

## Food Security Assessment and Analysis - Nutrition Assessment Methods

### REPEATED SURVEYS – POPULATION-BASED SURVEYS

TYPE	NATIONAL SURVEYS	SMALL SCALE SURVEYS
DESCRIPTION	<ul style="list-style-type: none"> <li>Population-based.</li> <li>Use standard methodologies to collect quantitative (e.g. anthropometry) and qualitative data.</li> <li>May be either cross sectional (one-off, may be repeated at intervals in order to monitor changes) or longitudinal (continuous monitoring of the same sample).</li> <li>Based on a representative sample of the population (children or adults) - meaning that all members of the population have a known probability of being included in the sample.</li> <li>Use standard sampling procedures: usually a two-stage cluster sample in which 30 clusters of 30 children are selected.</li> </ul>	
	<ul style="list-style-type: none"> <li>Representative at national or sub-national level.</li> <li>Often cover various age groups.</li> <li>Usually conducted in stable situations, at regular intervals (e.g. 3 to 5 or 10 years).</li> </ul>	<ul style="list-style-type: none"> <li>Rapid (often called “rapid assessment”) to gather nutrition information within the shortest time possible.</li> <li>Carried out to guide specific nutrition related programmes.</li> <li>Commonly used during emergencies.</li> </ul>
PURPOSE	Policy making, planning and programme management (include: determining needs, prioritizing geographical areas, and types of interventions, targeting allocation of resources and design interventions).	
	Long-term planning and allocation of resources (assist policy makers and program managers in evaluating and designing programs and strategies for improving nutrition).	Provide a basis for planning, monitoring and evaluating development projects and are also commonly used during emergencies.
OBJECTIVES	Assess cause, type, severity and extent of malnutrition among children and/or adults (provide prevalence estimates). Assess the underlying causes of malnutrition related to food, health and care (not always done).	
	To provide up-to-date comprehensive analysis of the nutritional situation.	<ul style="list-style-type: none"> <li>To determine the severity and extent of the nutrition situation without embarking on a full scale survey,</li> <li>Determine impact of an emergency or intervention.</li> <li>Estimate numbers of individuals in need of nutritional interventions.</li> </ul>

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### REPEATED SURVEYS - POPULATION-BASED SURVEYS (continued)

TYPE	NATIONAL SURVEYS	SMALL SCALE SURVEYS
<b>STRENGTHS</b>	<p>Standard survey methodology—which is essential to minimize bias, ensure valid comparisons, and review trends over time. Qualitative data on underlying causes of malnutrition (food, health and care) enable in-depth interpretation of anthropometric results.</p> <ul style="list-style-type: none"> <li>• Representative of an entire population.</li> <li>• Allow to assess impact of macro-level policies and national nutrition-related programmes.</li> <li>• Can determine geographical areas for targeting on the basis of high levels of malnutrition.</li> <li>• Often assess micronutrient deficiencies.</li> <li>• Disaggregated by age, gender, urban/rural, region/province, and sometimes by socio-economic status and maternal education.</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively quick to implement and to analyze.</li> <li>• In emergency contexts, prevalence of wasting can be used to trigger specific interventions, although this may be problematic in situations of protracted crisis.</li> </ul>
<b>WEAKNESSES</b>	<ul style="list-style-type: none"> <li>• Methods for assessing the underlying causes of malnutrition are less standardized.</li> <li>• Require technical expertise during planning, implementation and analysis.</li> <li>• High costs of implementation and analysis.</li> <li>• Carried out every 3 to 10 years.</li> <li>• Frequent lack of contextual information.</li> <li>• Exclusion of some population groups (e.g. pastoralists).</li> <li>• Inability to disaggregate data on basis of other population groupings (livelihood groupings, agroecological zones, political status).</li> <li>• Difficulty in obtaining statistically representative samples in areas of insecurity.</li> <li>• Limited value at the community or household level in terms of nutritional education and support for the management of individual cases of malnutrition.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited scope for data disaggregation, which may not be sufficient to allow targeting of particular population groups.</li> <li>• High costs (human resources and staff time) when surveying in widely dispersed communities.</li> <li>• Difficult to obtain statistically representative samples in areas of insecurity.</li> <li>• If only anthropometry is collected, the survey will lack contextual information (food security, main livelihoods groups and access to public services in the area).</li> <li>• If methodology not standardized, data may not be comparable between surveys or over time.</li> <li>• Limited value at the community or household level in terms of nutritional education and management of malnutrition cases.</li> <li>• Assessment of micronutrient deficiency disorders in complex emergencies is not standardized.</li> </ul>

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### GROWTH MONITORING

TYPE	CLINIC-BASED GROWTH MONITORING	COMMUNITY-BASED GROWTH MONITORING
<b>DESCRIPTION</b>	<p>Continuous monitoring of growth (usually weight-for-age) in children. Children are usually measured once per month.</p> <ul style="list-style-type: none"> <li>• Can be conducted by health professionals at Maternal and Child Health (MCH) clinics.</li> <li>• Often forms an established part of the national health information system.</li> </ul>	<p>Children are usually measured once per month.</p> <ul style="list-style-type: none"> <li>• Can be conducted by trained members of the community in villages.</li> <li>• It is mainly used in UNICEF supported programmes or by international NGOs.</li> </ul>
<b>PURPOSE</b>	To identify malnourished children and mobilize local resources to support nutrition-related activities.	
<b>OBJECTIVES</b>	To monitor and manage the nutritional status of individual children.	
	To support the prevention and management of child malnutrition (e.g. families with children at risk may be given a food supplement and/or counselling on illness and feeding).	To motivate families and communities to take timely and appropriate actions.
<b>STRENGTHS</b>	<ul style="list-style-type: none"> <li>• Frequently the only regular source of nutritional data available nationally.</li> <li>• Provides information on trends (growth charts).</li> <li>• Allows comparison between geographical areas.</li> <li>• May provide early warning of a deterioration in health and food security.</li> </ul>	<ul style="list-style-type: none"> <li>• Empowerment of communities to gather, interpret and act on nutrition related problems.</li> <li>• Can work well when the community nutrition mobilizers are adequately funded, trained and supported to facilitate communities to deal with nutritional problems.</li> <li>• Can provide a more comprehensive coverage of the under-five population compared to clinic based growth monitoring.</li> </ul>
<b>WEAKNESSES</b>	<ul style="list-style-type: none"> <li>• Not representative of the total population because not all children are brought to the clinic for growth monitoring.</li> <li>• Low capacity of clinic staff to analyse the collected data (usually done by a central body, if resources permit).</li> <li>• Contextual information which could explain the causes of malnutrition is not necessarily available, except diseases (morbidity) and immunization.</li> <li>• Growth monitoring data alone is of limited use.</li> </ul>	<ul style="list-style-type: none"> <li>• Problems of data accuracy.</li> <li>• Delays in analysis.</li> <li>• Lack of contextual information to complement the growth monitoring data.</li> <li>• Difficulties in ensuring that information receives attention from the district or regional level.</li> </ul>

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### SENTINEL SITE SURVEILLANCE

TYPE	CENTRALLY-BASED SENTINEL SITE SURVEILLANCE	COMMUNITY-BASED SENTINEL SITE SURVEILLANCE
<b>DESCRIPTION</b>	<ul style="list-style-type: none"> <li>• Sentinel sites are purposively selected in highly vulnerable areas.</li> <li>• Data can be collated and analysed centrally or by trained members of the community.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Data are collated and analysed centrally.</li> <li>• Centrally based systems may also have elements of community involvement.</li> </ul>	Data are collated and analysed by trained members of the community.
<b>PURPOSE</b>	Monitor and evaluate nutritional status	
<b>OBJECTIVES</b>	<ul style="list-style-type: none"> <li>• To detect changes in context, programme and outcome variables.</li> <li>• Act as an early warning component and to analyse trends.</li> </ul>	
	To continuously monitor development policies and identify mechanisms through which services can be delivered most effectively.	<ul style="list-style-type: none"> <li>• To provide rapid information concerning health and nutrition status in the communities.</li> <li>• To indicate changes occurring over time so that responses can be taken at the local level.</li> </ul>
<b>STRENGTHS</b>	<ul style="list-style-type: none"> <li>• Less costly than national surveys.</li> <li>• Can reveal more in-depth information on the causes of malnutrition.</li> <li>• Data collectors spend a longer period in the targeted communities and can thus give rapid feedback to them.</li> <li>• Can provide good early warning of crises where the surveillance targets the most vulnerable communities.</li> <li>• Trends observed on key indicators allow to identify the sites for continuation in monitoring.</li> </ul>	<ul style="list-style-type: none"> <li>• Empowering the community.</li> <li>• Lower cost to centrally based systems.</li> <li>• Useful in emergencies when insecurity prevents representative sampling.</li> </ul>
<b>WEAKNESSES</b>	<ul style="list-style-type: none"> <li>• Data collected is not representative of the wider population and cannot be generalized.</li> <li>• Population groups that may also be of interest are not necessarily included.</li> <li>• Data may not be comparable with other survey data.</li> </ul>	<ul style="list-style-type: none"> <li>• Areas selected may not represent the wider population.</li> <li>• Data quality may not be reliable. This can lead to inaction by decision makers and reduced community participation.</li> <li>• Lack of remuneration for enumerators may lead to poor engagement.</li> </ul>

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### SCHOOL CENSUS DATA

<b>DESCRIPTION</b>	<ul style="list-style-type: none"><li>• Nutritional assessment in some countries undertaken in schools where first grade school children are measured through censuses that are carried out every 2 to 3 years.</li><li>• Data commonly collected: height, weight, age and micronutrients disorders (iodine deficiency).</li></ul>
<b>PURPOSE</b>	<ul style="list-style-type: none"><li>• Assess nutritional status of school aged children</li><li>• Target school feeding programmes.</li></ul>
<b>OBJECTIVES</b>	<ul style="list-style-type: none"><li>• Identify children with poor health or malnutrition.</li><li>• Allow to measure trends.</li></ul>
<b>STRENGTHS</b>	Inexpensive and provides very good population coverage, only where school attendance is universal.
<b>WEAKNESSES</b>	Easily confounded by external factors like reduction in attendance rates (particularly among girls). For this reason, data cannot be extrapolated to the general population.