

Designs of nutrition interventions in fragile Sahelian countries could be improved by better process and impact evaluations

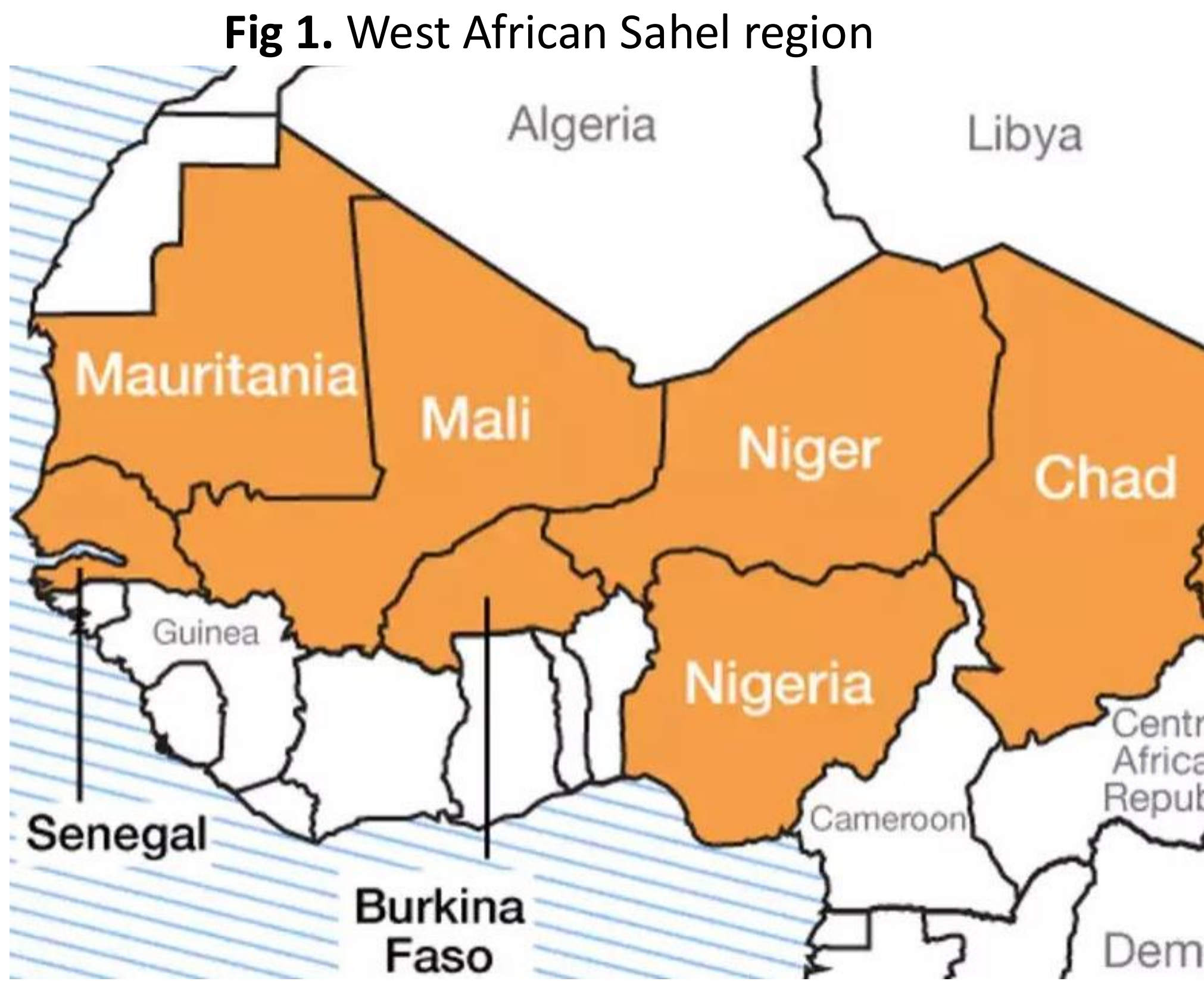
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INTRODUCTION

The prevalence of malnutrition in the fragile states of the West African Sahel region (Fig 1) is high compared with other African countries (eg. anemia in women up to 59% and 53% in Mali and Burkina Faso, wasting up to 12% and 14% in Chad and Mauritania, stunting up to 38% and 47% in Chad and Niger), and has stagnated or become worse.



In a regional consultation about evidence needs to inform policy making and accelerate progress on achieving the SDGs, a review of designs of nutrition multisectoral interventions was requested.

AIM

Our aim was to contribute to increasing success of nutrition interventions in fragile states of the West African Sahel, by assessing designs of past experiences. Specifically, we looked at 1) to what extent do the designs of nutrition initiatives address key malnutrition drivers, 2) what evidence exists on intervention designs that improve malnutrition, 3) what are design strengths and weaknesses, and 4) what lessons can be learned for improved designs?

METHODOLOGY

We assessed finalised nutrition interventions and programs from Burkina Faso, Chad, Mali, Mauritania, Niger and Senegal, and triangulated results from:

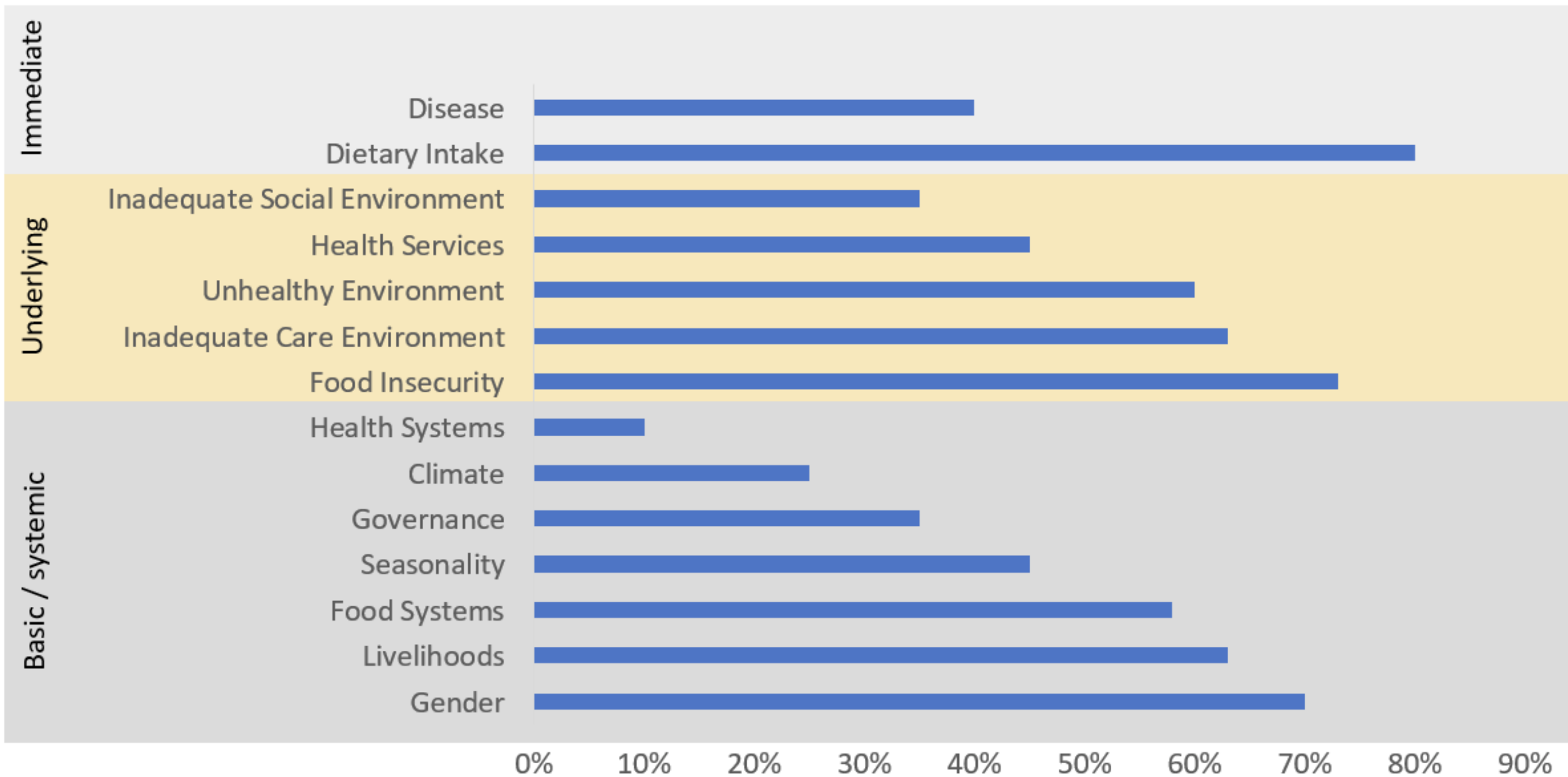
- 1) Reviewing peer-reviewed and grey literature of program designs and process and impact evaluations from the last 10 years published in English or French.
- 2) Country case studies of Senegal and Chad, conducting detailed context analysis through structured key informant interviews in English and French.

This allowed to establish recommendations around 4 themes (Table 2): **Situation analysis/targeting**, **Theory of change/ formative research**, **Monitoring and evaluation**, **Stakeholder analysis/implementation /sustainability**

FINDINGS AND DISCUSSION

We assessed 40 nutrition interventions and programs (58 documents reviewed), addressing immediate, underlying, and systemic drivers of malnutrition (Fig 2); however, majority (>65%) did not conduct robust impact evaluations limiting ability to identify best practice designs.

Fig 2. Percentage of studies targeting key malnutrition drivers (n=40)



We found 14 nutrition interventions with robust quantitative impact evaluation in the peer-reviewed literature. Although evidence is sparse, and impact is mixed – emerging trends indicate that multi-sectoral gender-sensitive designs that target agriculture + WASH + BCC with explicit nutrition objectives were more likely to positively impact nutrition outcomes (Table 1).

Table 1. Results of quantitative impact evaluations (IEs) in the Sahel (n=14)

Outcome	Main indicators	Total IEs	+ve	-ve	Summary
Growth	Wasting, stunting, underweight (children <5 years)	10	6	3	Mixed
Dietary quality/ adequacy	(Exclusive) breastfeeding, dietary diversity score, minimum dietary diversity, minimum acceptable diet, minimum meal frequency, mean probability of adequacy, consumption of nutrient-rich foods etc.	7	5	2	Mixed
Anaemia	Hb levels, anaemia (children)	3	3	0	Positive / insufficient
Food sec		1	1	0	Positive / insufficient
Child develop.		0	0	0	Not found

RECOMMENDATIONS

Table 2. Key Recommendations around 4 themes

1.Improve data management processes and platforms to ensure timely and transparent dissemination of new and existing data for effective situational analyses.
2.Contextualise and target Social Behaviour Change to the whole community .
3.Address systemic drivers of malnutrition for sustainable change, including climate/water scarcity, governance, and women's decision-making power.
4.Build an evidence-based ToC co-designed with stakeholders, including beneficiaries.
5.Select indicators based on the objectives and the targeted drivers of the ToC . It is especially important to include intermediate indicators along long causal pathways that are difficult to assess but are key mediators of nutrition outcomes
6. Protect funding and time for key elements of design eg. formative research, co-design.
7. Protect funding and time for monitoring and evaluation to ensure these do not get lost in favour of more pressing needs.
8. Monitor the intervention on a rolling basis, collecting and analysing data to enable timely adaptation for improved effectiveness, also mitigating unintentional consequences.
9.Integrate process evaluations alongside impact evaluations to validate the ToC and qualitatively examine the benefits to the beneficiaries.
10.Integrate the intervention into the local civil society and government sectors from the outset to ensure long-term sustainability.
11.Ensure the project's complexity matches the skills and capacity of the implementers .
12.Allow for flexible timelines and funding for crisis modifiers to maintain long-term resilience building while addressing acute emergencies.
13.Foster a collegiate culture of dissemination of knowledge , especially lessons learnt. This reduces duplication of effort while maximising resources and effectiveness.

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