

# State Initiatives in Maternal and Child Nutrition

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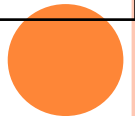
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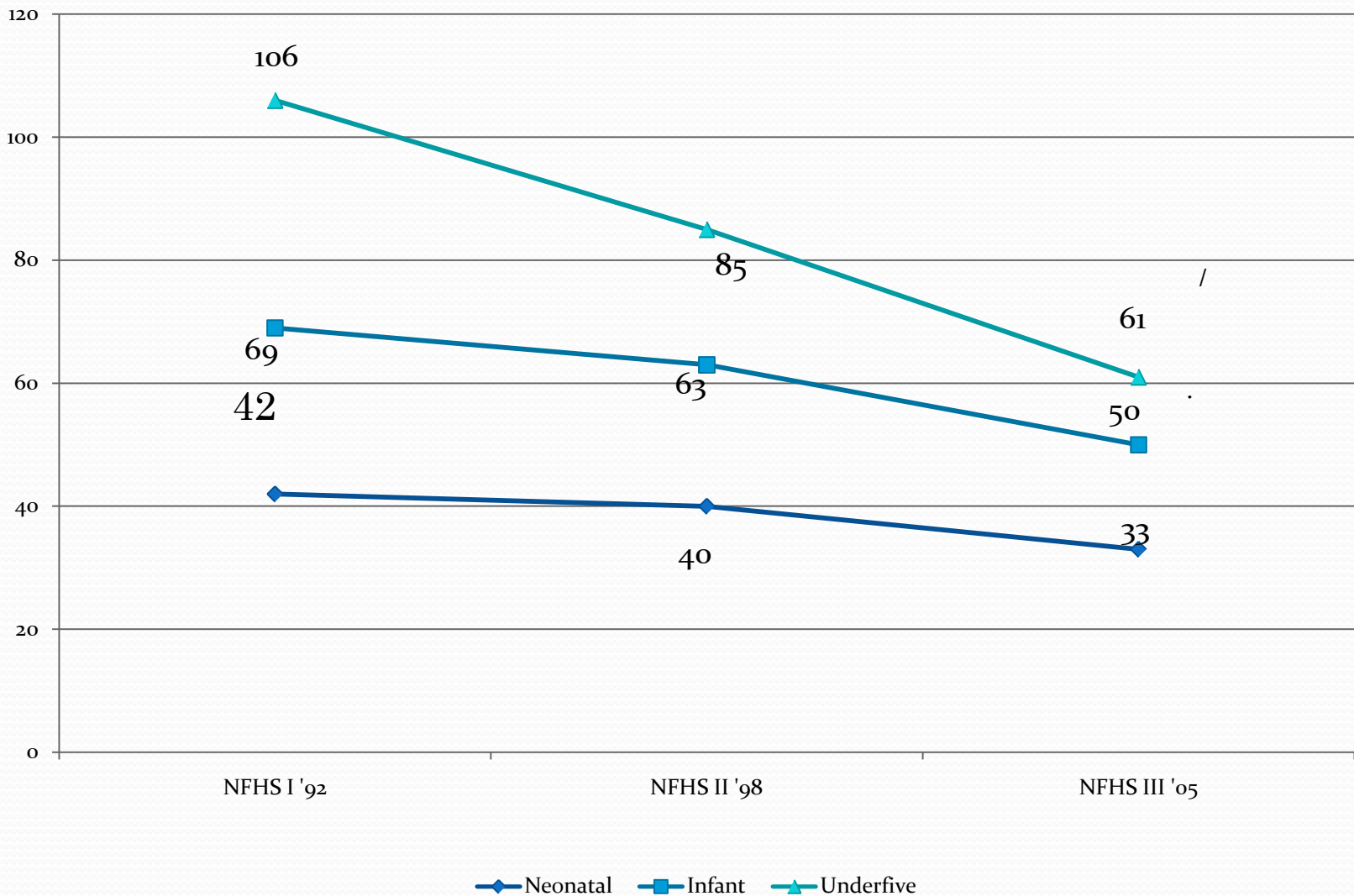
**MDG Goal  
1990-2015**

**Swarnim Gujarat Goal  
2011-2015**

| Sl. no | Indicator                | Current Status | Target 2015 |
|--------|--------------------------|----------------|-------------|
| 1      | Maternal Mortality Ratio | 148 (SRS) 2009 | 100         |
| 2      | Infant Mortality Rate    | 48 (SRS) 2009  | 30          |
| 3      | Total Fertility Rate     | 2.5 (SRS) 2008 | 2.1         |



# TREND OF CHILD MORTALITY RATES



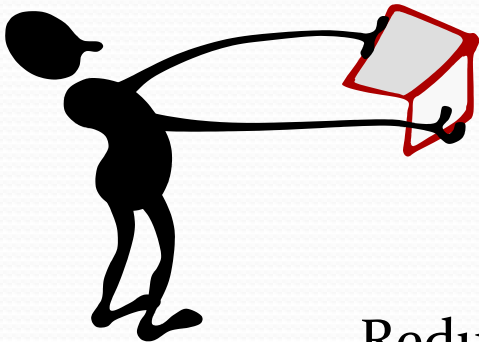
# RISKS of being malnourished...



Lowered resistance to disease

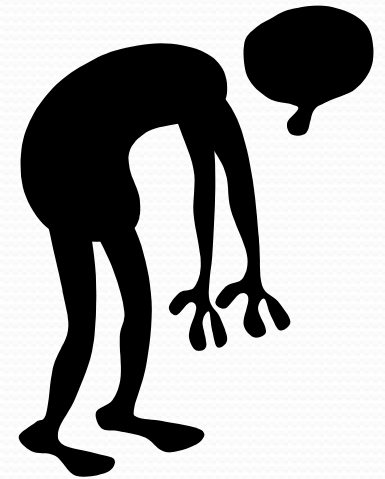


Increased risk of mortality

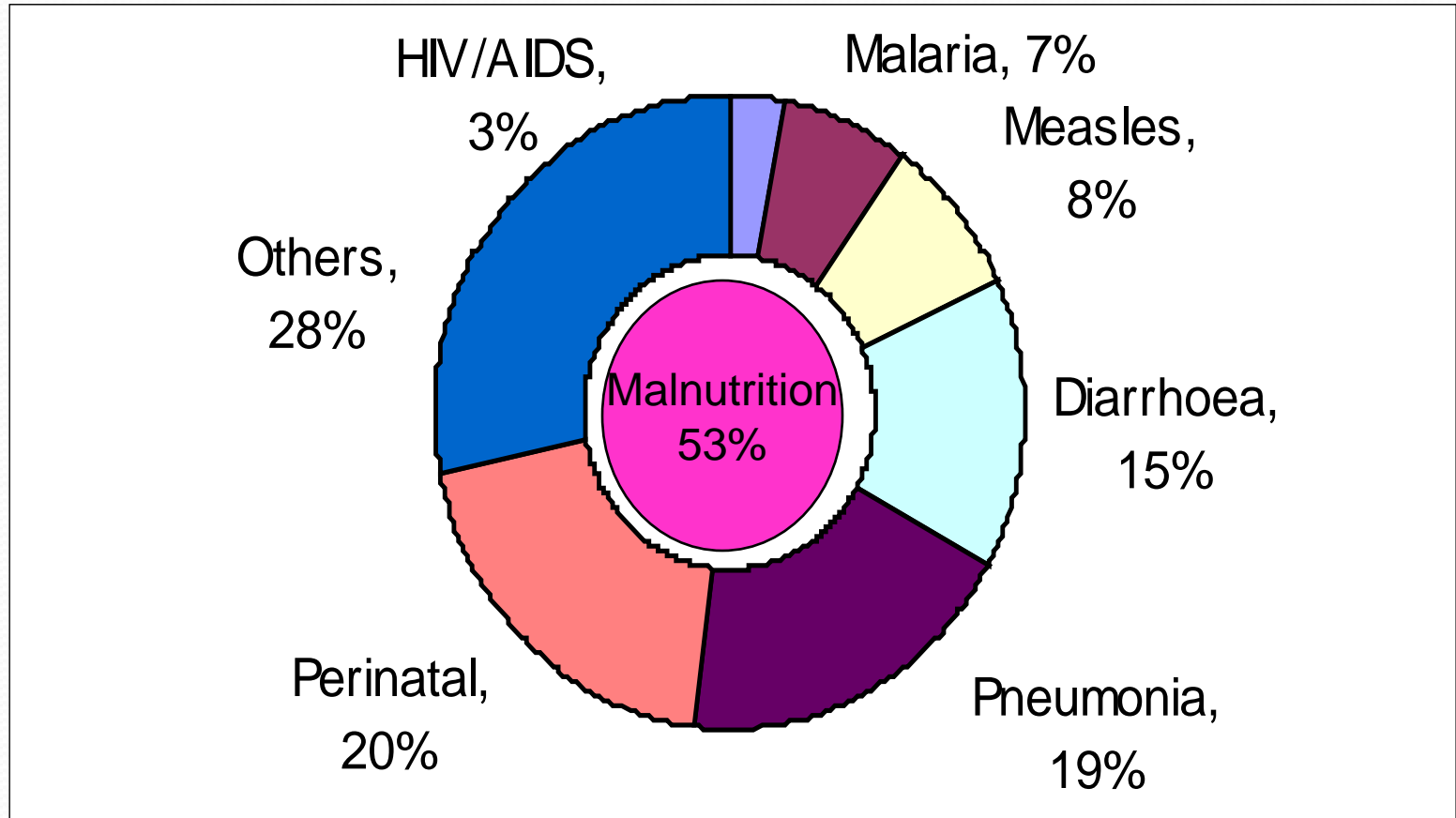


Learning difficulties

Reduced physical activity

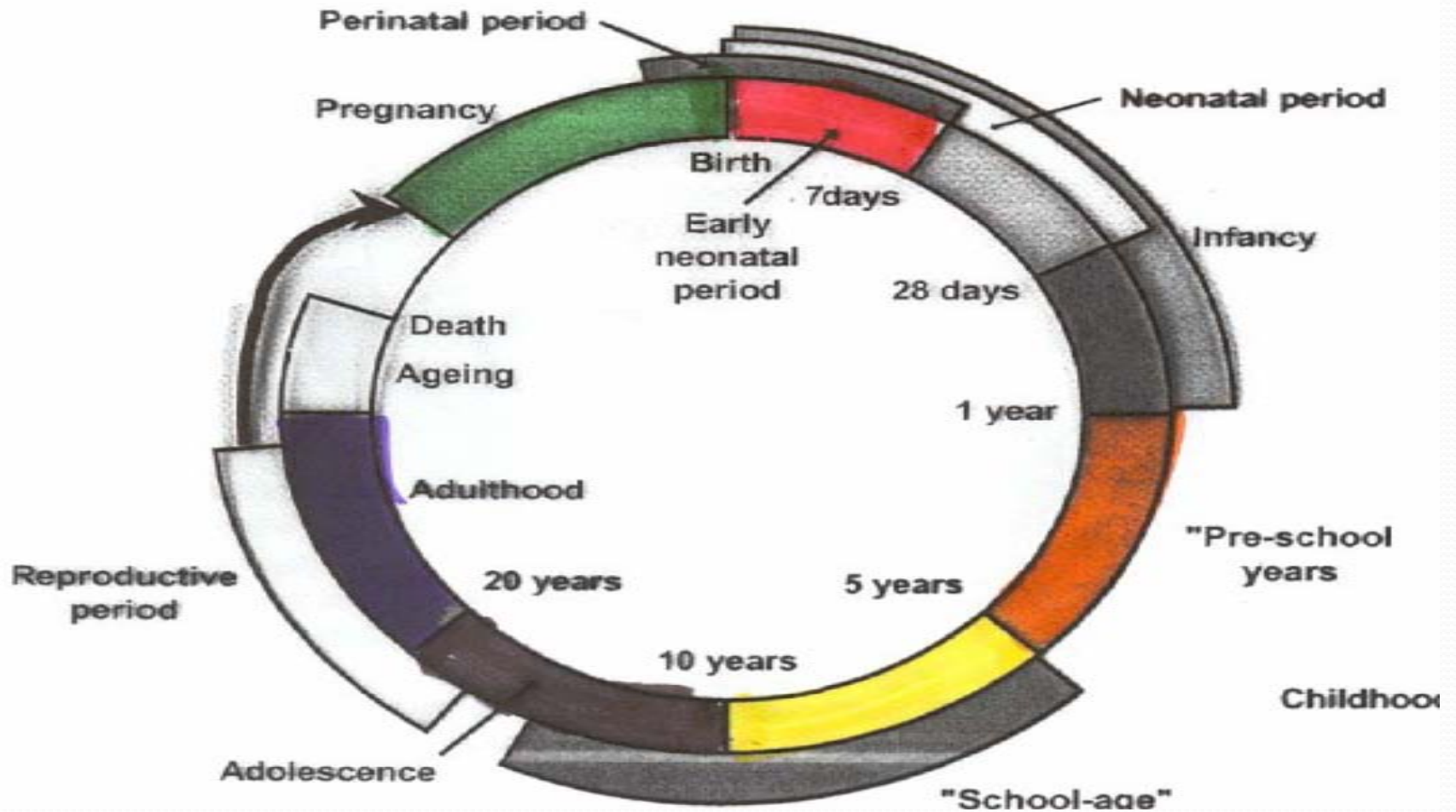


# What are the causes of childhood death?

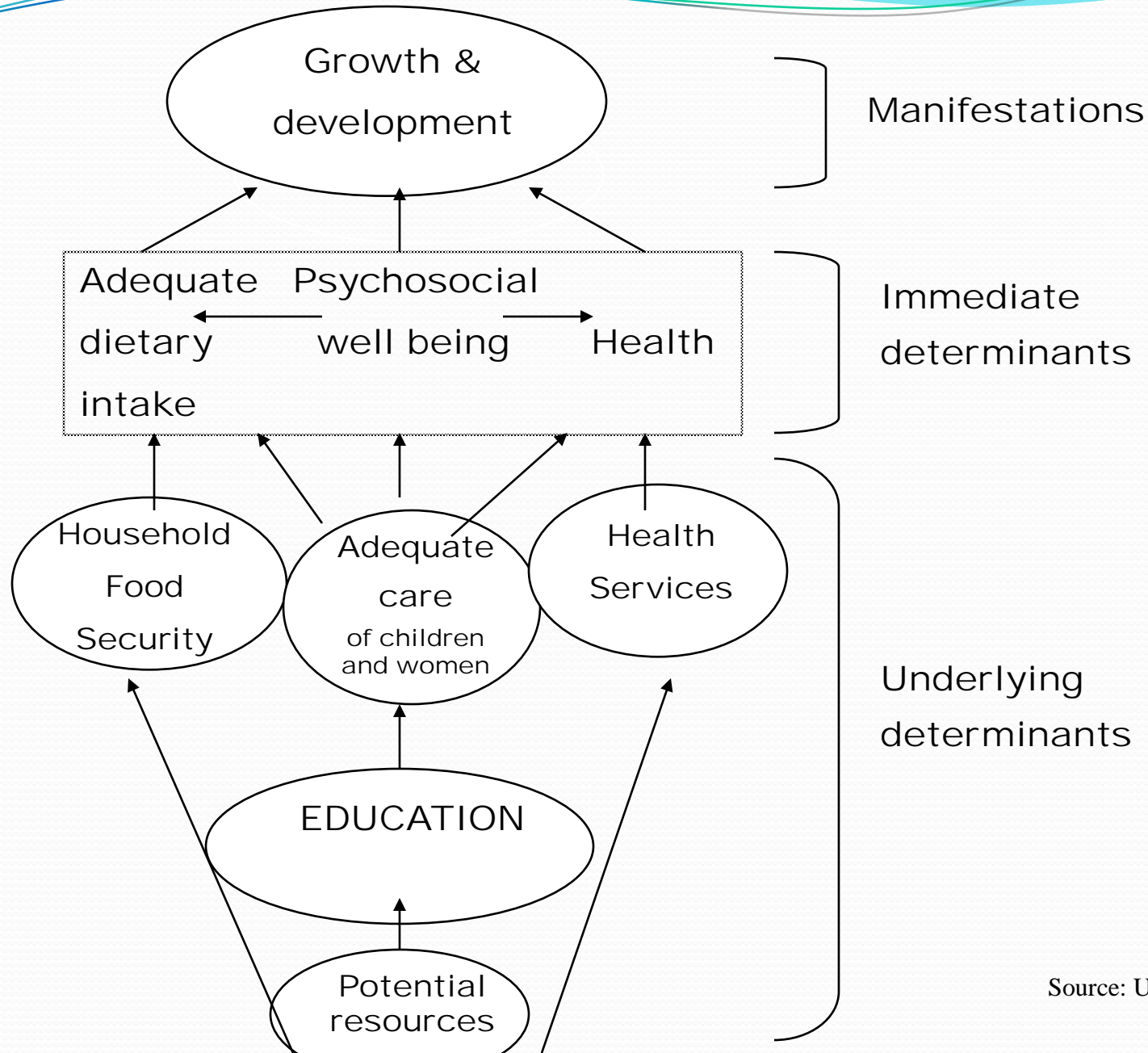


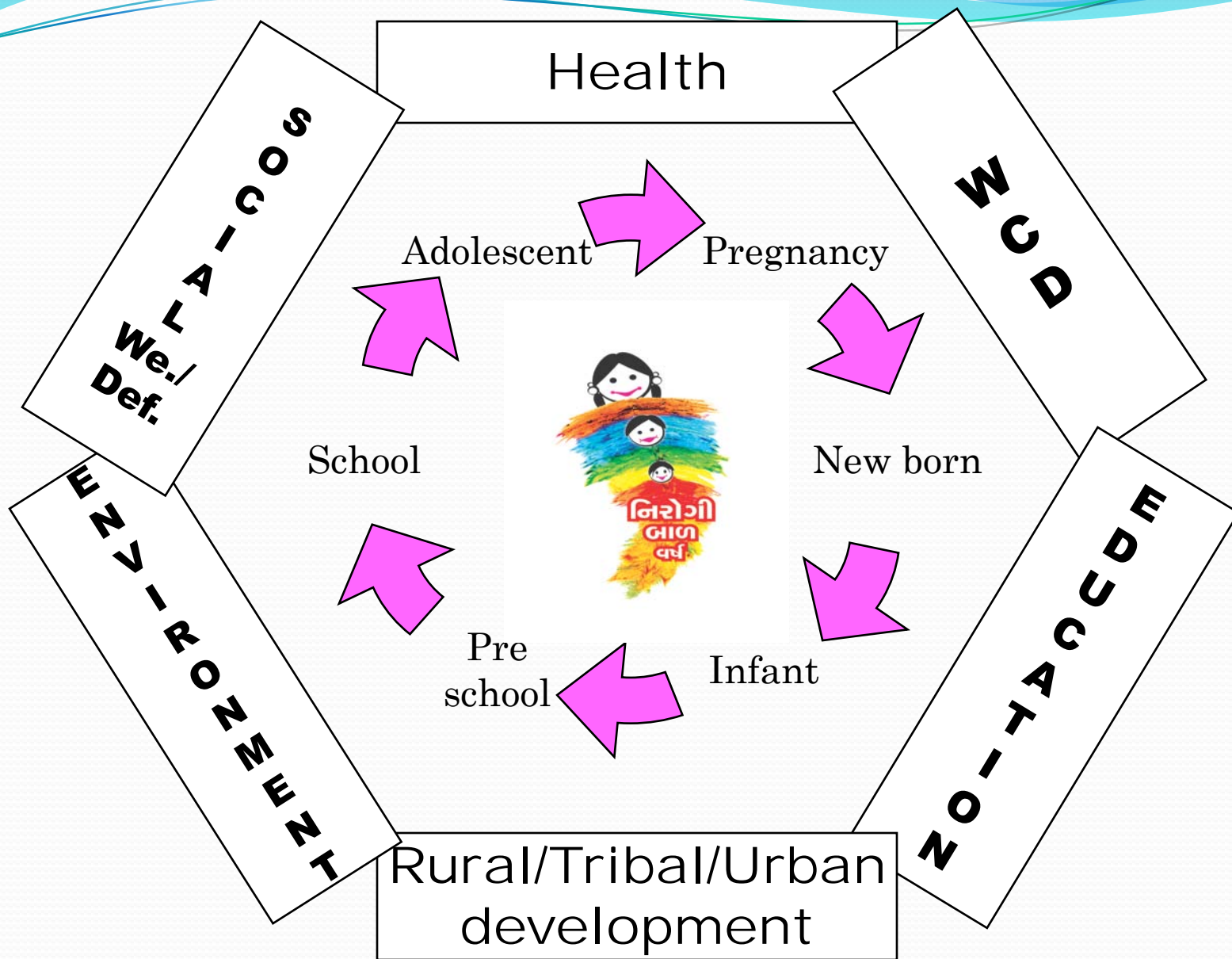
**Under-nutrition contributes to 53% of all child deaths**

# Critical Points for Nutrition in the Life-Cycle



# Framework for the promotion, achievement, and maintenance of optimal nutritional status







# Nutrition Intervention Strategy

- International & National surveys
- State surveys ,
- Monitoring & evaluation data

Evidence to action

Life cycle approach

- Adolescent
- Reproductive age
- Pregnancy
- Lactating
- Infants
- Under five
- School

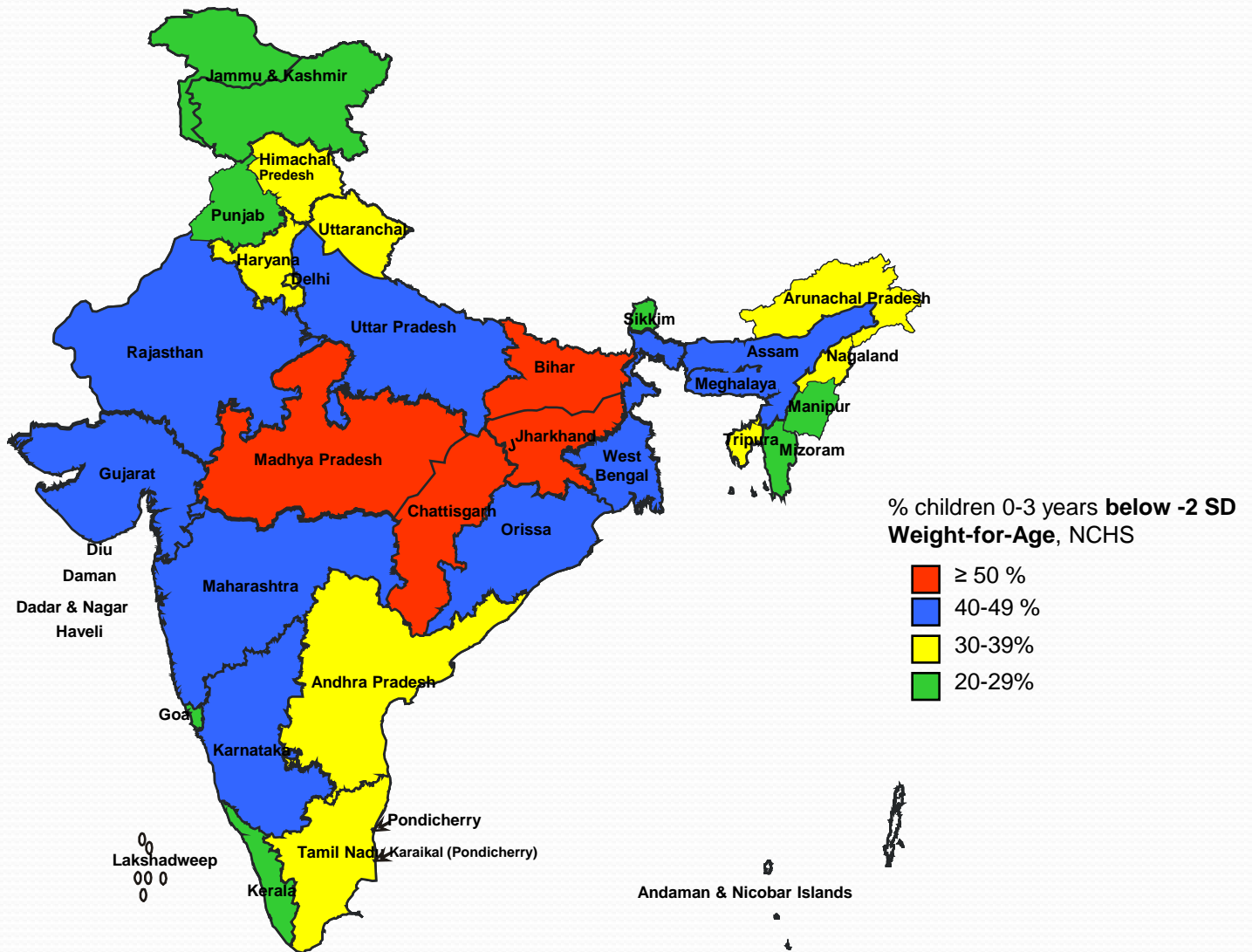
- Macro nutrient
- Micronutrients
- Food gap
- Food hygiene

Holistic intervention

Integrated efforts

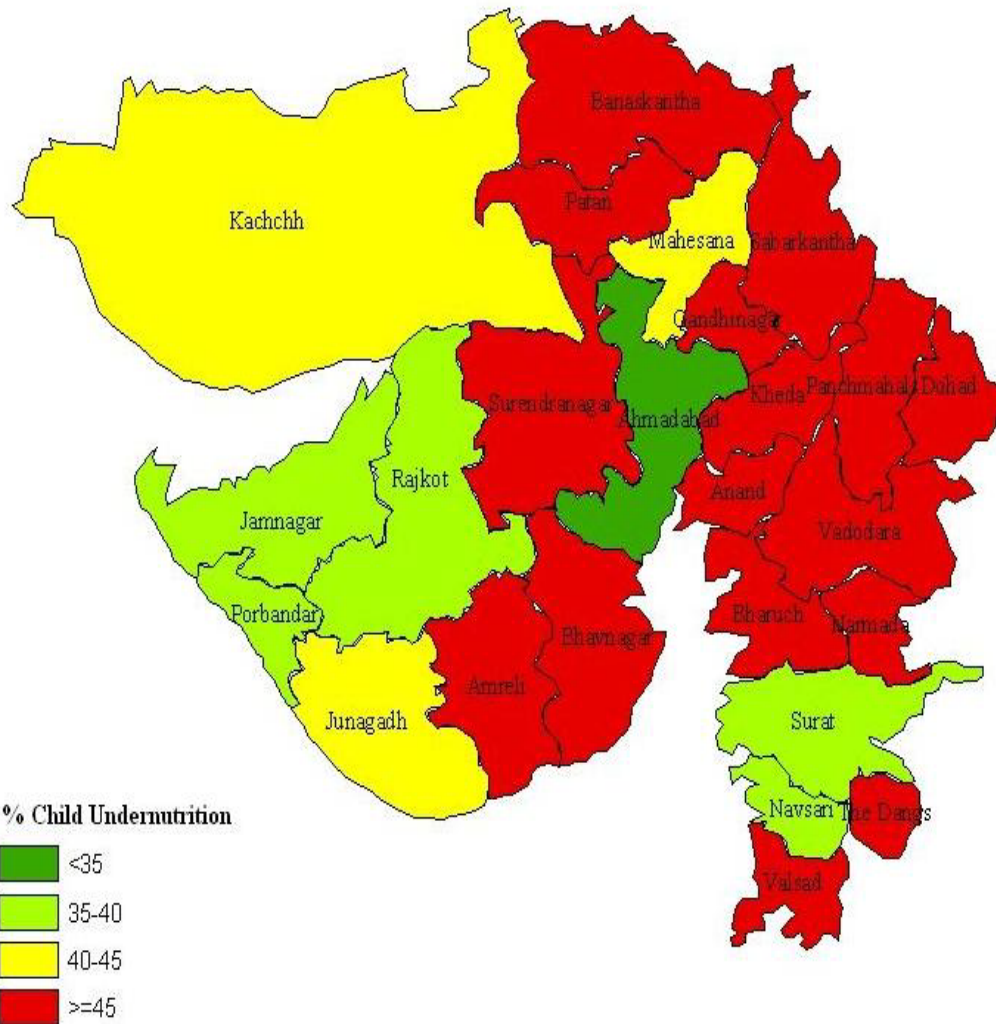
- Health
- WCD
- Education
- Agriculture
- Civil supply

# Malnutrition Map of India



Source : National Family Health Survey-III 05-06

# Nutrition Situation in Gujarat



- 45% U5 underweight
- 50% Breastfed in 1<sup>st</sup> hr \*\*\*
- 45% Exclusively breastfed \*\*
- 56% Initiate Complementary feeding - 6-9 months

\*\*\*

- 24% Get adequate Proteins & Calories\*
- 80% Anaemic (6-35 m)
- 56% HHs use Iodized salt
- 56% Vit A supplement\*\*

NFHS 2005-2006

\* NNMB (ICMR)

\*\* DLHS – 2008

\*\*\*CES, Unicef - 2009

# Undernutrition is a Multi – sectoral Issue. Needs convergent actions by different Key Departments

## DWCD

- ICDS Universalization (Children under 6 years, adolescents girls, pregnant and lactating mothers),
- Energy dense Micro-nutrient Fortified Extruded Blended Food (Bal Bhog, Sukhadi, Sheera and Upma)
- IFA, Nutri-candy, Nutrition Counselling, Pre – School Education,

## Dept. of Food and Civil Supplies

- Iodized salt through PDS/ Mamta day
- Fortified wheat flour & edible oil

## Health Dept.

- Vitamin A, IFA and Universal Salt Iodization – Micronutrient Programs
- State Nutrition Cell
- Child Development and Nutrition Centers
- Integrated Management of Neonatal and Childhood Illness
- Mamta Abhiyan,
- Mamta Taruni

## Tribal Department

Doodh Sanjeevani Yojna

## TSC & WASMO Department

Provision of clean drinking water & sanitation

## Rural Department

-Sakhi Mandals

## Gram Panchayat & Cooperatives

- Kitchen Gardens
- Village Health and Sanitation Committees

## Dept. of Education

- Adolescent anemia control
- Mid-day Meal



# NUTRITION SERVICE NETWORK (HEALTH &FW)



State Nutrition cell-2008  
Dept-H&FW

Tertiary Nutrition  
Rehabilitation centers

Child Development and Nutrition  
centers

District nutrition units

**MAMTA Abhiyan**

# Structure of State Nutrition Cell

| State Level   | District/Medical College Level  | Block Level  |
|---|---|--|
| <ul style="list-style-type: none"> <li>• State Nodal Officer</li> <li>• Technical Consultant Nutrition</li> <li>• Project Officer Nutrition - 2</li> <li>• Liaison Officer – Health &amp; ICDS</li> <li>• Admin Assistant</li> <li>• Finance Assistant</li> <li>• IDD Technical Officer</li> <li>• Statistical Assistant – IDD</li> <li>• M &amp; E Assistant</li> <li>• Data Entry Operator</li> <li>• Lower Division Clerk - IDD</li> <li>• Office Attendant</li> </ul> <p><u>National Nutrition Monitoring Bureau</u></p> <ul style="list-style-type: none"> <li>• Assistant Research Scientist</li> <li>• Nutritionist</li> <li>• Social Worker</li> <li>• Field Attendant</li> </ul> | <ul style="list-style-type: none"> <li>• Program Associate (26 districts)</li> <li>• Nutritionist (6 Govt. Medical Colleges)</li> </ul> | <ul style="list-style-type: none"> <li>• Nutrition Assistant (68 CDNCs)</li> <li>• Cook cum Helper</li> <li>• Aya</li> </ul> |



**Nutrition Programs  
Under  
State Nutrition Cell**

# **Nutrition Programs Under State Nutrition Cell**

- 1. Health & Nutrition Day (MAMTA Abhiyan)**
- 2. Adolescent Girls Anaemia Control Program (AGACP)**
- 3. Iodine Deficiency Disorder Control Program (IDDCP)**
- 4. Child Development Nutrition Centre (CDNC)**
- 5. Nutrition Counseling and Rehabilitation Centre (NCRC)**
- 6. Vit. "A" regular and Bi-annual Round**
- 7. Gujarat Integrated Nutrition Program (GINP)**
- 8. Mamta Taruni**
- 9. IMNCI**
- 10. School Health Program**



# MAMTA ABHIYAN



- Mamta divas  
(Health and Nutrition day)
- Mamta Mulakat  
(Postnatal care visit)
- Mamta sandarbh  
(Referral service)
- Mamta Nondh  
(Record & register)



# MAMTA ABHIYAN

## MAMTA DIVAS

- H & N Day
- Once a month
- Immunization
- Growth monitoring
- Balbhog
- Pregnancy testing
- ANC/PNC
- Iodized salt
- Care of sick children
- Counseling
- Promotion of Inst deliveries

## MAMTA MULAKAT

- PNC visits
- 48 hrs Hosp stay
- Vit.A
- IFA/Calcium
- IMNCI practice



## MAMTA SANDARBH

- Once a week
- Specialist clinic
- Drugs/Logistics



## MAMTA NONDH

- MAMTA card
- Registers
- Service data
- Review of data



**Social mobilization is critical for ensuring utilization of health and nutrition services**

# Health Intervention-MAMTA Divas

- Immunization: Children/Pregnant women
- Weighing of Children (0-3 yrs) & plotting on Mamta card
- IFA to Pregnant, Lactating & out of school Adolescent Girls
- 1.5 Kg iodised salt to Pregnant & lactating women/month
- ANC (BP, HB, Urine examination, Folic Acid /Calcium tablets, Physical examination etc)
- PNC (Calcium tablets, Vit A etc)
- Assessment of sick children using IMNCI protocol
- Counseling on Nutrition & Institutional Delivery
- Community growth monitoring



# Interventions for Micronutrient Malnutrition

## Vitamin A supplementation Programme



# Interventions for Micronutrient Malnutrition

## Vitamin A Supplementation Programme

```
graph TD; A[Vitamin A Supplementation Programme] --> B[Vitamin A Supplementation Programme for < 5 Children]; A --> C[Vitamin A Supplementation Programme for Postnatal Mothers];
```

Vitamin A  
Supplementation  
Programme for  
< 5 Children

Vitamin A  
Supplementation  
Programme for  
Postnatal Mothers

# Interventions for Micronutrient Malnutrition

To Obtain high coverage Gujarat adopted Biannual Round Strategy

Routine immunization

9 months to 12 months

Dose 1

Biannual Round (Feb. & Aug.)

1 to 5 years

Dose 2

Dose 3

Dose 4

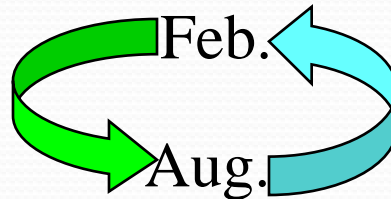
Dose 5

Dose 6

Dose 7

Dose 8

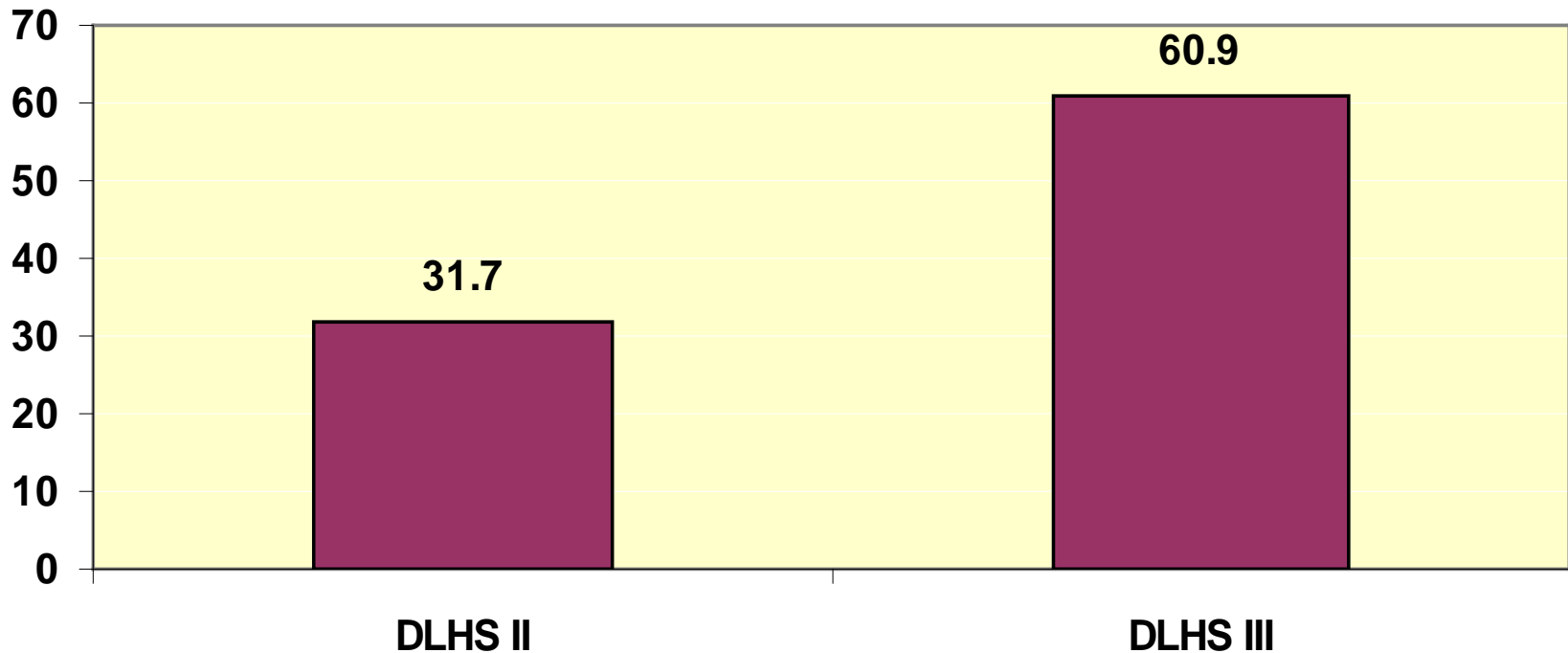
Dose 9



**Vitamin A supplementation Programme may be the single most cost effective child survival intervention .**

# Status of Vit. –A in Gujarat

Children age 9 months and above received at least one dose of Vitamin A Supplement



Source: DLHS – 2002 and DLHS - 2007

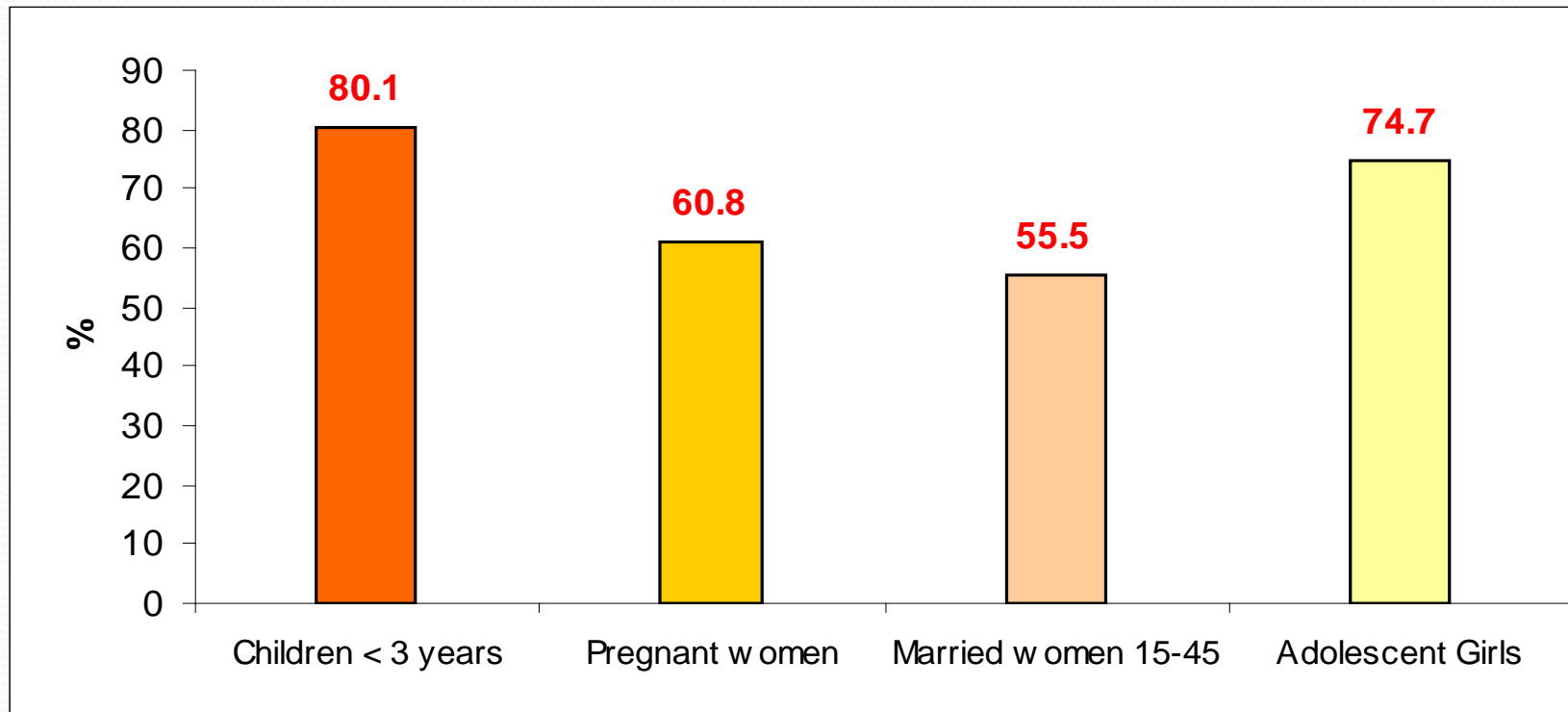
## **Interventions for Micronutrient Malnutrition**

# **Anaemia Control Programme**



## Interventions for Micronutrient Malnutrition

### Prevalence of Anaemia in Gujarat ( NFHS III )



**Iron Deficiency Anaemia affects 50% population in India**

**Anaemia is characterized by a low level of Haemoglobin in the blood, which is essential for transport of Oxygen.**

# Interventions for Micronutrient Malnutrition

## Anaemia Control Programme

**Children  
1-5 years**

**One small IFA  
for  
100 days every Year.**

**Antenatal women &  
Post natal women**

**Non anaemic mothers  
1 IFA tablet per day  
for 3 months**

**Anaemic mothers  
As per  
Anaemia Protocol**

**School going Adolescent  
Girls 12-18 years**

**One Large IFA  
once a week  
in school**

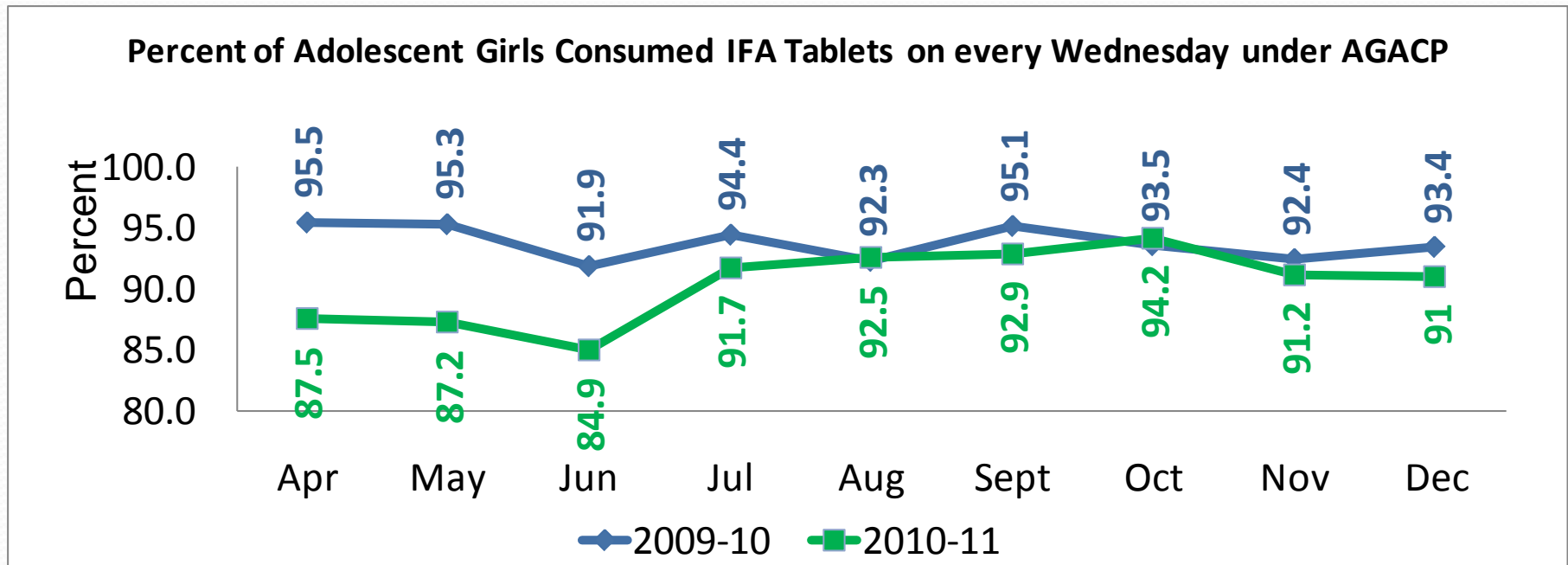
***Adolescent Girls  
Anaemia Control  
Program (AGACP) in  
Gujarat (2005 Onwards)***

## *Adolescent Girls Anaemia Control Program (AGACP) in Gujarat*

- **Goal:** At least 20% reduction in the prevalence of anemia among adolescent girls.
- **Interventions:** Since 2004, adolescent girls of secondary and higher secondary schools (Standard 8th to 12th) are given one tablet of IFA every Wednesday under supervision of teacher.
- Out-of school adolescents in each village are being supplemented with IFA tablets on Mamta Diwas under Mamta Taruni Program (Through Health).

# Adolescent Girls Anaemia Control Program (AGACP) in Gujarat

1. Average no. of adolescent girls attending “Shala Vikash Sankul” every month (2010-11 upto Dec) **13,10,864**
2. Average no. of adolescent girls consuming IFA tablets in front of teacher on Wednesday every month **11,87,402**
3. Percent of adolescent girls consuming IFA tablets **90.6%**



Source :- Education Dept.

# Anemia control



## Health:

- IFA supply to ANC and PNC (98%)
- IFA course completion by ANC 30%
- State protocol of Anemia management in ANC and Preschoolers

## Interventions:

- IFA DOT
- Hb estimation by colour scale
- Adolescent anemia (MAMTA Taruni)
- Building up counseling skills
- IEC/BCC

## WCD ICDS:

- Enhanced coverage
- Fortified supplement
- Qualitative content
- Iodised salt” distribution under PDS  
68%

## Civil supplies:

- Fortified wheat flour supply to antyoday families (92%)
- Soya fortification

## Forest:

- Drumstick plantation (76% target covered)
- Mechanism for making saragava available to the poor families

## Gram panchayat :

- Community kitchen garden(100%)
- Awareness and ownership

## Co operatives;

- Vegetable banks (100% of the target societies)
- Dudh dan; shak dan and sukhdi vitran

## Interventions for Micronutrient Malnutrition

### Iodine Deficiency Disorder Control Programme



# Goal

- HH consumption of adequately iodized salt is scaled up to 80%

## Interventions

- Iodized salt promotion campaigns
- 1.5 kg iodized salt distribution to all pregnant and lactating women through Mamta Diwas
- Salt testing is being done at grass root level by Female Health worker
- Six regional IDD monitoring laboratories established in six government Medical College
- Regular IDD surveys by Government Medical Colleges
- Advocacy and sensitization of salt producers for adequate iodization.
- Awareness programme in schools



## Interventions for Micronutrient Malnutrition

Iodine is an essential micronutrient. Required for normal body growth and mental development.

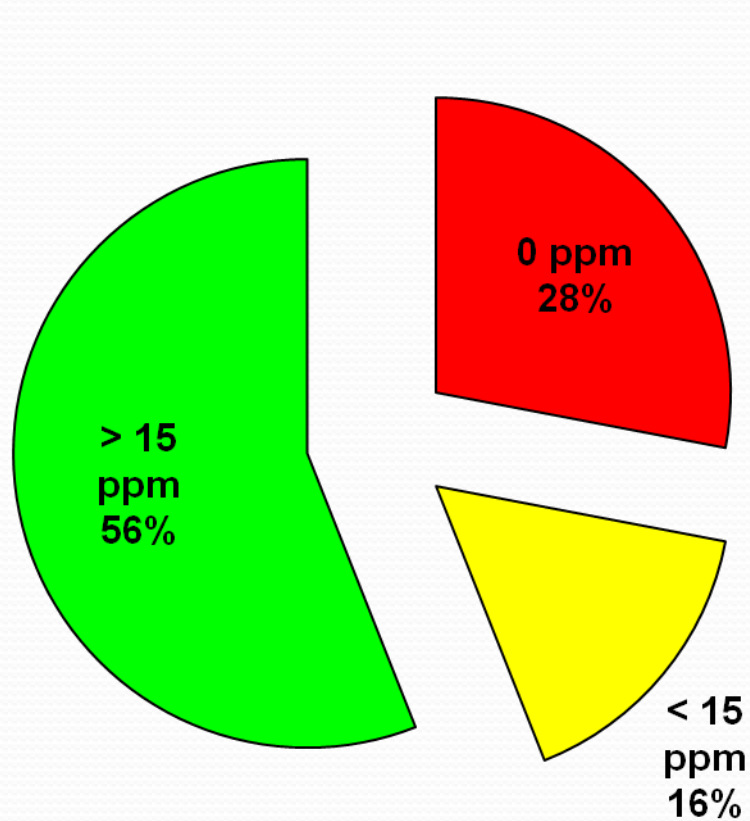
The effect of Iodine deficiency is **Most critical** during **Pregnancy** and **Childhood**. It could result in :

- Abortion
- Still Birth
- Birth of Mentally Retarded babies
- Goiter
- Dwarfism
- Deaf –mutism
- Squint
- Neuro motor disorders

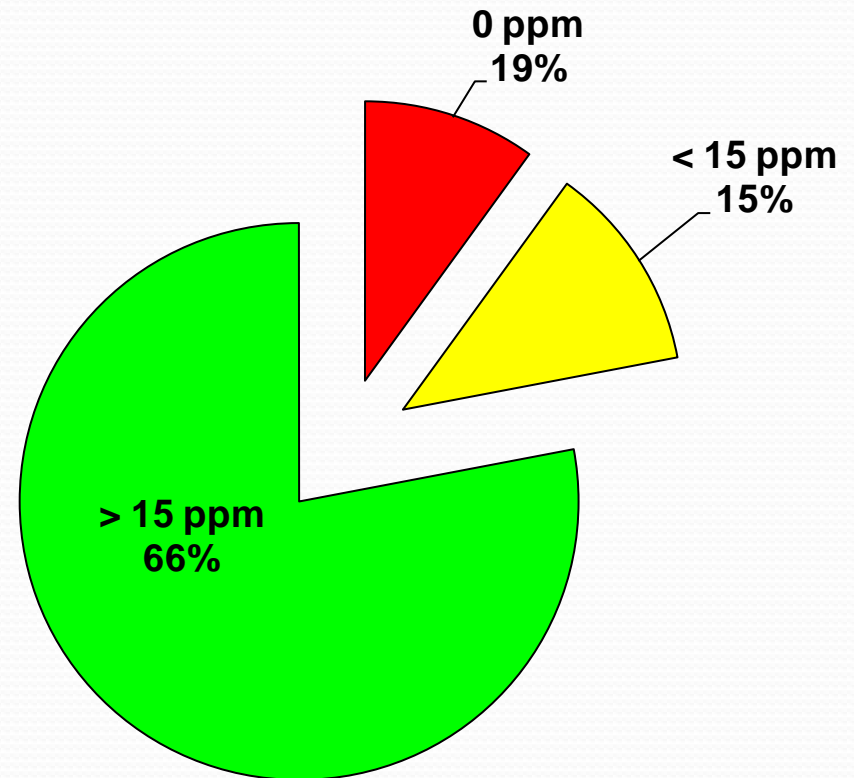
These disorders can be prevented easily before they occur.

The simplest method to prevent disorders of Iodine deficiency, is to consume Iodated Salt daily. This is the most effective and inexpensive intervention to prevent IDD

# Status of Adequate Iodized Salt Consumption in Gujarat

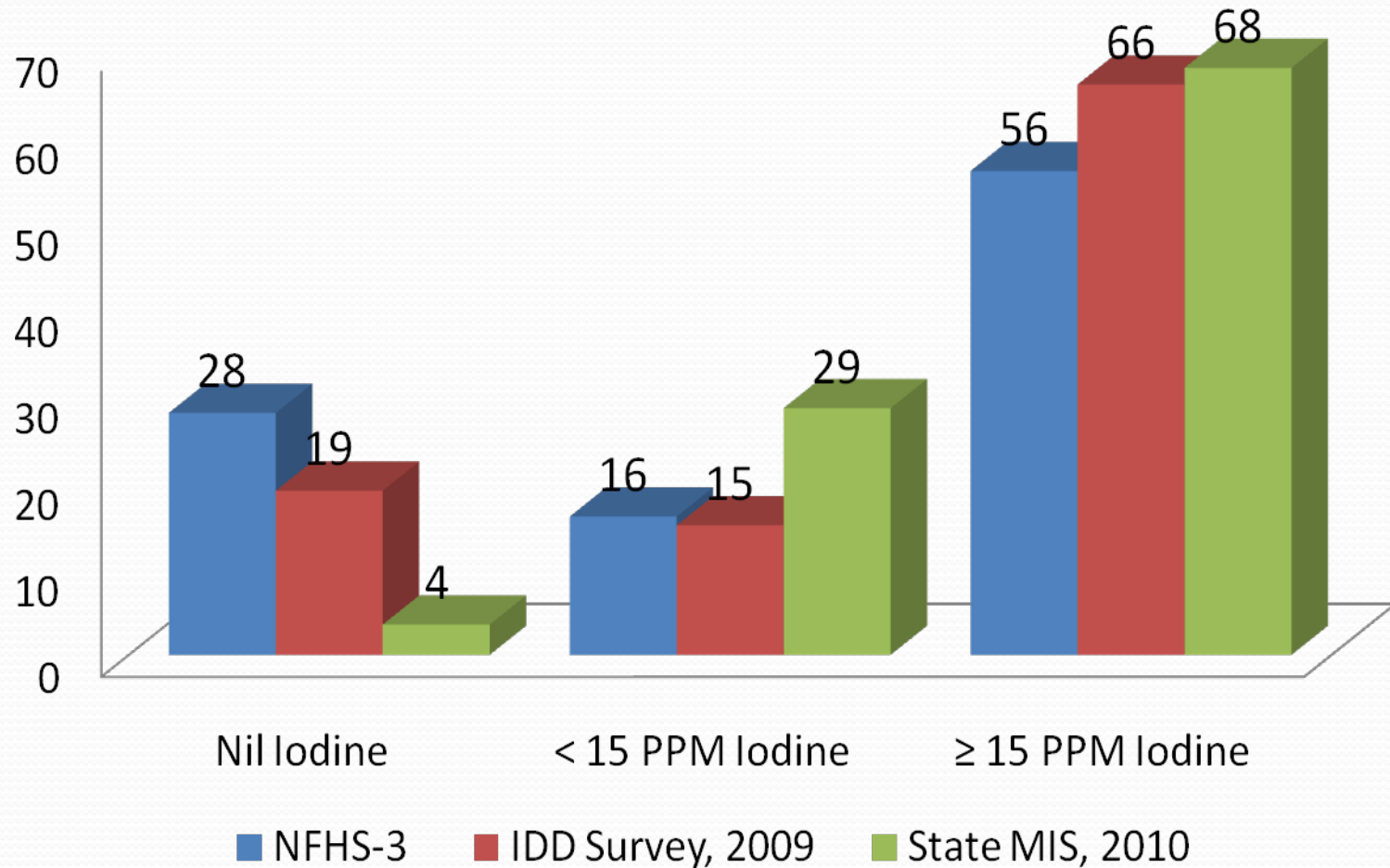


NFHS -3, 2005



IDD Survey 2009

# Status of Iodised Salt Consumption and Achievement of NIDDCP



# CHILD DEVELOPMENT NUTRITION CENTRE (CDNC)



**Residential arrangement in CDC**



**Playing Equipments in CDC**

## Objective

- To provide treatment and nutritional care to the severely malnourished children
- To ensure adequate nutritional supplementation under the guidance of a nutritionist
- To arrest the number of Growth Failures and Growth Defaulters (GF/GD)
- Capacity building of mothers on IYCF (infant and young child feeding practices) and child feeding and training on preparation of low cost nutritious diet

## Activities

- Severely malnourished (Red Zone) children admitted who were identified on Mamta Diwas and from Village meeting conducted by village team
- Children are given nutrition rich food under guidance of nutritionist, medicines for identified diseases and infection
- Diet is modified according to child age and health
- Mothers counseled on various topics of Health & Nutrition

## Status of CDNCs Year 2010-11 and 2011-12(1<sup>st</sup> Quarter)

| Particulars                        | Year 2010-11<br>(up to Mar'11) | Year 2011-12<br>(Apr to June) |
|------------------------------------|--------------------------------|-------------------------------|
| Districts                          | 18/20                          | 19/20                         |
| Functional CDNCs                   | 67/73                          | 68/73                         |
| Reporting CDNCs                    | 60                             | 63                            |
| Population covering under CDNCs    | 1,47,36,926                    | 1,53,84,949                   |
| Village meetings Organized/Planned | 3327/4311                      | 1239/1628                     |
| AWCs covered in village meetings   | 5208                           | 1701                          |
| Children weighed                   | 1,56,436                       | 55282                         |

| Particulars                | Year 2010-11(up to Mar'11) | Year 2011-12 (Apr & June) |
|----------------------------|----------------------------|---------------------------|
| Children found in Red Zone | 28082 (18.0%)              | 9578(17.3%)               |
| SMCs admitted              | 10867 (38.7%)              | 4633(48.4%)               |
| SMCs completed 10 days     | 10320 (95.0%)              | 4409(95.2%)               |
| SMCs drop-out              | 547 (5.0%)                 | 224(4.8%)                 |





# **Gujarat Integrated Nutrition Project**



# Gujarat Integrated Nutrition Project

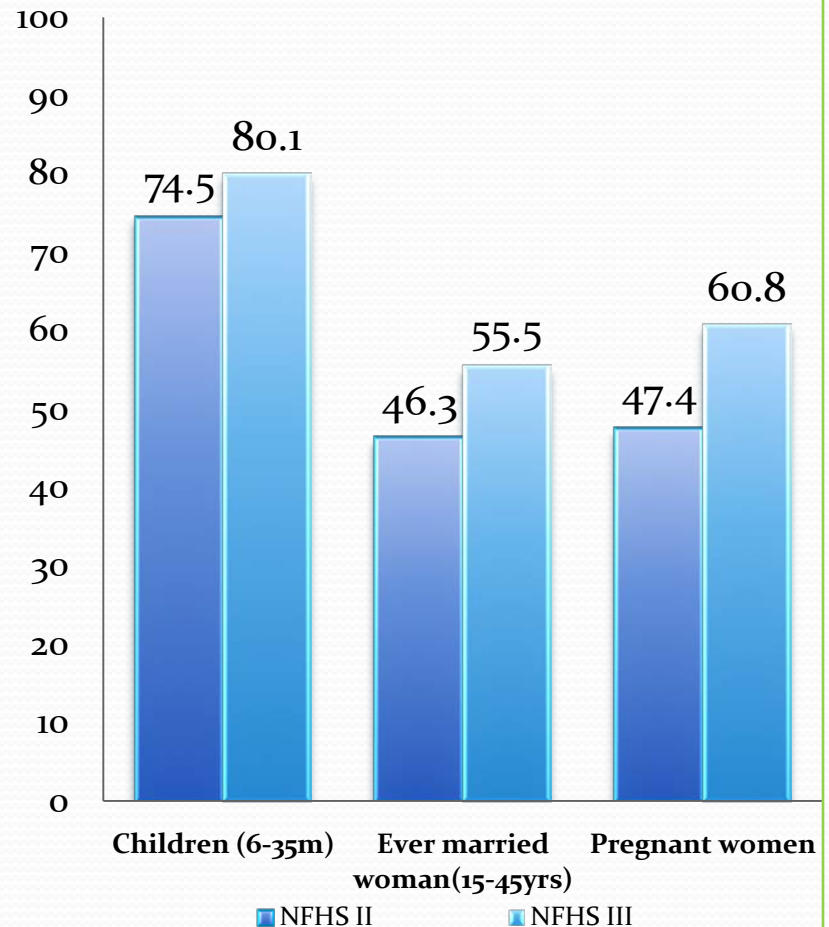
- For effective implementation of Inj. Iron sucrose therapy in severe anemia cases training workshops were conducted at Surat, Vadodra and Ahmedabad Medical colleges to cover 12 tribal districts in 3RDD regions.
- RDDs, CDHOs, CDMOs, RCHOs, Gynecologist, Superintendents of CHCs, District Hospitals (DH), Sub District Hospitals (SDH) participated in that workshop.
- Though inj. Iron Sucrose have not been provided through State, purchases are being made through RKS and other sources and in that way, activities have been started at many of the places.
- An amount of 2.32 crores has also been released for expenditure on
  - 1)Transportation and wage loss to mothers (Rs. 50+Rs. 50) for average 10 visits
  - 2) Lab. investigation and consumables needed for severe anemia treatment through respective RDDs.
- Purchasing of Inj. Iron sucrose is in under process whereas acceptance of tender for haematological analyzers have been made.

# GINP

## Gujarat Integrated Nutrition Project Suggested Interventions

- Universal screening and Hb. estimation of pregnant and Breast feeding women, adolescent girls by automated haematology analyzers in 12 tribal districts
- Universal Screening of the children in the age group 0- 5 years by palmer-pallor method
- Severe Anemia Treatment with intra venous injection of Iron sucrose complex.
- Convergence of the Health and the WCD Department

## ANEMIA PREVALENCE RATE IN GUJARAT





*Mamta Taruni Abhiyan  
Gujarat*

# Programmes for Adolescents in the State

1. Adolescent Friendly Health Service
2. MAMTA Taruni Abhiyan
3. Promotion of Menstrual Hygiene
4. Scheme for Empowerment of Adolescent Girls (SABLA)
5. Adolescent Girl's Anemia control Programme
6. School health program
7. Sickle Cell Anaemia/Thalesemia control program
8. ICTC/PPTCT

# Purpose of Mamta Taruni Programme

- Special intervention for **out-of-school girls aged 10 to 19 years**, who are always excluded from health services. Also girls enrolled in school but **not attending school** are provided services.
- To meet the special needs in **health, nutrition, and life skill development**.
- In **2009-10, 9 districts** namely:- Dahod, Tapi, Banaskantha, Panchmahal, Narmada, Sabarkantha, Bharuch, Vadodara, and Dang were covered on pilot basis.
- In 2010-11 the scheme was implemented in all 26 districts of Gujarat.

# Roles of Health and ICDS Functionaries on Mamta Taruni Abhiyan

| FHW   | AWW  | ASHA  | PE  |
|---|--|---|---|
| <ul style="list-style-type: none"><li>• Calculation of BMI.</li><li>• Maintenance of records</li><li>• TT Immunisation,</li><li>• Hb. estimation</li><li>• IFA supplementation to adolescent girl</li></ul> | <ul style="list-style-type: none"><li>• Registration of Kishori</li><li>• Measurement weight and Height</li><li>• Purak poshan</li></ul> | <ul style="list-style-type: none"><li>• Mobilisation of adolescent girls</li><li>• Monitoring the consumption of IFA tablets during home visits</li></ul> | <ul style="list-style-type: none"><li>• Providing leadership to the group.</li><li>• Life Skill Education through Hum Tum Module.</li><li>• Coordination with stakeholders.</li></ul> |

# ICDS Nutrition Programs

1. **Kishori Shakti Yojana:** To improve the nutritional, health and development status of adolescent girls, promote awareness of health, hygiene, nutrition and family care.
2. **SABLA:** It aims at empowering adolescent girls of 11-18 years by improving their nutritional and health status, upgradation of home skills, life skills and vocational skills.
3. **Annaprashan Divas :** Celebration of Annaprashan in AWC on Fourth Friday of every month to improve complementary feeding practices.
4. **Ready to cook Take Home Ration specific to needs of children under 6 years of age, pregnant, lactating mothers and adolescent girls (Bal Bhog, Sukhadi, Sheera, Upma)**

Cont.

# ICDS Nutrition Programs

5. **Decentralisation:** Fruit, Milk and Breakfast distribution through Matrumandals / SHGs
6. **Growth Monitoring:** Children below the age of three years of age are weighed once a month and children 3-6 years of age are weighed quarterly. Weight-for-age growth cards are maintained for all children below six years.
7. **Nutrition and Health Education (NHED):** BCC (Behaviour Change Communication) strategy in the age group of 15-45 years – about their own health, nutrition and development needs as well as that of their children and families.
8. **Indira Gandhi Matritva Sahyog Yojana (IGMSY) - A Conditional Maternity Benefit Scheme:** Encourages the women to follow (optimal) IYCF practices including early and exclusive breast feeding for the first six months. Contributes to better enabling environment by providing cash incentives for improved health and nutrition to pregnant and lactating mothers.



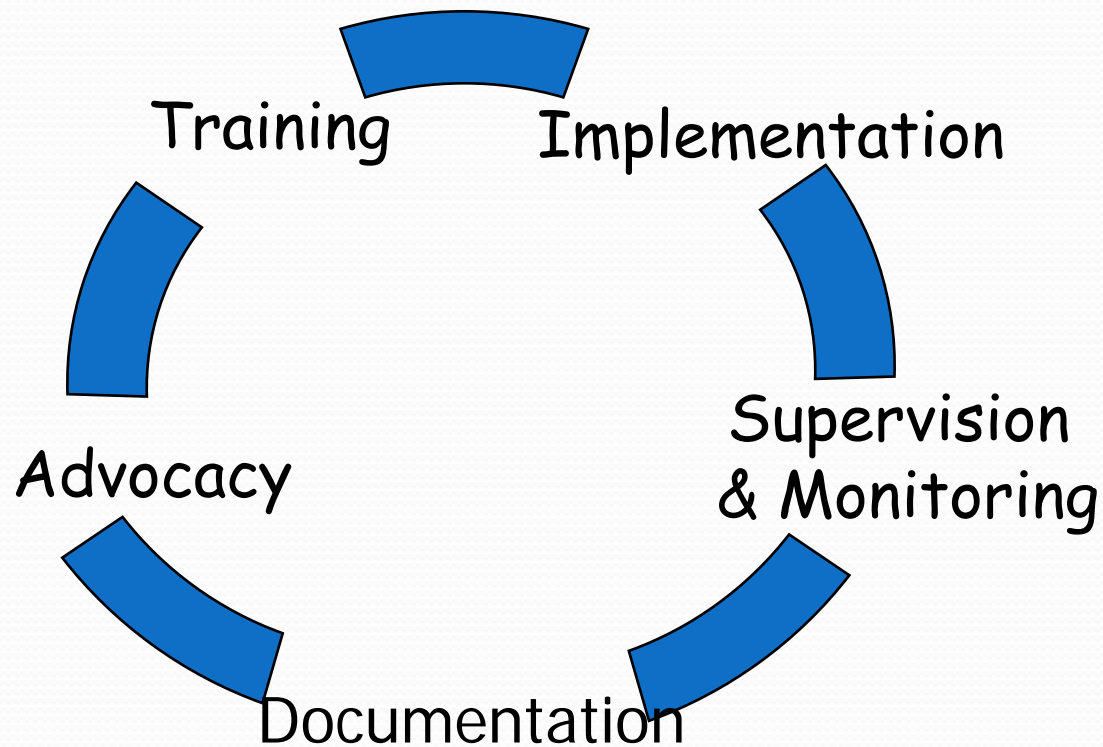


# **Nutrition related Training in Child Health**

# Nutrition related Training achievements in Child Health up to July,2011

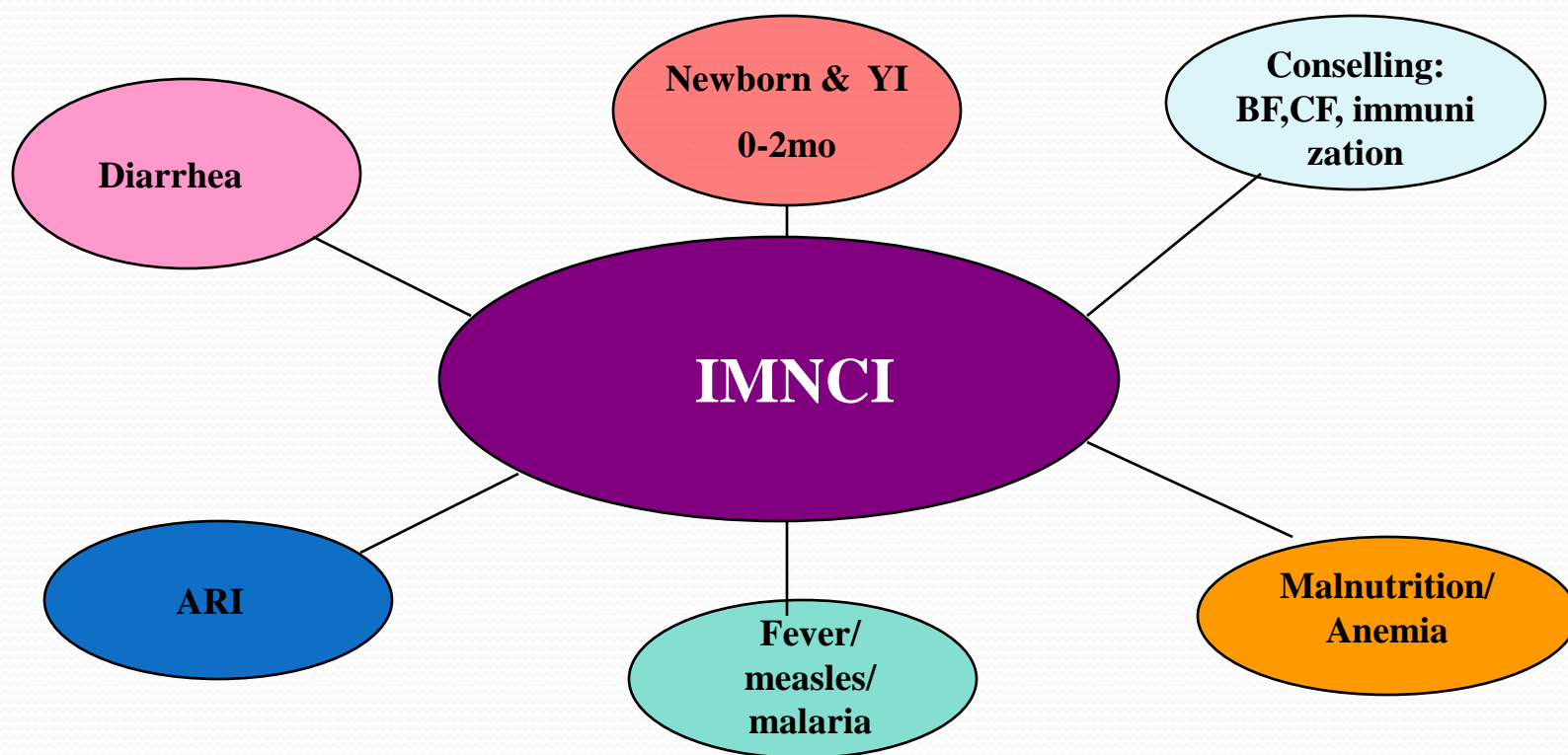
| Name of Trainings | Achievement up to July, 2011 | Cumulative Achievement-Since Inception                 | Since Year |
|-------------------|------------------------------|--|------------|
| IMNCI             | 331-MO<br>5719 FHW/<br>AWW   | 1695-MO<br>38067 FHW/AWW<br><br>-----<br>Total - 39762 | 2005-06    |
| NSSK              | 1058-MO<br>5760-FHW/SN       | 1058-MO<br>5760-FHW/SN<br><br>-----<br>Total - 6818    | 2010-11    |

IMNCI/F-IMNCI/ NSSK : Not just a training package but Nutritional Intervention



**Child health Trainings boost Nutritional Behavioral Change in Communities.**

# IMNCI-Gujarat



# Conclusion

*“Many things we need can wait.  
The Child cannot. Right  
now is the time his bones are  
being formed, his blood is being  
made and his senses are being  
developed. To him we cannot  
answer “Tomorrow”.  
His name is “Today”.”*

*- Gabriela Mistral -*





**Thank You..**