# Comprehensive Health Services for Youth Entering the Justice System: An Innovative Health Coach Approach

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## Brief Historical Background to the Health Coach Project

- ▶ In 2006, Richard Dembo (Co-PI) and Steven Belenko (PI) received an NIH/NIDA grant to conduct STD testing at the Hillsborough County, FL Juvenile Assessment Center (JAC). Testing involved splitting youth urine specimens at a Department of Health laboratory, with one half being tested for STDs (Chlamydia and gonorrhea), and other half being tested for recent drug use.
- 506 male and 443 female arrestees 12-18 years of age were tested between June and December 2006, with striking results.
- ▶ Overall, 10.5% of male, and 19.2% of female, arrestees were found to be STD positive—with African American girls having the highest rate of STDs (26.9%).
- ▶ We met with the Director of the Florida Department of Health in Hillsborough County and key STD program staff, in June 2007, to share our results.
- ▶ Based on our study results, the Director declared the JAC a DOH testing site, effective August 2007, and agreed to pay for the testing and any indicated follow-up treatment.

Brief Historical Background to the Health Coach Project-Cont'd

- STD testing of JAC processed youth between August 2007 and 2016 continued to indicate high levels of STDs among them.
- In early 2015, the Florida Department of Children and Families asked us about our STD rates, which remained high. Following sharing these aggregate data with the Department of Children and Families, we were asked to develop a project to include, among other topics, STD and HIV testing, with indicated treatment follow-up.
- Dr. Dembo and Dr. DiClemente developed the Health Coach project, with input/advice from Agency of Community Treatment Services, Inc. staff, during May and June 2015.
- ▶ After a several month implementation period, including site renovations, MIS development, staff hiring and training, we began operations on 10/19/15.

# Goals and Focus of the Health Coach Service

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There are four major goals for the Health Coach Service:

- ▶ Offer HIV risk reduction information and education to youth using an evidence-based gender and developmentally appropriate online curriculum.
- Provide rapid HIV testing in addition to the current STD testing being provided, which may include Hepatitis C when indicated by the screening tool.
- ▶ Health Coaches will follow-up with youth and provide prompt, appropriate linkage to treatment for all youth who are drug involved, test positive for HIV and other STDs, or have indication of elevated depression.
- Health Coaches will refer all youth who report they do not have a Primary Care Physician to a collaborating family health center for assignment to one, and track their engagement in care.

# The Need for Health Services

- ▶ THE NEED FOR PUBLIC HEALTH SERVICES AT THE FRONT END OF THE JUVENILE JUSTICE SYSTEM
- ▶ KEY SEXUAL RISK BEHAVIOR/SEXUALLY TRANSMITTED DISEASE RISK FACTORS AMONG YOUTH
  - **SUBSTANCE USE**
  - **DEPRESSION**

# High Risk Groups

- GROUPS AT HIGHER RISK OF SEXUALLY TRANSMITTED DISEASES AND THEIR EFFECTS
  - ► AGE
  - **▶** GENDER
  - ► RACE/ETHNICITY

Juvenile Assessment Center

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Birth of the JAC

- ► The Hillsborough Juvenile Assessment Center (JAC) was the very first of its kind in the country and is a model site for other JACs across the world
- ► The JAC has been in operation for over twenty years serving Hillsborough County
- ▶ JAC was established in 1993

# JAC Partners

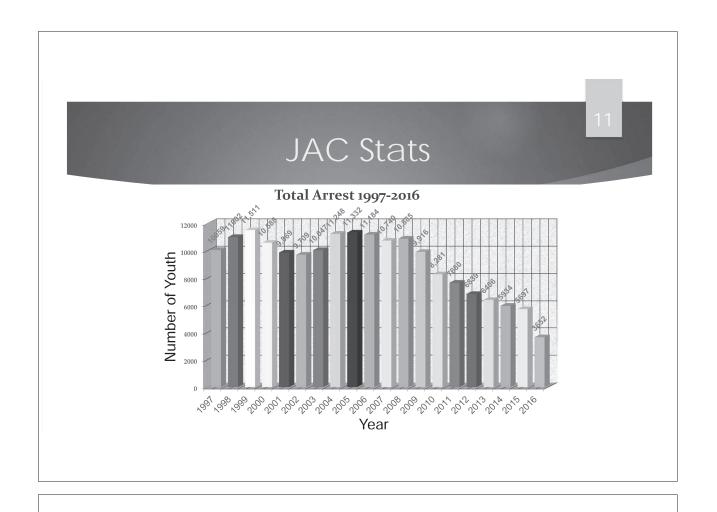
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- ▶ Collaboration with:
  - ▶ Department of Juvenile Justice
  - ▶ Hillsborough County Sheriff's Office



# What We Do

- ▶ 24-hour centralized facility that provides screening and prevention/intervention services for juveniles taken into custody by law enforcement officers for:
  - ▶ new law violations (18 and under); court orders; violations of probation, conditional release or home detention; traffic offenses
- ▶ Hours of operation: 24 hours a day, 7 days a week including State and National Holidays.
- ▶ Intervention Assessment Services- include identification of needs and referrals to appropriate community resources.
- Urine and STD Testing
- Olivia Project
- ▶ 6 Hour Rule



# **CSA HIV Partnerships**

- Central Florida Behavioral Health Network
- ▶ Florida Department of Health
- ▶ Tampa Family Health Center
- ► Maxim Healthcare Services
- ▶ University of South Florida











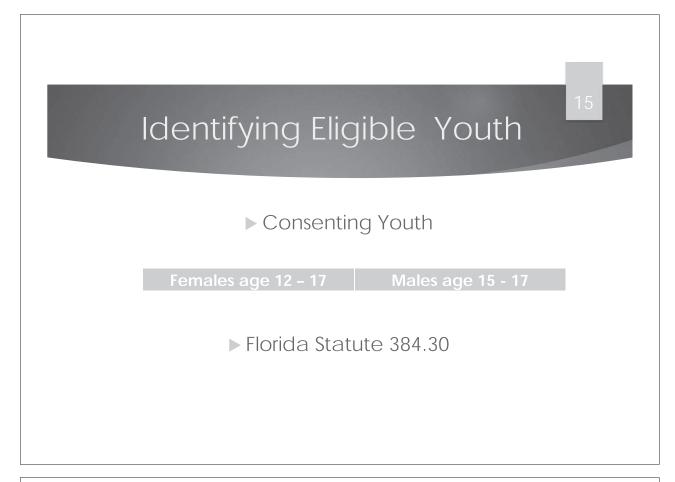


CSA/HIV Project Start Up

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- ▶ Renovations
  - ▶ Health Coach Office
  - ▶ Counseling Office
  - ► Expansion of Offices
- ▶ Screening Forms
- ▶ Integration of HIV & JAC Processes

# Nurse's Station 14





Health Coach Services

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- ▶ Screening
- ▶ Testing (HIV & STD)
- ▶ Pre and Post Test Counseling
- ▶ Follow Up



System's Navigator

- ▶ Care Coordination
  - ► Linkage to Services
    - ► Warm handoff
    - **▶** Onsite Counseling
    - ▶Community Referrals
  - ▶ Schedules appointments for Behavioral Health Consultations
    - ▶ Schedules/Reminders/Verifications/Follow Up
  - ▶ Follow up on community referrals
  - ▶ Identifying barriers and provides assistance

Counseling Services

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- Accepts warm hand offs
- Provides outpatient services with the family and the youth
  - ▶ Onsite
  - ▶ Mobile Unit
  - ▶ Follow up services for one year

#### ntervention Services

- 1. Importance of Primary Care Physicians
- 2. Behavioral Health
- 3. Educational Goals
- 4. Family Relationships
- 5. Aspirational Goals

Benefits to Youth in Program

- ▶ Identifying Risky Behaviors
- ▶ Free Testing and Treatment
- ► Comprehensive continuity of care
- Prevention and Education

# Prevention Component: On-site and Community-Accessed Media-Based Risk-Reduction

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Adolescents are exposed to a "point-of-contact," multi-media-based risk-reduction video during post-JAC designed to:

- ▶ Be engaging to maintain adolescents' attention
- ▶ Provide age- and culturally-appropriate HIV/STD risk-reduction information; dispel misconceptions
- ▶ Provide an opportunity for modeling risk-reduction skills; vicarious learning (i.e., sexual negotiation)
- ▶ Influence adoption of healthy peer norms of sexual behaviors (counteract negative role models in community)
- ▶ Enhance adolescents' motivation and self-efficacy to adopt risk-reduction practices
- Reinforce healthy relationship (i.e., gender equity) and how power imbalanced relationships enhance risk of HIV/STD
- ▶ Be a catalyst for behavior change (as one piece of a broader multi-component intervention that extends from the JAC to the community designed to enhance sustainability)
- ► How to access on returning to the community:
  - ▶ Adolescents are given access to a program website which contains the 40 minute video;
  - Adolescents can view the video multiple times (reinforce learning) and share with friends;
  - ▶ An electronic record is kept of each youth's access to the video.

# Media-based Technology Interventions Potential for Enhancing HIV/STD Prevention

- ▶ Potential to be cost-effective
  - ▶ Require less staff and financial resources to implement
  - ▶ Require less time and travel for recipients
  - ► More times they are used, the cost-per-time used decreases (development is a fixed cost/frequency of use)
- ▶ Offers possibility of widespread dissemination with high fidelity
- Flexible administration approach (automation) with tailoring
- ▶ Mitigate concerns (breach of confidentiality, reduce reporting biases) of face-to-face interventions
- ► Flexible delivery formats and modalities: (a) computer, tablet, mobile phone; (b) internet
- Can be an *effective programmatic* and *efficient dissemination platform*

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Media as a Catalyst for Promoting the Adoption of HIV/STD and Pregnancy Prevention Behaviors among Youth in Juvenile Assessment Centers

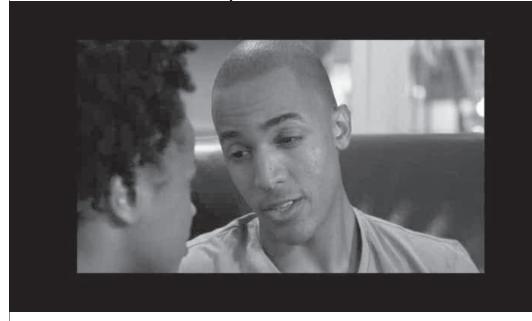






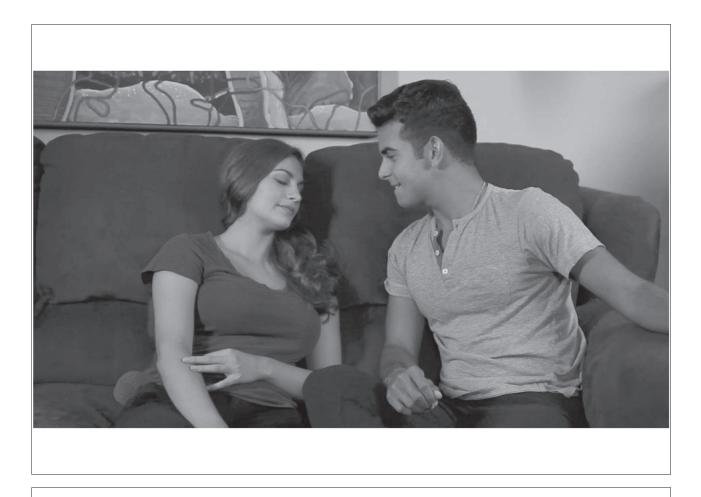
<u>l like you but....</u>

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# <u>Healthy Relationships –</u> <u>Real Men Listen</u>

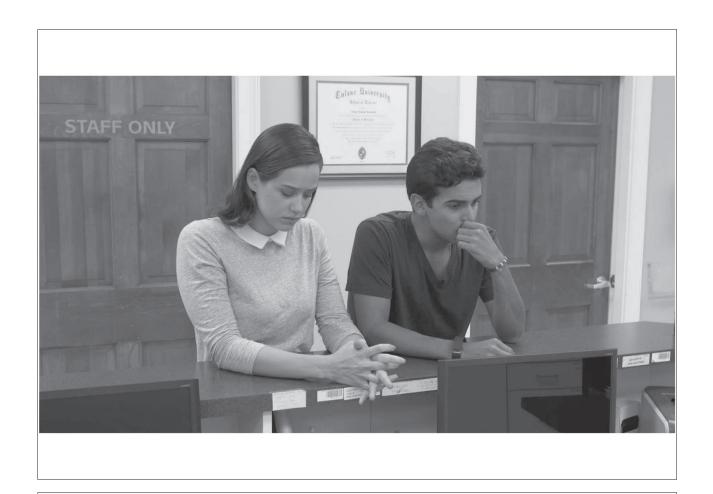




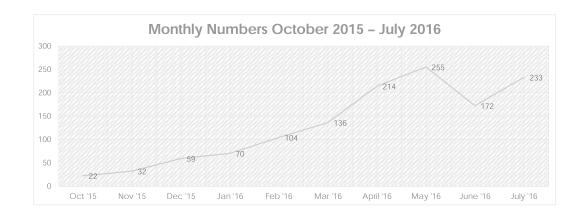










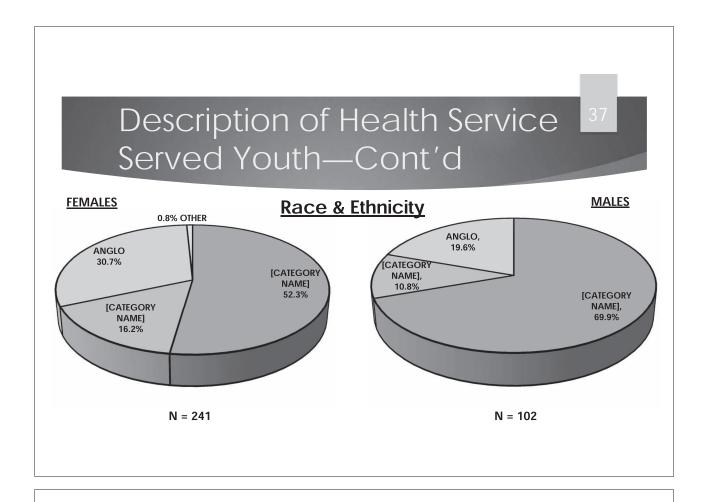


# Description of Health Service Served Youth

- ▶ Date range for these data: 10/19/2015—3/21/2016.
- ▶ Health Coach services began with females, males were added to service on 2/4/2016
- ▶ Number of youth served: males=103; females=258
- ▶ Participation rate: males=55.4% (103/186); females=75.4%(258/342)
- ▶ These participation stats are based on total admissions, which include 18 cases admitted to JAC 2x during this period of time.

## Description of Health Service Served Youth—Cont'd

▶		MALES	FEMALES
▶		(N=102)	(N=241)
$\triangleright$	AGE*		
<b>&gt;</b>			
<b>&gt;</b>	12	1.0%	4.1%
<b>&gt;</b>	13		10.0%
<b>&gt;</b>	14		18.3%
$\triangleright$	15	19.6%	17.4%
$\triangleright$	16	42.2%	25.7%
$\triangleright$	17	37.3%	24.5%
$\triangleright$	{Average age:	16.1 years	15.2 years}
$\triangleright$			
<b>&gt;</b>		100.0%	100.0%
<b>&gt;</b>	* Significant	difference	



# Behavioral Health Issues -Depression

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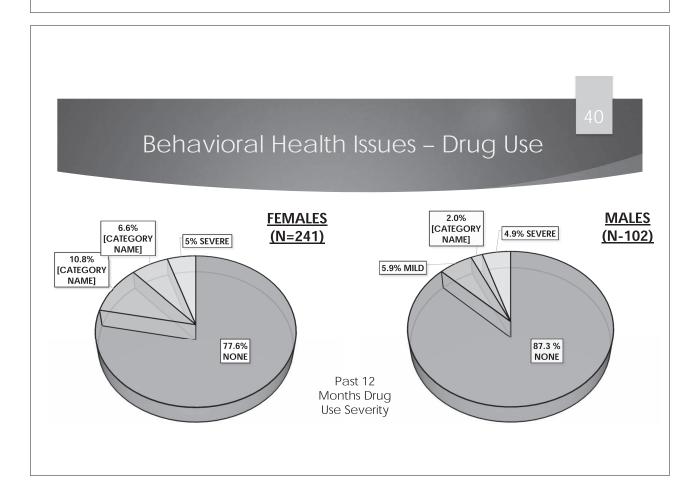
* Significant difference	<u>Females (N= 241)</u>	<u>Males (N= 102)</u>
Average Depression Score (8 item evidence based measure)*	5.20	2.81
Score of 7+ *	30.7%	14.7%

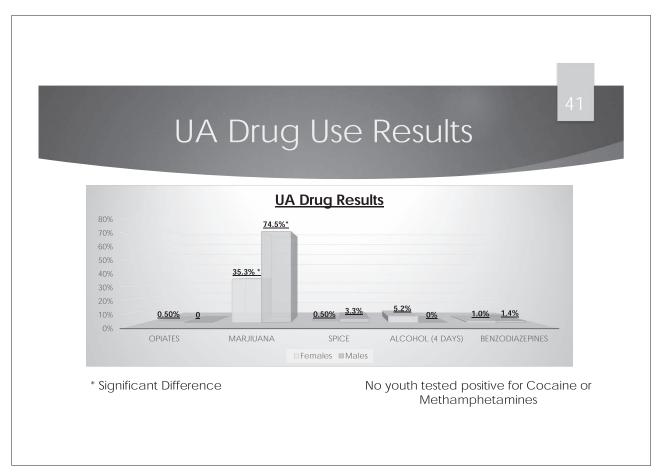
(Statistical analyses confirmed the psychometric structure of the depression measure was the same for the male and female youth.)

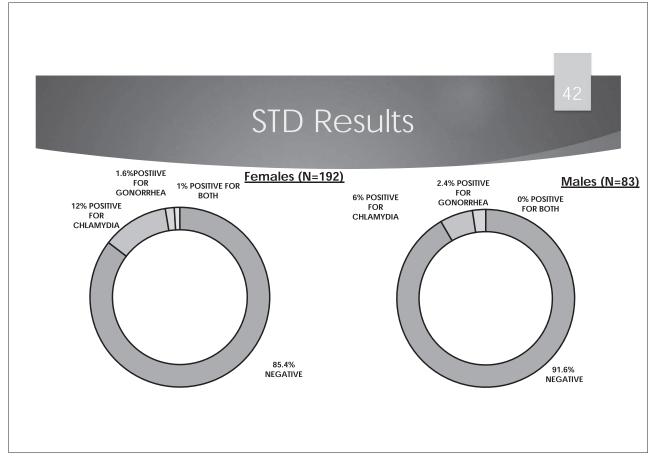
# Correlates of Depression Among Male and Female Youth

Predictors of Depression	Males (n=63)	Females (n=182)
Age	1.690*	0.375
African American	0.589	-2.107
Hispanic	5.755	-0.311
Age1Arr	-0.177	-0.044
TCU Score	2.175	1.198*
Number of Partners	-0.699*	0.825*
STDs	0.803	-1.674
UAMJ	-2.911	-1.057

\*Statistically significant per multi-group, maximum likelihood regression analysis







Number of Sexual Partners

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	Females (N=241)	Males (N= 102)
Average Number*	1.77	3.99

- ▶ 35.3% for female youth versus 6.9% of male youth reported no sexual partners
- ▶ On the other hand, 43.1% of male youth versus 7.9% of female youth reported 6+ sexual partners

\* significant difference

# Relationships Among Behavioral Health Issues for Male and Female Youth

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#### Females (N=241)

#### Males (N=102)

	Partnum	STD's	MJ
Partnum		.518*	.501*
STD's			.423*
MJ			

	<u>Partnum</u>	STD's	<u>MJ</u>
Partnum		.263	.176
STD's			.118
MJ			

<sup>\*</sup> Significant relationship

# SUMMARY LATENT CLASS ANALYSIS RESULTS—GIRLS (n=241)

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	Low Risk (n= 129, 53%)	Higher Risk (n=65, 27%)	Highest Risk (n=47, 20%)
Mean Partnum	0.360*	2.236*	5.113*
Results in Probability Space STD positive	0.000*	0.279*	0.398*
UA MJ Positive	0.145*	0.567*	0.670*
Moderate/Severe Drug Involvement Score	0.076*	0.141*	0.194*

\*Statistically Significant

# Comparing Health Risk Groups on Various Characteristics

	Higher health risk vs Low health risk (reference group)	Highest health risk vs Low health risk (reference group)	Highest health risk vs Higher health risk (reference group)
Age	0.784*	0.903*	0.120
Age at 1st arrest	-0.146	-0.332*	-0.186
Race (1= African American)	0.010	-1.067*	-1.076*
Ethnicity (1= Hispanic)	0.801	-1.489	-2.291*
Depression	0.003	0.094*	0.091*

Individual and Community Level Factors Related to Youth Health Risk -Girls (N=241)

#### Individual Level

<u>Health Risk Factor</u>	<u>Unstandardized Estimates.</u> <u>Standardized Estimates in Parentheses</u>
Number of Sexual Partners	1.000 (.742)*
STD Status (1= STD+)	0.348 (.439)*
UA MJ Test Results (1= MJ+)	0.785 (.740)*
TCU Drug Severity Level	0.349 (.439)*

\* Statistically Significant

## Individual and Community Level Factors Related to Youth Health Risk--Cont'd

Characteristics Related to Individual Health Risk Factor:

	Health Risk Factor
<u>Age</u>	0.608 (.634)*
Age at 1st Arrest	-0.145 (183)*
African American	-0.323 (115)
<u>Hispanic</u>	-0.159 (042)
<u>Depression</u>	0.065 (.294)*

Unstandardized estimates. Standardized estimates in parentheses \* Statistically Significant

# Individual and Community Level Factors 49 Related to Youth Health Risk – Cont'd

#### Community Level Characteristics Related to Youth STD Status

	STD Status (1= Positive)
POVERTY	-0.030 (742)
RESMOBIL	0.013 (.182)
UNEMPL	0.085 (.917)
FEMHHKID	0.006 (.108)
NOHSED	-0.009 (180)

Variable definitions: POVERTY: Percent below Poverty level; RESMOBIL: Percent households moved in past year; UMEMPL: Percent in labor force unemployed; FEMHHKID: Percent families with female headed households with children; NOHSED: Percent population 25 and older with less than high school education

The American Community Survey (ACS) for 2014 was the source of census data

### Further Community Characteristic Analysis

- ▶ In an additional analysis, involving an expanded data set of 651 male and female youth, we developed the following measure (named ZIPRATE): For each zip code, the proportion of STD+ youth (range 0 to 1.0).
- We, then, examined the relationship between ZIPRATE and community level characteristics, reflecting community disadvantage.
- In addition to the 5 community disadvantage factors noted in an earlier slide, we added a measure of ethnic heterogeneity, intended to measure potential ethnic/racial barriers existing within each zip code area. Communities that are more heterogeneous in race/ethnicity experience greater challenges to establishing strong social networks and cohesion among their residents due to potential differences in language and culture. Ethnic heterogeneity was calculated as one minus the sum of the squared proportion of each given race/ethnic group in each zip code area. Values of zero indicated complete ethnic homogeneity; values of one indicated complete maximum heterogeneity. The mean value for ethnic heterogeneity equaled 0.928 (standard error=.009).
- Correlation analysis results suggested linkages between STD status and the community disadvantage characteristics—as shown in the next slide
- ▶ The small number of STD+ cases in our analyses (n=71) limited our community variable analyses
- ▶ We are planning for more extensive data analyses with future, expanded data sets.

Community Level Factors Related to ZIPRATE (N=651)

	ZIPRATE (Range 0 to 1.0)
POVERTY	.163*
RESMOBIL	.102*
UNEMPL	.214*
FEMHHKID	.123*
NOHSED	.103*
ETHNIC HETEROGENEITY	.110*

<sup>\*</sup> Statistically Significant

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## Health Coach Service Stakeholder Reports

- In addition to special studies of project collected data, we also issue periodic reports to our community Stakeholders.
- ▶ These reports share information on project enrollment statistics, participation rates, and Health Coach client sociodemographic characteristics.
- ▶ We also share information on client health issues, including:
- ---rates of depression
- ---self-reported and UA tested drug use
- ---STD and HIV test results

Important Take Away's

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- ► Health Coach served youth have multiple, overlapping, behavioral health needs
- Interventions need to accommodate to this reality, if they are to be effective
- ▶ Research indicates community level factors are important in understanding and addressing youth health issues. Although this pilot study, involving a relatively small number of cases, did not find evidence of this, we plan to conduct further study involving a larger number of cases.
- ► Effective interventions should ideally include individual and community level interventions
- ► Girls are more impacted by health issues, than boys and require special attention
- ► Important to identify subgroups of girls for services matching with effective intervention services

Individual Health Benefits

- Delay in first sexual intercourse
- Decline in the number of sex partners
- Increase in condom or contraceptive use
- Early screening and intervention for behavioral health concerns
- Expedited services and intervention for behavioral health concerns
- Increase in positive supports to discuss reproductive questions, sexual risks and behaviors
- ► Increased self-efficacy when discussing abstinence and safer sex with current or potential sexual partner(s)



Community Health

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#### **Healthy People 2020 Objectives**

- ▶ Increase the proportion of adolescents who have had wellness checkup in the past 12 months
- ▶ Increase the proportion of sexually experienced females aged 15 to 44 years who received reproductive health services in the past 12 months
- ► Increase the proportion of adolescents and young adults who have been tested for HIV in the past 12 months
- ▶ Increase the proportion of sexually active unmarried females aged 15 to 44 years who use condoms
- ▶ Reduce Chlamydia rates among females aged 15 to 44 years



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# Community Health—Cont'd

#### National HIV/AIDS Strategy

- ► Goal 1: Reducing New HIV Infections
  - ▶ Prevention Efforts
  - ► Effective Evidence-based approaches
  - ▶ Education
- ▶ Goal 3: Reducing HIV-Related Disparities and Health Inequities
  - ▶ High Risk Communities
  - ► Structural Approaches—service linkages
  - ▶ Reduce Stigma and Discrimination—multi-cultural interventions



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