



Starting Interventions Early in NCD – A way forward

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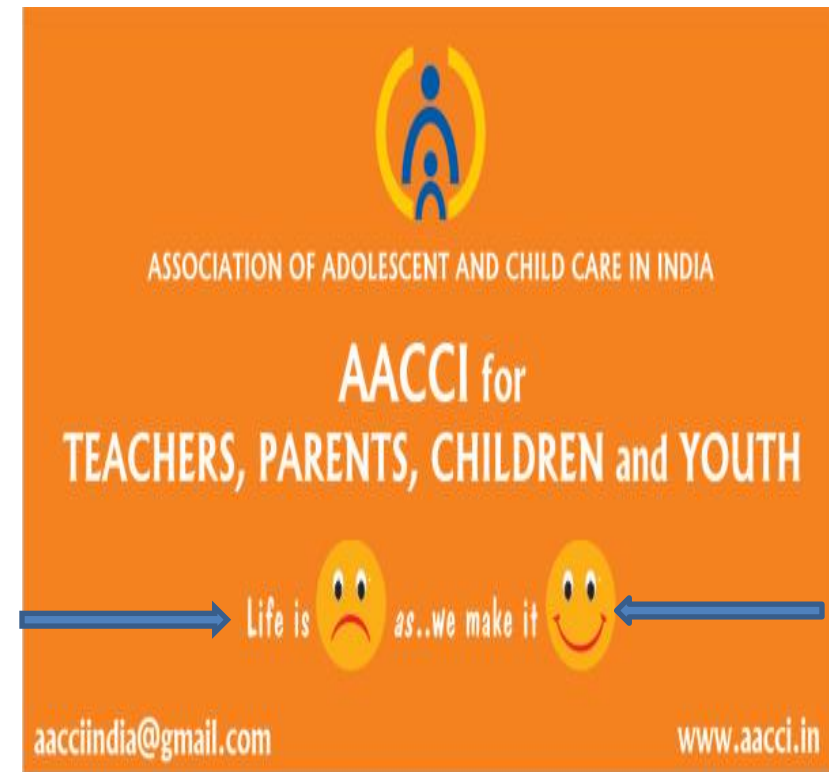
Delivered by
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Co-ordinator, AACCI - Pune Branch



Association of **A**dolescent and **C**hild **C**are in India.

Founded in 2008 - We are a group of Doctors - Pediatricians & Physicians of all specialties (including mental health professionals)

Doing URBAN based work with parents , teachers and students in school and college



**Our MISSION is
Promotion of HEALTHY LIFE STYLE &
Prevention of LIFE STLE associated diseases**

Our MOTTO for kids -----is LIFE STYLE is AS WE MAKE IT

We have presented many **Research papers on Youth life style** and behaviour at National and international forum

NCDs' are a Life-course issue

LIFE COURSE MEANSFROM PRE-CONCEPTION
TO DEATH

We need to do **Early interventions in childhood
& Adolescence** to prevent Adult NCD's

Which makes the **role of Pediatricians' & Teen
Specialists** in NCD Prevention VERY IMPORTANT

We need to **increase awareness** in the
community about this and also do **capacity
building** of the stake holders for the same

Starting Interventions Early in NCD – A way forward

- 1 *Preconception stage* – Nutrition and health of Adolescent girls – Healthy mother- Healthy New born
- 2 *Infancy* - Breast feeding & Complementary Feeding
- 3 *Toddlers /Children* – Promoting physical Activity & prevention of consumption of HD/ HS/ HS Food
- 4 *Adolescence and youth* – In addition to above factors prevent addiction to **tobacco & Alcohol**

Preconception -Maternal health

Barkers Hypothesis Fetal origins of adult-onset diseases (FOAD)

- Malnourished mothers produce low birth weight babies which have hyperinsulinism and high risk of Type 2 diabetes and coronary heart disease

Interventions :

- 1) Prevent malnutrition in Girl child
- 2) Prevent Malnutrition in adolescent girls
- 3) Prevent early Teen age pregnancies
- 4) Prevent Gender discrimination that leads to above

THRIFTY
PHENOTYPE
HYPOTHESIS

FOAD now DOHaD –

Developmental Origins of Health & disease

Hypothesis for DOHaD

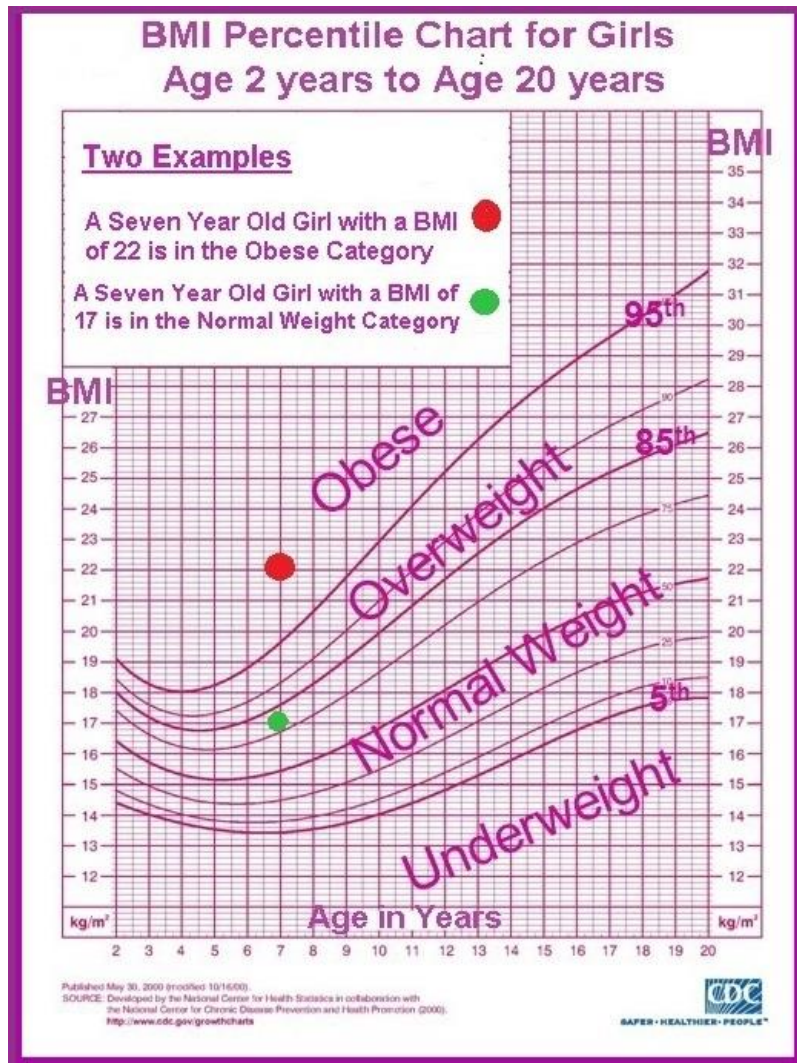
- *Multi phasic Nutritional Insult*
- *Genes + early Under nutrition + subsequent Over nutrition*
- *Fetal origins or later lifestyles or both*

THIS EMPHASISES THE IMPORTANCE OF PROMOTING
HEALTHY LIFE STYLE(Nutrition sleep & exercise)
RIGHT FROM TODDLER AGE TO ADOLESCENCE

Early intervention in Infancy

- **Intervention** : Encourage Exclusive breast feeding for 6 months in all women and introduce healthy weaning food to prevent obesity in young.
- Educate the community and young mothers that breast fed babies have very low risk of Obesity , Hypertension , diabetes and some cancers

Tracking of BMI from New born to Adolescence



Intervention :Tracking of BMI chart from Birth to adolescence in every child is the best way to prevent OBESITY which is the precursor for many NCDs'.

Crossing of centiles should be prevented

LBW are at higher risk of *metabolic syndrome* if they gain weight suddenly

The concept of THIN FAT BABY – LBW which have high Adipose tissue



ENCOURAGE USE OF BMI CHARTS

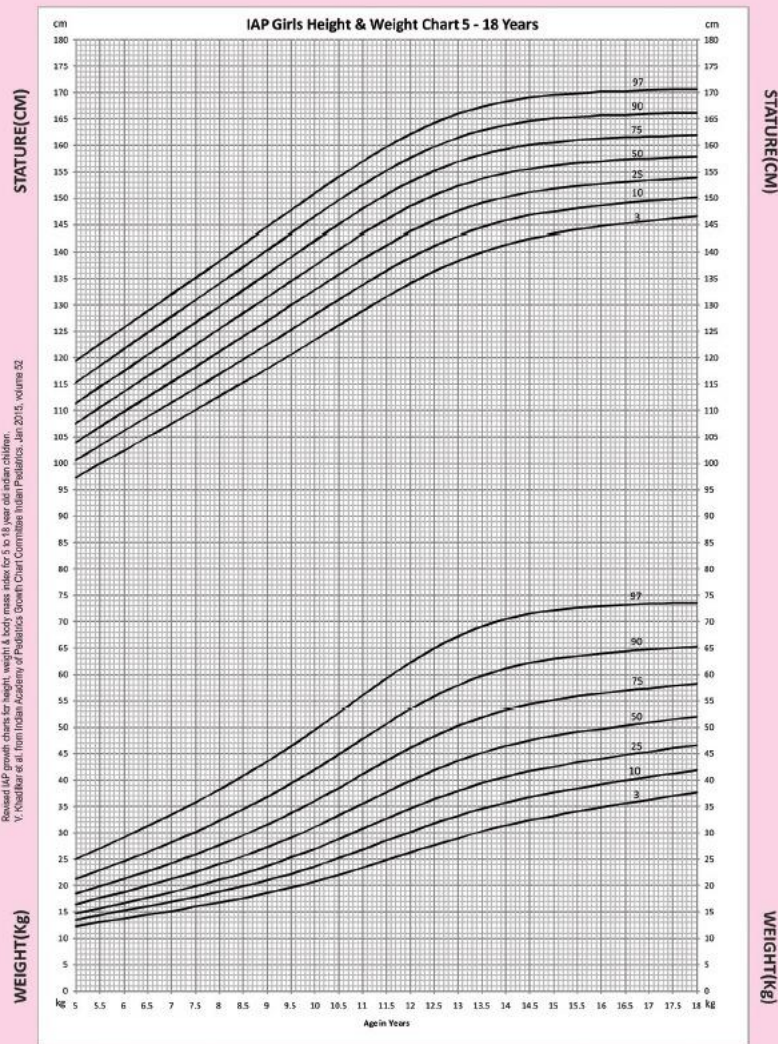
- We need to spread awareness that BMI tracking is part of **Well Adolescent Monitoring**
- BMI charts should be used by **ALL physicians not just pediatricians** dealing with Adolescents including family Physicians
- IAP has come out with standardized Growth
 - (height /weight) and BMI charts for Indian Children in 2015 which are available free in downloadable versions on
 - IAP website www.iapindia.org



IAP BMI CHARTS www.iapindia.org

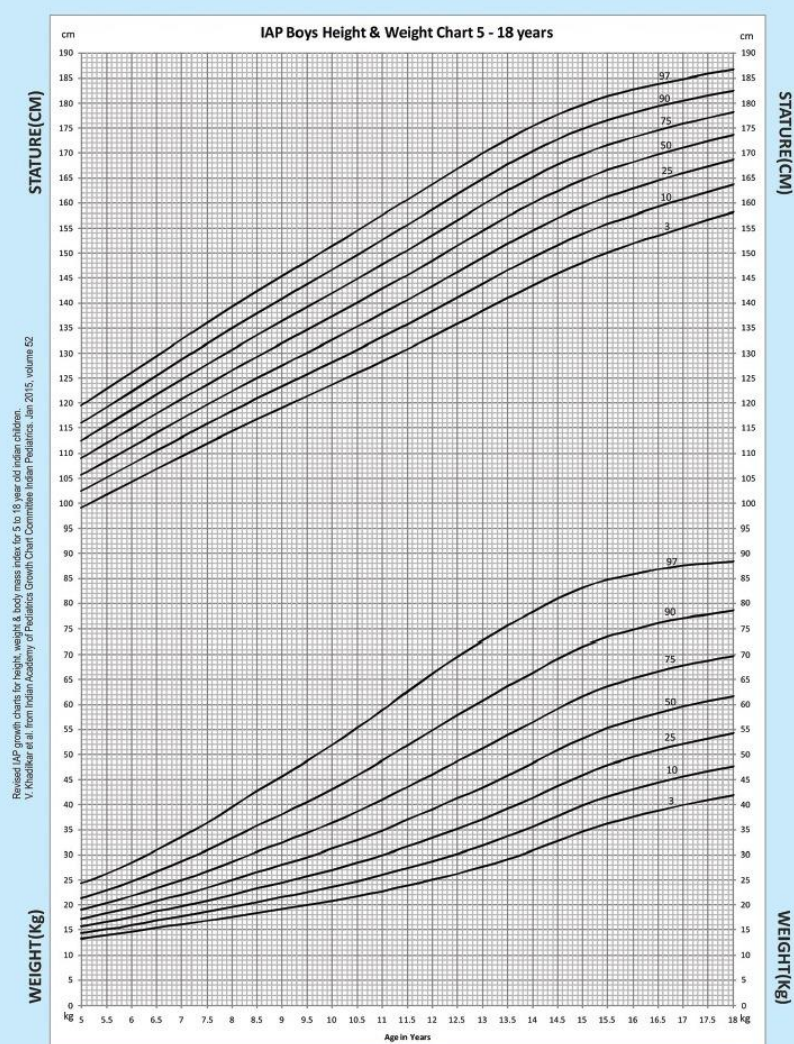
5 to 18 Years : IAP Girls Height and Weight Charts

Father's Height _____, Mother's Height _____, Target Height _____



5 to 18 Years : IAP Boys Height and Weight Charts

Father's Height _____, Mother's Height _____, Target Height _____





Challenges in Youth in India

Increasing incidence of obesity in children and Adolescents

- **Reduced physical Activity :**
 - *Academic pressures- less time to play , unsafe playgrounds, Electronic gadgets ,Internet and social media addictions*
- **Increasing incidence of tobacco and alcohol consumption starting in the very young**



Constituents of the Metabolic Syndrome (Syndrome X, Insulin Resistance Syndrome)

Indian population is genetically at high risk for metabolic syndrome - *obesity, Type 2 Diabetes, Hypertension and cardiovascular diseases*

SCREENING of YOUNG People very important – increasing incidence in obese adolescents

Central Obesity: waist circumference

> 90 cms for males > 80 cms for females)

Criteria for the diagnosis of the metabolic syndrome are:

Central obesity + any two of the following four factors*

- | | |
|---|---------------------------|
| • Raised serum triglycerides | > 150 mg /dl |
| • Reduced serum HDL cholesterol | < 45 mg / dl |
| • Raised blood pressure (BP systolic
diastolic | ≥ 130, and
≥ 85 mm Hg) |
| • Raised fasting blood sugar level | (> 100 mg/dl) |

Screening for NCD in Youth

- **Obese** children and adolescents specially with a high risk **family history** – need to be screened
- **Physical examination** – BP , Tracking of BMI
- **Investigations** for metabolic syndrome – Lipid profile , Diabetes type 2 etc
- Any abnormalities detected need treatment

In routine
Pediatric clinics

In Hospital
Adolescent clinics

School & college
based Surveys

Community based
medical camps for out
of school adolescents



Challenges -NCD in Youth in India

- Most people are **not aware** of the importance of Early NCD prevention. Most programs **focus on >30yrs**
- IAP has made a **National Task force** on prevention of NCD to increase awareness and capacity building of Pediatricians. **Dr Bhave** is the *International Co-ordinator*
- AACCI is trying to trying **to work with policy makers** and other **stake holders** working for adolescents to BEGIN prevention and screening for NCD to include young people
- AACCI is part of NCD **Global and National Alliances** which are working for youth intervention in NCD



NCD child

- NCD child is a global multi-stakeholder coalition, championing the rights and needs of children, adolescents, and youth who are living with or at risk of developing NCDs
- Activities include global advocacy, UNICEF collaboration, and champions training with AAP.
- Focus activities on Advocacy, Communication, and Youth Voices
- High level political engagement with the United Nations, World Health Organization, and Ministries



Dr Swati Y Bhave is
On the Governing
Council of NCD
child

Follow [@NCDChild](https://twitter.com/NCDChild) on Twitter and join the listserv by e-mailing ncdchild@aap.org



NCD – child AACCI -COLLABORATION

- In January 2016 *NCD Child* held a Pre conf training workshop for NCD champions at the
- APPA (Asia Pacific Pediatric Associations) and Pedicon Dr Bhave was a faculty

AACCI did a school project with NCD child in 2015 on “ Awareness for NCD in School children”.

It showed that a short 6 week project was very effective in making a behavioral change in both staff and students to start bringing healthy home lunch and reduction in the junk food consumption and increased willingness to take part in sports and physical activity classes



Collaboration at National Level



HEALTHY INDIA ALLIANCE
for prevention and control of NCDs

Healthy India Alliance

The Alliance fosters engagement of multi-sectoral Civil Society Organizations (CSOs) to tackle NCDs by generating awareness, building capacity, empowering patients and advocating for health promoting norms.

AACCI is a partner in this Alliance

AACCI conducted a demonstration workshop for NCD awareness in schools - Jointly with HRIDAY in the National Consultative meeting of Civil societies held by HIA in April 2016 in New Delhi



AACCI Demo -workshop at HIA consultation- April 2016 New Delhi



Faculty



Role Play



Group Discussion

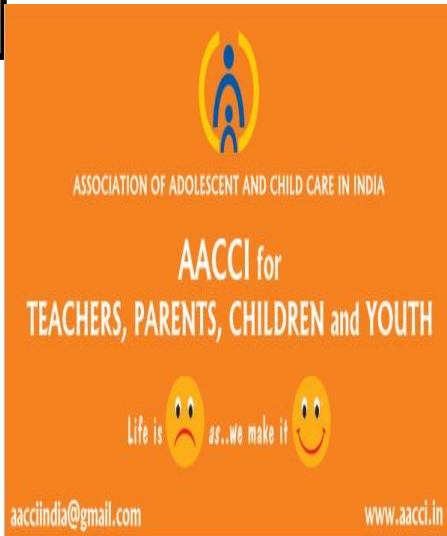


Participants photographing role plays



AACCI work on NCD – Youth

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We do interactive workshops with students using the WHO Life skill approach to help them understand the importance of Healthy life style and prevention of NCDS .

We have modules on various aspects :

Healthy Life style

Healthy weight loss

Life skills for positive mental health

Depression Prevention of suicides

Substance abuse prevention etc etc

Similar workshops are also held for teachers and parents also

Various faculty groups



Pune with DY Patil Medical college



Nagpur



Jaipur



Delhi



Nagpur with CIBS



Gurgaon



Mumbai



Mumbai





Healthy life style

- For maintaining healthy weight
 - **Prevention of obesity/over weight**
 - Prevention of life style diseases
 - Awareness and screening of metabolic syndrome
- For target group of overweight and obese we have a additional half or one day customized program which is more individually oriented with self help plan.

- We have a graphic power-point that explains each life skill in detail.
- Then we have attractive slides that teach about healthy life style and gives information about BMI , normal BP and waist hip circumference and ratios etc.
- **The participants undergo a physical examination before the workshop and are aware of their own BMI BP etc which makes it personalised**

Methodologies

- Next few slides will show pictures of the various methodologies we use
- Short didactic lectures
- VIPP sessions
- Debates
- Groups discussion
- Faculty role plays
- Case Scenarios and Role plays by participants
- Relaxation Techniques



Short lectures on Healthy life Style



Students
Enjoying
the
lectures



VIPP Sessions



Visual In Participatory Program
Is a very good methodology for
group training



DEBATES in GROUPS and PAIRS





Group discussions





Presentations by group leaders

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Role Plays by Faculty



Role plays in case scenarios make learning fun and a educative





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RELAXATION TECHNIQUES

Life is 😞 as..we make it 😊



Summary

- School based programs are a very good way of creating awareness about NCD and instituting interventional strategies
- AACCI has been successfully doing this for last 8 years
- We need to create awareness in all doctors , Adolescent stake holders and in the community with to institute early interventions to Prevent NCD - right from preconception stage- Nutrition of adolescent girls to promoting healthy life style from infancy to adolescence