



Delivering for Nutrition in South Asia

Towards Impact at Scale

Afghanistan's Community Nutrition Sentinel Site (CNSS) system A MODEL FOR CRISIS-RESPONSIVE SURVEILLANCE

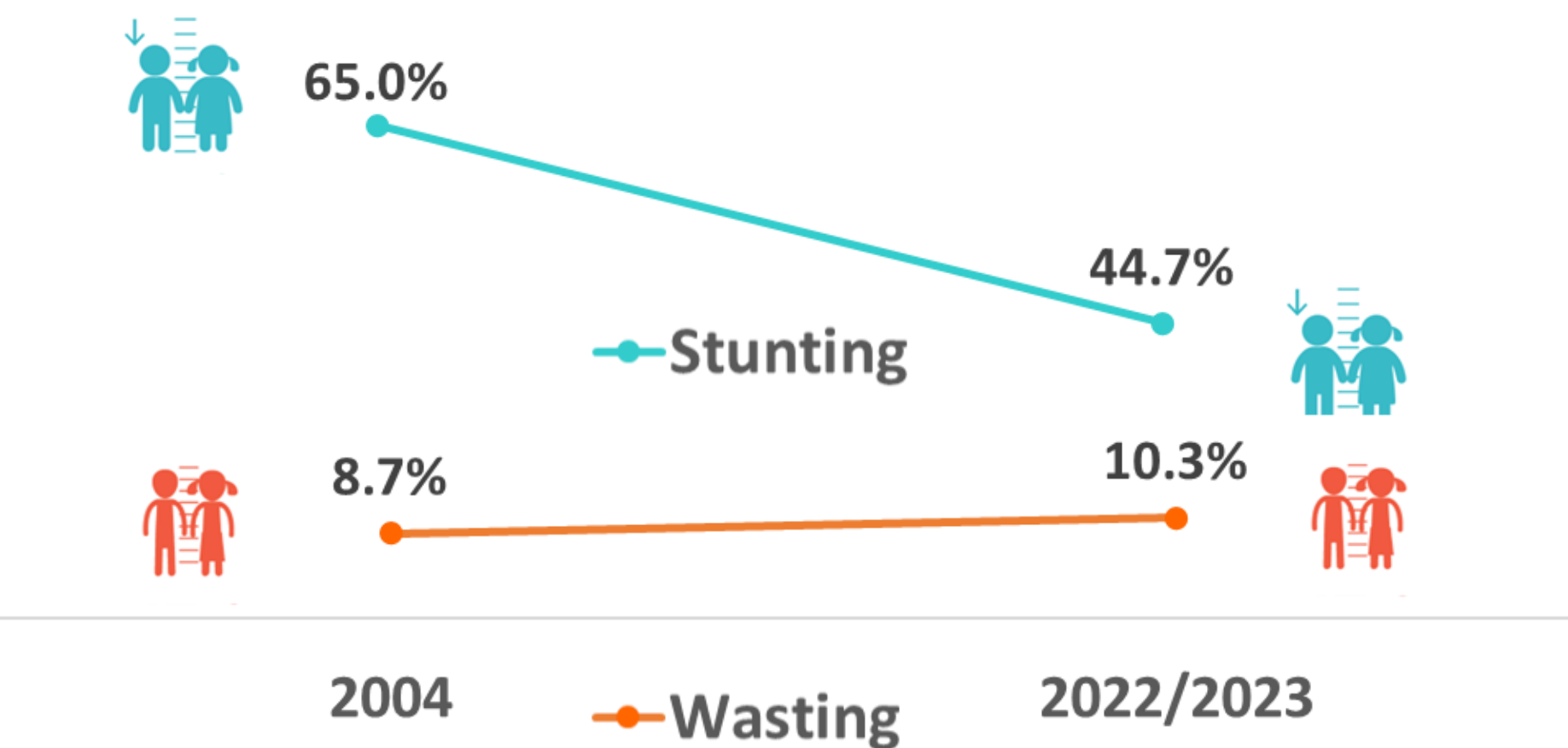
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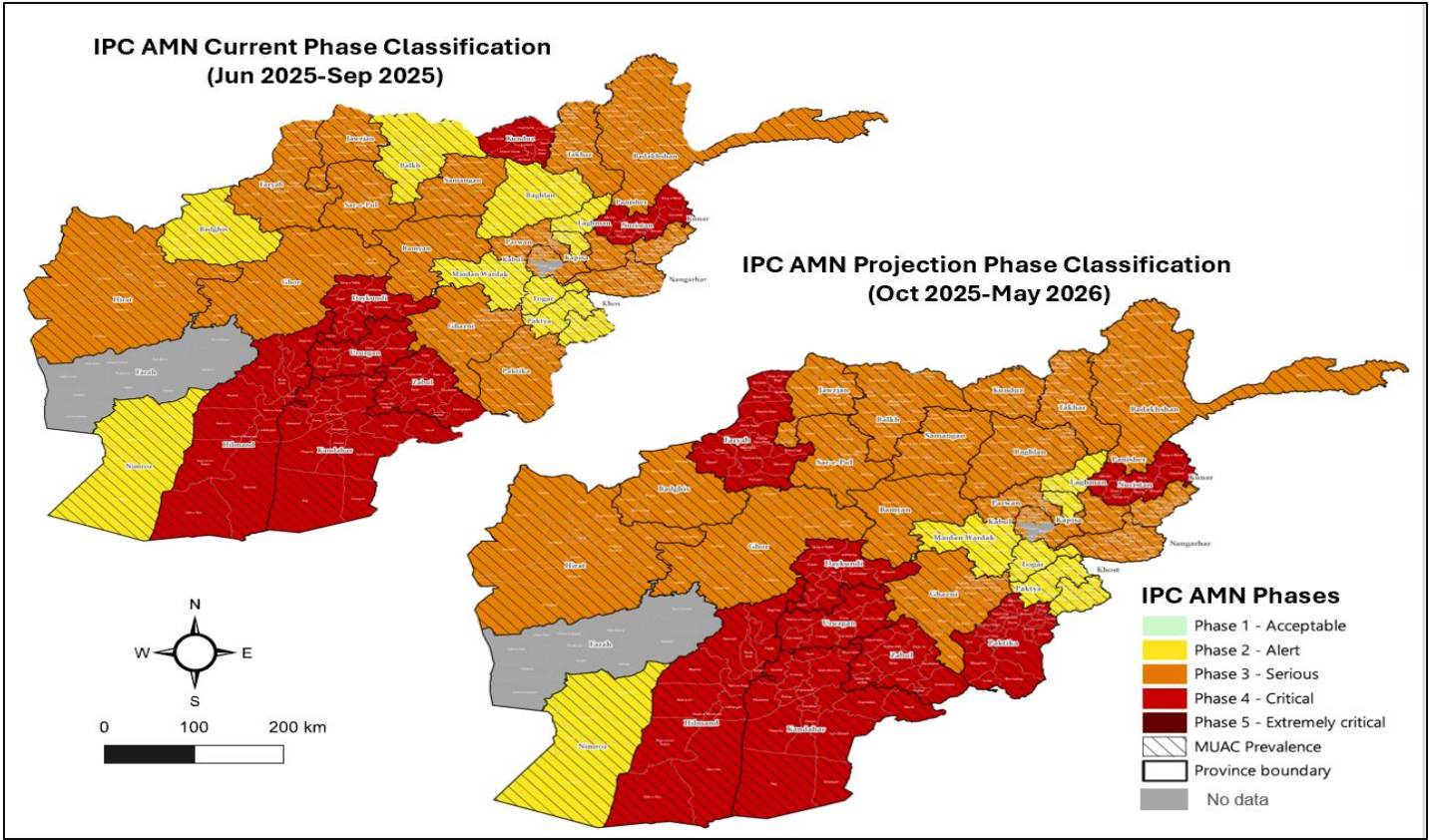
UNICEF, Afghanistan Country Office

Nutrition & Food Insecurity Crisis in Afghanistan

Trends of Malnutrition in last 2 decades 2004-2022/23



Projection: IPC November 2024 - May 2025



3.7 million children are acutely malnourished, at least half at high risk of mortality

1 in every 2 children is stunted, depriving their growth and thrive

4 in every 10 mothers are malnourished, impacting their birth outcome

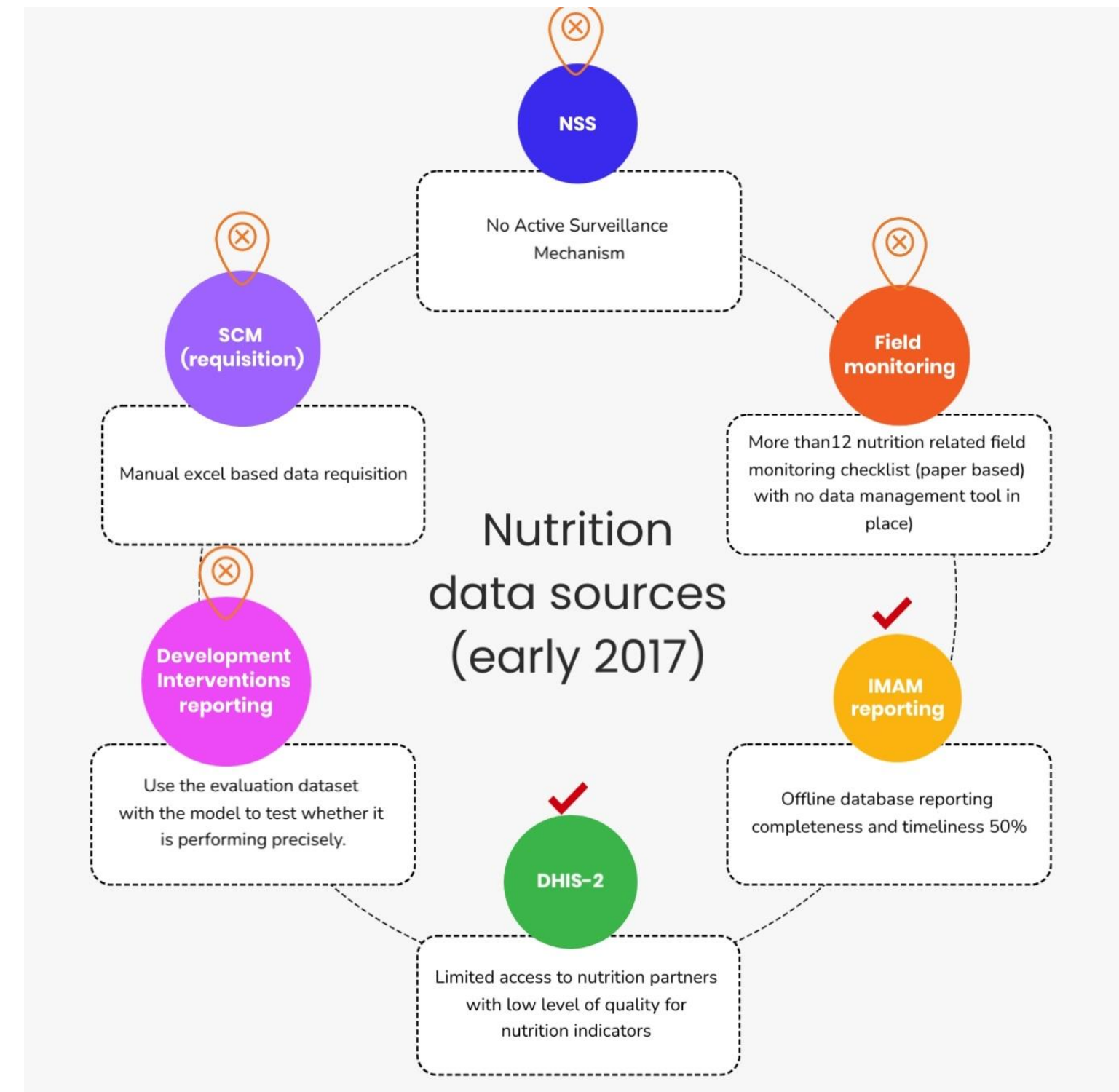
Less educated mothers, child Food Poverty, & infections common causes

26 provinces out of 33 in phase 3 & 4 of IPC AMN

70% of children in Multi Dimensional Child Poverty

Rational & Objective

- Protracted nutrition crisis requires continuous, reliable data
- Current system lacks a functional mechanism for routine monitoring
- Overreliance on expensive SMART surveys
- Inability to track seasonality and early warning signals
- Access and political barriers disrupted assessments (2022–2023)
- Funding constraints limit large-scale surveys



Why the Information System Could not Meet Policy Needs

- Cross-sectional surveys cannot guide real-time decisions & often expensive can't be done regularly
- Evidence gaps delay resource allocation
- Survey disruptions collapse the entire data pipeline
- Lack of systematic, community-based data flows
- Data fragmentation weakens national planning and prioritization

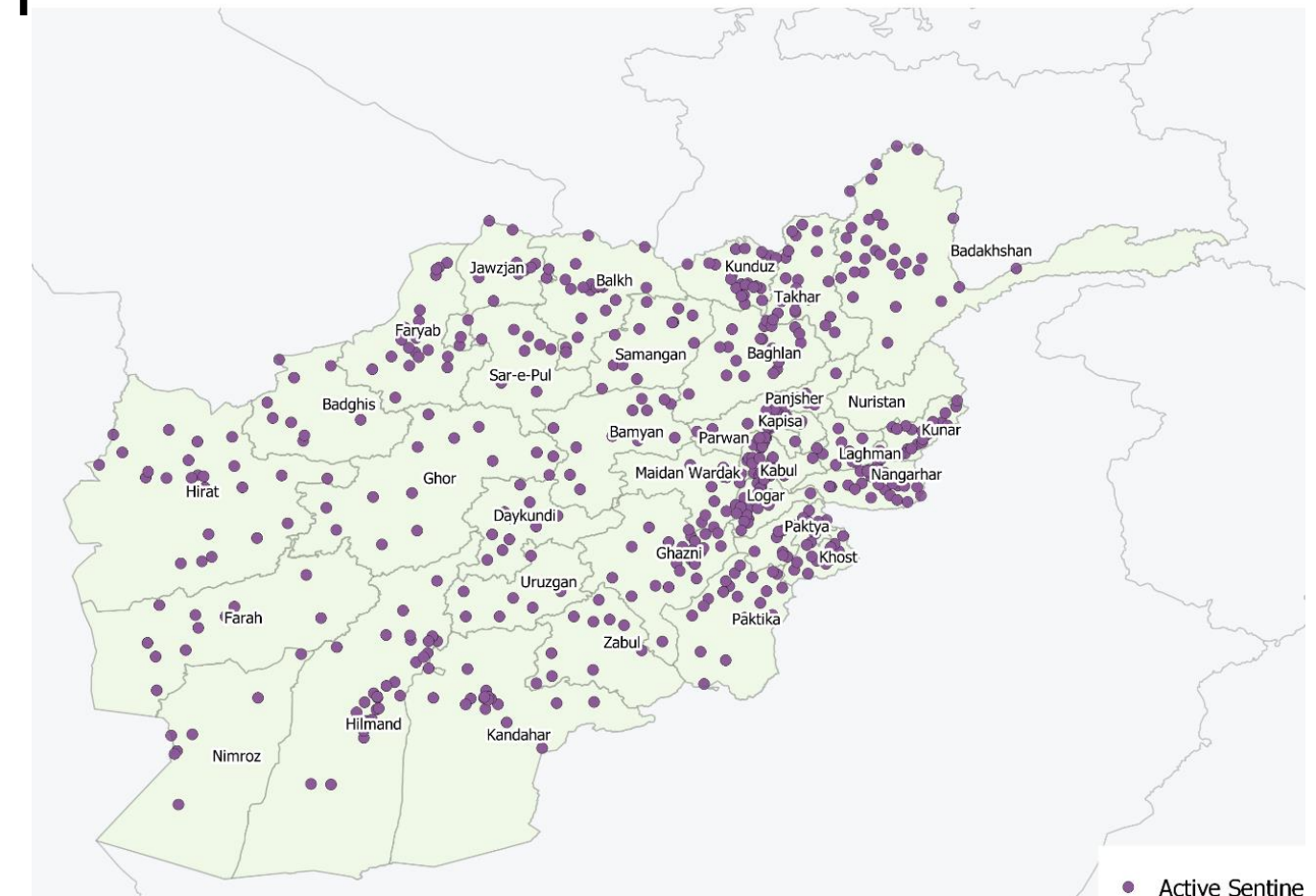
A resilient nutrition surveillance system was essential

- Continuous, year-round data collection
- Politically and culturally feasible and operational in restricted environments;
- Low-cost and sustainable during funding constraints
- Integrated, standardized, and actionable for decision-makers

Design and Setting

- Community Nutrition Sentinel Site (C-NSS) System piloted in Afghanistan (2022).
- Generates quarterly estimates of acute malnutrition among children 6–59 months.
- Nationally scaled up in 2024–2025
- Now covers 451 sentinel sites across 401 districts in all 34 provinces, tracking ~19,000 children per quarterly round.
- Sentinel sites located in Health Post (HP) catchments, selected by:
 - Accessibility and population coverage
 - Presence and literacy of female CHWs (aged 18–35)
 - Basic smartphone literacy

Map of Active Community Sentinel Sites as of January 2025



Sampling Strategy

- Two-Stage Random Sampling Design
 - Household Selection
 - CHWs compile a full household list within HP catchment.
 - Simple random sampling (Excel-based, regional level) selects 40 households per site.
 - Child Selection
 - From each selected household, one child aged 6–59 months is randomly chosen.
 - Anthropometric indicators: MUAC and oedema.
- *This design provides a large, cohort-like dataset—comparable to SMART surveys but feasible for quarterly rounds.

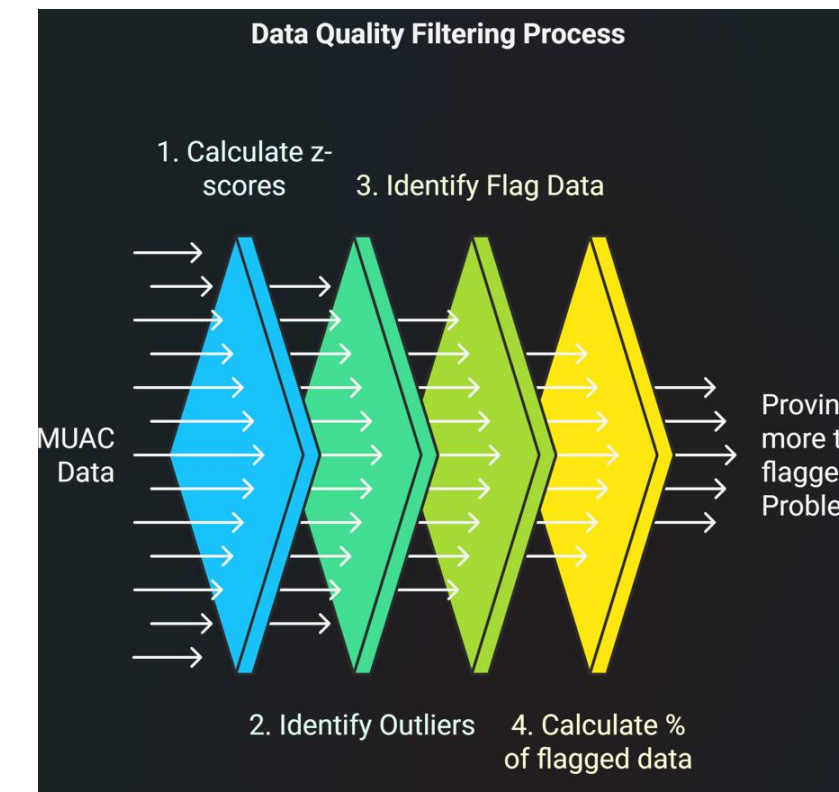
Data Collection and Quality Assurance

Data Collection

- CHWs conduct MUAC and oedema assessments following SMART survey standards.
- Enumerators receive two-day training, covering:
 - Malnutrition concepts and child health impacts
 - MUAC measurement, oedema assessment, and age estimation
 - Practical field exercises with standardization tests
 - Ethics and informed consent

Data Quality Control

- MUAC-for-Age Z-Scores (MFAZ) computed for each child.
- Outliers (>2%) trigger province-level data review.
- Quarterly supervision & review meetings ensure continuous data improvement.



<https://nutriverse.io/mwana/>



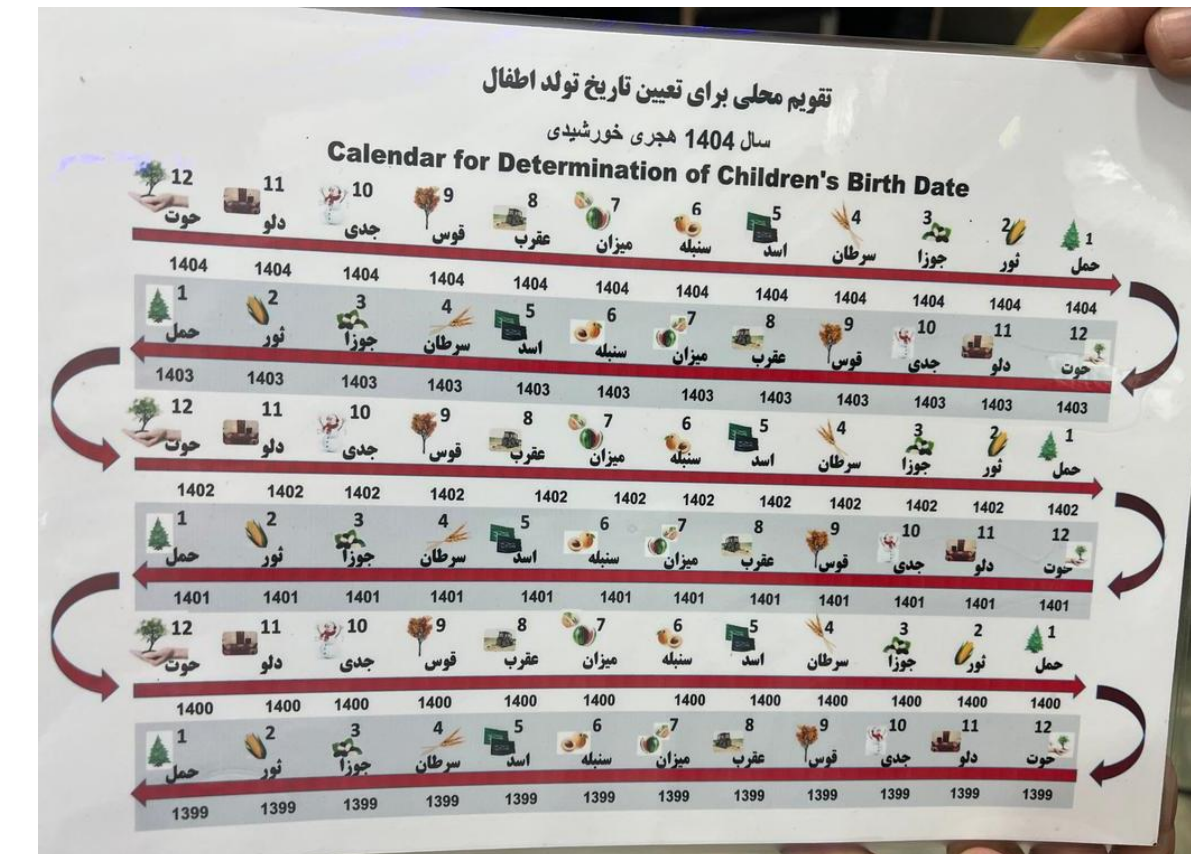
Age Estimation & Ethical Considerations

Event Calendar System for Age Estimation

- Developed with CHWs to address lack of birth records.
- Uses local reference events (religious holidays, harvests, disasters, etc.) from the past 5–6 years.
- Cross-referencing events ensures accurate age in months estimation.

Ethical Standards

- Follows UNICEF ethical guidelines:
 - Community consent via local leaders
 - Voluntary participation with caregiver verbal consent
 - Fully anonymized datasets (no personal identifiers)
 - Respect for cultural norms and participant dignity



Result 1) 12 quarterly bulletin published supporting early warning & advocacy

Result 2) Informed multisectoral nutrition analysis and humanitarian response planning and coordination

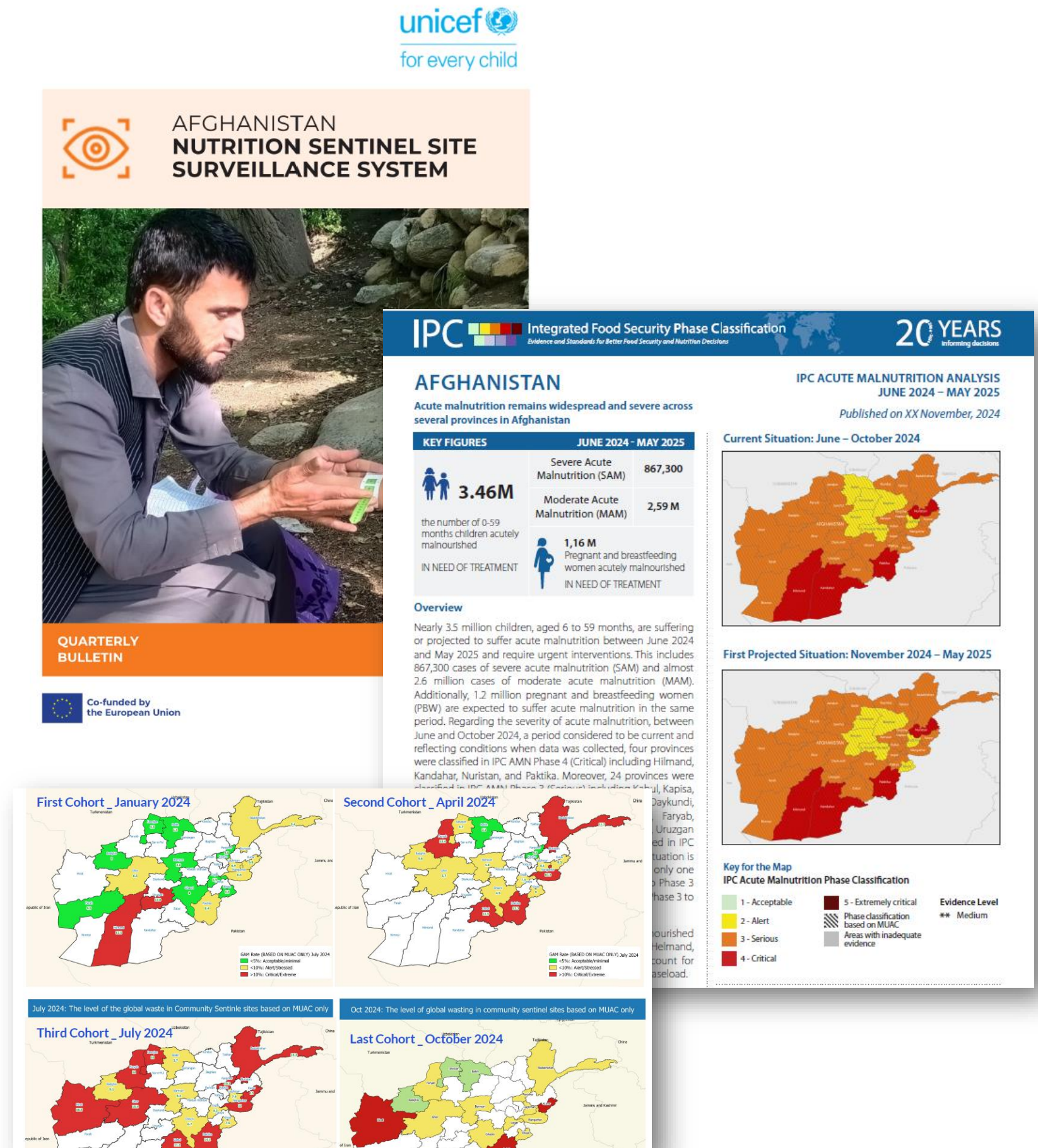
Results 3) Regular nutrition situational monitoring at sub national level

- Afghanistan HNRP 2025, 2026
- IPC AMN used surveillance data and released in 2025
- By integrating community-based surveillance into the nutrition cluster coordination mechanism, responses to malnutrition crises can be more proactive, targeted, and efficient

Results 4) Integration of EC-FIES and Diet Quality for IYCF within C-NNSS in 2025

<https://www.dietquality.org/>

<https://knowledge.unicef.org/child-nutrition-and-development/resource/ec-fies>



Challenges and the Lesson Learns

Challenges:

- Internal Buy-In and Change Management
- Managing Stakeholder Expectation
- Technical challenges (Sampling, Accurate Age identification, Proper measurement)

Lesson learns:

- Engage stakeholders early and consistently to build strong ownership.
- Promote inclusion and collaboration by valuing every contribution.
- Be patient—don't rush design or decisions in fragile contexts.
- Show the system's value clearly to strengthen buy-in.
- Listen and adapt based on field-level insights.
- Invest in solid design before scaling to ensure smooth expansion.
- Think big, start small, act now to maintain momentum toward long-term goals.

Implications for scaling and policy

- Enables evidence-based policy and targeted resource allocation.
- Facilitates adoption of global guidelines using reliable data.
- Improves accountability and coordination across partners.
- Enables early detection and rapid response to nutrition risks.
- Provides evidence for long-term policy reforms in wasting prevention and diet quality.



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