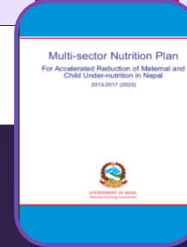


(Role of Different Sectors in MSNP)





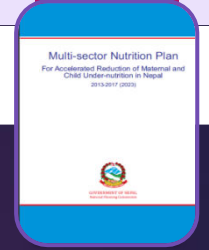
Multi-sector...

By improving nutrition, we can build human capital & economic growth for generations to come

Achieving nutrition's full impact on health and development outcomes **requires a multi-sector approach**

**Developed and launched Multi-sector Nutrition Plan
for**

Accelerated Reduction of Maternal and Child Under-nutrition in Nepal 2013-2017



How ???

Nutrition Specific Interventions

Feeding and care practices and protection from illnesses



aimed at individuals,
mainly through health sector



Nutrition Sensitive Interventions

Food availability, affordability and access, quality, utilization

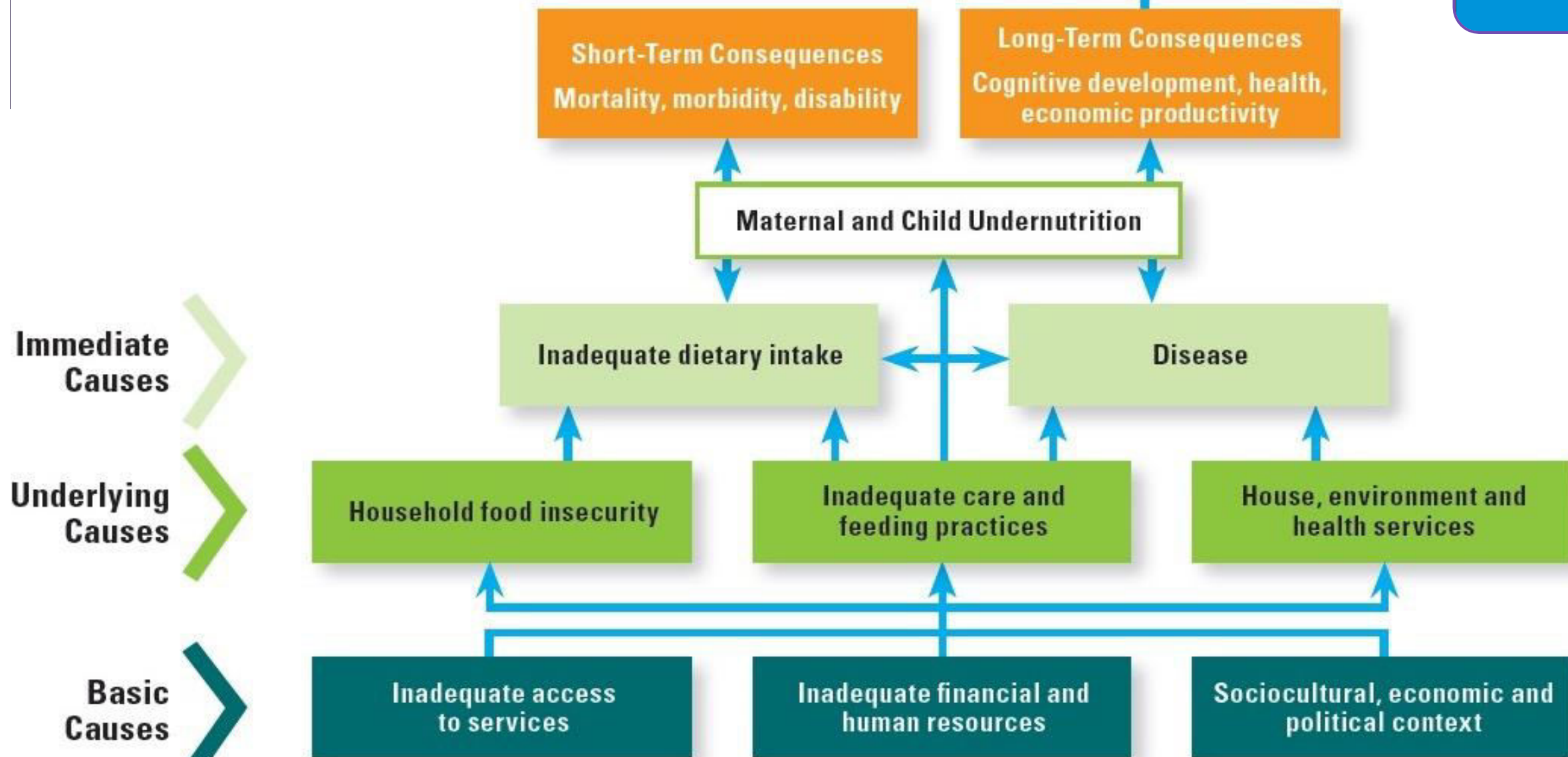


aimed at families and communities
mainly through non-health sectors

i.e. Agriculture and Livestock, Education, Water supply and sanitation, Women, children and social welfare, and Local development



Conceptual Framework of Malnutrition





Sectors can take practical steps to develop nutrition sensitive interventions



Achieving nutrition's full impact on health and development outcomes requires a multi-sectoral approach

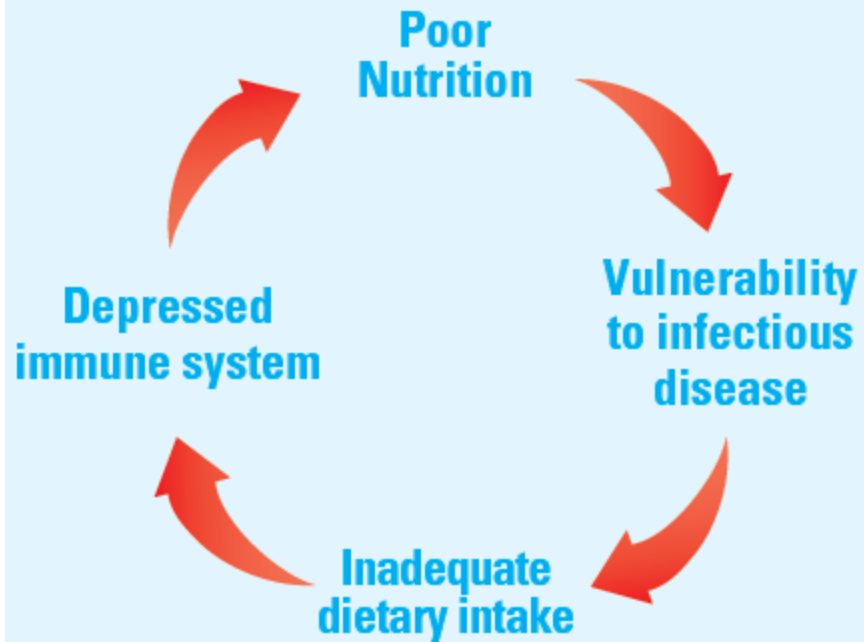
Nutrition-specific interventions address the immediate causes of under-nutrition, and some of underlying causes like feeding practices and access to food. Curative (health care) and preventive (immunization) approaches also help.

Nutrition-sensitive interventions can address some underlying & basic causes of malnutrition through enhanced food security, sanitation and awareness



Health

Nutrition and Disease: A Cyclical Relationship



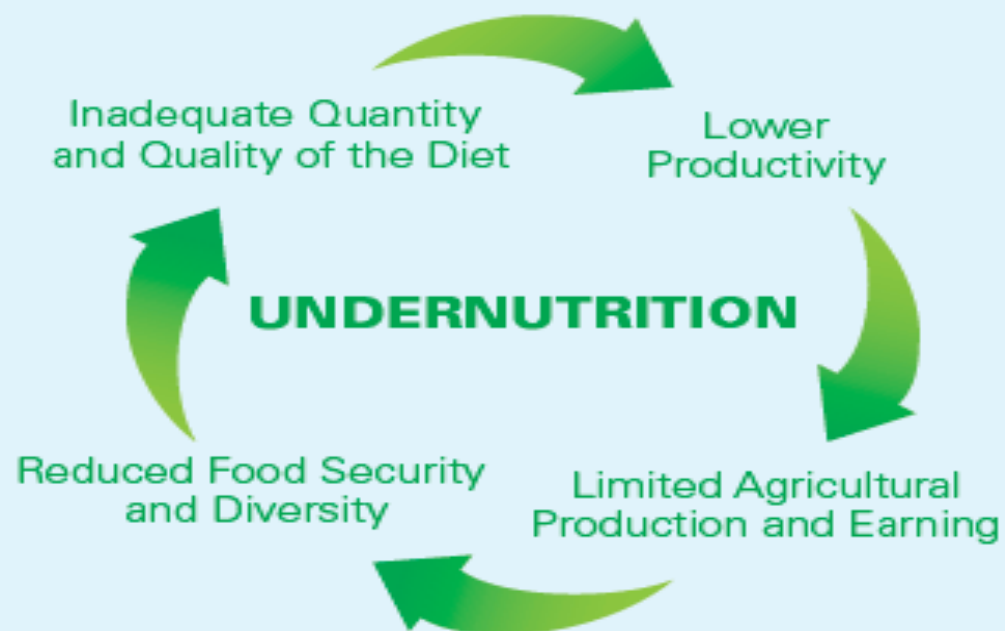
- ▶ Integrating nutrition with other public health initiative maximizes impact and supports life-long health
 - ▶ Breastfeeding & complementary feeding practices
 - ▶ Health sector interventions- direct nutrition services through public health system and integrating good nutrition education and counseling within the existing health services
 - ▶ Micronutrient interventions
 - ▶ Micronutrient supplementation
 - ▶ Food fortification
 - ▶ Salt iodization

**Poor nutrition
increases vulnerability
to infectious diseases**

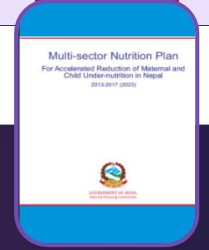


Agriculture and Livestock

The Agriculture & Livestock Undernutrition Cycle



By investing in nutrition-sensitive policies and programmes, the agricultural and livestock sector has potential to make sustained impact on the health and productivity of families



Agriculture

Women landowners are significantly less likely to have under weight children

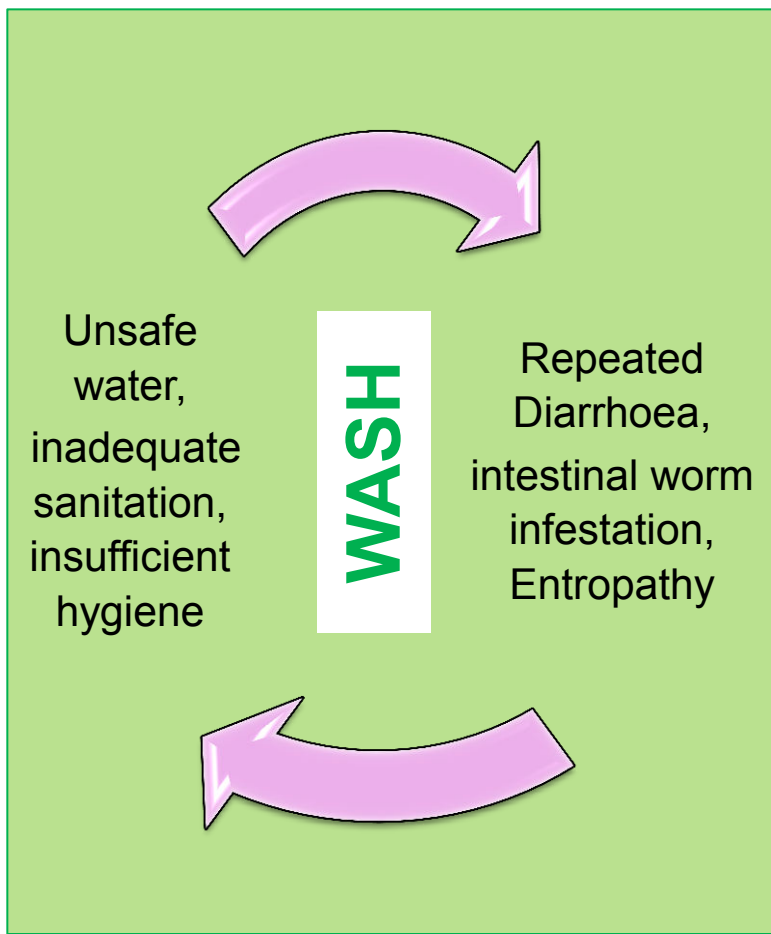
- ▶ Optimal nutrition strengthens agricultural production and agro-based communities
- ▶ Nutrition-sensitive agriculture programmes maximises outcome for both health and agriculture sectors
- ▶ Integrating nutrition into agriculture and agricultural sub-sectors maximizes impact
- ▶ Policy-makers can take action to maximize impact by developing nutrition-sensitive agriculture interventions

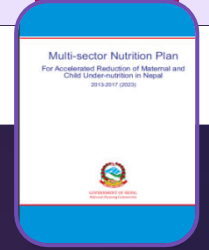


WASH

Improved hygiene and sanitation environment

- ▶ **Water, Sanitation, and Hygiene (WASH) programmes that incorporate proper hand washing practices** help protect a child's nutritional status by reducing the amount of faecal-oral pathogens that are ingested and cause infections
- ▶ **Safe drinking water supply** prevents children from water borne diseases
- ▶ **Proper hand washing with soap at critical times**, especially before preparing food and feeding a child, is one of the most effective and cost-efficient ways to prevent diarrhoea





WASH

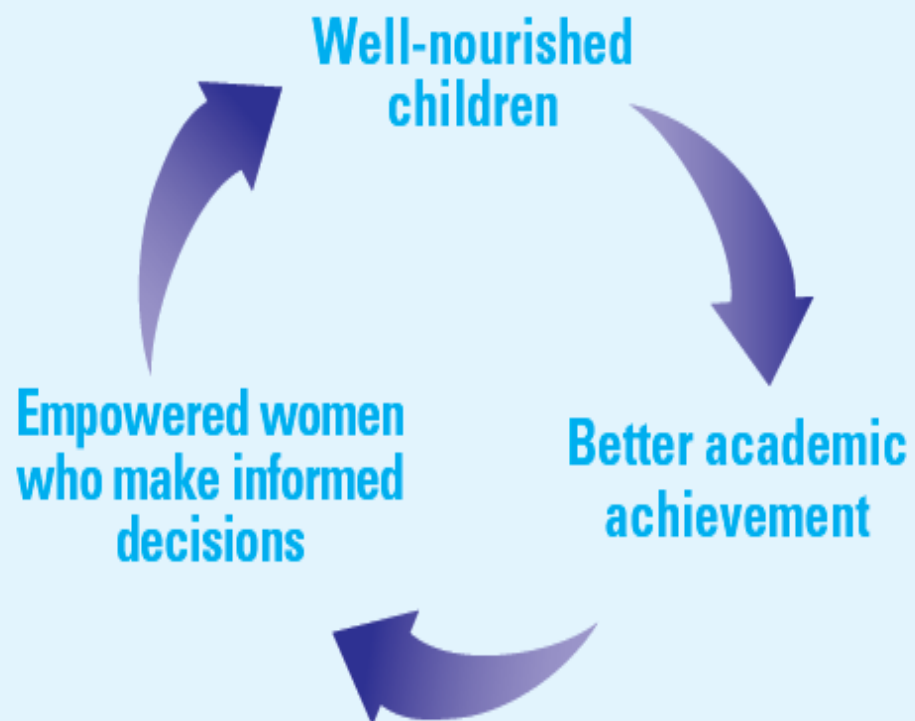
Improvements in sanitation, especially the elimination of open defecation, are associated with a decrease in stunting

- Constant exposure to bacteria, viruses, and parasites may be undermining attempts to end malnutrition.
- Studies show hand washing with soap can result in a 42 % reduction in diarrhoea incidence
- WASH programmes should highlight the importance of washing hands before preparing food and feeding a child
- Hand washing messages with soap at critical times need to be linked with illnesses, such as pneumonia and diarrhoea, which contribute to undernutrition



Education

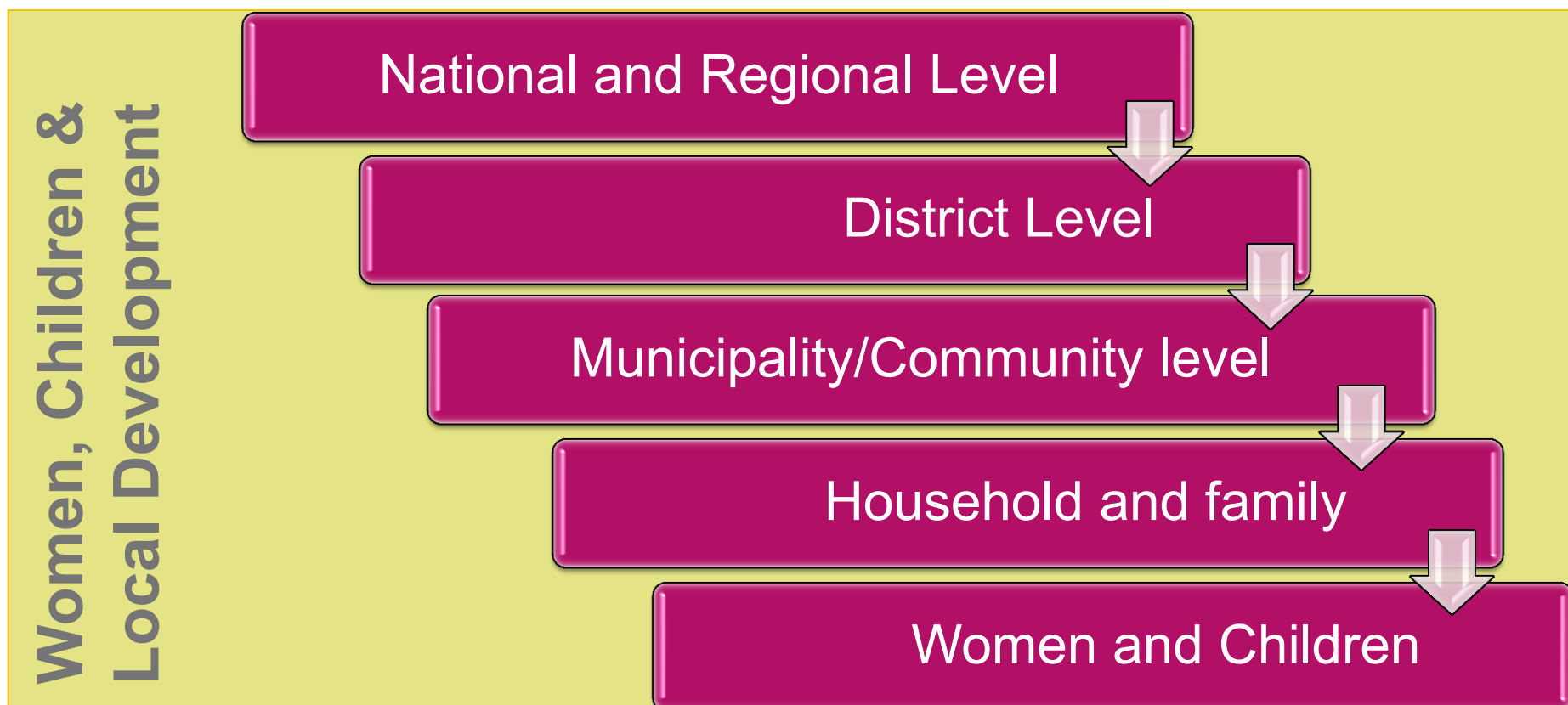
Nutrition-Education Cycle

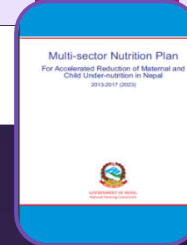


- ☛ Success in school depends on good nutrition from the start
- ☛ Educating future mothers is the single most important determinant of children's nutritional status
- ☛ Interventions in early childhood development can decrease negative learning effects from poor nutrition, closing the achievement gap between undernourished children and their peers
- ☛ When education programmes invest in nutrition, it improves academic achievement



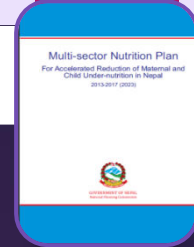
Governance and Planning





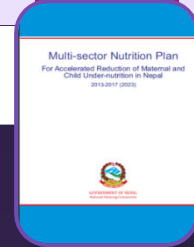
Governance and Social welfare

- ▶ Improved diet quantity, quality, and diversity
- ▶ Decreased childhood mortality
- ▶ Helping children reach their full potential by decreasing low birth weight
- ▶ Strengthened women's empowerment



Women, Children and Social Welfare

- ▶ Advocate for integration of nutrition, gender, food security and health
- ▶ Collaborate with health and nutrition policy-makers
- ▶ Use nutrition indicators to monitor and assess effectiveness
- ▶ Focus women and children at the community
- ▶ Integrate ongoing programmes with the nutrition intervention



Information and Communication

- ▶ Provide support in advocacy and communication through strategies, guidelines and plan of action based on the MSNP
- ▶ Provide inputs for Advocacy and Communication Strategy
- ▶ Participation in the committees and thematic working groups
- ▶ Support in coordination among communication & media houses
- ▶ Monitor for the consistency of the messages delivered



Finance

- ▶ Financial support and allocation
- ▶ Nutrition Budget Code
- ▶ Participation- Steering Committees, Coordination Committee, Working Groups
- ▶ Provide inputs in the committees' meetings
- ▶ Ensuring sufficient resources
- ▶ Guidance



How we focused?



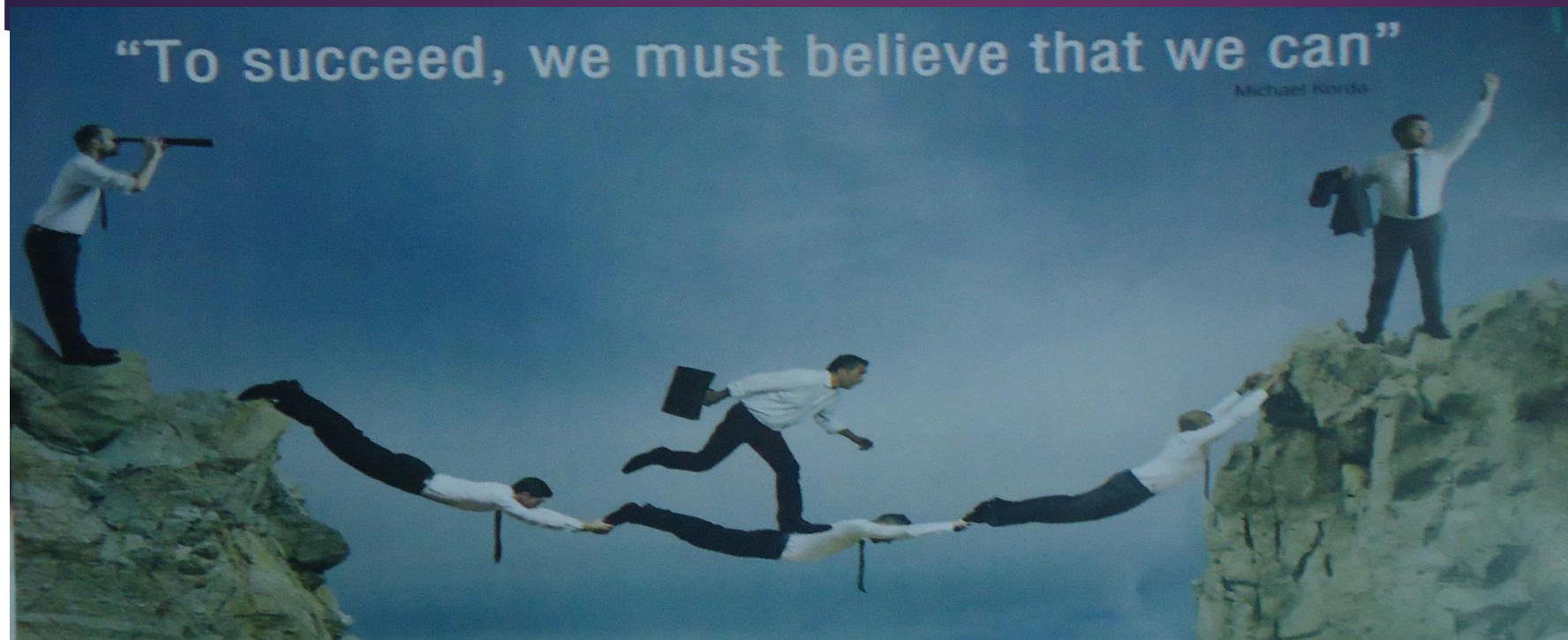


Key Target Audiences for MSNP Implementation





At last...



**Trust, Patience, Commitment, Coordination
and Team Work**



The nutrition and food security LOGO



Nutrition and Food Security
Nepal



Social Protection and Nutrition

SANJAYA KHANAL
KATHMANDU
2 ASHAD 2074



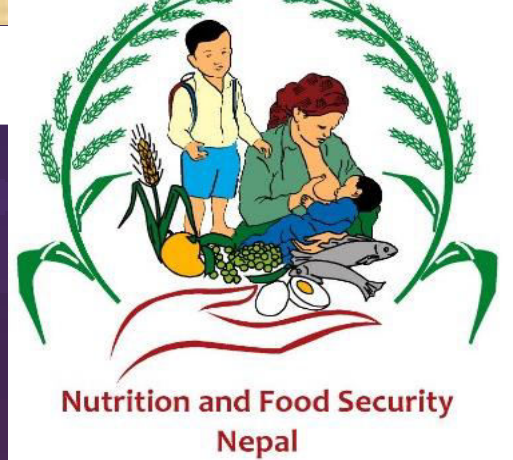
Risks, Vulnerabilities and SP



- ▶ All individuals, households and communities are exposed to multiple risks from different sources...
- ▶ Risk: The probability of harmful consequences, or expected losses resulting from natural or human induced hazards and vulnerable conditions. (UNISDR,2004)
- ▶ Idiosyncratic and covariate risks
- ▶ Poor are more **vulnerable (to uninsured risks)** and have access to fewer risk management instruments...
- ▶ Social protection programs have become increasingly important policy tools to reach the poorest and most vulnerable individuals, families and communities.



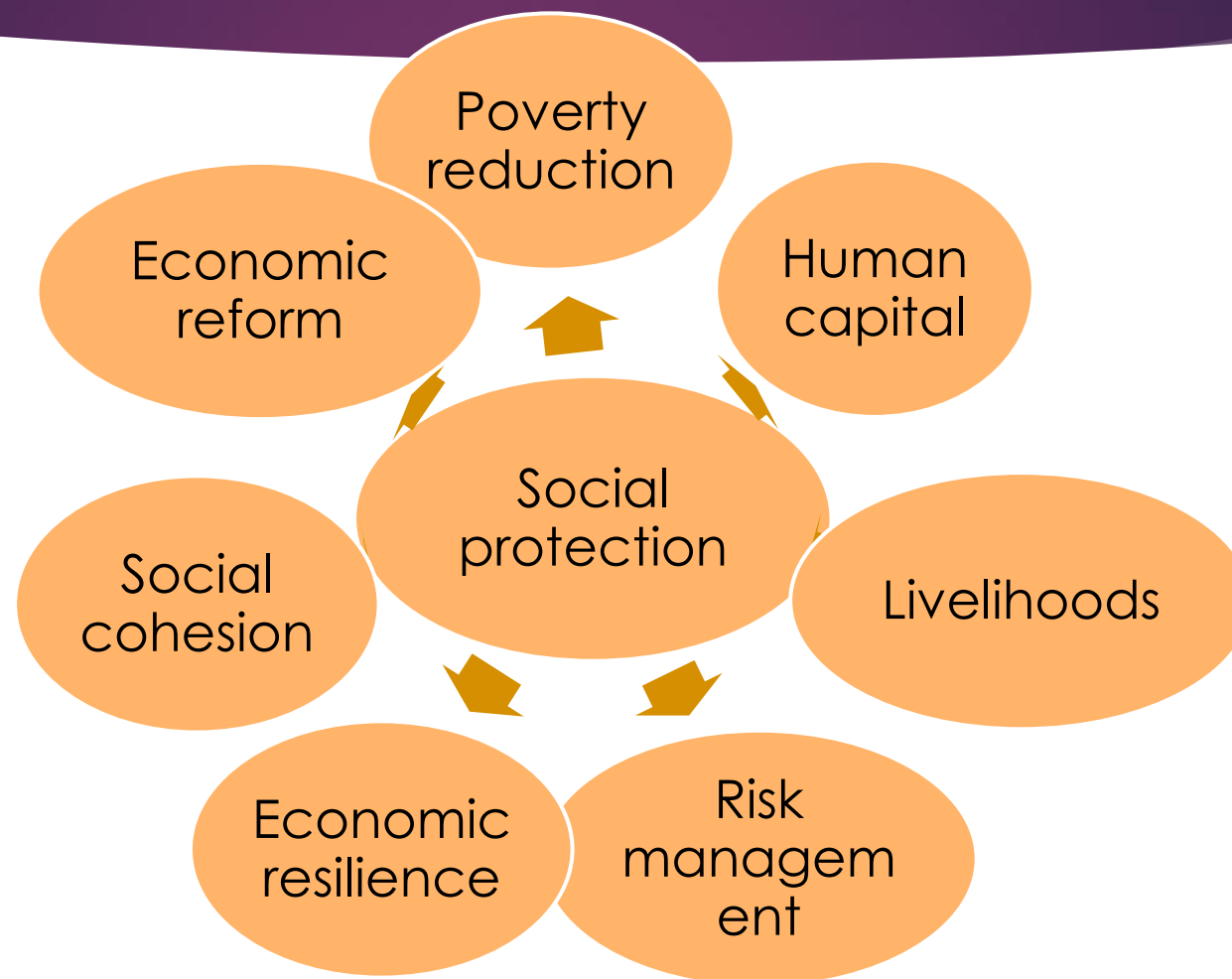
Social Protection: Concepts



- ▶ SP addresses poverty, risks and vulnerabilities...and helps vulnerable hhs to better manage risks... through risk prevention, mitigation, coping and recovery...
- ▶ Reduces the need for negative coping mechanisms, like postponing healthcare or switching to poor quality foods, dropping children from schools;
- ▶ Three terms used almost interchangeably: safety nets, social security and SP.
- ▶ There are different versions of social protection, emphasizing either risk, rights or needs as the organizing concept.
- ▶ Definitions and approaches differ. Can be defined narrowly or broadly and the package designed accordingly based on country context.
- ▶ Can be preventive, protective, promotional and transformative in outcomes.



Seven Outcomes of SP





Ladder of Outcomes



Income and
consumption
smoothing

Human
development

Livelihood
promotion

Risk Management
and Economic
Resilience

Social Justice,
Cohesion and
Transformation



Social Protection Instruments



- ▶ Social assistance: non-contributory, tax-financed (social pension for the senior citizens, PWDs, endangered communities, scholarships...).
- ▶ Social Insurance: contribution based (contributory pension, Employee Provident Fund, unemployment insurance... health insurance schemes,).
- ▶ Legislation and active labor market policies: health and safety legislation, minimum wage, maternity benefits, compensation for unfair dismissal, compensation for injury...non-discrimination...employment program, food for work program.
- ▶ Social Service: Residential and non-residential care for elderly, children, PWDs and victims of violence ...(education, health, WASH etc.)



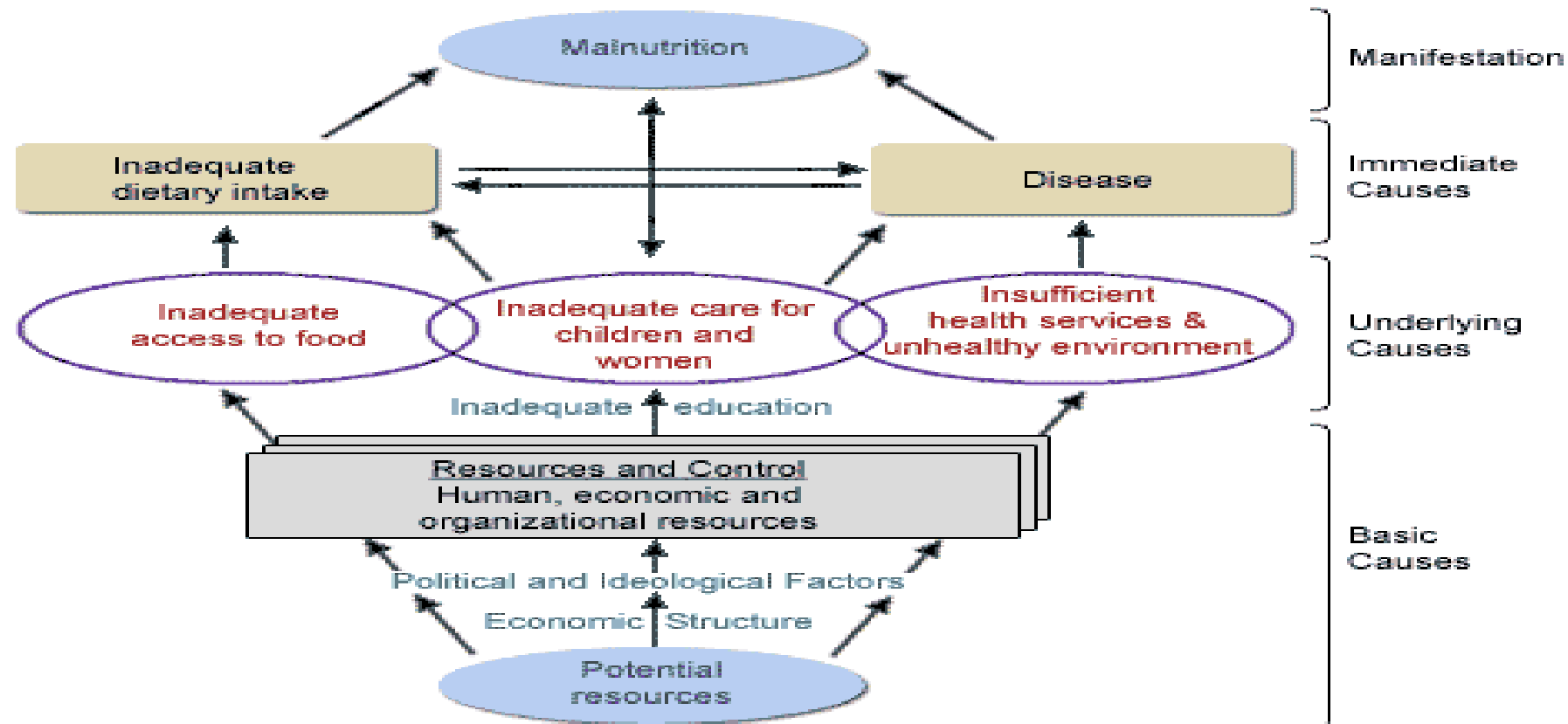
Nutrition



- ▶ Nutrition is the intake of food, considered in relation to the body's dietary needs. Good nutrition – an adequate, well balanced diet combined with regular physical activity – is a cornerstone of good health.
- ▶ Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity. WHO
- ▶ Ending malnutrition is one of the core element of the MDGs, SDGs and national priority of GoN.



Causes of Malnutrition





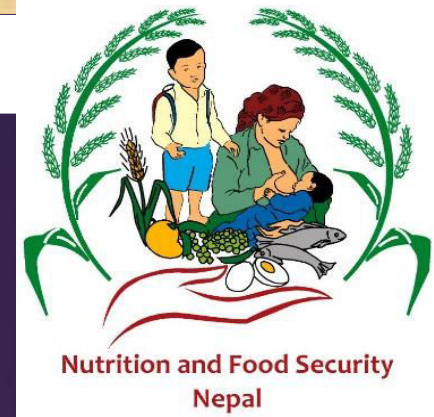
SP and Nutrition



- ▶ Malnutrition is both cause and consequence of vulnerability...it makes people vulnerable to disease, impairs their human development prospects and transmits poverty to next generation.
- ▶ SP measures hold immense potential for improving nutritional status of vulnerable populations. Can have an impact on all three levels of causes of malnutrition: immediate causes, underlying causes and root causes.
- ▶ In terms of the root and underlying causes, social transfers can make up for a lack of resources, help reduce poverty, food insecurity and improve access to health, education and other services.
- ▶ As regards the immediate causes, they can have a more direct impact on food intake providing suitable food supplements or improving health.
- ▶ In a way nutritional interventions themselves are forms of SP.



- ▶ SP produce better results when combined with specific nutritional measures such as food supplements, behavior change communication, and close monitoring of services and facilities.
- ▶ Besides, the size of transfers, effectiveness of targeting, frequency and predictability and coverage are key factors that determine the nutritional impact.





Social Protection: Pathways to Nutritional outcomes



Increased household income

- Increases income, quantity and quality of food, and food security in households.

Increased service utilisation

- Income and program conditions requiring mothers, children, and other family members follow a schedule of regular primary health-care visits may increase overall use and coverage of health services and reduce child illnesses n infectious diseases

Girls' education

- The long-term effect of condition to enroll and maintain children in school well-documented pathway linking female education and positive child nutrition, health, and survival outcomes...

Targeting the vulnerable

- Targeting cash transfers to women, may increase women's control over resources and their decision-making power relative to child nutrition and health...reaches those suffering nutritional deficiencies.



Social Protection: Pathways to Nutritional outcomes II



Nutrition and Food Security
Nepal

SP Instruments	Nutritional Impacts
<ul style="list-style-type: none">• Food transfers• Micronutrient supplement• Nutrition education	Improved diet
<ul style="list-style-type: none">• Health and hygiene education• Health and sanitation services	Improved health
<ul style="list-style-type: none">• Empowerment of women• Labor regulations	Improved maternal and child care practices
<ul style="list-style-type: none">• Cash transfers• Insurance• Input subsidies• Public Work Program	Stable livelihood and improved resilience

(Modified from FAO 2015)



Range of SP Interventions in Nepal



- ▶ Various measures are being implemented by government, private sector, I/NGOs and donor partners, though comprehensive mapping of formal and informal measures has not been carried out;
- ▶ Total investment, coverage, effectiveness and impact of these initiatives are not known, systematically monitored and evaluated;
- ▶ It has so far trying to tackle the issues from multi-sectoral perspective and inclusive development strategy adopting both right-based as well as welfare approaches;
- ▶ A number of measures for the protection of chronically poor, children, senior citizens, workers, people with disabilities, endangered ethnicities, conflict affected people and single women;



Continued...



Government led social protection initiatives in Nepal have focused mainly on five types:

1. Social transfer, safety net programs and in kind transfers (e.g. food for work) and cash transfers (school feeding program, universal old age pension; Single women (widows) of all age, Pension for Dalits, and people of Karnali zone who are 60 years and above cash transfer to endangered communities ; Disability Allowances
2. Child Protection Grant: poor dalit families and Karnali zone



Continued...



2. Labor market interventions like labor laws and bylaws; vocational and skill development trainings; Youth Self-employment programs, rural community infrastructure works; Karnali employment program; skill for employment program; labor market information centers; food for work programs; assisted migration and so on implemented through different sectoral ministries;
3. Pensions and social insurance mainly focused on formal sector employees (Employees Provident Fund, Citizen Investment Fund, Social Security Fund)
Social Security Fund established from 1% tax on formal sector employees income is finalizing three social insurance schemes-maternity benefits, sickness benefits, unemployment benefits...);
4. Social care programs e.g. institutional care for elderly and children; and victims of trafficking;
5. A number of poverty alleviation and social empowerment programs aimed at various marginalized communities and women (PAF, MoWCSW in collaboration with development partners)



Other Interventions



- ▶ Free basic health services, and medical treatment to targeted group (old age, children, survivors of disasters, conflict victims, maternity protection covering cost of 4 prenatal visits to doctor and free institutional delivery etc).
- ▶ Micronutrient deficiencies control programmes: National Vitamin A Programme, Intensification of Maternal & Neonatal Micronutrient Program, Iodine Deficiency Disorder Control Programme, Baal Vita Community Promotion Programme, Flour fortification and distribution
- ▶ Subsidies on food, agricultural inputs and fuel;
- ▶ Debt relief program through various financial institutions.



Most Vulnerable Populations



- ▶ Low-income groups
- ▶ Slum dwellers/landless people and IDPs
- ▶ Ethnically marginalized and geographically remote communities
- ▶ People in disaster-prone areas
- ▶ Women and adolescent girls: have limited access to land, education, information, credit, technology, and decision-making forums
- ▶ Children
- ▶ Older people
- ▶ People with disabilities
- ▶ People Living with HIV/AIDS
- ▶ If we decide to target these are the groups we can prioritize.



Nutrition Sensitive SP: Design Issues



- ▶ Clearly articulate nutrition goals and indicators as part of SP programs.
- ▶ Define and prioritize nutritionally vulnerable groups or communities (exp. pregnant women, children during the first 1000 days), define appropriate duration, size of benefit, distribution modality/frequency, targeting and delivery mechanism. Make sure that they are optimal and can make impact.
- ▶ Link the package with other ongoing or pipeline measures for improved synergies.
- ▶ Launch awareness building activities as part of SP interventions to promote nutrition, sanitation, health along with caregiving and health-seeking behaviors.
- ▶ Enhance school feeding programs by repackaging it with micronutrient supplementation, deworming, and nutrition education.
- ▶ Scale up in times of crisis.



Design Issue: Targeting

Why targeting?

- ▶ Redistributive justice and equity
- ▶ Budget constraints.
- ▶ Best use of available resource by providing it to the most needy and deserving.
- ▶ Results in more poverty reduction with lower amount of spending
- ▶ Less tax burden



Design Issues: Targeting



Why not target?

- ▶ **Targeting costs (identification-means testing, enrolment, payment system and monitoring)...** Administrative cost is estimated to amount to 30% of the targeted program as compared to 15 % of universal (Smith and Subbarao, 2003).
- ▶ **Complex administration**
- ▶ **Rights (social transfers are not welfare but right)**
- ▶ **Stigma**
- ▶ **Errors (inclusion and exclusion errors) and manipulations...** In India in many programs; cost exceeded the actual benefits reaching the poor (In Maharashtra Employment Scheme 1.85 Rs, Jawahar Rozgar Yojana 2.28 Rs per rupees transferred and in case of food subsidy program it went up to 6.68 Rs) Weiss for ADB Institute, 2004.
- ▶ **Exclusion of contributors**



Mechanisms



- ▶ Means testing (income), Proxy means testing (several indicators)
- ▶ Categorical (geographical, demographic)
- ▶ Self selection (low benefit level or high access costs)
- ▶ Community targeting (participatory).



Design Issues: Conditions



- ▶ Conditions requiring compliance to receive a benefit. Purpose is attitude/behavior change
- ▶ Unconditional program, purpose is poverty reduction,...
 - ▶ Social pension (Old age/widow/Disability/Child grant/Employment Grant/Endangered ethnic group)
- ▶ Conditions are set to improve the utilization of education, health services or vital registration.
 - ▶ In education generally 80 to 85 percent attendance can be a condition.
 - ▶ In health periodic check up, immunization, growth monitoring, and regular check ups during pregnancy can be conditions.
 - ▶ Registration of birth, death, marriage also can be made conditions.



Risk of Conditions



- ▶ Punitive and Facilitative
- ▶ May compromise the poverty reduction objective as it is the poorest who are most likely to fail to fulfil the conditions;
- ▶ May deprive the poor of freedom to choose appropriate services — and to freely make decisions to improve household welfare
- ▶ Can be expensive, inflexible, and inefficient...therefore, need for the effective provision of appeal and redressal.
- ▶ Can be more problematic in the face of weak administrative capacity as in the case of targeting.

Additions? Counterpoints?



Cash or Kind?



- ▶ Both increase food security but their relative roles for improving diet diversity – a key factor in nutritional impact – depends on contexts.
- ▶ Cash is cheaper to deliver (up to 13-23%) but cash can erode in an inflationary environment. 19 studies have debunked the assumptions that cash is liable to misuse.
- ▶ Cash can provide greater flexibility in expenditure.
- ▶ Cash transfers have been shown to promote diet diversity.
- ▶ In kind transfers are preferred during food price inflation.
- ▶ Another advantage of in kind is that fortified commodities can be provided instead of general purchases.
- ▶ Evidence from Bangladesh and the Philippines shows that the nutritional impact of either form of transfer is strong when accompanied by BCC (behavioral change communication) (H. Alderman, 2015).



Education Sector Nutrition Programs



- ▶ School feeding programs can improve learning and academic performance.
- ▶ Safe water and sanitation (including ones that are girl-friendly) where needed, also contributes to improved attendance and health of students
- ▶ Early childhood education
- ▶ Conditional cash transfer- Girls Incentive Program... Girls Scholarship Program
- ▶ School-based health and Wash Program



Nutrition Related Program under MoFALD



- **Social Security Programme/Child Grant Transfer;**
 - Cash transfer to the each family of Karnali Region and poor dalit family across Nepal up to 2 children under five years/Rs.200/month;
- **LGCDP/CFLG:**
 - CFLG is aligned with and also considered as the main cross-cutting areas under LGCDP;
- **Reducing Child Malnutrition through Social Protection:**
 - Minimize child malnutrition through social protection project is being implemented in five districts of Karnali Region;
- **Community Actions for Nutrition Project: Sunaula Hazar Din;**
 - Sunaula Hazar Din is being implemented in 15 districts covering 292 VDCs.



Health Sector interventions



- ▶ Basic healthcare services
- ▶ Immunizations programs
- ▶ Micronutrient supplements (Vitamin A, zinc, iron, iodine etc)
- ▶ Safe motherhood program (including maternal nutrition)
- ▶ Food Fortification
- ▶ Growth monitoring and promotion
- ▶ Deworming
- ▶ Nutrition emergencies



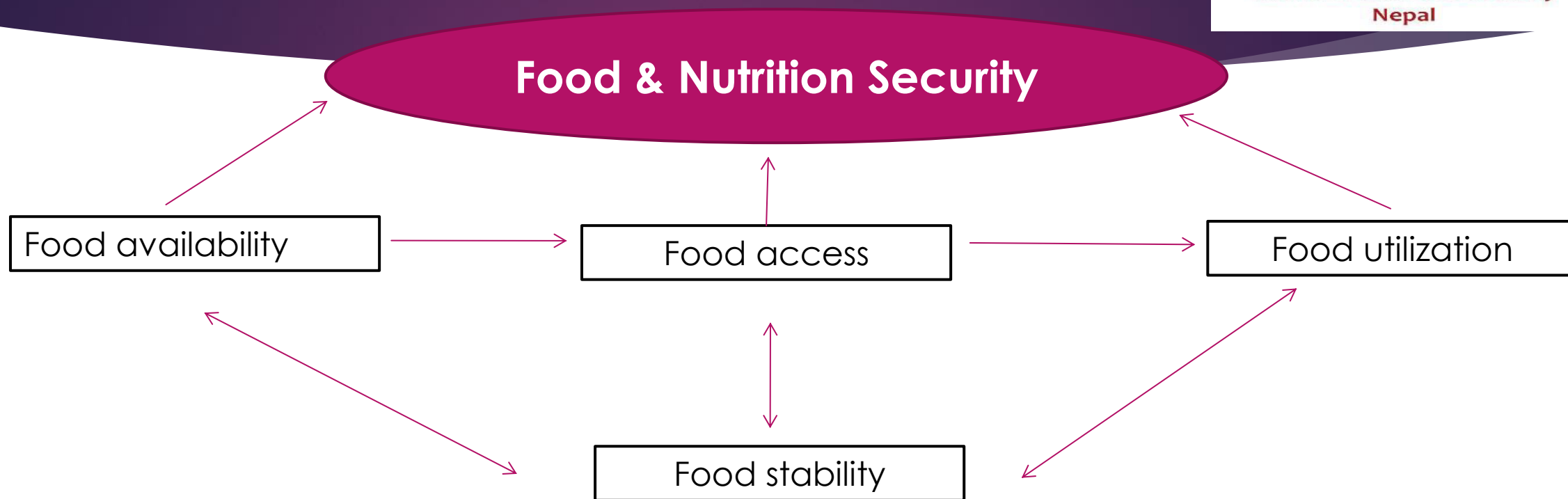
Water and Sanitation



- ▶ Improved supply and treatment of water
- ▶ Hygiene and sanitation behaviour change
- ▶ Household sanitation with focus on ultra-poor households
- ▶ Institutional sanitation including schools
- ▶ Emphasis on universal design (friendly to child, gender and differently-abled people)
- ▶ ODF



Agriculture and Food Security





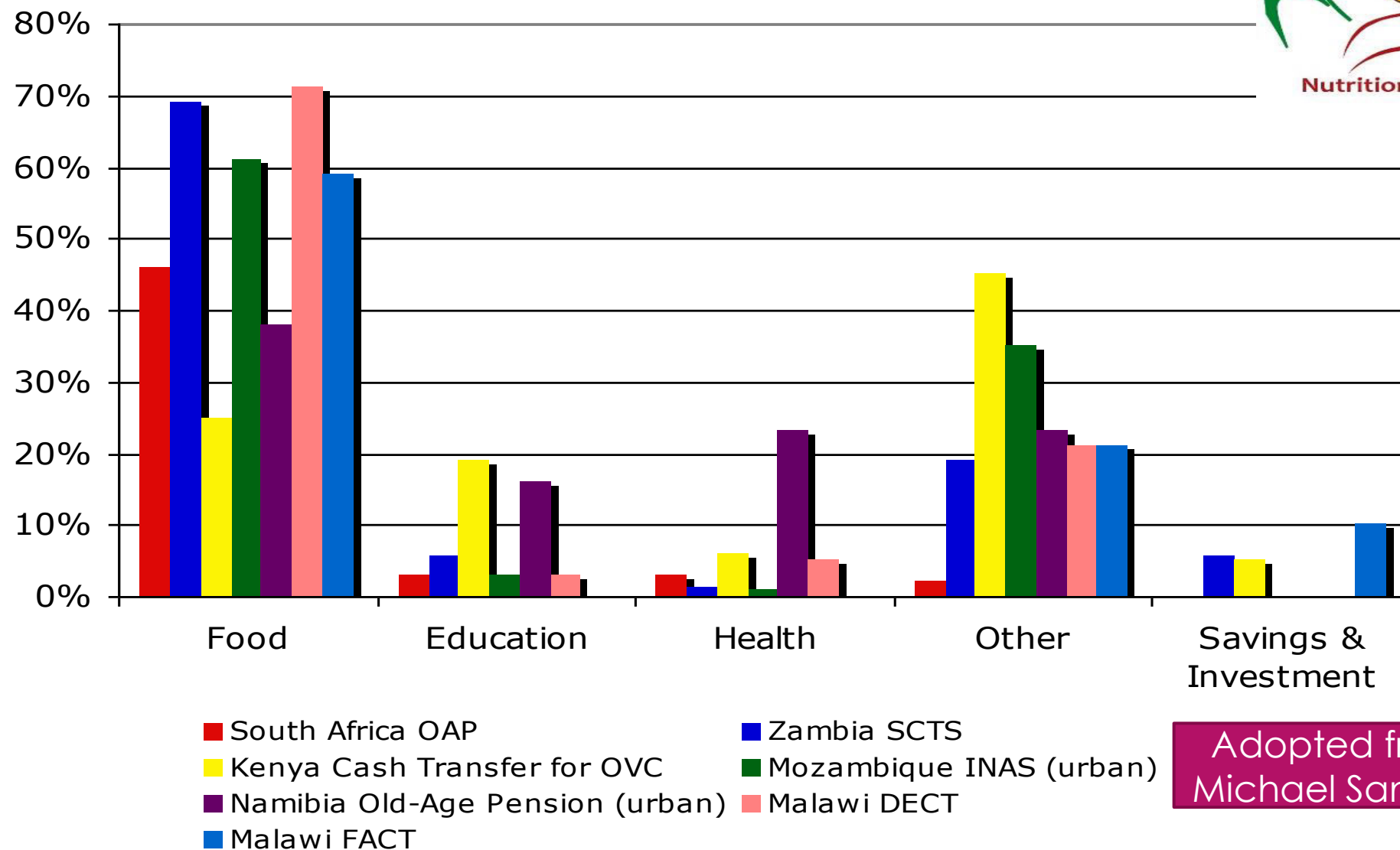
The impact depends on many factors



- ▶ Package: awareness and information on nutritious indigenous food items, feeding practices, WASH
- ▶ Coverage and outreach... mobile distribution centers
- ▶ Actual disbursement, consistency and predictability
- ▶ Integrity in implementation...errors or manipulations...process monitoring
- ▶ Utilization is it being used for the purpose it was given?



Use of Cash Transfer by Program



Adopted from
Michael Samson



Utilization of SP Benefits



Buying food-grains (SC)	88.9
Medical expenses	84.0
Buying Cloth	69.4
Using cash for religious activities	22.5
Buying the mattresses and quilts	9.4
Utensils for personal use	8.4
Alcohol consumption	7.2
Pilgrimage	6.7
Tea and snacks	4.4
Paying for shelter	3.7
Buying cigarette and tobacco	2.5
Buying fruits	2.2
Entertainment (Uprety, 2010)	1.2

According to one ADB Study, overall, 76% people spent it in food followed by 57% in cloth and 49% in other household items.

In case of CG 66% was used in food. Was also used to purchase children's clothing (59%), household items (49%), medicine (37%), and school supplies (21%).

Parental literacy affected utilization patterns, with literate mothers more likely than others to purchase nutritious foods. ADB, 2016



Some Inferences from Global Evidences

- ▶ SP programs can provide excellent entry points for improving nutrition.
- ▶ Larger programs and cash transfers tend to have the larger impact.
- ▶ Availability of cash and increase in food expenditure does not automatically translate into desired nutritional outcomes behavior change communication strategy is important.
- ▶ Need to design an effective and mutually reinforcing nutrition and health package to incorporate in SP programs... planned on the basis of explicit program theory framework (TOC).
- ▶ Target SP programs to families with school-age children, pregnant or lactating women, under-five children... and Golden 1000 days...



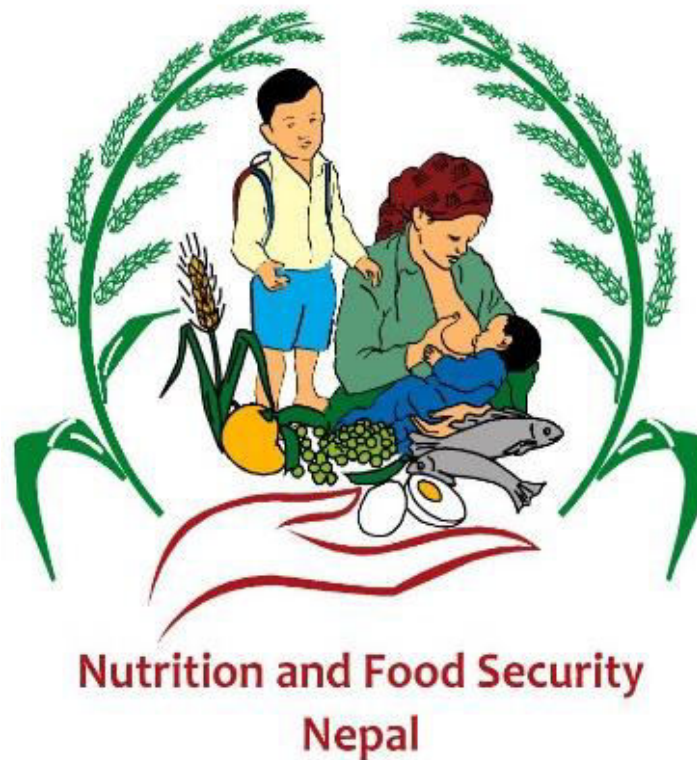
Continued...



- ▶ There is an enormous gap in knowledge about how SP programs work, how their different components interact, and what are the mechanisms by which programs improve nutrition. Need for more systematic meta evaluations to analyze how the different inputs and program components interact and contribute...
- ▶ More information needed to understand the role of contextual factors and how they may reduce or enhance program effectiveness...
- ▶ Forge partnerships, collaborations and synergies among sectors and stakeholders not only in implementation but also in planning and M & E.
- ▶ Do not proliferate... consolidate programs, processes and systems.
- ▶ Localization of nutrition agenda



Thank you



Basic Nutrition

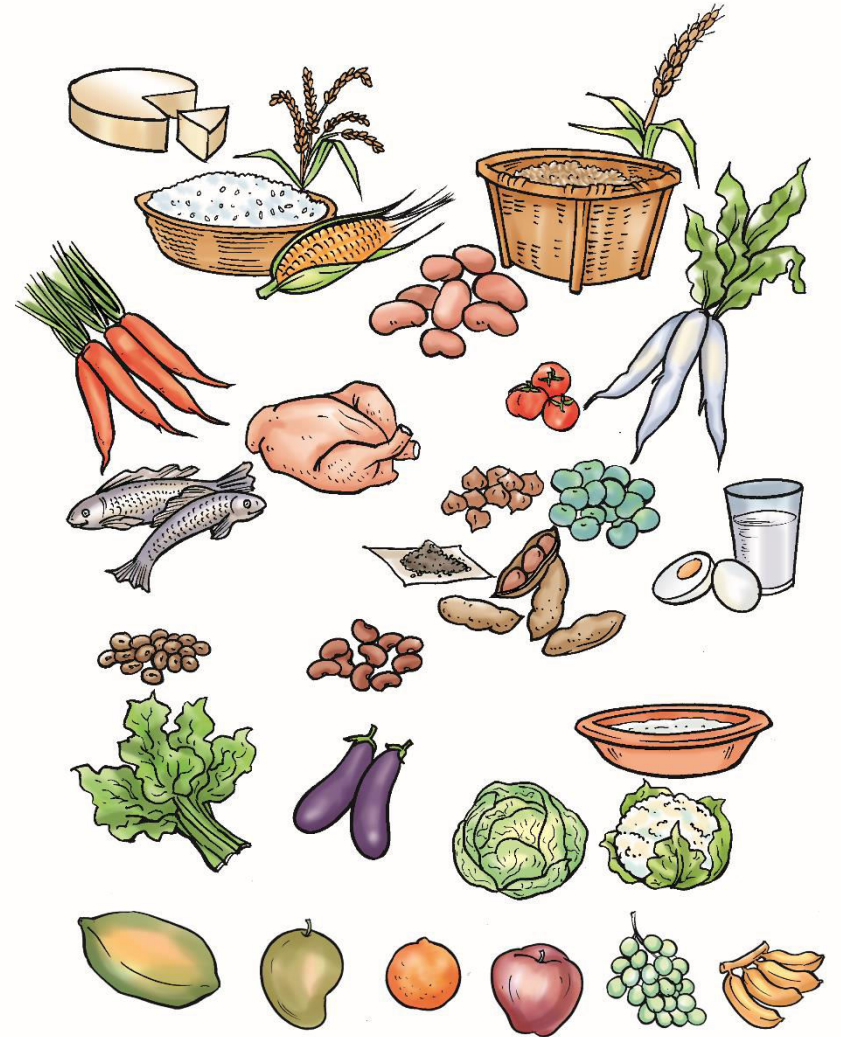
Madhu Dixit Devkota
Institute of Medicine

Today's presentation

- Food, diet and nutrition
- Malnutrition & its classification
- Conceptual framework
- Life cycle approach

Food

Substances consumed to provide nutritional support for the body which is usually of plant or animal origin, and contain nutrients



Nutrition

Science of food and its utilization by the body for health



Functions of Nutrients- sustaining life

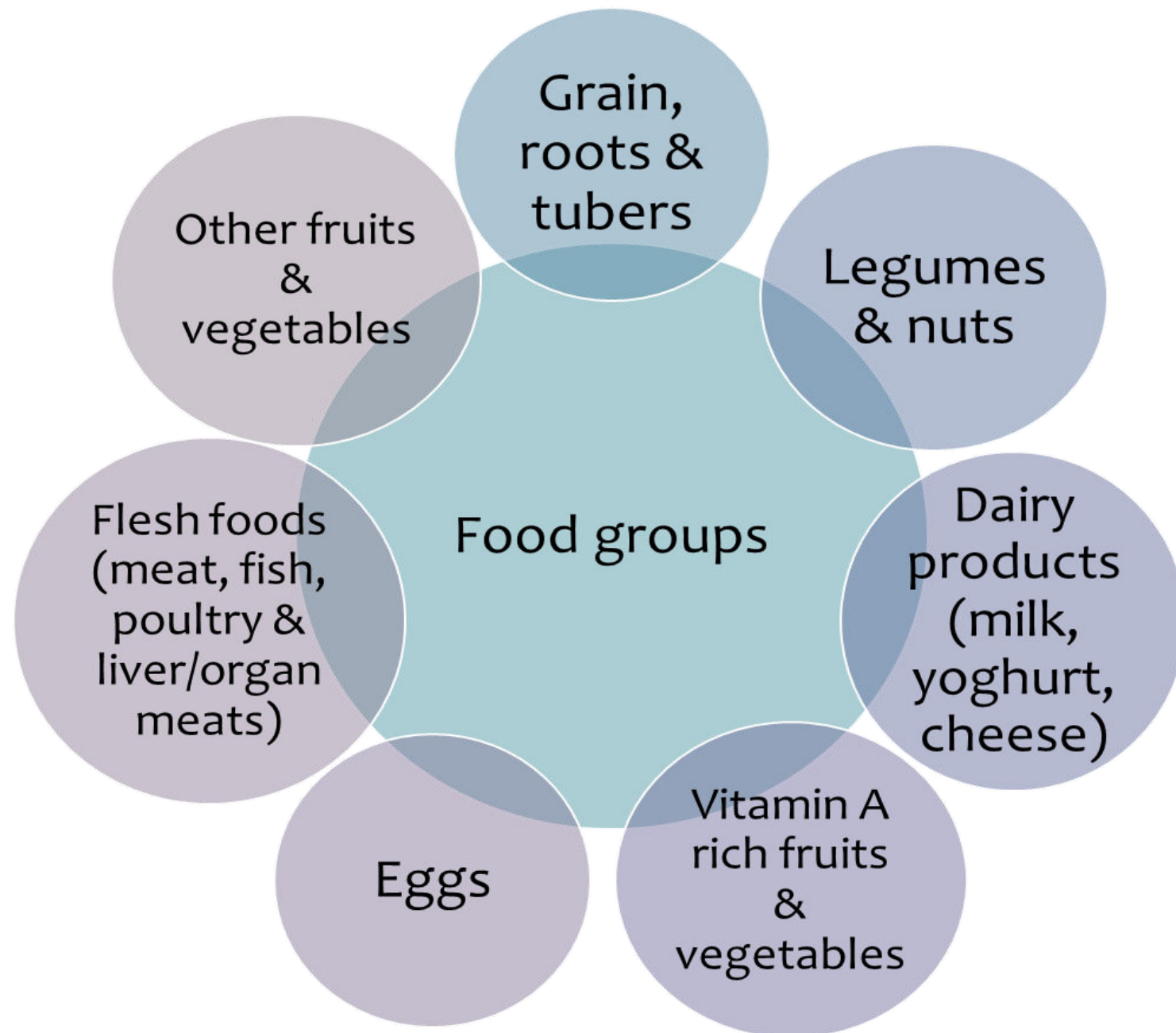
Nutrients in food provides energy to keep the body warm, the muscles active for work and play, and various organs to carry out daily activities

Energy-
yielding

Body-
building

Protective

Food groups



What are nutrients?

Nutrients

Macronutrients

Nutrients needed in large amounts

(Carbohydrate, Protein & Fat)

Micronutrients

Essential nutrients required in small quantities

(Vitamins & Minerals)

- Diet is made up of nutrients
- In order to obtain all the different kinds of nutrients needed by the body, dietary diversity is needed



Macronutrients

Carbohydrate



Provide energy for the body.

Deficiency:

- Weight loss and lethargy

Protein



Growth & development
repair, protection

Deficiency

- Impaired growth
- Impaired brain development
- Reduced immunity

Fat



Concentrated energy
Absorption of fat soluble vitamins, Protects vital body organs and insulates the body.

Deficiency

- Impaired brain development
- Poor growth

Micronutrients: Vitamins & Minerals

Vitamins

(building blocks of the body)

Fat soluble:

A, D, E, K

Water soluble:

B-complex (B1, B2, B6, B12, Niacin, Folate) & C



Minerals

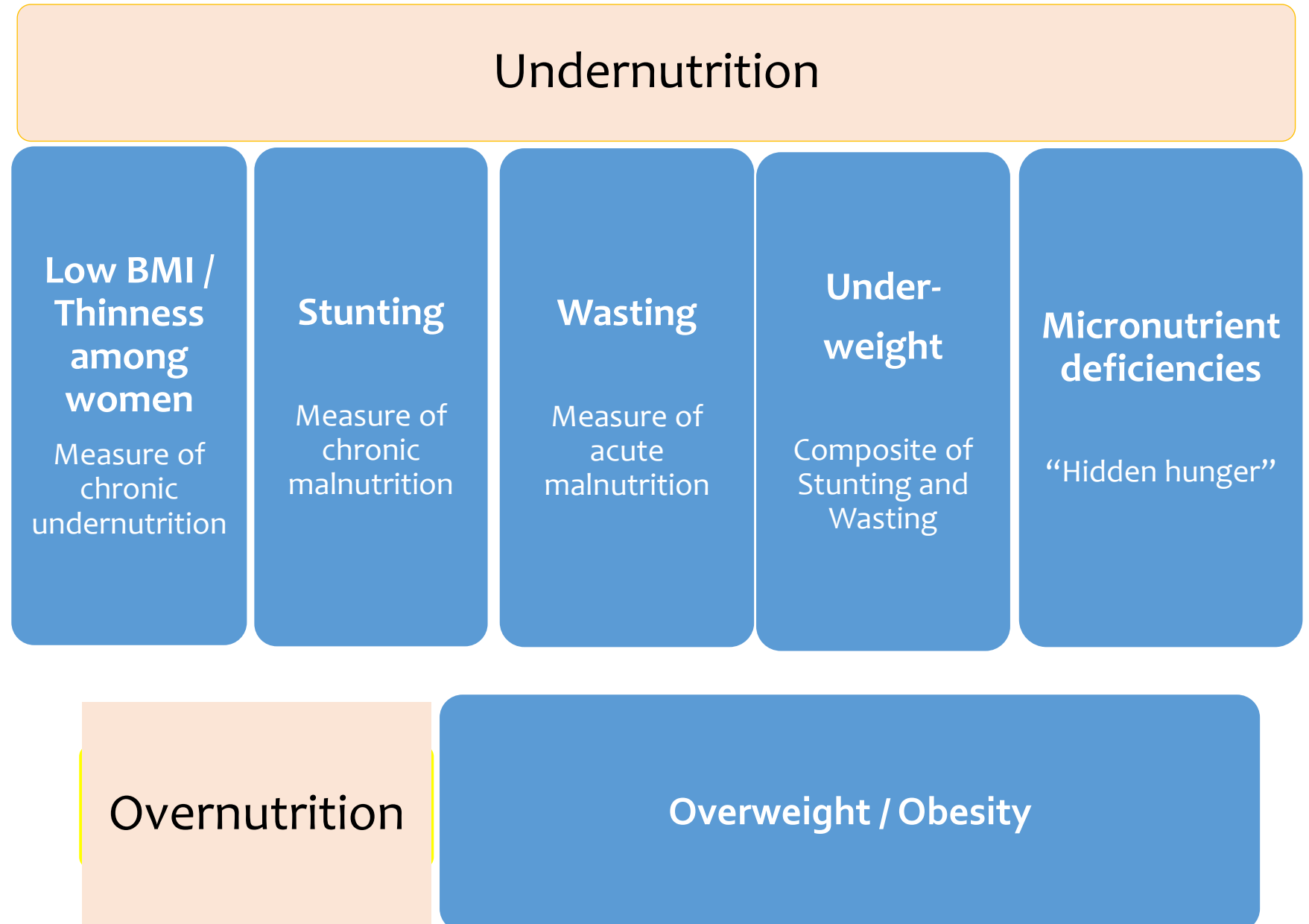
Macro/Major

Calcium, Potassium, Sodium etc.

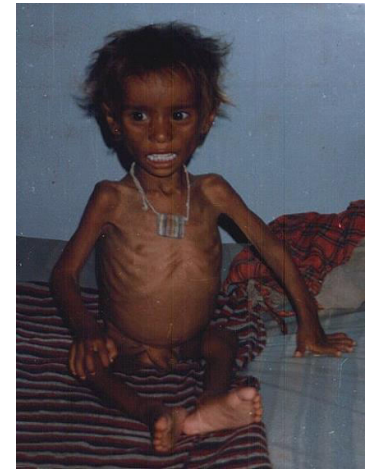
Micro /Trace elements:

Iron, Iodine, Zinc etc.

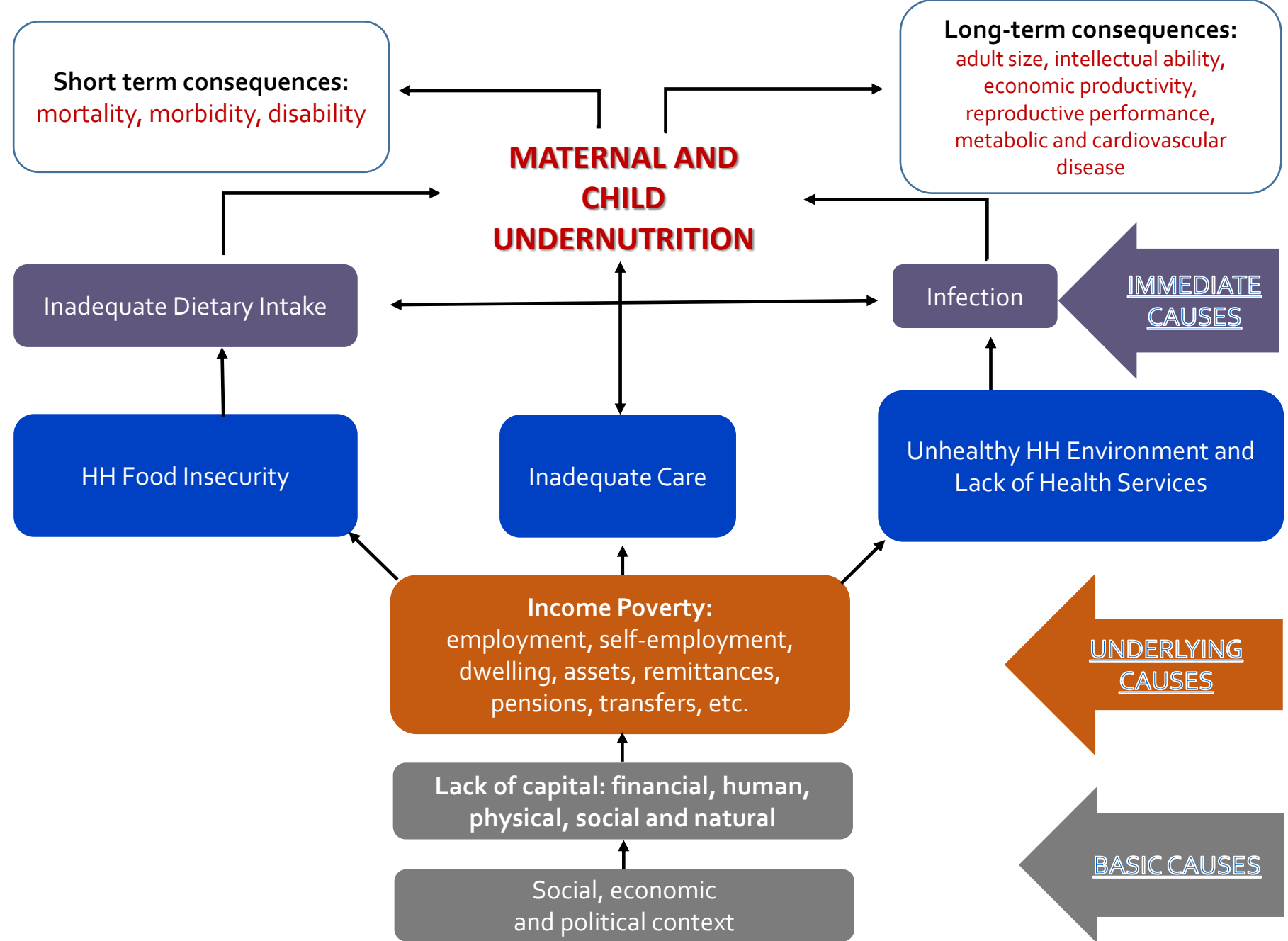
Classification of malnutrition



Undernutrition: What are its causes?

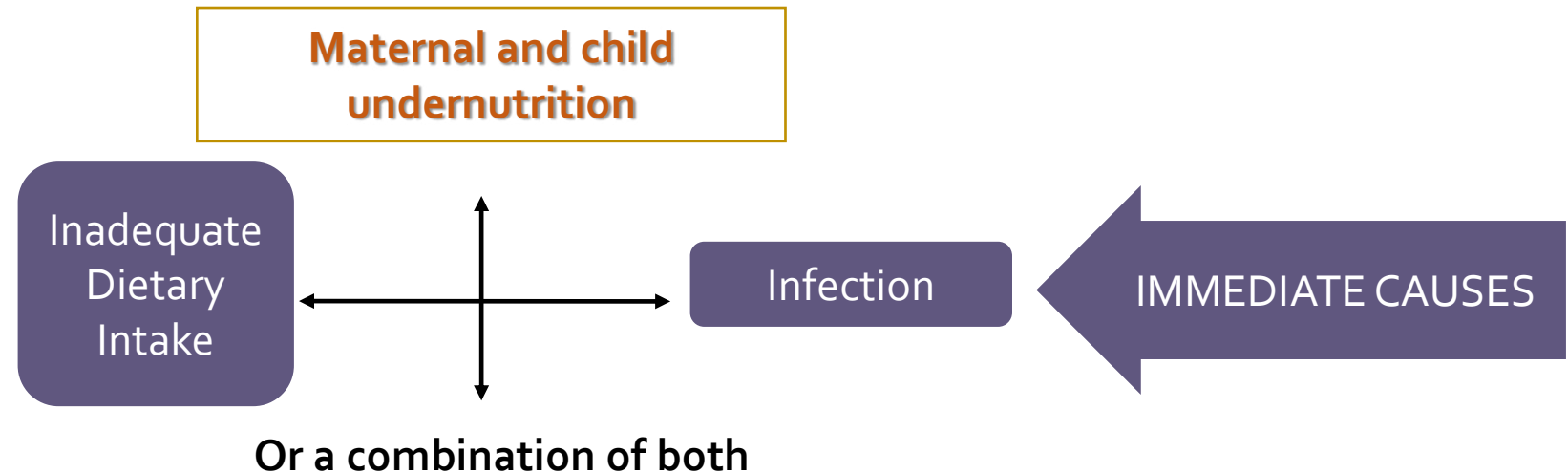


Causal framework for Undernutrition

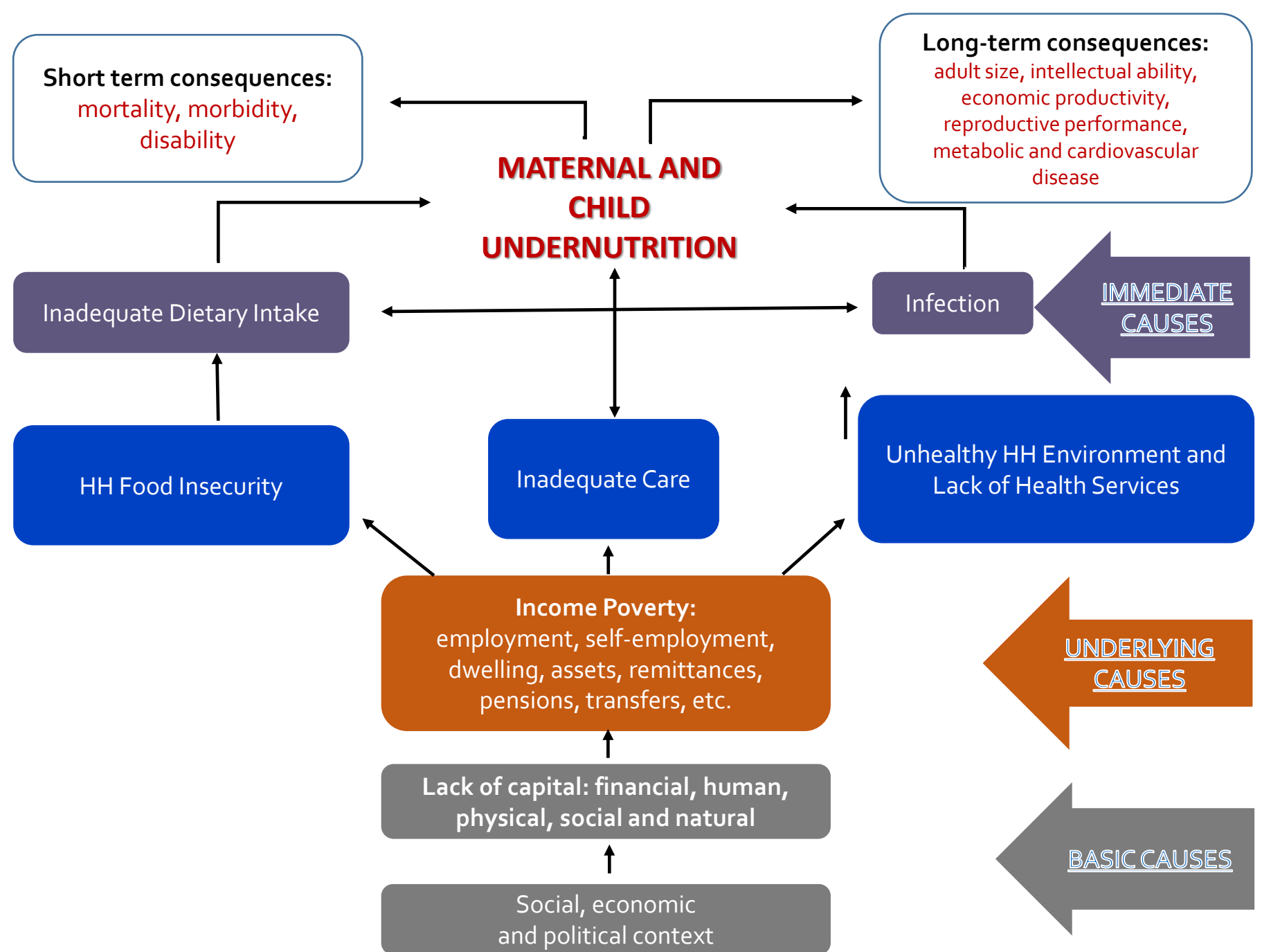


Immediate causes of Malnutrition

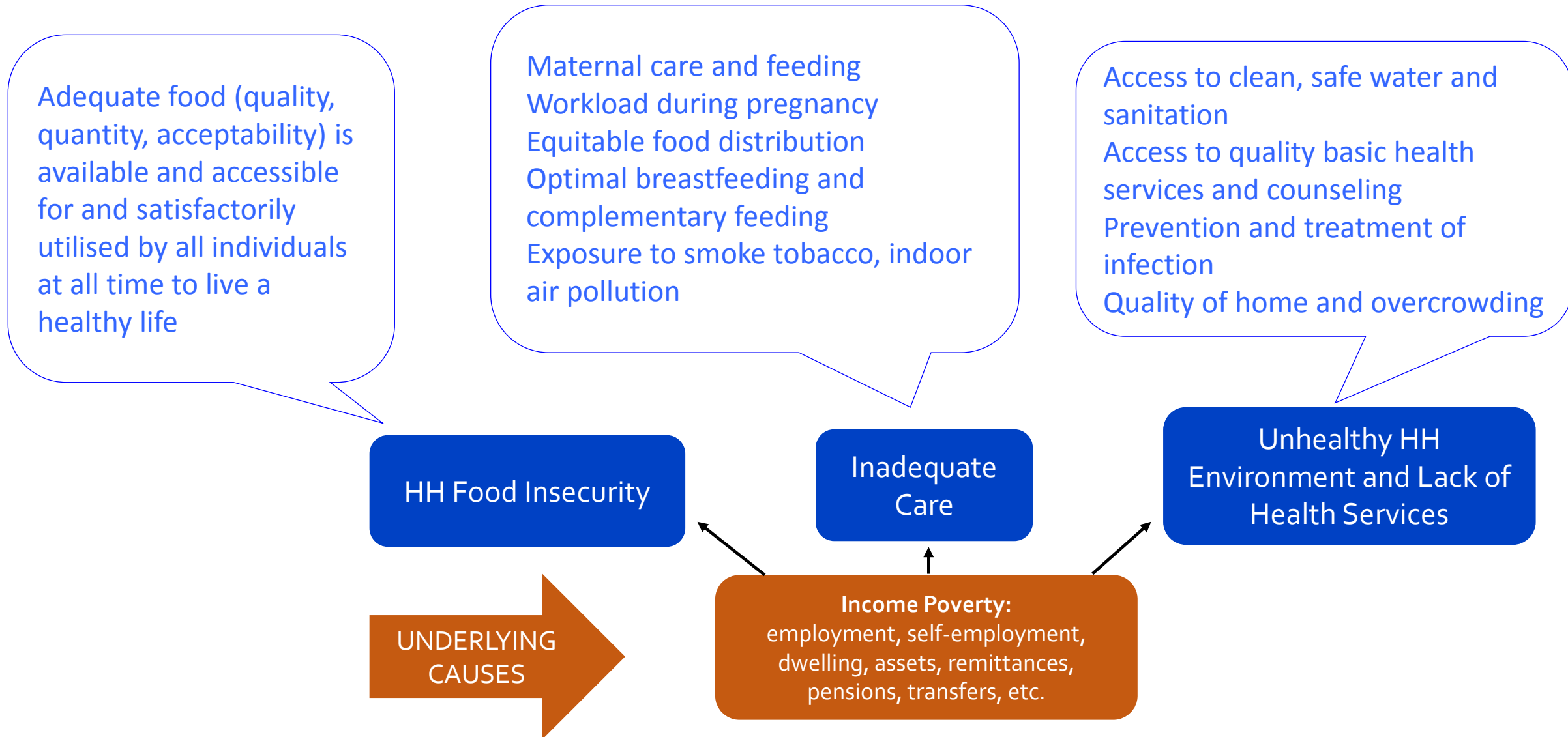
- Poor dietary intake- inadequate nutrients
- Infection
 - prevent the body from absorbing those consumed
 - increase requirements
- Operates at individual level



Causal framework for Undernutrition

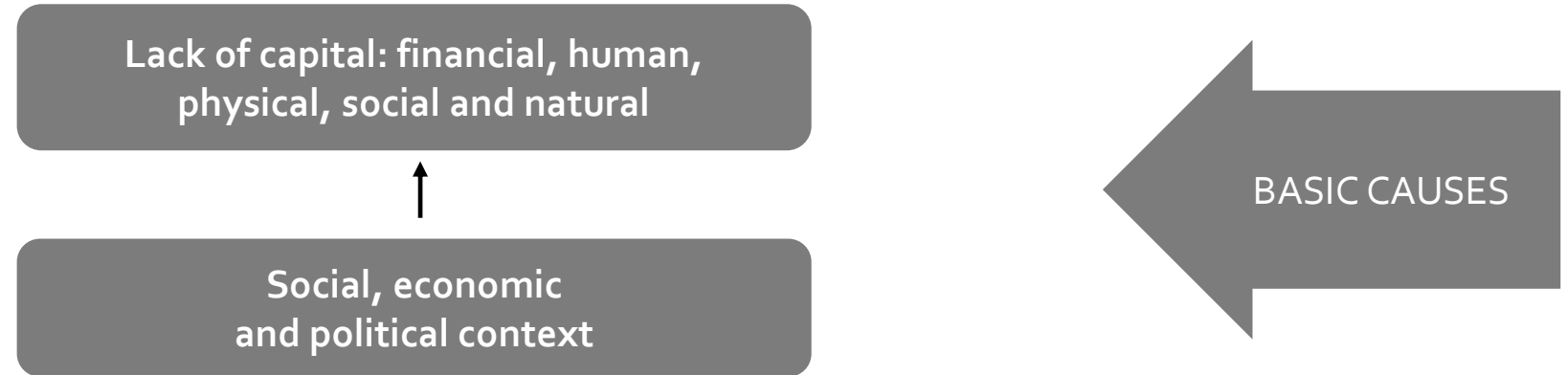


Underlying causes of Malnutrition



Basic causes of Malnutrition

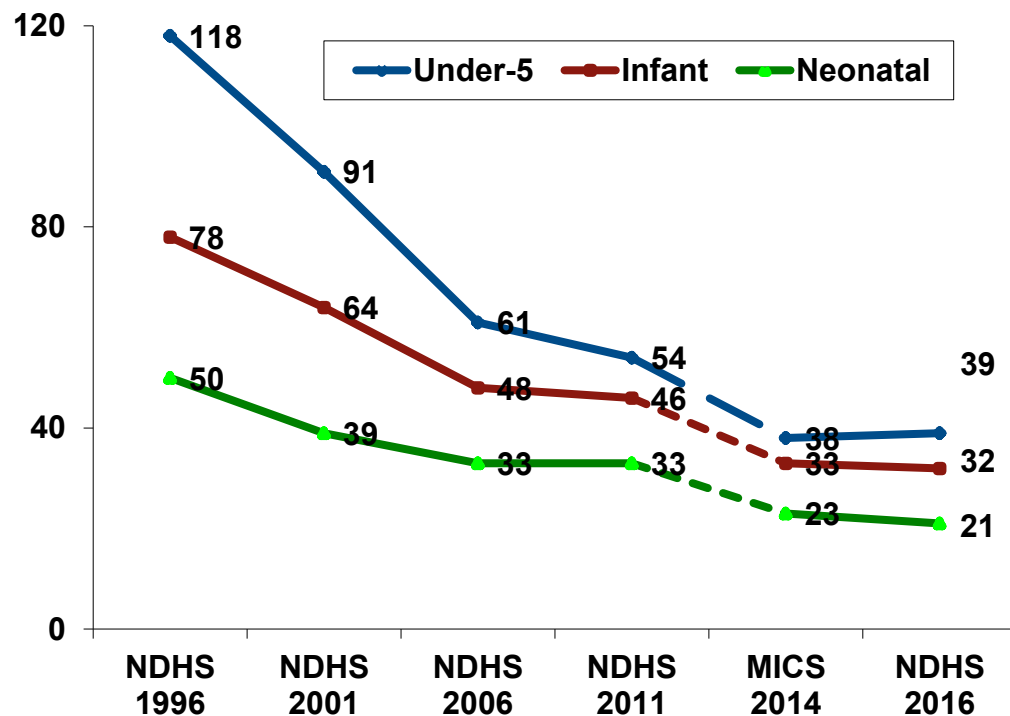
- These refer to what resources are available (human, structural, financial) and how they are used (the political, legal and cultural factors). These can be thought of as the real reasons behind the underlying causes.



Undernutrition in Nepal Situation and Trends

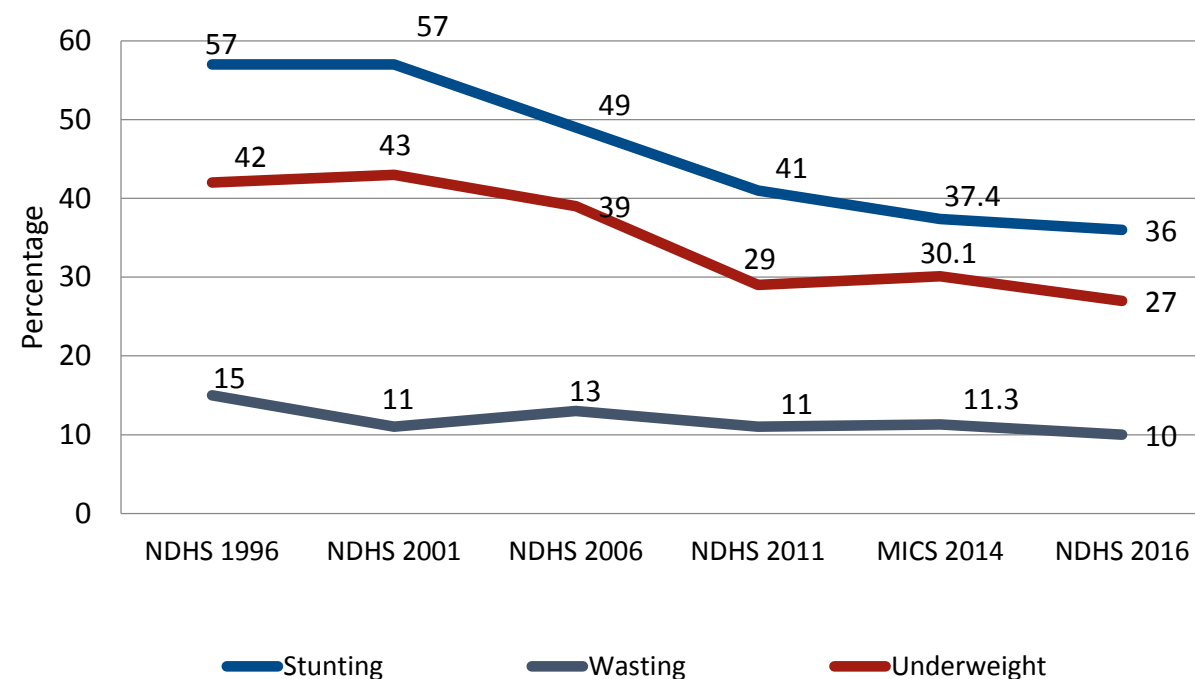
Why Nutrition?

Child Mortality and Undernutrition Trend



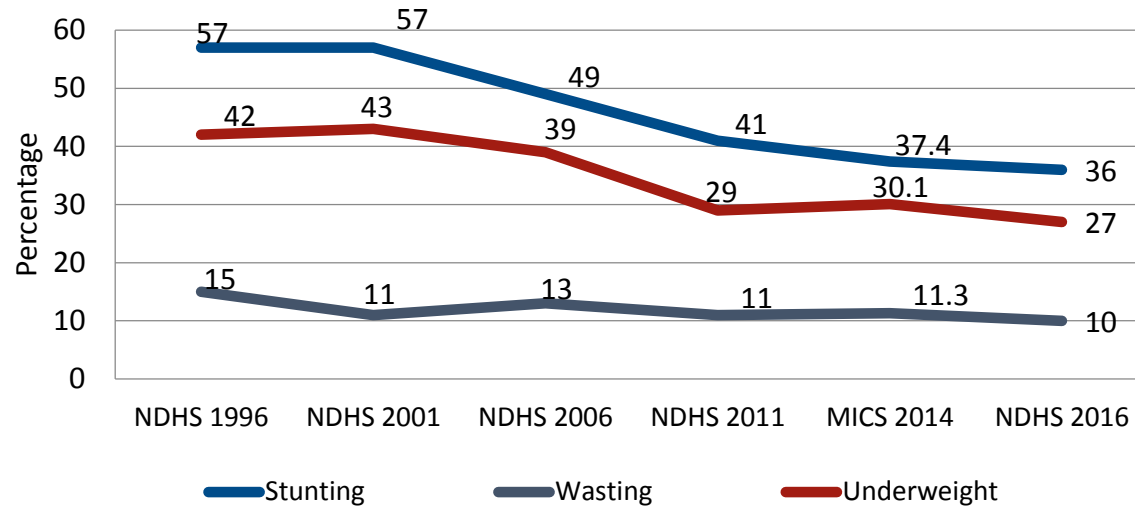
Strong Public Health Programs contributed) (Immunization, IMCI, and Micronutrient

However, without Improvement in **Stunting**, Further **Child Mortality Reduction** is unlikely

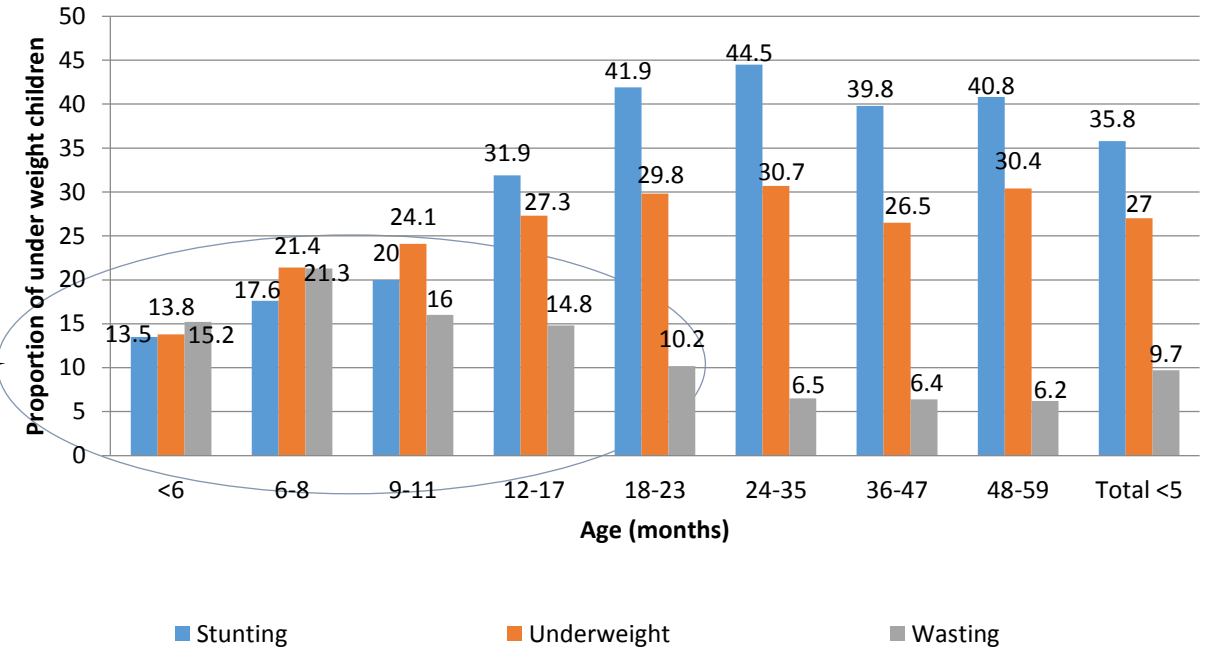


Stunting, Wasting and Underweight (1996-2016)

Status of Undernutrition in U5 Nepal

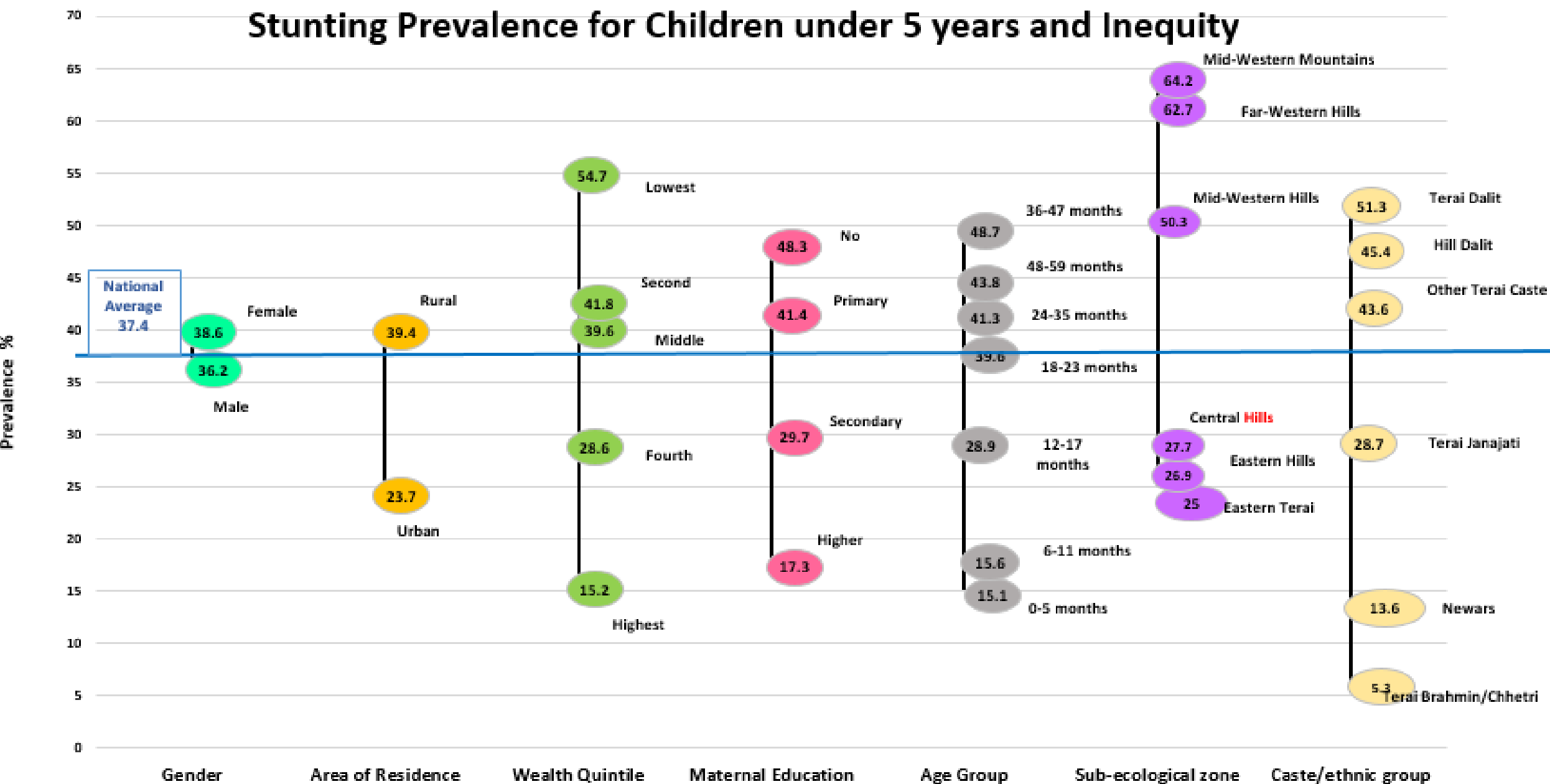


A critical period of rapid growth falter in Nepal– until two years of age (DHS, 2016)



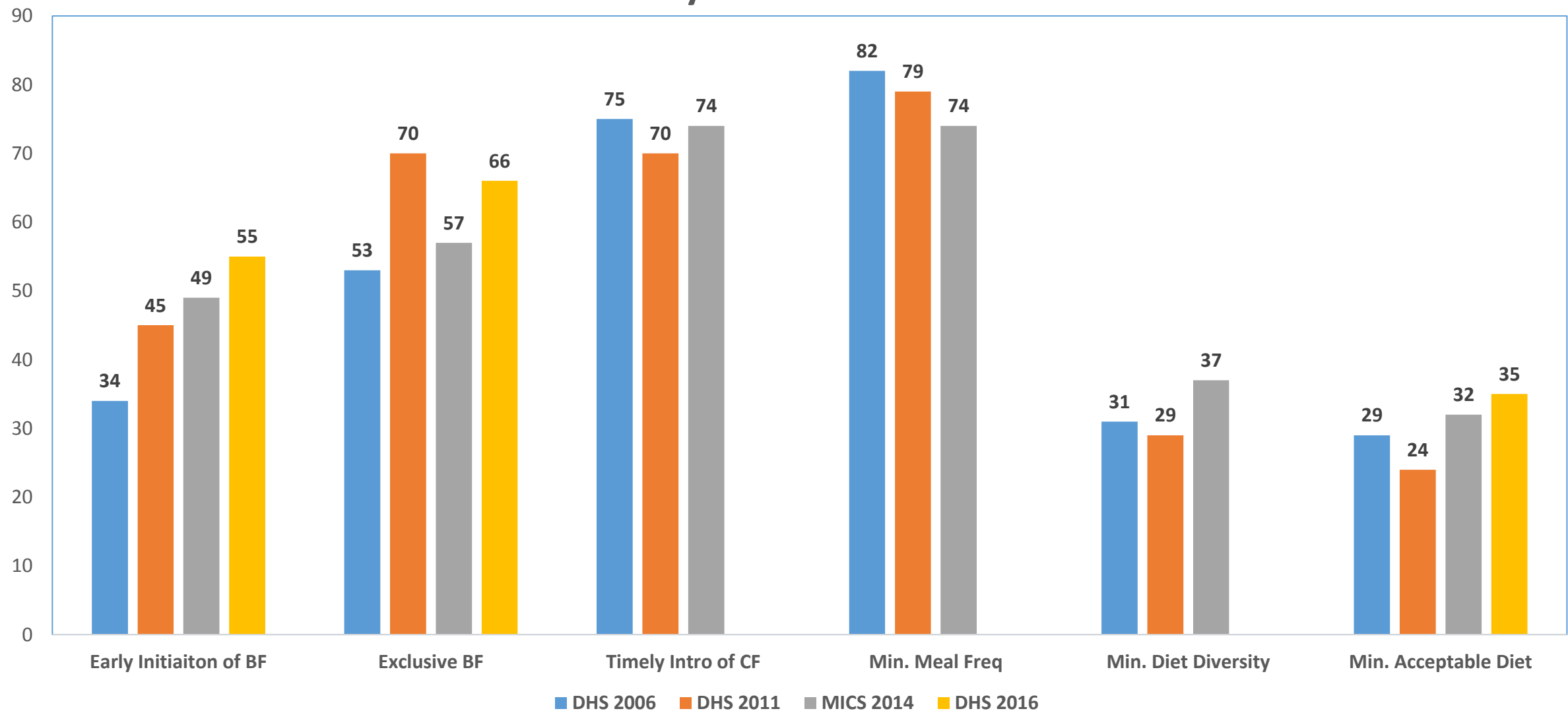
Summary from Deprivation Analysis

Stunting Prevalence for Children under 5 years and Inequity



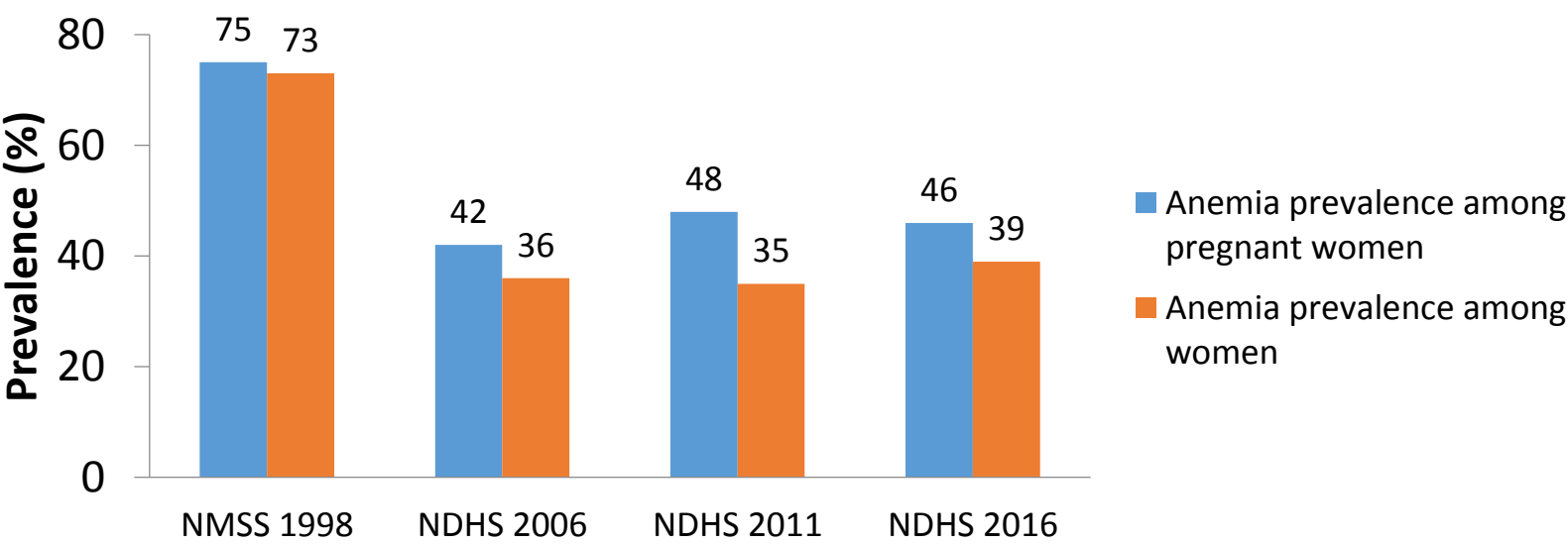
NUTRITION SITUATION IN NEPAL

Key Indicators of IYCF

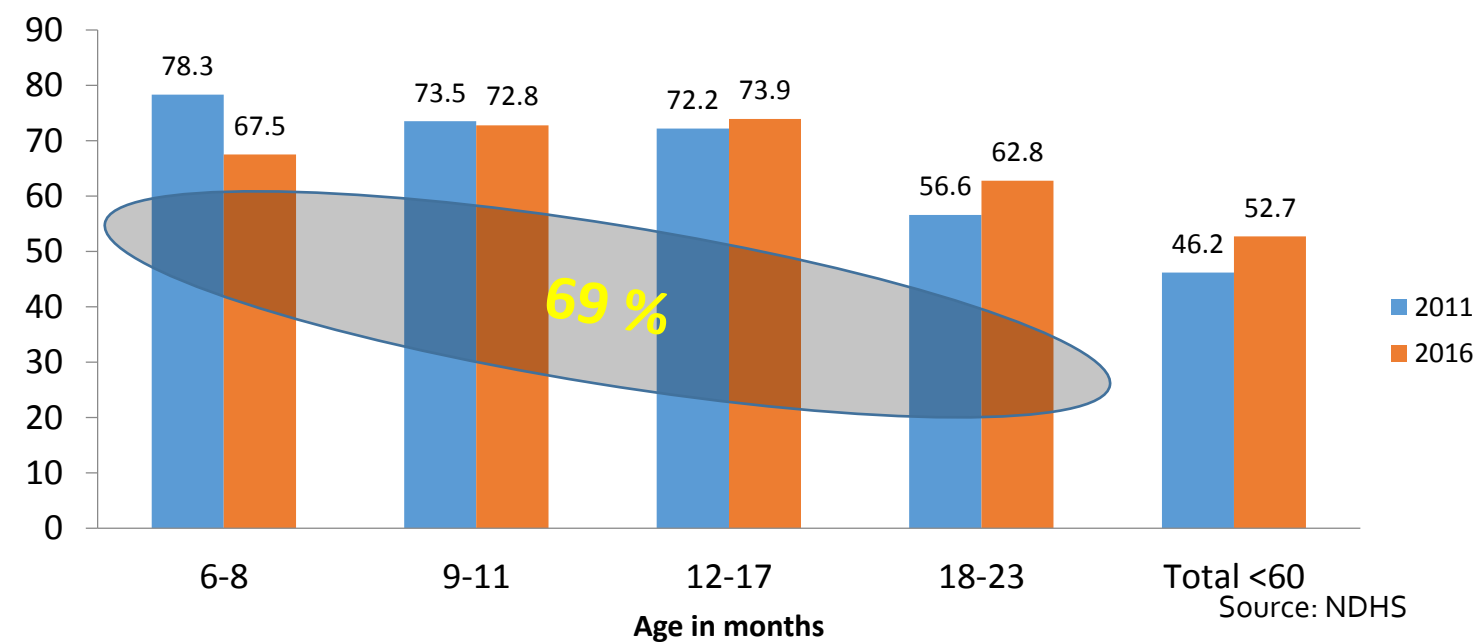


Micro-nutrient Deficiencies: Anaemia

National trend in maternal anaemia, 1998-2016

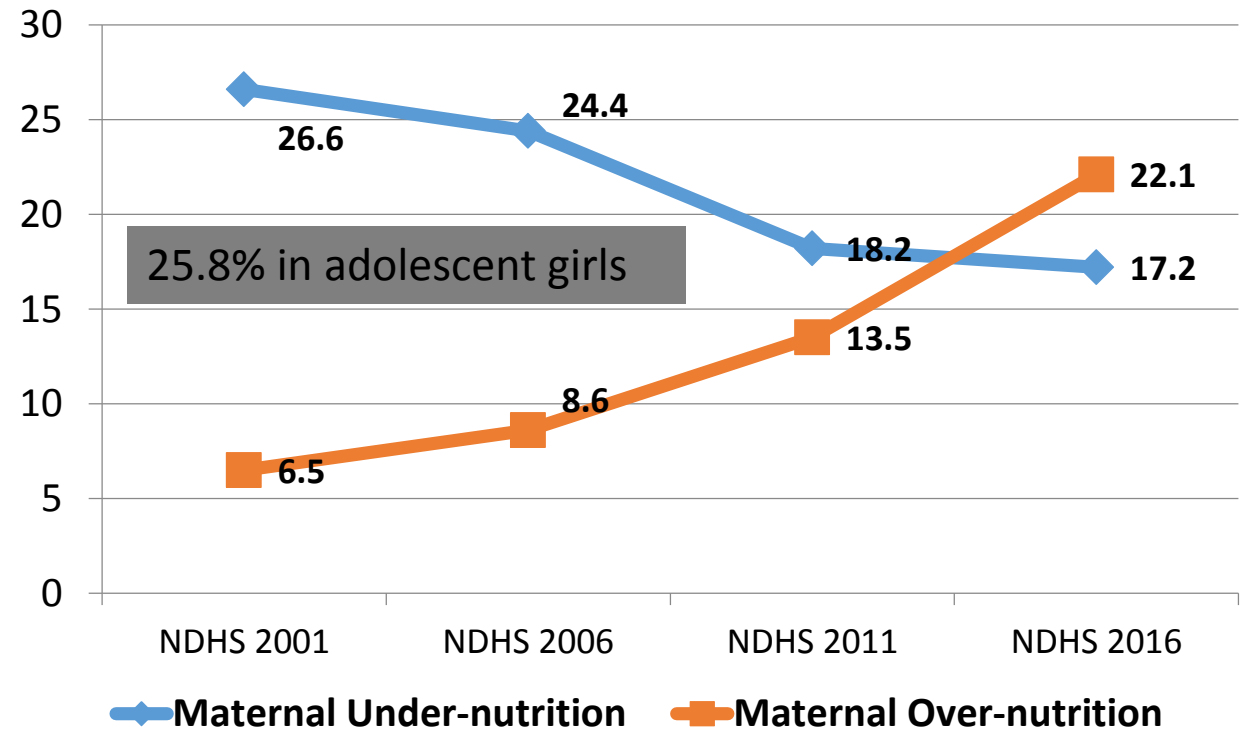


Children under two years of age
Are the most affected



Not only under-nutrition is high but over-nutrition is also on the rise...!

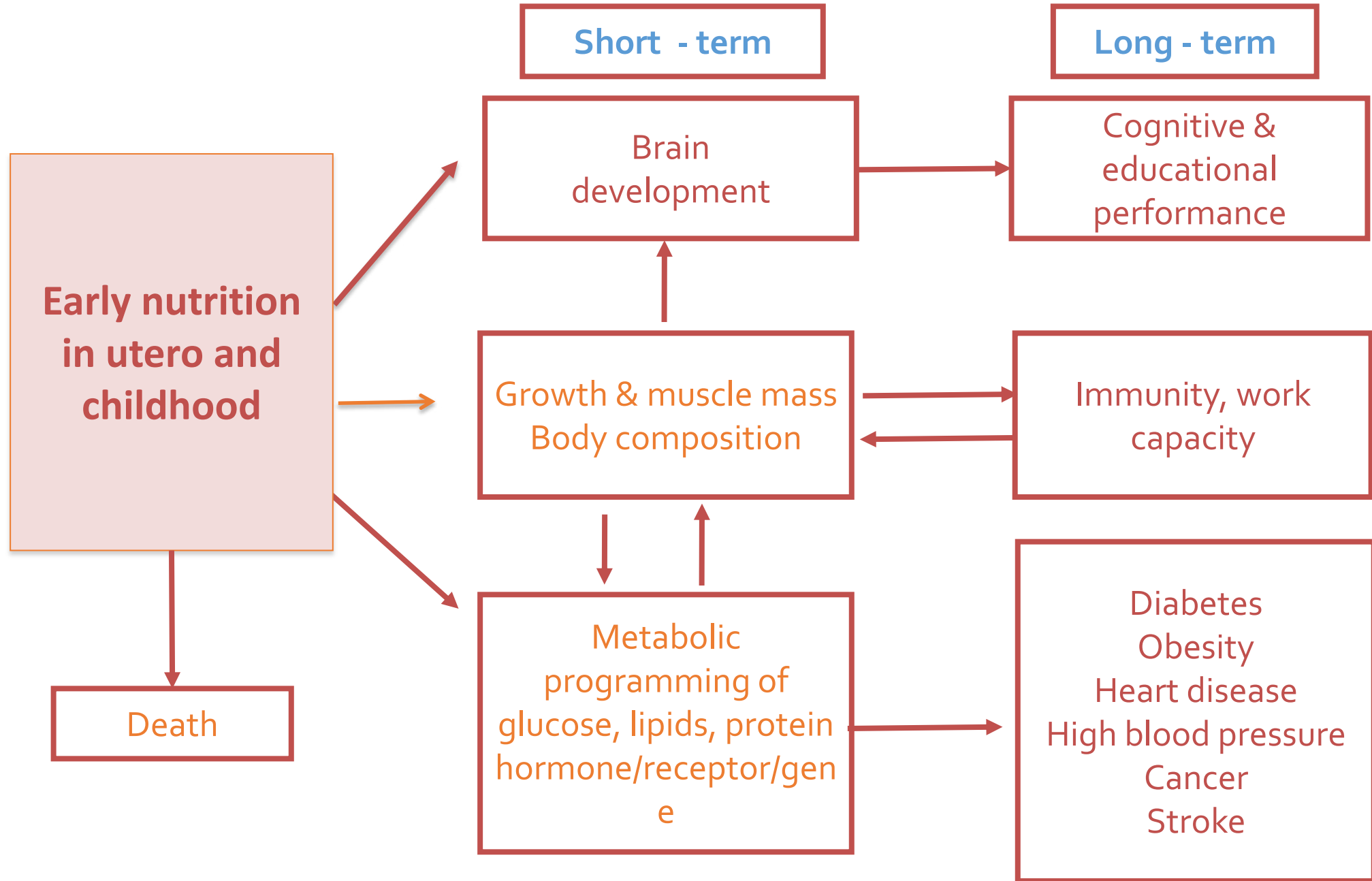
- Maternal under-nutrition remains an important challenge in Nepal
- 11% women in Nepal are less than 145cm
- Improving maternal body mass index is one of the goal of MSNP



Prevalence of both underweight and overweight among women is indicative of a potential double burden of malnutrition in the country and the need for the health system to incorporate the prevention and treatment of diet-related, non-communicable diseases (such as diabetes), in addition to reducing undernutrition and infections

Why nutrition matters?
Consequences of undernutrition

LIFE COURSE CONSEQUENCES OF POOR MATERNAL AND CHILD UNDERNUTRITION

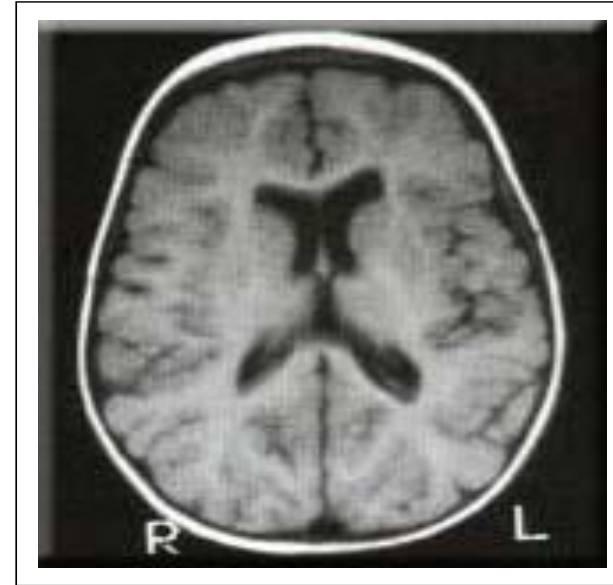


Undernutrition and Cognitive Development

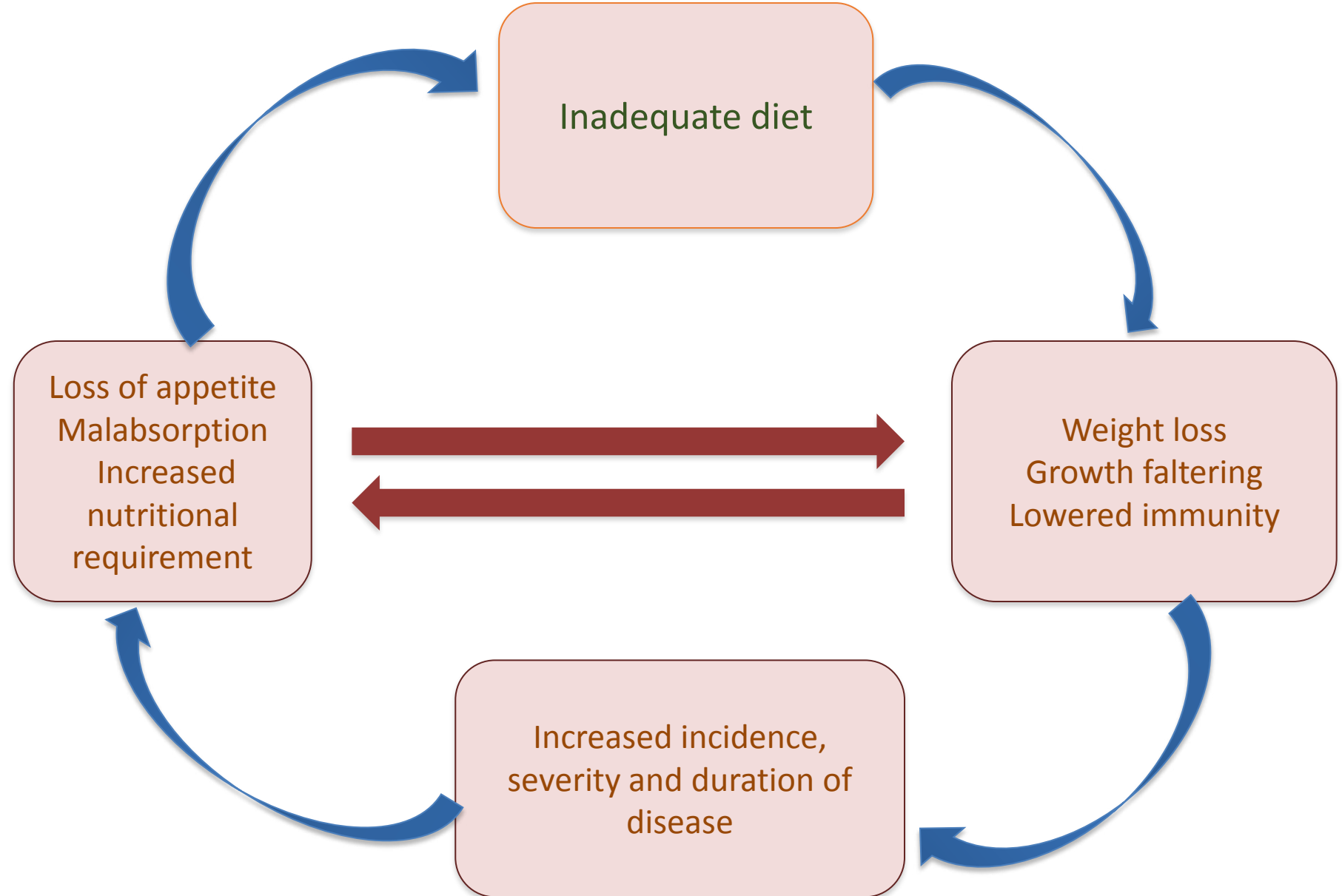
Brain image of undernourished child



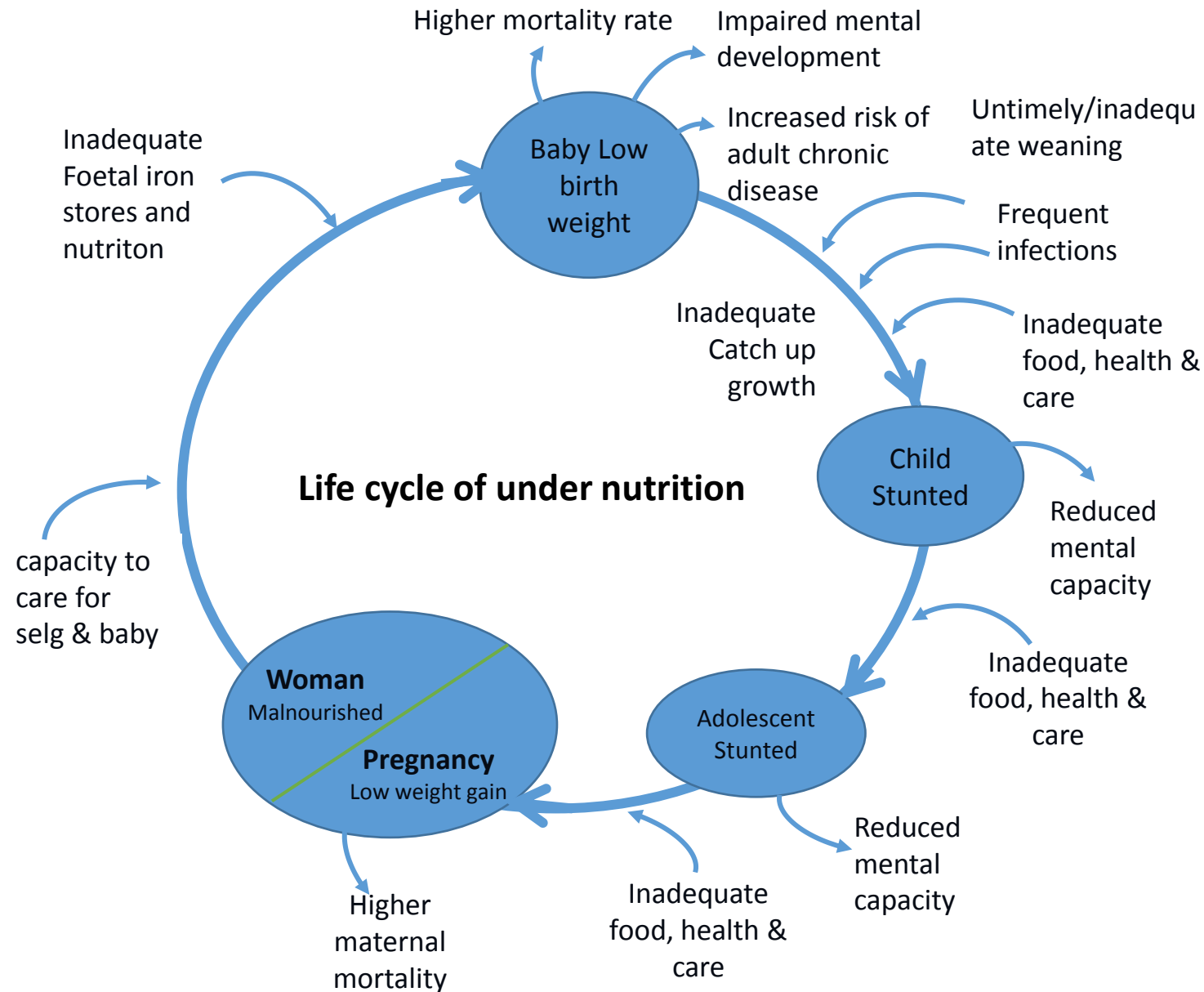
Brain image of well nourished child



Infection Undernutrition on Cycle



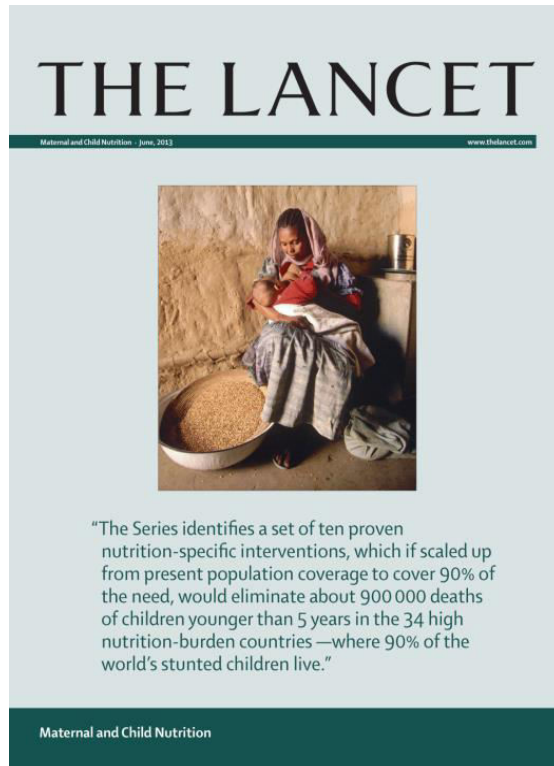
Intergenerational Cycle of Undernutrition



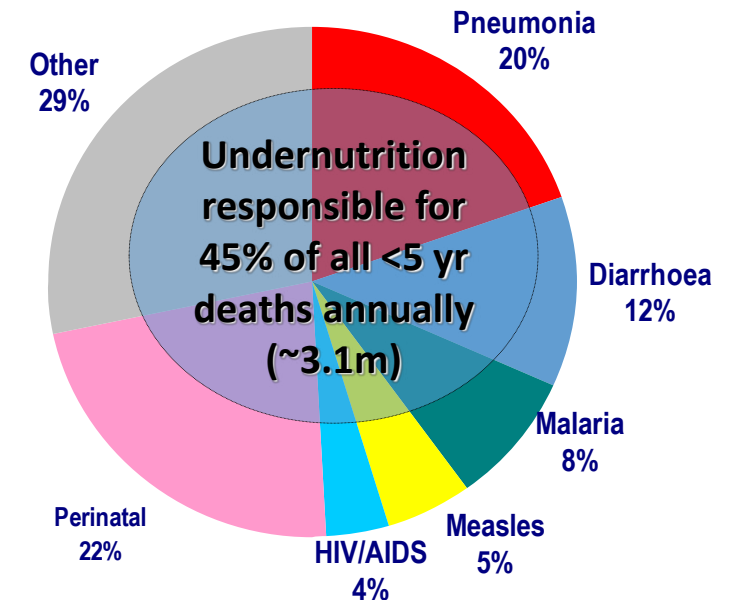
- Almost all stunting takes place in the first 1000 days after conception (*Dewey and Vitta 2013*).
- Nutritional status of women at conception and during pregnancy for healthy foetal growth and development (*Gluckman, Pinal 2003; Black, Victora 2013*).
- IUGR due to maternal under nutrition is known to account for 20% of childhood stunting.
- 23% of the mothers in Nepal gives birth before 18 years of age, while about a half given birth by the age of twenty.
- Micronutrient deficiencies- neural tube defects, cretinism, preterm birth and growth restriction *Abu-Saad 2010; Wu 2004*
- Maternal short stature *Kramer 1992*

Why Nutrition Matters?

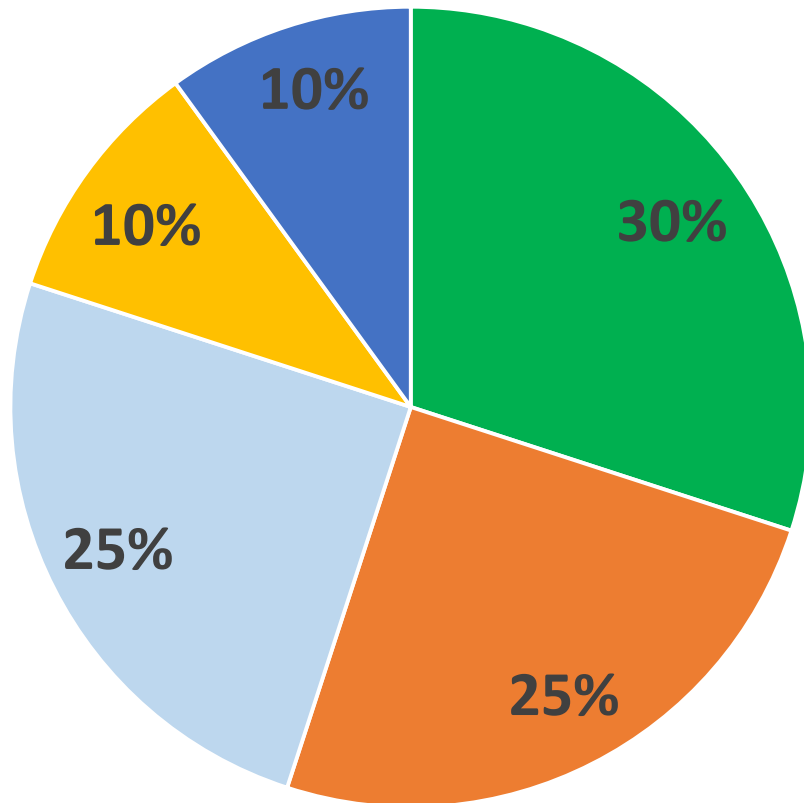
Nutrition and Child Mortality Child



- The underlying causes of at least 45% of all child mortality is undernutrition. (Lancet 2013)
- Without Improvement in Nutrition, Further Child Mortality Reduction is less likely



Critical Period



Brain development

- Pregnancy
- 1st year
- 2nd year
- 3-5 years
- Rest of the life

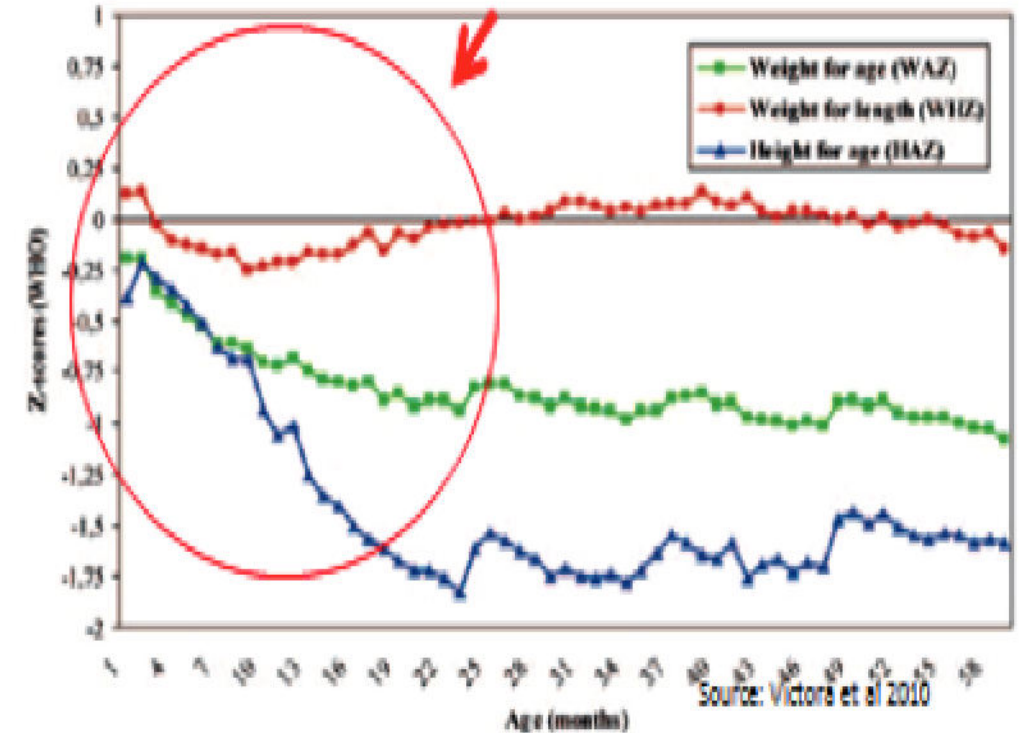


FIGURE 1
Mean anthropometric z scores according to age for all 54 studies, relative to the WHO standard (1 to 59 months).
Source: Victora et al 2010

The Critical "Window of Opportunity"

1000 DAYS

Pregnancy: $9 \times 30 = 270$ days

2 years: $365 \times 2 = 730$ days

Stunting is preventable
Need to act before the child is 2 years

The Critical “Window of Opportunity”

1000 DAYS

Pregnancy: $9 \times 30 = 270$ days
2 years: $365 \times 2 = 730$ days

Conclusion

- Causal model - complex problem requiring comprehensive, holistic approach.
- Causes of malnutrition work at different levels individual, family, community and society and systems of governance.
- Wide range of factors involved, diet and disease, food security, care practices, access to health services and environment as the underlying causes.
- All levels of causes need to be simultaneously addressed for greater and sustainable impact.

Intergeneration Cycle Conclusion contd...

- Pay immediate attention to nutrition of pregnant mothers to address intergenerational cycle of undernutrition.
 - Undernutrition is 'inherited': light weight, short women tend to give birth to small, low birth weight babies.
- Reduce high rates of teenage pregnancy, as adolescent girls likely to have low birth weight babies.
 - Such babies do not catch up in growth if inadequately fed and cared for.
 - They are at increased risk of infection which in turn aggravates the undernutrition.
 - Such kids are usually stunted by the age of 2 and have increased risk of mortality.
- Birth weight has an enormous impact on child growth faltering, child development and final adult height.
- The causes of stunting are rooted in inadequate fetal growth, which is strongly influenced, by maternal nutrition and health.

Nutrition and Survival:

Prevent child deaths, malnutrition responsible for 45% deaths

- Improving Vit A status can reduce child mortality by 23-34% *Sommers et. al.*
- Child with SAM is 5-20 times more likely to die

Nutrition and Education

- **Improve school attainment**
- Improves IQ and learning

Nutrition and Productivity

- In countries such as Nepal, the height deficit can be as much as 11cm by 24 months of age Quinn et. al. EJCN, 1994
- Stunted children become stunted adults
- 1.4% decrease in productivity with 1% decreased height Haddad & Bouis, 1990
- Reduces GDP a prerequisite of national/ development by at least 3% (WB 2005)

Economy

- **Boost gross national product** by 11% in Africa and Asia.
- **Increase wages** by 5-50%.
- **Reduce poverty** as well-nourished children are 33% more likely to escape poverty as adults.
- **Empower women** to be 10% more likely to run their own business.
- **Break the inter-generational cycle of poverty.**

Malnutrition in 1000 days: Lifelong irreversible damage- individual, family, community, nation



Thank you!

NEPAL'S STATUS AGAINST WHA GLOBAL NUTRITION TARGETS

SN	World Health Assembly (WHA) 2025 Global Targets	Status (Base year 2011)	WHA Target for Nepal	Nepal's Status as of 2016
1	Achieve a 40% reduction in the number of children under - 5 who are stunted	40.5%	25%	36%
2a	Achieve a 50% reduction of anemia in women of reproductive age	35%	18%	40.8%
2b	Achieve a 50% reduction of anemia in children	46.2%	23.1%	52.7%
3	Achieve a 30% reduction in low birth weight	12.1%	8%	24.2 %*
4	Ensure that there is no increase in childhood overweight	1.4%	Not more than 1.4%	2.1 % *
5	Increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%	69.6%	More than 50%	66%
6	Reduce and maintain childhood wasting to less than 5%	10.9%	5%	10%

*(2014 NMICS): *Nepal Multiple Indicator Cluster Survey, 2014*, NDHS: *Nepal Demographic and Health Survey, 2016*

Interventions for Nutrition

Specific and Sensitive

Past session

- What is nutrition? Why is it important?
- What is the difference between nutrition, food and nutrients?
- How do we classify nutritional status?
- What determines nutritional status?
- What is malnutrition?
- Why nutrition is important?

Future sessions

Nutrition policy and program:

- Health
- Agriculture
- Livestock
- Education
- Women, children and social welfare
- Local Development

Future sessions

Applicable to all: cross cutting issues:

- Nutrition in emergency situations
- Advocacy and communication
- Dietary guidelines
- Monitoring and evaluation
- Facilitation and planning skills
- International initiatives and collaboration

“Nutrition specific”

- Interventions that address immediate determinants of fetal and child nutrition and development:
 - Adequate food and nutrient intake
 - Feeding, care giving and parenting practices
 - Reduced burden on infectious illnesses

“Nutrition sensitive”

- Interventions that address the underlying determinants of fetal and child nutrition and development and incorporate nutrition specific goals and actions:
 - Food security
 - Adequate care giving resources at maternal, household and community levels
 - Access to health services
 - Safe and hygienic environment

Task

Categorize the interventions into

- Nutrition Specific or Nutrition Sensitive Interventions
- Trace the pathway for their effect: how does a particular intervention leads to improvement?

Identify the nature of intervention

Nutrition intervention	Specific or Sensitive
Breastfeeding and complementary feeding	
Dietary diversification	
Feeding behaviours and stimulation	
Treatment of severe acute malnutrition	
Disease prevention and management	
Agricultural food security	

Identify the nature of intervention

Intervention	Nature
Social safety nets	
Advocacy strategies	
Accountability, incentives, legislation	
Capacity investment	
Water supply	
Sanitation	
Maternal dietary supplementation	
Micronutrient supplementation or fortification	

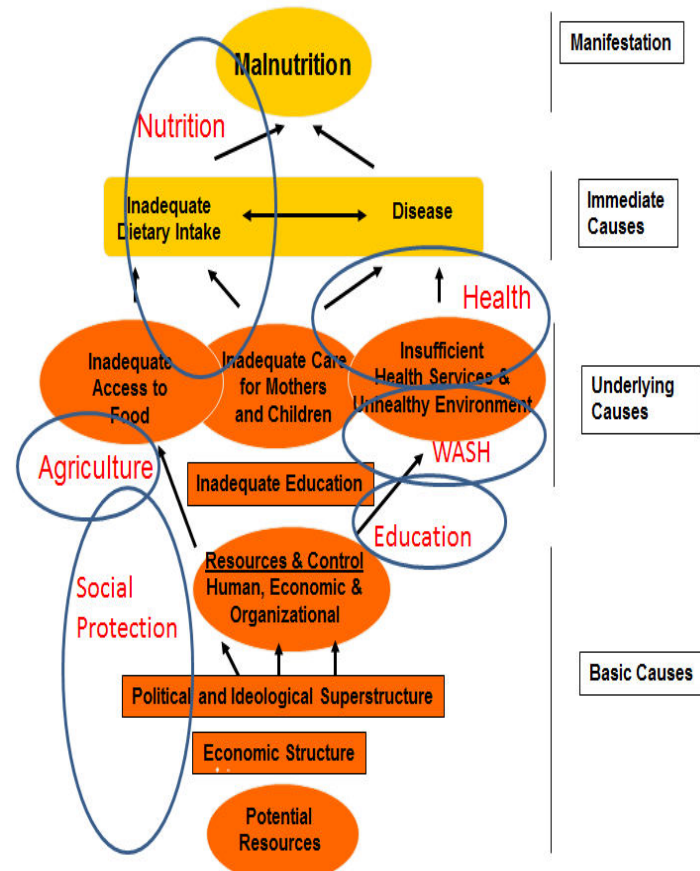
Identify the nature of intervention

Intervention	Specific or sensitive
Rigorous programme evaluation	
Adolescent nutrition and preconception nutrition	
Maternal dietary supplementation	
Child protection	
Early child development services	
Maternal mental health	
Women's empowerment	
Dietary supplementation for children	

Identify the nature of intervention

Intervention	Nature
Classroom education	
Health and family planning services	
Leadership programmes	
Domestic resource mobilization	
Horizontal and vertical coordination	
Capacity investments	

Nutrition and other sectors



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

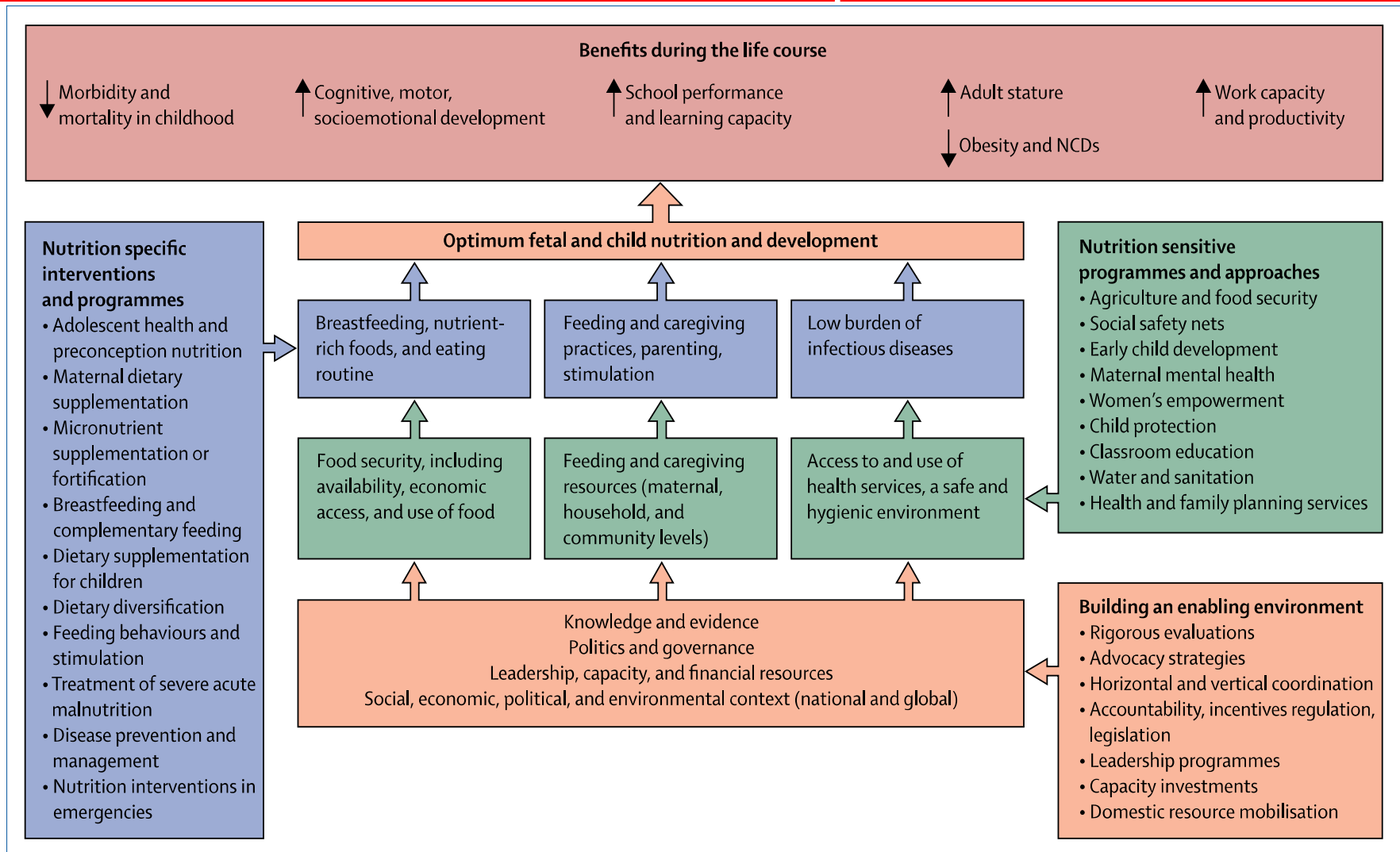


Figure 1: Framework for actions to achieve optimum fetal and child nutrition and development

Paper 2: Direct nutrition life cycle Interventions

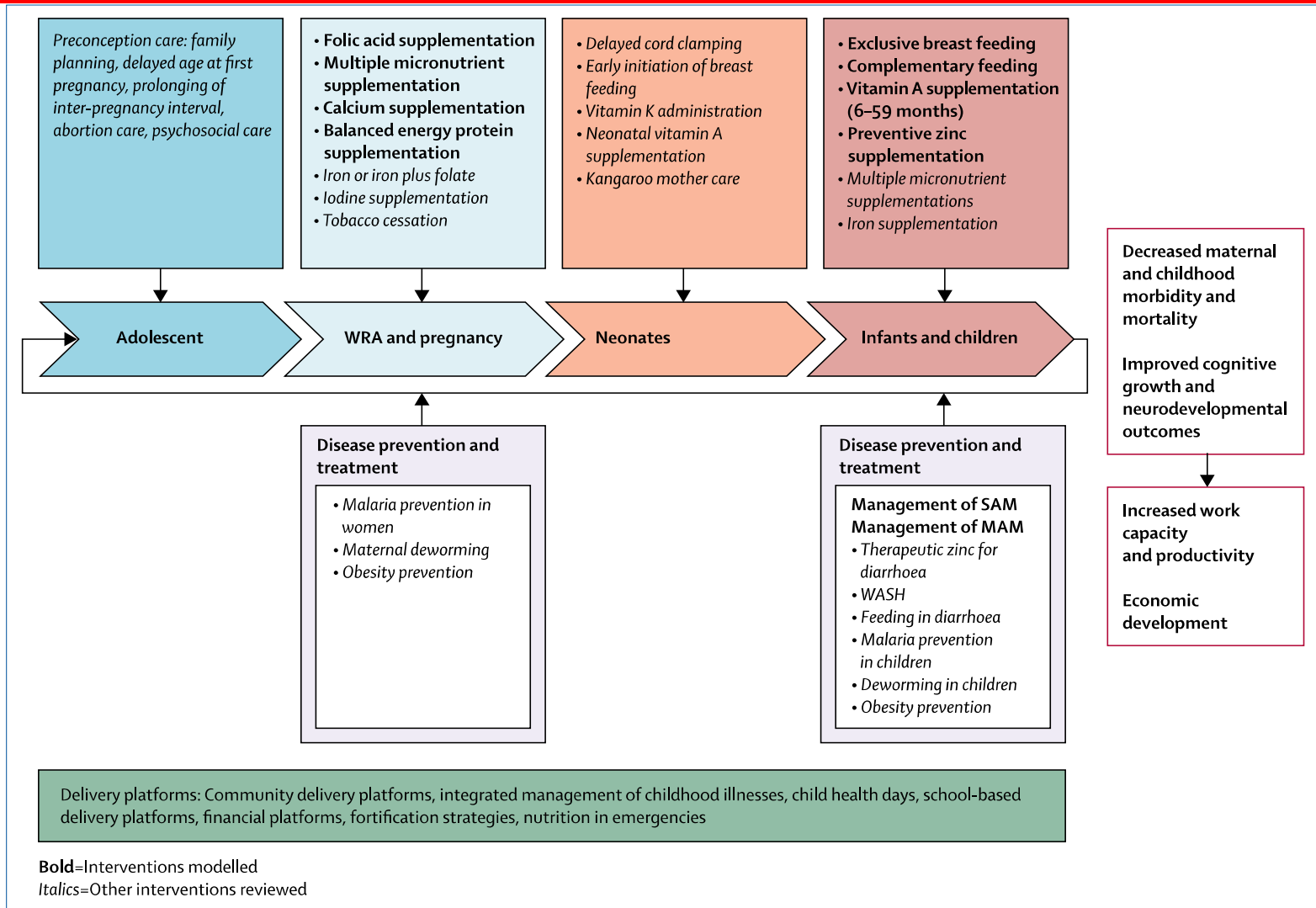


Figure 2: Conceptual framework

WRA=women of reproductive age. WASH=water, sanitation, and hygiene. SAM=severe acute malnutrition. MAM=moderate AM.

“Nutrition specific”

- Interventions that address immediate determinants of fetal and child nutrition and development:
 - Adequate food and nutrient intake
 - Feeding, care giving and parenting practices
 - Reduced burden on infectious illnesses

Nutrition specific programmes

- Adolescent, preconception and maternal health and nutrition
- Maternal dietary or micronutrient supplementation
- Promotion of optimum breast feeding, complementary feeding and responsive feeding practices and stimulation
- Dietary supplementation, diversification, MN supplementation or fortification for children
- Treatment of severe acute malnutrition
- Disease prevention and management
- Nutrition in emergencies

“Nutrition sensitive”

- Interventions that address the underlying determinants of fetal and child nutrition and development and incorporate nutrition specific goals and actions:
 - Food security
 - Adequate care giving resources at maternal, household and community levels
 - Access to health services
 - Safe and hygienic environment

Nutrition sensitive interventions

- Agriculture and food security
- Social safety nets
- Early child development
- Maternal mental health
- Women's empowerment
- Child protection
- Schooling
- Water, sanitation and hygiene
- Health and family planning services

Nutrition sensitive and specific interventions

- Nutrition sensitive programmes can serve as delivery platforms for nutrition specific programmes to increase their scale, coverage and effectiveness

LNS013 and MSNP

“Nutrition specific”

- Interventions to improve maternal nutrition and reduce SGA births:
- Interventions targeted at adolescents in preconception period: deworming and IFA for adolescents
- Balanced energy protein supplements: in some food insecure areas
- Calcium supplementation: being piloted through FHD
- Multiple micronutrient supplementation ? Replace IFA supplementation with MNP
- Preventive strategies against malaria; EDCD

LNS 013 and MSNP

“Nutrition sensitive”

Interventions suggested in LNS013	MSNP 012
Agriculture and food security	Output 6
Social safety nets	MoFALD/Not specified
Early child development	MoE/ Not specified
Women’s empowerment	Output 6
Education: schooling	Output 4
WASH	Output 5
FP services	MoHP/not specified

Politics of improving nutrition

Actions suggested in LNS 013	MSNP 012
Creation of enabling environment for accelerated action	Outcome 1
Political economy of stakeholders, ideas and interests	Outcome 1 and 3
Capacity and financial resources	Outcome 3

LNS 013: Evidence

- Folic acid for MWRA: Periconceptional FA reduces NTD by 72%, recurrence of NTD by 68%; increased mean BW: challenge: how to reach in periconceptional period?

LNS013: Evidence

- Multiple micronutrient supplⁿ. : Cochrane review of 23 trials: 11-13% lower LBW and SGA, no adverse effects on maternal mortality, stillbirth, neonatal mortality

LNS 013: Evidence

- Maternal calcium supplementation reduces gestational hypertension by 35%, preeclampsia by 55% and preterm birth by 24% (among population at risk for low Ca intake)

LNS 013: Evidence

- Maternal calcium supplementation reduces gestational hypertension by 35%, preeclampsia by 55% and preterm birth by 24% (among population at risk for low Ca intake)

LNS 013: Evidence

- Balanced energy and protein supplementation: reduced SGA by 32% and risk of SB by 45%, effect is more pronounced in malnourished mothers

Summary

- MSNP has addressed most of the nutrition specific and sensitive interventions
- Multisectoral approach has envisaged that Ag, Ed, WASH and LG will provide the platform for N Sp interventions
- MSNP II: Considerate and in alignment of these recommendations

Thank you!

Ministry Of Education



Nutrition and food security section

Institutions

Types	Total	Community	Private	Constitu ent
ECD/PPCs	36,093	30,448	5,645	
Schools	35222	29207	6015	
Universities	9	9		
Campuses	1369	433	838	98
Medical Institutions (Deemed	4	4		

Enrolment

Educational Level	Total	Female	Male
ECD/PPC	459,069	514,344	973,413
Basic (1-5)	2086165	2049088	4135253
Basic (6-8)	939292	920067	1859359
Secondary (9-10)	496347	462155	958502
Secondary (11-12)	268785	224199	492984

Status of Water, Sanitation and Hygiene in Community School

Total Communi ty Schools	Toilet		Toilets with urinals		Schools with adequate drinking water facilities
	Schools with toilet	Schools with separate toilet for girls	Toilets with urinal	Girls toilets with urinal	
29630					
	81.3 %	67.6 %	40.9 %	28.2 %	79.7 %

Source: DoE/EMIS

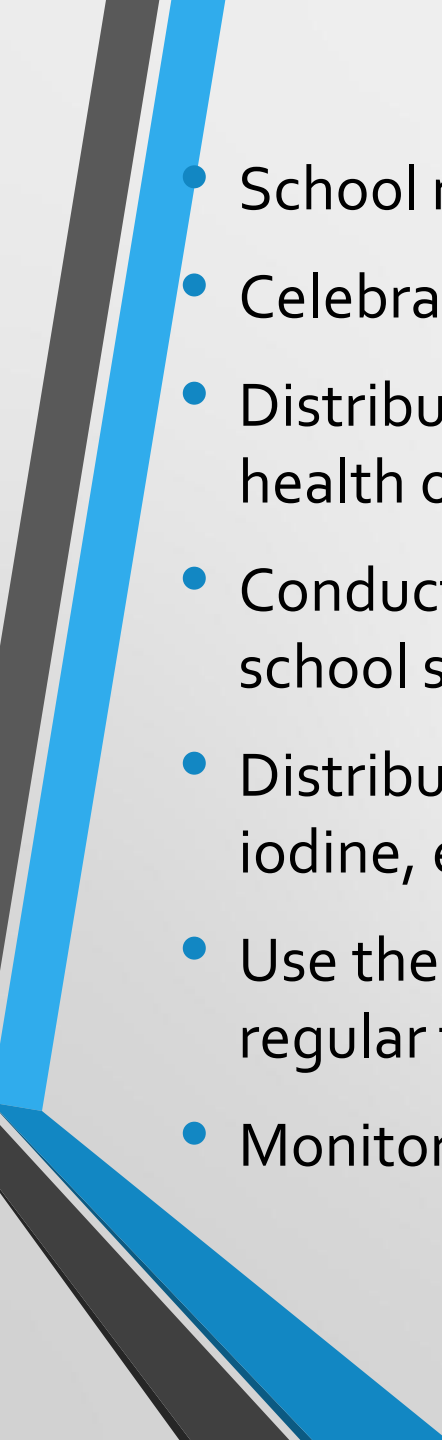


Objective of School Health and Nutrition

- Improve use of SHN services by school children
- Improve healthful school environment
- Improve health and nutrition behavior and habits
- Improve and strengthen community support system and policy environment

Some school level activities for School health and nutrition

- Child club formation and mobilization
- Provision of focal person on district level
- Provision of School health and nutrition focal teacher
- Health screen of students (including eyes, ears, body weight, etc.)
- Student's daily attendance record
- Launching of deworming programs biannually

- 
- School meal program in selected districts
 - Celebration of health week annually
 - Distribution of health kit box in collaboration with district health office and DEO
 - Conduction of orientation training for resource persons, school supervisors and focal teacher
 - Distribution of some essential medicines (cetamol, iodine, etc.)
 - Use the knowledge of School health and nutrition on regular teaching learning process
 - Monitoring and reporting

Objective of school feeding program

- To reduce hunger and starvation
- To promote health and nutrition thus promoting malnutrition intervention
- To attract children towards school and education including children of marginalized group
- To promote productivity of local foods and goods

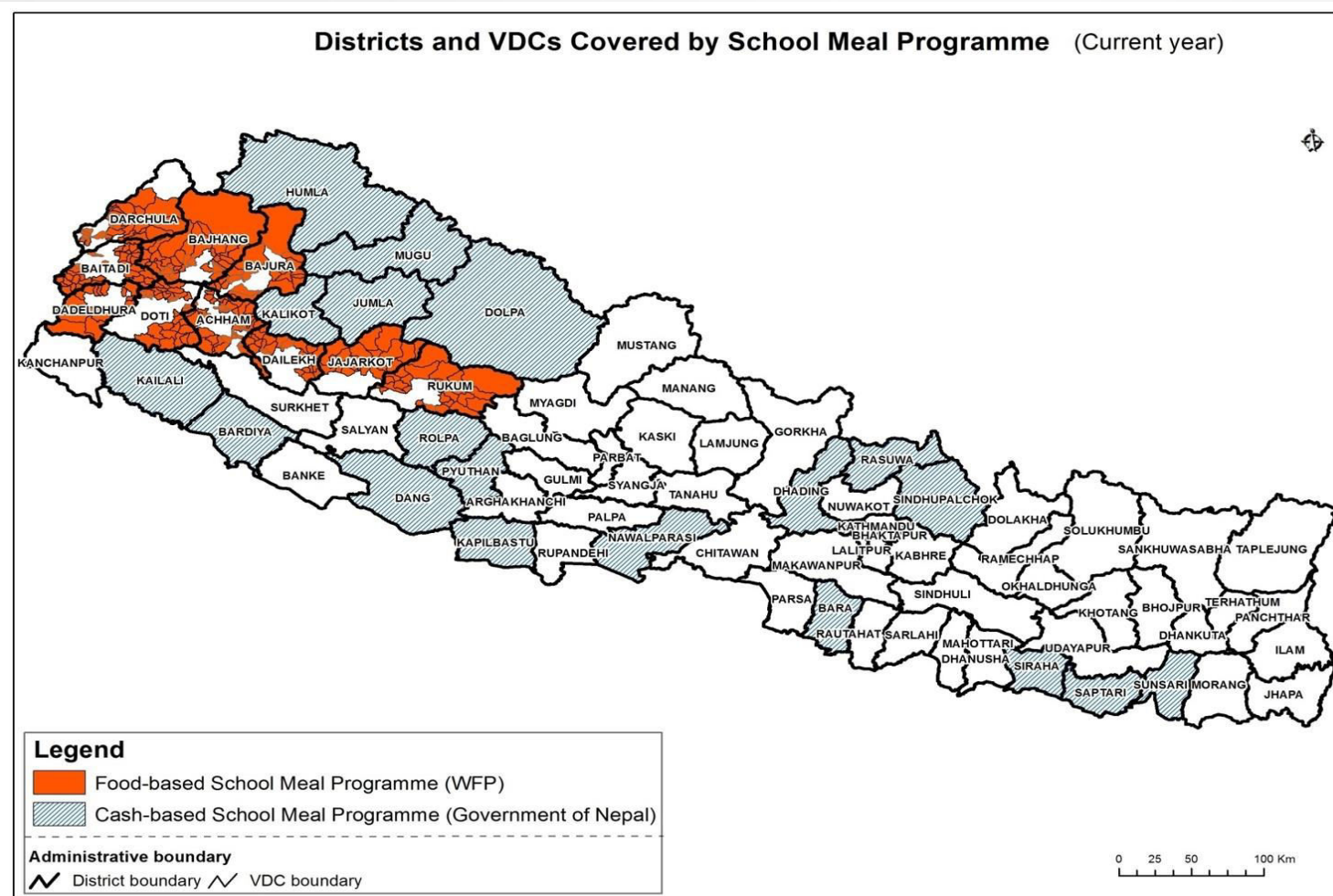
Objective of school feeding program

- To reduce the ratio of dropouts and repetition
- To increase the annual class promotion and enrollment rate
- To prevent the increment rate of malnutrition, stunting and wasting

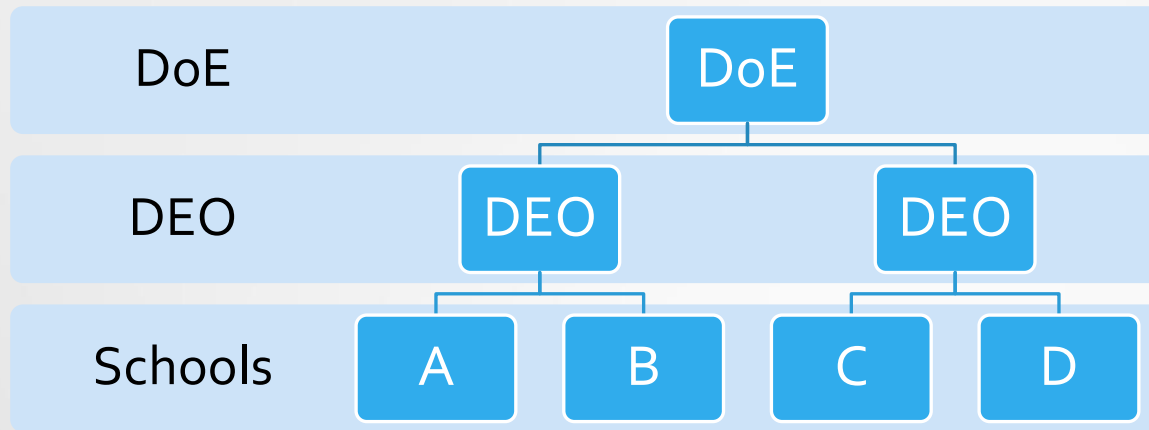
SCHOOL MEALS MODALITIES

- SMP is a high priority for the Government of Nepal
- The **in-kind modality** supports students in 10 districts (WFP and GoN)
 - Haluwa made of fortified cereal, oil and sugar is provided together with complementary activities
- The **cash modality** supports students in 19 districts (GoN)
 - NPR 20 for Karnali region and NPR 15 per child for rest of the region
- Local Governments (Village and Municipal Bodies)

SCHOOL MEALS PROGRAM MAP



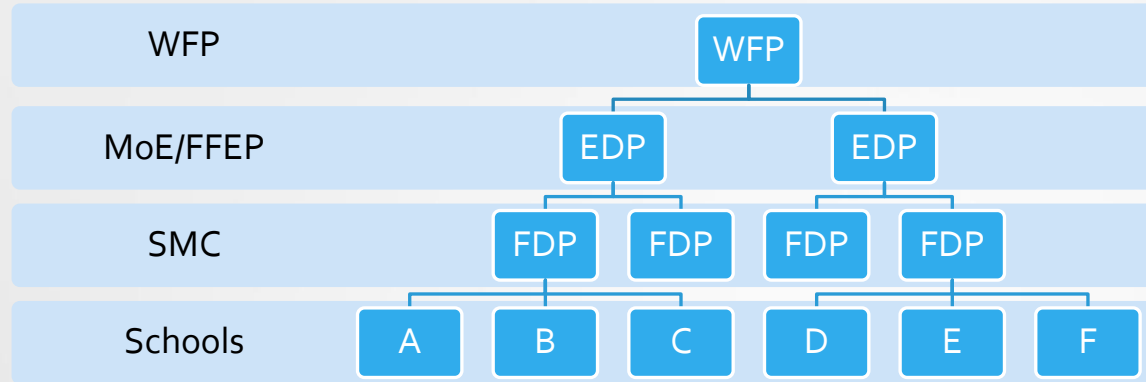
DECENTRALIZED FOOD-BASED MODALITY



Cash modality

- Schools or parents provide a midday meal for children to eat in school using funds transferred from the Department of Education (DoE)
- DoE at central level disburses the funds to the District Education Offices (DEO) at the district level
- DEO disburses the cash to the schools to manage the on-site cooking, caterer or tiffin modality

CENTRALIZED FOOD-BASED MODALITY



In-kind modality

- FFE is implemented by a logistics arm under the MOE
- Food is procured/received as in-kind donations by WFP
- WFP transports to Extended Delivery Points through commercial transporters
- FFEP transports the food to the Final Delivery Points
- Food Management Committees under the School Management Committee transports to schools
- Food is cooked on site in schools
- Meals are provisioned for 200 school days

CORE OPERATIONAL CHALLENGES

Cash modality

- Use of junk food instead of locally available products
- Budget provided lower than market value price
- Poor management of utensils; little training for cooks

In kind modality

- Transporting food is challenging, especially during the monsoon
- Lack of knowledge of food diversity, leading to a unbalanced diet
- Lack of proper kitchens to prepare food in

cross-cutting themes focuses SSDP(2016_23)

- *Teacher professional development and management*
- *Governance and Management*
- *Institutional Capacity Development*
- *Monitoring and Evaluation*
- *Examination and Assessment*
- *ICT in Education*
- *Disaster Risk Reduction and Recovery*
- ***Health and Nutrition***

Objectives OF SSDP(2016-23) in health and nutrition

- To increase health and nutrition services in schools, including the provision of deworming, micronutrient supplementation and malaria treatment as well as vision and hearing screening.
- For all schools to have functional water and sanitation facilities that are environmentally sound and user-friendly for children, boys and girls and differently-abled students and teachers.
- To strengthen participation and learning outcomes, minimizing the drop-out rate of adolescent girls by fulfilling their privacy and menstrual hygiene management related needs.
- To promote healthy behaviours through skills-based health education including HIV/AIDS prevention, hygiene and nutrition. The knowledge, attitudes, values and skills developed will enable children to stay healthy and safe long after they leave school.

SSDP's strategies for improving the health and nutrition

- Provide midday meals to children enrolled in basic education in food deficit areas.
- Position school nutrition programmes within the national safety net framework to allow for a targeted and scaled approach in schools across the country, as well as determining the role of such programmes in emergency responses.
- Support school nutrition in close collaboration with agriculture by boosting the use of local produce to support social equality and the local economy.
- Provide pre/in-service training on CSE as a supply subject.
- Support the integration of nutrition into life-skills education for adolescent girls, with a focus on improving maternal and child nutrition.

Raise adolescent girls' knowledge of reducing chronic malnutrition.

Contd.....

- Prepare updated resource materials on parenting education for improved maternal and child care and feeding practices.
- Organize programmes to enhance parental knowledge on maternal and child care and feeding practices.
- Provide nutritional support to adolescent girls (iron folic acid with deworming) to adolescent girls.
- Align non-formal education programmes for out-of-school children with the formal school curriculum cycles and revisions on CSE to ensure that out-of-school young people also benefit from the Social and Financial Skill package in terms of life skills and financial literacy.

Contd.....

- Ensure consistency of the CSE topics linking each grade with age appropriate and culturally accepted information during revision of the curriculum
- Improve WASH behaviour and infrastructure, including gender and differently-able friendly facilities in schools to improve health and nutrition outcomes
- Foster inter-agency complementary services in schools such as deworming and vision checks to reduce absenteeism due to commonly preventable illness.
- Nominate WASH focal teachers and menstrual hygiene management female teachers in all schools for coordinating, planning, resource mobilization and the monitoring of school WASH activities and facilities in coordination with school WASH coordination committees.

Contd...

- Monitor the implementation of WASH in schools by establishing and mobilising school WASH coordination committees and child clubs as per the guidelines on school WASH committee formation.
- Promote partnerships among DoE, development partners, and I/NGOs to promote WASH in schools.
- Link WASH in school interventions with the planning framework of district, municipality and VDC level WASH-coordination committees.
- Ensure the quality, standard and sustainability of WASH facilities in schools by the development and wider dissemination of user-friendly manuals on the technical designs (standard operating procedures) of WASH facilities and through school awareness raising programmes.
- Enhance knowledge, attitudes, skills and behaviors of students and teachers on WASH related morbidity using life skills-based WASH education.

School Sector Development Plan (2016 -22)

Outcome s	Results	Major interventions
Improved health and nutrition status of school aged children	Nutrition and feeding schemes in schools located in food deficient areas	<ul style="list-style-type: none"> • Mid-day meals at schools to reduce short term hunger among school children, and address micronutrient deficiencies through multi-fortified foods and diversifying the food basket, including with fresh and locally produced foods. • Food Management Committee established within the School Management Committee for programmatic support and oversight. • WASH behavior change activities to improve health outcomes, linking to Open Defecation Free (ODF) programmes • WASH infrastructure (latrines
	Gender segregated and disabled friendly WASH facilities in School	

लक्ष्य

- पुडकोपन घटाउने बहुक्षेत्रीय प्रयासमा शिक्षा मन्त्रालयको योगदान अभिवृद्धि हुने छ
- २०१६ को अन्त्यसम्ममा जीवनयापनका सीपमा आधारीत पोषण कार्यक्रमसम्बन्धी तालिम प्राप्त गर्ने शिक्षकहरू, स्रोतव्यक्तिहरू तथा बालकलवका सदस्यहरूको संख्या बढेको हुने छ

उद्देश्य

- किसोरीहरुको शिक्षा, जीवनयापनका सीप तथा पोषणस्तरमा सुधार भएको हुने छ २०१६ को अन्त्य सम्ममा:
 - किसोरीहरुमध्ये कक्षामा हाजिरी तथा कक्षा उत्तिर्ण हुनेको दर बढेको हुनेछ
 - रक्तअल्पता बिरुद्ध कम्तिमा २ पटक नियन्त्रणात्मक/खानामा पोषण तत्व समावेश गरेका छौ भन्ने किशोरीहरुको संख्या बढेको हुने छ
 - विद्यालय पढ्ने किशोरीहरुमा जुकाको संक्रमण घटेको हुने छ
 - विद्यालय पढ्ने किशोरीहरुमध्ये विद्यालय छाड्ने दर घटेको हुने छ

उपलब्धि: १

भ्रूण संरक्षण एवं शिशु तथा बालबालिकाको वृद्धि सम्बन्धमा किशोरीहरुको जागरण र ब्यबहारमा सुधार आएको हुने छ

प्रतिफल: १.१ दिर्घकालीन कुपोषण न्युनिकरण गर्ने बिषय किशोरीहरुलाई प्रदान गरिने जीवनयापनसम्बन्धी शिक्षामा बढी भन्दा बढी समावेश गरिएको हुने छ

प्रतिफल: १.२ किशोरीहरुमा दिर्घकालीन कुपोषणलाई न्युनिकरण गर्ने ज्ञान र सीपको अभिवृद्धि हुनेछ

उपलब्धि:२

स साना वालवालिकाको हेरचाह र आहार ब्यबहारमा सुधार गरी बृद्धि विफलताको फैलावट रोक्न किने बिषयमा अबिभावकहरु (महिला) राम्ररी सुसुचित भएका हुनेछन

प्रतिफल: २.१ बालबालिका हेरचाह तथा आहार ब्यबहारका सुधारका लागि अबिभावक शिक्षासम्बन्धी स्रोत सामाग्री तयारी अद्यावधिक हुनेछ

प्रतिफल: २.२ बालबालिका हेरचाह तथा आहार ब्यबहारका सुधारसम्बन्धी अबिभावकहरुको ज्ञान अभिवृद्धि हुनेछ

उपलब्धि:३

किशोरी छात्राहरुको पोषणस्तरमा सुधार हुनेछ

प्रतिफल: ३.१ ECD बालबालिका तथा किशोरी छात्राहरुले (८ कक्षा सम्म) दिवाखाजा प्राप्त गर्नेछन्

प्रतिफल: ३.२ आधारभूत शिक्षा (कक्षा १ देखि ८) किशोरी छात्राहरुको शैक्षिक सहभागिता तथा उपलब्धिमा सुधार हुनेछ

उपलब्धि: ४

बहुक्षेत्रीय प्रयासमा योगदान पुर्याउन शिक्षा क्षेत्रको क्षमता अभिवृद्धि भएको हुनेछ

प्रतिफल: ४.१ पोषण निर्दिष्ट शिक्षा अध्यापन गर्न शिक्षा मन्त्रालयका प्रशिक्षक एव शिक्षकहरु(पूर्व सेवाकालिन तथा सेवाकालिन) पूर्ण रुपमा तयार गरिएको हुनेछ

प्रतिफल: ४.२ पुडकोपन घटाउने बिषयमा शिक्षा मन्त्रालय तथा अन्य क्षेत्रका कर्मचारीहरुबीच सहयोग तथा समन्वयमा सुधार हुनेछ

प्रतिफल: ४.३ शिक्षा मन्त्रालयभित्र अनुगमन तथा मुल्याङ्कन र सूचना प्रणाली तयार भएको हुनेछ



Thank you



MSNP - MoLD



MSNP- *In Livestock Sector*

Hotel Annapurna, Kathmandu
June 18, 2017



Government of Nepal
Ministry of Livestock Development
Singhdurbar
Kathmandu, Nepal





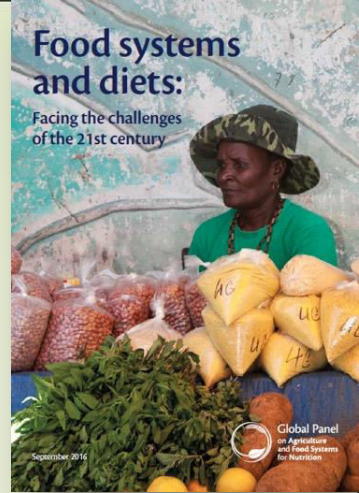
The all sort of episode starts when Nepal made commitment to ZHC in Rio conference, Brazil, 2012.





Global nutrition crisis

- One in nine people in the world are undernourished .
- Around 795 million people are compelled go to bed hungry.
- Around 100 millions are under 5 children
- Over the next 20 years, multiple forms of malnutrition will pose increasingly serious threat to global health.





ICN2 Second International Conference on Nutrition

better nutrition better lives

19-21 November 2014, Rome, Italy



Food and Agriculture
Organization of the
United Nations



World Health
Organization

- Integrate nutrition objectives into food and agriculture policy, programme
- Enhance nutrition sensitive agriculture
- Ensure food security and enable healthy diets
- Local food production and processing
- Women empowerment
- Diversification of crops including under-utilised traditional crops
- More production of fruits and vegetables
- Appropriate production of animal source products
- Improve storage, preservation technologies
- Establish food or nutrient based standards to make healthy diets



SDGs

- Out of 17 goals of SDGs the goal no 2 aims to end hunger and ensure access to safe, nutritious and sufficient food for all people year round by 2030.

GOAL 2

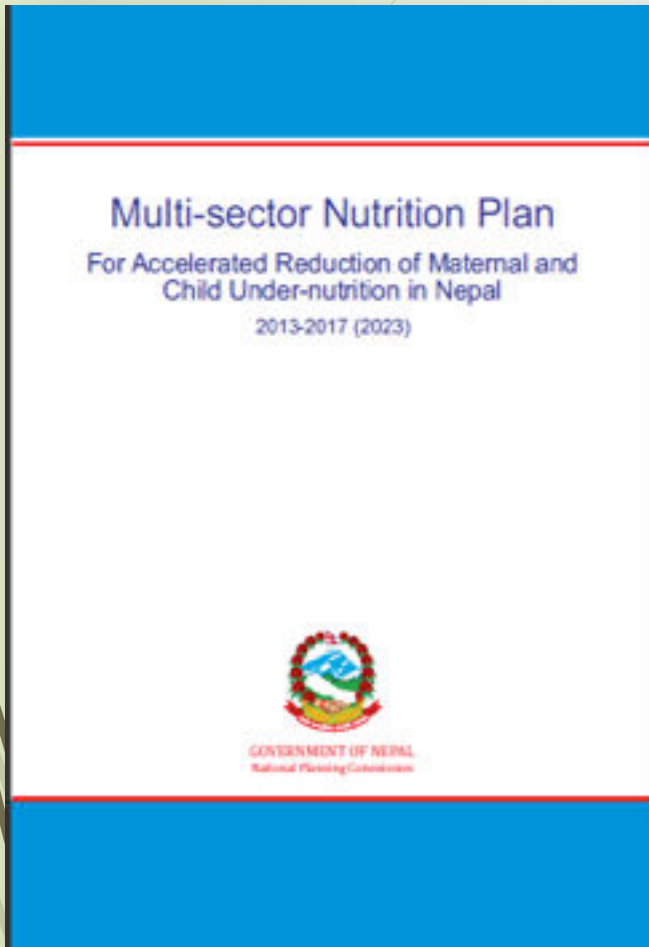
END HUNGER, ACHIEVE FOOD SECURITY AND
IMPROVED NUTRITION AND PROMOTE
SUSTAINABLE AGRICULTURE

SUSTAINABLE DEVELOPMENT GOALS

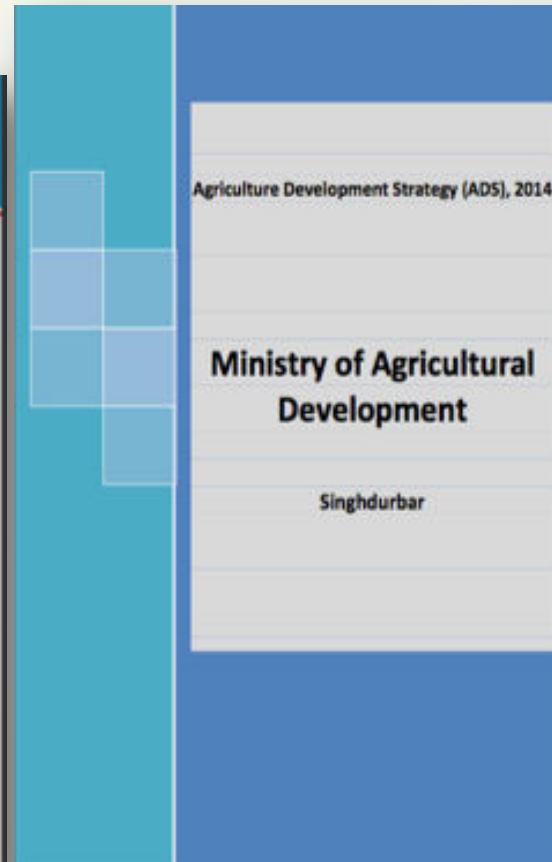
More at sustainabledevelopment.un.org/sdgsproposal



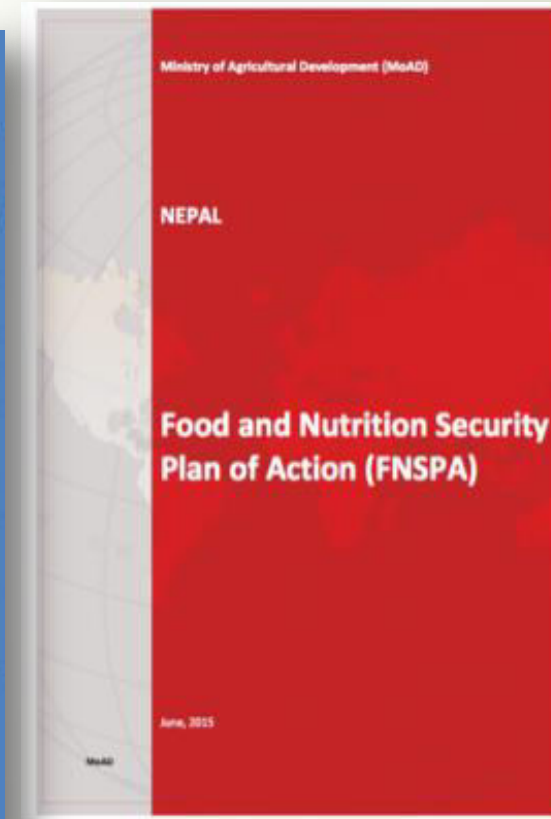
Efforts towards coherent to MSNP



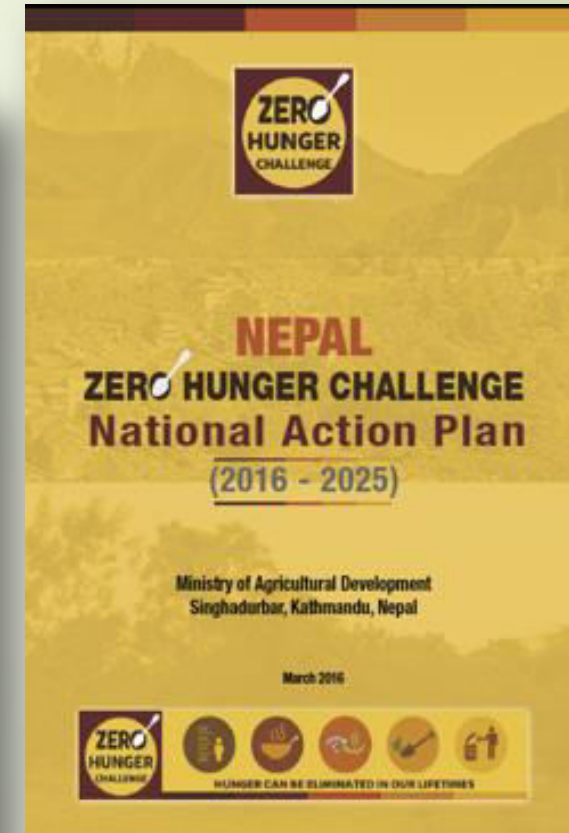
Multi-Sector Nutrition Plan



Agriculture Development Strategy (2015-2035)



Food and Nutrition Security Plan of Action



Zero Hunger Challenge National Action Plan



MSNP targets

Reducing stunting $< 29\%$

Reducing underweight $< 20\%$

Reducing Wasting $< 5\%$

Reducing BMI of women with $< 18.5\text{kg/m}^2$ $< 18\%$



ADS also aims

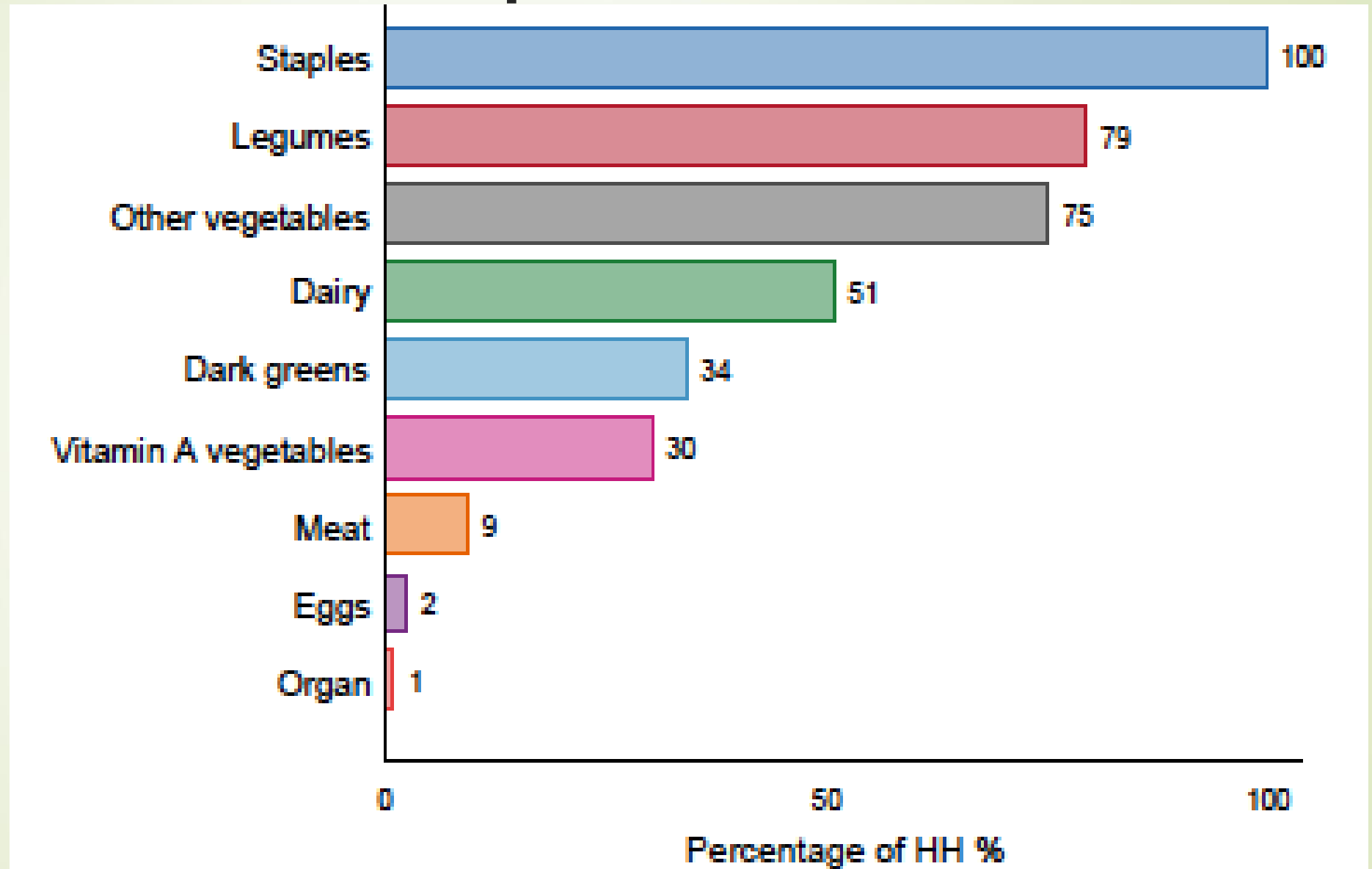
Indicators	Targets (5 years)	Targets (10 years)	Targets(20 years)
Food Poverty	16%	11%	5%
Stunting	29%	20%	8%
Underweight	20%	13%	5%
Wasting	5%	2%	1%
Low BMI	15%	13%	5%



Food and nutrition security plan (FNSP) also complements to the activities envisaged under MSNP , activities covered by FNSP are: human nutrition, field crops, horticulture, livestock, forestry and fisheries



Item of food consumption in women





Food and Nutrition security does not implies only the grain security. It may entails a more diversified agricultural production system, animals and horticultural products too.





Ministry of Livestock Development Implementing several programmes which helps to accelerate maternal and child under – nutrition problems.

- Livestock Extension programme
- Livestock Health Services Programme
- Animal genetic improvement
- National Forage Mission
- Goat and Swine Mission
- Youth targeted livestock Development
- Agriculture and Food security Project
- Kisan ka lagi Unnat Biubijan Karyakram(KUBK)



Women empowerment through livestock development.
Strengthening of private, public and cooperative livestock
farms.

Keeping views of,
for a hungry person, accessing food in the first place is a
priority



Strategic Pillars of MoLD for livestock development to assess safe and nutritious animal source foods are



Livestock
Breeding



Livestock
Feeding



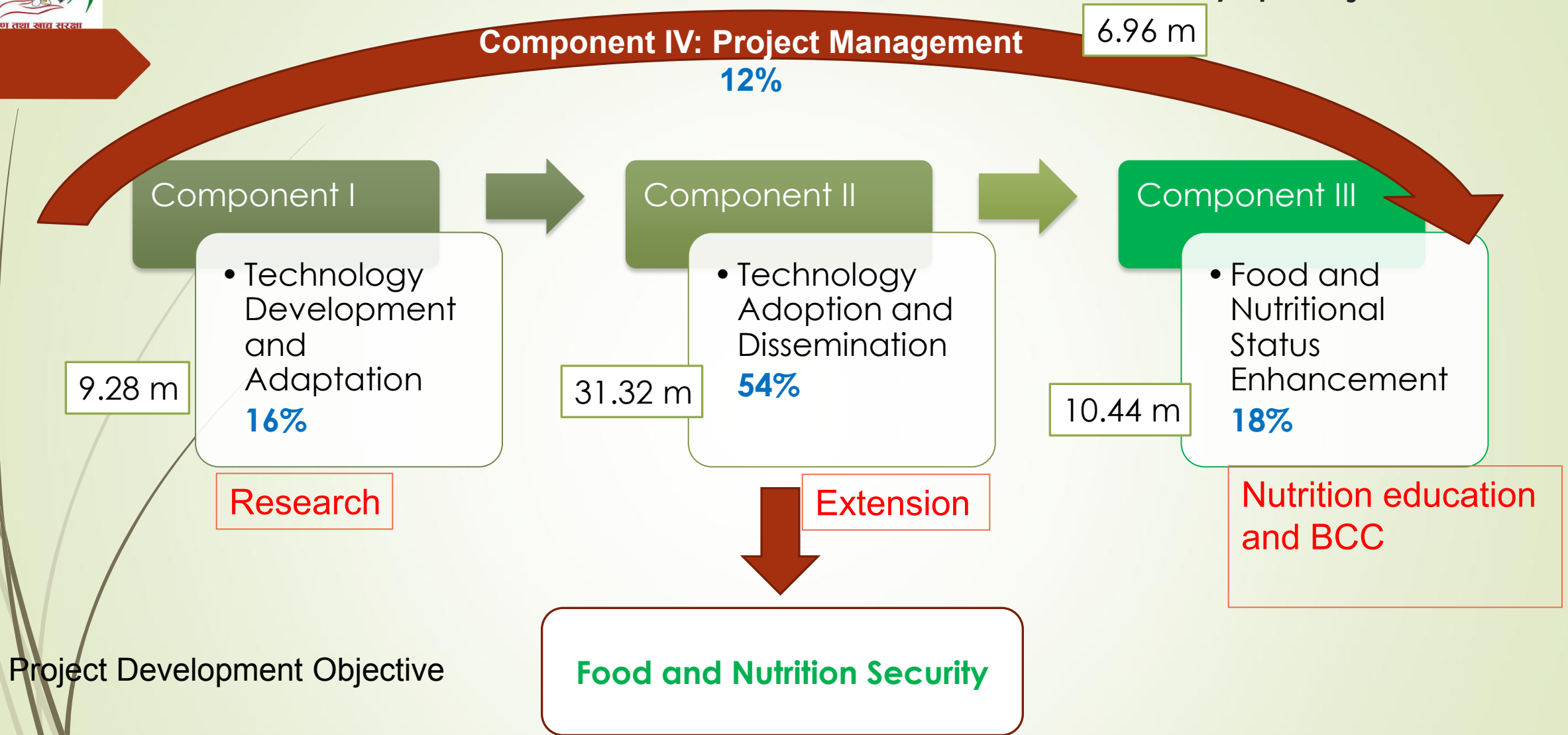
Animal
health &
zoonosis
control



Livestock
Market &
Marketing



Inter-related interventions in food security project



Promoting produces of HNG's +



3/fo;L s'v'/f afv|fkfng



3/af/L kf]if0f au}+rf





Increasing performances are coming through these intervention

Project Indicator	Unit	Baseline	Cumulative Achievement as of Nov 2016	Remarks/Issues	End-of-Project Target
Increased productivity of livestock products:					
Goat meat	Kg /12 month old goat	19.18	25.6 (+32 %)	MLS preliminary estimate, DIME (Sep-Nov, 2016)	35
Eggs	Number per year/hen/year	20	26 (+22 %)	MLS preliminary estimate, DIME (Sep-Nov, 2016)	35.8
Milk (cow & buffalo)	litre/animal/year)	i. Milk- 478.8 ii. Cow-263.4 iii. Buff -640.4	i. 588 (+23 %) ii. 327.5 (+24 %) iii. 751.9 (+32 %)	MLS preliminary estimate, DIME (Sep-Nov, 2016)	BL+75%



Performance contd....

Project Indicator	Unit	Baseline	Cumulative Achievement as of June 2017	Remarks/ Issues	End-of-Project Target
(a) Improved dietary intake for: Pregnant and nursing women					
Animal protein	% over BL	56	66 (+18 %)	MLS preliminary estimate, DIME (Sep-Nov, 2016)	71
Fruits & vegetables		57	72 (+26 %)	MLS preliminary estimate, DIME (Sep-Nov, 2016)	72
(b) Improved dietary intake for Children between 6-24 months	% over BL	42.3	78.34 (+36.34%)	based on MTR report, Feb 2016	72.3



Envisaged Five Pillars National Action Plan of ZHC initiatives.

Pillar- I

- 100% access of food all year round

Pillar-II

- Zero stunted children less than 2 years

Pillar-III

- All food systems are sustainable

Pillar-IV

- 100% increase in smallholder productivity and income

Pillar- V

- Zero loss or waste of food



Thank You



Multi-Sector Nutrition Plan – II 2018 – 2022

Health Sector Result Framework for Nutrition Specific Interventions

Raj Kumar Pokharel

Asadh 2 – 5, 2074

GOAL/IMPACT

Goal/Impact

Results-chain	Results Indicators	Baseline 2016	Target					Means of Verifica tion
			2018	2019	2020	2021	2022	
Improved maternal, adolescents and child nutrition	Prevalence of stunting among under 5 years children reduced	36					28	NDHS
	Prevalence of wasting among under 5 years children reduced	10					7	NDHS
	Prevalence of low birth weight reduced	24	20	17	13	11	10	NDHS MICS

Goal/Impact (contd.)

Results-chain	Results Indicators	Base line 2016	Target					Means of Verification
			2018	2019	2020	2021	2022	
Improved maternal, adolescents and child nutrition	% reduction in children under five with overweight and obesity	2.1	2	1.9	1.7	1.6	1.4	NDHS
	% reduction in WRA overweight and obesity	22	14	13	12	11	18	NDHS
	% of women with chronic energy deficiency (measured as BMI) reduced	17			12		11	NDHS

OUTCOMES

Component 1: Nutrition Specific

Results-chain	Results Indicators	Base line 2016	Target					Means of Verification
			2018	2019	2020	2021	2022	
Outcome 1: Improved the equitable utilization of nutrition specific services.	% of children age 6-23 months using minimum acceptable diet increased	35	40	45	50	55	60	NDHS, MICS
	Increased % of children under 6 months with exclusive breastfeeding	66	65	70	74	77	80	NDHS, MICS
	% of anaemia among children 6-59 months reduced	36	40	37	34	32	28	NDHS, MICS
	Reduced % of adolescent girl (10-19 years) with anemia	39			20		25	NDHS, MICS

Component 1: Nutrition Specific (contd.)

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Outcome 1: Improved the equitable utilization of nutrition specific services.	Reduced % of anaemia among 15 to 49 years female	41					24	NDHS, MICS
	Prevalence of U5 Children with Diarrhoea in last two weeks reduced	14			10		7	NDHS, MICS
	Mean dietary diversity score among WRA (15-49 years)	TBD NDH S 2016					TBD	NDHS, MICS
	% of U5 children recovered from SAM	>75 %	>75	>75	>75	>75	>75	HMIS

OUTPUTS: Nutrition Specific

Outcome 1: Improved the equitable utilization of nutrition specific services.

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 1.1: Enhanced nutrition status of WRA including adolescents	Median age at first birth among WRA (15-49years) increased	17					20	NDHS
	% of institutional delivery increased	57			65		70	NDHS
	% of postnatal check-up for essential new born care/ services within 24 hours of delivery	57					75	NDHS

Outcome 1: Improved the equitable utilization of nutrition specific services (contd.)

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 1.2: Improved infant and young child nutrition and care practices.	% of newborn who initiated breastfeeding within one hour of birth	55					80	NDHS, MICS
	Proportion of infants 6–8 months of age who receive solid, semi-solid or soft foods	73.5					95	NDHS, MICS
	Percentage of children aged 0-59 months, who received as usual and more frequent feeding (breast milk and appropriate food) during episode of diarrhea	29					50	NDHS

Outcome 1: Improved the equitable utilization of nutrition specific services (contd.)

Results-chain	Results Indicators	Baseline 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 1.3: Improved MIYC micronutrient status.	% of children aged 6-59 months who received Vitamin A capsule in last six months increased	86					95	NDHS
	% of children aged 12-59 months who received deworming tablet in last six months increased	83					90	NDHS
	% of pregnant and lactating women who took 180 + IFA tablet increased	42	65				>80	HMIS

Outcome 1: Improved the equitable utilization of nutrition specific services (contd.)

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 1.3: Improved MIYC micronutrient status.	% of pregnant women who received deworming tablet	55					80	HMIS, Survey
	% of school age children who received deworming tablet increased	65					80	District Reports
	% of households with adequately iodized salt increased	95					>95	NDHS

Outcome 1: Improved the equitable utilization of nutrition specific services (contd.)

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 1.3: Improved MIYC micronutrient status	% of adolescent girls (10-19 years) who received weekly IFA tablet supplements increased	5					50	NDHS
	% of children aged 6-23 months who received micronutrient powder (MNP)	5					20	NDHS
	% of children who received ORS and Zinc during diarrhoea increased	18					50	HMIS

Outcome 1: Improved the equitable utilization of nutrition specific services (contd.)

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 1.4 Improved management of severe and moderate acute malnutrition	No. of local government bodies with IMAM program increased	35					520	NDHS
	Percentage of children aged 6-59 months identified as SAM against total estimation of SAM	NA					>90	NDHS
	% of children aged 6-59 months with acute malnutrition treated among the identified cases	70					90	HMIS
	No. of local government bodies with IMNCI program implemented	55					744	NDHS, MICS

Outcome 1: Improved the equitable utilization of nutrition specific services (contd.)

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 1.5: Enhanced preparedness for nutrition in emergency response	No. of local bodies with nutrition emergency preparedness and response/contingency plan	50					500	Contingency plan/ Preparedness plan

Outcome 1: Improved the equitable utilization of nutrition specific services (contd.)

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 1.6: Built capacity of nutrition specific sectors	No. of capacity development measures recommended in the capacity development plan implemented by nutrition specific sector	NA					>90	HMIS

Outcome 2: Improved practices that promote nutrition sensitive services

Results-chain	Results Indicators	Base line 2016	Targets					Means of Verification
			2018	2019	2020	2021	2022	
Output 2.13 Enhanced access to health and reproductive health services (Health and Family Planning Services)	Proportion of women (15-49 years) using any contraceptives methods	53					60	NDHS
	% of children who received complete immunization within one year	78					≥ 90	NDHS, NMICS

Summary of Goal/Impact, Outcome and Output

Goal/Impact	Outcome	Output
Improved maternal, adolescents and child nutrition	1: Improved equitable access and utilization of nutrition specific services	1.1: Enhanced nutrition status of WRA including adolescents 1.2: Improved infant and young child nutrition and care practices.
	2: Improved practices that promote nutrition sensitive services	1.3: Improved MIYC micronutrient status. 1.4 Improved management of severe and moderate acute malnutrition
	3: Policies, plans and multi-sectoral coordination improved at federal, provincial and local government levels	1.5: Enhanced preparedness for nutrition in emergency response 1.6: Built capacity of nutrition specific sectors 2.13 Enhanced access to health and reproductive health services 3.5 Enhanced capacity of federal, province and local level government to plan and implement nutrition program

Sub – Outputs

Outputs	Activities
Output 1.1: Enhanced nutrition status of WRA including adolescents	5 Activities
Output 1.2: Improved maternal, infant and young child nutrition and care practices	6 Activities
Output 1.3: Improved MIYC micronutrient status	9 Activities
Output 1.4: Improved management of severe and moderate acute malnutrition	6 Activities
Output 1.5: Enhanced preparedness for nutrition in emergency response	2 Activities
Output 1.6: Built capacity of nutrition specific sector	4 Activities
Output 2.13: Promote access to health and reproductive health services.	4 Activities
Other Nutrition – Sensitive Outputs to be contributed by health sectors	20 Activities
Total Activities do be accomplished by Health Sector	56 Activities

Thanks





Nutrition Policies, Ongoing Nutrition Programs and Projects

Raj Kumar Pokharel
Chief, Nutrition Section
Child Health Division/DOHS/MOH



Major Milestones in Nutrition in Nepal

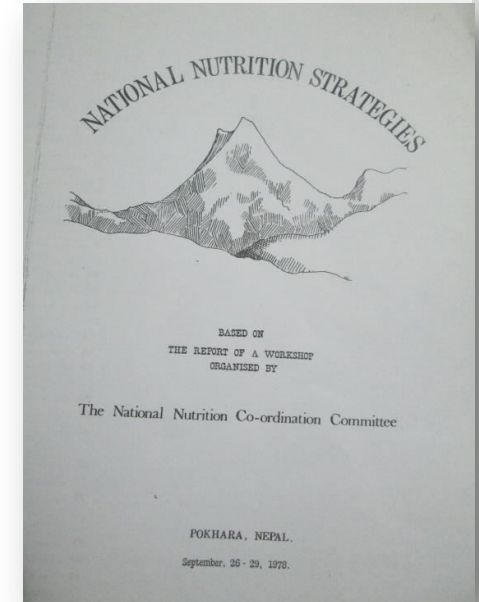
1. Nationwide survey for goiter, 1965-67
 - Total goiter rate- 55%
 - Alarmingly high rate of cretinism
2. First documented dietary survey, 1968
3. Universal salt iodization, 1972
4. Goiter control project, 1973 (bilateral support from India government)
 - First project in nutrition (under STC)
5. National nutrition survey, 1975
 - 52% stunting (6-71 months of age)
6. Goiter and cretinism eradication project, 1978
 - Under the control of MoH
 - Operated within Expanded Immunization program
 - Mass iodized oil injections
7. Legislation enacted making it mandatory to have only iodized salt made available in the country

Major Milestones in Nutrition in Nepal

8. A high level National nutrition coordination committee, 1977 (under the NPC)

9. National nutrition strategies, 1978

- Also known as Pokhara Declaration – I
- Outlined a strategy to address malnutrition through a multi-sectoral approach that involved agriculture, health, education and Panchayat
- Formation of nutrition focal points in 4 ministries viz. Health, Agriculture, Education and Panchayat
- Establishment of Nutrition section under Department of Health Services in the MOH (1978)



Major Milestones in Nutrition in Nepal

5th five year plan (1975-80)

- First time included nutrition in a plan document
- Alma Ata conference on PHC, 1978; nutrition as one element

6th five year plan (1980-85)

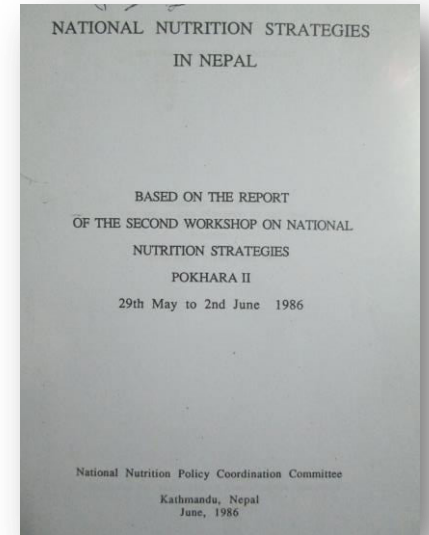
- Explicitly mentioned as "To raise the nutrition status, a multi-sectoral program will be launched to boost production of nutritious foods, which will be processed and distributed with particular stress on their proper utilization"
- Focus was mainly on the curative aspect of the problem of malnutrition in mothers and children

Major Milestones in Nutrition in Nepal

- Iron-folate supplementation dates back to early 80s
- Growth monitoring started (early 80s)
 - Remained the major nutrition activity at health centers for many years

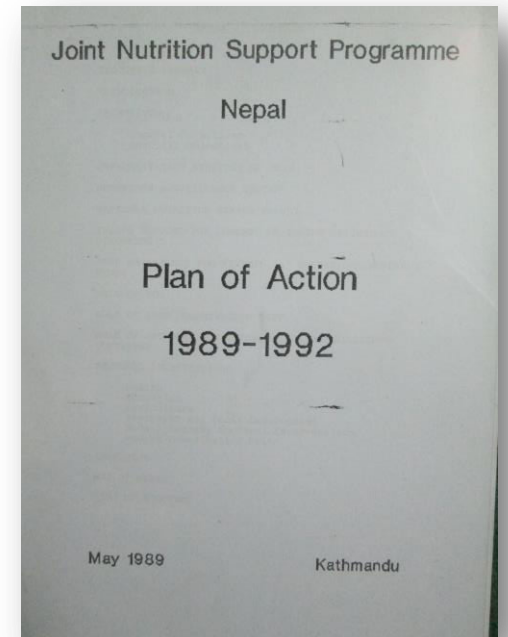
Pokhara Declaration – II

- Strategies were revised again in 1986 (Pokhara II) and nutrition was added to all subsequent five-year health plans



Major Milestones in Nutrition in Nepal

- **First multi-sectoral nutrition Project, the Joint Nutrition Support Program (JNSP), 1989-92**
- **Put into function to implement the major activities of the 4 ministries**



Major Milestones in Nutrition in Nepal

National Health Policy, 1991

- Reorganized the organogram of MoHP
- Nutrition section was put under the Child Health Division
- Breast Milk Substitute Act was approved, 1992
- Vitamin A supplementation program started in 1993
 - One of the successful program globally
 - Consistent high coverage across sex, region, ethnicity
- Nepal Micronutrient Status Survey, 1998

Major Milestones in Nutrition in Nepal

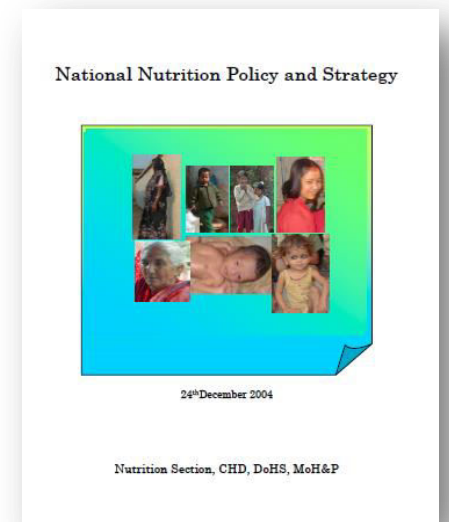
National Plan of Action, 1998 (NPC)

- Remained a paper document
- Little commitment from the government or from development partners

- Deworming in 2000
- Intensification of Maternal and Neonatal Micronutrient program, 2003
 - Currently in 75 districts
 - Distributed through FCVHs-resulted it into increase coverage and compliance

National Nutrition Policy and Strategy 2004

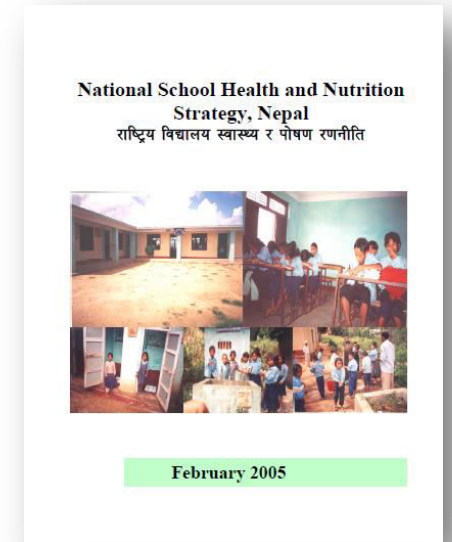
- Guiding document for nutrition program for health sector



Major Milestones in Nutrition in Nepal

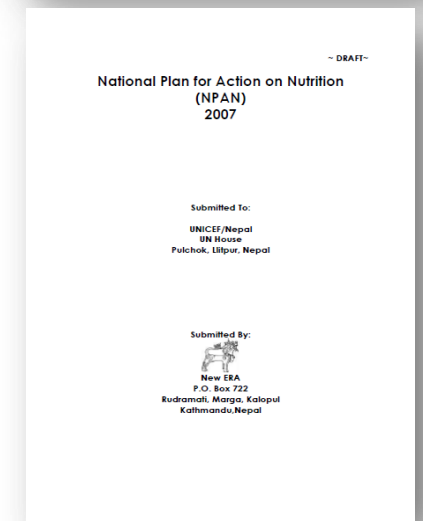
National School Health and Nutrition Strategy, 2006

- Involvement of MoHP and MoE
- Good example of coordination between sectors



National Plan of Action on Nutrition (NPAN), 2007

- Developed under National Planning Commission
- Remained as draft



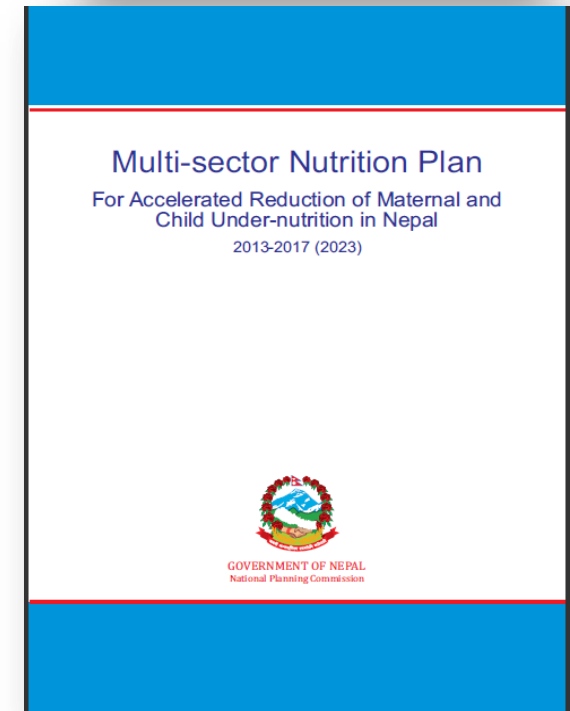
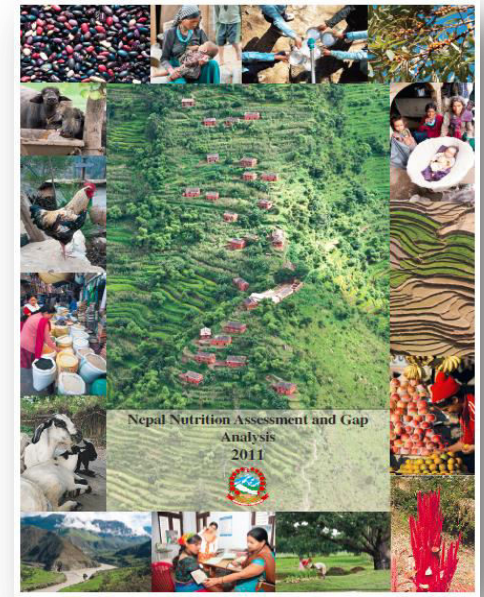
Major Milestones in Nutrition in Nepal

Nutrition Assessment and Gap Analysis, 2009

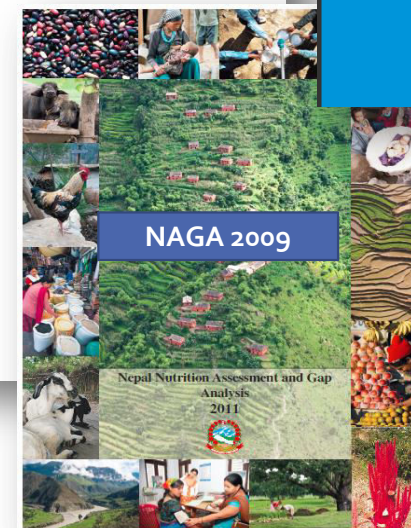
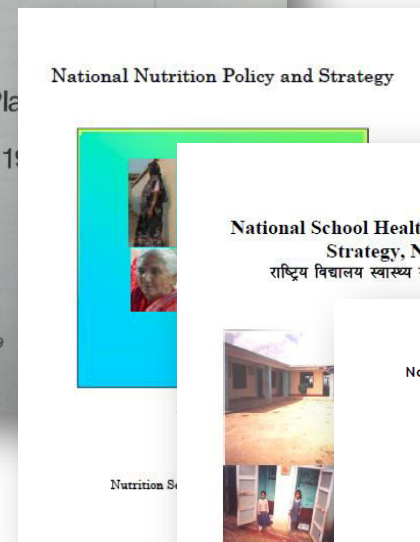
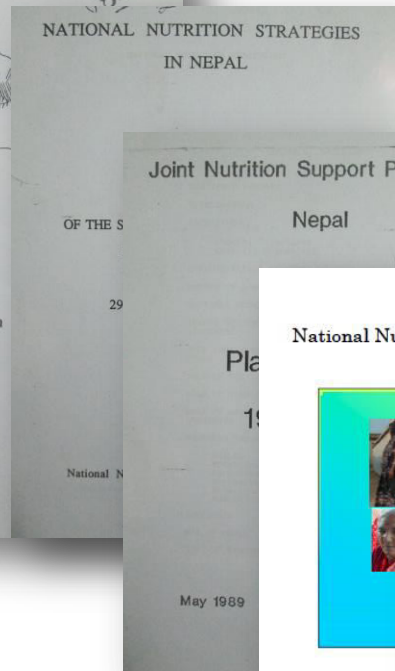
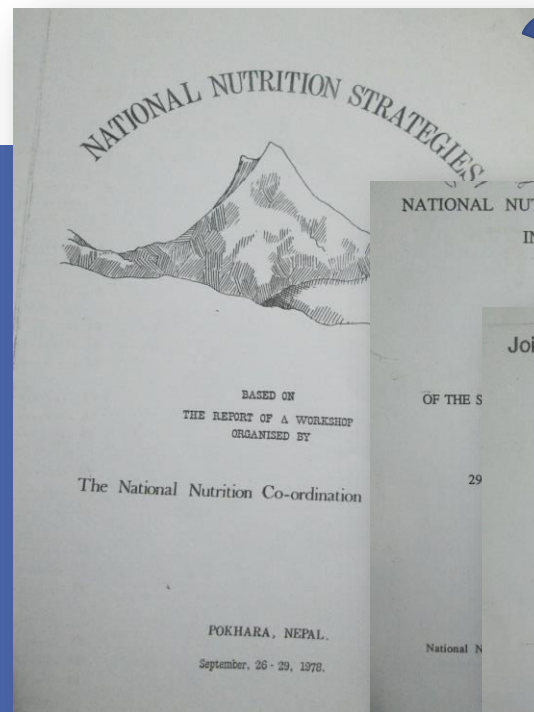
- Need of multi-sectoral approach
- Need of a nutrition architecture
- Identify information and HR gaps

Multi-sector Nutrition Plan, 2013-17

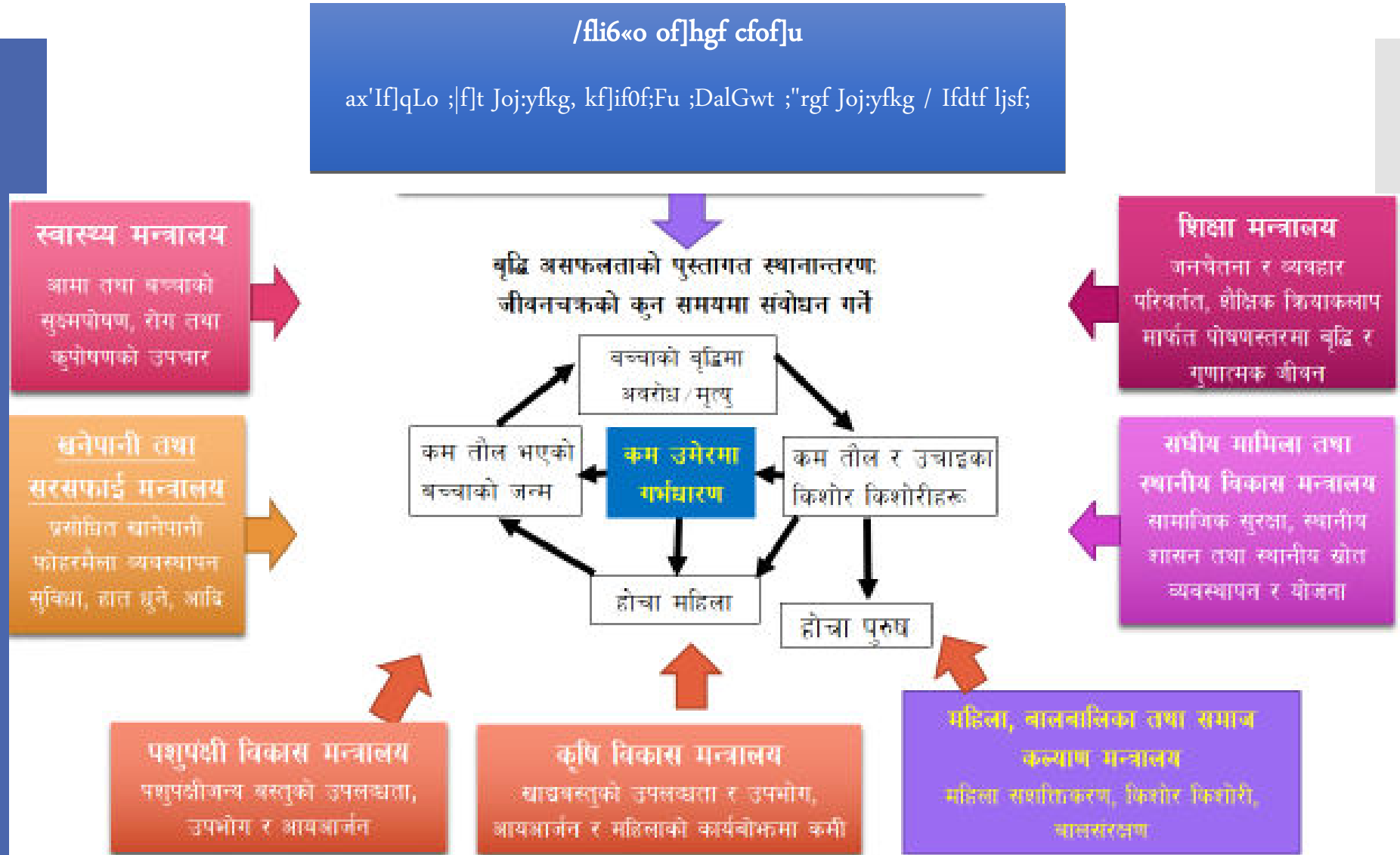
- Commitment from government and donor agencies
- Involvement of 7 different ministries



Back to Multi-sector Approach Again



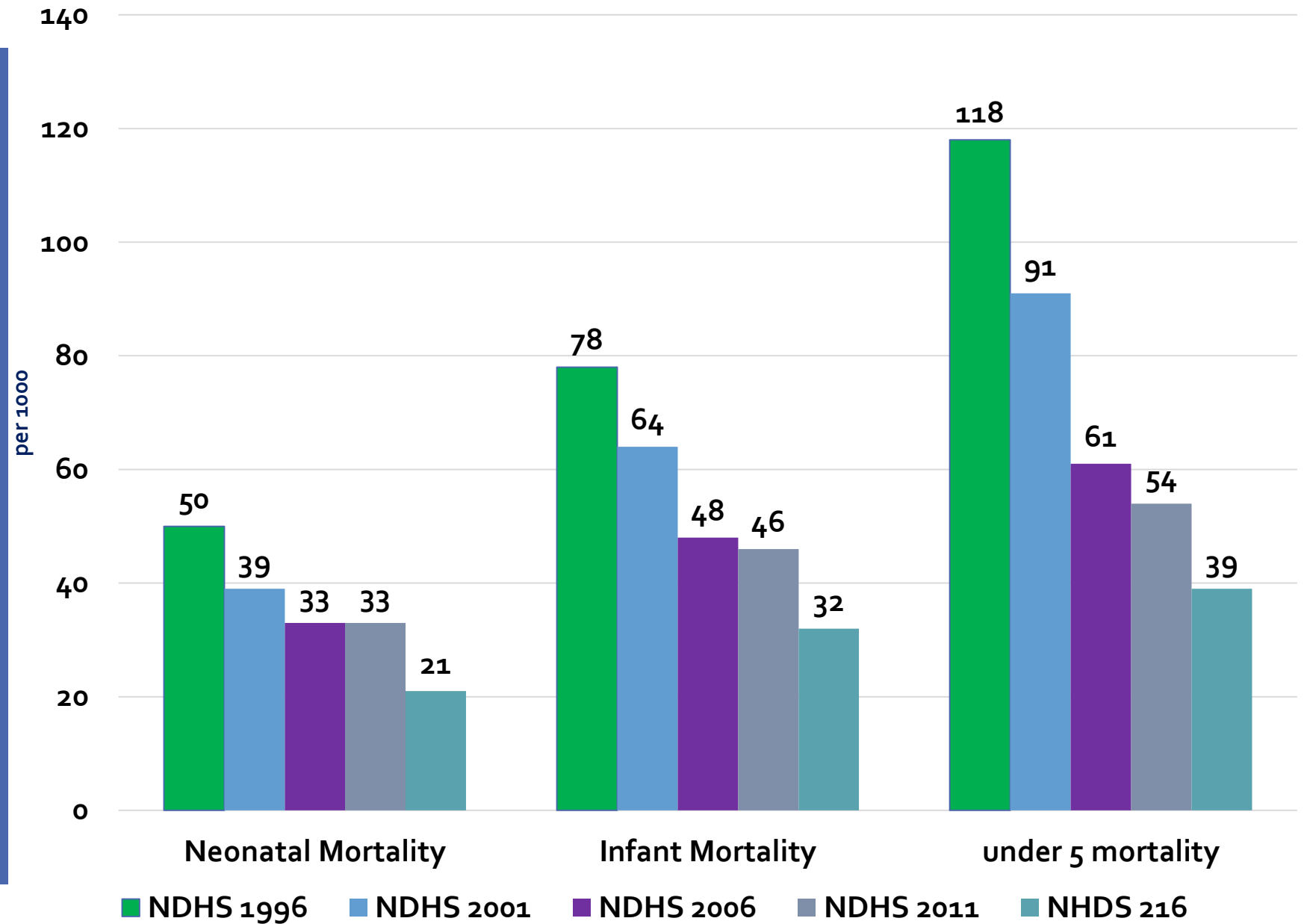
Multi-Sector Nutrition Plan Framework





Status of Maternal and Child Malnutrition in Nepal

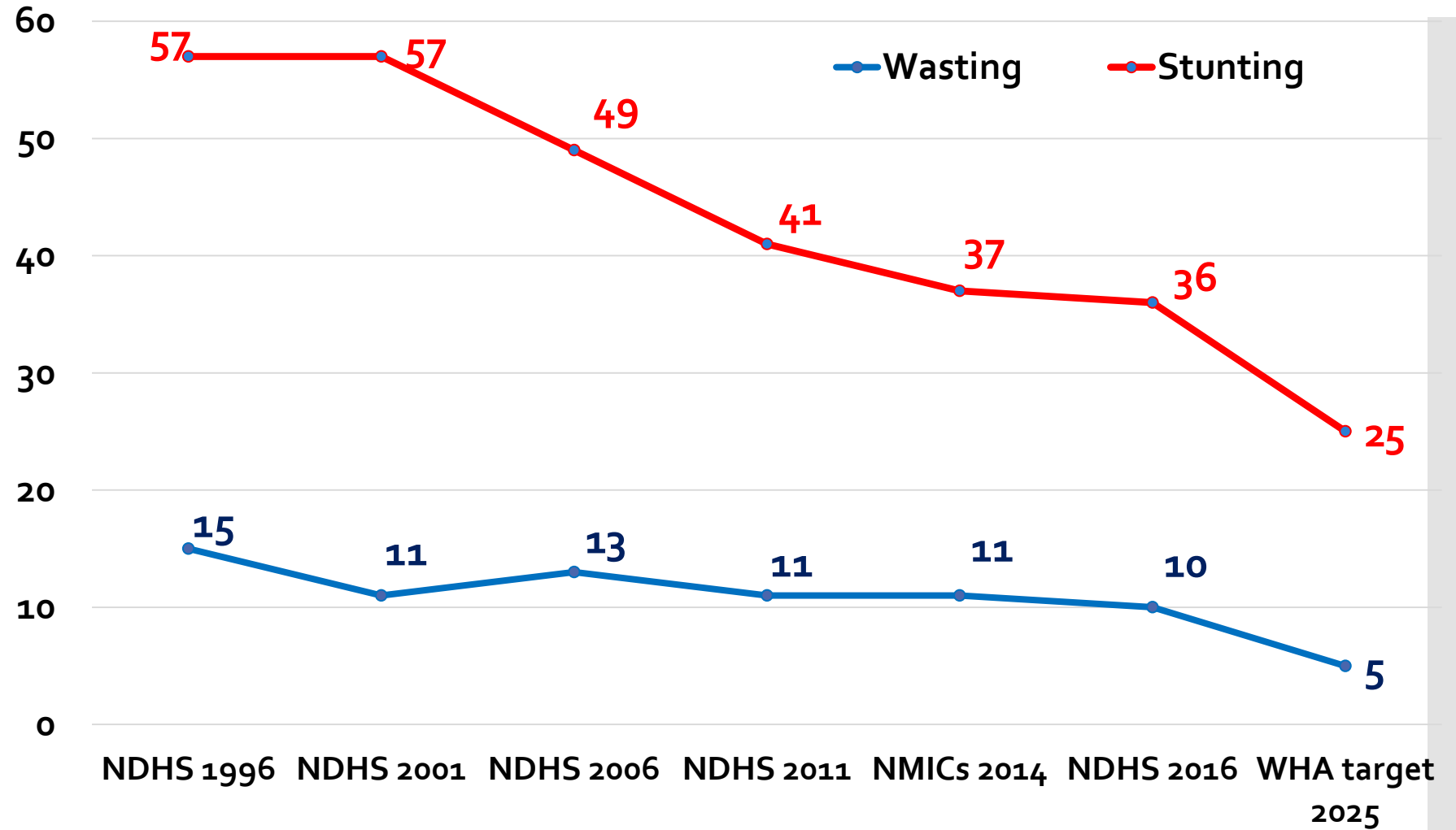
Child Mortality



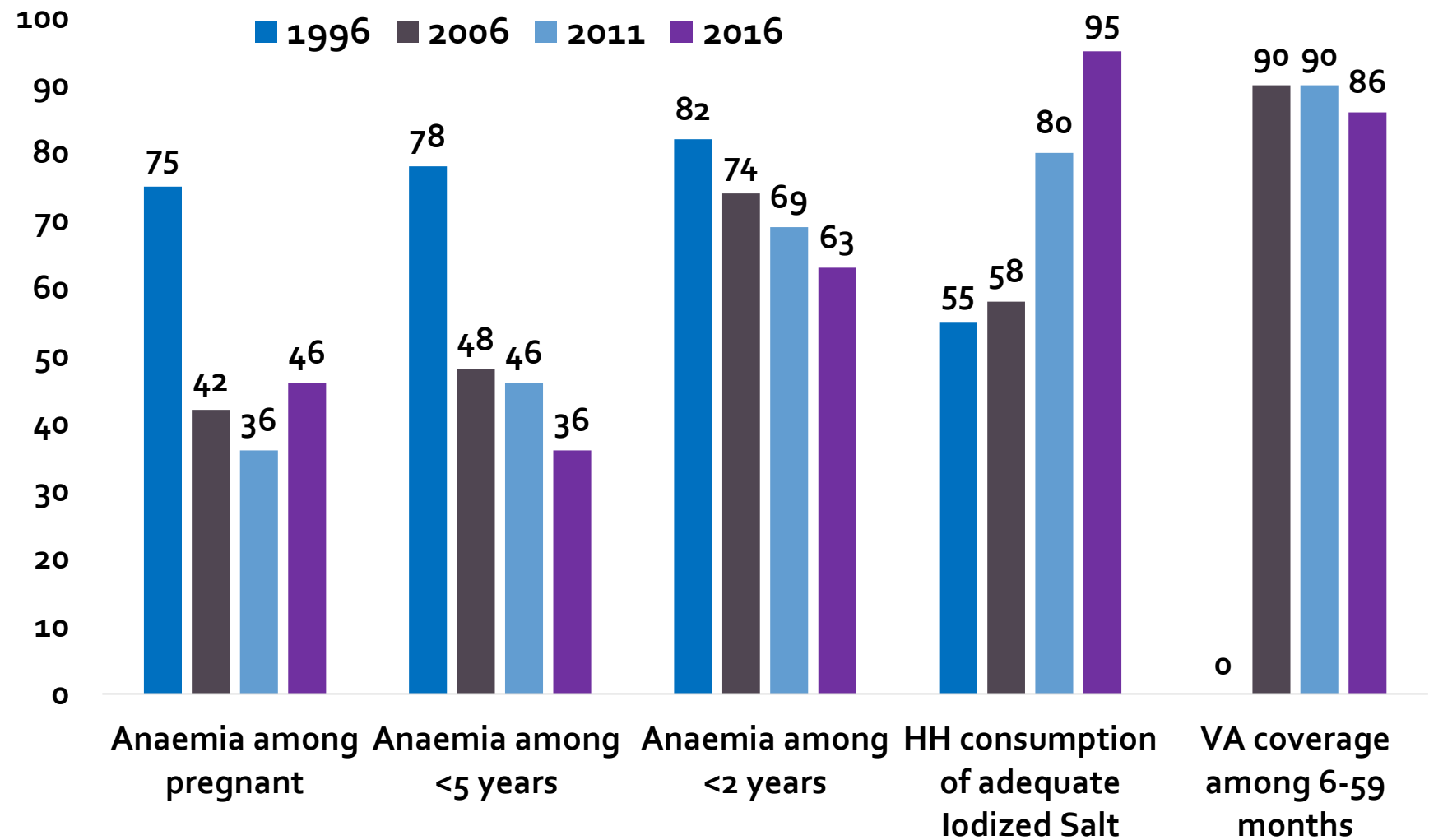
Nepal's Status and WHA Global Nutrition/SDGs Targets

SN	World Health Assembly (WHA) 2025 Global Targets	Nepal's Current Status	WHA Target	SDGs Target
1	Achieve a 40% reduction in the number of children under - 5 who are stunted	35.8% (NDHS 2016)	25%	<10%
3	Achieve a 30% reduction in low birth weight	24.2 % (MICS 2014)	8%	<5%
4	Ensure that there is no increase in childhood overweight	1.2 % (NDHS 2016)	≤1.4%	<1%
5	Increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%	66.1 % (NDHS 2016)	>50%	>90%
6	Reduce and maintain childhood wasting to less than 5%	9.8% (NDHS 2016)	5%	<5%

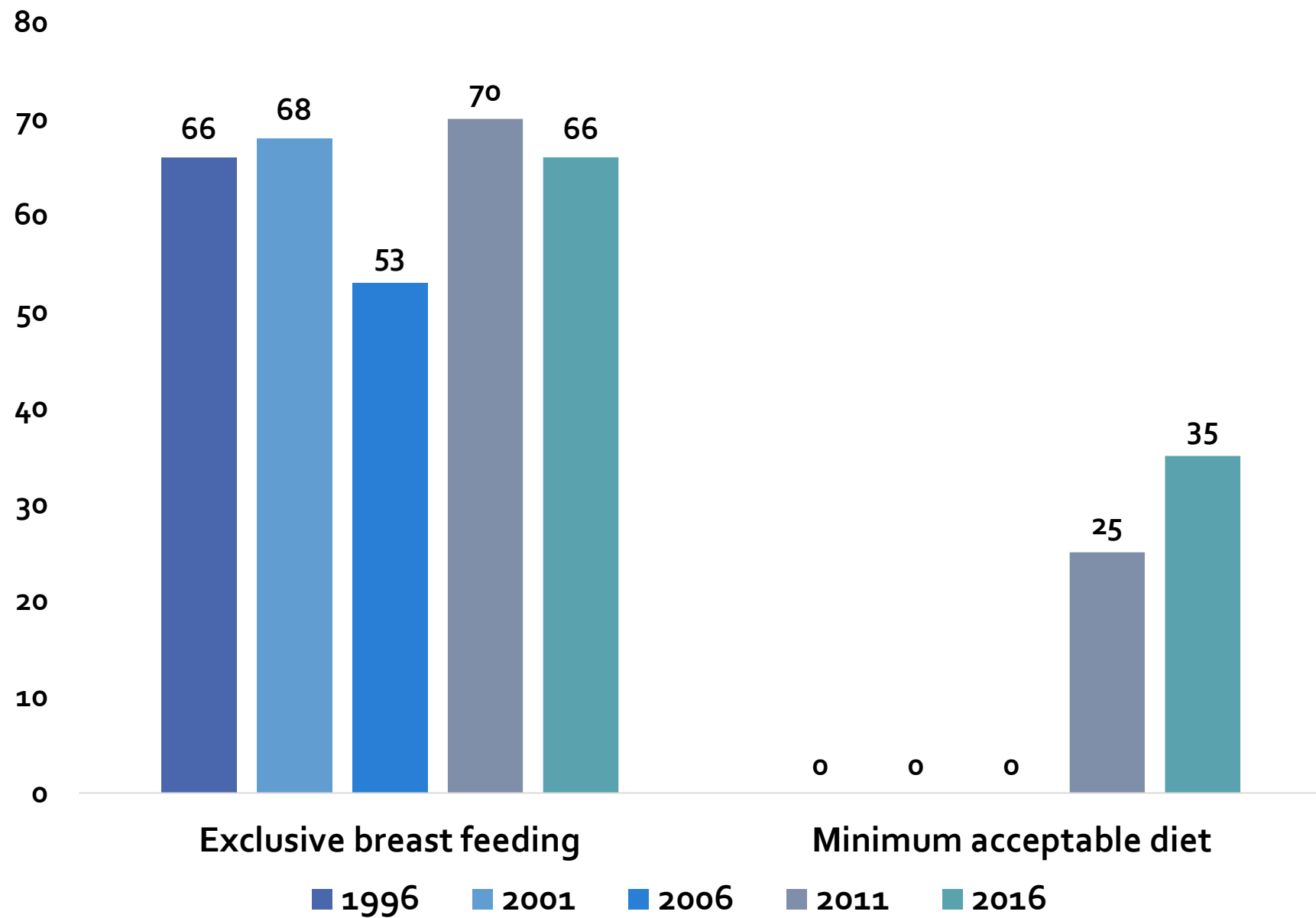
Child Nutrition Trends



Trend of Micronutrients Deficiencies

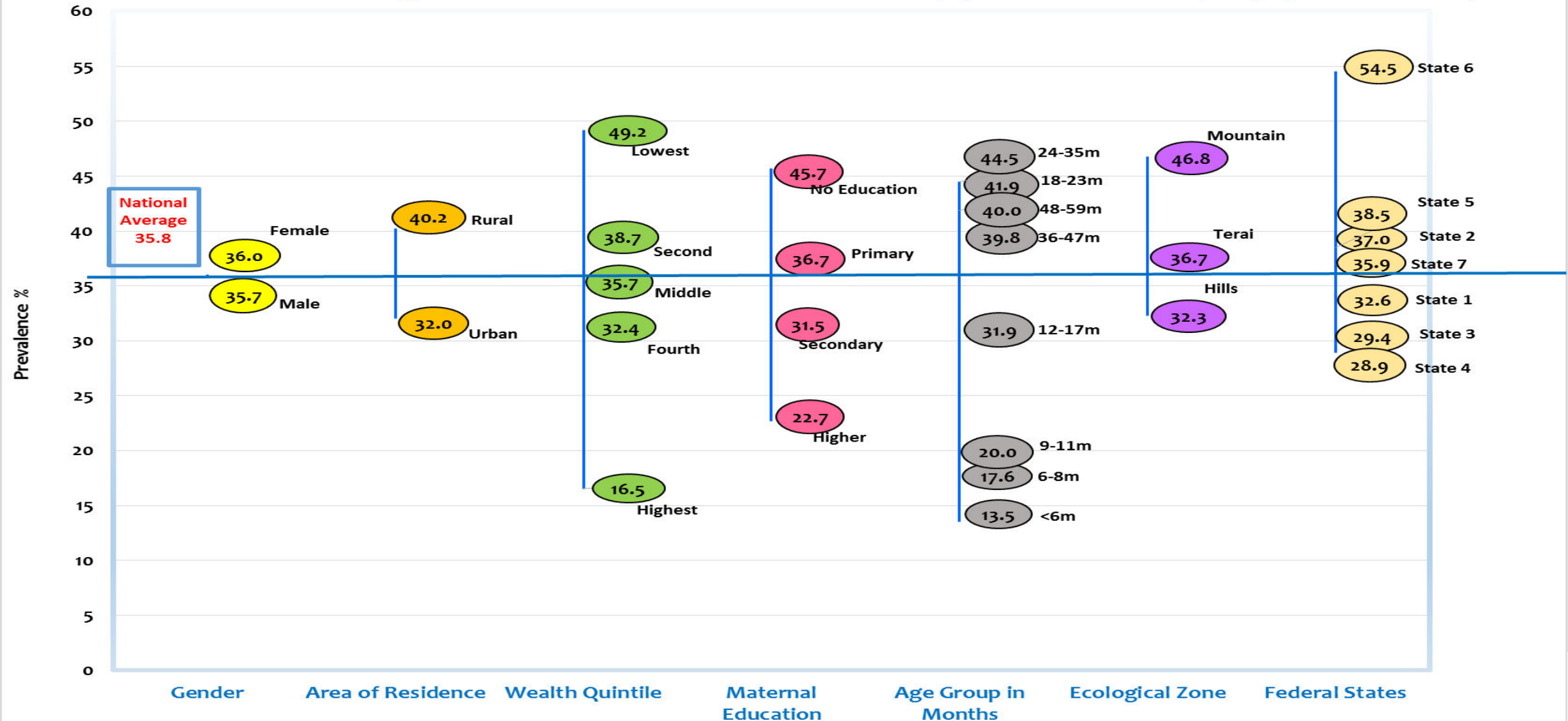


Situation of IYCF Practices



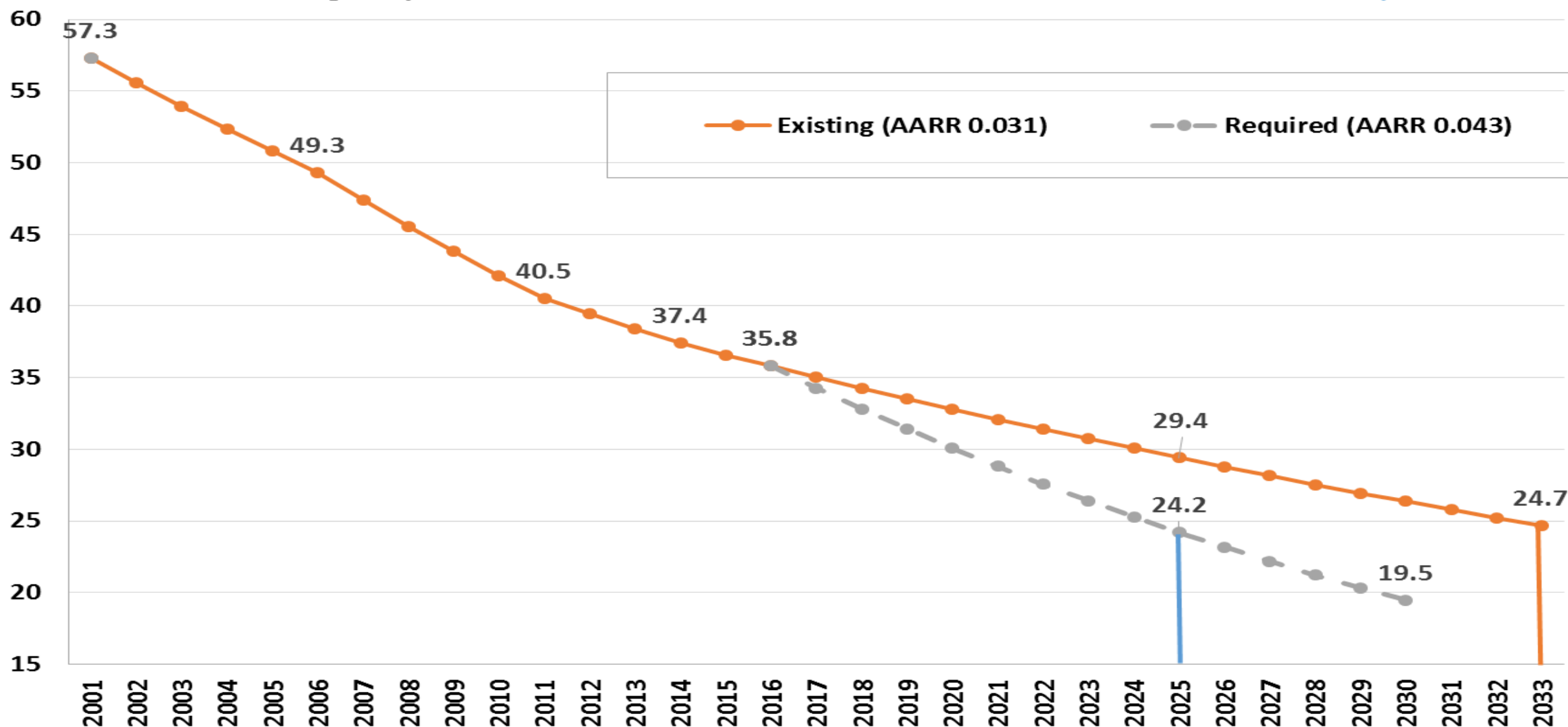
Nutrition Equity Analysis - Stunting

Stunting Prevalence for Children under 5 years and Inequity (NDHS 2016)



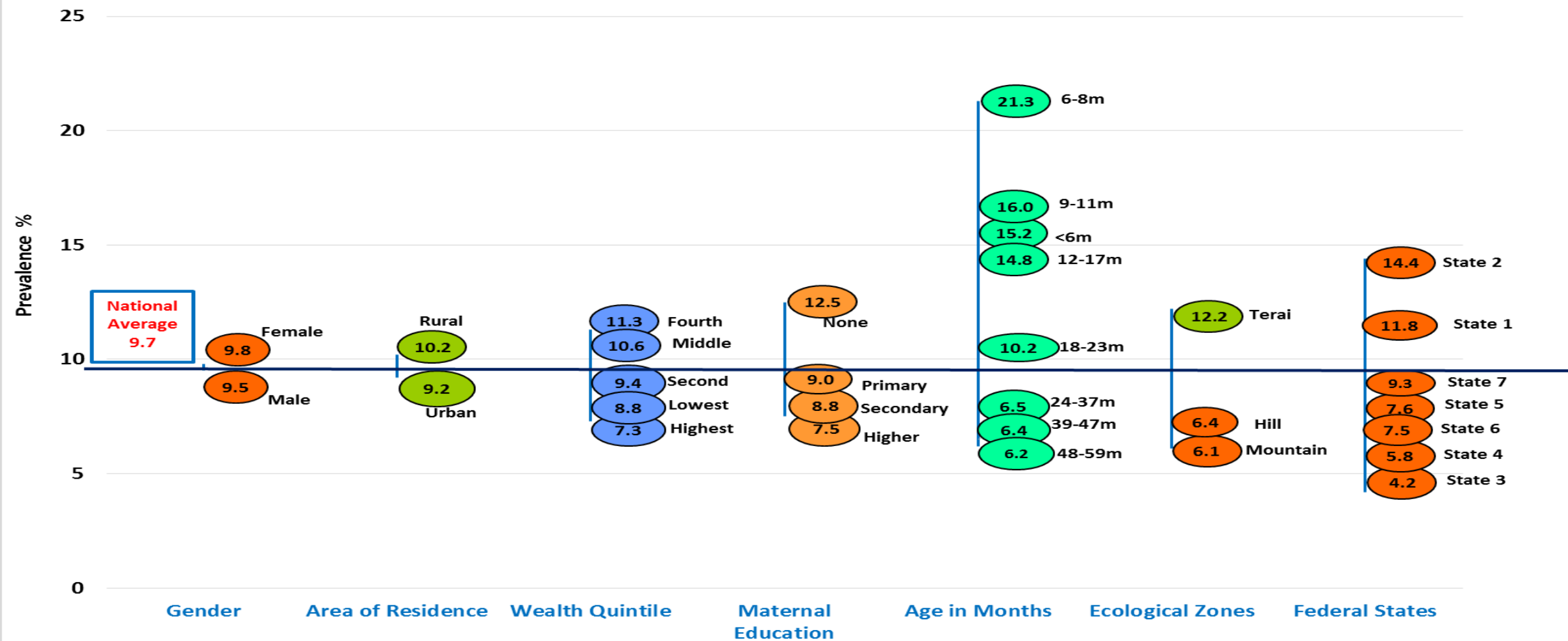
Stunting Trends against WHA: Existing and Required

Global targets by 2025: 40% reduction in the number of children under 5 who are stunted: **Nepal 24.2%**



Nutrition Equity Analysis - Wasting

Wasting Prevalence of Children under 5 years and Inequity (NDHS 2016)



Institutional Framework

- i. Ministry of Health**
- ii. Department of Health Services**
- iii. Child Health Division/Nutrition Section**
- iv. Regional Health Directorates – Now 7 Provinces**
- v. District Public/Health Offices**
- vi. Primary Health Centers**
- vii. Health Posts**
- viii. Female Community Health Volunteers**
- ix. Health Mothers' Groups**

National Nutrition Specific Programme

Nationwide

1. Maternal Infant and Young Child Nutrition (MIYCN)
2. Growth Monitoring and counseling
3. Prevention and control of Iron Deficiency Anemia (IDA)
4. Prevention, Control and Treatment of Vitamin A deficiency (VAD)
5. Prevention of Iodine Deficiency Disorders (IDD)
6. Control of Parasitic Infestation by deworming
7. Flour fortification via large roller mills
8. Emergency Nutrition Program – 14 districts during EQs

At scale up

1. Integrated Management of Acute Malnutrition (IMAM) – 32 districts
2. Micronutrient Powder (MNP) distribution linked with IYCF – 15 districts
3. School Health and Nutrition Program
4. Adolescent Girls Iron Folic Acid Supplementation Program – 10 districts
5. Multi-sectoral Nutrition Plan (MSNP)–(28 Districts)

At small scale: 1. Maternal and Child Health Nutrition (MCHN) Program–6 districts

2. IYCF Linked with Child Cash Grant (5 Districts of Karnali)

National Nutrition Policy

Overall objective

To reduce child and maternal mortality through nutritional interventions

Objectives

- To reduce chronic as well as acute malnutrition among women and children i.e. stunting, underweight, wasting, low BMI
- To reduce iron deficiency anemia among children, adolescent girls, women and children.
- To prevent and control iodine deficiency disorder (IDD) and vitamin A deficiency disorder (VAD) especially among women and children
- To improve maternal nutrition
- To align the health sector programs on nutrition with Multi-sectoral Nutrition Initiative

National Nutrition Policy

- To improve nutrition related behavior through nutrition education, counseling and communication
- To improve the dietary and care practices for improved nutrition in women and children through the promotion of locally available foods
- To improve monitoring and evaluation system and encourage evidence based planning for nutrition related programs/activities
- To improve health and overall nutritional status of school children through the implementation of School Health and Nutrition Program
- To reduce the critical risk of malnutrition in life during exceptionally difficult circumstances

National Nutrition Strategy

- Protect, promote and support optimal feeding practice of children through expansion and strengthening of infant and young child feeding program, effective implementation of Breast-milk Substitute Act and promotion of growth monitoring
- Iron and folic acid tablet supplementation to pregnant and lactating women, adolescent girls, postpartum vitamin A supplementation
- Semi-annual mass supplementation of Vitamin A to children 6 months to 5 years and treatment of children with severe vitamin A deficiency
- Multiple micronutrient powder distribution to children 6 months to 5 years of age
- Deworming tablets distribution to pre-school and school children
- Flour fortification to prevent and control iron deficiency anemia
- Increase accessibility for consumption of adequately iodized salt through social marketing of 2 child logo packed salt

National Nutrition Strategy

- Expansion of the school health and nutrition activities in all districts
- Behavior change communication for changing dietary practices for improved maternal and child nutrition practices
- Expansion and strengthening of integrated management of acute malnutrition through both community as well as facility based approaches
- Adopt multi-sectoral approach to address the problem of under-nutrition in women and children
- Develop understanding and effective co-ordination between various concerned sections, divisions and centres for integration of nutrition in key health programs including community based approaches

National Nutrition Strategy

- Advocate for strengthening and integration of nutrition across key non-health sectors (agriculture, Education, Local Development, water, sanitation and hygiene) in line with the multi-sectoral nutrition plan
- Promote, facilitate and utilize community participation and involvement for all nutrition activities
- Advocate about the nutrition as a development agenda across all concerned sectors and conduct social mobilisation campaign
- Develop a systematic approach for monitoring and evaluation of all nutrition program activities and promote research for evidenced based planning
- Celebrate different events related to nutrition program like School Health and Nutrition Week (Jestha 1 to 7), breast feeding week (August 1-7), Iodine month (February) to raise awareness about the importance of Nutrition

Nutrition in Health Policy 2071

- **Problem and challenges**
 - Under-nutrition in half of the under 5 year children and WRA is a challenge for the nation despite its concerted efforts
 - Increasing obesity in the urban area
- **Policy**
 - Malnutrition will be reduced by promotion for use of quality and healthy diet and ensuring food security

Health policy 2071

Strategies

- Community based nutrition education for special emphasis on promotion, production and use of locally available foods
- High priority to implement updated MSNP related programs and interventions
- Regular coordination with MoAD for enhancing food sovereignty considering the direct linkage between food security and nutrition
- Promotion of home nutrition garden under community health program and strategies to daily intake of 400 gm of green vegetables and fruits

Health policy 2071

Strategies

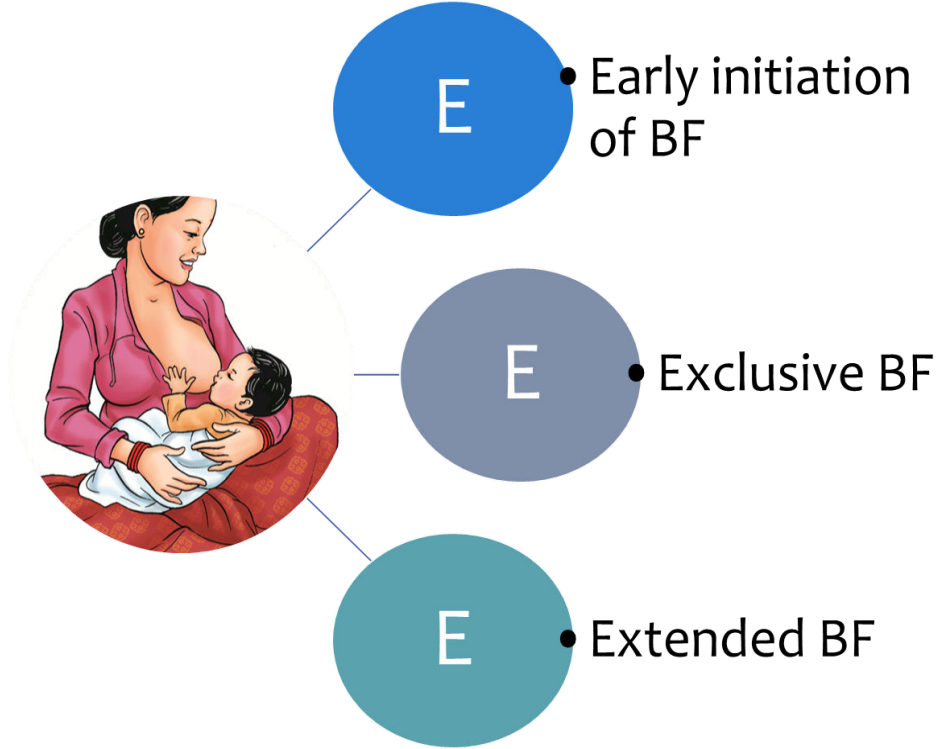
- Discouragement for the use of junk, processed foods, alcohol and beverages and monitor the quality of food at hotel and restaurants through sanctioning a post of public health inspector
- Strategic collaboration with concerned stakeholders for discouraging the use of hazards and chemicals used in agriculture and livestock and which are detrimental for human health
- Reduce the burden of food/diet borne non-communicable diseases and obesity

1. Maternal, Infant and Young Child Nutrition (MIYCN)

1. Basic package training to all HWs and FCHVs
2. Refresher Package
3. Supported by UNICEF, SUAAHARA-II, AFSP, SABAL etc.



IYCF practices: Breastfeeding and Complementary feeding



**Appropriate IYCF
Practices: 24% (NDHS 2011)**



Age specific

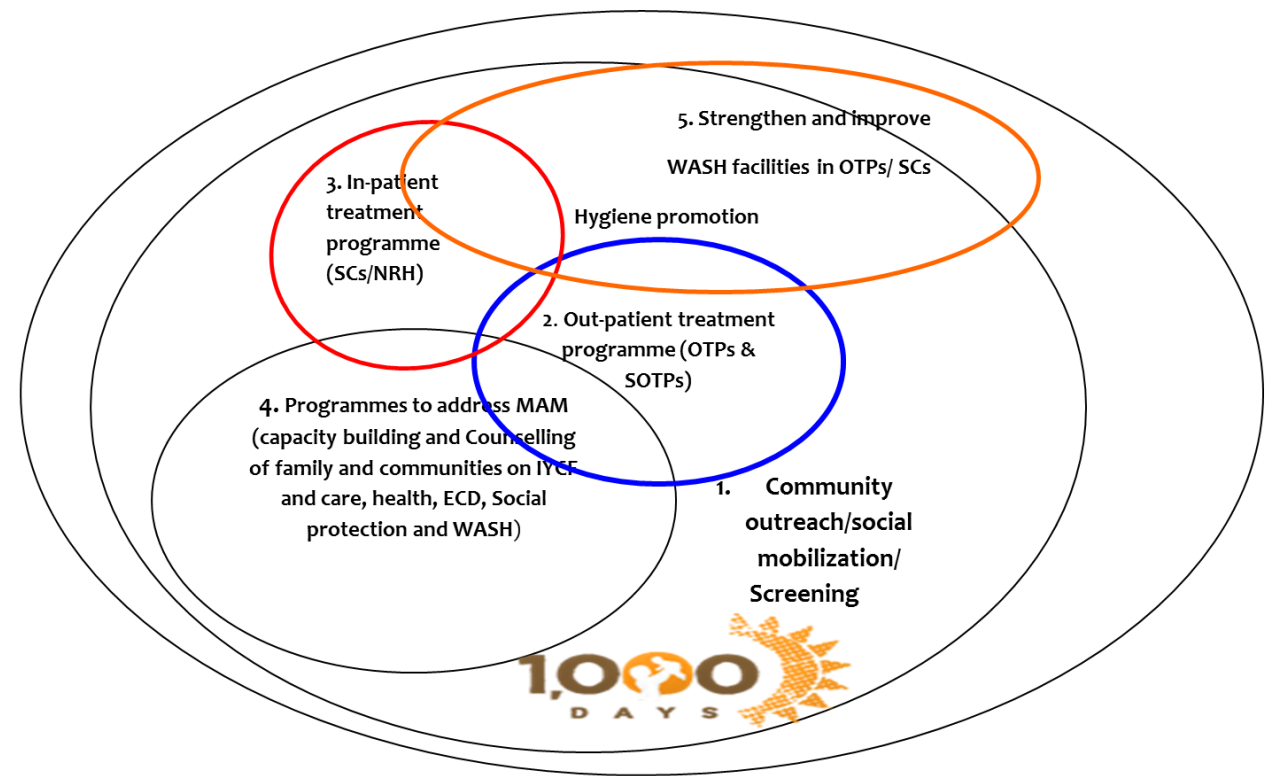
F = Frequency
A = Amount
T = Texture
V = Variety
A = Active feeding
H = Hygiene

2. Integrated Management of Acute Malnutrition (IMAM)

programme

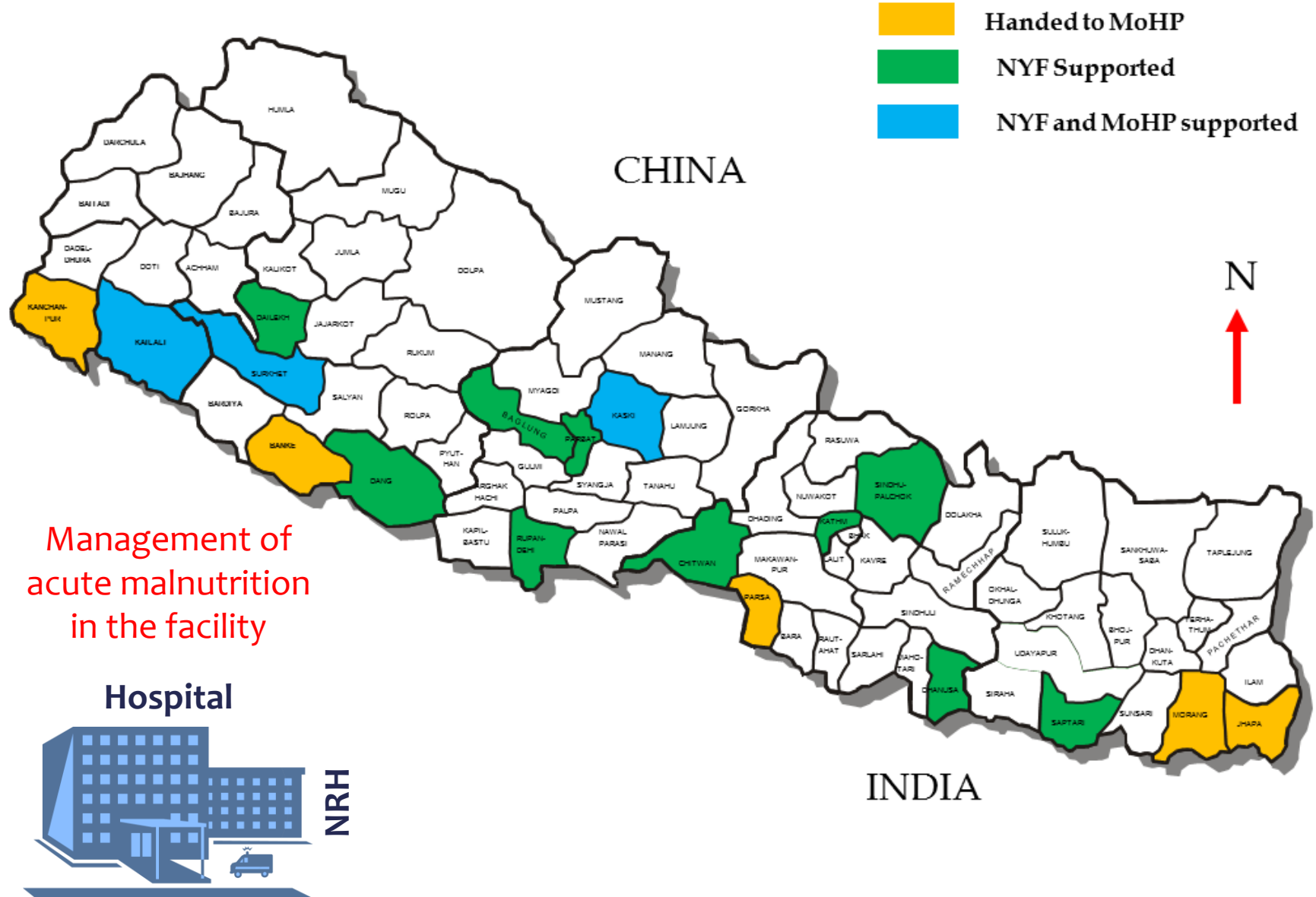
Previously known as Community based Management of Acute Malnutrition (CMAM) Programme

IMAM manages acute malnutrition in children age 6-59 months through inpatient and outpatient services at the community level.



IMAM Program began in 2007/8 and in 2016 the program covered 32 districts.

Nutrition Rehabilitation Homes (NRHs) (18 Hospitals)

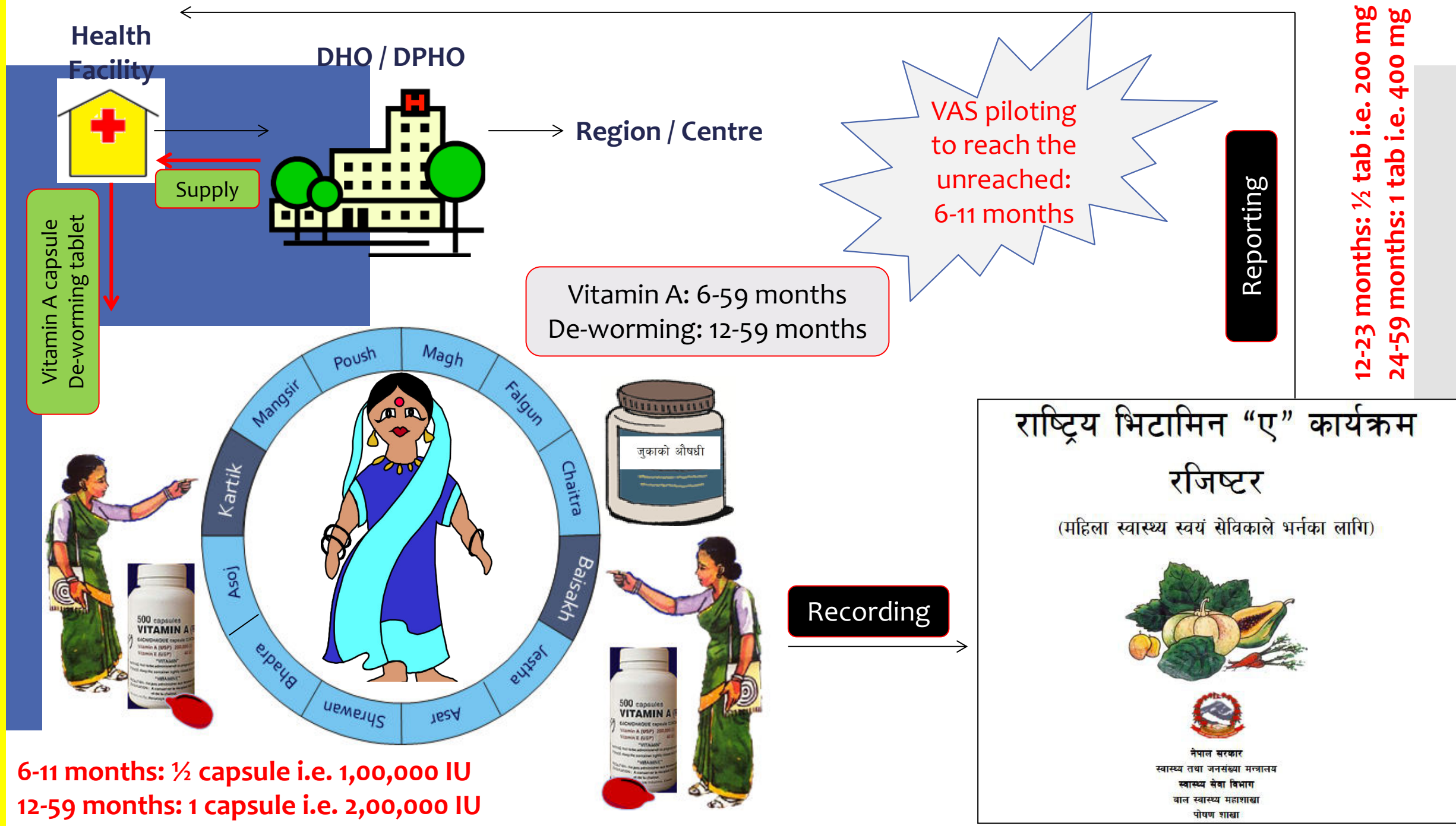


3. Micronutrient deficiencies control programmes

1. National Vitamin A Programme
2. Intensification of Maternal & Neonatal Micronutrient Programme (IMNMP)
3. Iodine Deficiency Disorder (IDD) Control Programme
4. IYCF and Baal Vita Community Promotion Programme
5. Flour fortification Programme
6. Fortified flour distribution Programme



1. National Vitamin A Programme



Dose: 1 capsule = 2,00,000 IU



Health Facility



Supply



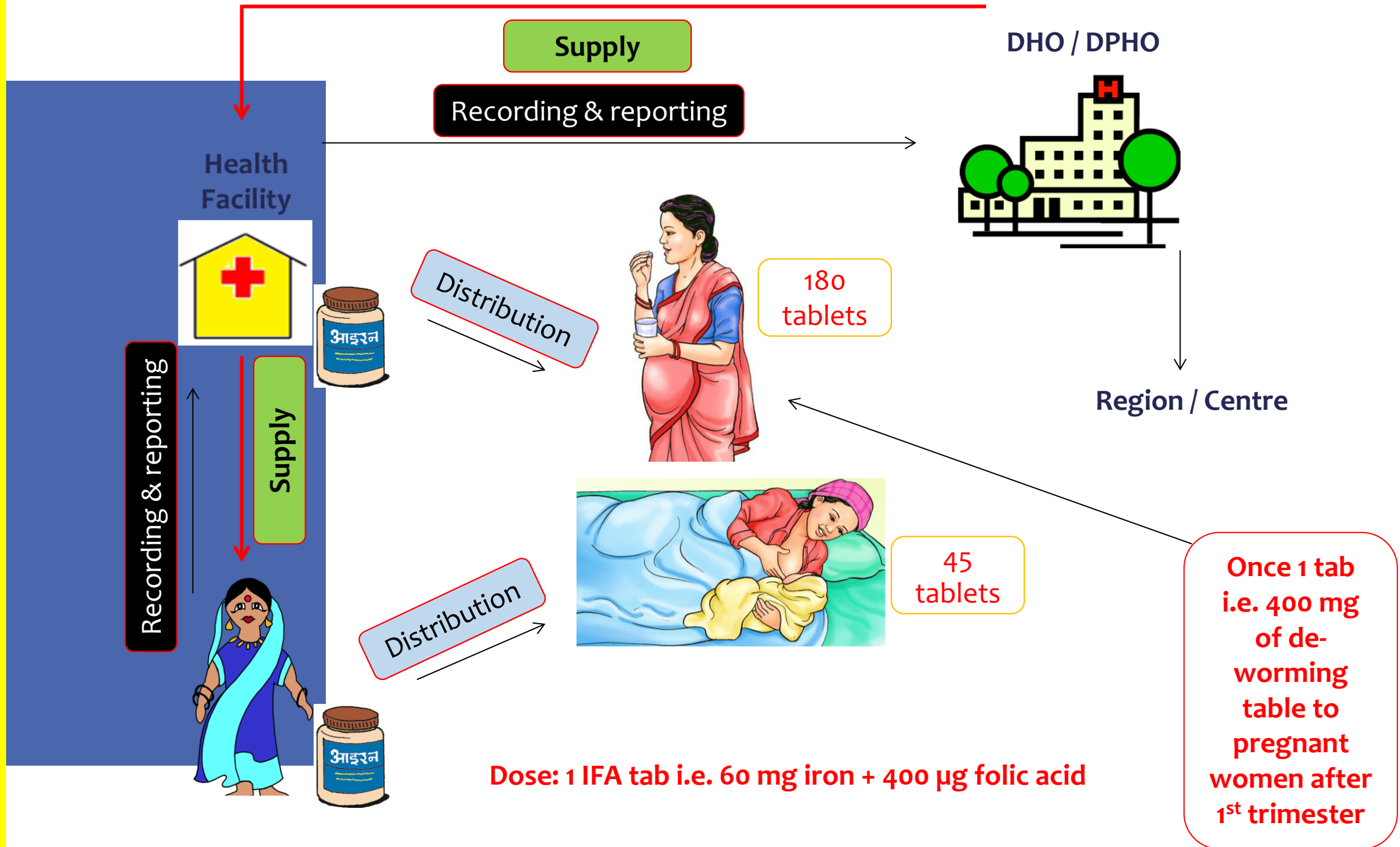
Distribution

House



Within 6 weeks of delivery

2. Intensification of Maternal & Neonatal Micronutrient Programme (IMNMP)



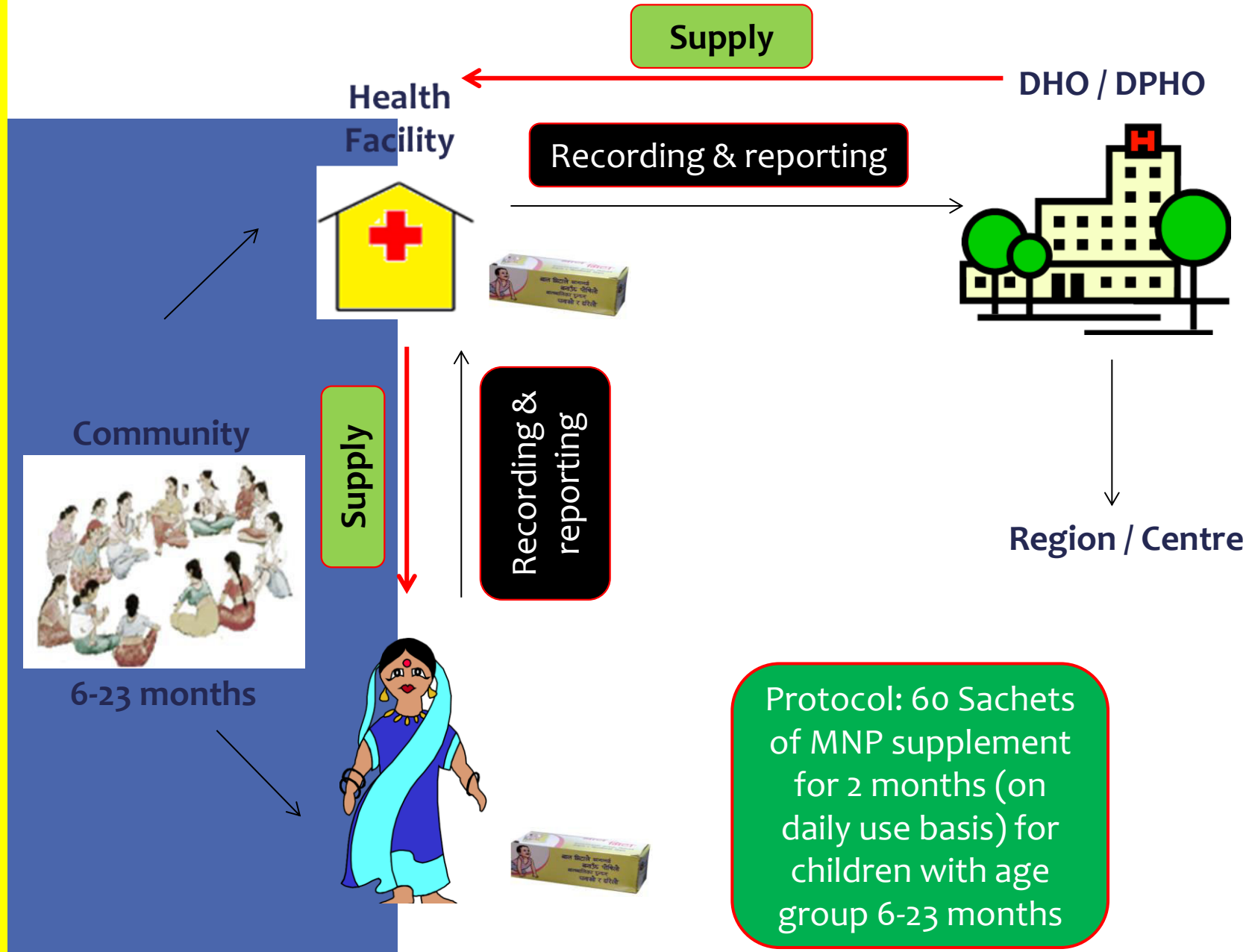
World fit for children target on micronutrients

-



Iodized Salt Social Marketing Campaign – ISSMaC approach

4. IYCF and Baal Vita Community Promotion Programme



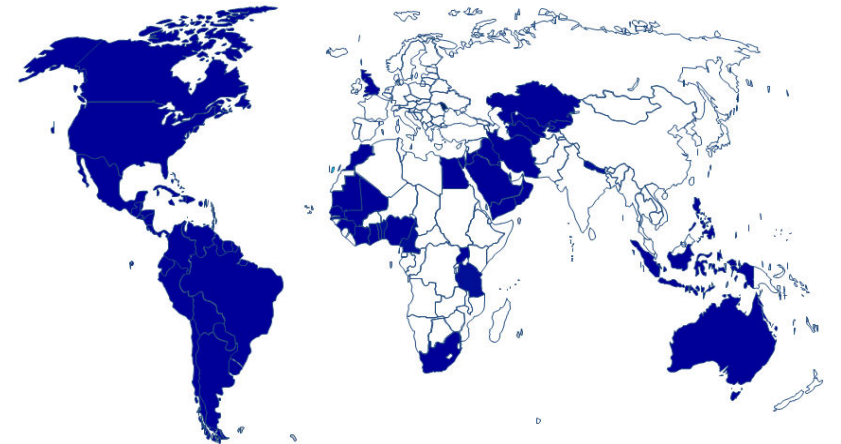
1.	Vitamin A (Retinol)	400 µg
2.	Vitamin C	30 mg
3.	Vitamin D	5 µg
4.	Vitamin E	5 mg
5.	Vitamin (B1)	0.5 mg
6.	Riboflavin (B2)	0.5. mg
7.	Niacin (B3)	6 mg
8.	Pyridoxine (B6)	0.5. mg
9.	Cyanocobalamin (B12)	0.9 µg
10.	Folic acid	150 µg
11.	Iron	10 mg
12.	Zinc	4.1. mg
13.	Copper	0.56 mg
14.	Selenium	17 µg
15.	Iodine	90 µg

Pilot: Makwanpur, Parsa, Gorkha, Rasuwa, Palpa, Rupandehi

Roll out: Achham, Bardiya, Dadeldhura, Dang, Rukum, Kapilbastu, Sankhuwasabha, Sunsari, Morang

5. Flour Fortification Programme

- GoN adopted wheat flour fortification as one of the national strategies to reduce iron deficiency anemia in Nepal.
- GoN made flour fortification at roller mills mandatory in August 2011 based on satisfactory voluntary fortification experience.
- Nepal has become the first country in South Asia to have mandatory legislation for fortification at roller mills.





Karnali &
Solukhumbu

Pregnant and Lactating
mother
3 kg/month

Distribution of Fortified Flour to Pregnant and
lactating mother & 6 to 23 month children
who visit in HF

6-23 months
3 kg/month

पौष्टिक गुण प्रति १०० ग्राम आहारमा

प्रोटीन : १४.५ ग्राम

कार्बोहाइड्रेड : ६४.०० ग्राम

चिल्लो पदार्थ : ५.०० ग्राम

शक्ति : ३६० किलो क्यालोरिज

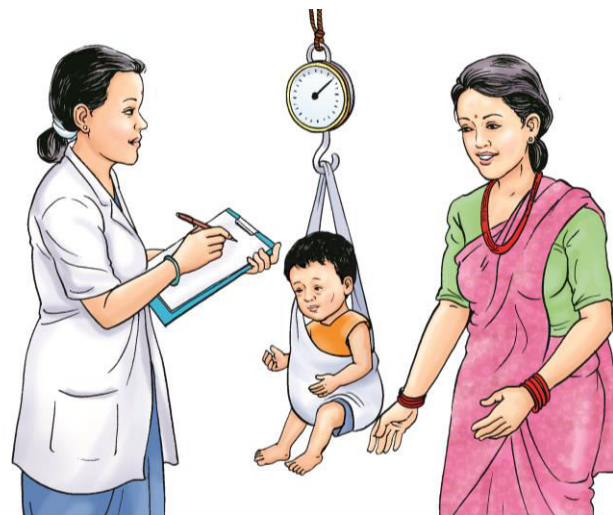
मोईश्चर : ७.९० %

भिटामिन ए	३५० माईक्रो ग्राम
भिटामिन बि १	०.३६ मि.ग्रा.
भिटामिन बि २	०.३६ मि.ग्रा.
नायसिन	६.१ मि.ग्रा.
भिटामिन सि.	१४० मि.ग्रा.
फोलेट	८३ माईक्रो ग्राम
भिटामिन बि १२	०.५२ माईक्रो ग्राम
आइरन	१५.० मि.ग्रा.
क्याल्सीयम	२०० मि.ग्रा.
जिङ्क	८.४ मि.ग्रा.
आयोडीन	१५० माईक्रो ग्राम

4. Community based growth monitoring Programme

Monthly growth monitoring from 0-23 months

Growth monitoring in health facility

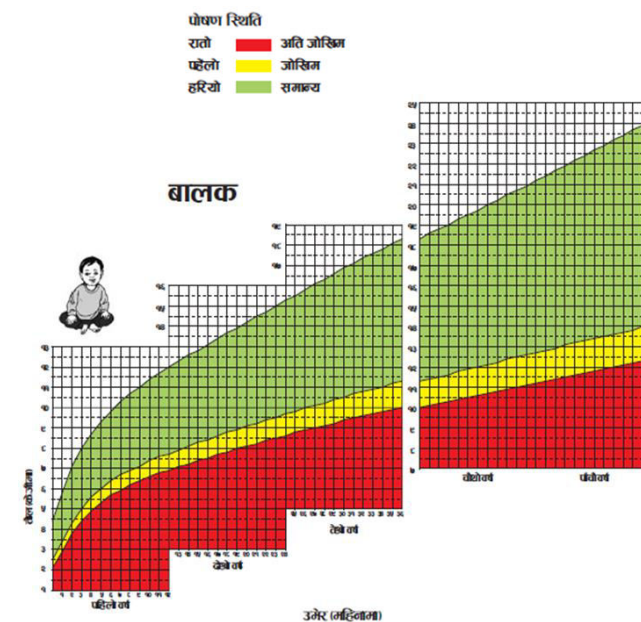
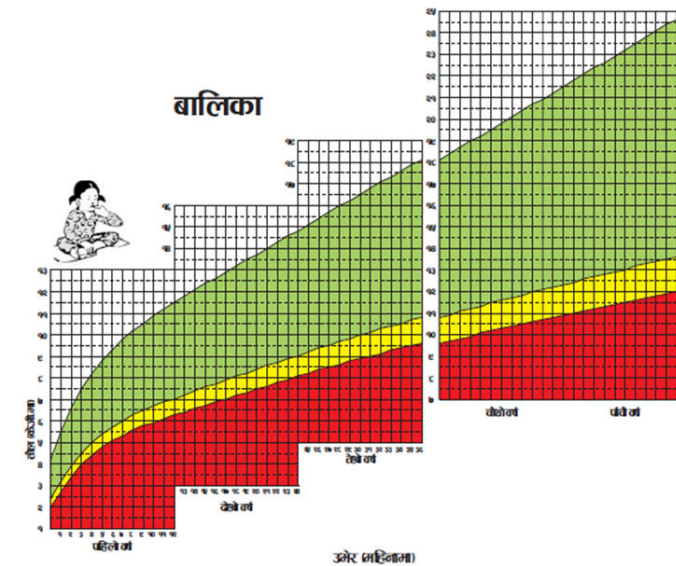


Growth monitoring combined with IYCF

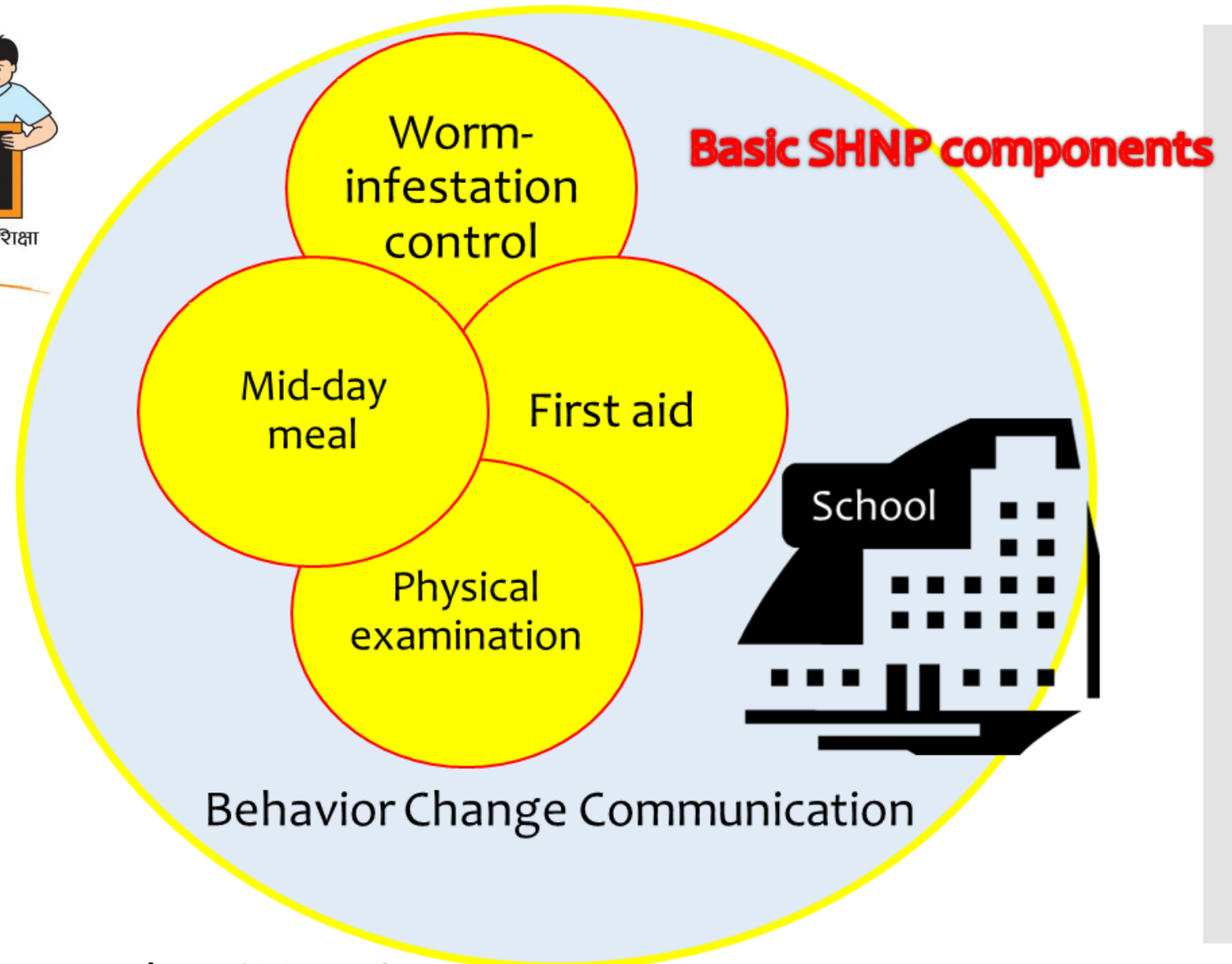
Growth monitoring in outreach clinic

Weigh the child monthly from birth up to 2 years of age from nutrition aspect

Underweight: 29% (NDHS 2011)



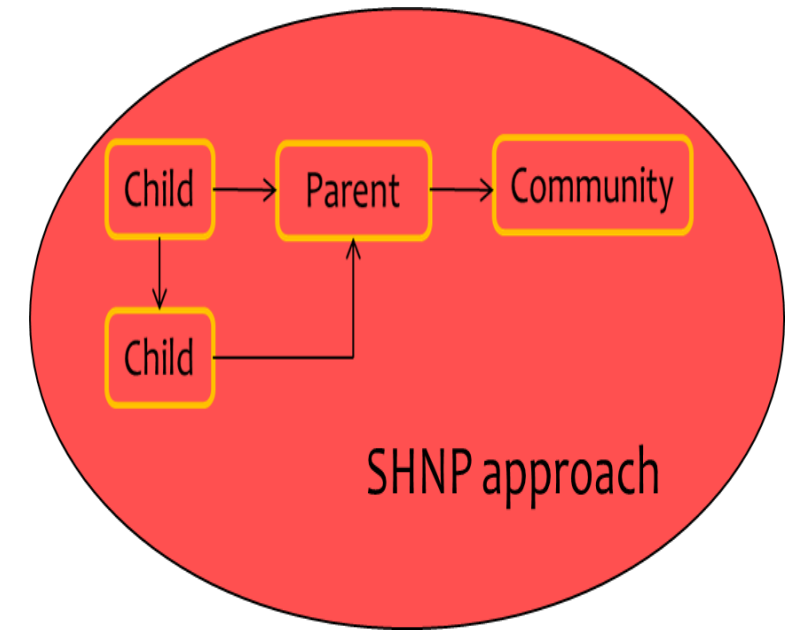
5. School health and nutrition programme (SHNP)–a joint programme of MoH & MoE



Adolescent Anemia: 39% (NDHS 2011)

SHN Programme

- Biannual School De-worming
- Annual Physical Checkup
 - Weight-for-age
 - Height-for-age
 - Vision test
- First Aid service at schools also with provision of first aid kit box to schools
- Mobilizing child club
- Development of IEC materials
- School Action Plan
- Strengthening monitoring and supervision system



6. Nutrition in Emergency and Nutrition Cluster

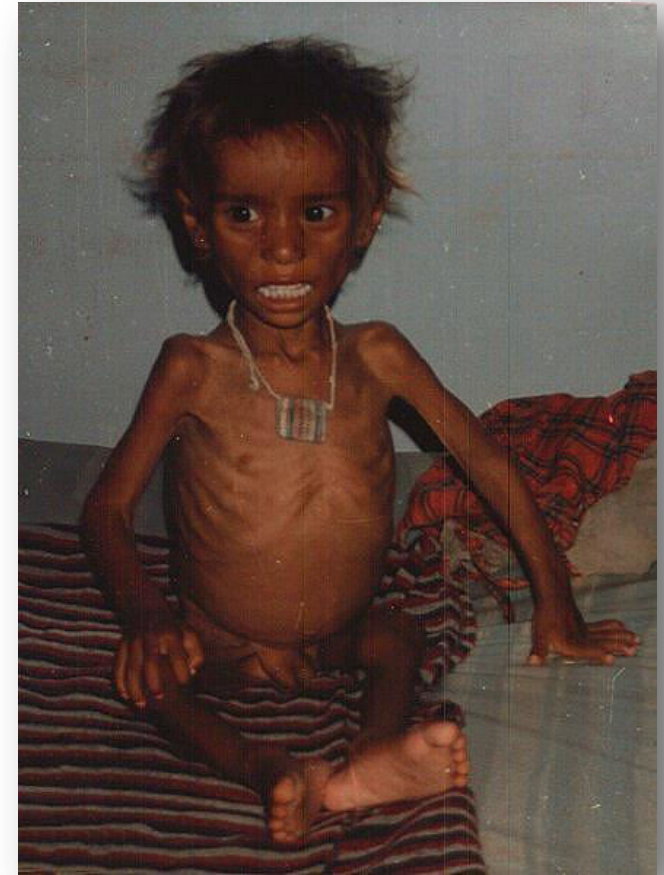
Malnutrition occurring in emergencies

The main nutritional problems of concern in emergencies are:

- acute malnutrition (wasting), especially in young children
- micronutrient deficiencies

Nutrition responses in emergencies

- food responses (*general food distribution, emergency school feeding, food-for-work, supplementary feeding, micronutrient fortification of food and supplementation and therapeutic care*)
- non-food responses (*support for livelihoods, infant and young child feeding and health*)



Nutrition in Emergency and Nutrition Cluster

- Though Emergency Health and Nutrition Working Group (EHNWG) under MoHP was established in 2006, Nutrition Cluster formally got established on 02 Jun 2010.
- Several documents/plans have been prepared by the cluster along with training of HR in NiE.

Nutrition Cluster members



Major Multi-sector Projects

On-Going Efforts

1 . Suaahara - II (Integrated Nutrition Program)

Integrated nutrition initiative, working in 20 most vulnerable districts; funded by USAID/Nepal for the period of April 2016- March 2021.

2. AFSP (Agriculture and Food Security Project)

Enhance household food security in the poorest and most food-insecure Mid-Western and the Far Western region by increasing crop production, food availability, household incomes and awareness about health and nutrition. (Funded by World Bank)



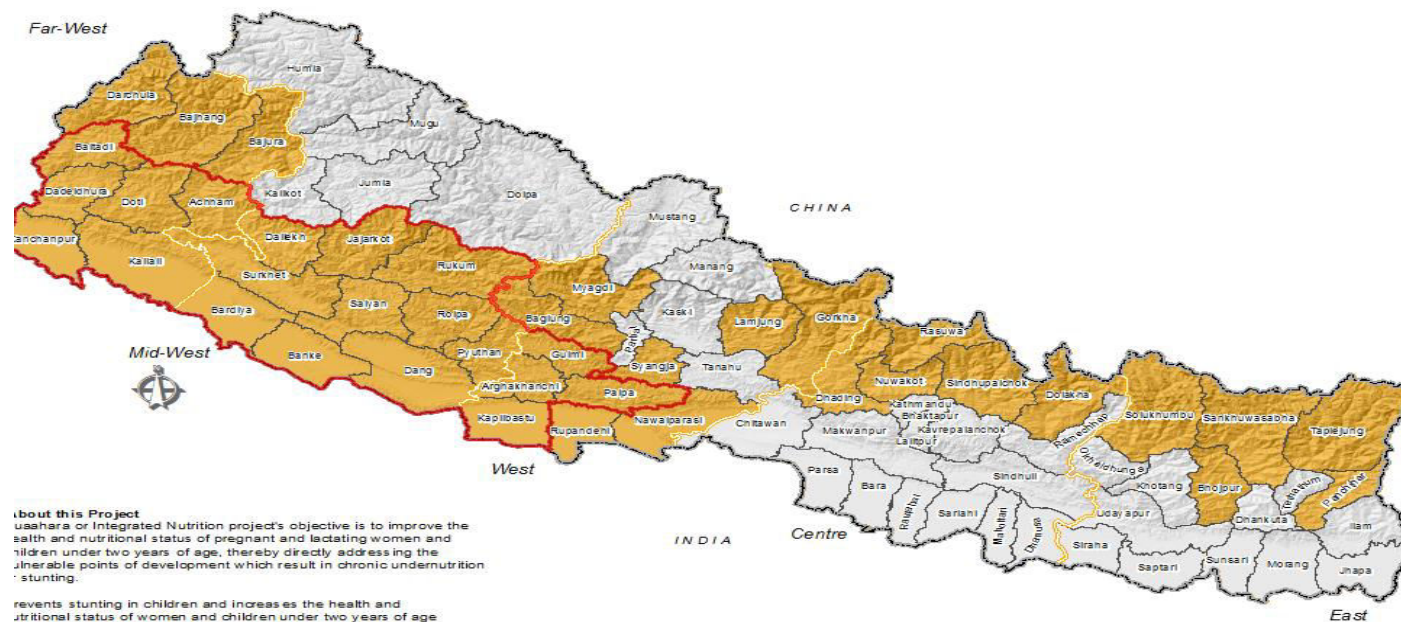
USAID
FROM THE AMERICAN PEOPLE

SUAAHARA
Building Strong & Smart Families



Government of Nepal
Ministry of Health & Population

Introduction to Suaahara II



About this Project
Suaahara or Integrated Nutrition project's objective is to improve the health and nutritional status of pregnant and lactating women and children under two years of age, thereby directly addressing the vulnerable points of development which result in chronic undernutrition - stunting.

reverts stunting in children and increases the health and nutritional status of women and children under two years of age / improving nutrition maternal newborn and child health

- ❖ Suaahara II continuation of Suaahara I (Integrated nutrition initiative)
- ❖ Funded by USAID/Nepal
- ❖ Working in 40 districts
- ❖ Multisector approach
- ❖ April 2016 – March 2021



USAID
FROM THE AMERICAN PEOPLE

SUAAHARA
Building Strong & Smart Families



Government of Nepal
Ministry of Health & Population

Suaahara II

Improve the
nutritional
status of
women
and
children <5
years

Improved Household Nutrition and Health Behaviors

Increased Use of Quality Nutrition and Health Services by Women and Children

Improved Access to Diverse and Nutrient-Rich Foods by Women and Children

Accelerated Roll-Out of Multi-sector Nutrition Plan through Strengthened Local Governance

CROSS CUTTING THEMES

Public Private Partnerships (PPPs)

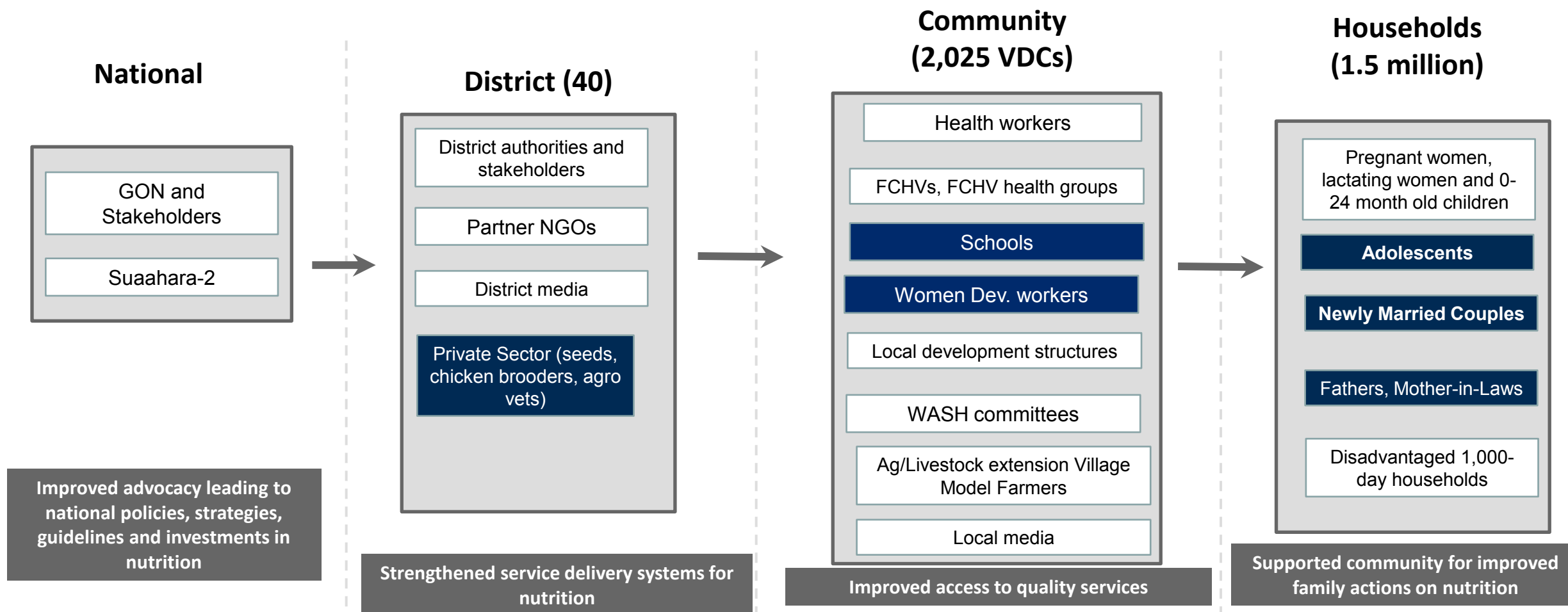
Gender Equality and Social Inclusion (GESI)

Innovative Grants Program (IGP)

Emergency Preparedness and Response Plan (ERPP)

Monitoring Evaluation and Learning

Implementation Levels and Target Groups



SABAL **Sustainable** **Action for** **Resilience** **and Food** **Security**

Goal:

Targeted population in eleven districts of central and eastern mid-hills of Nepal are resilient and food secure through improved Livelihood, Health and Nutrition and Disaster Risk Reduction/ Climate Change Adaptation

Working districts: 11 (**Makawanpur, Sindhuli, Ramechhap, Okhaldhunga, Udayapur, Khotang**, Rasuwa, Nuwakot, Sindhupalchowk, Dolkha, Kavre)

Health and nutrition: initial 6 districts

Funding source: USAID

Agriculture and Food Security Project

*Well inter-linked project with
clear synergistic linkages
between components (crop,
livestock and nutrition)*

Introduction

- GoN competitively received a grant from GASFP in June 2011,
- Funding Support: GAFSP (Global Agriculture and Food Security Program) and contribution of GoN
- Supervising entity: The World Bank
- Technical Assistance: FAO
- Project planning, implementation, reimbursement, progress reporting being done following the World Bank process, procedures and guidelines

Project agreement date:	April 30, 2013
Project start date:	April 30, 2013
Project completion date:	March 31, 2018

Funding arrangements

GAFSP grant-	46.5 M US \$
GoN contribution-	11.5 M US \$
Total project cost-	58.0 M US \$

Project Objectives

- Enhance household food and nutrition security through increased agricultural productivity and improved nutritional practices.
- Increase food availability by increasing agricultural productivity both crop and livestock, improve dietary intake by promotion of diversified diets, and improve feeding and caring practices for pregnant and nursing women and children up to 2 years of age.

Project components

- Component 1: Technology Development and Adaptation
(16 percent)
- Component 2: Technology Dissemination and Adoption
(54 percent)
- Component 3: Food and Nutritional Status Enhancement
(18 percent)
- Component 4: Project Management (12 percent)

National Nutrition Program: Issues / Challenges

- Institutional arrangements for Nutrition in Federal Structure
- Continued capacity building of health workers at all levels in nutrition sensitive and specific interventions
- Adequate budget allocation despite high priority on nutrition
- Improving dietary behaviors of women and children in consumption of local indigenous food, diet diversity and nutritious food
- Slow scale up of evidence based and cost effective interventions viz, MIYCN, IMAM, MSNP, IYCF-MNP due to resource gap
- Challenge in coordination among program partners
- Weak monitoring and evaluation at different levels
- Timely Procurement of Nutritional Commodities

Thank You



Overview of WASH Sector Key Roles of MoWSS in MSNP Implementation

--- Hari Prasad Timilsina (S.D.E)
Ministry of Water Supply and Sanitation

National Status on WatSan (at the end of F.Yr. 2072-73)

S.No.	Facility	Coverage
1	Water Supply	87%
2	Sanitation(HH toilets)	87%
	(Source: DWSS, not disseminated publicly)	

--- National Status on WatSan

S.No.	Declaration of ODF	No (till 2073 Ashwin)
1	VDCs	2275 (out of 3157)
2	Municipalities	121 (out of 217)
3	Districts	38

(Source: ESS, DWSS)

Water Supply and sanitation Policies

- Since the decade of 1980 sanitation was tied up with Water Supply Project
- Directives of Department of Water Supply and Sewerage 2047
- Water Supply and Sanitation Policy 2053/54
- Rural Water Supply and Sanitation Policy 2060

----- Water Supply and sanitation Policies

- Rural Water Supply and Sanitation Strategy 2004
- Urban Water Supply and Sanitation Policy 2009
- Co-financing Water Supply and Sanitation Policy 2013
- Sanitation Master Plan 2010
- and other many guidelines, etc.

Almost all policies evoke:

- Sanitation is a component of WS Project.
- Trainings are focused on health, hygiene and construction activities of WS project.
- Trainings consist of sanitation, water borne, water related diseases.
- Methods of interventions in water borne/related diseases cycle/transmission.
- Use of kitchen garden.
- Utilization of saved time for programs of income generation.

..... Policies evoke

- Concept of balanced diet.
- Female sanitation volunteers at hamlet level.
- Five sanitation messages
- Safe use of water at point of use.
- Introduction of Water Safety Plan for safe drinking water.
- Water treatment provision.

Sanitation Master Plan 2010

- Basic Document for Scaling up of ODF achievement
- Document for best coordination to achieve goals of Total Sanitation
- It speaks about post ODF activities also.

Running Programs of WASH

- Water supply and sanitation program
- Rainwater harvesting(Climate change)
- Sanitation program
- Small Town Water Supply and Sanitation Projects
- Co-financing Water Supply and Sanitation Project
- Drought Affected Water Supply and Sanitation Projects28

Running Programs of WASH

- Sewerage projects
- Water Quality Improvement Projects
- National Monitoring and Information Project(NMIP)

In all project/programs, issue of nutrition is not directly addressed,

but

issue of public health, hygiene and income generation activities are related directly .

MSNP: Sectoral Goal, Objectives and Budget

Goal: reduced in the rate of diarrhea, ARI among young mothers, adolescent girls, infants and young children

Objectives:

- i. To increase practices on hand washing with soap at critical times
- ii. Declaration of Open Defecation Free Area.
- iii. Treated (safe) water supply facilities

Planned Activities on Nutrition and Food Security

Activities	Target/Objective	Implementing department / division
Hand washing campaign	Block of Fecal Oral route	DWSS/Water supply division/sub division office
Declaration of Open Defecation Free Zone	Promotion of using water seal latrines with septic tank	DWSS/Water supply & sanitation division/sub-division office, D-WASHCC
Water Safety Plan	Control measures for water contamination	DWSS/Water supply & sanitation division/sub division office

Organization of MoWSS

- Ministry level- Water Supply and Environment, Planning and Foreign Aid Coordination and Administration Division
- Department of Water Supply and Sewerage under MoWSS and has division and Sub-division Office in 75 district
- Fund Board – works in 55 districts in rural areas and implement rural water supply schemes in coordination with D-WASH-CC
- Other Agencies (WSC, WSMB, MWSSP, etc.) –No direct link with MSNP

Problems, Gaps and Challenges to Plan and Implement the Activities

- Necessary of capacity building, skill development and institutional strengthening
- Regular meeting of stakeholders
- Financing in due time
- Dissemination of information through local media (of focused area) and central level media

----- Problems, Gaps and Challenges to Plan and Implement the Activities

- Focus group discussion
- Involvement of Agency
- Motivation of workers (provide incentives)
- Regular monitoring and supervision
- Functionality of WSSP and 100% coverage
- Water treatment facilities

Some Suggestions

Special budget/provision: from MoWSS or NPC(other than regular budget/program) for:

- ODF enhancement in MSNP selected districts/VDCs
- Completion of on-going WSS projects for safe drinking water facility
- Repair work in non-functional (with quake affected) WSSPs for better service

--- Some Suggestions

- New Water Supply projects for uncovered population.
- Coordination should be done not ritual as now but with clear responsibility
- M and E should be done with clear and small parameters. Also the implementing mechanism of recommendation of M&E should be discussed.
- Revisit of WSS policies to address nutrition

Way Forward

- Implementation of SDG (2016-2030)
- Endorsement and implementation of WASH Sector Development Plan (2016-2030)
- MoWSS decision : one house one tap
- Strong coordination mechanism at district level
- Streamline with Federal System of government

Thank you

5 messages of Sanitation

1. Use of latrine and no open defecation
2. Washing of hands with soap
3. Use of safe drinking water
4. Use of safe utensil, non-contaminated food
5. Personal and household sanitation

1. Use of latrine and no open defecation

- Use of latrine for defecation and urinating by all
- Regular cleaning of latrine
- Arrangement of soap and water for hand washing

2. Washing of hands with soap

- After the use of latrine
- Before cooking of food and after eating food
- After touching any waste and poisonous things
- Before and after taking care of child and sick people

3. Use of safe drinking water

- Cleaning of water filling pots
- Use of protected sources: covered well and hand pump, safe spring
- Use water from system where WSP is in operation or use of treated water by household means in case for water of other systems/sources

4. Use of safe utensil, non-contaminated food

- Clean and safe utensils and kitchen, covered prepared food.
- Cooking the food above temperature of 70°C before eating
- Storage of eating food below temperature of 5°C and no intake of stale and damaged food.

---- 4. Use of safe utensil, non-contaminated food

- Store the baked and fresh food quite separately
- Use of safe water and clean food items for baking of food
- Intake of unbaked food items after thoroughly cleaning with safe water

5. Personal hygiene, clean household and environment

- 5a: Personal and household hygiene