Youth Substance Use Webinar Series: From Developmental Pathways to Policy Development

Part One: February 10, 2015
This webinar is brought to you by PAD and hosted by HC Link.

**Parent Action on Drugs (PAD)** is a provincial organization that addresses issues related to youth substance use, and has programs for parents, youth, educators, and communities. More information at [www.parentactionondrugs.org](http://www.parentactionondrugs.org)

PAD is a member of **HC Link**. HC Link provides consulting services, learning and networking events, and resources for health promotion in both English and French. More information at [www.hclinkontario.ca](http://www.hclinkontario.ca)
Canadian Centre on Substance Abuse (CCSA)

CCSA was created in 1988 as Canada’s only national agency with a legislated mandate to reduce alcohol and other drug-related harm.

- [www.ccsa.ca](http://www.ccsa.ca)
Hospital for Sick Children

The Division of Adolescent Medicine and the Teen Clinic are core components of SickKids provision of advanced health care to teens, research about adolescents and their health and the training and education of doctors, nurses, social workers, psychologists, dieticians and others about adolescent development and health. The Division is the founding academic program in Adolescent Medicine in Canada.

- [www.sickkids.ca](http://www.sickkids.ca)
Part One- Pathways to Youth Substance Use: Evidence and Implications

February 10, 2015 • 10:00 – 11:30 a.m.

Moderator
Patricia Scott-Jeoffroy
Consultant, HC Link

Cathy Maser
Nurse Practitioner, Sick Kids Hospital

Karine Diedrich
National Priority Advisor, Canadian Centre on Substance Abuse

Sheena Gereghty
Knowledge Broker, Canadian Centre on Substance Abuse
Objectives

By the end of this presentation participants will:

• Examine why youth are a priority,

• Have an increased understanding of the complexities of youth substance use,

• Be familiar with research about biological and environmental factors, including adolescent brain development, and

• Be familiar with considerations for working with youth, families and communities.
Substance Misuse is a Complex Issue

...too significant and too deeply rooted to be solved by one group, or one approach
Why Do Youth Use Substances?

**Societal**: Norms, Laws/Policies, determinants of health

**Community**: Lack of opportunity for engagement

**Social**: Perceptions of norms in peer group

**Family**: Early deprivation, relationship quality, monitoring of behaviour

**Individual**: Early behavioural problems, mental health
Children And Youth Are a Priority:

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## Age of Initiation

<table>
<thead>
<tr>
<th>Average age of initiation</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>15.6</td>
<td>15.9</td>
<td>15.9</td>
<td>16.0</td>
<td>16.2</td>
</tr>
<tr>
<td>Cannabis</td>
<td>15.5</td>
<td>15.6</td>
<td>15.7</td>
<td>15.6</td>
<td>16.1</td>
</tr>
</tbody>
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*Source: CADUMS 2008-2012*
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Binge Drinking Increases With Age

- Grade 7: 3.6%
- Grade 8: 8.7%
- Grade 9: 23.2%
- Grade 10: 36.3%
- Grade 11: 48.1%
- Grade 12: 54.8%
Past-Year Illicit Drug Use and Harms is Higher Among Youth

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![Bar chart showing illicit drug use and harms among youth (15-24) and adults (25+).]

- Cannabis: Youth (20.3%) > Adults (8.4%)
- Other Illicit Drugs: Youth (6.5%) > Adults (1.2%)
- Harms: Youth (5.5%) > Adults (1.4%)
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How Teens Think

Concrete to abstract thinking
• Live in the present
• Difficulty generalizing rules

Egocentric

Risk-taking behavior
• Infertile
• Immortal
• immune
ANATOMY OF A TEENAGER’S BRAIN

THE BIRDS AND THE BEES LOBE

MEMORY FOR MUSIC

REBELLION CENTER

SUPER TURBO REBELLION CENTER

MEMORY FOR CHORES, HOMEWORK, ETC.

JUDGEMENT GLAND

“COOL” GAUGE

CENTER OF UNIVERSE CENTER

SLANG DECODER

SELF IMAGE

FITTING-IN GLAND

INTEREST ADDICTIONS

EVERY EPISODE OF THE SIMPSONS

INDESTRUCTIBILITY CORTEX

SLAM DOOR REFLEX

CAR KEY CRAVING

DISAPPROVAL FROM PARENTS

FOR PARENTS

ABILITY TO BE SEEN IN PUBLIC WITH PARENTS

PRONE TO BRUISING

Peer Pressure Resistance

MarkParisi@aol.com
Back to Front Maturation
Amygdala:
• Emotional and gut responses
• Reactive part of brain vs. thinking part

Prefrontal Cortex:
• CEO: planning, strategizing, judgment, impulse control, regulating emotion
Prefrontal Cortex

- Growth spurt around 11 or 12 yrs.
- “Pruning” away unused synapses and myelinating others
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Early Childhood and Adolescence

• Substance use disorders in adulthood can be linked to two broad categories of mental health concerns beginning in childhood:
  – Internalizing behaviours: outward facing (e.g. aggression, impulsivity), most associated with reward system
  – Internalizing problems: inward (e.g. depression, anxiety), most associated with fear system

• The relationship between these traits and SUD’s is dependent on various social-environmental factors
Genetic Factors

• Genetic factors contribute 40-60% of vulnerability to drug abuse, however, which exact gene remains unclear
Epigenetics

• Refers to the study of changes in gene expression

• Whether a gene is expressed is determined by:
  – Inherited traits
  – Environmental influences
  – Physical and psychological experiences
Importance of Epigenetics

• Genes are not fate!

• Effective prevention and intervention play vital roles regardless of genetic predisposition

• So what does effective prevention look like?
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Addressing problems early in development

- Risk Factors: likelihood of substance misuse
- Protective Factors: likelihood of substance misuse
- The impact of a risk or protective factor depends on the age that it occurs, its severity, and the presence of other risk and protective factors
Resiliency

“The capability of individuals to cope successfully in the face of stress-related, at-risk or adversarial situations.”

Wayne Hammond, 2003
Youth resiliency framework
Factors that contribute to youth resilience

- Individual factors
- Cultural factors
- Relationship factors
- Community contexts
Factors that contribute to youth resilience:

- Individual factors:
  - assertiveness;
  - ability to solve problems;
  - self awareness;
  - empathy;
  - having goals and aspirations;
  - sense of humour
Factors that contribute to youth resilience:

• Cultural factors:
  – tolerance of differing ideologies, beliefs;
  – having a life philosophy;
  – cultural and/or spiritual identification;
  – being culturally grounded
Factors that contribute to youth resilience:

- Relationship factors:
  - positive mentors/role models;
  - perceived social support;
  - appropriate emotional expression and parental monitoring within family;
  - peer group acceptance
Factors that contribute to youth resilience:

- Community contexts:
  - avoidance of exposure to violence among family, community and peers;
  - gov’t provision for children’s safety, recreation, housing and jobs when older;
  - access to school and education, information, learning resources;
  - safety and security
Family Factors

Inconsistent and harsh discipline

Attachment to parents

Parental substance abuse

Parental monitoring

Child maltreatment

Parental warmth
FIGURE 4: Canadian youth (aged 12–19 years) living arrangements in 2011

Resilience Based Interventions

• Need to focus on developing assets instead of more traditional approach of focusing on risk amelioration
• Need for interventions to cut across multiple behaviours
• Emphasize assets and resources as focus for change
  – Social skills for life in general
  – Self efficacy for health-promoting behaviour
  – Academic skills
  – Participation in extracurricular and community activities
Considerations for Interventions

agencies
positive
adolescents'
resiliency
interventions
engagement
culture
individual
community
relationships
brain
diversity
development
epigenetics
genetics
youth
cross-sectoral
policy
family
parenting
Youth Substance Use: 
*From Developmental Pathways to Policy Development*

THANK YOU!

Join us on March 5 for Part Two: 
*Applying Evidence to Health Promotion Practices and Policies*
HC Link Provides Consultations

If you would like to discuss a consultation on youth and substance use, contact Patricia Scott-Jeoffroy at HC Link: 416-847-1575 or 1-855-847-1575 (toll free)
Contact Us

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