

# Universal Community-Based Pictorial Dietary Diversity Score

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## Description of the initiative

- Background/context** - High food insecurity, as outlined in the Sustainable Development Goals (SDGs), persists globally, exacerbating the prevalence of malnutrition. Inadequate nutritional intake, characterized by poor dietary diversity and low nutritional adequacy, significantly contributes to the burden of malnutrition. Addressing these challenges requires effective tools that empower individuals to make informed dietary choices. A Pictorial Dietary Diversity Score (PDDS) offers a promising solution by quantifying dietary diversity and nutritional adequacy, thereby enabling individuals to assess and improve their dietary habits. By promoting a more diverse and nutritionally balanced diet, such a score can play a crucial role in combating malnutrition and improving overall health outcomes and reducing the economic burden.
- Rationale for the initiative** – The Universal Community–Based Pictorial Dietary Diversity Score (UCB- PDDS) project addresses the need for a universally applicable tool to assess dietary diversity at the community level. Dietary diversity is a key indicator of nutritional adequacy and is associated with improved health outcomes. However, existing dietary assessment tools often lack uniformity and cultural relevance, hindering their effectiveness in diverse populations. Traditional methods often rely on complex questionnaire or food diaries, which can be cumbersome and prone to error. The UCB-PDDS aims to overcome these limitations by providing a standardized, culturally sensitive, and easily interpretable method for evaluating dietary diversity across various communities. By utilizing pictorial representations, the UCB-PDDS enhances accessibility and comprehension, particularly among populations with low literacy levels.
- Objectives and scope** – This project aims to develop and validate a **Universal Community-Based Pictorial Dietary Diversity Score (UCB-PDDS)** to address high food insecurity, poor nutrition literacy, and malnutrition. This tool will enable individuals to self-assess their nutritional adequacy and make informed dietary choices.
- Target Population** - The target population includes individuals without severe diseases, those at risk, community members, ward discharges, and patients visiting outpatient departments (OPDs).

## Planned activities & deliverables

- Development of Multilingual Tool:** Develop the UCB-PDDS in 10 Indian languages to ensure accessibility and inclusivity.
- Screening:** Conduct screening of 10,000 individuals for each language, ensuring a diverse representation of the population.
- Tool Administration and Health Literacy:** Participants will be administered the tool, provided with a copy, and offered health literacy sessions to reduce social barriers to understanding.
- Traffic Light Scoring System:** A simple traffic light scoring system will be implemented for easy assessment of dietary diversity.
- Validation:** The tool will be validated for accuracy and reliability in different languages and cultural contexts within India and extended to Malawi (East Africa) to assess its applicability in diverse settings.
- Development of Master Template:** A master template will be developed, allowing for adaptation to any language worldwide, and enhancing the tool's global applicability.
- Follow-Up Assessment:** Participants will be reassessed three months after the initial administration to evaluate any changes in nutritional status following tool utilization.

Total Cost of Project- 39,965 Euro	
Printing and Production of Pictorial Tools:	5585 Euro
Computer Equipment and Software:	3350 Euro
Stationery and Office Supplies:	2800 Euro
Development of Mobile Application:	10000 Euro
Fieldwork Travel Expenses:	5600 INR
Training Workshops (including venue and materials):	8930 Euro
Contingency Fund:	2000 Euro
Currency conversion charges:	1700 Euro

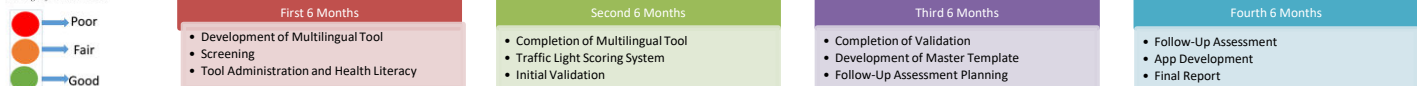
- What are the concrete deliverables of the project?**- Within a year the 1000 trained professionals could reach 10,000 patients for each of the 10 languages selected who will use the DDS tool and self-access the dietary diversity, thereby addressing the gaps in nutritional needs. In Malawi, with trained 100 HCPs, could reach a target community of 10,000 patients.
- What achievements are possible in the next 12 and 24 months?**- with the support of identified IAPEN INDIA training centers (IAPEN INDIA has 38 chapters Pan India, providing for cultural diversity and regionality), hands-on training availability will create around 3000 trained professionals specifically in diet diversity screening and assessment using the tool, allowing early detection of dietary diversity and malnutrition, bridging the gap between healthcare professionals and policymakers, creating a pathway for integration of importance of nutritional diversity. Pan India will cater to 1,00,000 patient screenings for dietary diversity in a year and 10,000 patients in Malawi. The organization of additional activities during the ESPEN Nutrition Day will give it an extra local and regional dimension and the interface could include communication with the hospital's nutrition care pathway and food management services.



## Resources & enablers

- Describe personnel, and financial needs** - Trainers/faculty/ experts/ support team and training center physical logistics cost, initial enrolment cost
- Specify how the grant will be spent**- To meet physical training center and workshop costs, to meet the cost to develop mobile application tool, other on-ground logistics of trainers team as well as pan India scalability of the project, Development/dissemination of national policy and training sessions (eLearning & F2F)
- What factors will make it successful?**- this encourages us to achieve our future goals:- To reach more than 3,000 trained professional task forces from relevant states across India in the next 3 years and 100 in Malawi. This task force will help screen dietary diversity for 3,00,000 patients, making it to our knowledge one of the largest screenings for dietary diversity across the population. The implementation of this project will contribute to a substantial improvement in quality care and prevention of malnutrition, ensuring nondiscriminatory access to required nutrition, in order to achieve substantial improvement in quality of care, especially in the community.

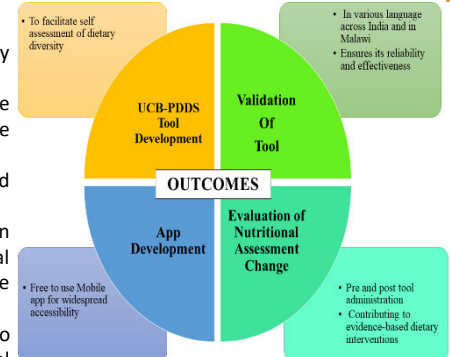
Traffic light system for UCB- PDDS



First 6 Months	Second 6 Months	Third 6 Months	Fourth 6 Months
<ul style="list-style-type: none"> <li>Development of Multilingual Tool</li> <li>Screening</li> <li>Tool Administration and Health Literacy</li> </ul>	<ul style="list-style-type: none"> <li>Completion of Multilingual Tool</li> <li>Traffic Light Scoring System</li> <li>Initial Validation</li> </ul>	<ul style="list-style-type: none"> <li>Completion of Validation</li> <li>Development of Master Template</li> <li>Follow-Up Assessment Planning</li> </ul>	<ul style="list-style-type: none"> <li>Follow-Up Assessment</li> <li>App Development</li> <li>Final Report</li> </ul>

## Results/outcomes & expected impact

- How will the findings be implemented?** – The findings will inform the integrations of UCB–PDDS into community health programs for self–assessment of dietary diversity.
- How will this project advance patient care / contribute to optimal nutritional care?** – This project will enhance patient care by providing a standardized tool for assessing dietary diversity, leading to more targeted and effective nutritional interventions.
- What makes the project innovative?** – The project's innovation lies in its development of a culturally sensitive and universally applicable tool, along with the creation of a free-to-use mobile application for widespread accessibility.
- Will the project be likely to influence national nutrition policy?** – The project's robust validation of the tool in various languages across India and in Malawi and evidence-based approach by evaluating changes in nutritional status pre- and post-tool administration, make it likely to influence national nutrition policies by providing reliable data on dietary diversity.
- Is the project transferable to other settings/countries?** – The projects tools and methodologies are transferable to other settings and countries, enabling their adaptation to diverse cultural and linguistic contexts for global application in nutritional assessment and intervention.



✓ Please tick to confirm the PEN letter of endorsement is attached. Incomplete submissions will not be considered.

2024 MNI Grant Submission Initiative/Research Project for Optimal Nutritional Care