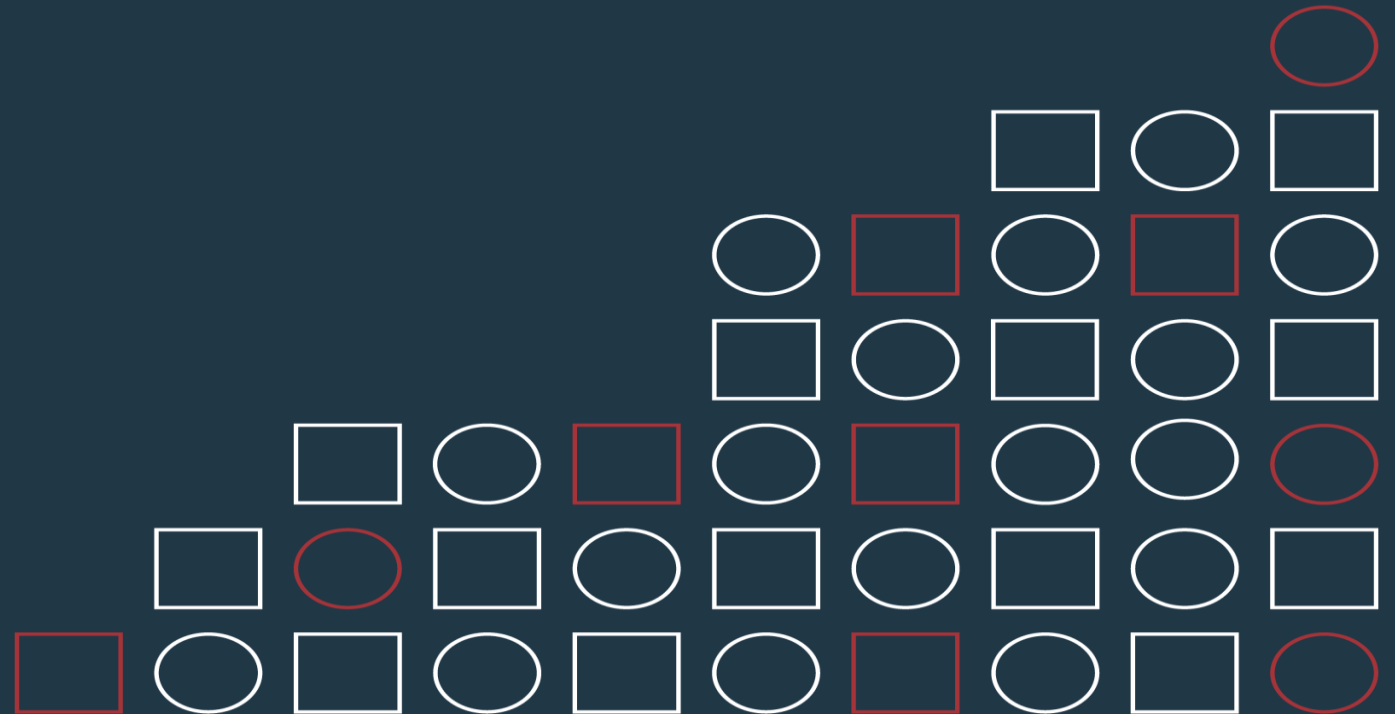


# Addressing the Issue of Hidden Hunger in Pakistan; Challenges and Opportunities

Dr. Shabina Raza  
Country Director  
Nutrition International



# Forms of Malnutrition



**Underweight** refers to a child who is too thin for his or her age. This form of malnutrition can manifest either into stunting or wasting



**Overweight** refers to a child who is too heavy for his or her height. This form of malnutrition results from expending too few of calories for the amount of food consumed and increases the risk of non communicable diseases later in life



**Wasting** refers to a child who is too thin for his or her height. Wasting, or acute malnutrition is the result of recent rapid weight loss or the failure to gain weight. A child who is moderately or severely wasted has an increased risk of death, but treatment is possible



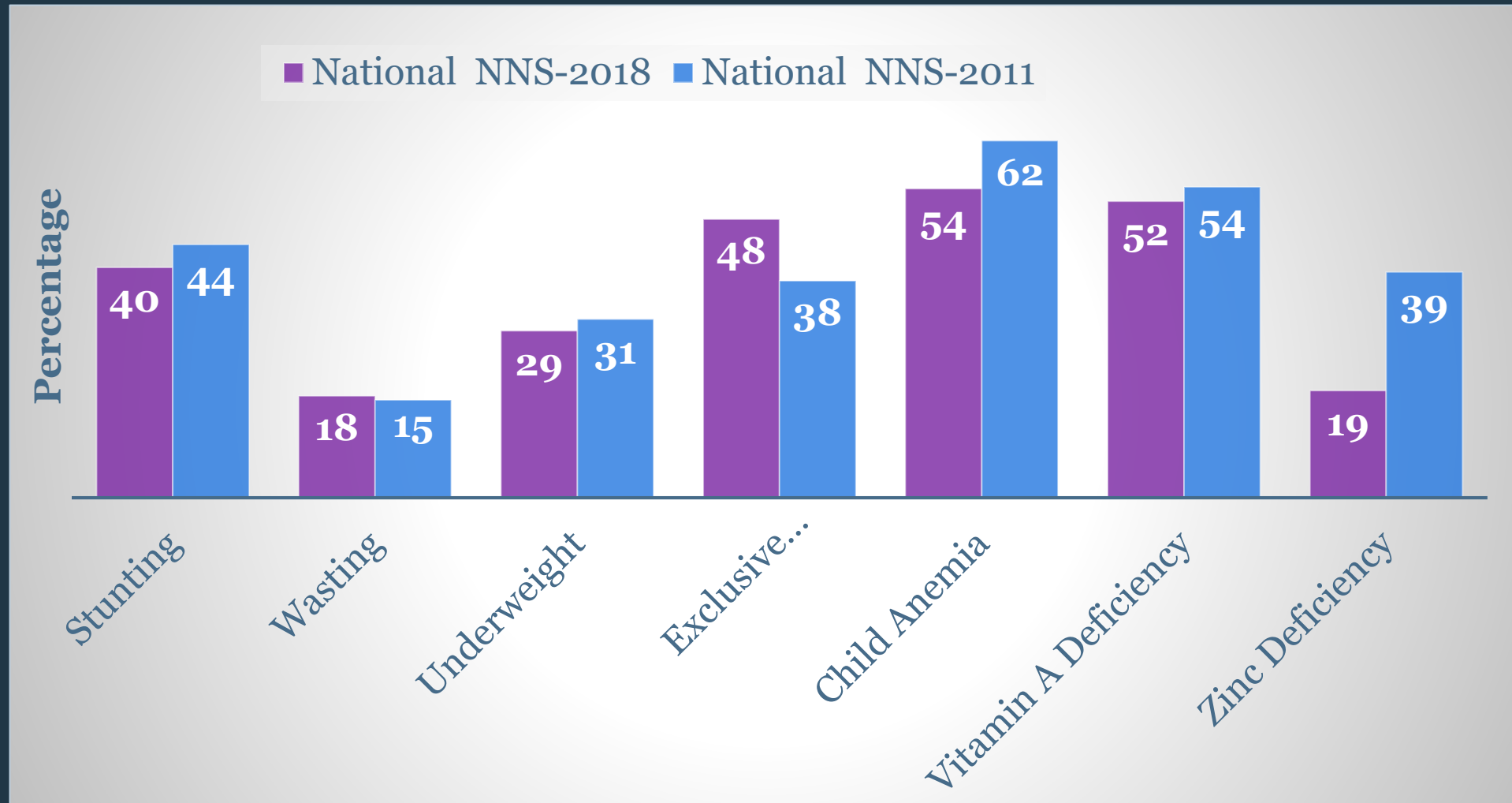
**Stunting** refers to a child who is too short for his or her age. Stunting is the failure to grow both physically and cognitively and is the result of chronic or recurrence malnutrition. The devastating effects of stunting can last life time

# Hidden Hunger

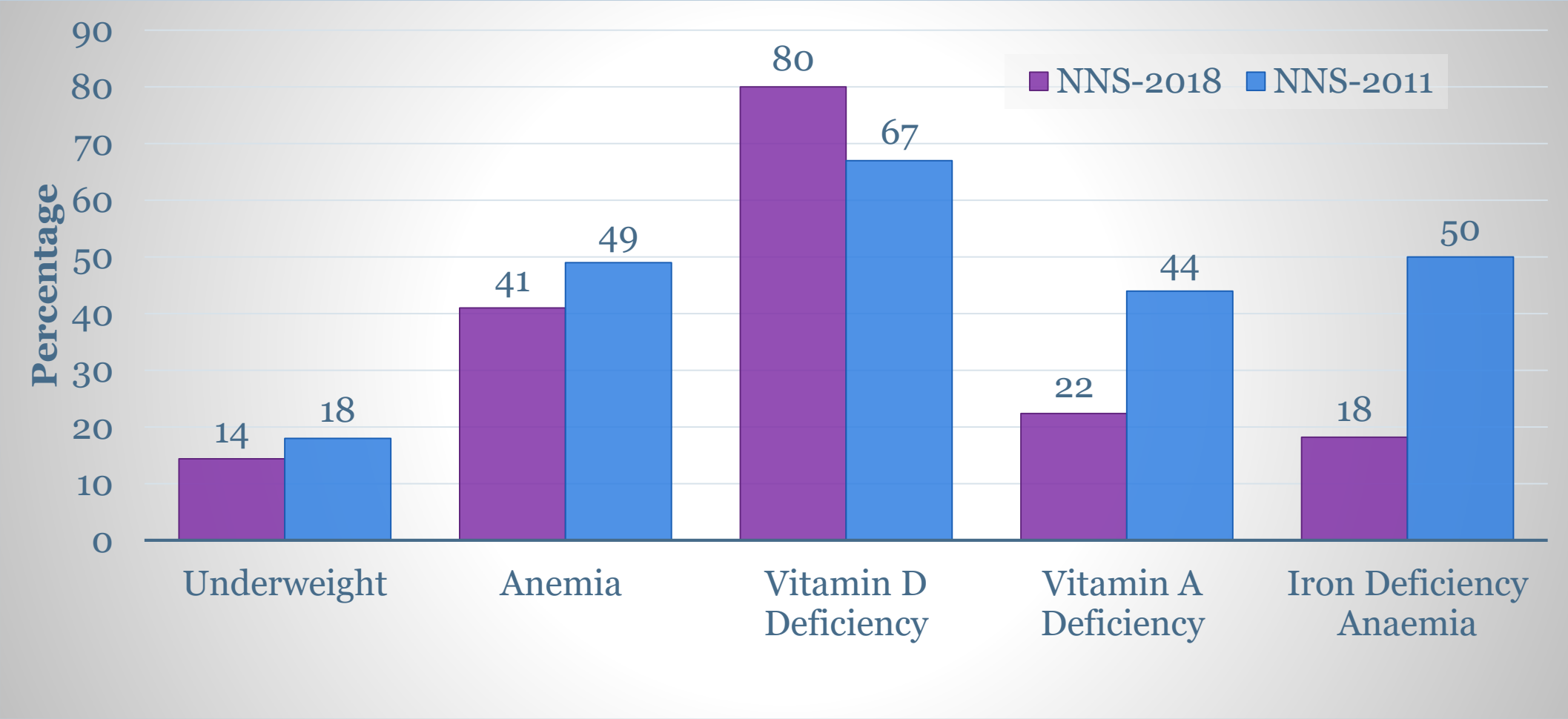
- Refers to micronutrient deficiencies including minerals and vitamins.
- Affect mainly women and children. Due to poor quality of diet or depletion due to losses (e.g. infections)
- Main deficiencies:
  - Iodine
  - Iron
  - Vitamin A
  - Folic acid
  - Zinc
  - Vitamin D & B12
  - Calcium, Magnesium, Potassium, Cobalt, Selenium etc.

# Situation of Malnutrition

# Nutrition Status of Under-5 Children



# Nutrition Status of Women (15-49 years)



# Impact of Micronutrient Deficiencies

# Iodine

- An essential component of Thyroid Hormone
- Present in soil, washed out in mountains & flood plains
- Iodine deficits in womb cause irreversible neurological and cognitive deficits
- Affects central nervous system and regulates many physiological processes
- Causes hypothyroidism/ severe mental retardation & growth retardation
- Common cause of mental retardation
  - IQ scores of Iodine deficient are 13.5 lower
  - Prenatal and postnatal supplementation leads to gains of 8.6 IQ points



# Iron

- Globally, 40% pregnant women suffering from Anemia
- 293 million preschool-aged children are having iron deficiency
- Peak requirement of Iron by the brain are;
  - 1) Foetal /neonatal period
  - 2) Infancy- childhood (6 months to 3 years)
- Iron is required to regulate myelin production, neurotransmitter synthesis and neuronal energy production
- Hence Iron deficiency impacts immunity, growth , mental and motor development



# Vitamin A

- Globally a public health problem, 19 million pregnant women and 190 million young children (6-59 months) - almost 1/3
- Vitamin A deficiency results in ;
  - Night blindness
  - Xerophthalmia (dryness of cornea)
  - Anaemia ( by decreasing absorption of iron)
  - Improper functioning of the immune system
  - Vulnerability for intestinal and respiratory infections
  - Measles



# Zinc

- It is essential for cell life, RNA and DNA synthesis
- In young children, zinc deficiency leads to:
  - Decreased resistance to infections
  - Increased vulnerability to Diarrhoea and Pneumonia
  - Impaired growth



# Economic Impact – Pakistan

**THE “Economic Consequences Of Malnutrition 2016” study reveals total \$7.6 billion annually which is nearly 3% of GDP**

The cost is measured via 4 pathways:

- Child Mortality >180 thousand deaths annually/ **loss of future workforce** is valued at USD \$2.3 billion per year
- **Cognitive deficits** from childhood stunting, anemia and iodine deficiency disorders depress future adult productivity, valued at Net Present Value of \$3.7 billion per year
- **Anemia among adult men and women** engaged in agriculture, industry and other manual labor is projected to **lower their economic output** by \$657 million per year
- **The cost of health care services** utilization due to zinc deficiencies, poor breastfeeding, and low birth weight is estimated at \$973 annually

# Key Challenges

- Implementation of Multisectoral Nutrition Strategies, laws and food regulations
- Financing for Nutrition
- Underutilized Coordination mechanisms, capacity gaps, less ownership by other sectors/ less engagement with private sector
- Lack of awareness/ poor dietary diversity

# Opportunities

- Political commitment at highest level
  - National Nutrition Coordination Council (NNCC) chaired by PM
  - National Nutrition Forum (NNF)
  - Integrated social protection program (EHSAS)
  - SDGs taskforce
- Program Implementation learning (AAP in Sindh, CM Stunting reduction project in Punjab, MDTF in KP and Balochistan)
- Multi-sectoral nutrition strategies, PDGN and other guiding documents

# Actionable Recommendations

- Implementation of nutrition strategies (costed action plan), laws (BF) and Food regulations with clear mandate
- Integration of nutrition in PHC (inclusion nutrition indicators in DHIS) and strengthening of existing outreach programs
- Strengthening/ utilization of existing coordination mechanisms (Steering Committees, SUN Core group, SUN units)
- Integration of food system approach (sustainable production, Food Wastage, Food Environment, Marketing of Nutritious Foods, consumption of diversified food)

# Evidence Generation /Nutrition Research

- Bridge the gap between scientific community and policy makers
- Use of existing evidence and research for effective policy formulation, planning and implementation for nutrition interventions (Cost of Diet, Nutrition in Cities etc.)
- Identify / refine research topics already identified by SUN Academia & Research Network (SUNAR) Pakistan



# Key Research Topics proposed by Partners

- Effectiveness of bio-fortified crops in reducing micronutrient deficiencies
- Formative Research on food choices, dietary habits/pattern across all age groups representative of national level using validated research methods
- Research on development of country-specific linkages of dietary & lifestyle behaviour with NCDs and prevention & management of NCDs through nutrition & dietary modification
- Assessment of nutrient sensitive and modern processing techniques for decreasing the nutrient losses during processing
- Feasibility of introduction, production, processing, increasing availability of non-conventional foods
- Studies on pulses & oilseed to make them economically viable crops for diet diversification and enhancing protein and other vital nutrients in diets of masses in Pakistan

# Some Researches conducted by SUNAR members

1. Designing and evaluation of a simple tool for the assessment of micronutrient intake and status on a small scale in low resource community settings using modern technologies
2. Assessment of Dietary Habits and Nutritional Status of Pregnant Women Visiting Sir Ganga Ram Hospital Lahore
3. Food Choices of Adolescents and Testing the Efficacy of Smart Phone Aided Nutrition Education Program
4. Exploring the Nutritive Potential of Indigenous Protein Sources and their Digestibility Indexes in Broilers
5. Exploring the Nutritional Profile of Indigenous Feedstuff for Tilapia Fish

# **Role of Nutrition International**



# Nutrition International

- Nutrition International is a global organization that addresses the problem of micronutrient malnutrition in Asia, Africa and Latin America.
- NI is having its Headquarters in Ottawa with regional offices in Africa and Asia.
- It was established in 1992 as Micronutrient Initiative and changed its identity as Nutrition International in 2017

# Nutrition International

## Nourishing Life

- Vision
- A world where everyone, everywhere is free from malnutrition and able to reach their full potential
  
- Thematic Areas
  1. Child Survival
  2. Child Health, Growth and Development
  3. Women's and Newborn Survival and Health
  4. Global Impact
- Improving nutrition is transformational—families become healthier, wealthier and better educated

# Nutrition International Programs in Pakistan

- Universal Salt Iodization (USI) Program
- Vitamin A Supplementation (6-59 m Children)
- Zinc & LO-ORS (as diarrhea treatment)
- Right Start (Maternal & Child Health)
- Food Fortification Program
- Nutrition Advocacy - Supporting Scaling-Up Nutrition (SUN) Movement in Pakistan, hosting
  - SUN Civil Society Alliance
  - SUN Academia & Research Network
- Technical Assistance for Nutrition –TAN (Support to GoP)

# Universal Salt Iodization

- Objective: Prevention of IDD
- Program Coverage: All provinces/regions
- Reach : 87 million population
- Duration: > 20 years

# Vitamin A Supplementation

- Objective : Child Survival
- Approach :Supplementation
- Coverage: All provinces and regions
- Reach : 32 million Children under 5 years



# Right Start

- Objective : Child Survival
- Approach :
  - Kangaroo Mother Care
  - Infant Young Child Feeding (IYCF) practices
  - Iron Folic Acid Supplementation (PLW)
  - Multi-Micronutrient Supplements
- Program Coverage: KP, Punjab, Sindh
- Reach : 800,000 Newborn, Children , Adolescents, and Pregnant Lactating Women (PLW) in phase 1

# Zinc Supplementation & Low Osmolarity ORS

- Objective : Child Survival - Management of Diarrhea
- Approach :Supplementation/ Utilization of zinc supplements & Low Osmolarity ORS
- Program Coverage: all provinces
- Reach : Children under 5 years

# Food Fortification Program

- Objective : Reduce micronutrient deficiencies
- Approach : Improve availability and consumption of
  - adequately fortified wheat flour & edible oil/ ghee
- Program Coverage: All provinces and regions
  - 1,500,000 MT adequately fortified oil produced at FFP mills - reached 112 million
  - 300,000 MTs wheat flour fortified with Iron, Folic Acid, Zinc and Vitamin B12
- Reach : WRA and Children
- Duration: 2016-2021

# SUN Civil Society Alliance (SUNCSA) Pakistan

- ✓ NI is hosting Secretariat of SUNCSA - An alliance of 160+ CSOs
- ✓ Contributing to maternal & child nutrition through member organizations across Pakistan, providing services for
  - ✓ Food and Nutrition security
  - ✓ Dietary Diversity
  - ✓ Maternal and Child Health & Nutrition
  - ✓ WASH
  - ✓ ECD
  - ✓ Education
- ✓ Nutrition sensitization > 300 Media persons & awareness campaigns
- ✓ Capacitated over 150 CSOs for nutrition advocacy & awareness

# SUN Academia & Research Network

- Network of 54 Universities and Research Institutions involved in Nutrition Research and Teaching
- Identified national research priorities - (32 topics different thematic areas)
- 5 Innovative Research Grants
- Training of 250 Young Researchers and Faculty Members
- Research Portal and resource center

# Technical Assistance for Nutrition

1. Support SUN Secretariat Punjab- Development of Multi-Sectoral Plan of Action for Nutrition
2. Advancing SUN Agenda in Punjab through Multi-stakeholder and Multi-sectoral Platforms
3. Development of rules and standards for articles of food under Provincial Food Safety Authority Act 2014 Khyber Pakhtunkhwa
4. Designing and operationalizing National Advocacy Strategy for Scaling up Nutrition
5. TA for the establishment of AJK Food Control Authority
6. TA for development of rules of business for Baluchistan Food Authority

Thank you