SINDH ACCELERATED ACTION PLAN FOR REDUCTION OF STUNTING AND MALNUTRITION

Sehatmand
SINDH

Planning & Development Board, Government of Sindh
Taskforce Secretariat for AAP

Contents

Acronyms

ACS	Additional Chief Secretary
BCC	Behavioral Change Communication
BHU	Basic Health Unit
BISP	Benazir Income Support Program
CHW	Community Health Worker
CM	Chief Minister
CMAM	Community based Management of Acute Malnutrition
CCM	Coordinator to CM
DHQ	District Head Quarter (Hospital)
DNC	District Nutrition Coordinator
DHDC	District Health Development Center
DOLF	Department of Livestock and Fisheries
EmOC	Emergency Obstetric Care
EU	European Union
GM	Growth Monitoring
GoS	Government of Sindh
GPS	Global Positioning System
MNCH	Maternal, Neonatal and Child Health
NHNS	National Health and Nutrition Survey
P & D	Planning and Development
PPHI	Public Private Health Care Initiative
R & D	Research and Development
SAM	Severe Acute Malnourishment
SMC	School Management Committee
SSS	Saaf Suthro Sindh
THQ	Taluka Head Quarter (Hospital)
UN	United Nations
USAID	United States Agency for International Development
ARI	Acute Respiratory Infection
BF	Breast Feeding
BEmOC	Basic Emergency Obstetric Care
CCT	Conditional Cash Transfer
CIP	Costed Implementation Plan
CMW	Community Midwife
CSO	Civil Society Organization
DC	Deputy Commissioner
DHPMT	District Health Population Management Team
DoA	Department of Agriculture
ECD	Early Childhood Education
ENC	Essential New Born Care
FLCF	First Level Care Facility
LGD	Local Government Department
MIS	Management Information System
NGO	Non-Governmental Organization
ODF	Open Defecation Free
PHDC	Provincial Health Development Center
PWD	Population Welfare Department
RHC	Rural Health Center
SBCC	Social and Behavior Change Communication
SPPRA	Sindh Public Procurement Regulatory Authority
SUN-CSA	Scaling Up Nutrition Civil Society Alliance
TOR	Terms of Reference
UNICEF	United Nations International Children's Emergency Fund

MESSAGE BY

CHAIRMAN PLANNING & DEVELOPMENT BOARD, GOVERNMENT OF SINDH

A dynamic population is a basic pre-requisite for socio-economic growth of a nation. Certainly, it is the best predictor of human capital in developing countries. Unfortunately, 48 per cent of Sindh's children suffer from stunting or chronic malnutrition. The consequences of stunting are serious, life-long and irreversible. Children who survive malnutrition are at increased risk of morbidity and decreased cognitive functions, which result in low academic performance, low economic productivity and increased risk of degenerative diseases later in life. The high incidence of chronic malnutrition is thus impacting upon the achievements of key international commitments on socio-economic development in Pakistan. The Government of Sindh, realizing the need to address the prevalent situation of Mal-Nutrition, prepared Accelerated Action Plan for Reduction of Stunting and Mal-Nutrition in Sindh in November, 2015. The Government of Sindh has recognized that chronic malnutrition is a major problem, due to its potential negative impact on economic development and on the human capital.

Accelerated Action Plan for Reduction of Stunting & Malnutrition is multi-sectoral plan of action prepared by the Government of Sindh, led by the Planning & Development Board in collaboration with development partners. The plan focuses on International best practices to combat Mal-Nutrition by adopting nutrition specific and nutrition sensitive interventions. The strategic focus of the plan is to enhance inter-sectoral collaboration and coordination among key sectors; strengthen multi-sectoral monitoring and evaluation mechanisms to rejuvenate the hopes of population in the Government.

The Government of Sindh is strongly committed to root out the prevalence of malnutrition and stunting across the province by allocating adequate resources in its financial outlay in order to achieve the targets consolidated in Accelerated Action Plan for Reduction of Stunting and Mal-Nutrition.

MUHAMMAD WASEEM

Chairman, Planning and Development Board, Government of Sindh Karachi

Executive Summary

Childhood stunting is one of the most significant impediments to human development. Stunting, or low height for age, generally occurs before age two, and effects are largely irreversible. It is caused by long-term insufficient nutrient intake and frequent infections. Underlying causes of stunting are multiple, including sanitary conditions and hygiene practices, lack of nutrition and health related services. From international literature it is well-known that low intrauterine growth and low birth weight accounts for 20% of all childhood stunting[1]. Stunting rates are persistently high throughout Pakistan and Sindh has one of the worst nutrition indicators whereby almost half the children are stunted.

As per budget analysis conducted by the Pakistan Development Institute, only about 10% of the health budget is spent on nutrition of which 10% is Government and 90% is contributed by development partners in Pakistan. Nutrition-related initiatives have been dependent on development partners over the recent decades and are mainly delivered by NGOs being contracted directly by the development partners. In addition, a number of projects supported by bilateral donors are also under implementation. Recognizing the need of addressing malnutrition as a top priority, an Accelerated Action Plan (AAP) namely Sehatmand Sindh" is prepared for the reduction of stunting and malnourishment by 2021 with an over arching goal for ten years i.e.: *to reduce stunting from 48% to 30% in first five years (by 2021) and 15% by 2026 in Sindh by increasing and expanding coverage of multi-sectoral interventions, that are known to reduce stunting in first five years of children's lives.*

A number of interventions are proposed under various sectors, some of which will have direct and immediate impact on prevention of stunting - health, sanitation, hygiene, social protection and Social & Behavioral Change Communication (SBCC) - while a couple of sectors like agriculture and education that will manifest its impact on stunting rates in a longer term period interventions. Strategic focus of all interventions will be on all such segments of population that are nutritionally vulnerable and on whom stunting prevention strategies could be most responsive. These include: the first 1,000 days of child's life, children of 24-59 months and the women of reproductive age with particular attention to adolescent girls.

The key areas proposed here include: Expanding coverage of nutrition specific services through strengthening facility based care, revitalizing LHW program, leveraging NGOs and various DoH programs; dovetailing nutrition services with the Costed Implementation Plan for family planning; agriculture for nutrition, improved sanitation and hygiene with focus on making districts open defecation free and hand washing practices; social protection support to poorest pregnant women for seeking health care and improving nutrition related behavior; and engaging education sector for improving nutrition knowledge, skills and behaviors among children and adolescent girls. All these areas will be supported by intensive SBCC, engaging civil society organizations and enhanced monitoring and supervision mechanisms including a third party evaluation at mid-term and end of five years.

The financial estimates, based on discussions with the relevant Departments, with a broader perspective, had been incorporated in this plan. However, the sectoral core teams constituted would further work out the implementation plan of their respective Sectors with micro details including interventional gaps, activities to be implemented, financial resources essentially required etc. The modification in the financial outlay, if required, may accordingly be made.

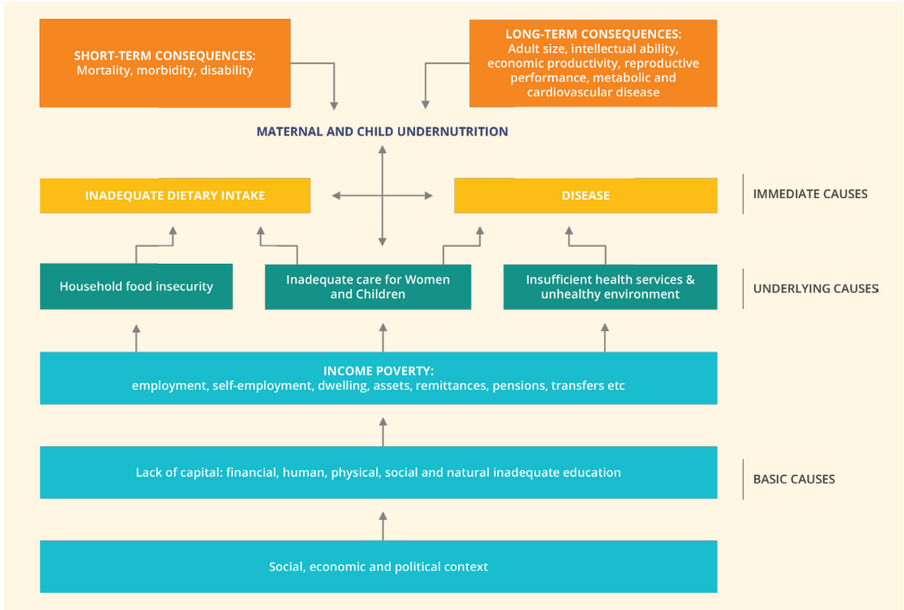
[1]Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, de Onis M, et al.; the Maternal and Child Nutrition Study Group. Maternal and child undernutrition and overweight in low-income and middle-income countries. Lancet 2013;371:243–60. doi:10.1016/S0140- 6736(13)60937-X.

Introduction to Key Nutrition issues in Sindh

With a population of 48 million, Sindh is the second most populous province of Pakistan, making up almost a quarter of the country's population, according to the Bureau of Statistics of Government of Sindh (GoS)[2]. Administratively, the province is divided into 6 divisions, 29 districts (06 districts in Karachi division), 138 talukas and 1,175 UCs[3].

The **conceptual model of undernutrition** outlines the direct, underlying and basic causes of undernutrition and reflect the short - and long-term impacts on maternal and child undernutrition.

Nutrition Conceptual Framework



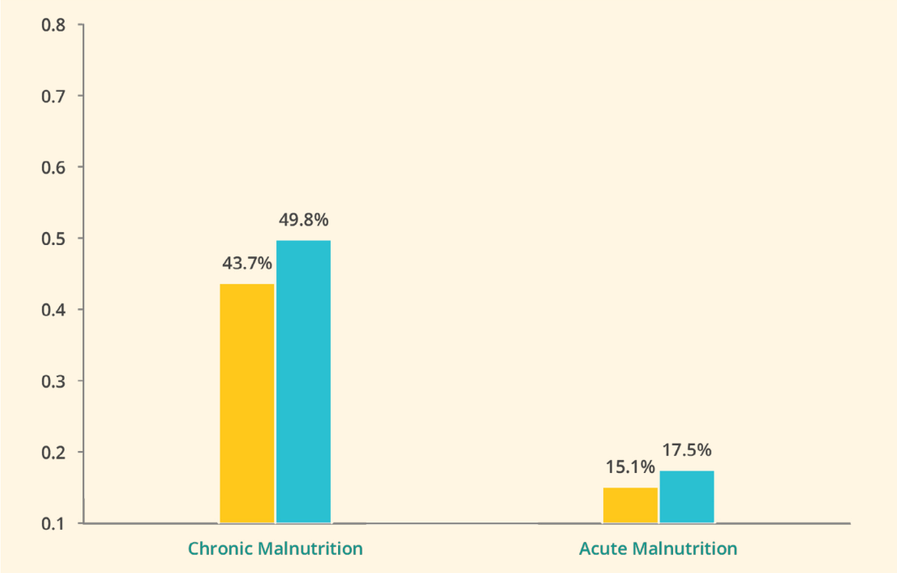
Throughout Pakistan the rates of stunting are persistently high. The National Nutrition Surveys conducted in the last 3 decades depicts a worrying situation of malnutrition in Pakistan[4].

- According to the National Nutrition Survey (NNS 2011), the Chronic Malnutrition (Stunting) and Acute Malnutrition (Wasting) rates in Sindh are higher than the National average. Stunting in Sindh was reported 49.8% and Wasting 17.5% as compared to national level 43.7% and 15.1% respectively.

[2]Pakistan Economic Survey of 2011-12
[3]Data from Local Government Department
[4]NNS 1985-87, NNS 2001-02, MICS 2007 and NNS 2011

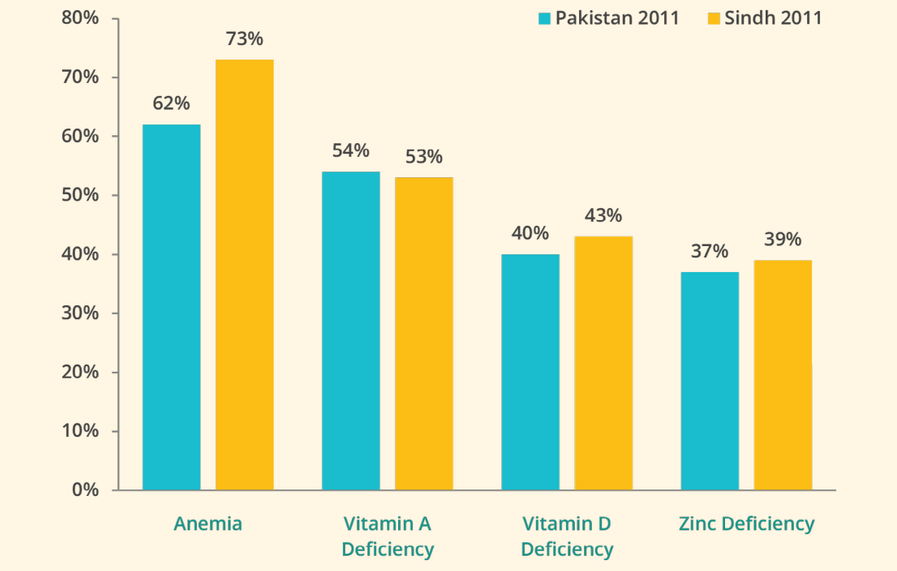
Malnutrition Situation in Pakistan & Sindh

Nutrition Status of Children <5yrs in Pakistan and Sindh (NNS-2011)



- The micronutrient deficiency levels (Anemia, Vitamin A&D and Zinc) were also higher in Sindh as compared to the national average.

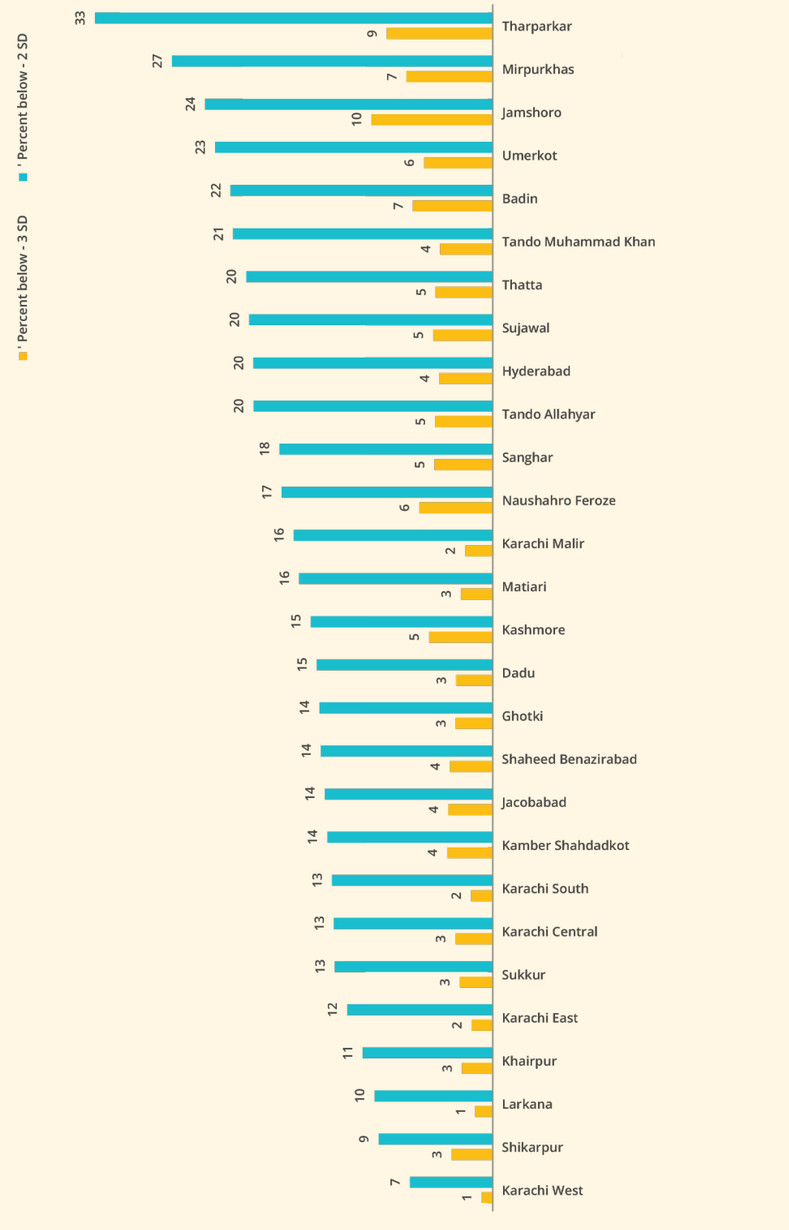
Micronutrient Deficiency in Children <5yrs in Pakistan and Sindh (NNS-2011)



According to the latest MICS results, the malnutrition levels and micronutrient deficiency across Sindh are above the cut-off for a serious public health problem.

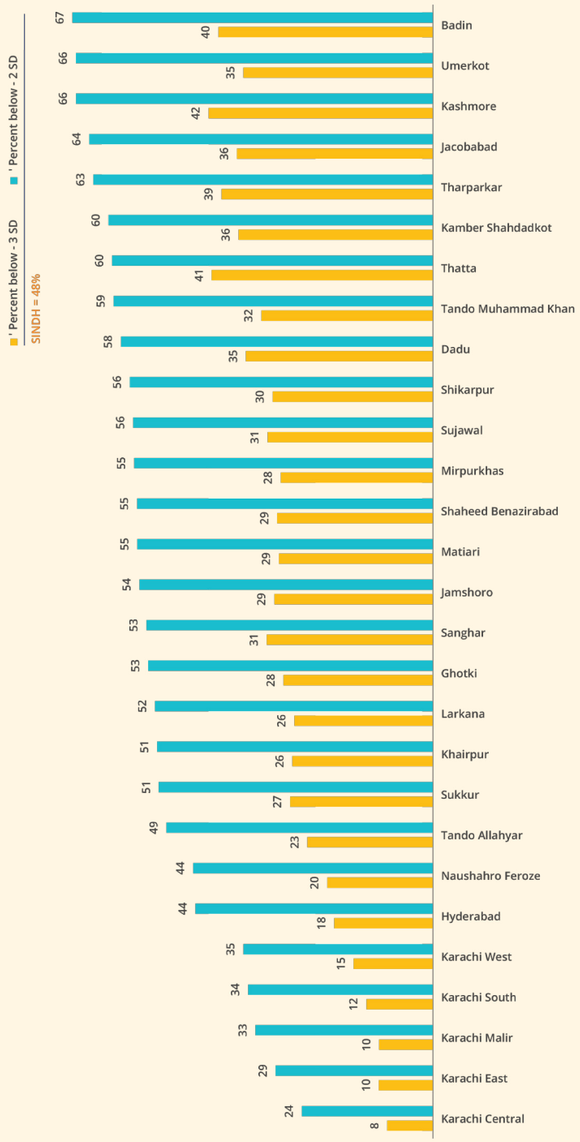
- **Wasting (Weight for height): In Sindh,15.4% of children under 5 years of age suffer from moderate or severe wasting/acute malnutrition.**

Weight for Height (Wasting) - Districts



- **Stunting (Height for Age): In Sindh 48% children (almost every second child) under 5 years of age suffers from stunting/chronic malnutrition. Stunting is the irreversible outcome of chronic nutritional deficiency.** As shown in the graph below, the province has marginally higher inter district variations for example western Sindh shows districts with the highest prevalence of child malnourishment levels that go up to 67%[5] (provincial average 8%), with district Badin having highest stunting rates.

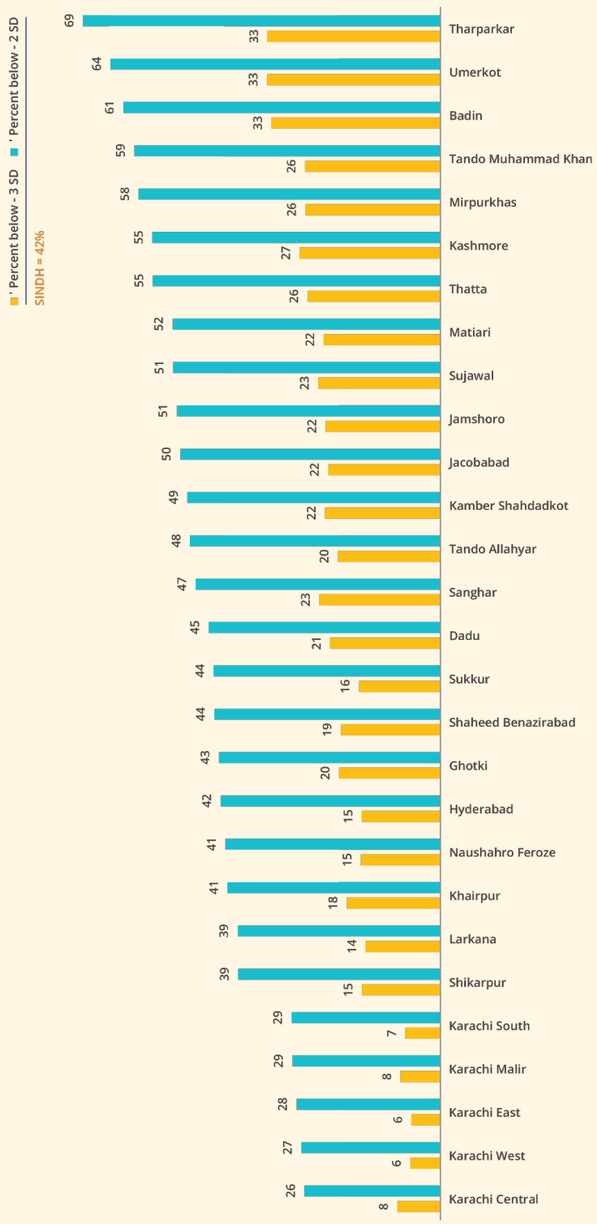
Height for age (Stunted) - Districts



[5]National Nutrition Survey [NNS], 2011

- In Sindh, 2 out of 5 children are underweight with provincial average of 42%.

Weight for age (Underweight) - Districts



- The MICS 2014 results shows higher micronutrient deficiencies like iron deficiency anemia was reported 60% among women & 71% among children < 5 years.

Ongoing Initiatives:

As per budget analysis conducted by the Pakistan Development Institute, only about 10% of the health budget is spend on nutrition of which 10% is Government and 90% is contributed by development partners in Pakistan[6] the same scenario is reflected in the GoS budget. The GOS, with financial support of the WB started the Nutrition Support Program in Sindh as the "Enhanced Programme for Mothers and Children", covering nine districts with nutrition specific interventions, maternal, infant and young child feeding, micro-nutrient supplementation and a large scale behavior change communication. To address underlying causes, this will be complimented by sanitation and hygiene as well as nutrition sensitive agriculture interventions. A number of projects supported by bilateral donors are also under implementation such as recently completed EU funded "Women and Children Improved Nutrition Sindh" (WINS, approx. 30 Million Euro) in 4 districts aiming to improve nutrition through preventive and curative nutrition services and in three districts interventions related to WASH, and improving access to food through diversification of food production and cash transfers. The EU is as well planning new support to address to cover 10 districts with a set of interventions focusing on direct as well as underlying causes, the project is planned to start mid 2017. DFID is financing a national fortification programme for the fortification of flour and oil, fortified products will be available at the local markets in Sindh by early 2017; furthermore DFID is planning an extensive multi-sectoral nutrition intervention project in 2017 for which pathways of impact were identified in 2016 through the Theory of Change consultations. USAID is funding a Maternal and Child Nutrition Stunting Reduction program in two districts focusing on nutrition specific interventions and food supplements implemented by WFP and by UNICEF in three districts in rural Sindh for stunting reduction through nutrition specific and WASH interventions.

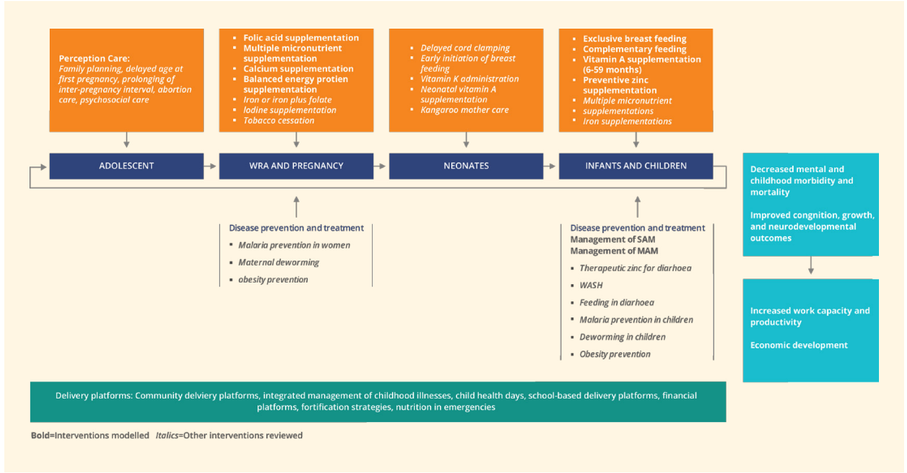
[6]Sikander Brohi, Pakistan Health Expenditure Analysis 2015

Strategic Focus and Guiding Principles:

Strategic focus of all interventions will be in the districts where stunting rates are >30% and within these districts among the most vulnerable segments of populations, including:

1. *The first 1,000 days:* Stunting begins *in utero* and continues to develop primarily for up to 24 months and beyond; the period from conception to a child's second birthday (the first thousand days) has therefore been identified as the most critical window of opportunity for interventions. This is the period when stunting and probably all associated pathology including impaired physical and mental development are most responsive to, or are preventable by specific interventions.

Nutrition Interventions, During the 1000 days of Window of Golden opportunity



2. *Children aged 2-5years age:* Using the recent longitudinal data from rural Gambia, Ethiopia, Peru, India and Vietnam[7.8.9], it is proposed to include the children aged 2-5 years in the strategic focus especially through nutritional interventions and to build healthier eating habits and life style through early childhood education programs.

3. *Women of reproductive age with particular attention to adolescent girls:* Adolescents are considered to be a nutritionally vulnerable segment of the population. A rapid growth rate combined with a marginal nutrient intake of important micronutrients including iron, zinc, and folate among adolescent girls increases the risk of nutritional deficiencies in this population as well as accounts for , therefore, nutrition services and care of adolescent girls as an important segment of population to prevent stunting is added in AAP.

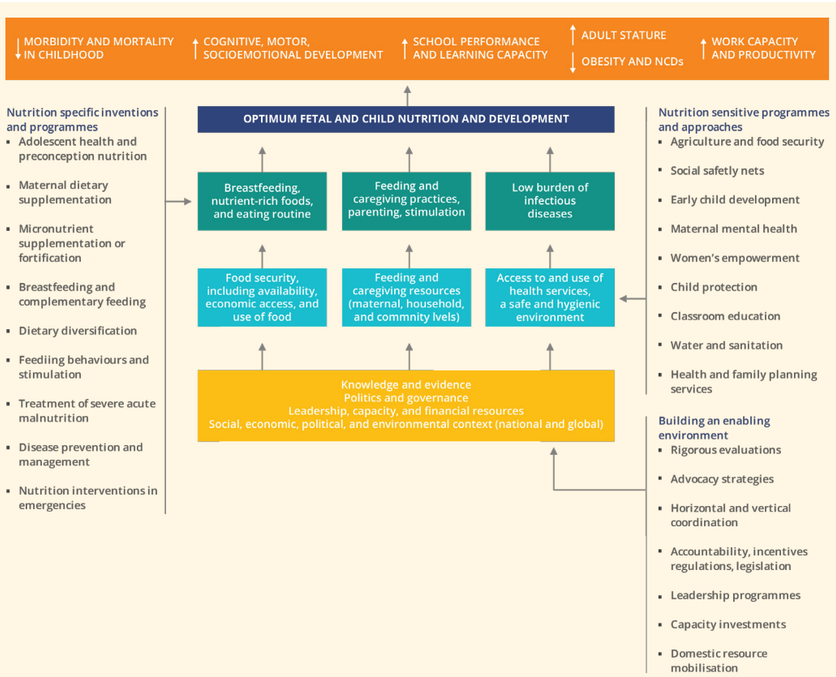
[7] Critical windows for nutritional interventions against stunting. Prentice AM, Ward KA, Goldberg GR, Jarjou LM, Moore SE, Fulford AJ, Prentice A Am J Clin Nutr. 2013 May; 97(5):911-8.
[8]Growth faltering and recovery in children aged 1-8 years in four low- and middle-income countries: Young Lives.
Lundeen EA, Behrman JR, Crookston BT, Dearden KA, Engle P, Georgiadis A, Penny ME, Stein AD, Young Lives Determinants and Consequences of Child Growth Project Team. Public Health Nutr. 2014 Sep; 17(9):2131-7.
[9]Schott WB, Crookston BT, Lundeen EA, Stein AD, Behrman JR. Periods of child growth up to age 8 years in Ethiopia, India, Peru and Vietnam: key distal household and community factors. Soc Sci Med.2013;97:278–87.

All the interventions and strategies will be guided by four principles :

- *Recognition of Right to food:* The right to food, and its variations, is a human right that is defined as: "protecting the right for people to feed themselves in dignity, implying that sufficient food is available, that people have the means to access it, and that it adequately meets the individual's dietary needs. The right to food protects the right of all human beings to be free from hunger, food insecurity and malnutrition"[10].
- *Evidence based interventions:* Globally, a number of interventions have been implemented to reduce stunted, this action plan will employ such best practices that have proven to show results in prevention of stunting and malnourishment.
- *Most vulnerable population to receive most attention (Equity):* There are pockets of vulnerable population present in all districts of the province, keeping in view the principle of equity multiple sectors will design interventions to reach out to such pockets on priority basis.
- *Plan multi-sector and implement per sector:* Alignment of nutrition interventions within different sector-specific action plans is necessary to ensure that a multi-sectoral approach is implemented to address stunting holistically.

Interventions which will have direct and immediate impact including health and population, sanitation, hygiene, social protection and Social & Behavioral Change Communication (SBCC) while interventions of agriculture and education will manifest its impact on stunting rates in a longer term period.

Framework for actions to achieve optimum fetal and child nutrition and development



[10] Ziegler 2012: "What is the right to food?"

Plan of Action to Reduce Stunting:

Acceleration of progress in nutrition will require effective, large-scale nutrition-sensitive programs that address key underlying determinants of nutrition and enhance the coverage and effectiveness of nutrition-specific interventions. Recognizing the need of addressing malnutrition as a top priority this Accelerated Action plan (AAP) namely Sehatmand Sindh" is prepared for the reduction of stunting and malnourishment which will contribute to over all socio economic development through improved human capital.

Goal

"to reduce stunting from 48% to 30% in first five years (by 2021) and 15% by 2026 in Sindh by increasing and expanding coverage of multi-sectoral interventions, that are known to reduce stunting in first five years of children's lives". The goal is set with consensus and commitment from all sectoral heads as well as taking into account the global evidence[11.12.13].

Sectoral Objectives and Outcome

Health Sector

Objectives

To improve health and nutrition status of mothers and children by rapidly expanding and enhancing coverage of health and nutrition interventions in all districts of Sindh.

Proposed Outcomes

i. Reduced proportion of children with SAM in less than 5 years of age.
ii. Increased percentage of infants 0 to 6 months who are exclusively breastfed.
iii. Increase percentage of children 6 to 24 months receiving an acceptable minimum diet
iv. Increased percentage of Pregnant & lactating Women receiving iron & folic acid supplementation.

Major Interventions

Expanding Coverage of Nutrition specific services: To accelerate the reduction of stunting, following nutrition specific services are the first priority to be delivered to target population through public and private health sector. These interventions include:

1. *Promotion of exclusive breastfeeding for six months;*
2. *Adequate complementary feeding starting at the age of 6 months with continued breastfeeding for at least two years;*
3. *Appropriate nutritional care of sick and severely malnourished children;*
4. *Provision of multi-micornutrients for children 6 to 24 months;*
5. *Ensuring consumption of iron and folic acid by women. Advocacy and promotion of consumption of fortified foods will as well become part of the nutrition interventions within the health sector as well as in conjunction with other sectors, i.e education and the cross sectoral BCC. These interventions will be strengthened and expanded at all levels of the health care system:*

[11] Roseline R, Paul M P. & et al. "Multisector intervention to accelerate reductions in child stunting: an observational study from 9 sub-Saharan African countries Am J Clin Nutr doi: 10.3945/ajcn.111.020099.
[12] Aarón L. & Guido C. "Decreasing stunting, anemia, and vitamin A deficiency in Peru: Results of The Good Start in Life Program". Food and Nutrition Bulletin, vol. 30, no. 1 © 2009
[13] Narrowing socioeconomic inequality in child stunting: the Brazilian experience, 1974–2007 Bulletin of the World Health Organization ISSN 0042-9686

Strengthening Facility based Services (BHU, RHC, THQ): *Strengthening and expanding existing preventive and curative services/functions at the facilities [with specific focus on prevention of malnutrition through nutrition promotion as well as screening and treatment for malnutrition, family planning, basic and emergency obstetrics and new care]. The important intervention will include:*

i. *Provide refresher trainings with focus on nutrition specific intervention to all levels of facility based health staff;*
ii. *Minimal infrastructure adjustments as and where required i.e. provisions/replacement or replenishing of basic equipment/supplies and;*
iii. *Strengthening referral and coordination mechanism between all levels.*

Revitalizing LHWP for nutrition: *Post devolution (2011 and onwards) there have been many changes, to the LHWP structures, management and financial systems that has impacted the functions, service delivery and performance of LHWs. Since there is a heavy reliance on the LHWs for reaching out to the target population, immediate measures will be required for improving their access and quality of nutrition services, including:*

i. *Revising the training curriculum giving adequate attention to the significance of first 1000 days and direct and indirect causes of malnutrition, basic principles of healthy nutrition and nutrition at critical phases in life, maternal nutrition, pre-pregnancy, pregnancy, early initiation, exclusive and continued breastfeeding, complementation and balanced diets through individual and group counseling complemented by monthly group counseling and promotional activities. Counseling and promotion of use of micro-nutrients will require particular attention and counseling skills to be trained at. Identification and treatment of less than five children with diarrhea in her target population.*
ii. *Improving pre and in service training methodology by introducing skill based training using simulation and other pedagogical approaches to learn and practice the (above identified) interventions;*
iii. *Streamlining coordination with other community based workers such as CMWs of MNCH program and CHWs of Population Welfare services;*
iv. *Strengthening functional integration with FLCF in particular with BHUs that are contracted out to PPHI or otherwise;*
v. *Establishing a system of supportive supervision and monitoring by recruiting more LHSs and providing adequate mobility support including operational and recurrent costs;*
vi. *Recruitment and deployment of new LHWs to gradually cover the entire population as currently there are only enough LHWs to cover 46 % of the target population.*

Leveraging NGOs, CBOs and various DoH programs: *While the recruitment of new LHWs materializes, community based nutrition interventions in the non-covered areas will be rolled out through community based workers of NGOs and/or other type of workers like Community Midwifes prepared by MNCH program (currently around 2300 CMWs). In addition, LHWs health houses and birthing station of CMWs will also be equipped for group education. It will be ensured that all these various workers are relaying same nutrition messages to the target population; hence a uniform provincial curriculum focusing on nutrition will be adopted for training of various cadres of workers.*

Population Welfare Sector

Objective

To strengthen existing family planning systems and services through innovation with focus on rural Sindh

Proposed outcomes:

i. Increase Contraceptive Prevalence Rate.
ii. Proportion of currently married women age 15-49 years using modern Contraceptive in rural Sindh.
iii. Reduce unmet need for family planning services in rural Sindh

Major Interventions:

Improving maternal Health by dovetailing with Costed Implementation Plan (CIP) for Family Planning:
GoS has envisaged that expanded family planning and reproductive health services would bring health benefits for mothers, infants and children, including improvement in nutrition outcomes and the reduction in the prevalence of stunting. One of the important activities will be to start a critical policy dialogue to encourage integration of family planning into actual plans and Programme. Additionally, since a number of interventions proposed here for reduction of malnourishment and stunting are aligned with CIP such as improving and strengthening health care delivery systems, revitalization of LHW program etc., it would be logical and cost effective to combine efforts and dovetail the interventions where possible. Some examples of such interventions are: training the community and facility based workers(CIP has proposed to prepare 6000 new CHWs in line with LHWs), integration of FP and nutrition services into broader MNCH interventions at First Level Care Facilities as well as at Secondary Level Care Facilities, and streamlining coordination between the LHWs and the facilities. Like nutrition sensitive interventions, the FP interventions will also be focusing on the rural districts of Sindh.

Local Government Sector

Objective

To improve sanitation and hygiene practices with a focus in rural areas and urban squatter settlements

Proposed Outcomes

i. Eradication of Open Defecation.
ii. Increased proportion of population washing hands with soap at critical times

Major Interventions

Sanitation and Hygiene: Only 26 percent of the population in rural Sindh has flush toilets, out of these 8% of households are connected with public sewer. In addition, a large percentage of Sindh's urban population lives in slums and/or informal settlements with inadequate sanitation facilities which are not integrated into the larger city sanitation plans. To improve sanitation coverage and quality, the Local Government Department (LGD) has initiated a program called "the Saaf Suthro Sindh (SSS)" which is aligned with the federal government vision and aims to achieve an open defecation free (ODF) Sindh by 2025. SSS proposes to achieve total sanitation not only through ensuring availability of latrines but most importantly changing health and hygiene behavior of the people. The proposed approach is through participatory facilitation, community members analyze their own sanitation status, including the extent of open defecation and the spread of fecal-oral

contamination. Once people are convinced about the need for sanitation, communities construct latrines on their own at the household level, according to their own capacity, and more importantly, use it regularly due to a strong sense of ownership. Furthermore, messages of health and hygiene will be spread through engaging village committees, LHWs, other community based workers and social mobilizers. Once a village is ODF, as an incentive, latrines, hand washing stations and where needed a bore with hand pump will be constructed in the government schools of the village by the respective district management.

Access to safe drinking-water: Improving access to safe drinking-water involves constructing or improving water supply systems or services, such as providing piped water on-site, public standpipes, boreholes, protected dug wells, protected springs and rainwater. It is estimated that 15–20 L of water per person per day is needed for consumption, food preparation, cleaning, laundering and personal hygiene (WHO, 2003). Although improving access to safe drinking-water remains an essential development goal, low-cost strategies to treat and safely store drinking-water at the point of consumption can provide an intermediate solution while longer-term infrastructure improvements are being planned and implemented. Household water treatment (HWT) and safe storage (HWTS) technologies, also known as point-of-use technologies, include a range of devices or methods used to treat water in the home or other settings, such as schools and health care facilities.

Agriculture, Livestock & Fisheries Sector

Objective

To increase the number of households that are consuming a more diverse and healthy diet

Proposed Outcomes

i. Increased proportion of PLWS, mothers of under 2 years children, and children under 5 years consuming minimum required calories
ii. Increased proportion of PLWs, mothers of under 2 years children and children under 5 years having adequate dietary diversity.

Major Interventions

Enhancing food diversity through agricultural and livestock interventions: In Sindh large segment - 83% (0.93million) - of farmers are tenants, landless laborers or possess small farms less than i.e. 12.5 acres. Farming, for these groups, is not remunerative enough to provide a decent living including nutrition and food security because of low bargaining power in land tenancy arrangements for tenants and low farm productivity for smallholders. Given the high level of dependency on agriculture for food and income, boosting diversified crop, livestock and fisheries production is vital to reduce food deficits and increase incomes, thereby, reducing food insecurity and malnutrition. To support this effort, Department of Agriculture (DOA) will introduce integrated production of horticulture and pulses in targeted households. Department of Livestock and Fisheries (DOLF) will also play a critical role in adding diversity and animal sourced foods (poultry, and fisheries) mainly through two interventions: handing out chicks and goats to the poorest household with women of reproductive age and teaching them best rearing practices of these farm animals; and constructing fish ponds in the poorest villages of all rural districts of the province.

The interventions proposed by the “Agriculture for Nutrition” project to begin soon in four districts will Enhance food diversity through a number of activities including: Kitchen Garden and small-scale vegetable farming; small-scale food storage and preservation; enhancing capacity of small/women farmers using field farm approach and field based schools; training of these farmers through demonstration plots to identify quality seeds, seed preparation and plantation, general good agricultural practices, integrated pest management, soil nutrient management, tunnel farming, nursery establishment, water management, organic agriculture practices, animal nutrition and health, food processing techniques, food safety, etc.; Develop & Disseminate messages/materials on nutritious foods, recipes, and cooking techniques; the benefits of cultivating nutritious crops like vegetables, pulses and oil seeds; the importance of animal products or other protein sources in a healthy diet. The project also proposes to work through LHWs and other participating relevant community-based networks to deliver messaging and training designed to improve utilization of livestock products and household nutrition.

Social Welfare Sector

Objective

To increase utilization of nutrition services and improve behavior among BISP beneficiaries

Proposed Outcomes

i. Increased utilization of nutrition services of the poorest population groups through conditionalities attached to existing and new social protection mechanisms.

Major Interventions

Conditional Cash Transfers for the poor using BISP as a conduit: To mitigate the situation resulting from low economic growth and high inflation - especially food inflation- the Government of Pakistan launched the Benazir Income Support Programme (BISP) in 2008. Households enrolled in the BISP are paid Rs 1,400 per month, without any conditions attached to this sum. Social protection programs are expected to have greater impact on nutrition by incentivizing vulnerable populations to access essential nutrition services and improving nutritional behavior and practices. International evidence suggests that linking demand side interventions such as Conditional Cash Transfers (CCTs) to the utilization of specific services by pregnant women and mothers, through effective implementation of social safety nets allows for significant positive impact on human development outcomes and, hence, reduction of poverty.

The proposed intervention will attach additional cash transfers to PLWs and the women with children below the age of 5 years from the poorest households (lowest 20%) using the BISP data-of the National Economic and Social Registry (NESR) survey being planned for July-December 2016- and disbursement mechanism. To receive the cash (amount needs to be set), target group will be required to participate in the preventive nutrition and reproductive activities including: attending at least three ante-natal and one post-natal visits, regular growth monitoring of children at BHUs and/or RHCs, participation in group health education about early, exclusive, and continued breastfeeding and infant and young child feeding, cooking demonstrations and mother support group on nutrition. The enrollment mechanism at BHU/RHCs for enrolling eligible women, recording their participation in above mentioned services and biometric verification will be further elaborated by technical working group on conditional cash transfer (CCT). The records of individual woman’s participation will be compiled and notified to BISP local office whose staff will then transfer the cash to the particular woman’s account. For marketing, outreach, monitoring and verification purposes, a third party/firm will be recruited such as Aurat foundation which has extensive experience of rolling out Waseela-e-Taalim program (education related CCTs for increasing enrollment and attendance in schools).

Education Sector

Objective:

To increase access to nutrition interventions and developing children as agents of community change education is being offered.

Proposed Outcomes:

i. Improved access to nutrition specific interventions such as de-worming etc. in primary schools and ECE classes Early Childhood Education in the public schools
ii. Improved knowledge of nutrition and healthy living among girls and boys enrolled in primary and secondary school in the disadvantaged areas

Major Interventions:

Engaging teachers and school based forum- Opportunities for convergence (longer-term): Globally there are many school based nutrition programs, the two age segments that are proposed to be reached through school systems are children of 3-5 years and adolescent girls of 12-15 years. Early Childhood Education (ECE) services have an important role in creating a culture of healthy eating and helping children to develop healthy behaviors related to food choices. In Pakistan ECE, termed Kachi or pre-primary classes, includes formal and informal services for children aged 3-5 years. The GoS has plans to institutionalize and formalize the curriculum and expand ECE facilities. Hence, ECE will provide a strategic platform to reach out to children aged 3-5 years. Activities like increasing enrollment in ECE classes, training teachers and parental /caregivers awareness sessions at ECD classes; inclusion of nutrition/health eating habits in the school curriculum; introduce these concepts in teachers induction training program – starting from newly inducted (through merit based recruitment) teachers; awareness sessions and relay of key nutrition messages during Parent-Teacher- meetings and SMC forum to provide parents and child care workers with education and support; including systematic curricula and training opportunities through demonstration, coaching to improve parent–child interactions and role plays for promoting health care giving behaviors specifically in ECE classes. Also it is evident that the percentage of stunting is much higher among children whose mothers are illiterate versus those whose mothers have completed at least 10 years of education; therefore a mother's literacy program through non-formal education sector will also be tested in the poorest, rural districts of Sindh.

Secondly, as female adolescents are at greatest risk for iron deficiency anemia, a health and nutrition component will be added in the curriculum for secondary classes to reach out to young girls (aged 12-15 years). School based programs such as providing students with the skills, social support, and environmental reinforcement they need to adopt long-term, healthy eating behaviors will be implemented through teachers training, revising curriculum, and connecting schools with DHO office for regular visits and health education sessions by District Nutrition Officer.

A number of interventions are proposed under various sectors, some of which will have direct and immediate impact including health and population, sanitation, hygiene, social protection and Social & Behavioral Change Communication (SBCC) while interventions of agriculture and education will manifest its impact on stunting rates in a longer term period. Following is the brief description of each intervention:

Cross Cutting Strategies

Intensive Social and Behavior Change Communication (SBCC):

Technology is rapidly increasing access to information, even among remote populations, and the types of, and channels for, communication are ever expanding. New technologies have the potential to democratize SBCC, giving those most affected by health and nutrition problems a greater voice in addressing malnourishment. Specific areas of focus include how single or combined SBCC interventions change certain types of behaviors among certain groups in specific contexts, how they can be designed and implemented to ensure cost-effectiveness, scalability and sustainability, and how investments in SBCC will target scaling up of proven interventions and to foster continual innovation. This need underscores the importance of context and the enabling environment as well as the role of delivery science including management, supervision, and training processes. It is important that all relevant mediums (mass-media - radio, TV; mid-media- street theater and billboards; print- newspaper etc.) of communication linking and delivering key messages of all involved sectors are used to get to the populations even in the far-flung areas for disseminating nutrition educational messages.

Engagement with civil society:

The term civil society refer to "the wide array of non-governmental and not-for-profit organizations that have a presence in public life, expressing the interests and values of their members or others, based on ethical, cultural, political, scientific, religious or philanthropic considerations. Civil Society Organizations (CSOs) therefore refer to a wide of array of organizations: community groups, non-governmental organizations (NGOs), labor unions, indigenous groups, charitable organizations, faith-based organizations, professional associations, and foundations"[14].

In Sindh, since the 1980s, health-related CSOs have proliferated in type, number and functions they perform, a development largely seen in positive terms. The action plan envisages engagement with of CSOs and non state actors including but not limited to think tanks, academia, professional bodies like various health professionals and paramedic staff associations, Councils for health professionals, text book boards etc. The CSOs with their independent transparent role will play critical and constructive role in social mobilization, governance, service delivery, research, monitoring and advocacy to strengthen and expand implementation of multi sector nutrition intervention. In addition, the CSOs will play an important role as a change agent where government is falling short.

Program coordination and political leadership:

To efficiently deliver the action plan, a steady program coordination and political leadership is proposed to be implemented at various levels of planning and implementation. The latter could be nurtured through advocacy and ongoing policy dialogue, steady leadership. Interventions from the public sector will need to be coordinated with inputs of partners, stakeholders, and the private sector. Donor coordination will also require optimizing resources utilization and maximizing programs' effectiveness. In this respect, an oversight mechanism is proposed in this plan which to be implemented at all levels of administration.

[14]The World Bank, Defining Civil Society, http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/CSO/0,,contentMDK:20101499~menuPK:244752~pagePK:220503~piPK:220476~theSitePK:228717,00.html

Oversight Mechanism, Monitoring and Evaluation

Objectively verifiable indicators are being set in results framework (annexure 1) for all the sectors involved in the prevention of stunting and malnutrition. Also for oversight and regular monitoring, mechanisms are proposed at all levels of administration which are briefly described here:

Village level:

Grass root workers such as LHWs, CHWs, sanitation workers and village committees set by various sectors such as health committees, BISP Beneficiary Committee (BBC) will be involved for service provision as well as regular reporting. Some form of performance based incentive system such as providing mobile phones or monthly mobile allowance to LHSs of up to Rs.500 could be introduced to improve timeliness and efficiency.

District level:

A position of "District Coordinator" will be created at the District Commissioner's (DC) office. The coordinator will be responsible for monitoring and supervision of all activities as per monthly and quarterly work plans at district level and will make sure that all information is collected and transmitted in a standardized manner. The incumbent will be responsible for supervision and mentoring of field based activities/staff. In case of any bottlenecks the coordinator will seek DCs help to facilitate the process and involve the district administration where need be. Monthly district coordination meetings will be arranged by the coordinator and chaired by DC where progress against set objectives will be presented Record of all such meeting as well as individual meetings, visits of the coordinator etc will be transmitted to the task force secretariat for effective supervision.

Provincial Steering Committee (PSC):

This forum was created and notified in 2015 as part of the project on "Enhanced Maternal and Child Nutrition", this PSC will be continued and also extended to include other relevant departments that are not currently part of it such as BISP. The PSC currently is chaired by the ACS P & D and the secretaries of all participating relevant as its members. The role of PSC will be to provide strategic direction, facilitate and coordinate the inter-sectoral process, address any hurdles that may arise during implementation and take remedial actions. After constitution of Provincial Task Force, the Coordinator to CM on Nutrition will head the Provincial Steering Committee.

Task Force:

The Coordinator to Chief Minister Sindh will lead the task force which will comprise of all relevant and participating ministers; it will be the decision making body with roles to direct and oversee all programmatic and operational activities. Initially (first year), the task force will meet quarterly where PSC will present the progress and discuss program related issues. A secretariat will be established to support the activities of the Task Force by recruiting a number of staff including an MIS person, biostatistician and other technical/secretarial staff who will support the task force in continuous multi-pronged communication and will monitor the progress of each district, provide regular feedback and support to all internal and external stakeholders.

Nutrition Glossary

Acute malnutrition – Also known as 'wasting', acute malnutrition is characterized by a rapid deterioration in nutritional status over a short period of time. In children, it can be measured using the weight-for-height nutritional index or mid-upper arm circumference. There are different levels of severity of acute malnutrition: moderate acute malnutrition (MAM) and severe acute malnutrition (SAM).

Anemia – Characterized by reduction in haemoglobin levels or red blood cells which impairs the ability to supply oxygen to the body's tissues, anaemia is caused by inadequate intake and/or poor absorption of iron, folate, vitamin B12 and other nutrients. It is also caused by infectious diseases such as malaria, hookworm infestation and schistosomiasis; and genetic diseases. Women and children are high-risk populations. Clinical signs include fatigue, pallor (paleness), breathlessness and headaches.

Food fortification – The addition of micronutrients to a food during or after processing to amounts greater than were present in the original food product. This is also known as 'enrichment'.

Food security – Access by all people at all times to sufficient, safe and nutritious food needed for a healthy and active life. (1996 World Food Summit definition).

Global acute malnutrition (GAM) – The total number of children aged between 6 and 59 months in a given population who have moderate acute malnutrition, plus those who have severe acute malnutrition. (The word 'global' has no geographic meaning.) When GAM is equal to or greater than 15 per cent of the population, then the nutrition situation is defined as 'critical' by the World Health Organization (WHO). In emergency situations, the nutritional status of children between 6 and 59 months old is also used as a proxy to assess the health of the whole population.

Macronutrients – Fat, protein and carbohydrates that are needed for a wide range of body functions and processes.

Malnutrition – A broad term commonly used as an alternative to 'undernutrition', but which technically also refers to overnutrition. People are malnourished if their diet does not provide adequate nutrients for growth and maintenance or if they are unable to fully utilize the food they eat due to illness (undernutrition). They are also malnourished if they consume too many calories (overnutrition).

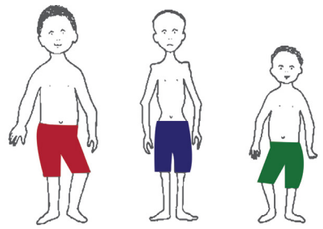
Micronutrients – Essential vitamins and minerals required by the body in miniscule amounts throughout the life cycle

School feeding – Provision of meals or snacks to schoolchildren to improve nutrition and promote school attendance.

Stunting: low height-for-age, when a child is short for his/her age but not necessarily thin. Also known as **chronic malnutrition**.

Under-weight: low weight-for-age, when a child can be either thin or short for his/her age. This reflects a combination of **chronic and acute malnutrition**.

Wasting: low weight-for-height where a child is thin for his/her height but not necessarily short. Also known as **acute malnutrition**.



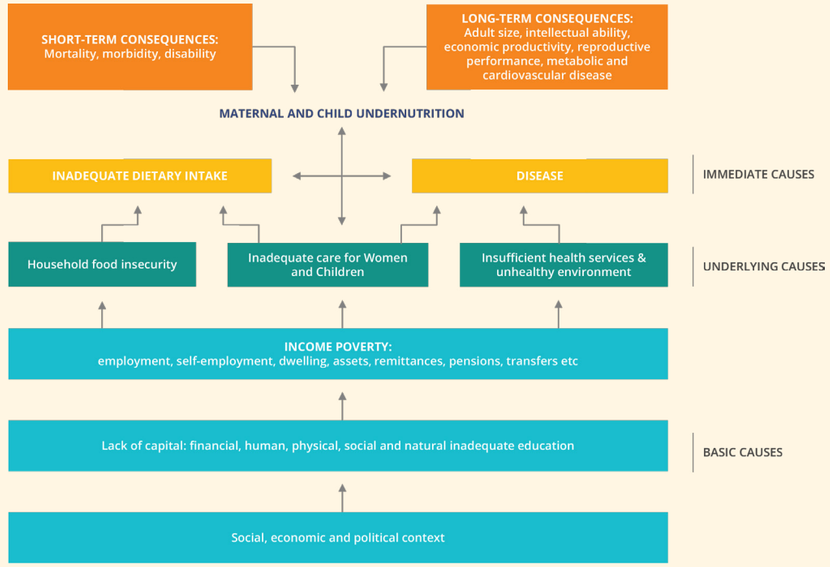
Wasted	No	Yes	No
Stunted	No	No	Yes
Under-weight	No	Yes	Yes

Annexures

Annexure 1

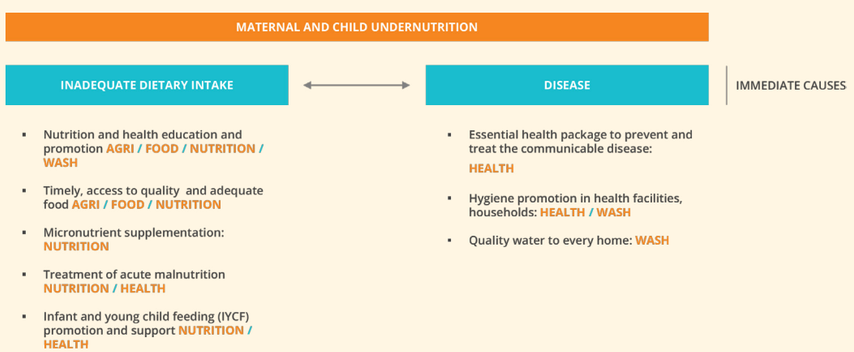
Nutrition Conceptual framework and interventions with impact on immediate, underlying and basic causes.

Nutrition Conceptual Framework



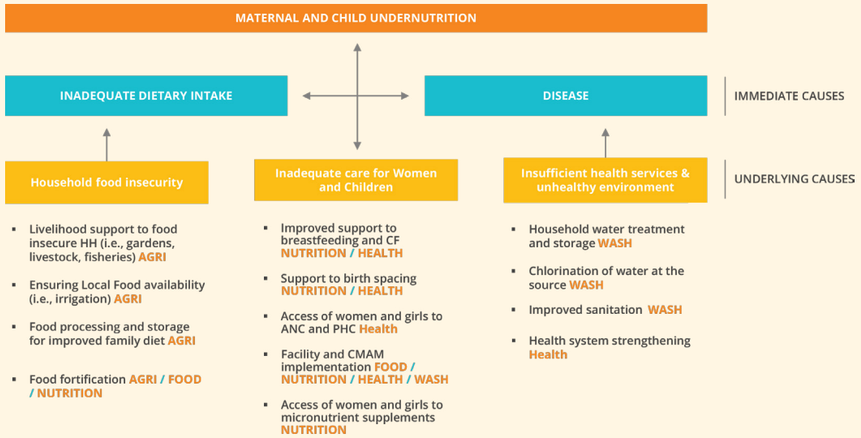
Sectors: Interventions with impact on immediate causes

AGRI / FOOD / NUTRITION / HEALTH / WASH



Sectors: Interventions with impact on underlying causes

AGRI / FOOD / NUTRITION / HEALTH / WASH



Interventions with impact on basic causes

AGRI / FOOD / NUTRITION / HEALTH / WASH

Income poverty: employment, self-employment, dwelling, assets, remittances, pensions, transfers etc

Lack of capital: financial, human, physical, social and natural Inadequate education

Social, economic and political context

- Conditional Social Transfers **FOOD / NUTRITION / HEALTH**
- Livelihood generation, small business enterprises, local marketing, income generation **AGRI**
- Adolescent girls' education (through 2º school) **AGRI / FOOD / NUTRITION**
- Advocacy for Province nutrition budget **AGRI / FOOD / NUTRITION / HEALTH / WASH**
- Training CMAM, IYCF **AGRI / FOOD / NUTRITION / HEALTH / WASH**
- NIS, Monitoring, Surveys, Evaluations **AGRI / FOOD / NUTRITION / HEALTH / WASH**
- Supply chain management **AGRI / FOOD / NUTRITION / HEALTH / WASH**
- Women's literacy programs **AGRI / NUTRITION / HEALTH / WASH**
- Integrated Nutrition Policy, Strategy and Guidelines **AGRI / FOOD / NUTRITION / HEALTH / WASH**

Annexure 2

Results Framework.

Accelerated Action Plan for reduction of Stunting and malnutrition in Sindh.

The Results Framework captures key results to be achieved through Government of Sindh's Accelerated Action Plan (AAP) to reduce stunting and malnutrition. The plan envisages a multi-sectoral approach to be implemented through health, population, sanitation and hygiene, social protection, agriculture and education. This will be complemented an extensive BCC efforts and dedicated political leadership and strengthened accountability mechanisms.

Development Objective: To reduce stunting from 48% to 30% in first five years i.e. by 2021 and 15% by 2026 in Sindh by increasing and expanding coverage of multi-sectoral interventions, that are known to reduce stunting in children under five years of age.																								
Key Performance Indicators																								
	OUTCOME INDICATORS	OUTPUT INDICATORS	*BASELINE 2016	DATA SOURCE	ANNUAL TARGETS				FREQ	RESPONSIBILITY FOR DATA COLLECTION														
					YR1	YR2	YR3	YR4																
Health: To improve health and nutrition status of mothers and children by rapidly expanding and enhancing coverage of health and nutrition interventions in all districts of Sindh.																								
	Reduced prevalence of stunting & wasting among children 6-24 months.	Proportion of HH covered by LHWs.	46%	LHWP	46%	60%	80%	100%		LHWP														
		Proportion of households (PLWs and 5 years children) who have received nutrition services[16] through LHWs/CHWs[17].	N/A[18]	N/A	50%	60%	70%	80%		DoH/Nut cell														
	Increase percentage of children 6 to 24 months receiving an acceptable minimum diet[15].	Proportion of children 0-6m exclusively breast-fed.	28.9%	MICS '14	30%	35%	40%	45%		DoH/Nut cell														
		Proportion of children 6-24m consuming multi micronutrient supplements.	N/A	N/A	20%	25%	30%	35%																
	Reduced prevalence of anemia in women of reproductive age.	Episodes of diarrhea in children 6-59m treated with Zinc and ORS.	11.6%	MICS'14																				
		Proportion of pregnant women receiving IFA supplements.	N/A	N/A																				
Population: To strengthen existing family planning systems and services through innovation with focus on rural Sindh.																								
	Increase Contraceptive Prevalence Rate.	Average number (quarterly) of new FP clients being provided products and services through RHSs & all public health facilities (DHQs and below).	33.4%[19]	MICS'14	36%	39%	42%	44.5%		CIP/PWD														
	Proportion of currently married women age 15-49 years using modern Contraceptive in rural Sindh.	Average number (quarterly) of new FP clients being provided products and services through community based workers.	125.55		203,633	216,318	256,587	272,845		CIP/PWD														
	Reduce unmet need for family planning services in rural Sindh.	Number of private sector/NGO sector population interventions in rural districts financed by public resources, PWD, DoH, PPHI, LHWP.			17%	16%	15%	14%		CIP/PWD														
	OUTCOME INDICATORS	OUTPUT INDICATORS	*BASELINE 2016	DATA SOURCE	ANNUAL TARGETS				FREQ	RESPONSIBILITY FOR DATA COLLECTION														
Sanitation and Hygiene: To improve sanitation and hygiene practices with a focus in rural areas and urban squatter settlements.																								
	Eradication of Open Defecation.	Proportion households/schools with access to sanitary latrines.	43.7%	MICS'14	48% villages	55% villages	65% villages	75% village		Local Govt														
		Percentage of children 0-2 yrs whose last stools were disposed of safely.	64.6%	MICS'14	50% districts	100% districts	100% districts	100% districts																
	Increased proportion of caregivers washing hands with soap at critical times.	Percentage of HH with a specific place for hand washing with water and soap (or other cleaning agent) are present.	66.5%	MICS'14	70%	80%	90%	95%																

[15]Minimum acceptable diet assess a mix of indicator consisting of breastfeeding, and frequency and diversity of complementary feeding

[16]Screening of nutritional status; counseling on IYCF and maternal nutrition practices and IFA/multi micronutrient consumption

[17]CHWs = community based workers other than LHWs including NGO workers

[18]N/A – not available, will be collected by respective departments

[19]Baseline info is from Sindh MICS 2014

Increased proportion of population/caregivers having access to safe drinking water.	Percent of HH with household water treatment & safe drinking water storage technologies.		MICS`14	70%	75%	80%	85%		
Agriculture: To increase the number of households that are consuming a more diverse and healthy diet									
Increased proportion of mother and children having access to and consuming a more diverse and healthy diet.	Proportion of small farmers, landless peasant/women trained in kitchen gardening, poultry, honey bee keeping and livestock rearing including small ruminants.	N/A	N/A	25% target pop in 10 districts	50% in target pop in 10 districts	75% target pop in 10 districts	100% target pop in 10 districts		Dept of Agric/food And livestock/ fisheries
	Proportion of household raising livestock and preparing livestock products.	N/A	N/A		+25% target pop in 05 new districts	+50% target pop in 05 districts			
	Proportion of HH/farmers having small-scale food storage and using preservation techniques.	N/A	N/A			+25 % target pop in 05 new districts			
OUTCOME INDICATORS	OUTPUT INDICATORS	*BASELINE 2016	DATA SOURCE	ANNUAL TARGETS				FREQ	RESPONSIBILITY FOR DATA COLLECTION
Social Protection: To increase utilization of nutrition services and improve behavior among BISP beneficiaries.									
Increased utilization of nutrition services of the poorest population groups through CCTs.	Increased proportion of poorest/most vulnerable population, women and mothers who are able to fulfill conditions for nutrition services.	N/A	BISP	40%	60%	80%	100%		Department of Health Sindh/BISP[20]
	Proportion of BISP HHs from the poorest income quintiles, availing awareness sessions related to nutrition, ECD, health and hygiene.	N/A	N/A	40%	50%	60%	70%		
Education: To increase access to ECE and secondary school where nutrition interventions/education is being offered									
Improved access to Early Childhood Education in the public schools.	Percent increase in children receiving ECE in K through grade 2.	17.8%	MICS'14	25%	35%	45%	55%		Education Dept
	Number of ECE teachers recruited and trained for ECE classes in the public sector schools.	1,150	Edu Dept	2150	3150	4150	5000		Education Department
Improved knowledge of nutrition among girls enrolled in high school in the public sector.	Percentage of young girls in target schools that demonstrate increased knowledge of nutrition.	0	0	10%	15%	20%	25%		du Dept
Social and Behavior Change Communication : To develop and implement a social and behavior change strategy that effectively supports all sectors									
Improved practices related to nutrition, hygiene & sanitation and consumption of diverse food.	Percentage of population covered through various forms of communication strategies.	N/A	N/A	20%	40%	60%	80%		Survey
	Percentage of community members with increased knowledge related to nutrition, hygiene, sanitation and agriculture.	N/A	N/A	10%	15%	20%	25%		Media Monitoring firm reports

[20]BISP will only verify and triangulate the information for the CCTs, whilst the conditionality verification will be done at the local levels with the BHU staff and consolidated by the Department of Health

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Sehatmand Sindh

aapsindh@gmail.com

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