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European Training in Effective Adolescent  
Care and Health

# Bio psychosocial development during adolescence

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# Learning Objectives

- Define the biological, psychological and social components of adolescent development
- Identify the impact of developmental stages on health behaviour for effective delivery of health care and preventive interventions

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## Programme

- Personal experiences
- Definitions
- Group work first steps: biopsychosocial development
- Miniecture Development
- Group work next steps : integrate elements of development in clinical practice
- Feedback from groups
- Conclusions

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## **Take a few minutes individually to think about your own adolescence**

- What were the events or at what time did you have the feeling you were not a child anymore?
- What made you feel adult ?
- Try to remember events of your own life where you felt capable of doing something and adults around thought you were too young ,....
- **Write down a few notes (can be used for group work first steps)**

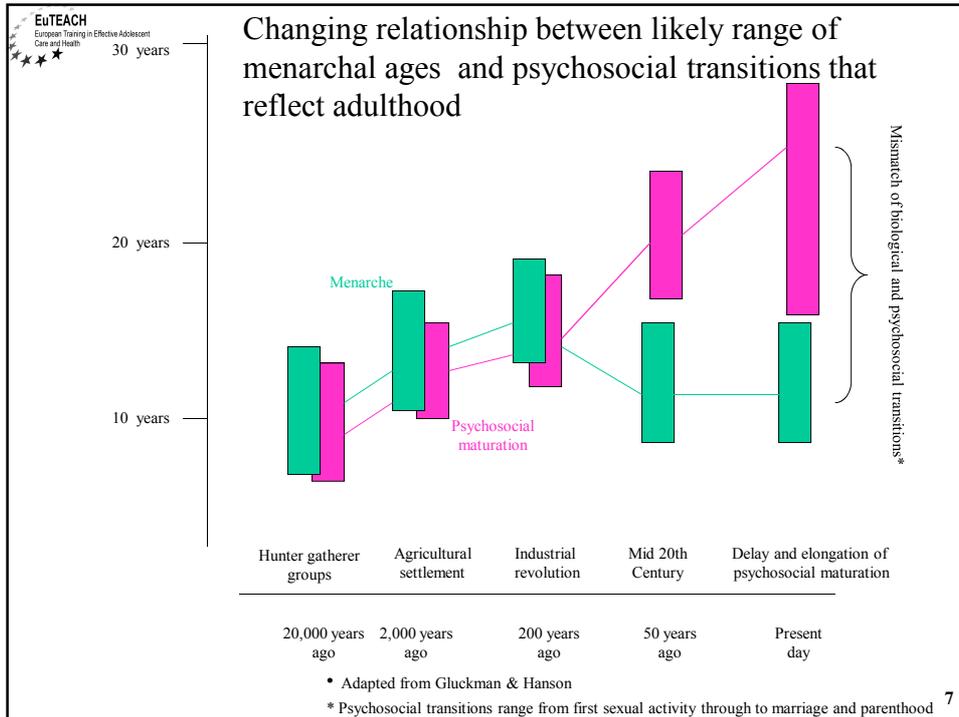
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## Definition by ?

- Age?
- Physical changes?
- Social norms?
- Culture?
- .....

## Definition by age ?

- WHO
  - Adolescents :10-19 years
  - Young people: 15-24 years
  - Youth: 10-24 years
- Many countries: 12-18 years or 10-18 years
- What else ?



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« Youth are heated by nature as drunken men by wine »

Aristotle

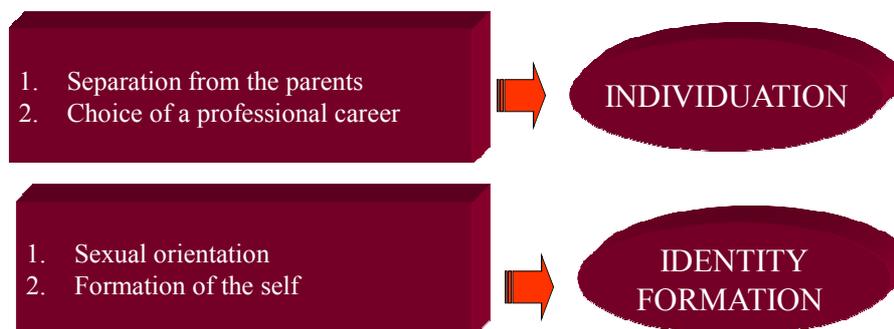
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## THE IMPACT OF PUBERTY

- The « booster » of the adolescence process
- The adaptation to a new body image
  - physiological clumsiness
  - fatigue
  - sexual arousal
- Exploratory behaviour, sensation seeking
- Formal thinking ≠ concrete thinking

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## A developmental definition of adolescence: general goals



## WHAT IS ADOLESCENCE ?

- the process of *autonomisation* by which the child becomes more and more reliant on his own competences and less dependent on the opinion and support of his parents
- the *acquisition of a stable identity*, the permanent feeling that an individual has that he knows who he is, what his life should look like and to some extent how others see him

## CONSEQUENCES FOR THE HEALTH PROFESSIONAL

- our adolescence is no longer a reference (and this applies to parents as well)
- impact of socio-economic and cross cultural factors on health
- role of the health professional regarding the vocational issues adolescents face

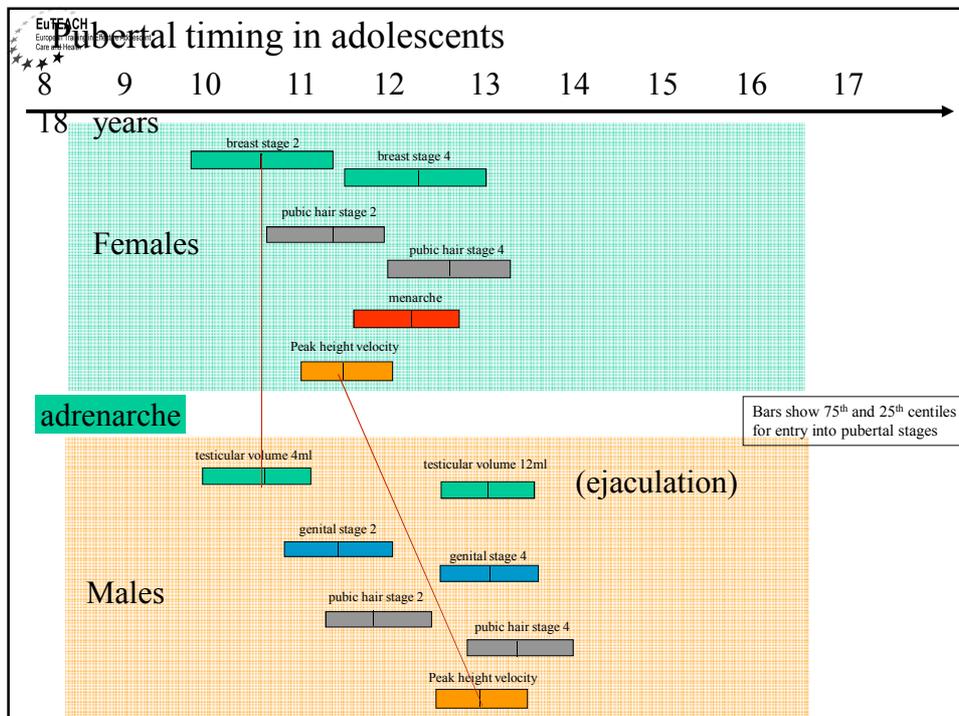
<small>EuTEACH European Training in Effective Adolescent Care and Health</small>			
	Early (10-13 years)	Middle (14-16 years)	Late (17-21 years)
Central question	« Am I normal ? »	« Who am I ? » « Where do I belong? »	« Where am I going? »
Major developmental issues			
Main concerns			
Cognitive development			

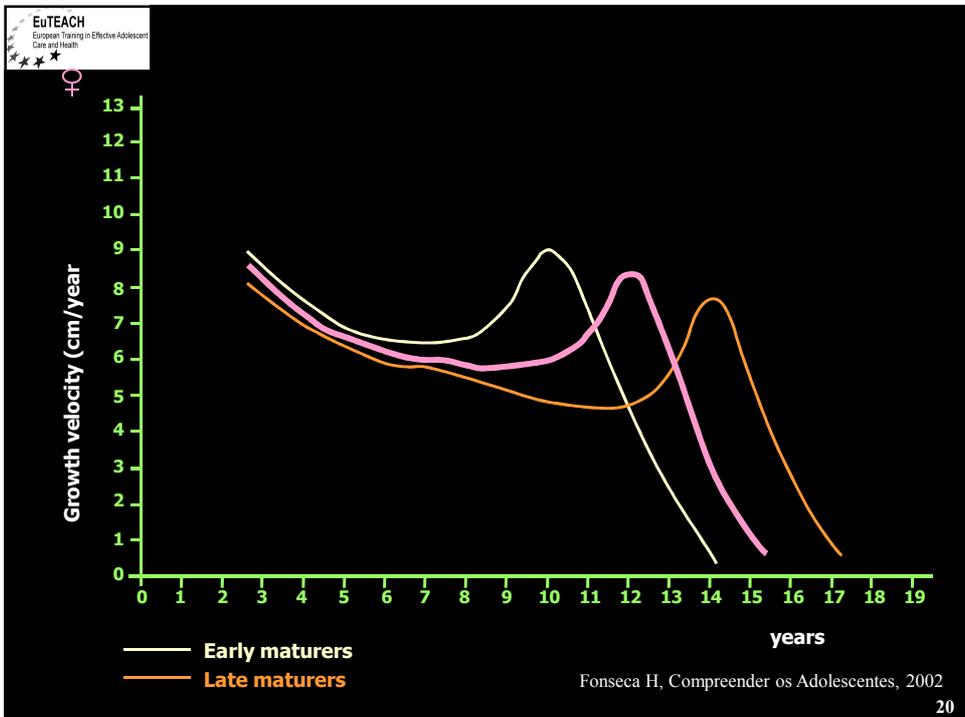
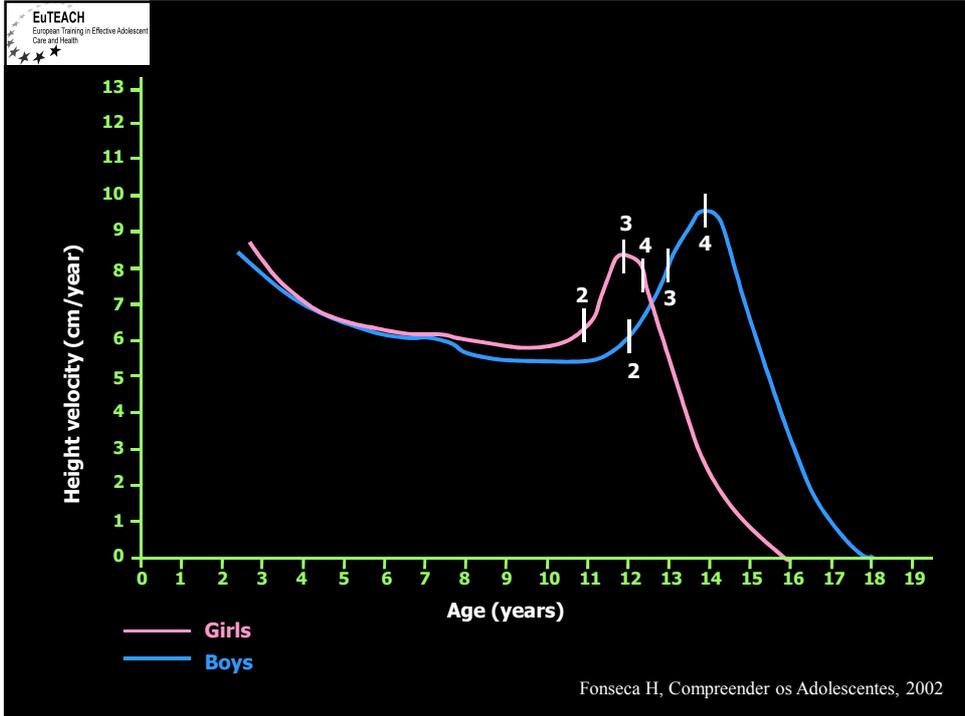
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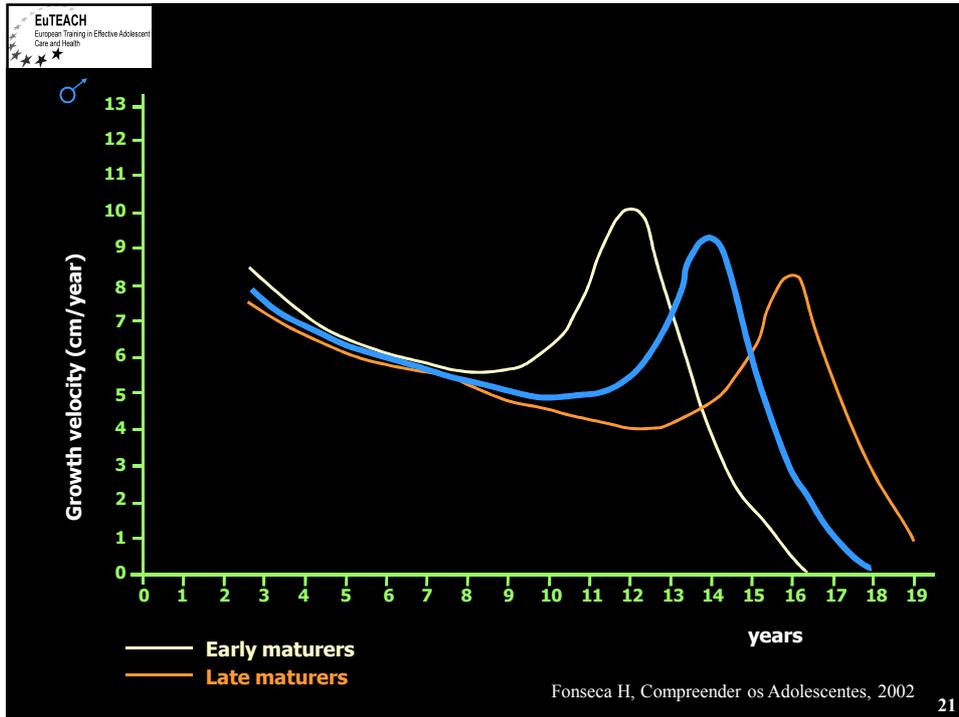
<small>EuTEACH European Training in Effective Adolescent Care and Health</small>	
<h2 style="color: blue;">Group work first part</h2> <p style="color: blue;">(10 min)</p> <ul style="list-style-type: none"> <li style="margin-bottom: 10px;"><span style="color: blue;">■</span> Define main developmental goals of early mid and late adolescence using the grid as support</li> <li style="margin-bottom: 10px;"><span style="color: blue;">■</span> You may use your personal memories (ice breaker)</li> <li style="margin-bottom: 10px;"><span style="color: blue;">■</span> Tell a story</li> </ul> <p style="text-align: center; margin-top: 20px;">(General feedback only at end of group work part two)</p>	

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## Identify the main biological events and timings of puberty and growth



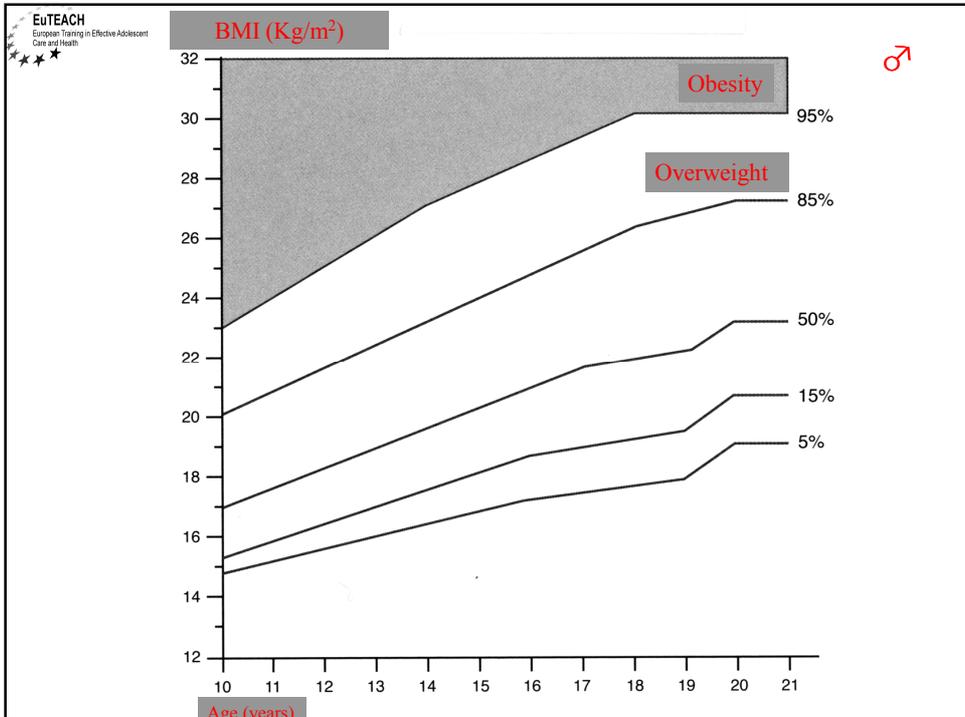
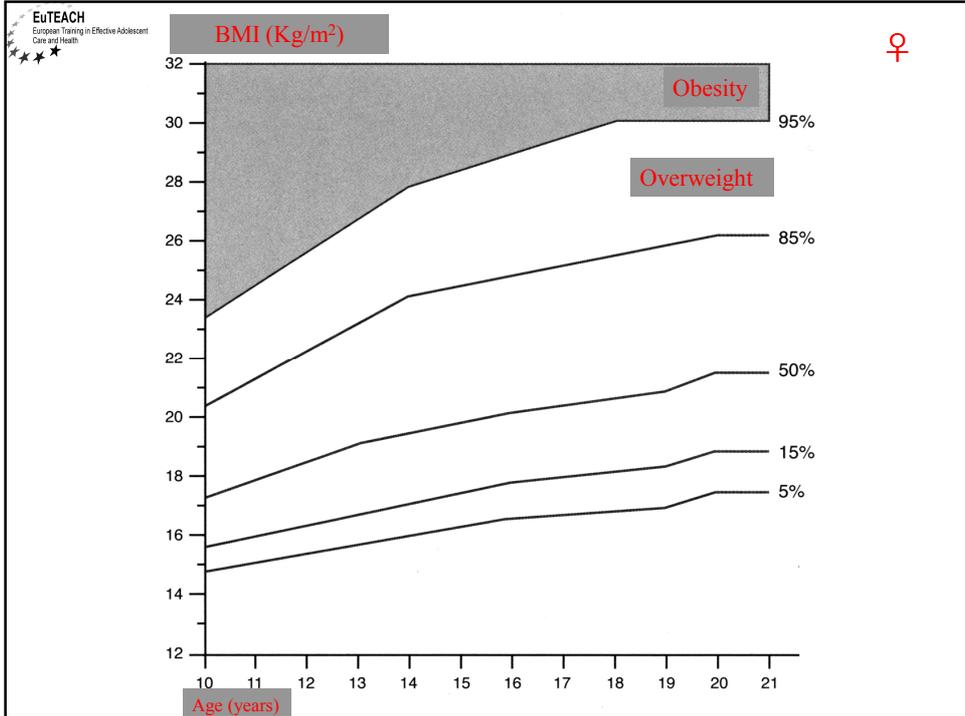




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## Growth Spurt

- Peak height velocity
  - mean age 12 years in girls
  - mean age 14 years in boys
  
- average pubertal growth spurt is 25cm
- girls have only 3-5cm left to grow after they begin periods (menarche)



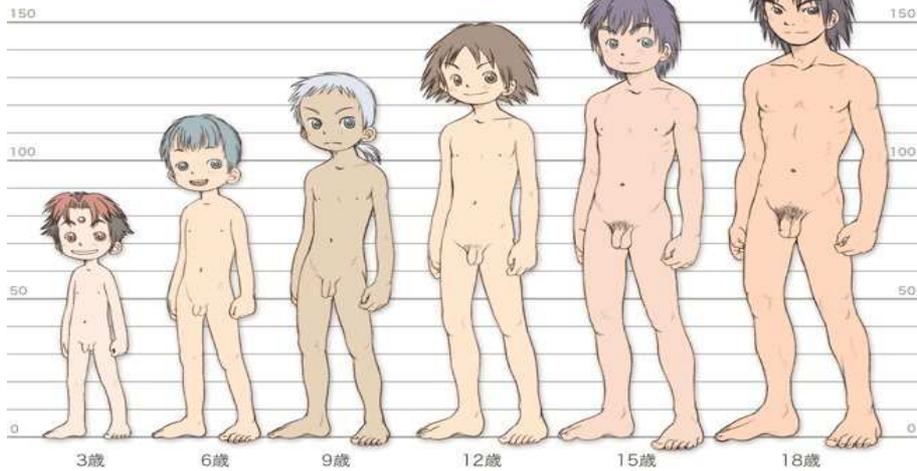
While the percentage of body fat increases in females during puberty, it decreases in males.

In females, the fact that the **adipose tissue increases at a greater rate than the lean body mass**, may be misunderstood by the adolescent girl who may think to be overweight

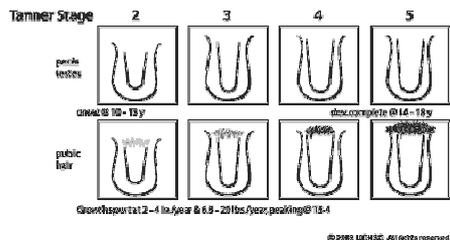
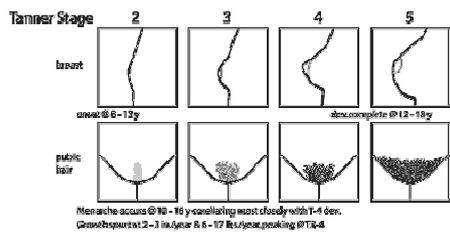
# Tanner stages

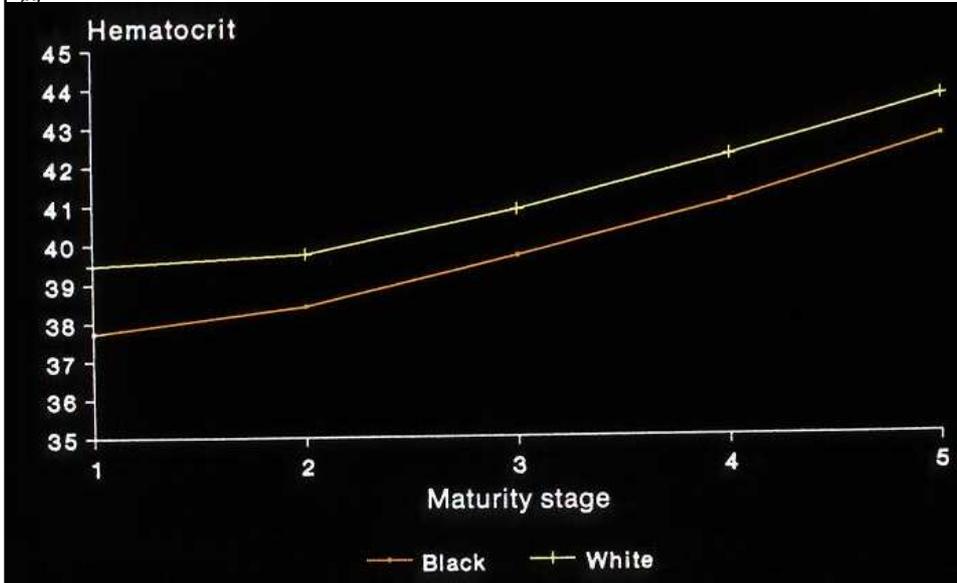
2006 年齢別体型比較表

Produced by Toshiya Hata 2006 11-01

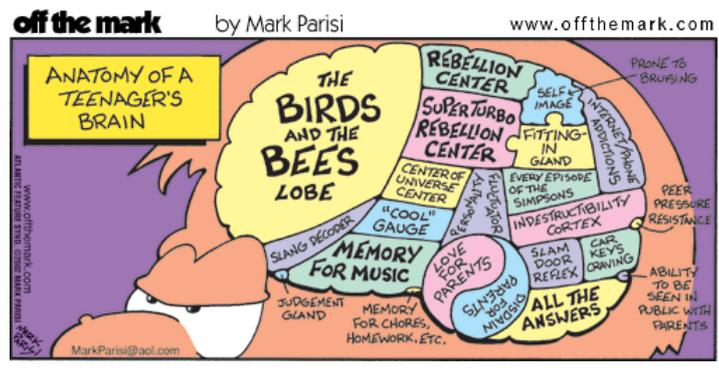


# Tanner stages

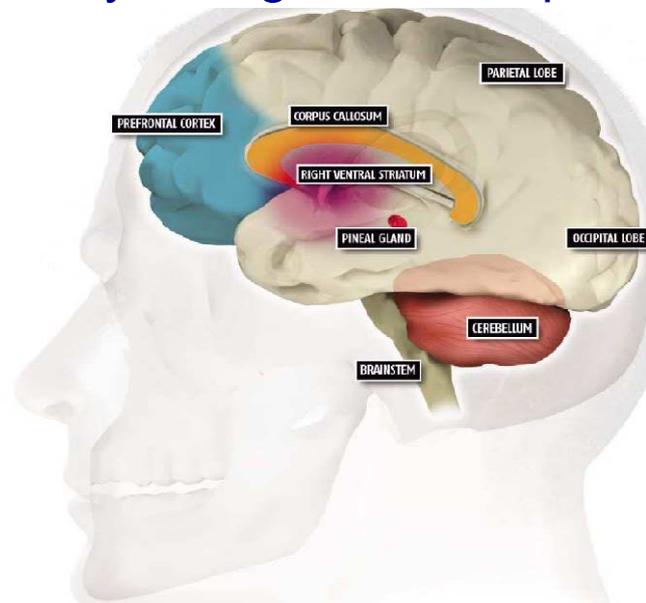




# Psychological development



## Psychological development



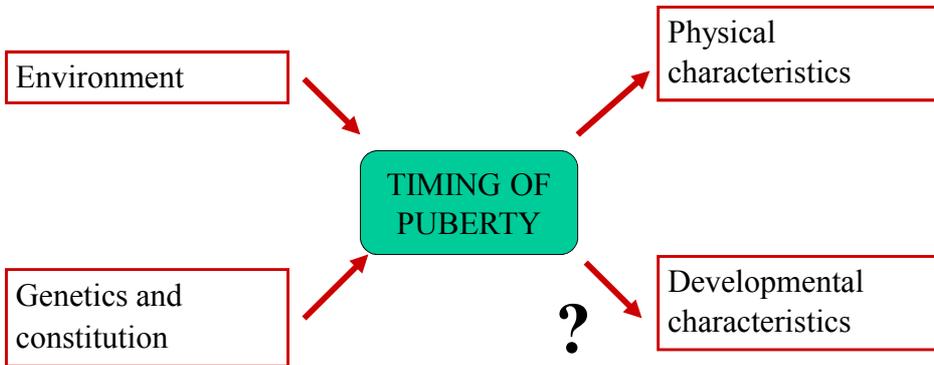
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Just because an adolescent has grown several cm in height, **does not mean** that his/her thinking ability has expanded at the same rate or at the same time.

**Neither the early maturing teen is necessarily a more mature thinker nor the late maturing is necessarily infantile.**

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# THE TIMING OF PUBERTY



## Issues and challenges:

What we know about the psychosocial consequence of early / late puberty ?

## WHAT WE KNOW AMONG GIRLS

### *Early maturing adolescent girls tend to:*

- Suffer from mental health problems in a higher proportion (depression)
- Have a disturbed body image in a higher proportion
- Engage earlier in sexual activities including sexual intercourse (& no. of partners)
- Engage in exploratory behaviour (i.e. substance use) in a higher proportion

Patton G, Lancet 2007

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## WHAT WE KNOW AMONG BOYS

- late maturing boys do suffer from mental health problems more often and have a disturbed body image in a higher proportion

HOWEVER, early maturing boys, as girls do:

- ❖ Suffer from mental health problems in a higher proportion (depression)
- ❖ Report early sexual activities a higher proportion
- ❖ Engage in exploratory behaviour & delinquent behaviour in a higher proportion

Patton G, Lancet 2007

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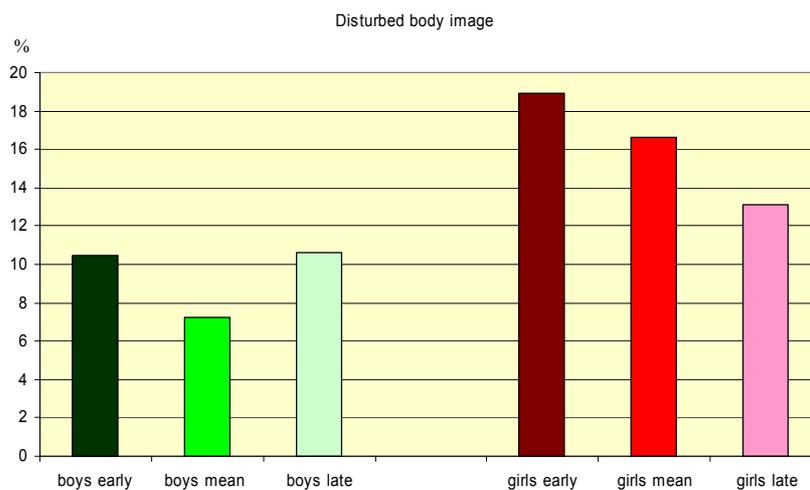
## EXAMPLE: THE SMASH SURVEY

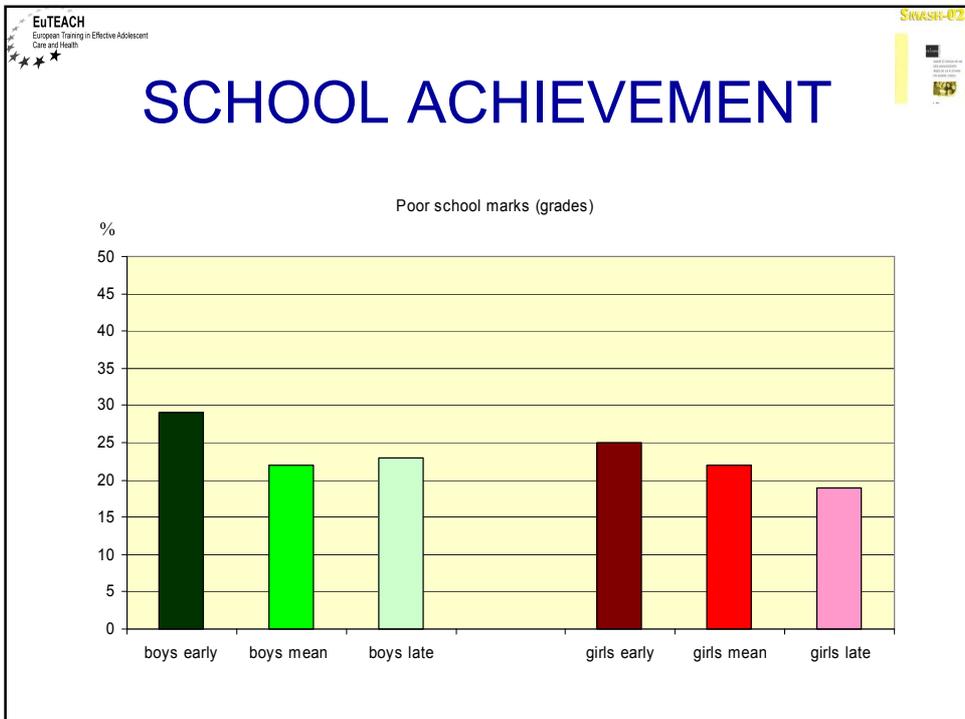
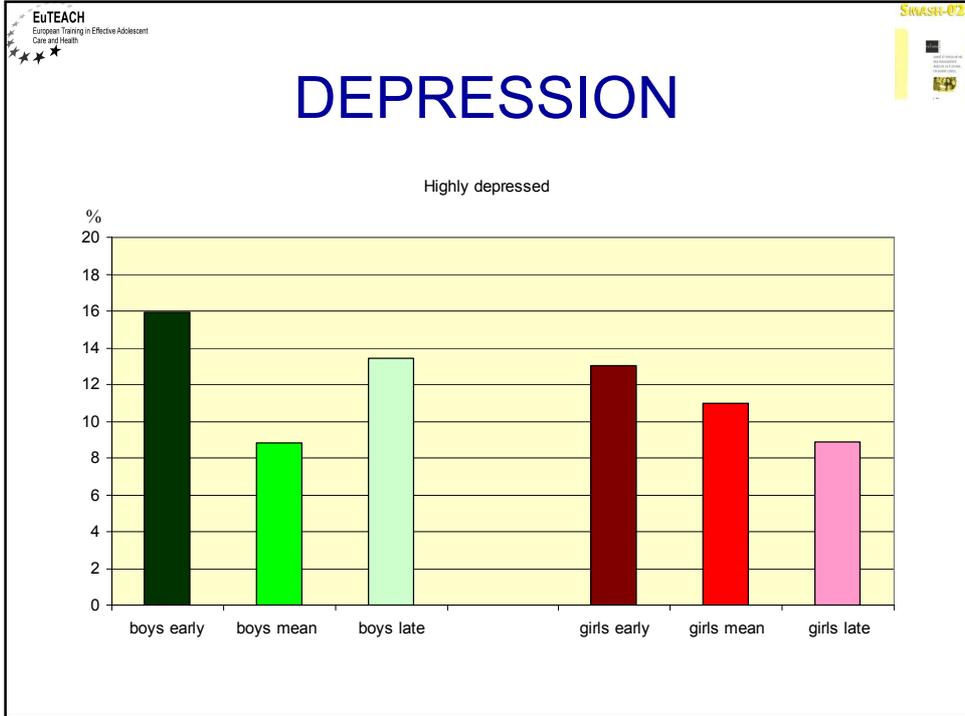
### *Swiss Multicenter Adolescent Survey on Health*

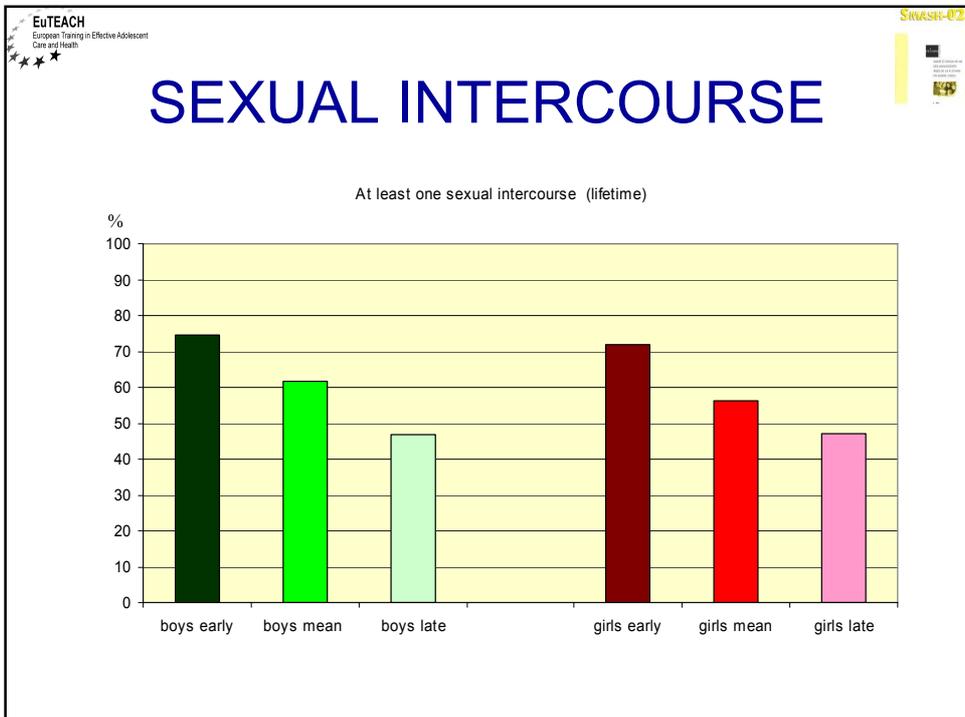
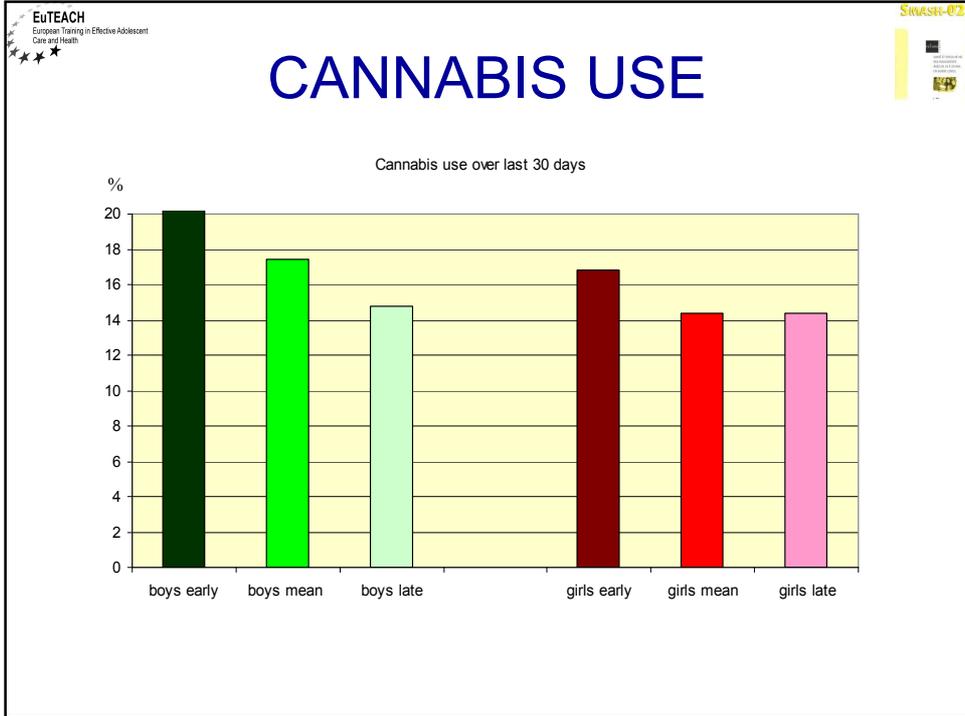
- 3384 ♀ / 4044 ♂ aged 16 -20 years (most being post-pubertal)
- Anonymous self administered questionnaire covering health, lifestyles and use of services, covering the three regions of Switzerland (2002)
- « early » and « late » puberty were defined subjectively (in comparison with peers)

	GIRLS				BOYS		
	<b>Early</b> N=1054 31%	<b>Mean</b> N=1717 51%	<b>Late</b> N=597 18%		<b>Early</b> N=986 25%	<b>Mean</b> N=2373 59%	<b>Late</b> N=645 16%
Mean age	17.9	17.8	17.9		18.0	17.9	18.0

## BODY IMAGE



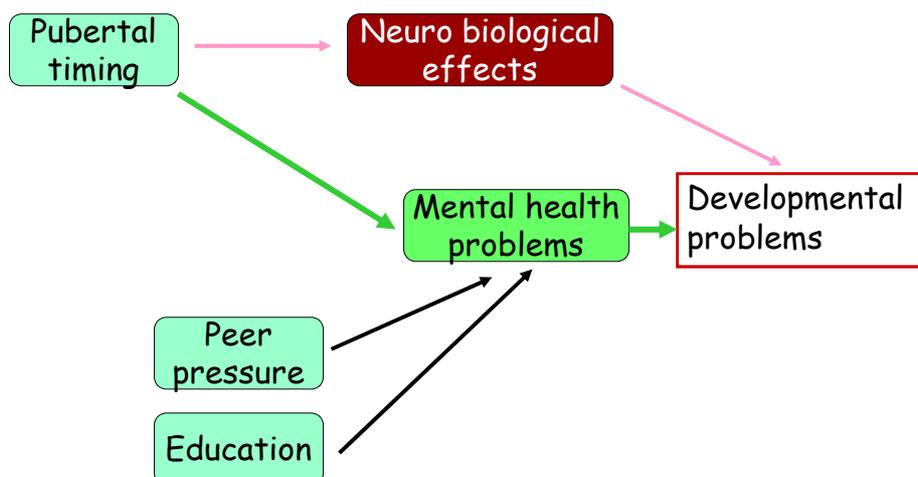


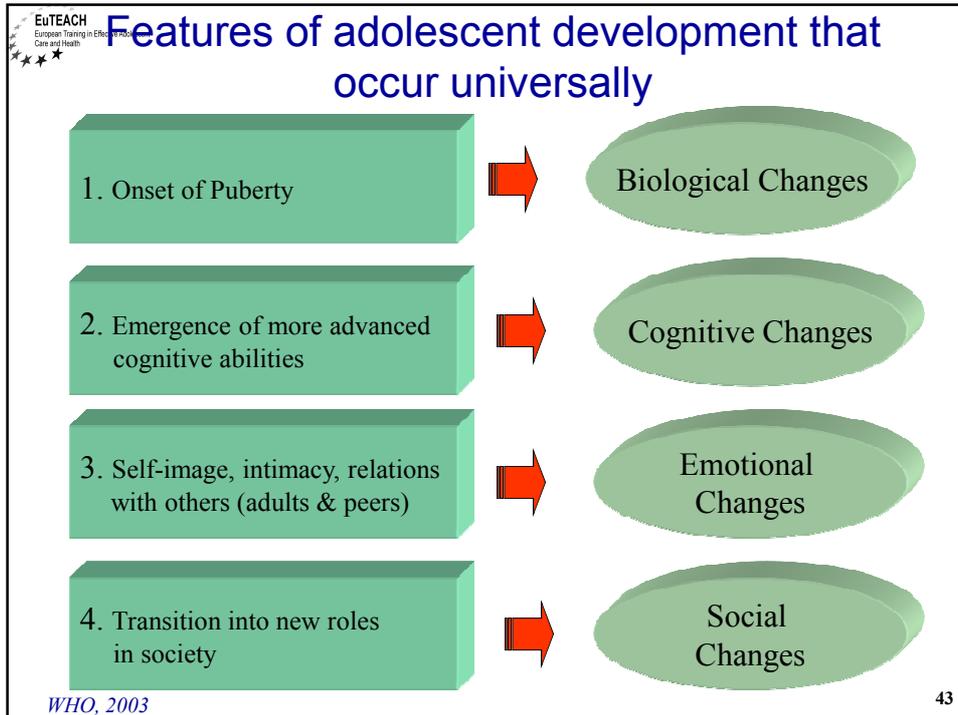


## TO SUMMARIZE ..

- ❑ Among girls, early maturation seems transiently associated with body image disturbance, mental health problems, early initiation of exploratory behaviour and missed educational opportunities
- ❑ Among boys, early maturation seems transiently associated with early initiation of exploratory behaviour
- ❑ Among boys, BOTH early and late maturation seems transiently associated with body image disturbance, mental health problems and missed educational opportunities
- ❑ This situation increases the current mismatch between biological/pubertal development and the expectation of the society towards these adolescents (puberty versus adolescent process)

## HYPOTHESES

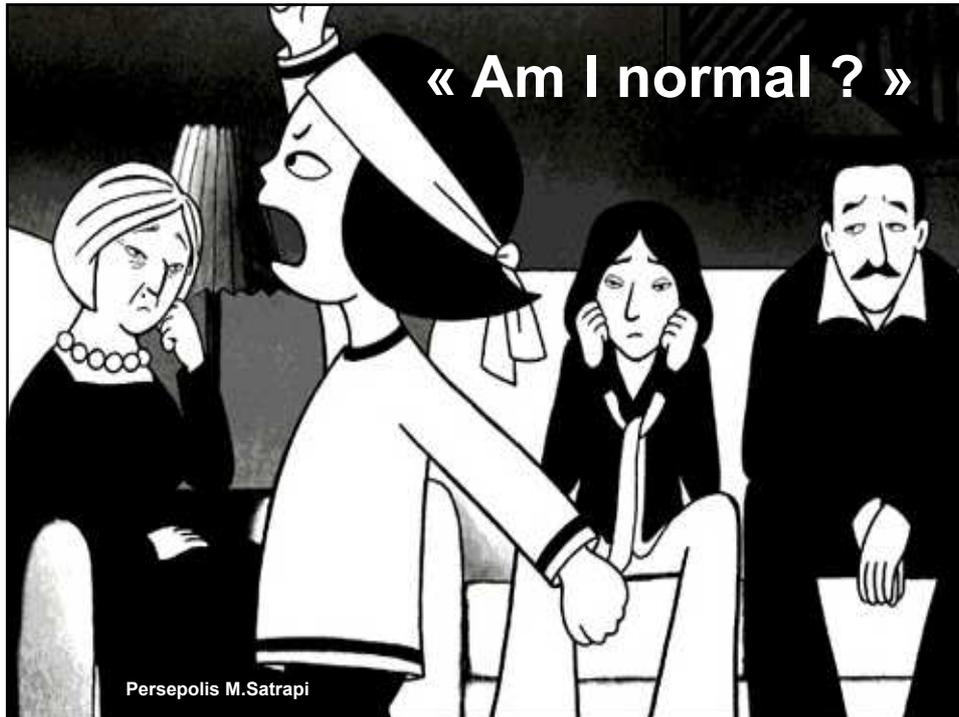




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## Identify the psychological and social events of adolescent development

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**THE ADOLESCENT PROCESS**  
 early adolescence (10-13y.)

<ul style="list-style-type: none"> <li>■ Intellectual development</li> </ul>	<i>concrete, egocentric</i>
<ul style="list-style-type: none"> <li>■ Autonomisation           <ul style="list-style-type: none"> <li>■ self image</li> <li>■ Independence</li> <li>■ Intimacy</li> </ul> </li> </ul>	<i>centered on pubertal changes</i> <i>less interest in parents' activities</i> <i>relationships with same-sex friends</i>
<ul style="list-style-type: none"> <li>■ Identity           <ul style="list-style-type: none"> <li>■ Sexual</li> <li>■ Moral</li> <li>■ Vocational</li> </ul> </li> </ul>	<i>increased needs for privacy</i> <i>idealistic goals</i> <i>lack of impulse control</i>

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## THE ADOLESCENT PROCESS

### middle adolescence (13-16y.)

■ Intellectual development	<i>concrete, but more complex tasks</i>
■ Autonomisation	
■ self image	<i>making the body attractive</i>
■ Independence	<i>peak of conflicts with parents</i>
■ Intimacy	<i>peak peer group activities</i>
■ Identity	
■ Sexual	<i>exploratory behaviour</i>
■ Moral	<i>testing of rules</i>
■ Vocational	<i>first job experiences</i>

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## THE ADOLESCENT PROCESS

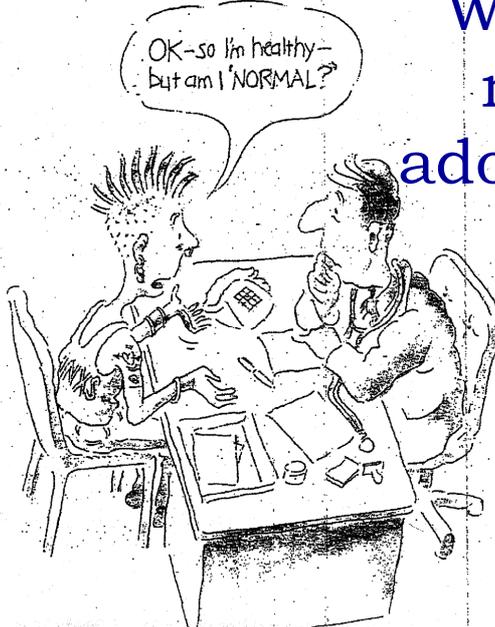
### late adolescence (17-20 y.)

- Intellectual development      *abstract tasks, logic reasoning*
- Autonomisation
  - self image      *acceptance of one's body*
  - Independence      *reacceptance of parent's support*
  - Intimacy      *more intimate relationships*
- Identity
  - Sexual      *consolidation of sexual identity*
  - Moral      *can set limit, ability to compromise*
  - Vocational      *choice of vocation/profession*

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What is a  
normal  
adolescent ?



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## WARNING SIGNS

- Decreased school/professionnal achievement
- Isolation, lack of relationship
- Violence, deviant behaviour
- Physical/functional symptoms

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# CRITERIA

- Duration of the symptoms
  - > 3 months
- Instability of symptoms
- Symptoms which heavily impact on the adolescent's daily life (family/school environment)

# THE NORMAL ADOLESCENT

- A normal adolescent has a flexible behaviour which evolves over time, and keeps creativity in at least some areas.
- Usually has good relationship with at least 1-2 peers.
- One does not judge normality only in terms of behaviour but must reflect on the meaning of any behaviour and the context in which it takes place.
- Some behaviours are acceptable for older adolescents but may be less acceptable at younger ages.

Identify the impact of developmental stages on health behaviour for effective delivery of health care and preventive interventions

## Group work (next steps)

- Using the grid you have filled at the beginning and provided scenarios.
- Discussion in groups (20 min)
  - Relationship between described behaviour and developmental tasks.
  - Would you change attitude if the adolescent was younger/older/other gender or different culture?
- Feedback to the audience (5 min/table)

## So far we have covered...

- Adolescence is an evolving concept
- Developmental issues are central to adolescent process
- Puberty has influence not only on body but on psychosocial development and mental health
- Effective interventions and programmes for adolescents are tailored to developmental issues

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## Further Reading

- Carswell JM, Stafford DE. Normal physical growth and development. In: Neinstein L eds. *Adolescent Health Care: A practical guide*. 5<sup>th</sup> edition. Philadelphia: Lippincott Williams & Wilkins; 2008: 3-26.
- Christie D, Viner R. Adolescent development. *BMJ* 2005; 330: 301-304.
- Mansfield JM, Neinstein LS. Abnormal growth and development. In: Neinstein L eds. *Adolescent Health Care: A practical guide*. 5<sup>th</sup> edition. Philadelphia: Lippincott Williams & Wilkins; 2008: 135-156.
- Parent AS *et al.* The timing of normal puberty and the age limits of sexual precocity : variations around the world, secular trends and changes after migration. *Endocr Rev* 2003; 24 (5): 668-693.
- Website <http://usc.edu/adolhealth>

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