, interview duration and GPS detect fabricated data.
- In remote monitoring, an activity is verified when two independent sources agree.

Quiz

1. A site reports 500 distributions; the recount finds 400. The verification ratio is:
   A. 0.80
   B. 1.25
   C. 1.20
   D. 0.90

2. Two offices calculate the same indicator differently. Which dimension of quality is at stake?
   A. Timeliness
   B. Reliability
   C. Integrity
   D. Precision

3. An enumerator conducts 8-minute interviews for a 35-minute questionnaire, all at the same GPS point. Most likely:
   A. They are very efficient
   B. Fabricated or rushed interviews
   C. A server failure
   D. A sample that is too large

4. Why avoid paying enumerators per interview?
   A. It is more expensive
   B. It encourages rushed or fabricated interviews
   C. Donors always forbid it
   D. It reduces the sample size

5. What is the main limitation of post-distribution monitoring by phone?
   A. It is too expensive
   B. The sample is biased towards households with a phone, often represented by men
   C. It is forbidden
   D. It allows no questions

Quiz answers : 1. B · 2. B · 3. B · 4. B · 5. B