

Adolescent Health and Well-being

PNG Paediatric Society Mid-year Meeting
Kokoda Trail Motel
8 June 2022

Presentation Outline

1. Global perspective of adolescent health and well-being
2. Brief overview of developmental stages of adolescence
3. Legal framework for adolescents in PNG
4. Common issues affecting adolescents & young people in 2022
5. In-hospital care for adolescents
6. Community care for adolescents
7. Way forward for Adolescent health program in PNG

Population trend of adolescents

2018 – 2050

Total Population: 7.6b – 9.8b (29%)

children <5: 560m – 702m (3%)

5 – 17 years: 1.2b – 1.4b ↑ 9%

> 60years: 990m – 2.0b

PNG: 10 – 19 years 22.5%

The second decade! No longer children, not *yet* adults

- More than physical development
 - Sexual development
 - Somatic growth
 - Physiological development
 - Neurologic
 - Cognitive
 - Moral
 - Psychosocial
- } Development

Milestones in Early, Mid and Late Adolescents

VARIABLE	EARLY ADOLESCENCE	MIDDLE ADOLESCENCE	LATE ADOLESCENCE
Approximate age range	10-13 yr	14-17 yr	18-21 yr
Sexual maturity rating*	1-2	3-5	5
Physical	<ul style="list-style-type: none"> Females: Secondary sex characteristics (breast, pubic, axillary hair), start of growth spurt Males: testicular enlargement, start of genital growth 	<ul style="list-style-type: none"> Females: peak growth velocity, menarche (if not already attained) Males: growth spurt, secondary sex characteristics, nocturnal emissions, facial and body hair, voice changes Change in body composition Acne 	<ul style="list-style-type: none"> Physical maturation slows Increased lean muscle mass in males
Cognitive and moral	<ul style="list-style-type: none"> Concrete operations Egocentricity Unable to perceive long-term outcome of current decisions Follow rules to avoid punishment 	<ul style="list-style-type: none"> Emergence of abstract thought (formal operations) May perceive future implications, but may not apply in decision making Strong emotions may drive decision making Sense of invulnerability Growing ability to see others' perspectives 	<ul style="list-style-type: none"> Future-oriented with sense of perspective Idealism Able to think things through independently Improved impulse control Improved assessment of risk vs. reward Able to distinguish law from morality
Self-concept/identity formation	<ul style="list-style-type: none"> Preoccupied with changing body Self-consciousness about appearance and attractiveness 	<ul style="list-style-type: none"> Concern with attractiveness Increasing introspection 	<ul style="list-style-type: none"> More stable body image Attractiveness may still be of concern Consolidation of identity
Family	<ul style="list-style-type: none"> Increased need for privacy Exploration of dependence/independence boundaries 	<ul style="list-style-type: none"> Conflicts over control and independence Struggle for greater autonomy Increased separation from the parents 	<ul style="list-style-type: none"> Emotional and physical separation from family Increased autonomy Reestablishment of "adult" relationship with parents
Peers	<ul style="list-style-type: none"> Same-sex peer affiliations 	<ul style="list-style-type: none"> Intense peer group involvement Preoccupation with peer culture Conformity 	<ul style="list-style-type: none"> Peer group and values recede in importance
Sexual	<ul style="list-style-type: none"> Increased interest in sexual anatomy Anxieties and questions about pubertal changes Limited capacity for intimacy 	<ul style="list-style-type: none"> Testing ability to attract partner Initiation of relationships and sexual activity Questions of sexual orientation 	<ul style="list-style-type: none"> Consolidation of sexual identity Focus on intimacy and formation of stable relationships Planning for future and commitment

Adolescent Neurodevelopment

- The belief that major structural brain development is complete in childhood is outdated
- Neuromaturation continues into the 3rd decade (24yrs on ave.)
- Cognitive development correlates to chronological age and associated with moral development
- Psychosocial development correlates closely with pubertal maturation
 - Often influenced by environment and culture

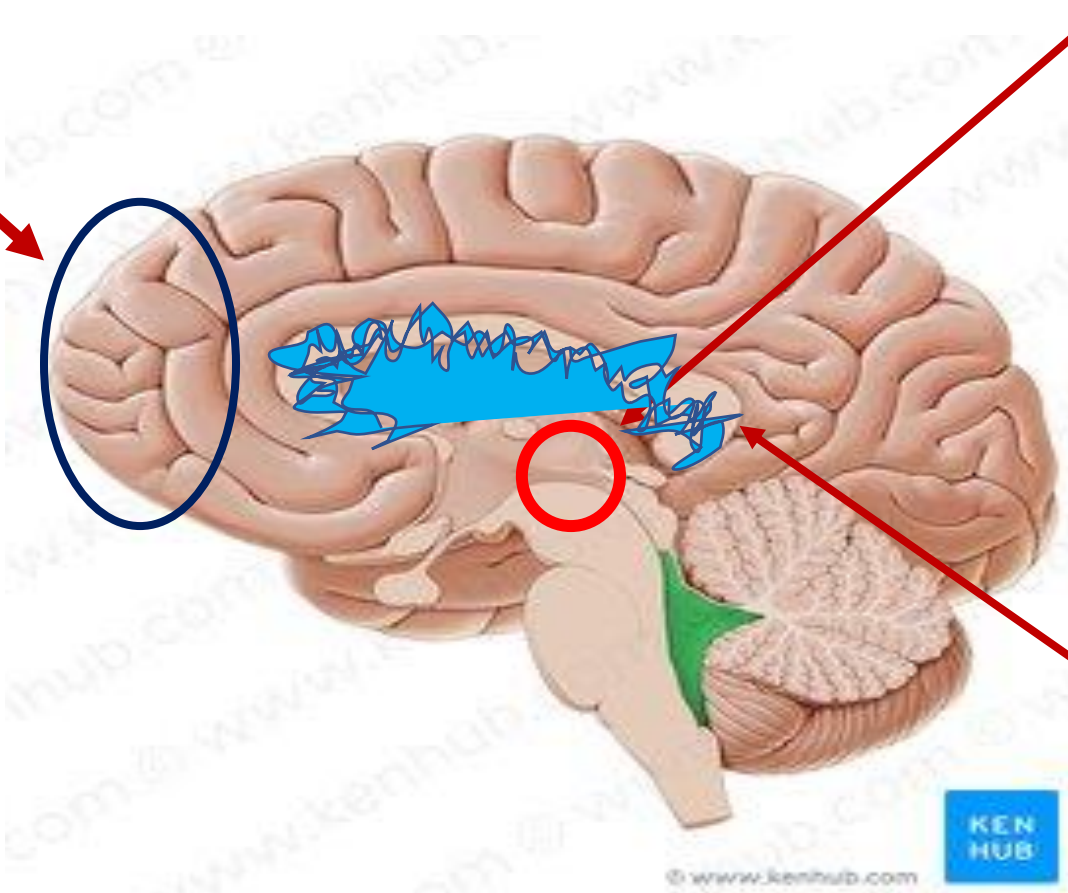
Prefrontal cortex

Higher order cognition

- Not fully developed in adolescence
- Therefore poor judgement
- Full maturation in early 20s
- ↑ myelination
- ↑ synaptic pruning

What we do in teenage years shapes our lives

Legal implications of a teenager being charged for crimes while brain not fully developed



Limbic System
Amygdala - Emotions
Hypothalamus - hormones

Emotional outbursts

Corpus callosum

Connection between hemispheres
- Important in language

Legal Environment

Legal Issues	Legal Age	Reference
Age of criminal responsibility	10 years	Lukautim Pikinini Act 2015
Age of Consent to a HIV test	12 years	HIV/AIDS Management and Prevention Act 2003
Age of consent for medical procedures without parent or guardian knowledge or permission	16 years	The Public Health Act 1973 defines a child as a person under the age of 16
Age of access to HIV services	It is unlawful to deny condoms or HIV prevention at any age	HIV/AIDS Management and Prevention Act 2003
Sex between consenting minors (12-16)	12 years if not more than 2 years age difference between the 2	Criminal Code Act 1974, section 229F

Age of sexual consent	16 years	Criminal Code (Sexual Offences and Crime against Children) Act 2002
Age of Marriage	18 Years	Lukautim Pikinini Act 2015; Criminal Code (Sexual Offences and Crime against Children) Act 2002
Termination of Pregnancy	Legal for Medical Officer if mother's life is in danger (physical and /or mental health)	Criminal Code Act 1974
Male homosexual sexual activity	Illegal for all ages	Criminal Code Act 1974, Section 210

Health seeking behaviours of adolescents

- Healthy population – prevent, promote, protect
 - “Too cool to care”
 - Peer pressure
 - Lack of accessible social services in communities
 - Fear of stigma and discrimination
 - Risky behaviours linked with increased health risks
- The sick population – management of medical conditions
 - Lack of privacy in open children’s wards
 - Fear of stigma and discrimination
 - Too early transitioning to adult care services

Health BURDENS of Adolescence

- **Chronic medical conditions**

- TB, HIV, Asthma, Congenital Abnormalities (CHD), Rheumatic Heart Disease
- Issues with transitioning of care
- Less autonomy in decision making for own health needs

- **Risky behaviours**

- MVA
- Violence & trauma
- Unprotected sex
- STI / HIV burden
- Teenage pregnancy & marriages
- Intimate partner violence

- **Substance Abuse**

- Peer pressure  Increases risk for NCDs in adulthood

- **Mental health burden**

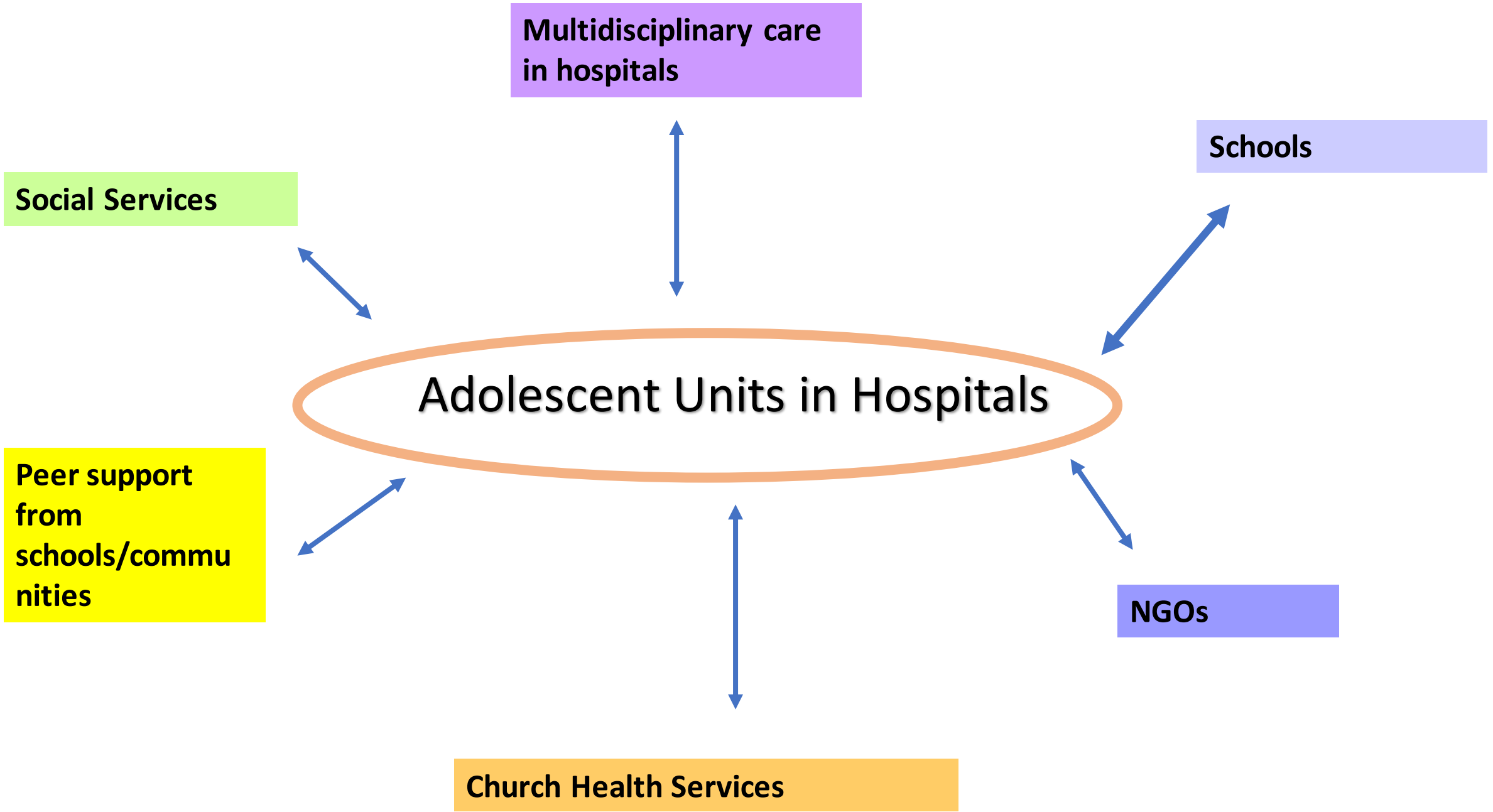
- Anxiety
- Depression
- Dissociation

50% risk at 14yrs, 75% risk at 24yrs

- **Nutritional needs**

Chronic medical conditions

- More children surviving beyond first 10 years of life from medical conditions
- More survivors: less thrivers
- Adolescents with chronic medical conditions have some element of hippocampus stunting:
 - ↓ synaptic pruning | ↓ myelination = ↓ neuromaturation
 - An issue in transitioning of care from paediatric services to adult services
- Reduce paternalistic approach in care and allow autonomy for decisions about their own care and management



Integrated (1-Stop Shop) Adolescent Health and Well-being in communities

1. National Youth Development Authority

2. Department of Community development in provinces

- Life skills training
- Mental health information and basic care
- Sexual & reproductive health
- Volunteering service programs
- Referral system to healthcare facilities
- Counselling services

Involvement of different partners:

- ✓ NGOs
- ✓ Schools
- ✓ NDoH
- ✓ Churches
- ✓ Community Leaders

Way Forward...

1. Create adolescent health position at NDoH to coordinate, collaborate, link with all sectors of society in the care of adolescents and young people
2. Training for health workers specifically for adolescent health in hospitals and in community care (empathy, compassion, non-judgmental health workers and support staff working in adolescent units and community adolescent hubs)
3. Specialized training of paediatricians to support and coordinate adolescent health programs at national level
4. Introduction of HPV vaccine in the lifespan of the CAAHPP 2021-2030
5. Amend legal framework around

References

1. DHS 2016 – 2018
2. National Health Plan Vol.1A
3. PNG National Youth and Adolescent Health Policy – 2014 (16)
4. PNG School Health Policy – 2015
5. UNICEF World Population Prospects – 2017
6. Adolescent Health in Papua New Guinea: time for action – Dr W Pameh, PNG Med J 2016
7. Nelson's textbook of Paediatrics, Ch 20; pp 926-9235