

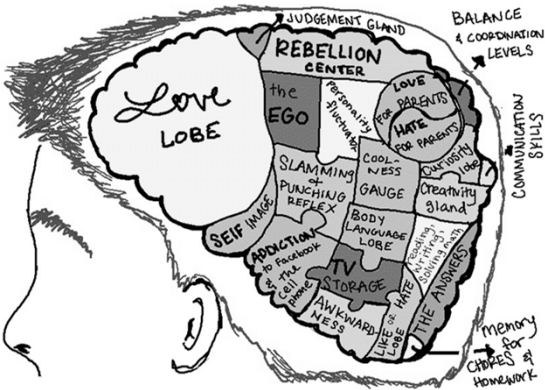
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OBJECTIVES

- Ways to assess AYA for risk taking behaviors
- Define e-cigarette and understand current youth trends
- Discuss challenges of addressing sexual health with adolescents
- Learn current screening tools for depression and anxiety

3

ADOLESCENT BRAIN



4

Judgment last to develop

The area of the brain that controls "executive functions" — including weighing long-term consequences and controlling impulses — is among the last to fully mature. Brain development from childhood to adulthood:

5-year-old brain

Preteen brain

Teen brain

20-year-old brain

Dorsal lateral prefrontal cortex ("executive functions")

Front

Top view

Back

Red/yellow: Parts of brain less fully mature

Blue/purple: Parts of brain more fully matured

Sources: National Institute of Mental Health; Paul Thompson, Ph.D., UCLA Laboratory of Neuro Imaging

Thomas McKay | The Denver Post

Dynamic Mapping of Human Cortical Development during Childhood through Early Adulthood, Proceedings of the National Academy of Sciences, 101(21):8174-8179, May 25 2004 [published online, May 17 2004]

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eGFR and Neurocognitive Performance in Children and Young Adults with CKD by Neurocognitive Domain 2014

Neurocognitive Assessment and Magnetic Resonance Imaging Analysis of Children and Young Adults with Chronic Kidney Disease (NICK) Study

Neurocognitive Domain	Beta Coefficient (indicating difference in z-score per 10-unit higher eGFR)
Attention	0.052
Language	0.041
Visual Memory	0.054
Visual Working Memory	0.063
Visual Spatial	0.039
Visual Working Memory	0.062
Executive Function	0.069
Inhibitory Control	0.078
Problem Solving	0.034
Set Shift	0.036
Set Shift	0.005

Centers for Disease Control and Prevention. Chronic Kidney Disease Surveillance System—United States. website. <http://nccd.cdc.gov/CKD>.

WHAT ABOUT THOSE WITH CKD...

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FOR THOSE WITH CKD

- Children with CKD are at risk for cognitive dysfunction (CKiD study)
- Deficits on neurocognitive testing and academic achievement
 - Tested below grade level in comparison to healthy children
 - Lower ratings in executive functioning (memory, recall, processing, etc)
- Some other suggested causes, besides renal disease, may include
 - Anemia
 - Hyperlipidemia
 - Hypertension

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IMPACT OF CKD/ESRD

- CKD diagnosed often as child
 - Frequent illness/hospitalizations/treatment
 - Reduced/limited interaction with peers & school interruption
 - Feelings of anger & guilt
 - Focus on body & biological functions & survival
- Can impact brain development and cognitive/executive functioning
- Impact of chronic illness can present like trauma and chronic stress
- During this extremely challenging time...focus changes from family as social support to peers

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ASSESSING FOR HIGH RISK BEHAVIOR

9

RISK TAKING

Although it is a normal part of adolescence....

It can be dangerous and may require intervention when:

- It effects and interferes with their everyday life
- It puts the AYA health and safety at risk
- Leads to disconnect or damages relationship with family, peers & others.

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HEEADSSS – A PSYCHOSOCIAL RISK ASSESSMENT TOOL

Home & Environment
Education & Employment
Eating
Activities
 ❖ **D**rugs
 ❖ **S**exuality
 ❖ **S**uicide/**D**epression
Safety



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STARTING THE INTERVIEW

- Meet with adolescents alone (either based on age or development)
- Explain the purpose of meeting with patients alone to parents.
 - Create clinic wide policy – easier if it is done with every patient.
- **Explain confidentiality**
 - Be sure to explain the exceptions in the beginning
 - It get truthful and honest answer...they must trust you

Resource: <https://www.contemporarypediatrics.com/article/heedsss-30-psycho-social-interview-adolescents-updated-new-century-fueled-media/page/0/1>

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<h1> Potential first-line questions </h1>		Questions if time permits or if situation warrants exploration
Sexuality	<p>Have you ever been in a romantic relationship? Tell me about the people that you've dated.</p> <p>Have any of your relationships ever been sexual relationships (such as involving kissing or touching)?</p> <p>Are you attracted to anyone now? OR: Tell me about your sexual life.</p> <p>Are you interested in boys? Girls? Both? Not yet sure?</p>	<p>Are your sexual activities enjoyable?</p> <p>Have any of your relationships been violent?</p> <p>What does the term "safer sex" mean to you?</p> <p>Have you ever sent unclothed pictures of yourself on e-mail or the Internet?</p> <p>Have you ever been forced or pressured into doing something sexual that you didn't want to do?</p> <p>Have you ever been touched sexually in a way that you didn't want?</p> <p>Have you ever been raped, on a date or any other time?</p> <p>How many sexual partners have you had altogether? (Girls) Have you ever been pregnant or worried that you may be pregnant?</p> <p>(Boys) Have you ever gotten someone pregnant or worried that might have happened?</p> <p>What are you using for birth control? Are you satisfied with your method?</p> <p>Do you use condoms every time you have intercourse?</p> <p>What gets in the way?</p> <p>Have you ever had a sexually transmitted infection or worried that you had an infection?</p>
Suicide/depression	<p>Do you feel "stressed" or anxious more than usual (or more than you prefer to feel)?</p> <p>Do you feel sad or down more than usual?</p> <p>Are you "bored" much of the time?</p> <p>Are you having trouble getting to sleep?</p> <p>Have you thought a lot about hurting yourself or someone else?</p> <p>Tell me about a time when someone picked on you or made you feel uncomfortable online.</p> <p>(Consider the PHQ-2 screening tool [Table 6, page 26] to supplement.)</p>	<p>Tell me about a time when you felt sad while using social media sites like Facebook.</p> <p>Does it seem that you've lost interest in things that you used to really enjoy?</p> <p>Do you find yourself spending less time with friends?</p> <p>Would you rather just be by yourself most of the time?</p> <p>Have you ever tried to kill yourself?</p> <p>Have you ever had to hurt yourself (by cutting yourself, for example) to calm down or feel better?</p> <p>Have you started using alcohol or drugs to help you relax, calm down, or feel better?</p>
Drugs	<p>Do any of your friends or family members use tobacco? Alcohol? Other drugs?</p> <p>Do you use tobacco or electronic cigarettes? Alcohol? Other drugs, energy drinks, steroids, or medications not prescribed to you?</p>	<p>Is there any history of alcohol or drug problems in your family?</p> <p>Does anyone at home use tobacco?</p> <p>Do you ever drink or use drugs when you're alone?</p> <p>(Assess frequency, intensity, patterns of use or abuse, and how patient obtains any of drugs, alcohol, or tobacco.)</p>

(Ask the CRAFFT questions in Table 5, page 25.)

Klein, Goldenring, Adelina (2014)
Contemporary Pediatrics, 16-28

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Question	Response	Score
1. In the last 12 months, how often have you been drinking alcohol?	Never	0
	1-2 times	1
	3-4 times	2
	5-6 times	3
	7-9 times	4
	10-12 times	5
	13-15 times	6
	16-18 times	7
	19-21 times	8
	22-24 times	9
	25-27 times	10
	28-30 times	11
	31-33 times	12
	34-36 times	13
	37-39 times	14
	40-42 times	15
	43-45 times	16
	46-48 times	17
	49-51 times	18
	52-54 times	19
	55-57 times	20
	58-60 times	21
	61-63 times	22
	64-66 times	23
	67-69 times	24
	70-72 times	25
	73-75 times	26
	76-78 times	27
	79-81 times	28
	82-84 times	29
	85-87 times	30
	88-90 times	31
	91-93 times	32
	94-96 times	33
	97-99 times	34
	100-102 times	35
	103-105 times	36
	106-108 times	37
	109-111 times	38
	112-114 times	39
	115-117 times	40
	118-120 times	41
	121-123 times	42
	124-126 times	43
	127-129 times	44
	130-132 times	45
	133-135 times	46
	136-138 times	47
	139-141 times	48
	142-144 times	49
	145-147 times	50
	148-150 times	51
	151-153 times	52
	154-156 times	53
	157-159 times	54
	160-162 times	55
	163-165 times	56
	166-168 times	57
	169-171 times	58
	172-174 times	59
	175-177 times	60
	178-180 times	61
	181-183 times	62
	184-186 times	63
	187-189 times	64
	190-192 times	65
	193-195 times	66
	196-198 times	67
	199-201 times	68
	202-204 times	69
	205-207 times	70
	208-210 times	71
	211-213 times	72
	214-216 times	73
	217-219 times	74
	220-222 times	75
	223-225 times	76
	226-228 times	77
	229-231 times	78
	232-234 times	79
	235-237 times	80
	238-240 times	81
	241-243 times	82
	244-246 times	83
	247-249 times	84
	250-252 times	85
	253-255 times	86
	256-258 times	87
	259-261 times	88
	262-264 times	89
	265-267 times	90
	268-270 times	91
	271-273 times	92
	274-276 times	93
	277-279 times	94
	280-282 times	95
	283-285 times	96
	286-288 times	97
	289-291 times	98
	292-294 times	99
	295-297 times	100
	298-300 times	101
	301-303 times	102
	304-306 times	103
	307-309 times	104
	310-312 times	105
	313-315 times	106
	316-318 times	107
	319-321 times	108
	322-324 times	109
	325-327 times	110
	328-330 times	111
	331-333 times	112
	334-336 times	113
	337-339 times	114
	340-342 times	115
	343-345 times	116
	346-348 times	117
	349-351 times	118
	352-354 times	119
	355-357 times	120

Two or more "Yes" answers suggest high risk of a serious substance-use problem or a substance-use disorder.

- C** Have you ever ridden in a **Car** driven by someone who was high or had been using drugs or alcohol?
- R** Do you ever use alcohol or drugs to **Relax**, feel better about yourself, or fit in?
- A** Do you ever use drugs or alcohol when you are **Alone**?
- F** Do you **Forget** things you did while using drugs or alcohol?
- F** Do your family and **Friends** ever tell you that you should cut down your drinking or drug use?
- T** Have you ever gotten into **Trouble** while using drugs or alcohol?

Abbreviation: CRAFFT, Car, Relax, Alone, Forget, Friends, Trouble.
Knight JR, et al.²³

Klein, Goldenring, Adelina (2014)
Contemporary Pediatrics, 16-28

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TOBACCO AND E-CIGARETTE PREVENTION

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E-CIGARETTES

- Electronic cigarette (e-cigarette): handheld devices that produce an aerosol from a solution typically containing nicotine, flavoring chemicals, and other additives for inhalation through a mouthpiece by the user.
- E-cigarettes were introduced to the US market in the mid-2000s, and the design of these products has evolved over time, varying considerably in price, quality, and design..


Are a potent nicotine delivery system

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DEFINITIONS



The term “e-cigarettes” encompasses the wide variety of devices that are known as vapes, “mods,” tanks, and pod systems, including currently popular brands, such as JUUL.



Secondhand aerosol: e-cigarette emissions that are discharged into the surrounding environment with e-cigarette use both directly from the e-cigarette and exhaled from the lungs of the user.



Thirdhand aerosol: e-cigarette emissions that remain on surfaces and in dust after e-cigarette use.

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YOUTH TOBACCO TRENDS
























- Current e-cigarette use increased considerably among high school students during 2017-2018.
- Adolescents are more likely to engage in experimentation with substances such as cigarettes, and are physiologically more vulnerable to addiction.
- The earlier in childhood an individual uses nicotine-containing products, the stronger the addiction and the more difficult it is to quit.

Teens and E-cigarettes

TEENS ARE MORE LIKELY TO USE E-CIGARETTES THAN CIGARETTES.*

Grade	Cigarettes	E-cigarettes
8th grade	3.6%	9.5%
10th grade	6.3%	14.0%
12th grade	11.4%	16.2%

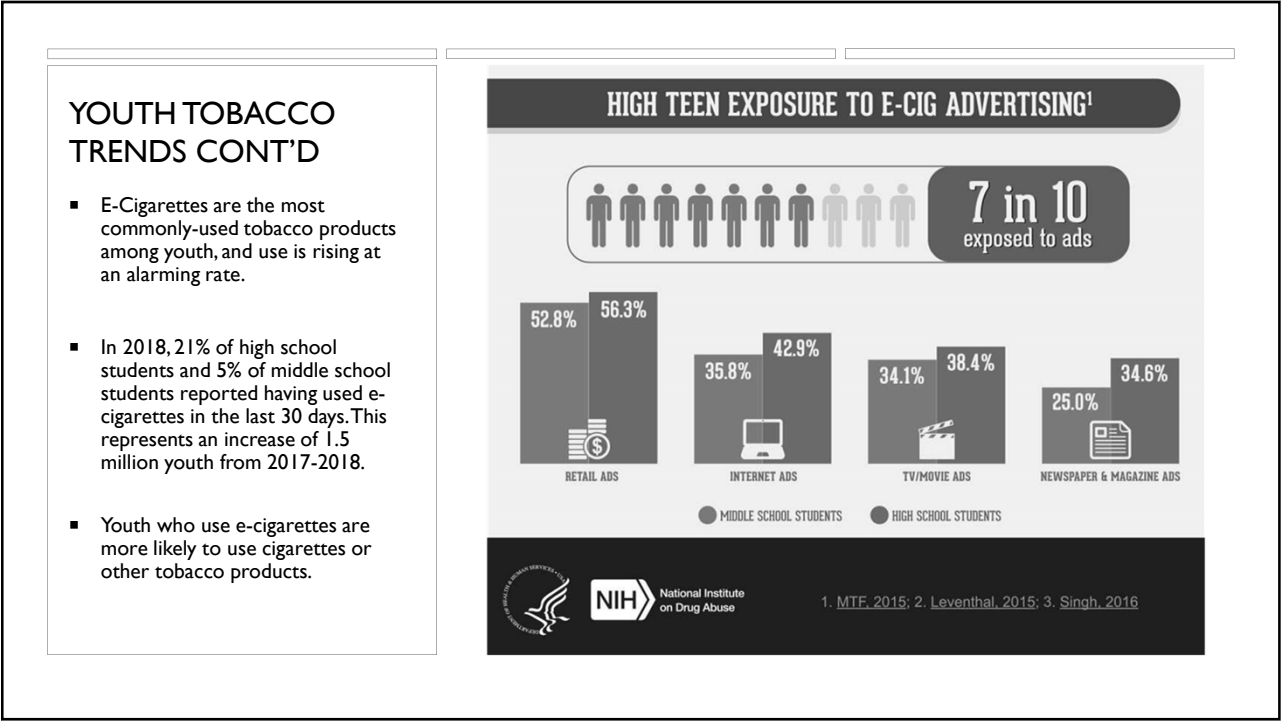
*Past month use



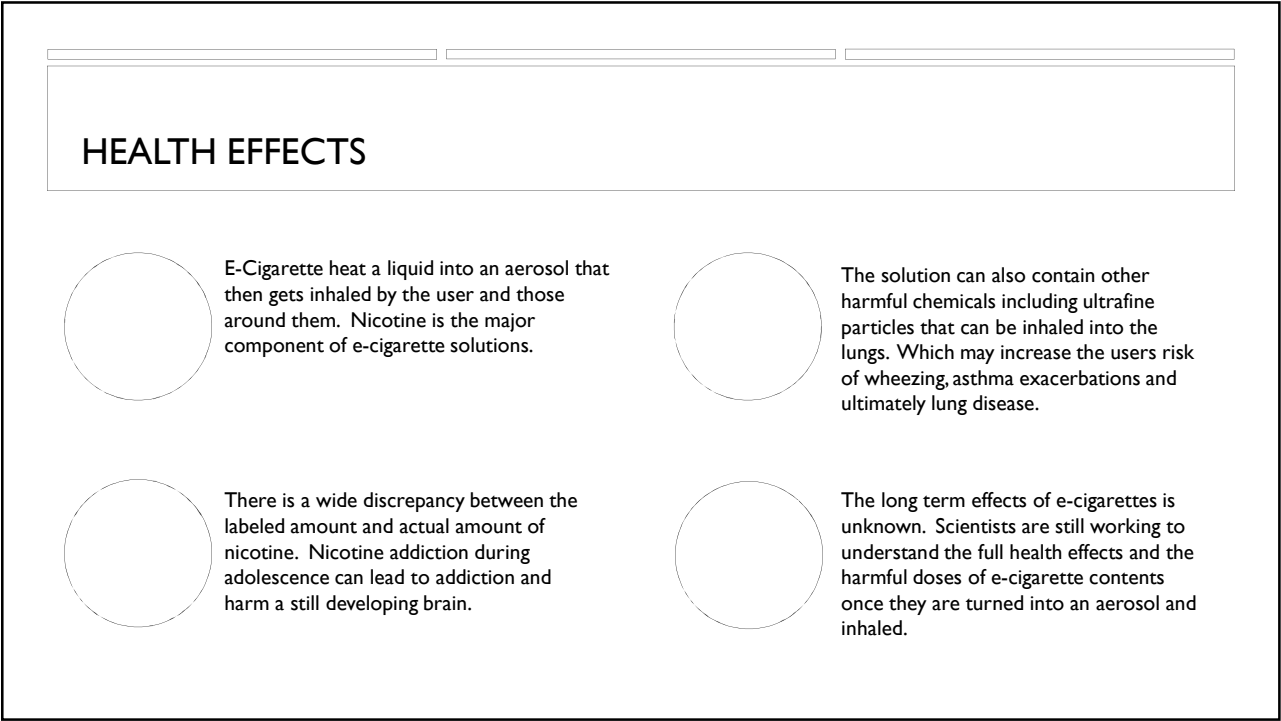
2X

as many boys use e-cigs as girls

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OTHER RISKS...

- Brain is still developing...
 - more likely to take risks with their health and safety.
 - Nicotine changes the way synapses are formed, which can harm the parts of the brain that control attention and learning.
 - Addiction is a form of learning and adolescents can get addicted more easily than adults.
 - Some evidence suggests that e-cigarette use is linked to other substance use including, alcohol and marijuana.



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STUDIES SHOW THAT FLAVORS PLAY A MAJOR ROLE

A government study found that 81% of kids who have ever used tobacco products started with a flavored product, including 81% who have ever tried e-cigarettes and 65% who have ever tried cigars.

Youth also cite flavors as a major reason for their current use of non-cigarette tobacco products, **with 81.5% of youth e-cigarette users and 73.8% of youth cigar users saying they used the product “because they come in flavors I like.”**

Since most tobacco users start before age 18, flavored tobacco products play a critical role in the industry’s marketing strategy. Flavors can also create the impression that a product is less harmful than it really is.

Flavors improve the taste and reduce the harshness of tobacco products, making them more appealing and easier for beginners – often kids – to try the product and ultimately become addicted.

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E-CIGARETTE:
GATEWAY TO
TRADITIONAL
CIGARETTE USE

AYA who use e-cigarettes, compared with those who do not, are at higher risk of transitioning to traditional cigarettes.

They are 3.6x more likely to report using traditional cigarettes at follow-up compared with those who had not.

AYA are often unaware of their nicotine exposure and the numerous dangers of nicotine addiction.

23

ABC NEWS — September 6, 2019

3rd vaping-related death reported, CDC vows to find out 'what is making people sick'

Vaping device CEO calls for government regulation of industry after sixth vaping-related death

Adam Shapiro

Anchor

Yahoo Finance September 11, 2019

Just stop: Vaping and e-cigarettes causing lung disease across the US, CDC warns

A 6th person has died from a vaping-related lung illness, this time in Kansas

Doug Stanglin, USA TODAY Published 8:25 a.m. ET Sept. 11, 2019

CNNhealth

Food Fitness Wellness Parenting Vital Signs

LIVE TV

More deaths reported among rising number of lung disease cases that could be due to vaping

By Michael Nedelman, CNN


Updated 3:36 PM ET, Fri September 6, 2019

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NEW REPORTS OF SEVERE LUNG DISEASE



[Teen Story](#)

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ACTIONS FOR HEALTHCARE PROFESSIONALS



- Screen for e-cigarette use and exposure and provide prevention counseling in clinical practice.
- Provide preventative counseling that homes, cars, and places where children and adolescents live, learn, and play should have comprehensive tobacco-free bans that include e-cigarettes as well as combustible tobacco products.
- Do not recommend e-cigarettes as a tobacco-dependence treatment product for parents or AYA.

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TOBACCO CESSATION COUNSELING

Clinicians should be clear in their messages about tobacco use and secondhand smoke exposure with both children and families.

Adult tobacco users should be advised to quit and given proper materials to do so.


Helpful cessation materials may include the state quitline, web sites, text-to-quit programs, apps, in-person programs, and nicotine replacement therapy such as medication, patches, lozenges, or gum.

The adoption of smoke-free rules in homes and cars is one way a tobacco user who will not quit can still protect the rest of the family.

Electronic nicotine delivery systems (ENDS, or e-cigarettes), which are not approved by the US Food and Drug Administration as an approved cessation device, should not be recommended to help smokers quit.

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RESOURCES



National:

- www.smokefree.gov
 - Quitlines
 - Smartphone Apps
 - Smokefree Text programs
- Center for Disease Control
 - <https://e-cigarettes.surgeongeneral.gov/default.htm>
 - Fact Sheets – English and Spanish
 - Parent Tip Sheet – English and Spanish
- NBC News – More Info
 - [NBC Think Again - Juul](#)

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SEXUAL AND REPRODUCTIVE HEALTH

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SEXUAL HEALTH AND DEVELOPMENT

- All adolescents are sexual beings!!!
 - With or with out special health care needs (SHCN)
- Once puberty hits the adolescents focus becomes on interpersonal development & relationships
 - Adolescent/Young Adults (AYA) with CKD often experience puberty later than peers
 - They may feel isolated, shame and/or experience self-esteem and body image issues
- Sexual behavior is socially learned
 - But taught by whom?
 - They must learn normative sexual development vs. abuse and exploitation

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SEXUAL HEALTH

It's not just about birth control....

- Healthy Relationships
 - Do they feel safe with the person they are with?
- Sexual Orientation
 - Are they questioning who they are attracted to?
- Gender Identity
 - Do they have questions about their gender identity?

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CHALLENGES

- YSHCN's or family resistant to discussing uncomfortable topics.
- Our own discomfort
 - Make eye contact
 - Ask in a way that shows you actually want to know
- Medical team's lack of time
- Turf – who's responsibility is it?
 - PCP vs Specialty MD?
 - MD, RN or MSW?
- Privacy and confidentiality
 - Asking parents to step out
 - Communicating outside the office

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COMPARISON

AYA without SHCN

- Ego Centric
- Healthy Sexual Identity
- Recognizing Sexual Orientation
- Sexual Activity
- Normal Goals for future
- Developmental Needs met

AYA with SHCN

- Self-image issues
- Assumption of Asexuality
- No Sex Education
- High-Risk Behaviors
 - STD's – dangerous for those immunocompromised
 - Pregnancy – Hi-Risk, need to change medications
- Parental fears
- Silent Care Team

Adapted from : Doyle, M & Yuscak, C. (September 2005) "The sexuality and self esteem conundrum: young adults with kidney disease",
Kidney & Urology Foundation of America "Life Stages and Kidney Disease" multidisciplinary meeting, Queens, NY

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MYTHS ABOUT
SEXUALITY
FOR YOUTH
WITH SHCN

- They're not having sex.
- They are not interested in sex; sexuality is not a priority.
- They suppress their sexual needs & thoughts because of their SHCN.
 - Embarrassment & awkwardness
 - Fear of burdening caregivers
- They are not at risk for abuse, coercion or solicitation.
- They do not need education about sexuality/STD/Fertility/contraception.
- That's the families job.

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- YSHCN have the rates of sexual activity similar to healthy peers¹.
- They show earlier initiation of sexual activity as a way to be accepted or feel “normal”
 - Less likely to say no or insist on condom use
- There is an increased risk associated with infection, STD's, and pregnancy
 - Makes education and prevention even more important

THE
TRUTH
COMES
OUT

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WHAT DO THEY KNOW ABOUT SEX?

- Not enough!
- Learn about sex from peers, media, self-exploration, school & HCP's.
- 50% of pediatric nephrologists interview adolescents separately from parents.
- 50% ask adolescents about sexual history.

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WHAT CAN WE DO AS A HEALTHCARE TEAM?

- Comprehensive health education is critical.
 - Do you have information available at your practice?
 - Is condom use promoted? Are they available at your clinic?
 - Is STI testing available? Where can they go for treatment?
- Youth frequently have questions about sexuality.
 - Will they feel comfortable asking you?
 - How can you open up discussion and make them feel safe?
- Educate parents about the dangers of not providing education.
 - Overprotective parents may be fearful of letting go and fear discussing sexuality encourages independence.
 - They may view adolescent as dependent and asexual
 - “They are not interested in sex”
 - Parents may be reluctant to even discuss the basics of puberty due to fear of making a mistake because of SHCN.

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SUICIDE – DEPRESSION/ANXIETY

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DEPRESSION LOOKS DIFFERENT IN ADOLESCENTS

- Irritable or angry mood – more predominant than sadness
- Unexplained aches and pains
- Extreme sensitivity to criticism and rejection
- Isolation and withdrawing

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SCREENING TOOLS FOR DEPRESSION

- Patient Health Questionnaire (PHQ)
 - Asked about symptoms over the last **2 weeks**
 - Positive response to these questions leads to a more in depth screening – PHQ -2
 - Little interest or pleasure in doing things
 - Feeling down, depressed or hopeless
 - PHQ – 9
 - PHQ – 9 Adolescent
- Becks Depression Inventory

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PHQ-9 modified for Adolescents
(PHQ-A)

Name: _____ Clinician: _____ Date: _____

Instructions: How often have you been bothered by each of the following symptoms during the past two weeks? For each symptom put an "X" in the box beneath the answer that best describes how you have been feeling.

	(0) Not at all	(1) Several days	(2) More than half the days	(3) Nearly every day
1. Feeling down, depressed, irritable, or hopeless?				
2. Little interest or pleasure in doing things?				
3. Trouble falling asleep, staying asleep, or sleeping too much?				
4. Poor appetite, weight loss, or overeating?				
5. Feeling tired, or having little energy?				
6. Feeling bad about yourself – or feeling that you are a failure, or that you have let yourself or your family down?				
7. Trouble concentrating on things like school work, reading, or watching TV?				
8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you were moving around a lot more than usual?				
9. Thoughts that you would be better off dead, or of hurting yourself in some way?				

In the past year have you felt depressed or sad most days, even if you felt okay sometimes?

☐ Yes ☐ No

If you are experiencing any of the problems on this form, how difficult have these problems made it for you to do your work, take care of things at home or get along with other people?

☐ Not difficult at all ☐ Somewhat difficult ☐ Very difficult ☐ Extremely difficult

Has there been a time in the past month when you have had serious thoughts about ending your life?

☐ Yes ☐ No

Have you EVER, in your WHOLE LIFE, tried to kill yourself or made a suicide attempt?

☐ Yes ☐ No

**If you have had thoughts that you would be better off dead or of hurting yourself in some way, please discuss this with your Health Care Clinician, go to a hospital emergency room or call 911.

Office use only:

Severity score: _____

Modified with permission from the PHQ (Spitzer, Williams & Kroenke, 1999) by J. Johnson (Johnson, 2002)

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SCREENING TOOLS FOR ANXIETY

Anxiety

- Generalized Anxiety Disorder
 - GAD – 2
 - Feeling nervous, anxious, or on edge
 - Not being able to stop or control worrying
 - GAD – 7
- Pediatric Symptom Checklist – PSC – 17
- Screen for Child Anxiety Related Disorders (SCARED)
 - Completed by parents

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WHAT NEXT?

Once a patient screens positive then what?

What are your clinics currently implementing to assess mental health?

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QUESTIONS??

Thank you for time!!!!

Lynn Puma, LCSW – lynn.puma@uncc.edu

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