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MINISTRY OF HEALTH-ETHIOPIA
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HEALTHIER CITIZENS FOR PROSPEROUS NATION!

FMOH ARM
October 17, 2019
Sky light Hotel



**Adolescent
girl's
nutrition and
the need for
Neural Tube
Defect
Prevention**



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- Yetayesh Maru is a Public Health Nutrition Specialist with more than 16 years of professional experience in development and emergency nutrition programs, research and evaluation.
- She has a master's degree in Public Health and doing PhD in Nutrition. She has worked in Government, International NGO's and UN Agency in different responsibilities.
- Currently She is working as Nutrition Specialist in UNICEF.



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Presentation Outline

- Why Adolescent nutrition matters?
- Trends of Malnutrition in Ethiopia
- Status of adolescent girls in Ethiopia
- Factors affecting adolescent's nutritional behaviors
- Neural Tube Defects (NTD)- definition and prevalence
- Cause of Neural Tube Defect
- Recommendation



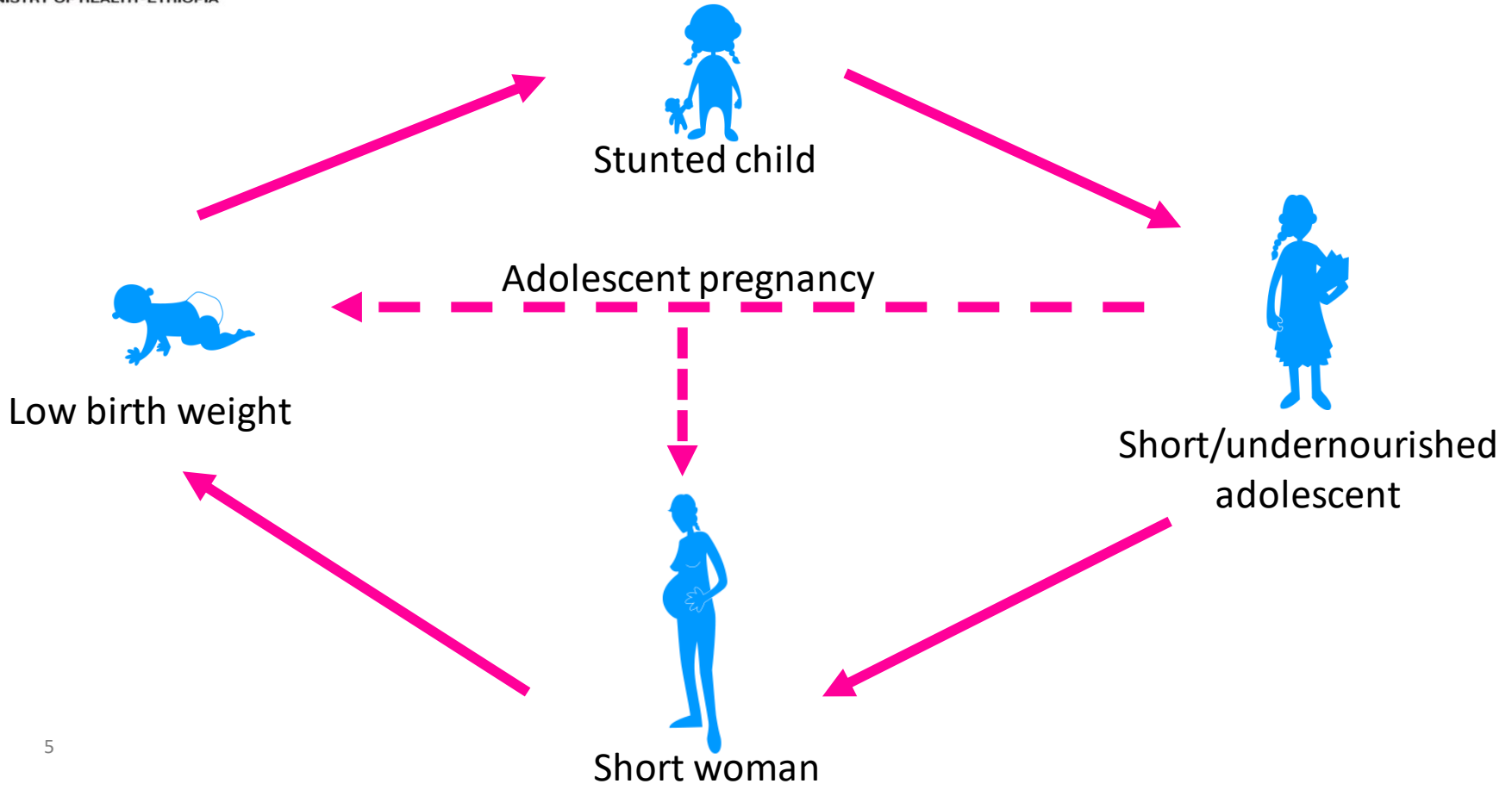
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Why Adolescent Nutrition Matters?

- Adolescents today constitute 25 per cent of the Ethiopian population (25 million)
- The period is characterized by intense growth
 - High nutrient needs for optimum growth & development
 - Gain up to 50% of adult weight and skeletal mass, up to 20% of adult height
 - Replace loss of iron through menstruation
- It is a second window of opportunity to break the intergenerational cycle of malnutrition.
- Improving adolescent girls' nutrition and delaying their first pregnancy is a promising intervention point to break this intergenerational cycle of malnutrition

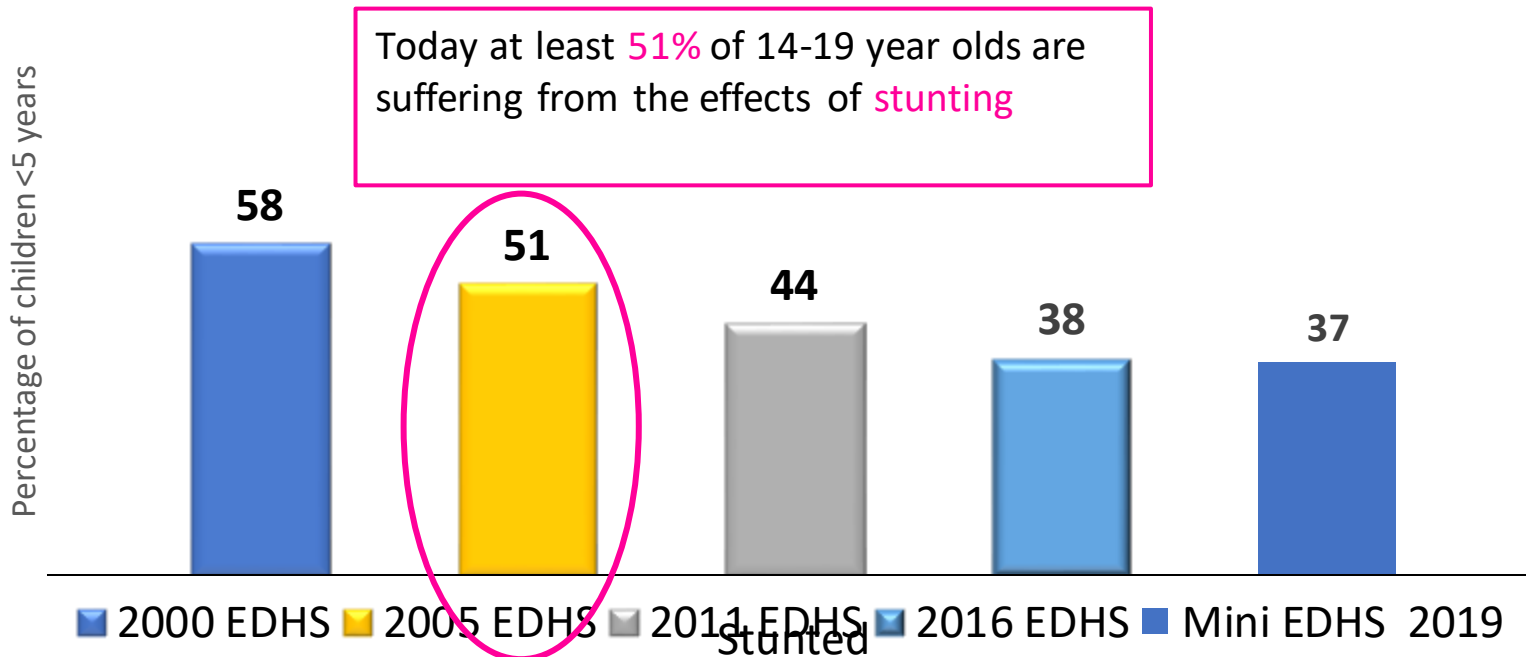


Intergenerational cycle of malnutrition





Trends in Malnutrition in Ethiopia





Status of adolescent girls in Ethiopia

12.5% of adolescent are already mothers**

Median age of 1st marriage is 17 years*



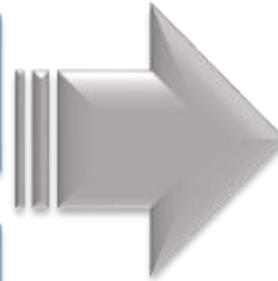
29% are chronically undernourished**

~30% of girls are Anemic~

28% of girls consumed less than 3 meals***

13% of adolescent moms received PNC**

32.8% of adolescent moms received assisted delivery **



One in five adolescent girl **death**

50% increase in neonatal **mortality**



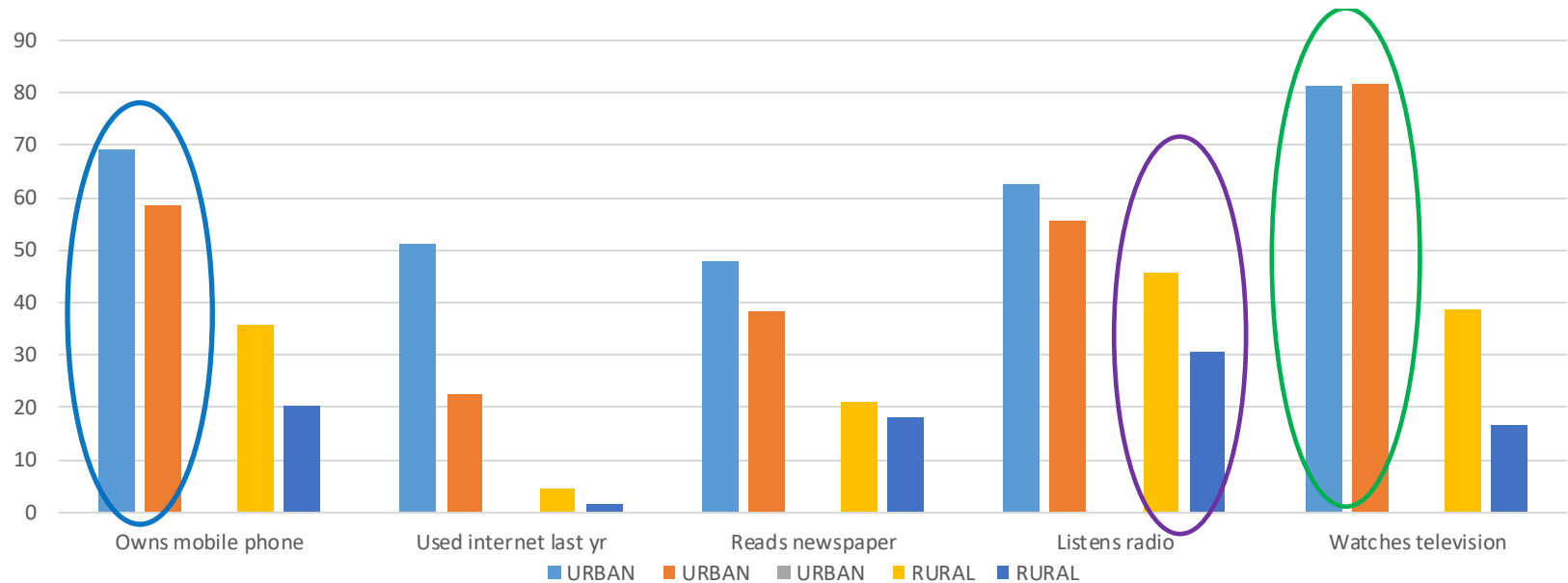
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Factors affecting adolescent's nutritional behaviors.

- Outside influences such as lack of access to food in general - under nutrition.
- Availability and access to fast food outlets, school tuck-shops, food stores & vendors
- Individual factors such as the psychological and biological factors immediately drive to certain behavior.
- Family factors such as parental food preferences.
- Social environment - in terms of peers (a strong role) & community perception.
- The macro - environment which needs to be understood in terms of the society in which the adolescent finds himself/herself (food taboos and other social norms).
- Mass media and advertising, etc.



Media access and exposure of adolescent 15-19 yrs



Source: Adolescent and Youth Strategy Baseline



Delivery platform for adolescent nutrition services

Out of school adolescents



Youth Centres Platform



Health Facilities Platform

- Support the provision of youth responsive nutrition services
 - Provision of deworming tablets
 - Nutrition assessment and counseling
 - Care of Adolescent Pregnancy and Childbirth
 - Improve Nutrition-PSNP linkages
 - **Weekly Iron folate supplementation**

In school adolescents



School Platform

- Support the provision of youth responsive nutrition services
 - Integration of nutrition in Life Skills Training
 - Nutrition Assessment, Counseling and Support
 - School-based Deworming
 - Promotion of Sanitation and Hygiene (WASH)
 - **Weekly Iron folate supplementation**
 - Link with youth friendly services



Neural Tube Defects (NTD)



- NTD are birth defects of the brain and spinal cord. Normally, in human embryos, the closure of the neural tube occurs around the 30th day after fertilization. However, if something interferes and the tube fails to close properly, a **NTD** will occur.



Cause of Neural Tube Defect

Nutritional Factor

- Maternal **folate** insufficiency
- Nutrients, including vitamin B12, vitamin B6, iron, and riboflavin influence folate metabolism and status
- The risk further exacerbated due to a **late start** and intermittent provision of folic acid during pregnancy.



Maternal Health Status

- Maternal health issues like
- Host of physical agents (e.g. X-irradiation, hyperthermia, stress),
 - Drugs,
 - androgenic hormones,
 - antiepileptics
 - Substance abuse
 - Chemical agents,
 - Maternal infections
 - Maternal metabolic conditions



Environmental Factor

- Maternal occupation status, such as working in industries, and farming may lead to possible occupational exposure to noxious agents
organic solvents,
anesthetic agents, x
radiation
- -Maternal exposure to contaminated drinking water



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Programmatic recommendation

■ Adolescents

- Strengthen implementation of School health and Nutrition program
- Strengthen implementation of Adolescent and Youth health services
- Scale up weekly Iron and folic acid supplementation
- Awareness creation:



Programmatic recommendation

• **Pregnant Women and WRA**

- Periconceptional folic acid supplementation for all women of Reproductive age (15-49 year)
- Considering first focused ANC visits within the first 4 weeks for earlier folate supplementation.
- Awareness creation

• **System**

- Establishing a surveillance system for NTDs:
- Mandatory food fortification could be considered with strong monitoring and evaluation.



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Thank You