Enhancing utilization of oral health services among a multicultural HIV positive population in Miami, FL

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Today's Presentation

- Introduce rationale and methods for Project SMILE.
- Present screening and baseline data from Project SMILE that address need, utilization patterns, and barriers to accessing dental care.
- Discuss factors associated with barriers to accessing dental care among HIV-positive patients by race/ethnicity.

Oral Health and HIV

- Over 90% of HIV-infected persons will have at least one oral manifestation of HIV disease during the course of their infection.
- Oral pain or discomfort of the mouth can interfere with optimal adherence to prescribed nutrition and medication regimens.
- Studies have shown that oral health care is one of the highest unmet health care needs for HIV-infected individuals.

Needs Assessment-Ryan White 2005

	Ryan White Clients N=10,276	Proportion receiving dental services N=3,176 (31%)
Gender		
Male	6,885	35%
Female	3,391	27%
Race/Ethnicity		
White Non-Hispanic	1,226	35%
Black Non-Hispanic	4,087	24%
Haitian	1,123	30%
Hispanic	3,678	43%
Other	102	30%

Project SMILE

funded by the NIDCR

- Two-arm randomized experimental design to evaluate the effectiveness of a brief, client-centered, case management linkage intervention designed to increase the use of oral health services by HIV+ persons.

- 640 HIV+ individuals who have not received oral health services in the past 12 months will be assessed for predisposing, enabling and need factors associated with oral health care-seeking behavior.

- They will then be randomly assigned to either the HIV+ care services linkages intervention or assigned to receive the standard-of-care services.

- Participants will be reassessed 6, 12, and 18 months after the baseline assessment.

Project SMILE Intervention

- Participants randomized to the intervention arm will receive up to four contacts/sessions with the case manager/interventionist.

- Contacts will focus on:
  - educating the participant about the importance of oral health HIV care and motivating them to seek treatment,
  - identifying both individual and structural barriers to obtaining oral health care,
  - identifying individual strengths, abilities, and skills that individuals can adapt to overcome barriers,
  - addressing structural barriers such as filling out paperwork to qualify for insurance,
  - obtaining necessary documentation,
  - making appointments for HIV oral health care visits, and
  - linking the participant to community case management services.

Project SMILE Intervention

- These contact sessions could be held any time over a 6 month period. This period fits within the possibility of HIV+ individuals having to wait up until 6 months for a possible dental care appointment.
- The first session could take place directly after randomization (and completion of the baseline assessment) or a special appointment could be made.
- The intervention sessions can occur in any setting that is convenient for the client. This could be in the client's home, in a local restaurant, or at the University of Miami.

Intervention-Participant Education

Mouth problems + HIV

This information is for people who have mouth (oral) problems related to HIV infection. It explains the most common oral problems linked to HIV and shows what they look like. It also describes where in the mouth they occur and how they are treated.

They are common
Oral problems are very common in people with HIV. More than a third of people living with HIV have oral conditions that arise because of their weakened immune system. And even though combination antiretroviral therapy has made some oral problems less common, others are occurring more often with this type of treatment.

They can be painful, annoying, and lead to other problems
You may be told that oral problems are minor compared to other things you have to deal with. But you know that they can cause discomfort and embarrassment and really affect how you feel about yourself. Oral problems can also lead to trouble with eating. If mouth pain or tenderness makes it difficult to chew and swallow, or if you can't taste food as well as you used to, you may not eat enough. And, your doctor may tell you to eat more than normal so your body has enough energy to deal with HIV.

They can be treated
The most common oral problems linked with HIV can be treated. So talk with your doctor or dentist about what treatment might work for you.

Remember, with the right treatment, your mouth can feel better. And that's an important step toward living well, not just longer, with HIV.

If You Have Dry Mouth

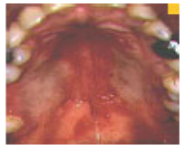
Dry mouth happens when you do not have enough saliva, or spit, to keep your mouth wet. Saliva helps you chew and digest food, protects teeth from decay, and prevents infections by controlling bacteria and fungi in the mouth. Without enough saliva you could develop tooth decay or other infections and might have trouble chewing and swallowing. Your mouth might also feel sticky, dry and have a burning feeling. And you may have cracked, chapped lips.

To help with a dry mouth, try these things:

- Sip water or sugarless drinks often
- Chew sugarless gum or suck on sugarless hard candy
- Avoid tobacco
- Avoid alcohol
- Avoid salty foods
- Use a humidifier at night

Talk to your doctor or dentist about prescribing artificial saliva, which may help keep your mouth moist.

Intervention-Participant Education

		It could be:	What & where?	Painful?	Contagious?	Treatment
	**Red sores** *ulcers*	Aphthous (*AF-thus*) ulcers. Also known as Canker Sores	Red sores that might also have a yellow-gray film on top. They are usually on the moveable parts of the mouth such as the tongue or inside of the cheeks and lips.	Yes	No	Mild cases – Over-the-counter cream or prescription mouthwash that contains corticosteroids; More severe cases – corticosteroids in a pill form
		OR				
		Herpes (*HER-peez*) A viral infection	Red sores usually on the roof of the mouth. They are sometimes on the outside of the lips, where they are called fever blisters.	Sometimes	Yes	Prescription pill can reduce healing time and frequency of outbreaks.
	**White hairlike growth**	Hairy Leukoplakia (*Loo-ko-PLAY-key-uh*) caused by the Epstein-Barr virus	White patches that do not wipe away; sometimes very thick and "hairlike." Usually appear on the side of the tongue or sometimes inside the cheeks and lower lip.	Not usually	No	Mild cases – not usually required; More severe cases – a prescription pill that may reduce severity of symptoms. In some severe cases, a pain reliever might also be required.
	**White creamy or bumpy patches like cottage cheese**	Candidiasis (*CAN-di-dye-uh-sis*), a fungal (yeast) infection – Also known as thrush	White or yellowish patches (or can sometimes be red). If wiped away, there will be redness or bleeding underneath. They can appear anywhere in the mouth.	Sometimes, a burning feeling	No	Mild cases – prescription antifungal lozenge or mouthwash; More severe cases – prescription antifungal pills.
	**Warts**		Small, white, gray, or pinkish rough bumps that look like cauliflower. They can appear inside the lips and on other parts of the mouth.	Not usually	Possibly	Inside the mouth – a doctor can remove them surgically or use "cryosurgery" – a way of freezing them off; On the lips – a prescription cream that will wear away the wart. Warts can return after treatment.

Intervention-Participant Education

Portable pouch:

- Carry size toothbrush
- Carry size toothpaste
- Dental floss
- Standard toothbrush

Project SMILE Target Population Inclusion/Exclusion Criteria

- Men and women 18 yrs and older
- Documented HIV infection
- Currently in Medical Care
- Currently not receiving dental care services
- Eligible for Ryan White Title I funding
- Plans to remain in Miami for 24 months
- Provide name of 2 verifiable locator persons

Project SMILE Recruitment

- Will recruit from 5 HIV primary care clinics in Miami
  - 2 with on-site dental care
  - 3 with no on-site dental care
  - Clinics are diverse with regard to location, race/ethnicity, gender, and HIV risk group
- 640 patients to be recruited over 28 months

Project SMILE Baseline

- Study participants will provide verbal informed consent to participate in a brief screening interview at medical clinics
- Eligible participants must complete a baseline assessment during the same visit or within 30 days of screening. The baseline will ask participants about their predisposing, enabling and need factors associated with oral health care-seeking behavior

Data Collection Activities

- Screening and Baseline interviews administered in English and Spanish
- Permission to review medical and dental records are obtained
- Small monetary incentives offered ($25)

Project SMILE Study Outcomes and Follow-up Assessments

- The primary outcome on which the two arms of the study will be compared will be the proportion of HIV-positive individuals who have utilized oral health services.
- Current recommendations indicate that HIV+ persons should see an oral health provider a minimum of every 4-6 months for a routine screening and check-up.
- Notably, dental services are available to all Ryan White patients either on-site or off-site at another clinic.

Study Data:

Total number of participants screened	1,519	
Total number of participants baselined	561	
Participants randomized to intervention	281	50.0%
Total number of closed cases	230	81.6%
Successfully Linked to Dental Care	153	77%
Total number of open cases	51	18.1%
Average number of intervention sessions attended	3.5	

Analysis of Screening Data

- What is the proportion of low income, Ryan White HIV-positive clients who have not received dental care services in the past 12 months?
- What factors are associated with this unmet dental care needs?
- Among those underserved, what are their perceived barriers?

Screening Data

- Screening has been conducted at 5 HIV primary care clinics in Miami and Broward Counties, Florida and began in April, 2005

- 1,519 HIV-positive patients have been screened
  - 71% male, 61% over 40 years of age,
  - 80% currently taking HAART,
  - 16% white, non-Hispanic, 52% black, non-Hispanic, 31% Hispanic, 0.5% other
  - Average length since diagnosis is 11 years

Screening Data

- 39% report not having received dental care in past 12 months
  - 34% at the PET Center Clinic
  - 34% at the Care Resource Clinic
  - 39% at the SI Clinic
  - 49% Broward Clinics

Factors associated with being in dental care (past 12 months)

Multiple Logistic regression in dental care past 12 months N=1519

Variables	AOR(95%C.I.)
Onsite vs. offsite	**1.67(1.32, 2.12)**
Age in years (Every one year increase)	**0.97(.96, .99)**
Female	1.14(0.88, 1.48)
White	**1.48(1.06, 2.07)**
Hispanic	**1.41(1.07, 1.85)**
Black	ref
Health insurance: Medicare	1.42(0.95, 2.12)
Health insurance: Ryan White	0.54(0.29, 1.001)
Health insurance: Private insurance	1.06(0.46, 2.46)
Currently in medication	**2.06(1.51, 2.80)**
HIV diagnosis in years (Every one year increase)	**1.08(1.06, 1.10)**
Admitted to a hospital past 12 months	**0.30(0.22, 0.39)**

Analysis of Baseline Data

- What is the proportion of low income, Ryan White HIV-positive clients who have not received dental care services they needed in the past 12 months?
- Among those underserved, what are their perceived barriers?
- What factors are associated with their perceived barriers?
- What are their oral health needs?

Baseline Data

- Baseline has been conducted at 5 HIV primary care clinics in Miami, Florida and began in April, 2005

- 566 HIV-positive patients have been baselined
  - 71% male, 68% over 40 years of age,
  - 13% white, non-Hispanic, 54% black, non-Hispanic, 32% Hispanic, 1% others,
  - 50% last year Income <= $5000
  - 74% currently taking medicines for HIV
  - 82% feel currently in need of dental care and 35% reported unmet need dental care,
  - 52% not been in dental care past 2 years.

Hispanic subgroups:

	N	%
Cuban	79	43%
Puerto Rican	50	27%
South American	37	20%
Other	9	5%
Mexican	5	3%
Dominican	3	2%

Barriers associated with access to dental care (past 12 months)

Baseline barriers to access dental care in the past 12 month by race/ethnicity[a]

Variables	Total	Hispanic	Black	White
	N=196	N=76	N=87	N=33
	%	%	%	%
Did not get around to it or procrastinated	61.7	54.0	72.4	51.5
Could not afford dental care	47.5	44.7	47.1	54.6
Had a fear of dentists or dental treatment	33.7	34.2	37.9	21.2
Some other reasons	24.1	26.7	19.5	30.3
Did not think dental care was important	19.9	17.1	25.3	12.1
Did not know where to find dental care	17.9	18.4	16.1	21.2
Did not have transportation to get to a dentist	15.8	10.5	20.7	15.2

[a]Among those reported unmet needs.

Barriers associated with access to dental care (past 12 months)

Baseline barriers to access dental care in the past 12 month by race / ethnicity[a]

Variables	Total	Hispanic	Black	White
	N=196	N=76	N=87	N=33
	%	%	%	%
Could not find a dentist that treats HIV Positive patients	15.3	13.2	13.8	24.2
Negative experiences with dental providers	13.3	17.1	6.9	21.2
Fear of getting sick due to compromised immunity	8.7	11.8	6.9	6.1
Fear of transmitting HIV to the dentist	7.1	7.9	5.8	9.1
Did not want to disclose HIV status	6.6	6.6	4.6	12.1
Felt discrimination because of your race or ethnicity	4.0	4.0	2.3	6.1
Could not find a dentist that speaks your language	2.6	4.0	1.2	3.0

[a]Among those reported unmet needs.

Why no dental care?

N=561

Of those reporting unmet need (35%) the most important reasons given by baseline participants were:

- Did not get around to it or procrastination (26%)
- Fear of dentists or dental treatment (20%)
- Could not afford it (21%)

Factors associated with being in dental care (past 24 months)

Multiple Logistic regression on in dental care past 24 months N=551

Variables	AOR(95%CI)[a]
Onsite vs. offsite	1.01(0.51, 1.99)
Hispanic	**1.77(1.16, 2.70)**
White	1.54(0.87, 2.72)
Black	ref
OHIP-49	1.00(0.99, 1.02)
Unmet need dental care past 12 months	0.73(0.48, 1.13)
HIV care provider referred you to a dentist past 12 months	1.14(0.68, 1.92)
Have used crack cocaine past 4 weeks	0.63(0.26, 1.53)
Currently taking any medicines to fight HIV	1.21(0.78, 1.87)
Has anyone helped you to get HIV care after being diagnosed	**1.73(1.19, 2.52)**
Mean BSI depression scale	0.98(0.77, 1.23)
Mean self-efficacy scale	1.04(0.71, 1.53)

[a]Adjusted for city, age, gender and employment. [b]OHIP: Oral Health Impact Profile.

Intervention-Participant Barriers

Participant Identified Barriers:

- "Did not know they could receive free dental care through Ryan White"
- "Too much time between scheduled dentist appointments"
- "No available appointments at my dentist of choice"
- No language barriers

Oral Health Impact Profile (OHIP)

Multiple Logistic regression on sum of OHIP scores past 4 weeks (more impact vs. less impact)[b] N=550

Variables	AOR(95%CI)[a]
Last visit a dentist in 2 years	0.62(0.38, 0.99)
Unmet need dental care past 12 months.	2.64(1.67, 4.20)
HIV care provider referred you to a dentist past 12 months	3.07(1.79, 5.26)
Have used crack cocaine past 4 weeks	2.58(1.15, 5.81)
Currently taking any medicines to fight HIV	1.29(0.77, 2.15)
Mean BSI depression scale	1.48(1.16, 1.89)
Mean dental self-efficacy scale	0.67(0.40, 1.14)

[a]Adjusted for city, age, gender and race.

[b]OHIP: Oral Health Impact Profile. Above 75 percentile vs. below 75 percentile.

Next Steps

- Complete randomized intervention trial to evaluate efficacy of brief, linkage case management intervention
- Examine behavioral variables – predisposing, enabling and need factors – associated with utilization of dental care services
- Implement HRSA funded project to evaluate mobile dental clinic to provide dental services at HIV primary care clinics- Project MDAP

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