It's in the Delivery: Evaluating Different HIV Counseling Modalities in Private Clinical Labs in Guatemala

Yma Alfaro, PSP-*One*/Guatemala Country Director, Abt Associates

HIV/AIDS in Guatemala

- HIV prevalence of 1%[1]

- Epidemic concentrated in areas of Retalhuleu, **Izabal**, Escuintla, San Marcos, **Quetzaltenango**, **Petén**, **Guatemala**

- HIV most frequently diagnosed in male Ladinos

- In 93.7% of diagnosed cases transmission was through sexual activity[1]

[1] Ministerio de Salud Publica y Asistencia Social. Informe de notifcacion de casos VIH y SIDA para los ultimos 5 anos, 2004-2008. May 2009.

PSP-One

Private Sector Clinical Laboratories in Guatemala

- In 2006, National AIDS Program mandated that private clinical laboratories comply with the National HIV/AIDS Law 27-2000 regarding counseling.

- Resistance from clinical biochemists due to inadequate training, insufficient resources and time constraints.

- Surveys in 2007 and 2009 found that:
  - 91% of private laboratories offer "rapid" testing for HIV
  - 35% of clinical biochemists sought informed consent from clients prior to completing a HIV test
  - 24% of clinical biochemists providing counseling at the time of testing
  - In January 2009, private laboratories conducted 5,022 HIV tests; 1.7% were positive

PSP-One

How Can a Standard Counseling Format Be Mandated Given Varying Lab Conditions?

- **Inconsistent HIV demand across labs**
  - Labs reported variable volume of HIV tests (0-500 per month) in January 2009

- **Varied staff availability**
  - Professional and technical staff with different levels of HIV education available. Professional staff are not always present in laboratory.

- **Discrepant space limitations**
  - 84% of laboratories have a private space where staff can inform patients of test results and provide counseling

PSP-One

PSP-*One* Strategy to Strengthen CT Services in Guatemala

- Assist private sector laboratories in providing counseling as defined by national HIV/AIDS Law 27-2000

- Contribute evidence-based information on the provision of CT in private sector clinical laboratories so that stakeholders can define the best CT modality(ies)

CT Models to Meet Unique Challenges of Service Provision in the Private Sector

	Pre-test Counseling	Post-test Counseling
Model 1: Off-site counseling	**Biochemists and technicians trained in pre-test counseling**	**Client travels to off-site professional counselor to receive test result and counseling**
Model 2: Mobile professional counselor		**Professional counselor travels to laboratory to inform client of test result and provide counseling**
Model 3: Lab staff counseling with training		**Laboratory staff (trained in post-test counseling) deliver test result and counsel client**
Control		**Laboratory staff provides test result with counseling per laboratory protocol**

PSP-One   Additional materials: flipchart, informational pamphlet, referral site list

Different CT Models to Meet Unique Challenges of Service Provision in the Private Sector

Models 1 and 2

- Capitalize on existing counseling capacity in Guatemala which may be under-utilized
- Respond to laboratory supervisors' concerns that auxiliary staff and technicians have insufficient training to provide counseling
- Address limited time/staff availability to offer additional services

Model 3

- Evaluates laboratory staff's ability to provide counseling with variable levels of support
- Reduces costs in response to limited funding for ongoing trainings

PSP-One

Selection of Sample of Private Clinical Laboratories

	Number of participating laboratories
Model 1. Off-site referral counselor	33
Model 2. Mobile professional counselors	20
Model 3. Lab staff counseling with training	38
Control group	36
Total	127

Development of a Quasi-Experimental Mixed-Methods Study Design

- Evaluation of <u>counseling quality</u> with self-administered client exit questionnaire

- Assess <u>acceptability</u> of each model using client participation rates

- Evaluation of counseling <u>feasibility</u> through focus group discussions with biochemists, technicians, and professional counselors

- <u>Cost</u> per comprehensive counseling session
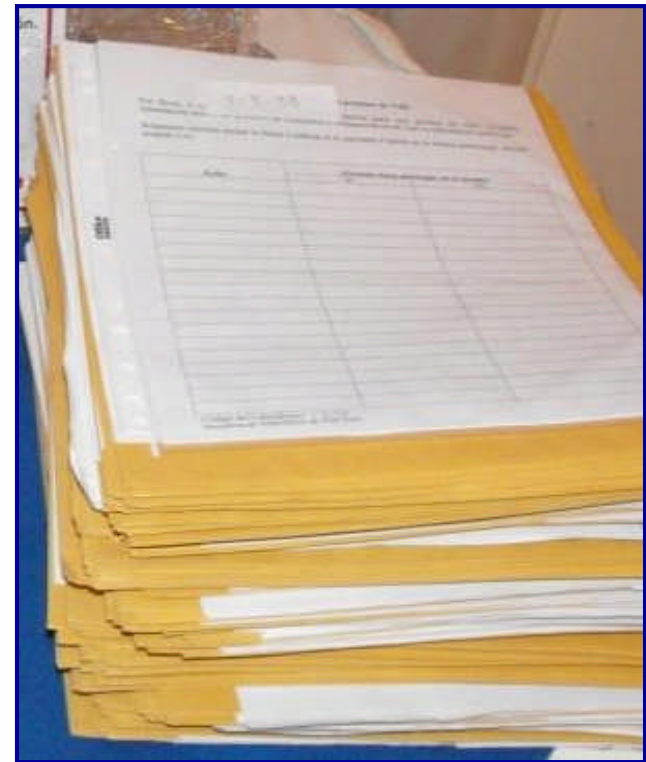
Pre-Test Counseling:
Clients Self-Administer Exit Questionnaire

Subscale	Questions from pre-test counseling exit survey
Compliance with national testing protocol	-Staff told me that taking an HIV test is voluntary. -I spoke with lab staff in a private area away from other patients. -I received information about the test before blood was drawn.
Client education on HIV/AIDS	-Staff told me how HIV is transmitted. -Staff told me how HIV is not transmitted. -Staff told me how to prevent the transmission of HIV. -Staff explained the difference between HIV and AIDS. -Staff told me that the only way of knowing if I have HIV is through an HIV test.
Client satisfaction	-I have confidence in the testing service I received here. -I felt confident talking to staff about this test. -In general, the services that I received were satisfactory.

PSP-One

Pre-Test Counseling : All Models Improved Significantly between Baseline and Endline

- Laboratory staff trained in pre-test counseling used a flipchart to guide the counseling process
- At endline, clients reported higher mean scores in:
  - Compliance with national testing protocol
  - Client education on HIV/AIDS
  - Client satisfaction

Pre-Test Counseling:
All Models Improve across All Subscales between Baseline and Endline

	Model 1		Model 2		Model 3		Control	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Compliance with national testing protocol	76.3	95.6*	63	92.2*	83	96.6*	78.6	97.9*
Client education on HIV/AIDS	64.4	92.9*	40.2	86.7*	70.2	98.5*	55.3	97.1*
Client satisfaction	90.9	99.6**	85.5	97.7**	93.7	99.6*	94.3	99.2**

* p-value is <.00001   **p-value is <.0001

Pre-Test Counseling at Endline: There Are Few Significant Differences in Client Perception by Model

	Model 1	Model 2	Model 3	Control	p-value
	Mean Score	Mean Score	Mean Score	Mean Score	
Compliance with national testing protocol	95.6	**92.2**	96.6	**97.9**	**0.02**
Client education on HIV/AIDS	92.9	**86.7**	**98.5**	97.1	**0.0002**
Client satisfaction	99.6	97.7	99.6	99.2	0.2

PSP-One

Post-Test Counseling:
Clients Self-Administer Exit Questionnaire

Subscale	Questions from post-test counseling exit survey
Client education on test result and implications	-The counselor or staff told me how HIV is transmitted. -The counselor or staff talked about risk behaviors. -The counselor or staff told me the significance of my test result.
Client satisfaction	-I have confidence in the result that I receive here. -The counselor or staff knows about HIV and AIDS. -In general, the services that I received here were satisfactory. -At this visit, I received clear information about HIV/AIDS. -I would recommend this service to others.

Post-Test Counseling:
All Models Improve across Subscales between Baseline and Endline

	Model 1		Model 2		Model 3		Control	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Client education on test result and implications	69.8	100*	40.9	100*	65.4	98.5*	61.3	94.5*
Client satisfaction	93.3	100*	81	100*	89.6	99.8*	91.4	98.7**

* p-value is <.00001   **p-value is <.0001

PSP-One

Post-Test Counseling:
Mean Cient Education Score is Lower in Control Group Than in Other Models

	Model 1	Model 2	Model 3	Control	p-value
	Mean Score	Mean Score	Mean Score	Mean Score	
Client education on test result and implications	100	100	98.5	**94.5**	**0.03**
Client satisfaction	100	100	99.8	98.7	0.4

PSP-One

Changes in Client Participation Vary Widely across Models

	Pre-test counseling			Post-test counseling		
	Baseline	Endline	Change	Baseline	Endline	Change
Model 1	56.8%	66.2%	**9.4**	27.1%	8.5%	**-18.7**
Model 2	65.3%	47.3%	**-18.0**	37.6%	29.1%	**-8.5**
Model 3	68.7%	71.8%	**3.1**	61.2%	68.6%	**7.4**
Control	71.4%	67.4%	**-4.0**	41.0%	52.6%	**11.6**

Biochemists and Laboratory Technicians Discuss Challenges in Recruiting Patients for Participation

- *"I think for this work, it is an important factor that the people arrive when they have a little bit of time and they come in a hurry for their results, which makes the process [of providing post-test counseling] difficult."*

- *"…people that come from far away have bus schedules; the bus leaves at this time and they cannot wait."*

The Per Client Cost of Counseling Varies by Model

	Model 1	Model 2	Model 3	Control
Comprehensive counseling cost with 95% client participation	78.39	87.53	20.69	17.60

Per client cost in US dollars

PSP-One

Private Sector Laboratories Are Capable of Providing Satisfactory Counseling Services to Patients Under Varying Conditions

- Results show that it is possible to improve CT services with all of the proposed models

- Large differences in cost and participation among models; client perception of quality of services is high across all intervention arms

- Laboratory staff report greater logistic and implementation challenges with Model 1 and Model 2

- Due to the wide range of characteristics of private laboratories in Guatemala (location, size, test types offered, etc.) it is possible that some models will be more appropriate for certain types of labs

Next Steps and Recommendations for Continued Improvement of Private Sector Laboratory Services

- Professional Boards and MOH Licensing Authority are establishing requirements regarding HIV counseling in private clinical laboratories
- Institutionalization of a counseling training program aimed at a broad private sector audience
- Widespread dissemination of training materials
- Clarification of the roles of private sector providers
- Additional research into counseling quality using objective standards is needed

PSP-One

Acknowledgements

- National AIDS Program/MOH (PNS)
- Health Establishments Regulations and Accreditation Department
- Guatemala Board of Clinical Biologists and Pharmacists Guatemalan Association of Clinical Biologists (AQBG)
- National Public-Private Sectors' Commission Against HIV (COSSEP-VIH)
- Participating biochemists, technicians, staff, and counselors
- Study coordinators: Karla Patricia Alonzo de Salazar, Claudia Garcia de Hernandez, Fabiola Lorenzana, Gloria del Carmen Salazar, Lucia Roesch, Adriana Gonzalez Escobar
- Tulane University School of Public Health and Tropical Medicine: Dr. Paul Hutchinson