

Enhancing HIV Prevention in San Francisco

UCSF - San Francisco Department of
Public Health Collaborative



San Francisco Collaboration



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Organizing Principles

- **San Francisco is one of the first jurisdictions to adopt an offer of treatment to individuals at the time of HIV diagnosis.**
- **Responding to the “treatment as prevention” cascade is part of the epidemic response.**
- **Our understanding of the behavioral, social and policy issues underlying the cascade is incomplete.**
- **Research is essential to developing effective interventions.**

Background

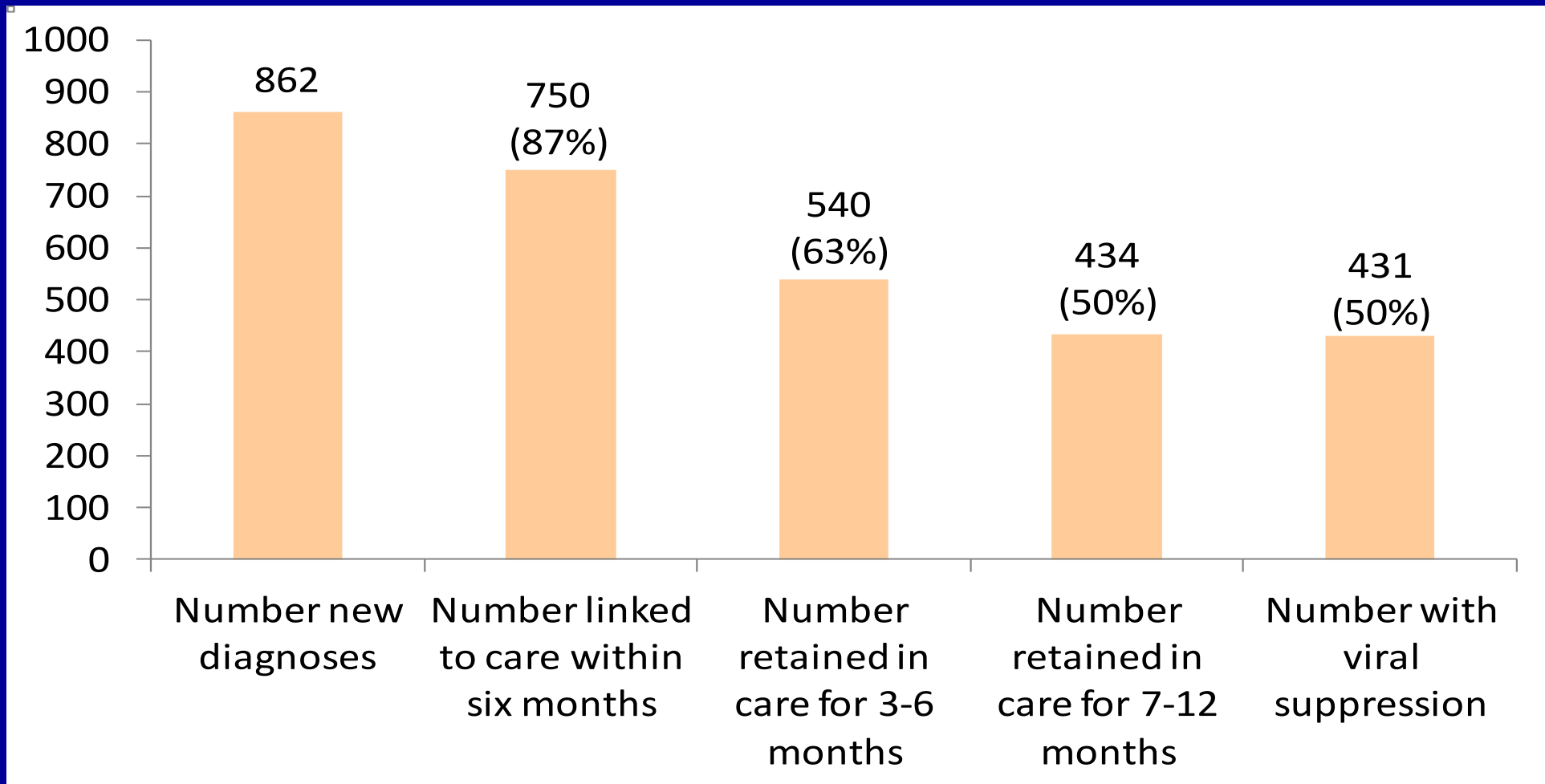
Trends in persons living with HIV/AIDS by demographic and risk characteristics, 2008-2011*, San Francisco

	2008		2009		2010		2011	
	Number	(%)	Number	(%)	Number	(%)	Number	(%)
Gender								
Male	13,696	(92)	13,880	(92)	14,061	(92)	14,251	(92)
Female	858	(6)	863	(6)	874	(6)	897	(6)
Transfemale#	332	(2)	342	(2)	342	(2)	341	(2)
Race/Ethnicity								
White	9,451	(63)	9,529	(63)	9,593	(63)	9,703	(63)
African American	2,002	(13)	2,018	(13)	2,034	(13)	2,054	(13)
Latino	2,396	(16)	2,459	(16)	2,529	(17)	2,582	(17)
Asian/Pacific Islander	710	(5)	742	(5)	776	(5)	805	(5)
Native American	85	(1)	85	(1)	87	(1)	89	(1)
Other/Unknown	242	(2)	252	(2)	258	(2)	256	(2)
Age in Years (at end of each year)								
0 - 19	34	(<1)	27	(<1)	27	(<1)	24	(<1)
20 - 29	605	(4)	603	(4)	575	(4)	554	(4)
30 - 39	2,485	(17)	2,282	(15)	2,100	(14)	1,946	(13)
40 - 49	5,870	(39)	5,776	(38)	5,668	(37)	5,476	(35)
50+	5,892	(40)	6,397	(42)	6,907	(45)	7,489	(48)
Exposure Category								
MSM	10,816	(73)	10,998	(73)	11,148	(73)	11,329	(73)
IDU	1,052	(7)	1,050	(7)	1,049	(7)	1,042	(7)
MSM IDU	2,284	(15)	2,282	(15)	2,277	(15)	2,277	(15)
Heterosexual	433	(3)	436	(3)	460	(3)	480	(3)
Transfusion/Hemophilia	29	(<1)	28	(<1)	26	(<1)	26	(<1)
Other/Unidentified	272	(2)	291	(2)	317	(2)	335	(2)
Total	14,886		15,085		15,277		15,489	

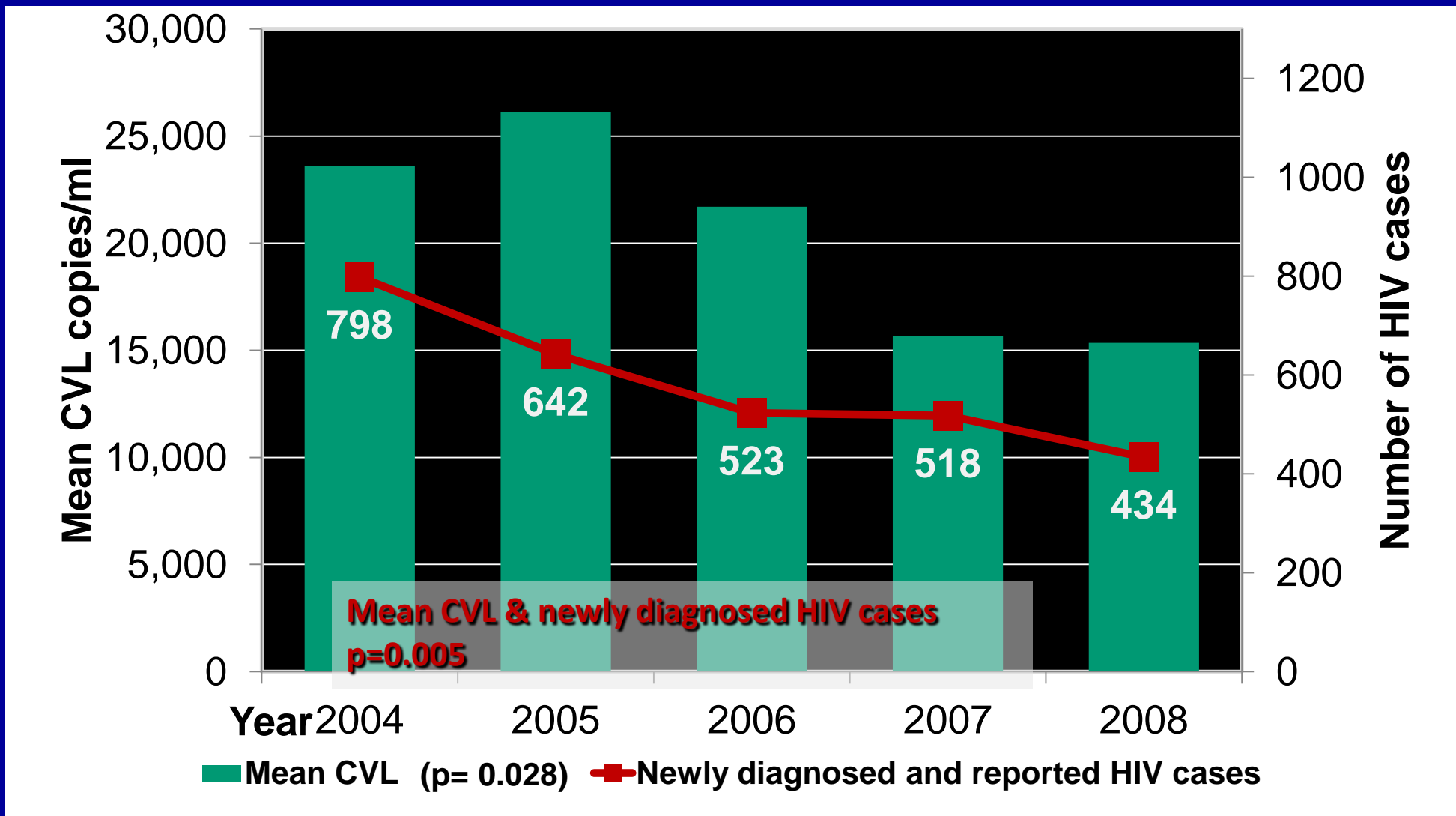
* Persons living with HIV/AIDS at the end of each year.

Transfemale data include all transgender cases. Transmale data are not released separately due to potential small population size.

Spectrum of engagement in care among people diagnosed with HIV, 2009-2010, San Francisco



Mean Community Viral Load and New HIV Cases



HIV Infections Averted*

Infections Averted	Tx<500	Tx All	Test & Tx All
2014	1,554	2,169	2,810
2019	3,102	4,550	6,040
2029	4,940	8,221	12,189
Percent Reduction in New Infections	Tx<500	Tx All	Test & Tx All
2014	42%	59%	76%
2019	42%	61%	81%
2029	33%	55%	81%

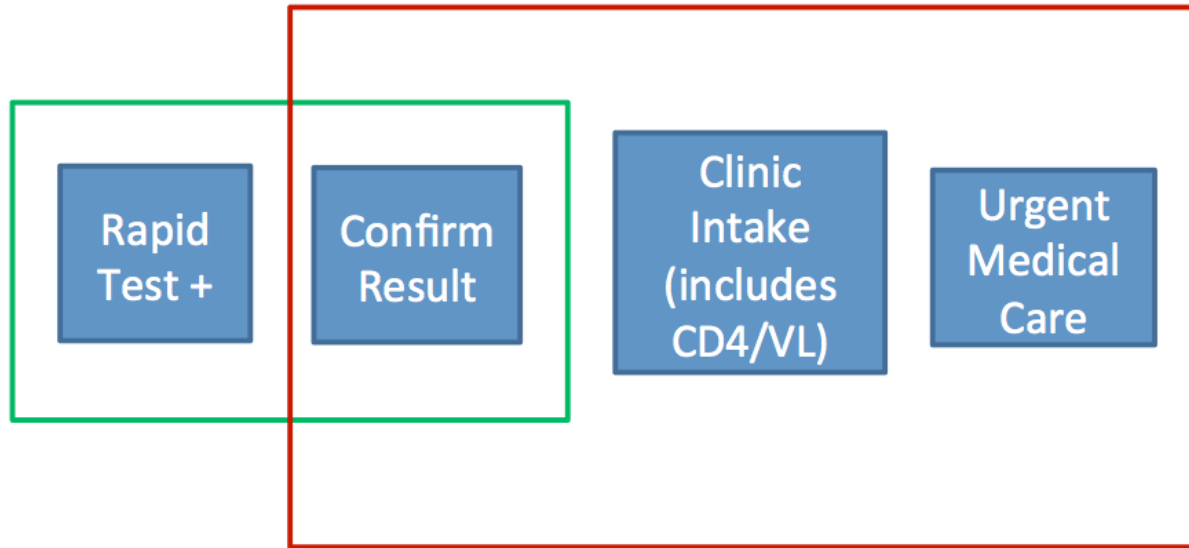
San Francisco Linkage-to-Care Project

Aim 1 – Development and Assessment of Measurements of Successful Linkage-to-Care

- Provide scientific leadership and expertise for the development and assessment of a panel of measurements of linkage-to-care.**
- In conjunction with SF-DPH team, operationalize alternative definitions of linkage to and engagement in HIV care following HIV infection diagnosis based on the range of potential data sources.**
- Evaluate the panel of measures for their feasibility, advantages, limitations, potential applications, and relative costs.**

Linkage Conceptual Framework

Linkage to the HIV Care Location



May happen on same day

- Testing Site
- HIV Care Location
- HIV Primary Care Visit

For hospitalized patients, CD4/VL already done & 1st HIV care location visit may be the primary care visit



Meaningful because ART offer can happen

Meaningful because patient has connected to place AND provider

Possible Definitions of Linkage

- **Clinic-Based**
 - One HIV care location visit
 - One HIV primary care provider visit
 - Two HIV primary care provider visits
- **Surveillance/Public Health Based**
 - One CD4 or VL measurement on a day other than the day of the positive HIV test
 - Two CD4 or VL measurements within 6 months of the positive HIV test
 - One CD4 or VL within 3 months of positive HIV test and another within the following 9 months (2 measurements in a year)
- **IOM recommendation: Linkage should be accomplished within 3 months of diagnosis**

A Model Program for Linkage to Care

- **Positive Health Access to Services and Treatment**
“PHAST” team at San Francisco General Hospital
 - “Active” linkage to care for all new diagnoses on medical center campus & re-engagement of hospitalized out-of-care
 - Multi-disciplinary skill set (RN, NP, social work)
 - Comprehensive intake, referrals, and bridging medical care
 - Appointment reminders
 - Thoughtful matching to primary care provider
- **Outcomes: >90% linkage for newly diagnosed and hospitalized out-of-care patients**

Aim 2 –Compare Linkage-to-Care Outcomes Among Three Intervention Strategies

Linkage Integration Navigation Comprehensive Services (LINCS) Program

1. Embedded partner services and linkage (PSL) staff in high-volume HIV testing sites
2. Mobile partner services and linkage staff serving low-volume testing sites and most city-operated clinics
3. Re-engagement navigation outreach model for patients who are out of care or fail to link

Linkage Integration Navigation Comprehensive Services

- **Community testing sites, 2009-2010**
 - 319 clients found to be HIV infected*
 - 287 (90%) newly reported cases
 - 206 (65%) linked by 3 months
- **SFDPH medical sites, 2011**
 - 380 patients tested HIV positive^
 - 59 (16%) no evidence of prior HIV diagnosis
 - 48 (81%) linked to HIV care by 3 months
- **Navigation patients, Jan-June 2012**
 - 20/48 (42%) contacted
 - 10/20 (50%) linked to care (by follow up)

* Excludes OOJ, anonymous, and deceased clients

^ Excludes HIV clinic cases tested for benefits eligibility

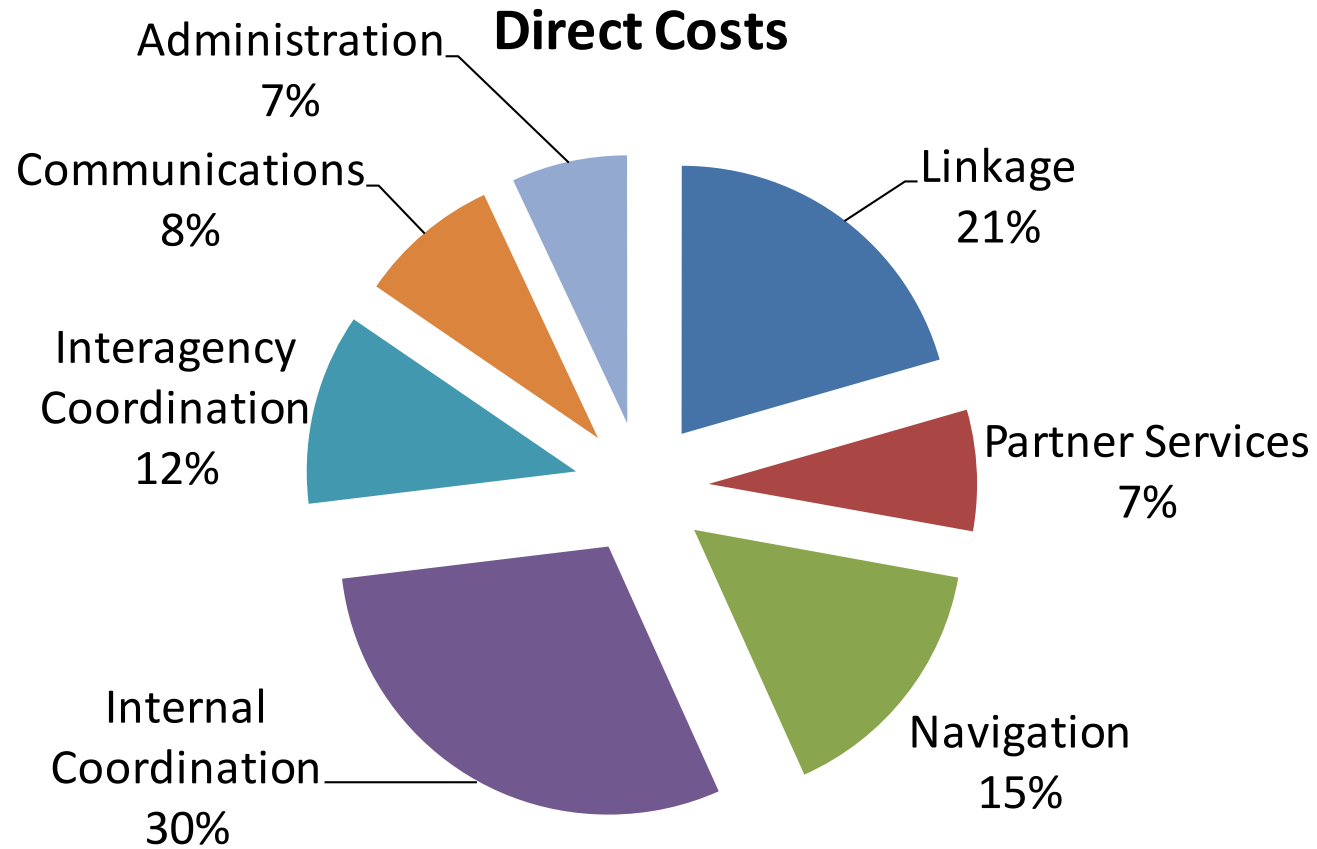
Aim 3 – Determine the Cost and Relative Cost Effectiveness of Patient Navigator Interventions

- **Evaluate total program and individual level costs for the three linkage models studied in Aim 2.**
- **Calculate and compare the cost-effectiveness of the interventions.**
- **Estimate the cost per successful linkage overall and by specific program in comparison to each other and to historical linkage to care data.**
- **Model cost and cost-effectiveness measures where programs are taken to scale.**

Aim 3 – Cost Effectiveness

- **Costing Framework Developed**
 - Activity-based costing
- **Preliminary Costing Template Completed**
 - Total direct costs = \$380,000 per year
 - Cost per category
 - Personnel = 99% of costs
 - Cost per activity
 - Direct service = 43% of costs
 - Coordination = 41% of costs

Costs per Activity



San Francisco Retention and Re-Engagement in Care Project

Aim 1 – To better understand existing information sharing around retention and re-engagement in care

- Conduct key informant interviews with personnel in the SFDPH and city care environments.**
- Functionally map current information exchanges used to facilitate retention and re-engagement in HIV care.**
- Identify structural barriers and facilitators to such information exchange.**
- Develop methods to capture current costs.**

Information Exchange

- **SFDPH Informatics Analysis, 5/2012**
 - Program depends on multiple data inputs
 - Program data housed in multiple systems
 - Manual data exchanges often used
 - Integrated PH data system MAY benefit program
- **Next Steps**
 - Secure resources for infrastructure development
 - Consider integrated data system

California Health Care Reform

- **The Affordable Care Act includes the expansion of state Medicaid programs in 2014 to include all individuals with income up to 133% of FPL.**
- **As a pilot program, California has received \$10 billion to expand health care coverage to low-income adults through the county-run Low Income Health Program (LIHP).**
- **Patient advocates have expressed concerns that the transition from Ryan White to LIHPs will result in challenges to retention in care.**

Aim 2 – To explore policy options for structural interventions and systems improvement to maximize patient retention in HIV care during the transition to health care reform

- Conduct key informant interviews with providers, patients and social workers to assess the challenges of transition from Ryan White programs to Medicaid.**
- Convene the three partnering organizations to respond to potential challenges and outline potential policy options to maximize retention.**
- Identify the pros and cons of each of the policy options.**
- Estimate costs for each of the options.**

Transition to Health Care Reform

- **Preliminary findings suggest a number of challenges to transition to Medicaid managed care and introduction of low-income health programs (LIHPS), as well as strategies clinics are taking to minimize problems.**
- **Providers and clinic staff identify the need for patient navigators or clinical case managers to assist with transition.**
- **Ryan White support services will be need as a wrap around to primary care coverage to prevent loss to follow up and to promote better health outcomes.**

Aim 3 – To develop a better understanding of community views on sharing health information and surveillance data among health care providers

- **Conduct a local community forum in collaboration with Project Inform, a community-based organization, that reflects the diversity of community interest groups and those highly affected by HIV, particularly around privacy concerns.**
- **Conducting two focus group with HIV-infected and uninfected patients .**
- **Conduct key informant interviews with HIV care providers.**

Acceptability

- **Benefits potentially outweigh risks in use of surveillance data for care linkage and retention (National Think Tank).**
- **Local jurisdictions need to develop agreements on out of care indicators and procedures, e.g. public health information exchanges, disease intervention specialists, partner services, navigators.**
- **Need for local jurisdictions to engage stakeholders in assessing feasibility and acceptability to protect public trust.**

Examining the Value of Clinic-Based Tracking of HIV-infected Patients Lost to Follow-up

Aim 1 – To assess the acceptability of potential interventions for re-engaging out-of-care patients

- **Track 150 patients who have been lost to follow-up to understand the reasons they are no longer receiving services (e.g., in care elsewhere, truly disengaged from care).**
- **Conduct in-depth qualitative interviews with 30 patients who are out of care to understand barriers and facilitators of care.**
- **Focus on assessing the acceptability of potential strategies to help re-engage and retain these respondents in care.**

Out-of-Care Perspectives: Preliminary Results

- **In-depth interviews with 10 hospitalized patients with no HIV primary care for at least 6 months**
- **Significant themes for participants**
 - Did not necessarily view themselves as “out of care”
 - Were unaware of provider-defined parameters for being “in care”
 - Often valued aspects of care without attending appointments
 - Some did not make conscious decisions to disengage from care, but rather, had competing priorities leading to missed visits
 - The few who did make conscious decisions to disengage did so for quality of life reasons, e.g., being off antiretroviral therapy

Aim 2 – To match patients lost to follow-up with surveillance records to determine the proportion that show evidence of receiving care elsewhere

- **Identify SF General Hospital HIV patients lost to follow-up but successfully tracked and enrolled in survey.**
 - Participants in survey will be asked to consent to their names being shared with the SF-DPH.
- **Determine if SF-DPH HIV/AIDS case registry contains evidence of patients having received care elsewhere in the city (e.g., viral load or CD4 testing).**
 - A list of participants who gave consent will be provided to the SF-DPH.
 - SF-DPH surveillance staff will conduct a match with the HIV/AIDS case registry.

Tracking and Surveillance

- **The findings from the tracking and surveillance aim will allow us:**
 - To examine the degree to which surveillance records can supplement clinic based efforts to determine patients' engagement-in-care outcomes.
 - To identify which tracking efforts/elements were most beneficial.

Aim 3 – To identify potential interventions to enhance re-engagement and retention in HIV care among at-risk patients

- **Convene a consensus development panel with representatives of the three partnering institutions to review findings.**
- **Identify behavioral interventions that could enhance retention and re-engagement in care among at risk patient populations in San Francisco that utilize the SFGH/PHP for HIV care.**

Summary

- **The three supplements from NIH have enabled a stronger partnership between the clinical, prevention and policy researchers at UCSF and the local Department of Public Health.**
- **A number of specific research questions are being addressed that would not otherwise be part of the ECHPP implementation or evaluation.**
- **Questions about most effective and cost effective interventions for detection, linkage and retention remain.**