

Child health related interventions to reduce child mortality

Dr.(Mrs.) Phadke M.A.

MD, DCH, FIAP, MRCP(UK), FRCP CH(UK), MNAMS, FNAMS

- **Sr. Adv., NHM, UNICEF**
- **Former Vice Chancellor of Mah. University of Health Sciences.,
Prof of Pediatrics, Dean, DMER.**





SRS(Sample registration survey) data on mortality in last 3 years

◆ 2017-2018	2019	2020
◆ Neonatal 11	13	13
◆ Infant 19	17	19
◆ under 5 21	21	21
◆ For Maharashtra		



Covid 19 in India

- ◆ India battled covid for 2 years.
- ◆ The disease morbidity, mortality,
- ◆ Suffering of women and children
- ◆ Lockdowns, job losses, supply chain disruptions, inflation will have lasting effects on the populations.
- ◆ **Fortunately** 3rd wave has **waned** and all restrictions are removed. Delta replaced by omicron. BA1, BA2, (XE?)



COVID 19


- ◆ Covid-19 created havoc in the world.
Humanitarian crisis
- ◆ Collateral damage – silent food crisis.
- ◆ 100 million Indians vulnerable for food crisis.
- ◆ 52 millions newborns in Covid time.
- ◆ Women, children, girl child vulnerable.
- ◆ 30% urban India has run out of savings.
- ◆ Rural India better.



52 million women have become pregnant in Covid times

10 % loss in salary results in 1% decrease in protein and .8 % carbs.

Nutrient rich food 10 times costlier than Staple food like grains. Fruits veggies not affordable, Available



Lancet 2020-14% increase in WASTING

**India's global hunger index position
102/117**

**Bangladesh 88, Pakistan 94
Lancet July 21.**

**Covid has resulted in 30% reduction nutr
sevices.IYCF, ICDS,
middaymeal,Adol,AMB**

**P menon household insecurity increased
from 21 to 80% BMJ.21.**

Covid mortality in children

Age Group	2020		2021		2022	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
0-5	34231	82	67300	201	15651	15
6-17	126827	139	343894	164	82152	28
Grand Total	161058	221	411194	365	97803	43



Medical impact of covid

Direct – Nutrition affected.(appetite, taste, vomiting, diarrhoea)

Kinikar SAM, Anemia severe covid.Lalwani-no such effect .

Healthy children got MAM, SAM ,anemia MISC(Prabhu), no covid toes hands

Indirect collateral

- Covid affecting Food security challenges

Girls leaving online schools, married



IMP data RBSK from Maharashtra

- ◆ A total number of 12826583 children were examined in 2020. Out of them 332(0.002%) were detected to have **neural tube defects** .In 2021 the no became 0.04%
- ◆ ie 2 **times higher**.
- ◆ **Similar data show thinness in children were 4 times more in same years.**
- ◆ **Girls married in covid times.(Narrative 1)Folic acid deficient diet**



Pregnancy and covid

Intercovid study Oxford

JAMA 2021

Covid increases risk of maternal death 22 times, fetal distress 1.7 times, prematurity 1.2, low birthwt. 1.6, PIH. 1.5

Covid in children

925 babies. Mallik (Nair Hosp,)

Maha data -still bths, pretm,abo,

Year	Total number of pregnant women registered for ANC	Live Birth - Male		Number of Pre term newborns (< 37 weeks of pregnancy)	Still Birth	Abortion (spontaneous)	MTP up to 12 weeks of pregnancy	MTP more than 12 weeks of pregnancy
2017-18	2180670	904090		59961	16639	60109	148213	12589
2018-19	2100266	892139		66183	16392	54588	145243	9730
2019-20	2051346	924996		63399	14614	53288	133996	9917
2020-21	2048042	910733		51023	14017	41075	101356	7283
2021-22(upto Feb.2022)	1948537	827076		51598	13114	40454	108424	12430



- ◆ **During covid times, still births, preterms and low birth wt babies increased by around 20%**



Lessons from NFHS 5 data

- ◆ **Mah**
- ◆ **Stunting 35%**
- ◆ **Wasting 25 %**
- ◆ **Severe wasting 10 %**
- ◆ **Undernutrition 36 %**
- ◆ **similar or even worse than NFHS4**
- ◆ **Midday meals stopped.**



Effect of Covid, post covid low birth wt- going in malnutrition

- ◆ So, compounding effect of increase in low birth wt babies post covid, food insecurity and deteriorating results of NFHS4, 5
- ◆ Needs to change -
- ◆
- ◆ **Opposite data on SAM -only 2% Study of 1 crore babies unpublished. GOI will involve IAP to validate this data**
- ◆ **TRUSTWORTHY DATA**

DOUBLE and TRIPLE BURDEN OF NUTRITION

- ◆ Double burden is
 - ◆ Undernutrition- Stunting, wasting and underweight. And
 - ◆ Overwt. and obesity
- COEXISTENCE together-WHO 2014 resulting in diet related NCD within Individuals,**
- ◆ **Households, societies, population across life course**



TRIPLE BURDEN

- ◆ **Malnutrition of 21st century. UNICEF report state of world's children 2019**
- ◆ **1. Undernutrition -all 3 components**
- ◆ **2. Overwt, obesity**
- ◆ **3. Micronutrient deficiency.**
- ◆ **For 1 wasted child ,there are 3 stunted ,7 with micronutrient deficiency and 0.8 Children with obesity. They COEXIST**





NFHS 5 data on anemia

- ◆ **Mah**
- ◆ **< 5 yrs 68%**
- ◆ **Pregnant - 45**
- ◆ **Worse than NFHS4 49-54**
- ◆ **What is the reality ? No supply of IFA, poor quality, children ,women not taking, vomiting or gut not absorbing IMP to get reasons**
- ◆ **Diarrh.children has increased in NFHS 5**

What should be the plan of action?

- ◆ Focus on adolescent girl Wt, Ht, MUAC
- ◆ Why is anemia increasing ? More than 10%
- ◆ Unavailability of iron tabs or girls not getting them to their not swallowing them to gastric disturbance.absorption
Strengthen AMB.
- ◆ Marriage and Periconceptional folic acid to prevent NTD.
- ◆ Multiple micronutrient supplement



Causes of deaths in children

◆	16-17	20-21
◆ Premat. low b w	21%	25
◆ Birth asph	13	12
◆ Cong malfor	9	9
◆ pneum	8	5
◆ RDS	9	10
◆ Sepsis	7	8
◆ Diarrh	<1	
◆ Injuries, SIDS, others	26+	





Immunization coverage

- ◆ Fully immunized 73%
- ◆ BCG 93%
- ◆ Measles, penta, polio 80-86
- ◆ Rota 8%
- ◆ 2nd measles or MR 20%
- ◆ Pneumococcal ?
- ◆ Covid 12-15 yrs just started 15-18 going on
- ◆ Private sector data?

IYCF, Malnutrition

- ◆ Mah Odissa
- ◆ BF in first hr of birth 53 %
- ◆ Excl BF 6 mths 71
- ◆ Some Com Feed >6 52
- ◆ 67BF Adequate diet 6-23m 8.4
- ◆ Direct all programs towards improving compl feeding.
- ◆ Malnutrition related deaths
- ◆ Hypoth, Hypoglycemia, no data



So,our battle is still on SAM

Screening detection and treatment

MISSING LINK -

**DETECTION OF SAM-Good ASHAs
anthropometry below 6 months**

Wt for age. wt for length, MUAC(Mar 22)

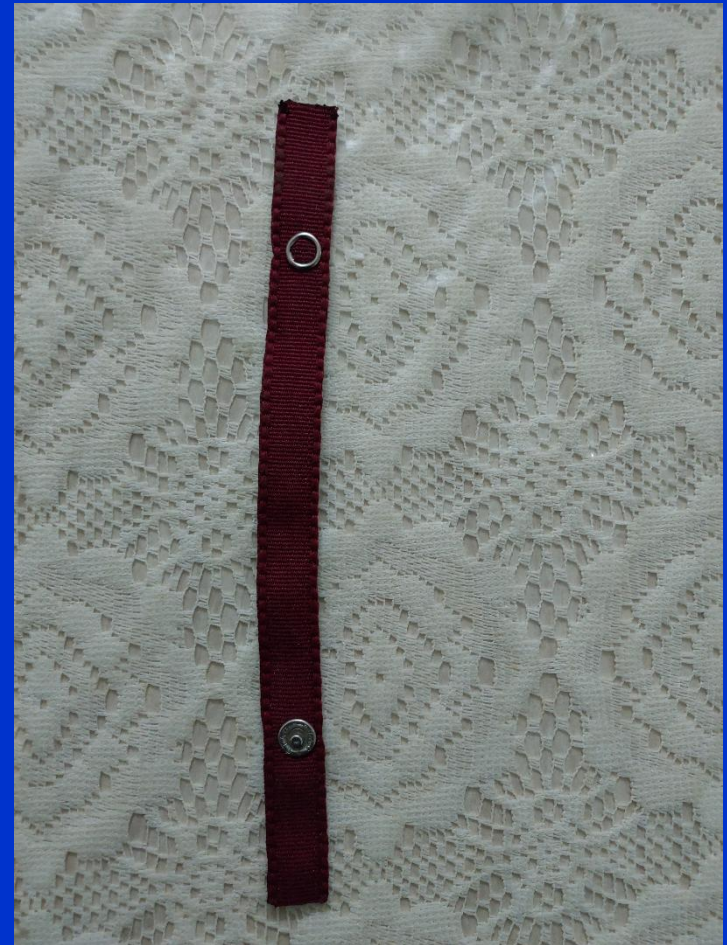
Create baseline data

Maharashtra is in the process

MPH N students , ANM, AWW



MAA tape-Mother's assessment
for action. Empower the mother-
for early action Raji Nair
3000 Babies.



MAA tape being applied by MPH student





VCDC, CTC, NRC concept revive the PYRAMID

- ◆ NFHS 3 -4 VCDC functional (ARF, RUTF or Home made RUTF EDNF low dose, - NRC amalgamation in ped wards?

Start in medical colleges (MPHN)

- ◆ Include MAM children in treatment protocols (Guidance 2020 July)
- ◆ MUAC 12.5 or Wt for ht less than -2 SD
- ◆ Role of RUSF, lipid based pastes
- ◆ ECD at all levels

OBESITY and OVERWEIGHT (Narrative 7)

- ◆ 20% of obese infants, 40% of obese children, 80% of obese adolescents become obese in adult life.
- ◆ What measures to use
- ◆ BMI at birth 18, **5 years 15**, 18 years 18.5
- ◆ If no nadir or dip at 5 years, it predicts obesity.
- ◆ Wt for ht.



JUNCS FOOD-I.A. P.

J-Junk food

U Ultraprocessed foods

N-Nutritionally inappropriate foods

C –carbonated, caffeinated drinks

S- sugar sweetened beverages
and foods.



Data generation

- Valid and trustworthy data
- Base line studies
- Use technology KOBO tool
- Wt, length, below 6 mths
- Community vs facility, good instruments available, calibrated



Actionable points

- **Low birth wt babies,**
- **Revive IMNCI trainings fully**
- **When to refer and early referral.**
- **Have linkage with tertiary hosp. med. colleges eg Aundh and Sassoon**
- **Coordinate with other depts WASH**
- **CHO can be given RCH duties in addition**



Medicines and Equipment

- Available and in working condition
- Antibiotic policy- No higher antibiotics in community. Supply of nutrients correct
- Training on their use
- Medical colleges must train on national program
- Facility for DEIC, ROP, BERA



Finally what should we do?

- ◆ **Base line data generation Validation**
- ◆ **MMA tape, distant measurements, mothers empowerment, Tape for adolescent girl**
- ◆ **Inclusion of MAM babies in treatment SAM**
- ◆ **VCDC, CTC, NRC**
- ◆ **RUSF, optimise EDNF**
- ◆ **Universal Food fortification-salt iodine, iron**
- ◆ **Training**



To conclude,

Training, data generation

- ◆ **Change nutrition narrative**
- ◆ **Focus on adolescent girl**
- ◆ **Complementary feeding**
- ◆ **Strengthen Iron folic acid prog**
- ◆ **Triple burden No to JUNCs food.**
- ◆ **Include MPHN in appt of CHO, MO, DEIC nurses**

THANK YOU

