Adolescent Development, Implications, and Policy Needs

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Ohio Adolescent Health Partnership
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Overview

• Demographics
• Development and Health Issues of Adolescence and Beyond
• Special Populations
• Access to Health Care and Utilization
• The Affordable Care Act and AYA
• Unique Needs of Adolescents and Young Adults and Their Impact on Health Policy
“Actually, I prefer the term Arctic-American.”
Adolescents & Young Adults – Who are they?

• Between 1990 and 2020, the number of adolescents ages 10-19 is projected to increase from 35 to 42 million; representing 13% of the total population.
Why adolescents and young adults need policy makers’ attention...

• Adolescents/young adults ages 10-24 - diverse and growing segment

* Between 1990 - 2006, ^ from 40 to 63 million.
  – 55% White, non-Hispanic (NH)
  – 17% Hispanic
  – 14% Black
  – 4% Asian/Pacific Islander
  – 0.9% American Indian/ Alaskan Native
  – 10% Other
Why adolescents and young adults need policy makers’ attention...

• One in 10 were immigrants or foreign-born: Hispanic (64%) or Asian/Pacific Islander (21%).

• 17% of adolescents ages 12 to 17 have a special healthcare need.

• 5% of young adults (ages 19–29) have a disabling chronic condition.
Adolescents & Young Adults – Ohio vs. United States

Census Population Estimates July 1 2013

- Ages 10-14:
  - United States: 6.53%
  - Ohio: 6.57%

- Ages 15-19:
  - United States: 6.69%
  - Ohio: 6.74%

- Ages 20-24:
  - United States: 7.21%
  - Ohio: 6.85%
Adolescents & Young Adults – An increasingly diverse population

- The racial/ethnic diversity among adolescents will increase:
- White, non-Hispanics will decrease by 21% between 2000 and 2040.
DEVELOPMENT IN ADOLESCENCE AND YOUNG ADULTHOOD
A Developmental Rationale

Puberty heightens emotional rousability, sensation-seeking, reward orientation

Period of heightened vulnerability to risk taking, problems in terms of affect & behavior

Maturation of brain facilitates regulatory competence

Early adolescence 10-14 years

Mid adolescence 15-19 years

Late adolescence/Emerging adulthood 20-24 years

Steinberg
## Biopsychosocial Development During Adolescence/ Emerging Adulthood
### Early Adolescence (Age 10 –14 Years)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Onset of puberty, becomes concerned with developing body.</td>
<td>Questions concerning normality of physical maturation, stages of development and how process relates to peers of same gender. Important to normalize differences.</td>
</tr>
<tr>
<td>2) Begins to expand social relationships beyond family.</td>
<td>Encourage teens to begin to take responsibility for own health - in consultation with parents. Begin time alone with patient.</td>
</tr>
<tr>
<td>3) Begin transition from concrete to abstract thinking.</td>
<td>Continue anticipatory guidance to parents &amp; add prevention education for teen. Concrete thinking requires straightforward explicit messages.</td>
</tr>
</tbody>
</table>
### Biopsychosocial Development During Adolescence/ Emerging Adulthood

**Middle Adolescence (Age 14 – 18 years)**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Pubertal development usually complete, sexual drives emerge.</td>
<td>Explores ability to attract others. Sexual experimentation (same and opposite sex) begins.</td>
</tr>
<tr>
<td>2) Peer group sets behavioral standards, family values usually persist.</td>
<td>Peer group influences engagement in positive and negative health behaviors; peers offer key support. Emphasize making good choices and taking responsibility.</td>
</tr>
<tr>
<td>3) Conflicts over independence.</td>
<td>Increased assumption of independent action, with desire for parental support/guidance. Encourage negotiation. Increase involvement of teen in setting health goals &amp; how to manage health situations. Reinforce adolescents’ growing competencies.</td>
</tr>
<tr>
<td>4) Emergence of abstract thinking with new cognitive competencies.</td>
<td>Increased ability to process information and reflect. Leads to questioning adult behavior. May consider broader range of possibilities/options, but not able to integrate into real life.</td>
</tr>
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</table>
Biopsychosocial Development During Adolescence/ Emerging Adulthood
Late Adolescence/Emerging Adulthood (Age 18 – 24 Years)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Physical maturation complete. Body image and gender role definition clearer.</td>
<td>Begins to feel comfortable with relationships and decisions regarding sexuality and preference. Individual relationships become more important than peer group.</td>
</tr>
<tr>
<td>2) Individuals less ego-centric; able to understand others.</td>
<td>More open to questioning regarding behavior. More able to work with clinician on setting goals and changing behavior.</td>
</tr>
<tr>
<td>3) Idealistic</td>
<td>Idealism may lead to conflict with family or authority figures.</td>
</tr>
<tr>
<td>4) Identity Exploration/Life roles begin to be defined</td>
<td>Interested in discussion of life goals &amp; how they impact health.</td>
</tr>
<tr>
<td>5) Cognitive development nearing completion</td>
<td>Most are capable of understanding a full range of options for health issues. Important to help them become competent in negotiating the health care system.</td>
</tr>
</tbody>
</table>
The Adolescent Brain: A Work in Progress
Brain development now extends into the adolescent years.

Most of this development occurs in the frontal lobe:
- Executive functions
- Planning
- Reasoning
- Impulse Control
Health Issues of Adolescence & Young Adulthood

*Significant period of:*

- Bio-psycho-social development.
- Major life transition from childhood to adulthood.
Health Issues of Adolescence & Young Adulthood

Significant period of:

• Normal experimentation & adoption of adult behaviors/identities.

• Increased independence in:
  • How they spend their time and form relationships (e.g., more opportunities for romantic and sexual relationships)
  • Work and/or perform community volunteer service
  • Potentially getting in trouble with the law

The National Adolescent and Young Adult Health Information Center, UCSF
Health Issues of Adolescence & Young Adulthood

Therefore it is a critical time to:

• Foster healthy choices, life skills, & nurturing relationships to help youth thrive as adults;

• Provide needed support to reduce risk of negative development and outcomes; and

• Increase recognition of the role of social determinants and disparities impacting health and well-being.
“At your age, Tommy, a boy’s body goes through changes that are not always easy to understand.”
Health Issues of Adolescence & Young Adulthood

• The major health problems of late adolescence and early adulthood are largely preventable. Opportunity to promote positive development and a lifetime of healthy behaviors.

• Few youths have serious impairment that interferes with daily functioning, BUT

• Those with chronic conditions, including mental health disorders, are learning to manage these conditions with increasing independence.
Unique Needs of Adolescents and their Impact on Health Policy

• Delayed School Start Times
  – 2/3 of adolescents report insufficient sleep
  – 1/3 of young adults report insufficient sleep

• Insufficient sleep associated with increased risk for unintentional injuries (car accidents), increased stimulant use, negative moods, higher levels of risk-taking behaviors, poor academic performance

• Some school districts are delaying school start times in order to allow more sleep for students
Findings: Mortality

Mortality rates by Age, 2000-2010

Ages 10-14
Ages 15-19
Ages 20-24

Rate per 100,000

Year


20.20  66.78  93.14  90.92

NAHIC
# Adolescent and Young Adult Health: Leading Causes of Death

<table>
<thead>
<tr>
<th>Ages 10-14</th>
<th>Ages 15-19</th>
<th>Ages 20-24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Unintentional Injury</strong></td>
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</tr>
<tr>
<td><strong>2. Malignant Neoplasms</strong></td>
<td><strong>2. Homicide</strong></td>
<td><strong>2. Suicide</strong></td>
</tr>
<tr>
<td><strong>3. Suicide</strong></td>
<td><strong>3. Suicide</strong></td>
<td><strong>3. Homicide</strong></td>
</tr>
<tr>
<td><strong>5. Congenital Anomalies</strong></td>
<td><strong>5. Heart Disease</strong></td>
<td><strong>5. Heart Disease</strong></td>
</tr>
<tr>
<td><strong>7. Chronic Lower Respiratory Disease</strong></td>
<td><strong>7. Cerebrovascular</strong></td>
<td><strong>7. Influenza &amp; Pneumonia</strong></td>
</tr>
<tr>
<td><strong>8. Benign Neoplasms</strong></td>
<td><strong>8. Chronic Lower Respiratory Disease</strong></td>
<td><strong>8. HIV</strong></td>
</tr>
</tbody>
</table>

WISQARS 2010
Homicide Rates by Race/Ethnicity and Gender 15-24 year olds, 2010

<table>
<thead>
<tr>
<th>Race/Ethnicity and Age</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>White NH, 15-19</td>
<td>2.36</td>
<td>1.23</td>
</tr>
<tr>
<td>Black NH, 15-19</td>
<td>54.02</td>
<td>7.16</td>
</tr>
<tr>
<td>Hispanic, 15-19</td>
<td>17.9</td>
<td>2.06</td>
</tr>
<tr>
<td>White NH, 20-24</td>
<td>5.83</td>
<td>2.3</td>
</tr>
<tr>
<td>Black NH, 20-24</td>
<td>98.95</td>
<td>8.75</td>
</tr>
<tr>
<td>Hispanic, 20-24</td>
<td>21.46</td>
<td>3.12</td>
</tr>
</tbody>
</table>
Adolescent and Health: Substance Use

Substance Use Behaviors among High School Students, 2013

![Bar chart showing smoking, drinking, marijuana use, and cocaine use among high school students in Ohio and the national average in 2013.](image-url)

NAHIC

YRBSS 2013
Adolescent Health: Sexual Behaviors

Sexual Risk Behaviors among High School Students, 2013

- Ever had sexual intercourse: National 46%, Ohio 26%
- Drank alcohol or used drugs before last sexual intercourse: National 22%, Ohio 18%
- Did not use a condom during last sexual intercourse: National 41%, Ohio 49%
- Did not use any method to prevent pregnancy during last sexual intercourse: National 14%, Ohio 12%

NAHIC  
YRBS 2013
Substance Use Over Time, by Grade

8th Grade | 10th Grade | 12th Grade
---|---|---
Cigarettes | 16% | 30% | 69%
Alcohol | 40% | 30% | 54%
Been Drunk | 28% | 13% | 35%
Marijuana | 15% | 17% | 45%
Smokeless Tobacco | 15% | 8% | 17%
Prescription Drugs | 11% | 4% | 21%

Source: Monitoring the Future, 2012; NSDUH, 2011
Trends in 30-Day Prevalence of Substance Use among 8th Grade Students, 2002-2012

Source: Monitoring the Future, 2012; NSDUH, 2011
Trends in 30-Day Prevalence of Substance Use among 10th Grade Students, 2002-2012

- Marijuana
- Alcohol (Any Use)
- Alcohol (Been Drunk)
- Cigarettes
- Smokeless Tobacco

Source: Monitoring the Future, 2012; NSDUH, 2011
Trends in 30-Day Prevalence of Substance Use among 12th Grade Students, 2002-2012

Source: Monitoring the Future, 2012; NSDUH, 2011
Health Conditions of Adolescents and Young Adults

• Critical period –
  – Intervention—chronic health conditions.

• Depression is a major risk factor both in terms of contributing to suicide, as well as substance abuse and risky sexual behavior.
Health Conditions of Adolescents and Young Adults

• Childbirth is the leading cause of hospitalization, followed by trauma and mental health disorders.

• Youths ages 15 to 24 have the highest rate of visits to emergency departments, after ages <4 and >75.
SPECIAL ADOLESCENT AND YOUNG ADULT POPULATIONS
Special Populations

- Juvenile Justice
- Foster Care
- Homeless
- Youth with Special Health Care Needs
- Lesbian, Gay, Bi-Sexual, Trans, Queer, Questioning Youth
- Other
Foster Youth by the Numbers

397,122 youth in foster care (November 2012)

147,867 youth ages 12-20

52% Male
48% Female

42% White
26% Black
21% Hispanic
12% Other/Unknown

Park et al 2014
Homeless Youth: Demographics

- Homeless population consists of transient individuals who are largely underserved – difficult to track population
- Estimate: 1.7 million unaccompanied homeless youth under age 18;
- 380,000 homeless for more than one week;
- 130,000 homeless for more than 1 month
- Large numbers of minority youth and LGBT individuals

Park et al 2014
ACCESS TO HEALTHCARE AND UTILIZATION
Before Affordable Care Act
Health Insurance Coverage

• Adolescents & young adults insured at lower rates than younger children
• Continuous health insurance coverage for at least a year (2011)
  – 89% of adolescents (ages 10-17)
  – 67% of young adults (ages 18-25)
• Uninsured full-year or part-year
  – 12% of adolescents (ages 10-17)
  – 33% of young adults (ages 18-25)

Sources: NAHIC/UCSF analysis of National Health Interview Survey; English & Park, 2012
Percent Insured by Age Group & Type, 2011

National Health Interview Survey, 2011
## Differences between Adolescent and Young Adult Health Care Utilization

<table>
<thead>
<tr>
<th>Adolescents</th>
<th>Young Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Identified health care provider - pediatricians.</td>
<td>• No identified health care provider (differs by gender).</td>
</tr>
<tr>
<td>• Organizational structure for care exists.</td>
<td>• No identified organizational structure for care.</td>
</tr>
<tr>
<td>• Not high users of non-traditional sources of care.</td>
<td>• High users of non-traditional sources of care.</td>
</tr>
<tr>
<td>• Minors under age 18; parents accompany them on provider visit.</td>
<td>• Rights and responsibilities change after age 18.</td>
</tr>
</tbody>
</table>
No Usual Source of Health Care by Age and Gender, 2011

National Health Interview Survey, 2011
Health Care Systems Falls Short

Only 38% of adolescents received well visit (past year):

- Noncitizen children (44%) were less likely to have well-visits.
- Low-income and full-year uninsured were associated with higher risk for not receiving this visit: 19% for Hispanics with public insurance, as compared with 22% Blacks and 27% white children.
- Regional disparities: e.g. West South Central (45%), East South Central (49%), and Mountain (50%) regions were less likely to receive services.

The National Adolescent and Young Adult Health Information Center, UCSF
Are adolescents receiving the preventive health visits they need?

The Role of Clinical Guidelines

- National Committee Quality Assurance (NCQA) Guidelines (HEDIS- Health Committee on Quality Assurance) have 4 Adolescent-Specific Measures:
  - Annual visit to provider
  - Screening for alcohol use
  - Immunization status
  - Screening sexually active females for *Chlamydia trachomatis* (over 15 years old)

- Consensus guidelines from national organizations
  - AAP, AMA, AAFP, MCHB (Bright Futures)
Utilization Patterns among Adolescents

- 38% of adolescents had a preventive care visit in previous 6 months.
- Low income (32%) and full year uninsured teens were at greater risk for not receiving this visit (23%).
- 45% of publicly insured adolescents were screened as compared to 42% of privately insured youth.
- While height (87%), weight (89%), and blood pressure (78%) occurred most frequently, rates were lower for the poor and uninsured (Irwin, et al, 2009)
How do adolescents use services? Prevention, Content of Visits, and Anticipatory Guidance

• Anticipatory guidance –
  – 31% for seat belts, helmets, and secondhand smoke to
  – 49% for healthy eating.
  – Only 10% had all 6 prevention areas addressed.

• 40% of adolescents had ‘time alone’ with their providers: 42% for males vs. 37% of females.

• Hispanic, younger females, and the lowest-income adolescents were the least likely to have ‘time alone’. 
Health Care Systems Falls Short

• 54% adolescents received care in a medical home (2007).

• Lower for some conditions:
  • 46% of those with a mental health condition,
  • 35% of those with both a physical health condition AND a mental health condition.
Adolescents, young adults & Pre-ACA

- Young adults more likely than any other age group to be uninsured – 1/3 uninsured among 19-26 year olds.
- Earn less $ than older adults; difficult to buy insurance.
- Less likely to be offered employer-based coverage due to the nature of their jobs.
Adolescents, young adults & Pre-ACA

- Often feel that health insurance is low priority.
- Few anticipate risks and consequences of having a major health issue, while being uninsured.
- Many forego preventive care, thinking they are avoiding the cost of insurance.
“I think you should be more explicit here in step two.”
Mom would be happier if you got Health Insurance.

You Have Until March 31st to Enroll in Coverage.
Key Elements of ACA for Youth

- Medicaid expansion
- Health insurance exchanges
- Subsidies and cost sharing
- Dependent coverage
- Essential health benefits
  - Preventive services
  - Mental Health Parity
The ACA and Preventive Services

• Provided by plans without cost sharing
• From US Preventive Services Task Force, Institute of Medicine, Bright Future, and CDC Immunizations Recommendations (children and adolescents)
• Services must be administered by a provider within the healthcare network
Screening Services for Women

- Anemia
- Breast Cancer
- Cervical Cancer
- Chlamydia
- Contraception
- Domestic Violence
- STI
- Well-woman visits
Foster Youth Health Care Access: Post-ACA

• All states required to provide Medicaid coverage to former foster youth until age 26

• Certain limitations
  – Must be in foster care and enrolled in Medicaid at age 18 (or when they age out)
  – Coverage required only in the state where they had been in foster care
  – States can choose to extend coverage to former foster youth from other states

Park et al 2014
Homeless Youth Health Care Access: Post-ACA

• Homeless adolescents under 19 with income up to 133% FPL eligible in all states
• Application and enrollment procedures still stand in the way of securing coverage

Park et al 2014
Unique Needs of Adolescents and their impact on Health Policy
Unique Needs of Adolescents and their Impact on Health Policy

• Demographic changes – racial/ethnic diversity
• Social and economic factors – low income live in poverty, powerless, changes in family formation, lack of recognized political voice
• Negative Public Perception
• Competition with other sectors – older, politically powerful, competing demands
• Other...
John F. Kennedy in a 1959 campaign speech:

“When written in Chinese the word crisis is composed of two characters. One represents danger, and the other represents opportunity”
Youth Development Process: Resiliency in Action

**Youth Needs**
- Love
- Belonging
- Respect
- Mastery
- Safety
- Challenge
- Power
- Meaning

**Internal Assets**
- Protective Factors
  - Caring Relationships
  - High Expectations
  - Opportunities to participate and contribute

**Resilience Traits**
- Social competence
- Problem Solving
- Autonomy and sense of self
- Sense of purpose and future

**External Assets**
- Supports & Opportunities

**Improved Health, Social & Academic Outcomes**
OBSERVABLE BEHAVIOR

Antecedent factors at each of the following levels:

- Individual/Family
- School/Peers
- Community
- Policy
These are some of the antecedent and behavioral factors that contribute to or protect against teenage pregnancy:

**Antecedent and Subsequent Risk and Protective Factors**

### Four Contextual Levels

#### Individual and Family
- Low self-esteem
- Lack of connection
- Low parent presence

- High self-esteem
- Connectedness
- Parental presence

#### School and Peers
- Academic failure
- Prejudice from peers
- Social isolation

- Academic success
- Treated fairly by peers
- Connectedness to school

#### Community
- Lack of access to services
- Lack of awareness
- Stigma of sexuality
- Lack of role models

- Accessible services
- Awareness of contextual issues
- Safe and supportive environment
- Access to role models

#### Policy
- Policies restricting access to confidential care
- Poor access to educational/job opportunities

- Health plans covering confidential treatment
- Teens’ access to education and jobs

- Protective Factors

Reduce adolescent childbearing and STDs.
How Do We Get There?

Recognize involvement of all societal sectors influencing health:
Implementing Multi-Pronged, Concurrent, and Reinforcing Programs
Adolescent Prevention, Pregnancy and Parenting

- **Schools:**
  - Board, Principals, Teachers
  - School climate aimed at successful students; Tutoring and other supports to prevent and ameliorate school failure

- **Other Youth Settings:**
  - Supportive alternatives for repeat pregnancy; youth development; Job training and preparation Civic participation

- **Community Resources:**
  - Attitudes to pregnant and parenting adolescents; Availability of community resources and supports

- **Federal, State, Local Funding:**
  - Support for child and adolescent development
  - Health Care Access to Confidential, Non-judgmental

- **Parents and Other Adults:**
  - Level of Poverty, Employment
  - Parenting education
  - Economic Development
  - Other Parental supports
A Multi-Component Intervention

Clinical Services

Provider Training

Collaboration across schools, businesses,

Community Education & Outreach

Connecting to Other Spheres

National, State, and Local Policy & Advocacy
## Collective Impact: Graduated Drivers License Laws in Ohio

<table>
<thead>
<tr>
<th>Stage</th>
<th>Requirements</th>
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</table>
| **Learner Stage**      | • Minimum Age 15.5 yrs  
                          • Mandatory Holding Period: 60 months  
                          • Min. Supervised Driving; 50 hours (10 must be at night)                                                                                  |
| **Intermediate State** | • Min. Age: 16  
                          • Unsupervised Driving Prohibited from Midnight-6am  
                          • (Age 16) and 1am-5am (Age 17)  
                          • No more than 1 passenger (family members excepted)                                                                                      |
| ** Restrictions on Driving While Unsupervised** |                                                                                                                                               |
| **Minimum Age at Which Restrictions May Be Lifted** | • Nighttime Restriction Until age 18  
                          • Passenger Restriction Until Age 17                                                                                                       |
Opportunities for You as agents of change

Transition into adolescence and transition into young adulthood: a critical time to be establishing ties.

Consider multi-pronged, reinforcing approaches and concurrent strategies.

Focus on clinical preventive services and an identifiable health care provider.

Increase access to care with fewer traditional barriers in place.

Avoiding high out-of-pocket costs.

Source: Collins et al., Commonwealth, 2006
References


• English A, Scott J, Park MJ. Implementing the Affordable Care Act: How Much Will It Help Vulnerable Adolescents and Young Adults? Chapel Hill, NC: Center for Adolescent Health & the Law; San Francisco, CA: National Adolescent and Young Adult Health Information Center at the University of California, San Francisco, 2014.
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