



University of Pittsburgh

**Modifying a Preconception Counseling
Program to Prevent Unplanned Pregnancies in
Minority Teens with Diabetes:
READY-Girls**

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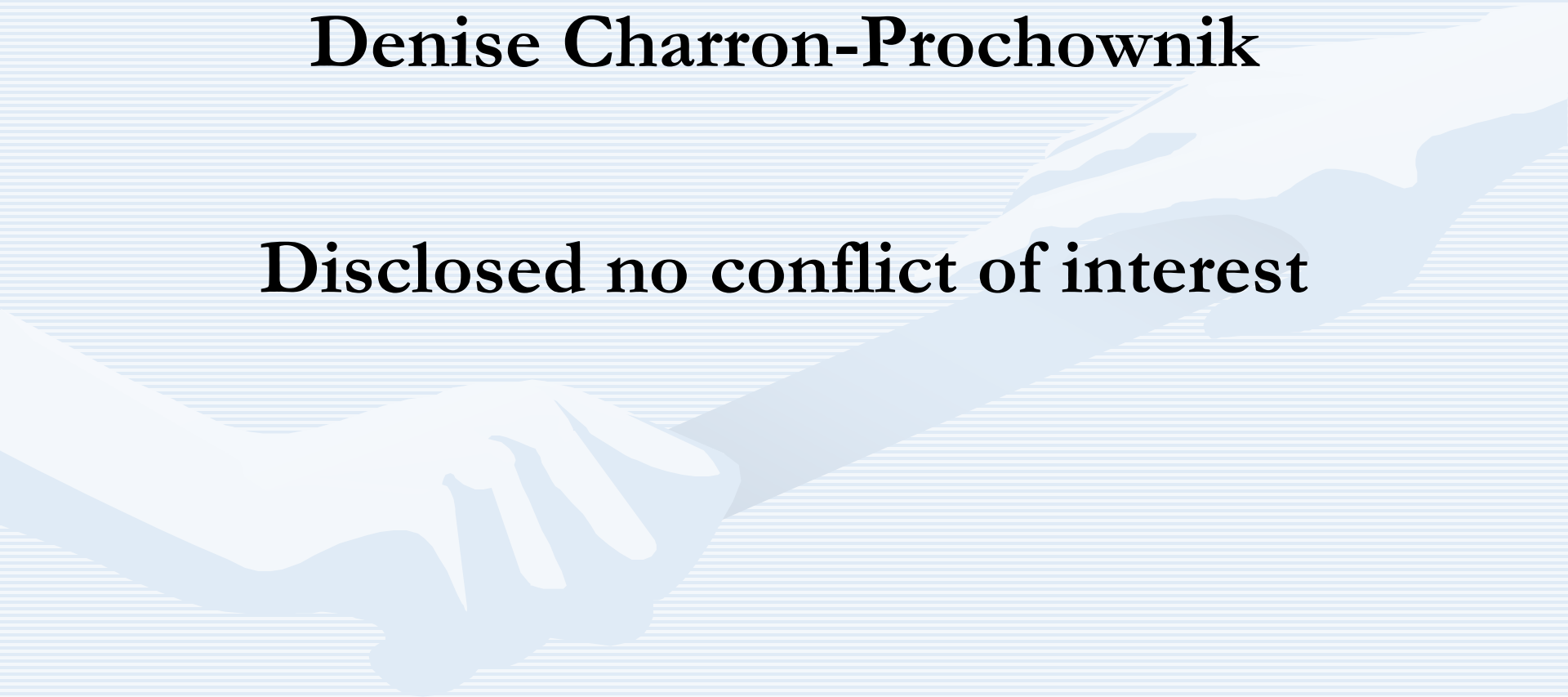
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Presenters Disclosure

Denise Charron-Prochownik

Disclosed no conflict of interest



Presenters Disclosure

Denise Charron-Prochownik

**Disclosed never used a
Health Literacy Screening Tool.**

Background

- Diabetes can cause reproductive complications
- Up to 9% of diabetic women with unplanned pregnancies have complications (e.g., infants with congenital abnormalities).
- Up to 2/3 of diabetic women have unplanned pregnancies.

Background

For teens with diabetes,

it's more than preventing an unplanned pregnancy...

it's knowing how to plan a pregnancy when it's safe and wanted.

Background

- Reproductive complications can be reduced from 9% to 2% through Preconception Counseling (PC)
- ADA recommends PC for all women of child-bearing potential to prevent unplanned pregnancies...

Background

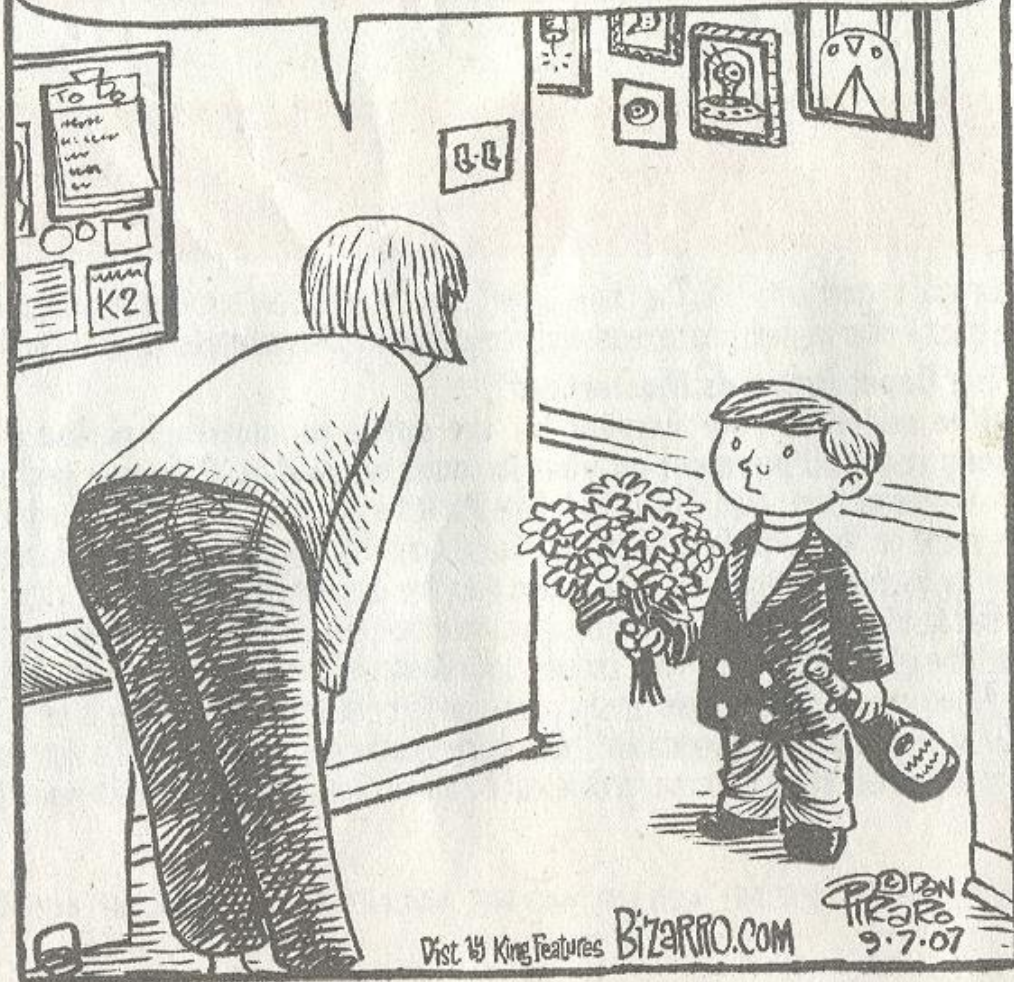
Adolescent girls are unaware of PC and reproductive complications, early and some unsafe practices, and are at high risk for an unplanned pregnancy.

- 39% of teenage girls with diabetes had an episode of unprotected sex.
- average age of sexual debut was 15.6 years (range 13 – 19 years).

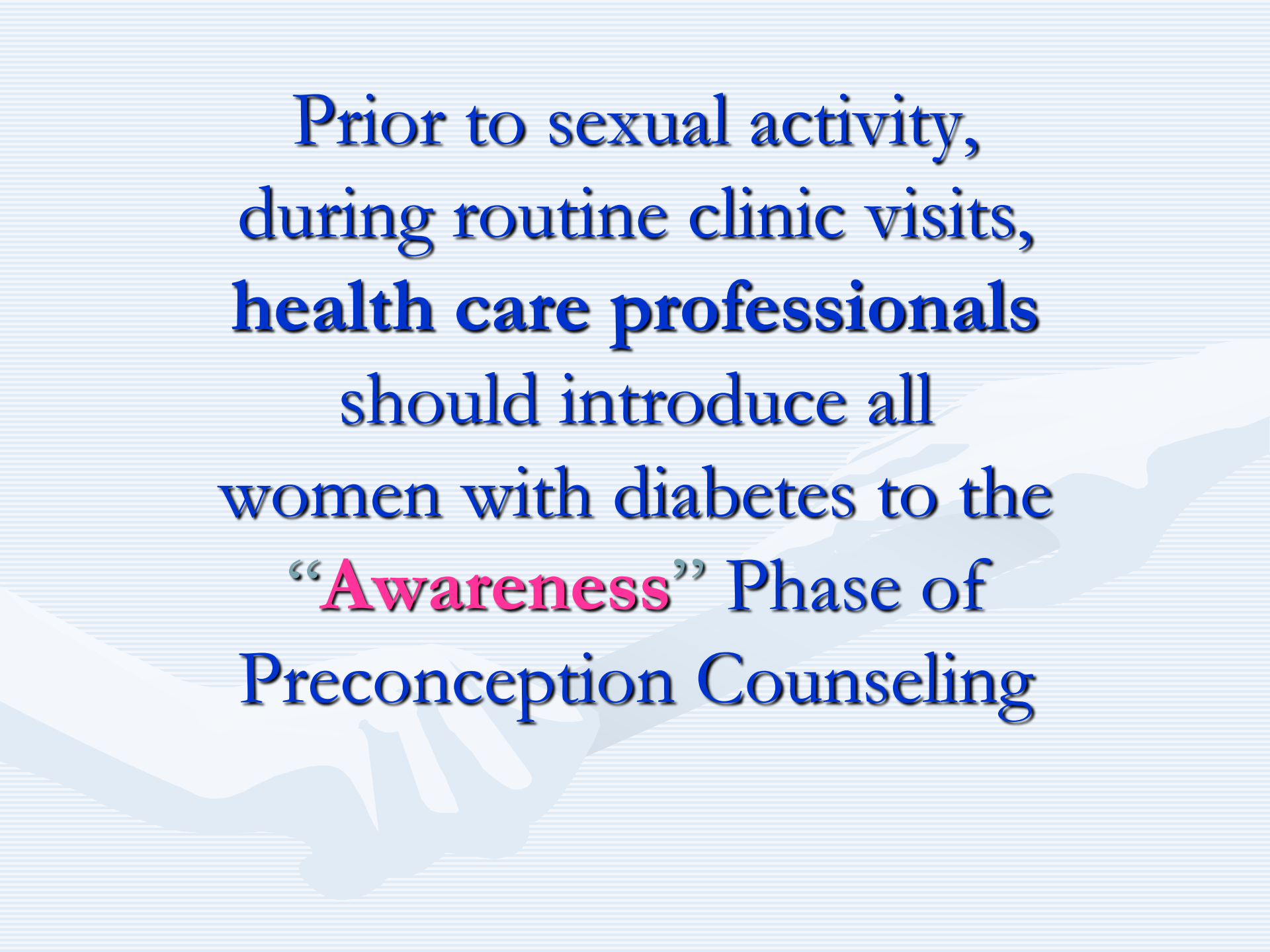
What age do we target?

Young adolescents, starting at puberty (~13 yrs. old), need **developmentally appropriate information** with a **sensitive/proactive/preventative** approach before becoming sexually active to empower them to make informed choices regarding reproductive health.

Sweetie, I think you're misinterpreting
the meaning of the term "play date."



Prior to sexual activity,
during routine clinic visits,
health care professionals
should introduce all
women with diabetes to the
“**Awareness**” Phase of
Preconception Counseling

A faint, light blue background image showing two hands shaking, symbolizing agreement or partnership. The hands are positioned at the bottom of the slide, with the fingers interlaced in a firm grip.

3 Phases of Preconception Care (PC)

- **Phase 1: “Awareness Counseling”** (anyone, anytime “not ready”)
- **Phase 2: “Overview” PC** (> 6 months “getting ready”)
- **Phase 3: “In-Depth” PC** (< 6 months “being ready”)

(Jones, 1995)

*** READY-Girls is Phase 1**

What Is Given In “Awareness Counseling”

- Information about:
 - Importance of tight control before conception
 - Diabetes and pregnancy / risk of complications
 - Importance of planning a pregnancy with PC
 - How to prevent an unplanned pregnancy
 - Family planning advice

Significant Association of PC Awareness with Seeking PC

Survey 16-21 yr. old:

Motivational Cue:

Initial awareness of PC

(Charron-Prochownik, 01)

$r = .27$ ($p < .05$)

Survey pregnant women with diabetes:

Motivational Cue:

HCP encouraged PC

(Janz, 95)

$OR = 3.13$ ($p = .02$)

“READY-Girls” is

**Reproductive-health Education and Awareness of
Diabetes in Youth for Girls**

READY-Girls is

a theory- and evidence-based Preconception
Counseling program developed as a DVD and book
that targets teens with diabetes

STAR decision model

(MEICHENBAUM, 1983)

Expanded Health Belief Model

(STRECHER & ROSENSTOCK, 1997)

Theoretical/ Decision-making Models for READY-Girls

EXPANDED HEALTH BELIEF MODEL

(STRECHER & ROSENSTOCK, 1997)

STAR model

S = Stop

T = Think about your choices

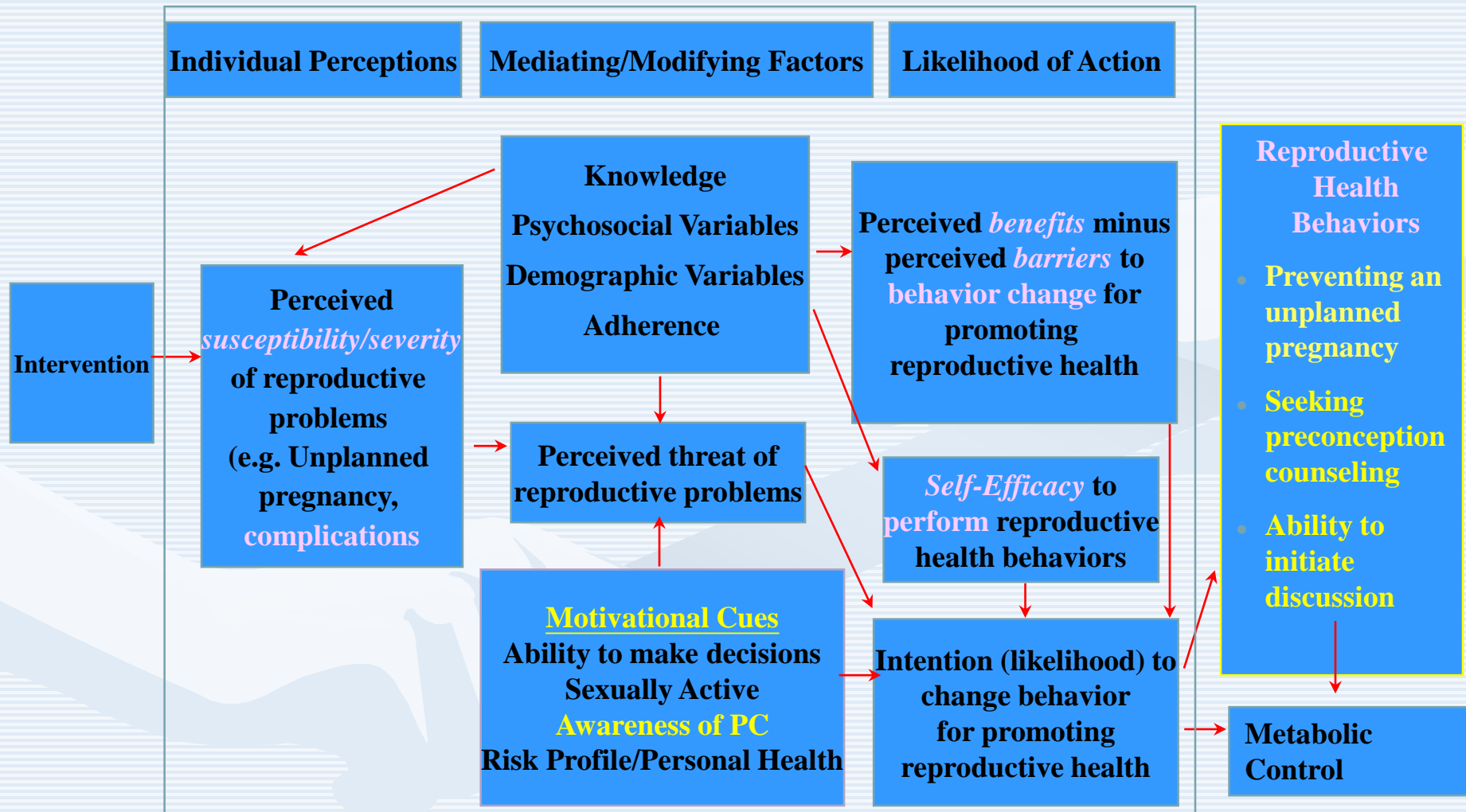
A = Act on your decision

R = Reflect on results of your choice

(MEICHENBAUM, 1983)



APPLICATION OF THE EXPANDED HEALTH BELIEF MODEL (STRECHER & ROSENSTOCK, 1997)



*Variables not amendable to change from intervention.
Attitudes/Beliefs are *italicized*.

Figure 1

Findings

Following READY-Girls IG teens were more likely to:

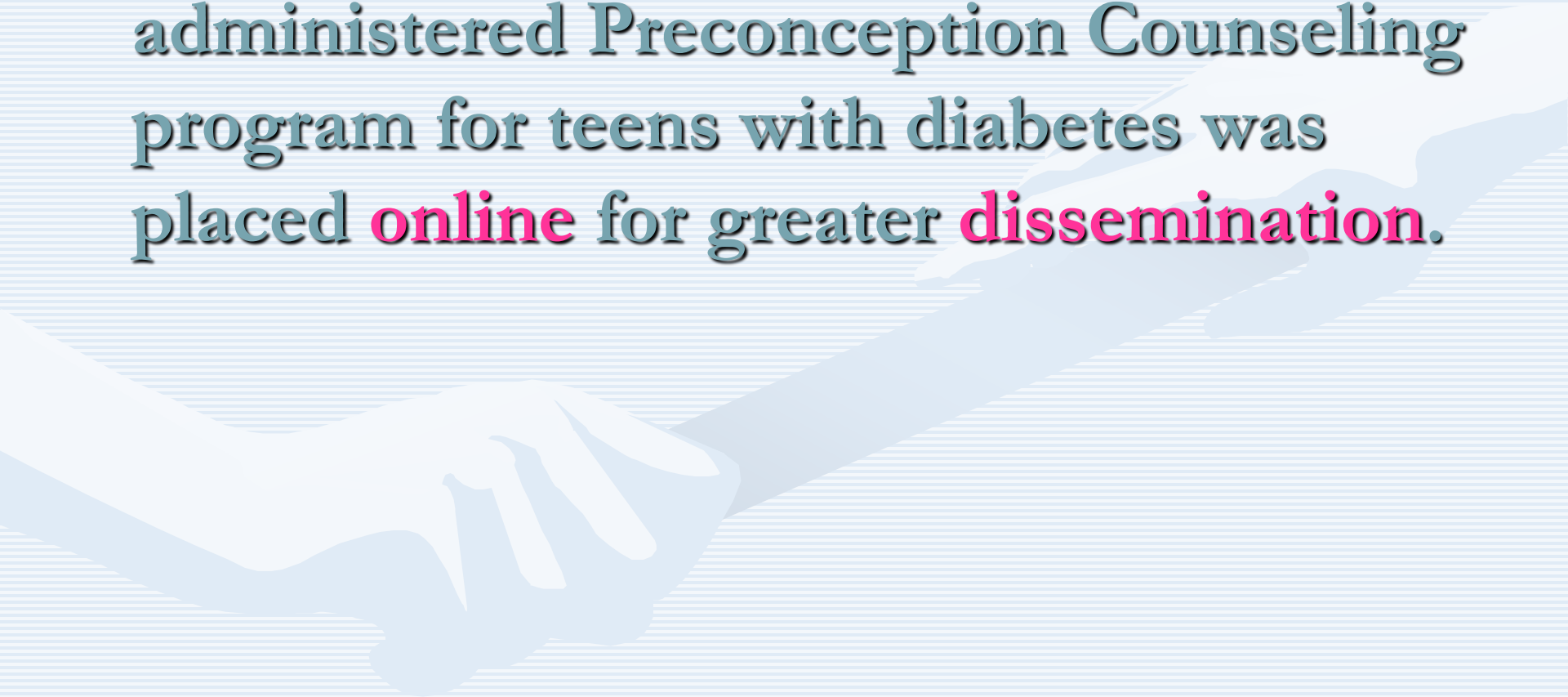
- Be **more knowledgeable** about DM and pregnancy, sexuality, PC
- Perceived **more support**
- Perceived greater benefit and **fewer barriers to PC**
- Be **more consistent** in their use of effective **birth control**
- Be **more likely to seek PC** and **initiate discussion HCP**
- Have **lower A1Cs**
- **Boosters** appeared to be an important component of the intervention.

Findings

In our 15 year follow-up study, compared to women who “ever received PC”, women who “first received PC during adolescence” had greater Family Planning Vigilance :

- Older sexual debut (yrs.) 18.5 vs. 15.4
- More used Combination BC Method
- More discussed PC with HCP

“READY-Girls” an inexpensive self-administered Preconception Counseling program for teens with diabetes was placed **online** for greater **dissemination**.



Preconception Counseling for Adolescents Statement

Starting at puberty, prior to sexual activity, preconception counseling (PC) should be included in every routine diabetes clinic visit for all women of child-bearing potential.

Developmentally-appropriate information should be given incrementally with regular reminders (boosters) throughout a woman's fertile reproductive life cycle. To prevent unplanned pregnancies, raising PC awareness and initiating fundamental PC educational and counseling components are critical during early adolescence; thus empowering young women to make informed choices for themselves regarding their reproductive health and their future children. Communication with their support networks regarding these issues is imperative (e.g., mothers of the adolescent girls with diabetes). (Level of evidence A-B)

1

Fundamental PC ("Awareness Counseling") educational and counseling components are:

- effects of diabetes on reproductive health and pregnancy
- effects of high blood sugar (BS) on fetal development and risks of complications
- importance BS control before conception and PC
- importance of preplanning a pregnancy with PC to decrease the risks
- importance of family planning and preventing an unplanned pregnancy

References

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Background

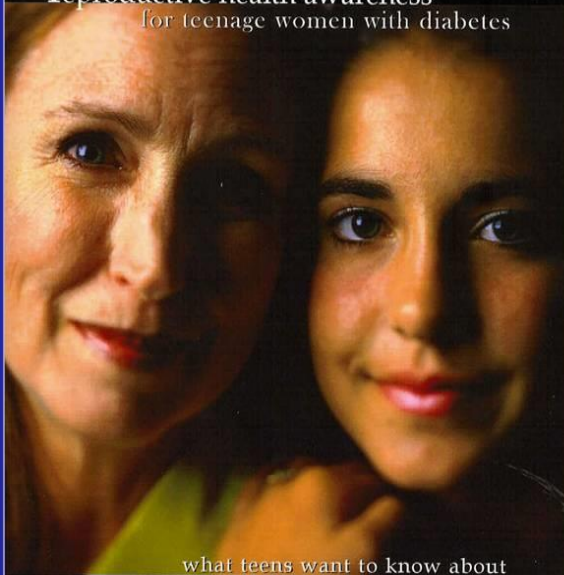
- ADA recommends PC for all women of child-bearing potential to prevent unplanned pregnancies... beginning at puberty prior to sexual activity

READY-Girls provided the evidence-base for ADA

Includes
an interactive
Tutorial on 2 CD-ROMs!

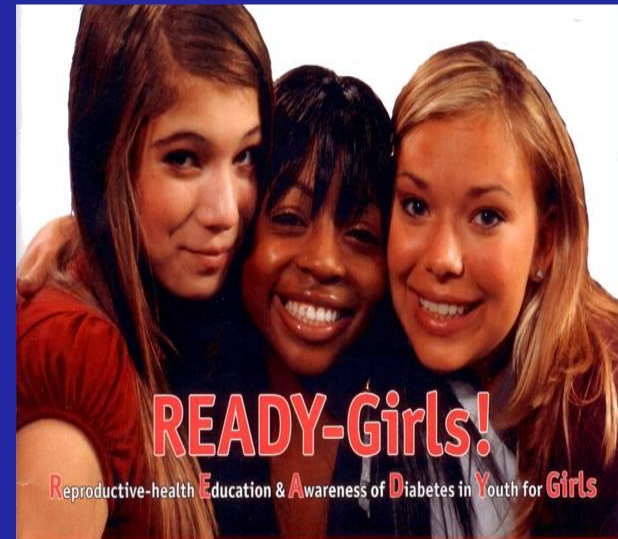
American
Diabetes
Association.
Cure • Care • Commitment®

Reproductive health awareness for teenage women with diabetes



what teens want to know about
sexuality, pregnancy, and diabetes

Denise Charron-Prochownik, PhD, RN, CPNP



READY-Girls!

Reproductive-health Education & Awareness of Diabetes in Youth for Girls

*"This is more than 'the talk'...
this is about how to take care of your
changing body when you become a teenager...
a teenager with diabetes."*

Denise Charron-Prochownik, PhD, RN, CPNP, FAAN
University of Pittsburgh

Julie S. Downs, PhD
Carnegie Mellon University

Diabetes Care

JANUARY 2009 WWW.DIABETES.ORG/DIABETES CARE

Supplement 1

American Diabetes Association **Clinical Practice Recommendations 2009**

American
Diabetes
Association.
Cure • Care • Commitment®
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B. Preconception care

Recommendations

- A1C levels should be as close to normal as possible (<7%) in an individual patient before conception is attempted. (B)
- Starting at puberty, preconception counseling should be incorporated in the routine diabetes clinic visit for all women of child-bearing potential. (C)
- Women with diabetes who are contemplating pregnancy should be evaluated and, if indicated, treated for diabetic retinopathy, nephropathy, neuropathy, and CVD. (E)
- Medications used by such women should be evaluated before conception, since drugs commonly used to treat diabetes and its complications may be contraindicated or not recommended in pregnancy, including statins, ACE inhibitors, ARBs, and most noninsulin therapies. (E)

Modifying Strategies

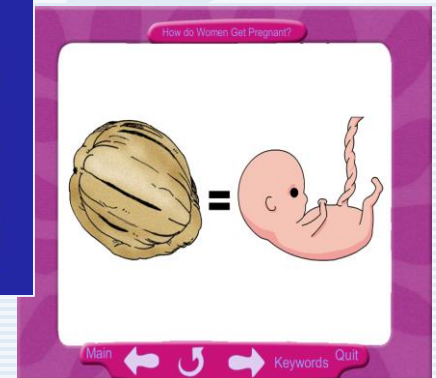
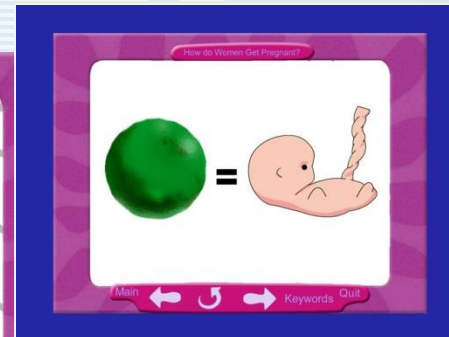
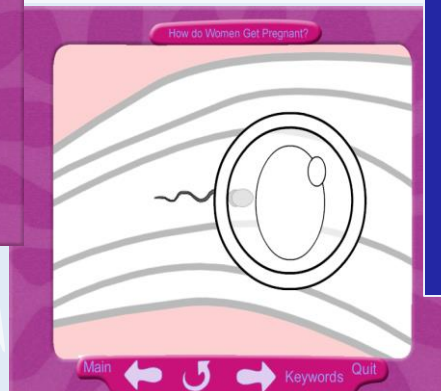
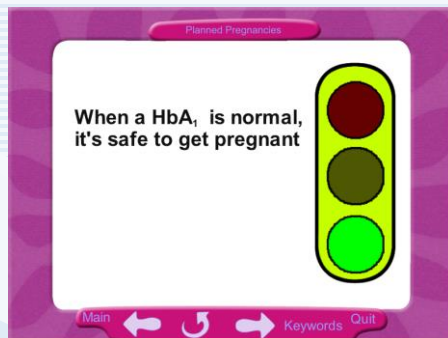
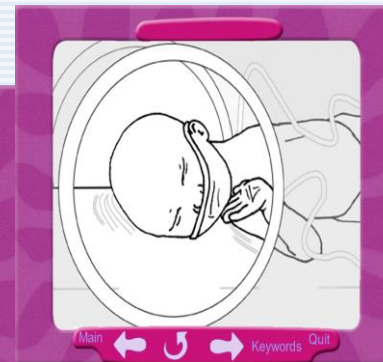
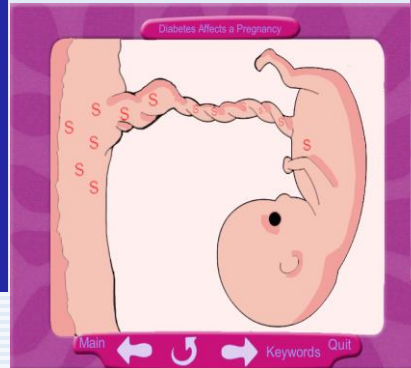
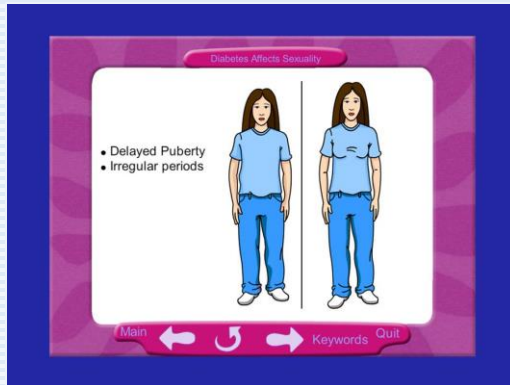
- Book and DVD (video: words into dialogue)
- 5th grade reading level
- Pictures
- Animation
- Graphics
- Voice-over narration
- Short vignettes with teen actresses to act out concepts
- Text to highlight key points
- Mental Models (targeted African American teens T2D)
 - Semi-structured qualitative interviews to explore understanding of and association between concepts...terms...words
 - “Do you know what abstinence means?”
 - “Do you know what conception means?” “Explain how it happens?”

Meet Nicole Johnson...

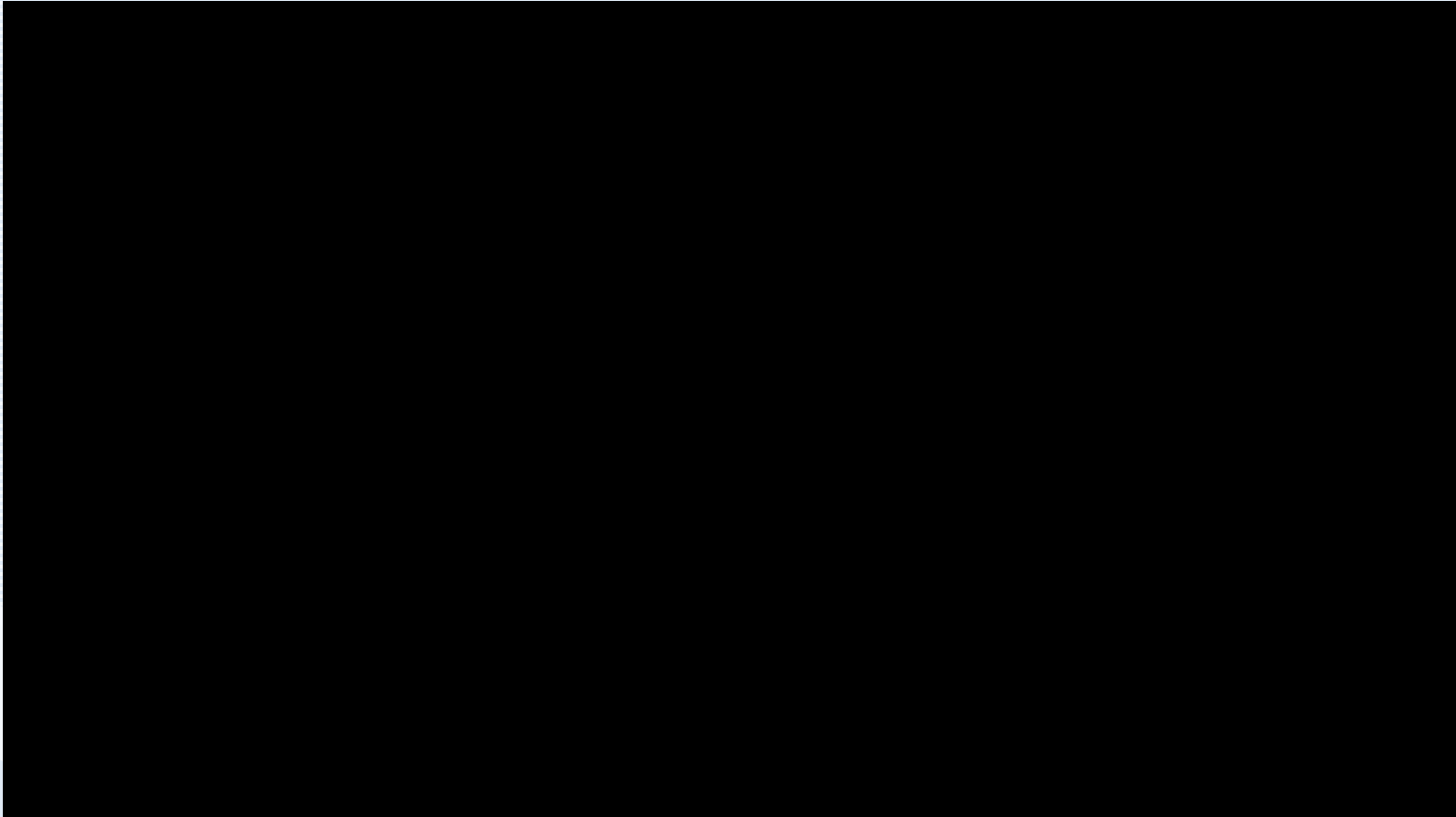


https://www.youtube.com/watch?feature=player_embedded&v=waZe4xamQC4

The *READY-Girls* Message:



Pregnancy Defined

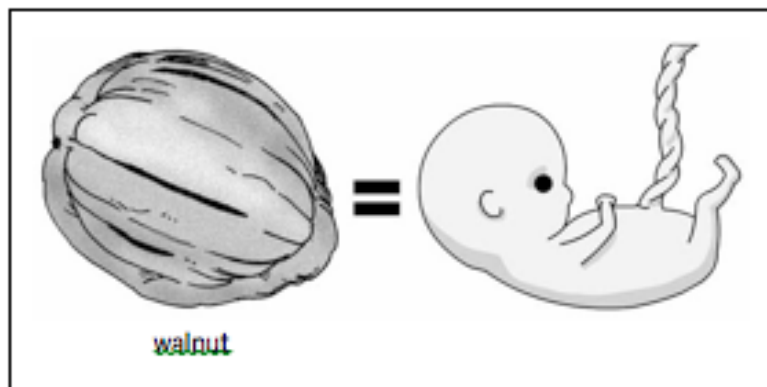


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to avoid a surprise, if you don't want to get pregnant, you need to think about a family planning method before you have sex.

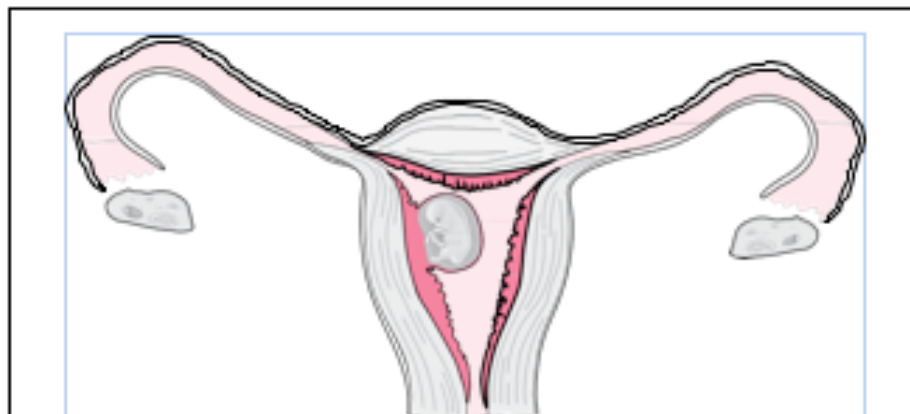


About 4 weeks after conception, the developing baby is just the size of a pea but already has a head with a brain forming; little bumps that will be arms, legs, and eyes; and a heart beating and pumping blood.



By about 8 weeks after conception, the developing baby is the size of a walnut. The eyes, ears, and nose have taken shape; the arms and legs are formed; the hands have fingers; and the feet have toes.

As you can see, **the first two months of a pregnancy are very important!** It is during this time that the basic organs and body parts are formed. High blood sugars can hurt the baby's development. This is why establishing control of your diabetes is essential **before** you conceive.



The fertilized egg travels down the Fallopian tube into the uterus. When it gets out of the tube and clings to the wall of the uterus, then the woman has become pregnant. The egg then starts dividing many times to form new living cells. This can develop into an embryo and then into a fetus, which is a developing baby inside the woman's uterus.

The importance of having tightly controlled blood sugars before you become pregnant is obvious when you consider how fast a fetus develops during the first few weeks after conception.

The heart and brain may not form correctly if a woman's blood sugars are high during this time.

how fast does an Embryo Develop?

Only 4 weeks after conception, what has already begun to develop?

1. Heart
2. Brain
3. Eyes
4. Arms
5. All of the above

All of the above!

The heart, the brain, the eyes, the arms and even legs have begun to develop!

In fact, a heart is beating and pumping blood.

APPLICATION OF THE EXPANDED HEALTH BELIEF MODEL (STRECHER & ROSENSTOCK, 1997)

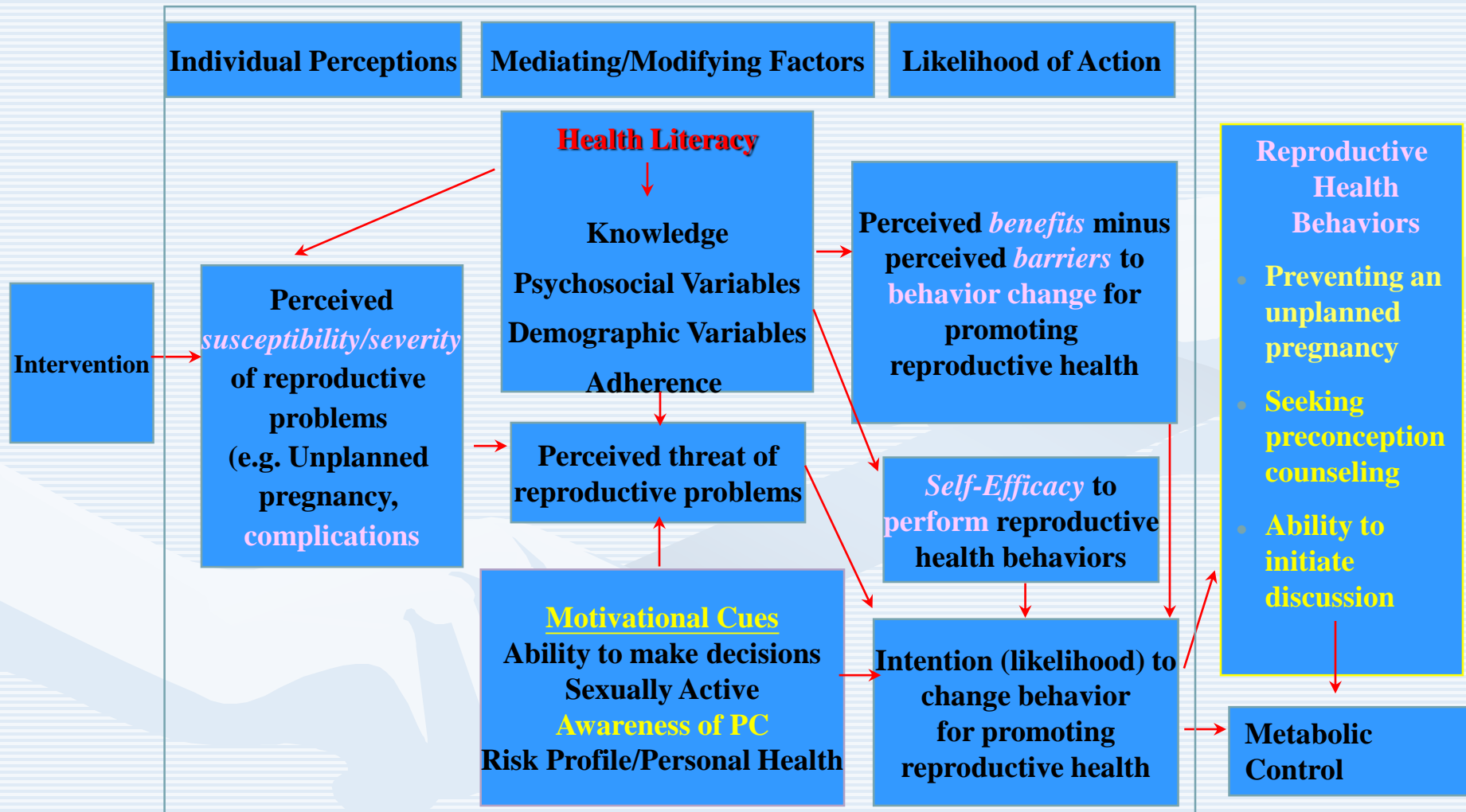
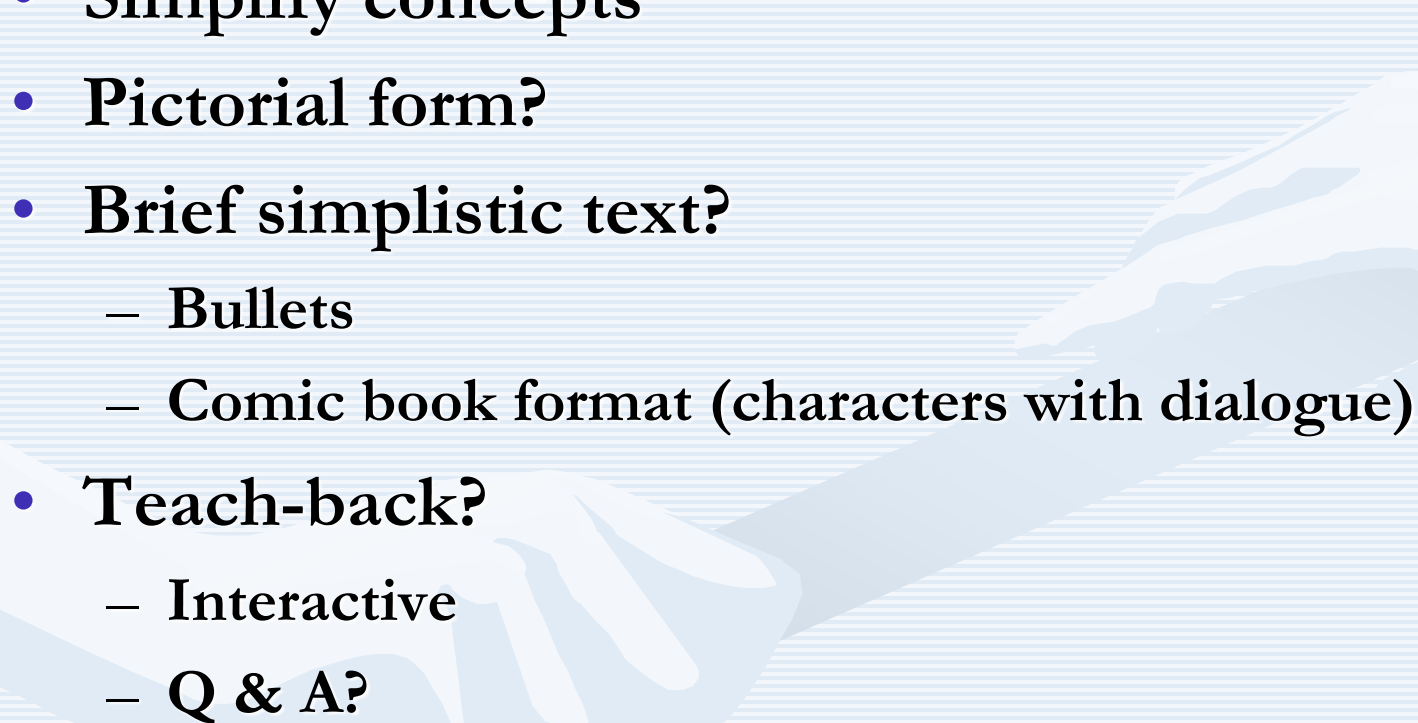


Figure 1

*Variables not amenable to change from intervention.
Attitudes/Beliefs are *italicized*.

Recommendations ?

- Easy to understand
 - Simplify concepts
 - Pictorial form?
 - Brief simplistic text?
 - Bullets
 - Comic book format (characters with dialogue)
 - Teach-back?
 - Interactive
 - Q & A?
- 
- A faint, stylized illustration of two hands shaking, symbolizing agreement or partnership, is visible in the background of the slide.

Recommendations ?

- Pre-screen using a health literacy screening tool?
- Remediation education track?
- Strategies to enhance acquisition and retention of knowledge?

READY-Girls!

You're growing up! Are you ready to handle the changes?

Since you have diabetes, you already know a lot more about your health than other girls your age. And now that you are a teenager, there are even more things that you need to know and do.

You need to know how diabetes can affect your changing body...your period...and even having sex and having a baby. It sounds like a lot, but now is the time to start getting ready for your future.

Managing your diabetes and knowing what to expect will help you meet the challenge of being prepared for all of the changes as you move toward womanhood.

hey girls: Are you getting READY?



"Puberty, periods, and pregnancy with diabetes.

It's all about being prepared and knowing how to get ready.

Preconception counseling."

Control what You Can:

1. *Take your diabetes medication.*

Medication, either as insulin (from shots or a pump) or as pills, helps blood sugar to go down. Insulin actually helps the sugar get out of your blood and into the cells where your body can use it as energy.

2. *Eat Healthy Foods*

After a meal or snack your blood sugar will go up. Some foods make your blood sugar go up more than others. Balance this with physical activity.

3. *Physical Activity*

Physical activity usually makes blood sugar go down. Sometimes if you exercise and take insulin, your blood sugar can go too low. But, if you are not in good control and you exercise hard, your blood sugar can actually go up!

Here's how you can get ready:

- 3 Check your blood sugar before and after you exercise
- 3 Adjust your insulin if your blood sugars are too high or too low
- 3 Have a snack as needed
- 3 Keep something with sugar nearby
- 3 Wear your medical ID bracelet

True or False?

I need to test my
blood sugar before exercising.

true! *Exercise can lower
your blood sugar. That's
why you need to take
control in checking it!*

"one of my parents will want to be there."

- You don't need parents' permission to ask about this information
- Your sexual behavior will not be discussed with your parent without your permission

talking About it

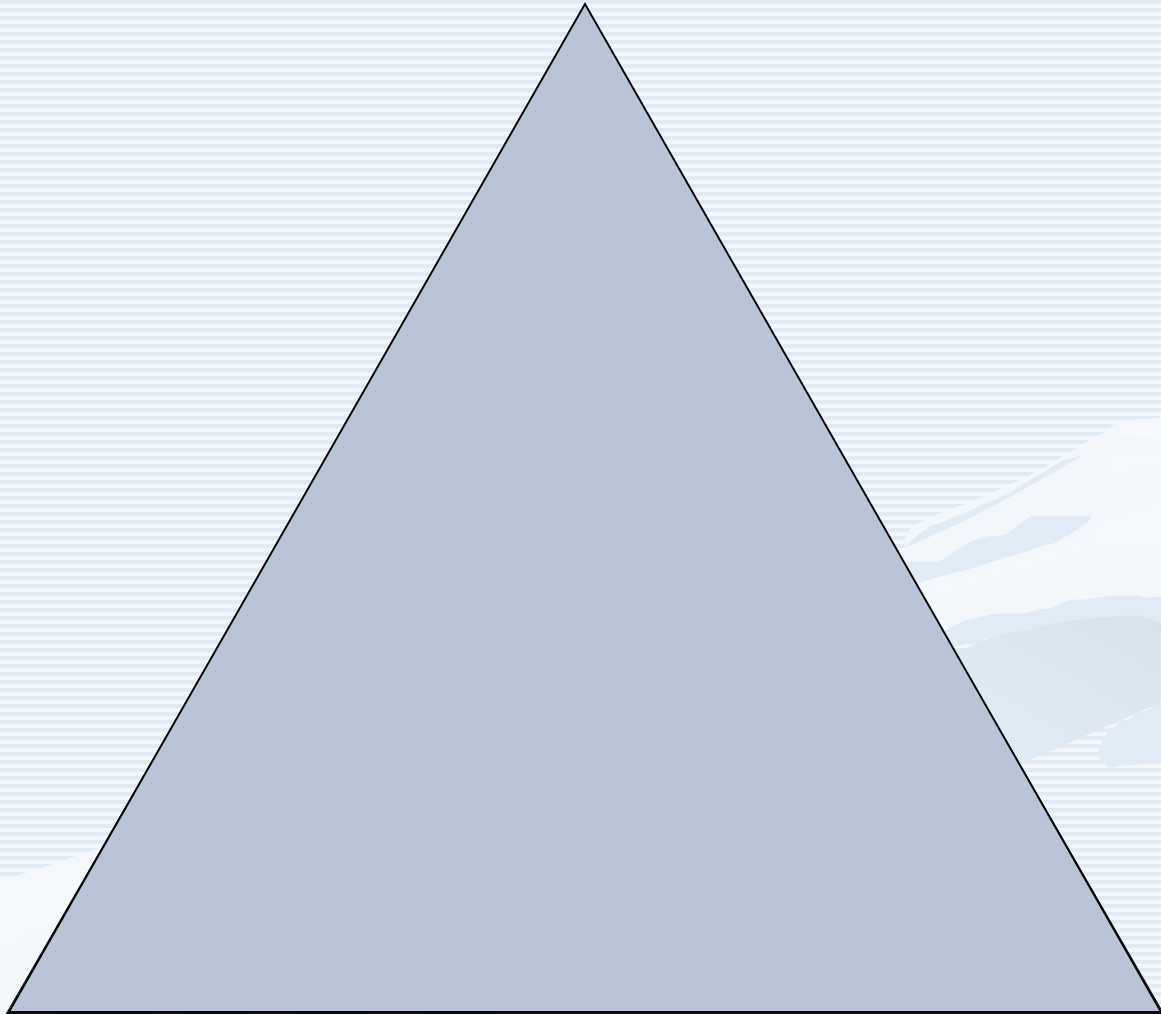
talk to Your Doctor and nurse

"But it's, you know, personal..."

For many teens, it's hard to talk about topics like sex and birth control with a health professional. Here are some common reasons why you might hesitate to "start the conversation":

<u>if you feel like this...</u>	<u>Remember:</u>
"It's embarrassing and some of my questions are hard to ask."	<ul style="list-style-type: none">- Members of your health care team are sensitive and should keep things confidential.- Ask your doctor or nurse if there are limits on confidentiality.- Talk with the person who makes you feel the most comfortable.
"I don't want to talk about sex with the doctor that I've had since I was a little kid."	<ul style="list-style-type: none">- You can talk to someone else on your healthcare team, like a nurse.- You might want to talk without your parents present. Explain to your parent <u>that</u> you need to talk about personal things with the nurse or doctor.
"I don't even know where to start. These are hard questions."	<ul style="list-style-type: none">- It's always a good idea to practice beforehand. Sometimes it helps to jot down your questions. You might want to hand your nurse or doctor a note. Here are some ideas to get started:- "Doctor (nurse), I have some questions that are pretty hard to ask."- "If I ask you some questions, can it just be between us?"

Teen



Parent

HCP

Building a Support Network for Teens

By providing PC knowledge and skills to:

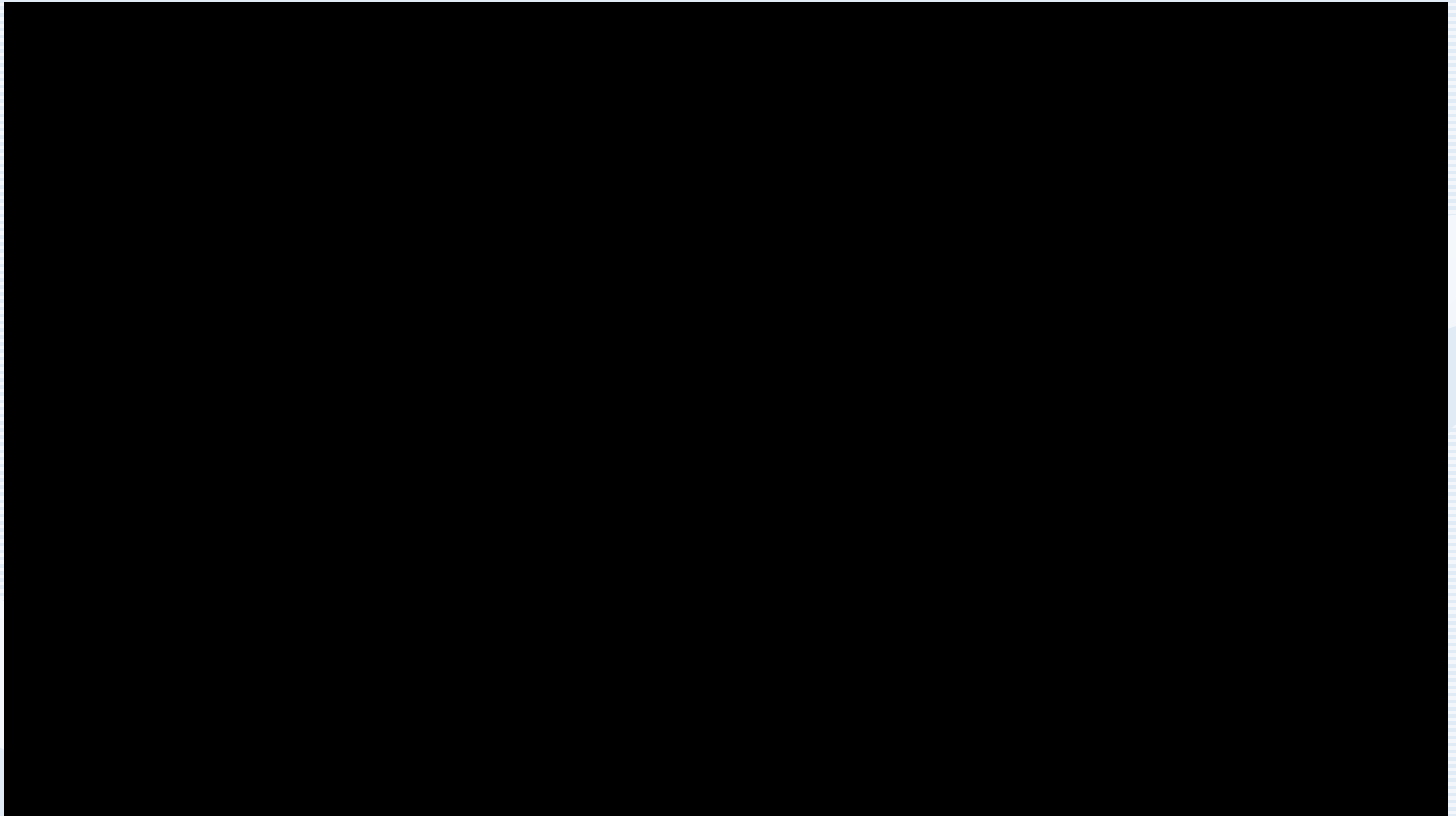
- mothers and daughters to initiate dialogue and boost maternal support
- Health Care Professionals prepared to provide PC to teens.

Discussion

This early self-instructional program could potentially empower these young women to make well-informed reproductive health choices for themselves and their future children.



How do you ask for counseling?



https://www.youtube.com/watch?feature=player_embedded&v=-Bt8hxrCHCE

Presenter Convert

Denise Charron-Prochownik

**Disclosed will use
Health Literacy Screening
in future studies**

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Two Feathers



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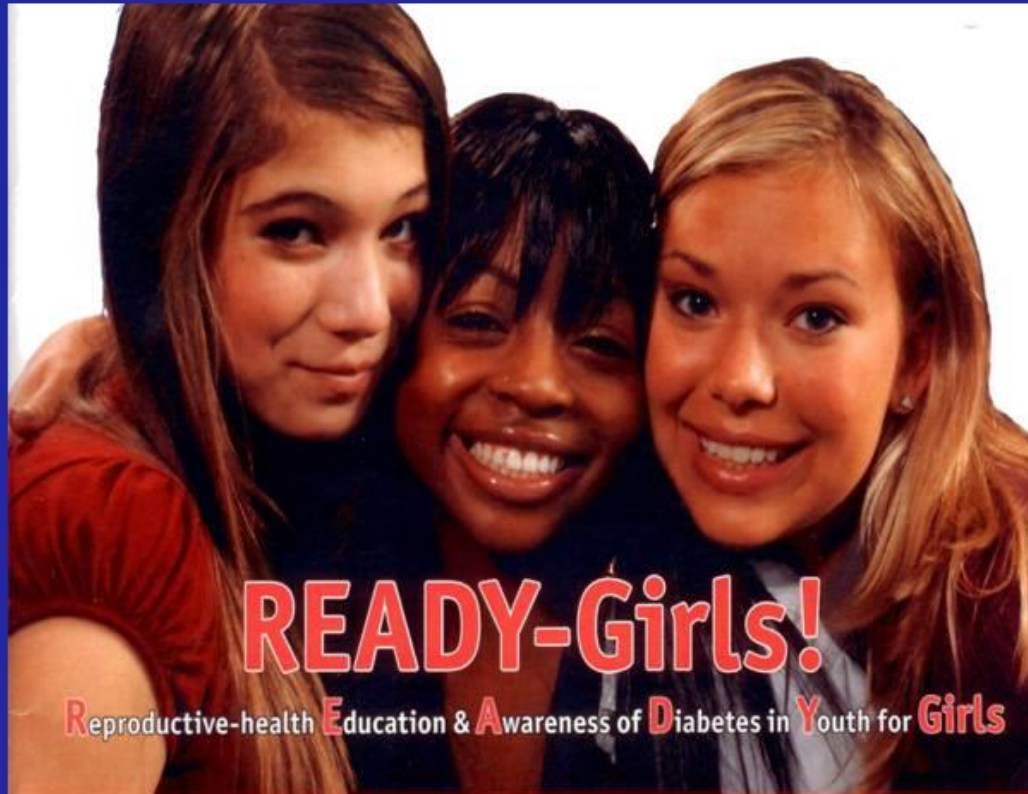
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Thank You

For On-Line CEU program
with DVDs and readings

“Preconception Counseling for Adolescent and Adult
Women with Diabetes” www.nursing.pitt.edu

For free READY-Girls book
www.diabetes.org



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