NORTHWEST AIDS EDUCATION AND TRAINING CENTER

Linkage to Care

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Case Study

- 42 year-old man from sub-Saharan Africa, immigrated in 2011
- Hospitalized with community-acquired pneumonia
- HIV EIA+, WB+, CD4 160, VL >1 million
- Discharged with prescription for TMP-SMX and HIV Clinic appointment
- No-show for HIV clinic
- Called by public health partner services 2.5 months after diagnosis
- Counseled about care and medication assistance programs, timeline for HIV care, contemporary ART
- Completed appointment with case manager and HIV medical provider 3 days later
- HIV provider reviewed process of ART initiation and expected timeline of HIV care with the patient, arranged for expeditious ART start
- Patient has followed-up as scheduled with all appointments to date.

The Importance of Linkage to Care

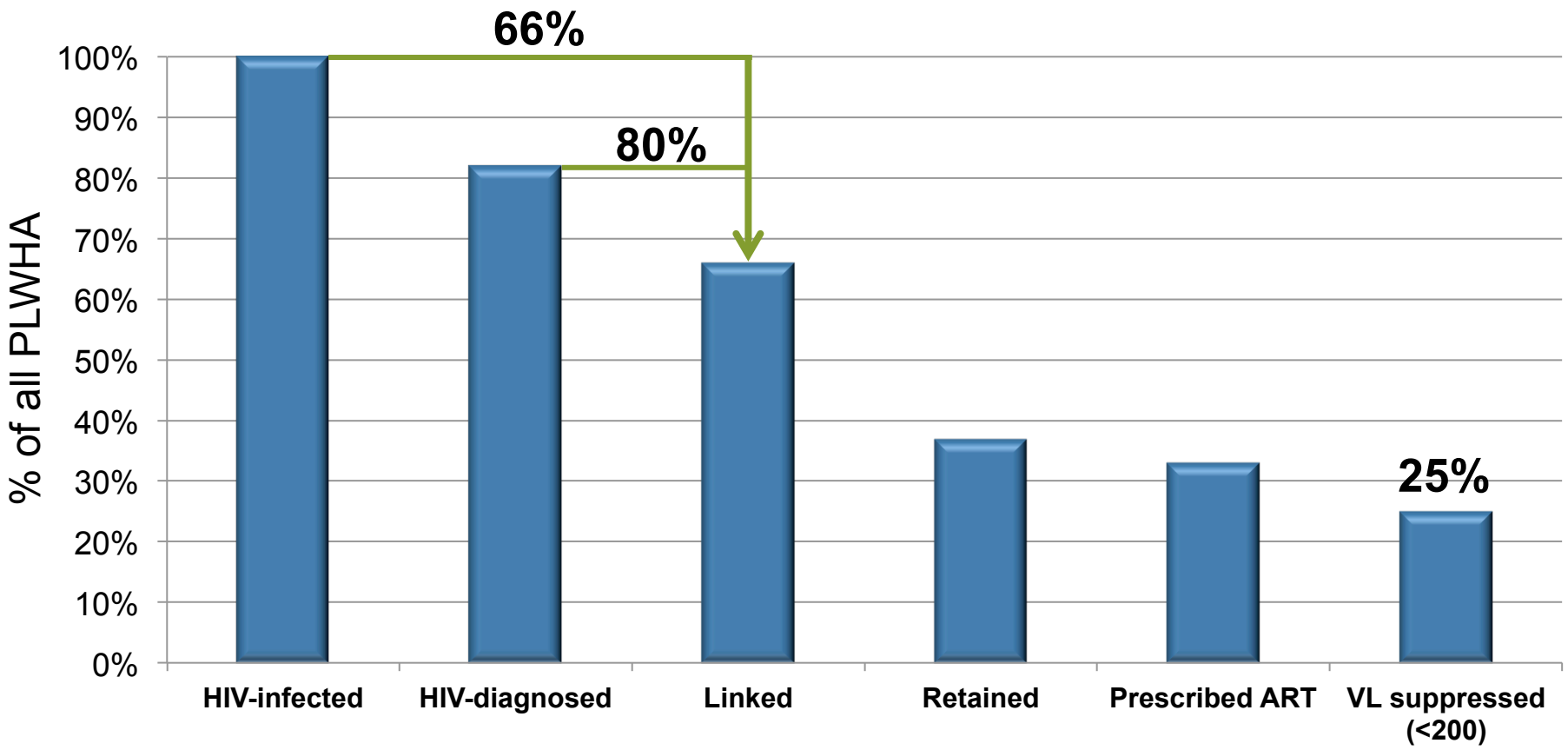
- Crucial for successful HIV treatment
- Delayed linkage impacts medical outcomes and HIV transmission
  - Longer time to virologic suppression
  - Increased risk of hospitalization and death
  - Increased HIV transmission risk
- Linkage experience lays the groundwork for future retention in care

Linkage to Care: Definition & Target

- Linkage = initiation of HIV care
- Standard metric: completed visit with an HIV medical provider ≤ 90 days after HIV diagnosis
  - HRSA HIV/AIDS Bureau
  - Centers for Disease Control
  - Institute of Medicine
- U.S. National HIV/AIDS Strategy goal
  - 85% linkage within 3 months

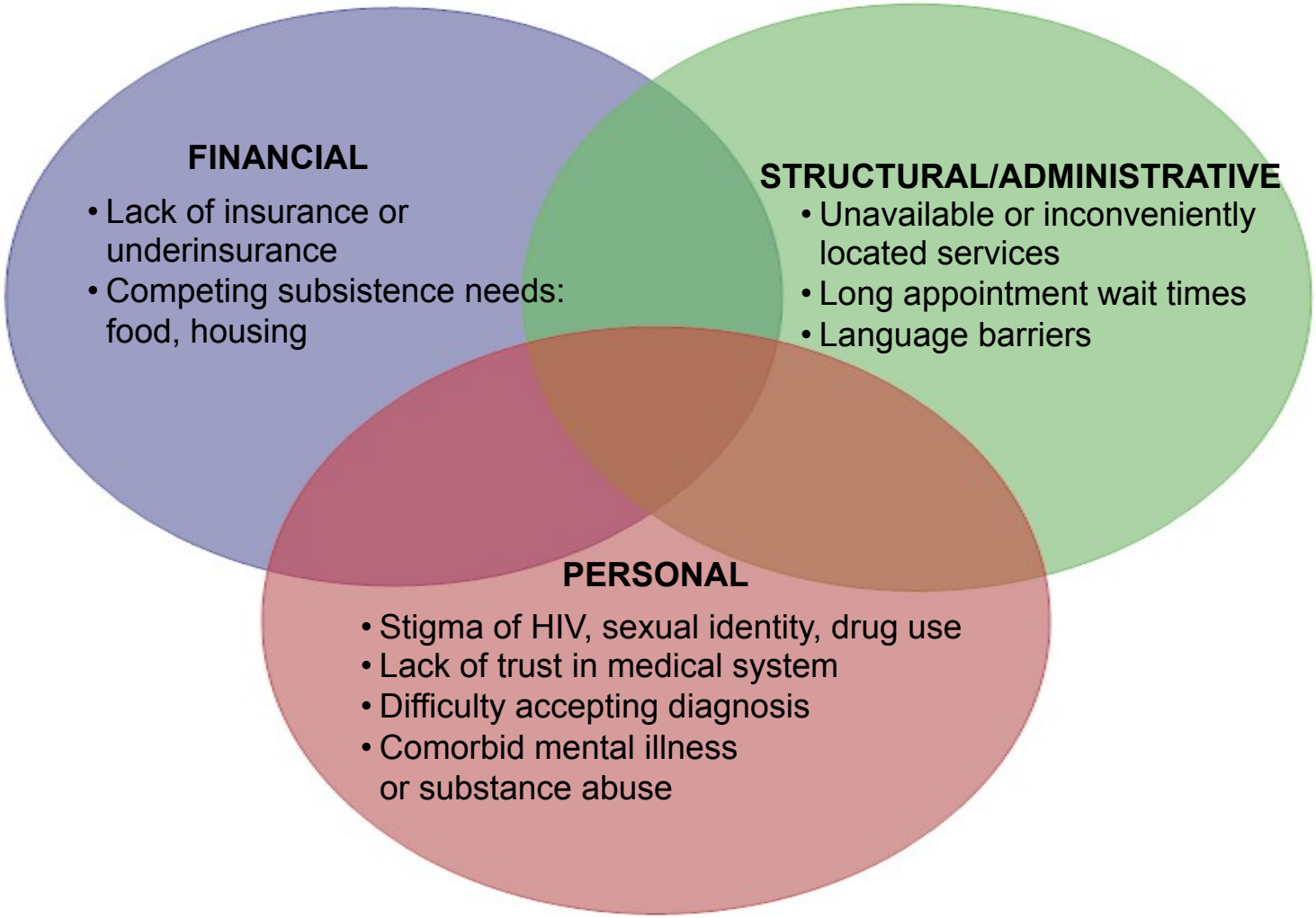
Failure to Link is Common

HIV Care Cascade in the U.S., 2009 (N=1,148,200)



Source: Hall HI, et al. JAMA Intern Med. 2013:17:1-7.

Barriers



Sources: Beer L, et al. AIDS Pat Care STDs; 26:214-21 Christopoulos KA, et al. AIDS Pat Care and STDs; 27: 223-9; Cunningham WE, et al. Med Care. 1999; 37:1270-81 Rumptz MH, et al. AIDS PatCare STDs. 2007; 21S:S30-9.

Risk Factors for Failure to Link

Consistent across studies	Possible risk factors – inconsistent findings
African-American race	Gender
Residence in high-poverty area	Age
Lack of insurance or public insurance (vs. private insurance)	Higher CD4 count
Lack of primary care prior to HIV diagnosis	Birthplace outside of the U.S.
Substance use, h/o injection drug use	Latino ethnicity
Among crack users: Not being helped into care	Depression
Longer wait time for first appointment	

Key Sources: Bell C, et al. JAIDS. 2010; 54:376-80; Giordano TP, et al. AIDS Care. 2005;17-773-83; Torian LV, et al. Arch Intern Med. 2008; 168:1181-7; Tripath iA, et al. AIDS Care. 2011;23:1366-1373; Ulett K, et al. AIDS Pt Care and STDs. 2009.

Does the Reason for HIV Testing or Diagnosis Setting Affect Linkage?

Lower % linked

Higher % linked

South Carolina	New York City	Philadelphia	18 state sample
County health departments	Community testing site	Private clinic	Anonymous test
Private medical practice	Correctional system	Public clinic	Confidential test
State facility	STD clinic	Hospital	
Hospital	Site with co-located HIV care		

Sources: Bamford LP, et al. AIDS. 2010; 24: 928-30; Reed JB, et al. AIDS Pat Care STDs. 2009;23:765-773; Torian LV, et al. Arch Intern Med. 2008; 168:1181-7; Tripath iA, et al. AIDS Care. 2011;23:1366-1373.

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Strategies to Improve Linkage

Annals of Internal Medicine | Clinical Guideline

Guidelines for Improving Entry Into and Retention in Care and Antiretroviral Adherence for Persons With HIV: Evidence-Based Recommendations From an International Association of Physicians in AIDS Care Panel

- Systematic **monitoring** of successful entry into HIV care is recommended for all individuals diagnosed with HIV (II A)
- Brief, **strengths-based case management** for individuals with a new HIV diagnosis is recommended (II B)
- Use of peer or paraprofessional **patient navigators** may be considered (III C)
- Intensive **outreach** for individuals not engaged in care within 6 months of a new HIV diagnosis may be considered (III C)

Monitoring

- Shared responsibility of testing site, HIV clinic, public health
- Roles and accountability should be established locally
  - Requires data sharing to be effective
- Clinics and providers can monitor and improve no-show rates for new patients
- In clinic, no-shows for new patients should trigger an intervention
  - Intensity will depend on clinic resources
  - Notification of missed appointment & reschedule to more intense outreach

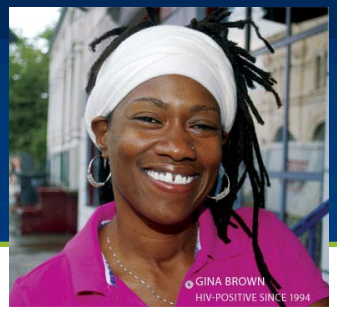
Case Management

- Helps clients navigate complex medical care systems
- Provision of or linkage to counseling and psychological support
- HIV education
- Strongest evidence for “strengths-based” approach

ARTAS

- Antiretroviral Treatment Access Study
- Trained social workers delivered the intervention
  - Identify internal strengths and assets to facilitate linkage
  - Identify and address client needs
  - Encourage contact with an HIV medical care provider
  - Accompany to medical and other appointments
- RCT in 11 U.S. Cities
  - Up to 5 sessions in 90 day period
  - Mean of 2 contacts until linkage achieved
  - 78% linkage in 6 months vs. 60% in controls
- Now being implemented throughout U.S.
- Limitation: relatively resource intense

Source: Gardner LI, et al. AIDS. 2005; 19:423-31.



Peer Navigation

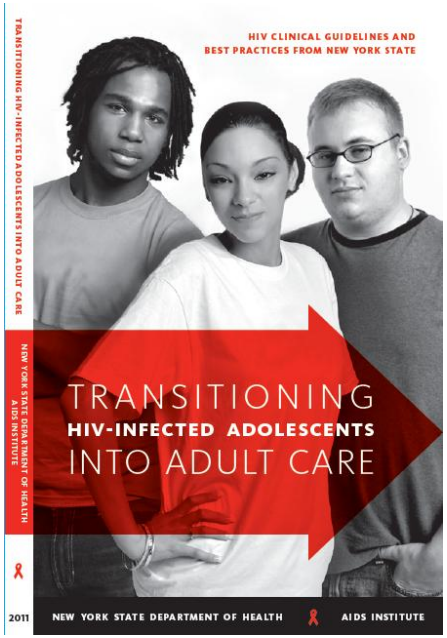
- Model of care coordination adapted from oncology setting
- Trained peers help navigate healthcare systems
- Limited evidence for effect
  - No controlled studies for linkage to care
  - In related interventions for HIV+ persons
    - ↑knowledge but no effect on biomarkers
- HRSA SPNS initiative suggested effectiveness

Sources: Simoni JM, et al. AIDS Behav. 2011; 15:1589-95; Bradford JB, et al. AIDS Pat Care STDs. 2007;21:S49-58.

Images of peer navigators from Berry J. "Guiding Lights", Positively Aware, 2012

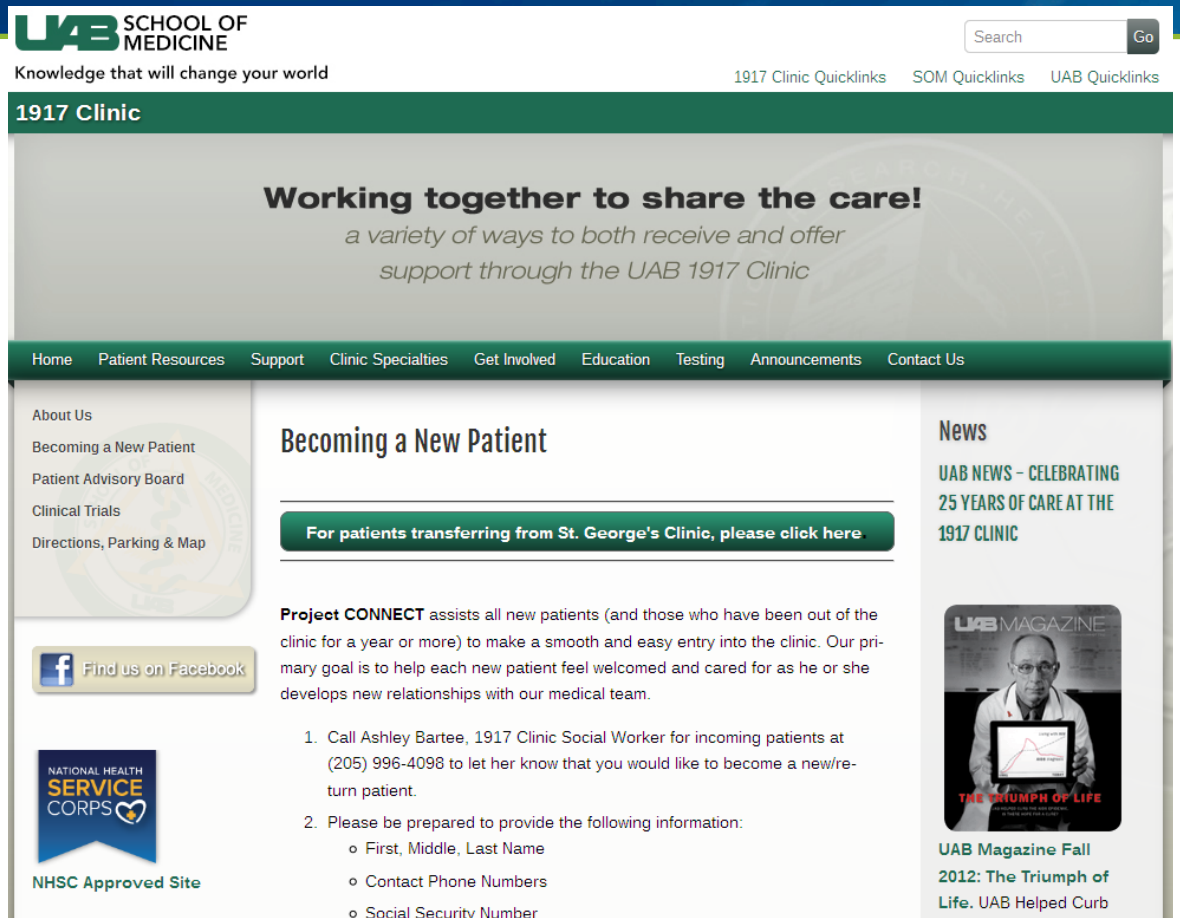
HIV Care Orientation

- Orientation to timeline of HIV care & the clinic
  - Impact of orientation (or lack thereof) was a prominent theme in qualitative interviews with patients in and out of care
  - Increases patient comfort and satisfaction with care
  - Discourse of HIV as a chronic disease
  - Familiarize patients with
    - Expected frequency of visits and changes over time
    - Expected timeline for return to physical & emotional health
    - Administrative aspects of care – routine and urgent care appointments, procedure for blood draws



Sources: Christopoulos KA, et al. AIDS Pat Care and STDs; 27: 223-9
HIV Clinical Resource Guidelines for Transitioning HIV-Infected Adolescents into Care

Orientation Example: Project CONNECT



- Within 5 days of calling to schedule first appointment
  - Questionnaire
  - Baseline lab testing
  - Social worker
  - Prophylactic meds
  - Mental health and substance abuse referrals
- Clinic no show rate 31% -> 16%
- Cost of $200 per patient, $1628 per additional patient linked to care

Sources: Mugavero MJ, et al. Top HIV Med. 2008; 16:156-61;
UAB website: http://www.uab.edu/medicine/1917clinic/becoming-a-new-patient

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Intensive Outreach for Non-Linked Persons

- Interventions not well-defined
- Observational studies, typically focused on specific vulnerable populations
- Many U.S. health departments are implementing outreach programs
  - Based on surveillance data
    - CD4 and viral load results reported to health departments
  - Investigation of cases with no results after diagnosis
  - Outreach to assist with linkage

Public Health Partner Services (PS)

- Goals of partner services include
  - Assisting with linkage to care
  - Ensuring linkage to care
  - Assisting with partner notification and testing
- Varies by jurisdiction
  - AK, OR & WA: all new cases contacted & assisted with linkage to care
  - ID: all new cases investigated & referred to RW case management
  - MT: linkage separate from PS
    - Funded testing sites are required to follow through linkage to care

Summary & Conclusions

- Linkage to care is a shared responsibility of diagnosing site, HIV clinic and public health
- Linkage success = first visit within 3 months
- ~1 in 5 do not successfully link to care
- Partner with testing sites and public health to implement/ improve linkage programs
- Case management, active linkage assistance, and follow-up to ensure linkage are crucial
- Provider and clinic role:
  - Intervention for no-show new patient appointments
  - Orient new patients to timeline of HIV care and clinic

Thank you

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