9th International Conference on HIV TREATMENT AND PREVENTION ADHERENCE

Bridging the Gaps: The Use of Health Information Technology and Bridge Counseling to Improve Retention in Care in North Carolina

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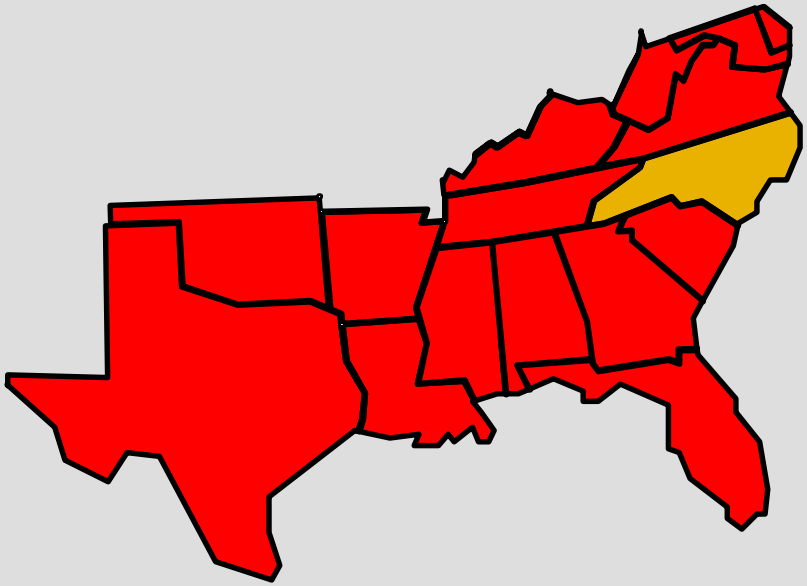
Disclosures

Jennifer Keller has no real or apparent conflict of interest as related to the content of this activity

The Southern HIV Epidemic



PLWH have worse health outcomes and start ARV therapy later than other regions of the US

In 2011, nearly 50% of HIV diagnoses were in the South, which accounts for only 37% of US population

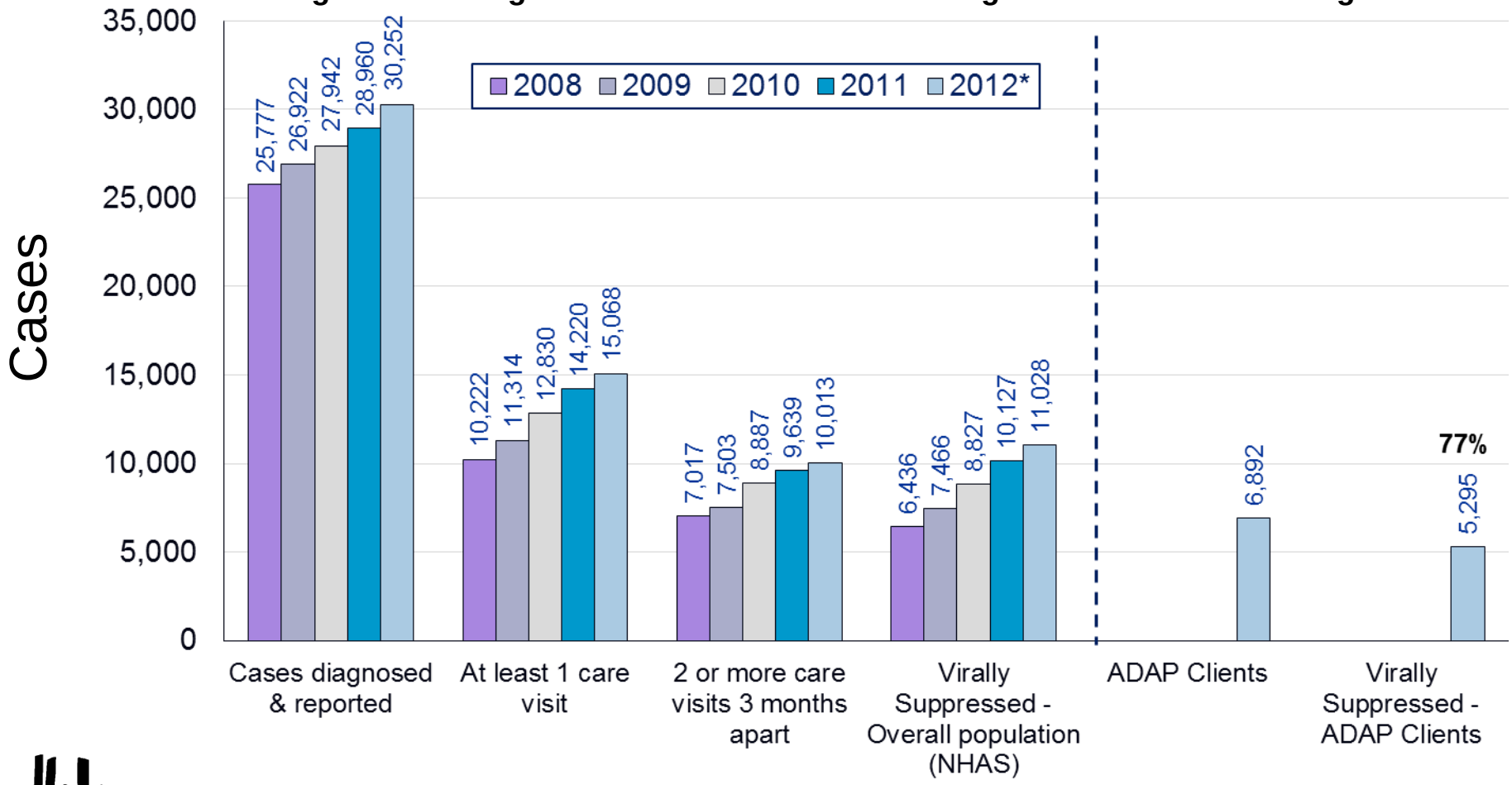
North Carolina:
8th highest HIV-related mortality in 2010
10th in the U.S. for estimated number of PLWH
8th for new HIV diagnoses in 2011

Meditz AL, et al. J Infect Dis. 2011 Feb 15;203(4):442-51.
Centers for Disease Control and Prevention. HIV Surveillance Report 2011, Vol. 23. 2013
US Census Bureau. Annual estimates of the resident population for the United States, regions, states, and Puerto Rico. 2011
Kaiser Family Foundation. State health facts, HIV/AIDS.
CDC. HIV Surveillance Report 2011, Vol. 23; February 2013.

NC Engagement of PLWH Mirrors National Engagement Data Trends

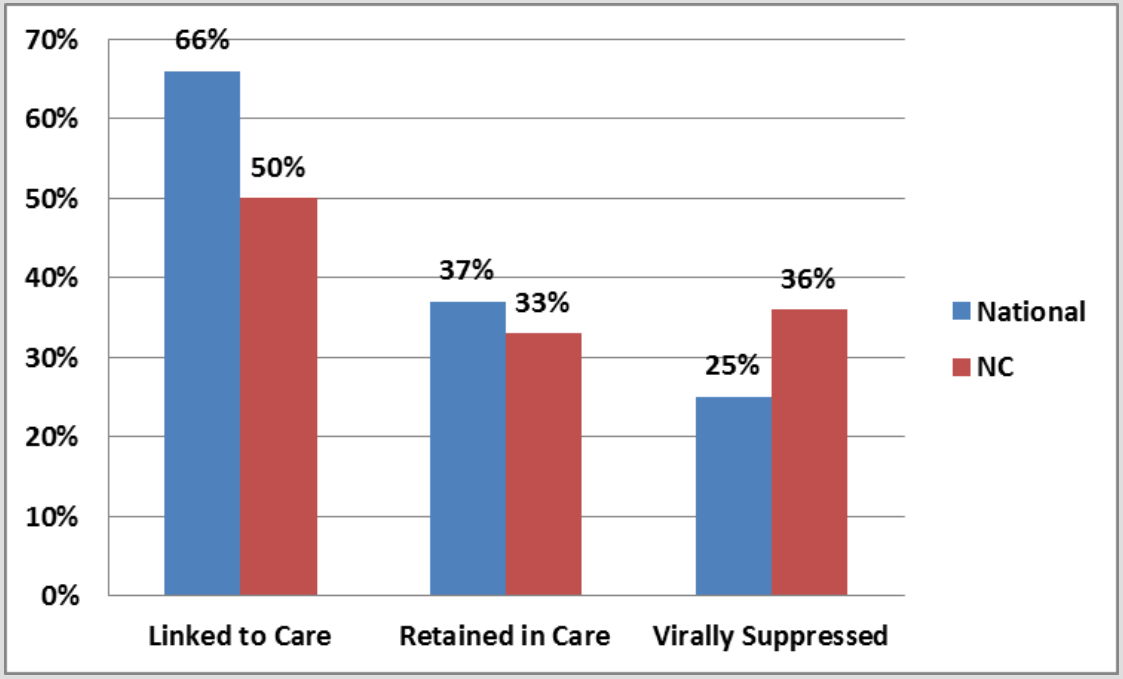
NC HIV Cascade, Population in Care

Diagnosed through 12/31 of Given Year and Living as of 12/31 of Following Year



NOTE: Labs used as proxy for care visits. Limitation to lab data used in analysis. Mandatory reporting did not go into effect until June 2013 and still is not fully implemented.
DATA SOURCES: NCEDSS (data as of 4/1/2014), and ADAP (data as of 12/26/2013).
ADAP= AIDS Drug Assistance Program.
*2012 data are overestimates due to reporting delays for death information.

National Cascade vs. North Carolina (2012 data)



Comparison Assumptions:

NC Linked to Care Definition: At least 1 lab value (CD4 or Viral Load)

NC Retained in Care Definition: 2 or more lab values (CD4 or Viral Load) 90 days apart

Centers for Disease Control. Fact Sheet: HIV in the United States: The Stages of Care: July 2012. Centers for Disease Control; 2012.

NC DATA NOTE: Labs used as proxy for care visits. Limitation to lab data used in analysis. Mandatory reporting did not go into effect until June 2013 and still is not fully implemented.
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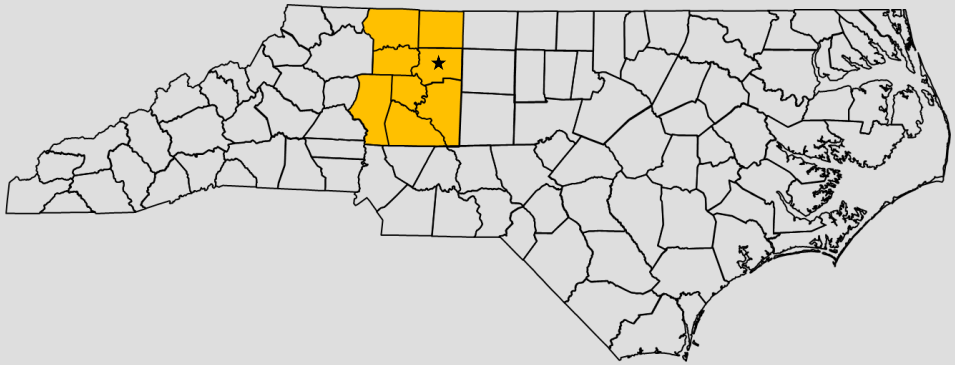
Regional HIV Care

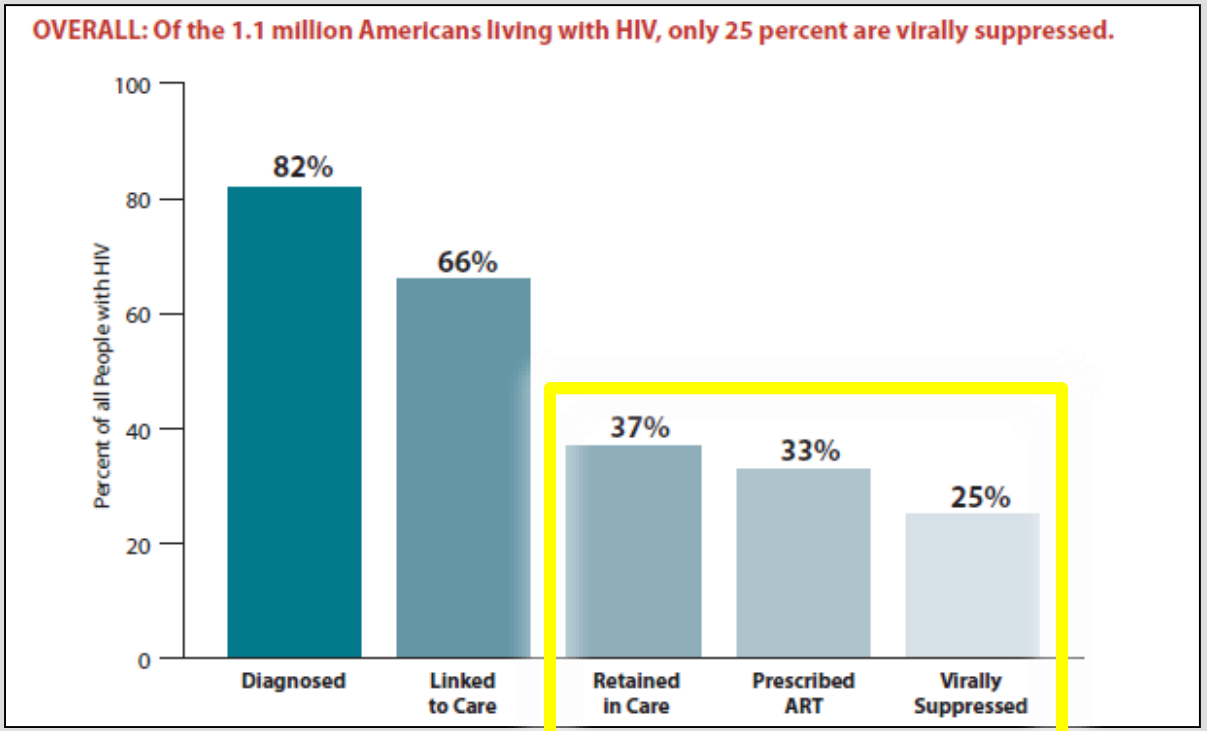


- Ryan White funded university-based clinic in Winston-Salem, NC
- Provided medical care for approx. 2,000 HIV patients in 2013
- Onsite HIV medical care, laboratory, psychology, nutrition, dental, patient navigation, social work, transportation and medication assistance, and subcontracted community-based medical case management

Bridging the Gaps

- NC LINK: Four year HRSA SPNS Systems Linkage initiative
- Primary Goal: Increase the number of people living with HIV engaged in consistent care through the creation of a system of linkages between HIV testing and HIV care providers.
- At Wake Forest, a Bridge Counseling (BC) intervention was implemented in June 2012 through participation as a demonstration site for NC LINK

Bridge Counseling 101



- BC Definition: Outreach program composed of strategic activities to reengage out of care PLWH
- WF Out of care definition: No HIV medical visit ≥ **9** months

Centers for Disease Control. Fact Sheet: HIV in the United States: The Stages of Care: July 2012. Centers for Disease Control; 2012.

Bridge Counseling 101

- Clinic Patient Navigators and community-based medical case managers assigned additional role of "Regional Bridge Counselors" (RBC)
- BC Activities include:
  - EMR/CAREWare searches
  - Phone calls and letters
  - Internet searches
  - Contacting outside providers/pharmacies

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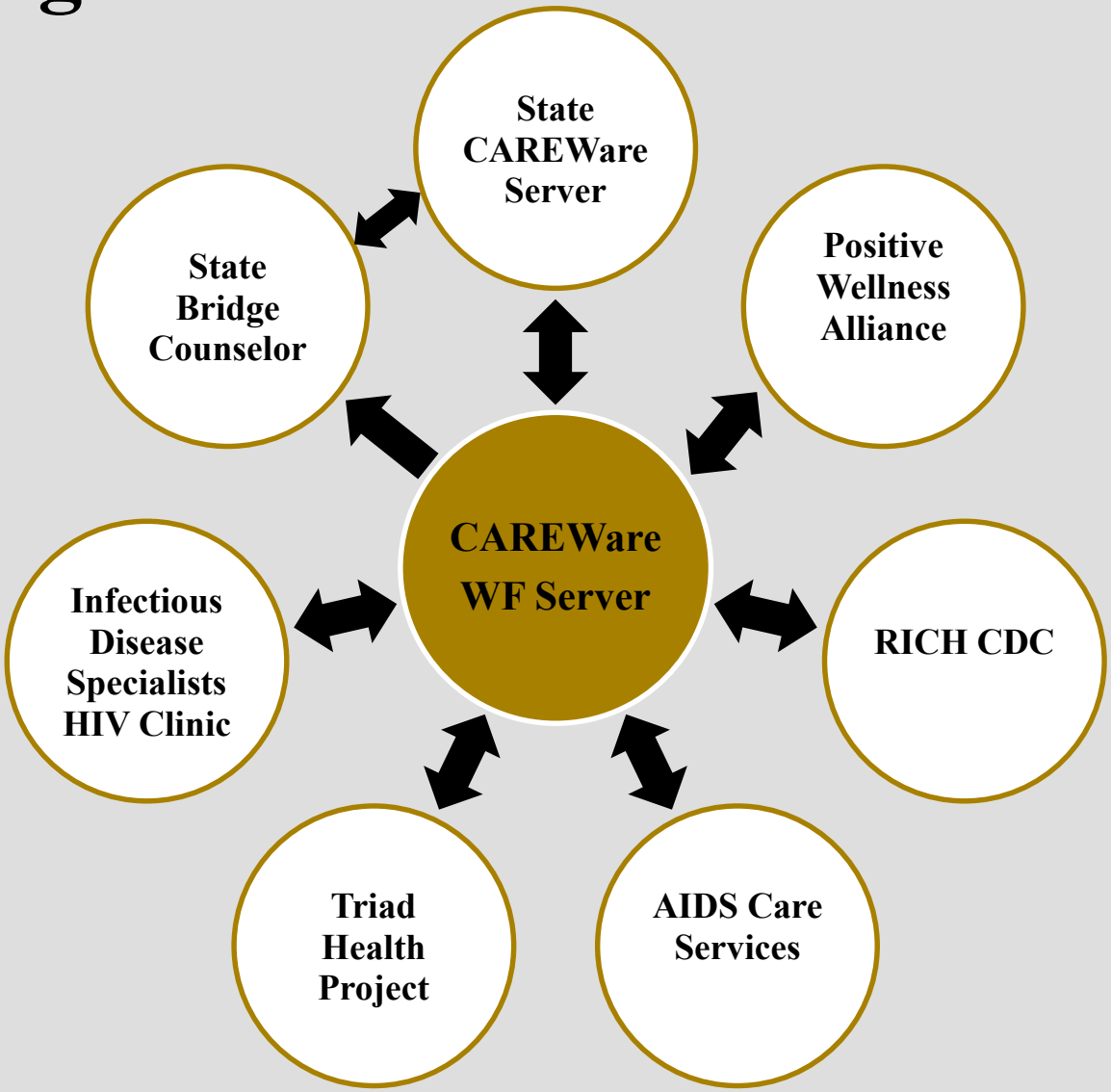
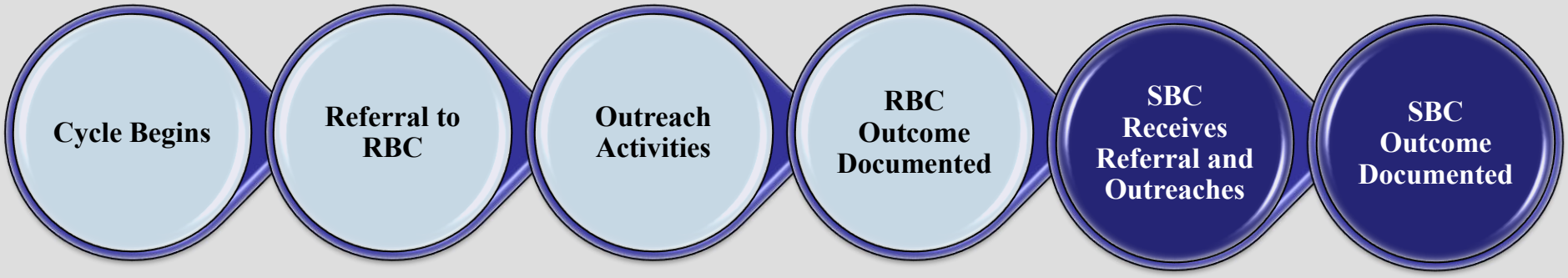
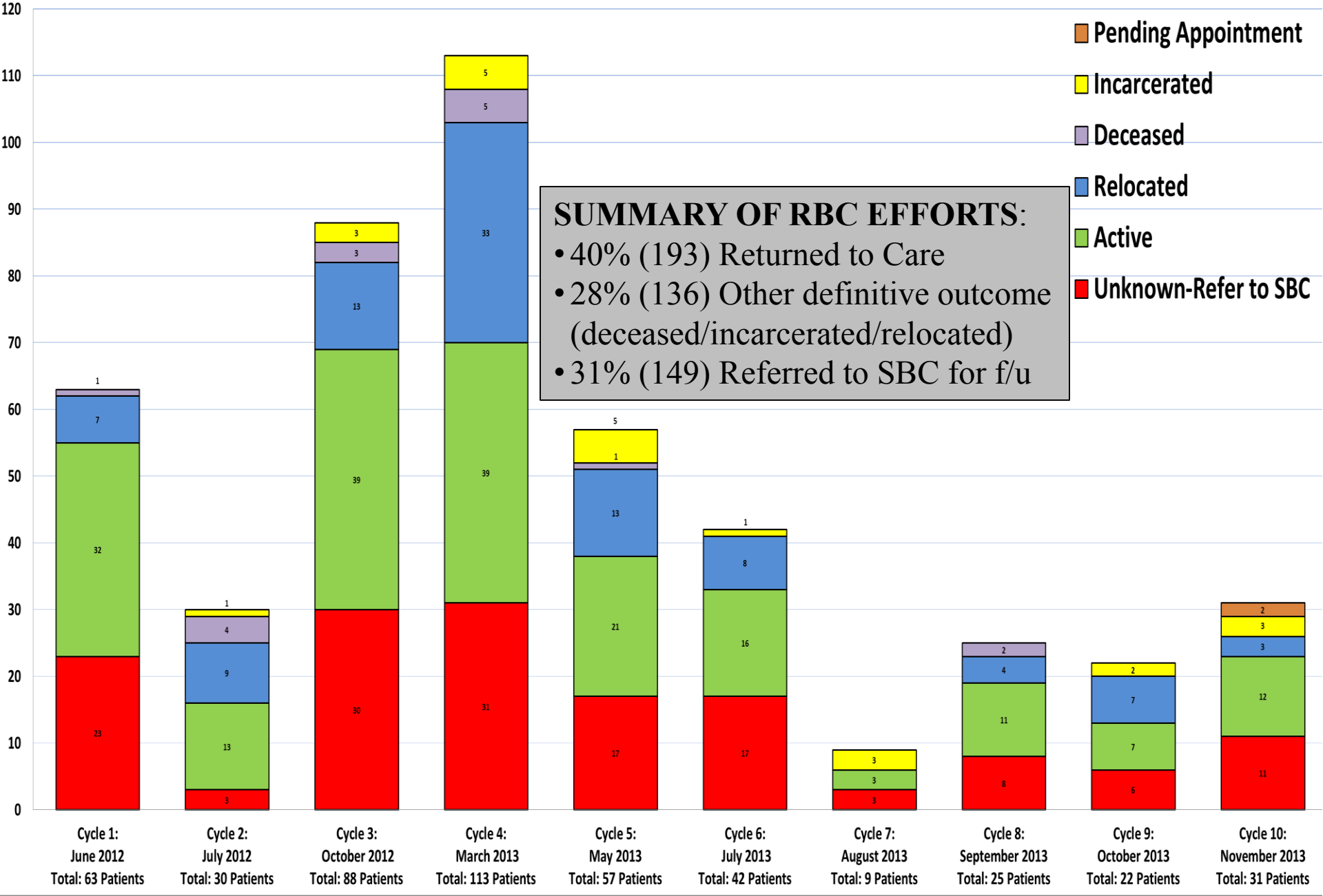
Regional CAREWare Network

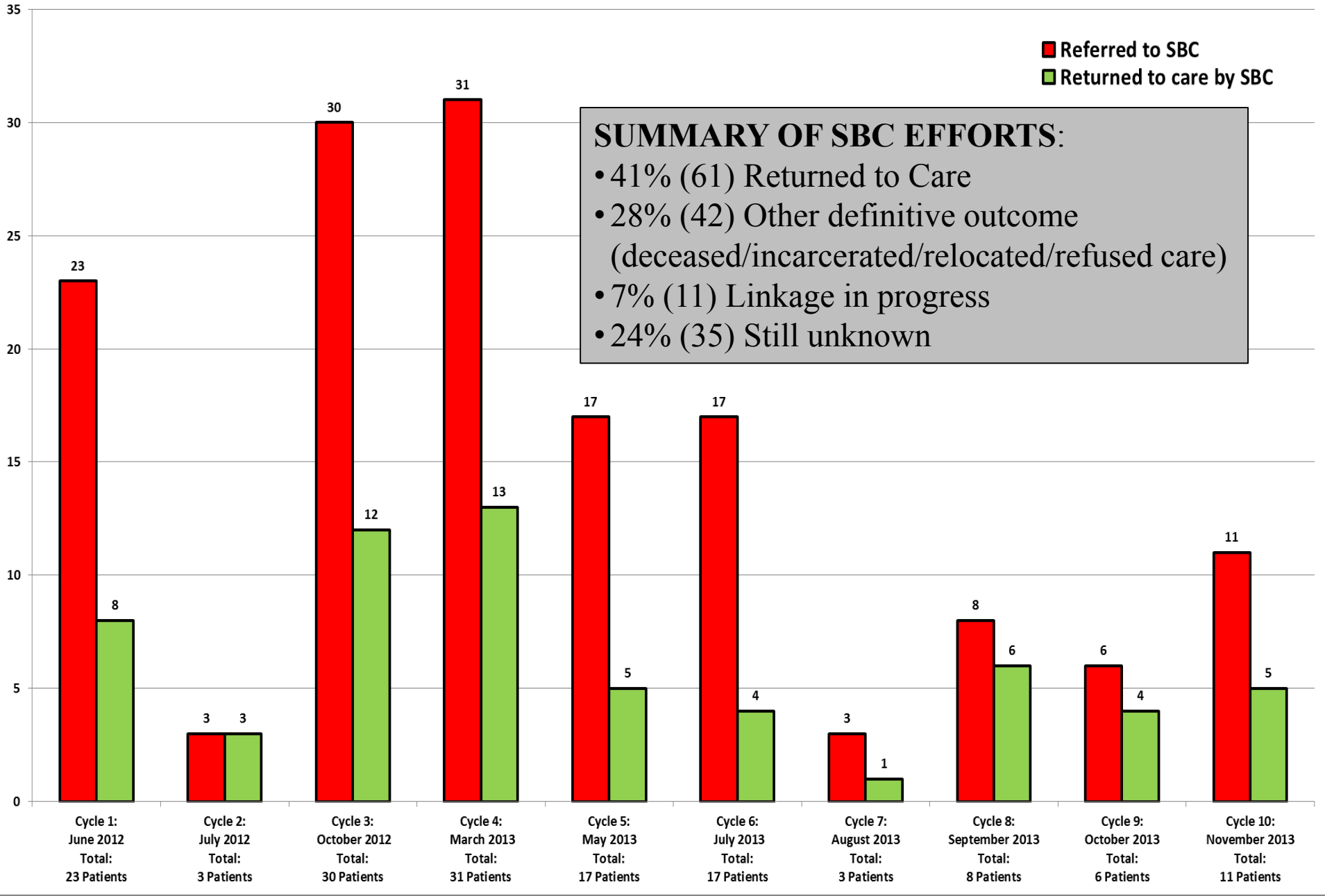



Cycle Begins
Referral to RBC
Outreach Activities
RBC Outcome Documented
SBC Receives Referral and Outreaches
SBC Outcome Documented

Regional Bridge Counseling: Effective for Reengagement in Care



State Bridge Counseling Relinks Hard to Reach PLWH to Care



RBC+SBC=Successful partnership

- Through the combined efforts of the regional and state bridge counselors:
  - **53% (254)** returned to care
  - **36% (175)** found to be relocated/deceased/incarcerated
  - Only **7% (35)** are still unable to be located

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Bridge Counseling Improved Retention Measures at Wake Forest

Retention Measure	Baseline (Pre-Intervention) As of 4/30/12	Data As of 11/30/13	p-value
In+care measure 2: Medical Visit Frequency *One visit every 6 months for a 24 month period*	**57.06%**	**69.18%**	**p<0.0001**
In+care measure 3: Medical Visits for Newly Enrolled Clients *1 visit every 4 months in the first 12 months of care*	51.28%	62.86%	ns
In+care Measure 4: Viral Load Suppression *Last viral load in 12 month period <200 c/mL*	76.29%	77.97%	ns

NATIONAL QUALITY CENTER *Improving HIV Care.*

in +care

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Demographic Profile: General Clinic Population Patients Compared to the Bridge Counseling Population

Demographic Category	General Clinic Population (N=1,945)		BC Population (N=438*)		p-value
Race					
African American	**1217**	**62.6%**	**311**	**71.0%**	**p<0.0009**
Hispanic/Latino	**125**	**6.4%**	**8**	**1.8%**	**p<0.0001**
White	557	28.6%	115	26.3%	ns
Gender					
Male	1253	64.4%	284	64.8%	ns
Female	669	34.4%	149	34.0%	ns
Transgender	23	1.2%	5	1.1%	ns
Age					
17-24	123	6.3%	23	5.3%	ns
25-34	**261**	**13.4%**	**96**	**21.9%**	**p<0.0001**
35-44	458	23.6%	109	24.9%	ns
45-54	689	35.4%	143	32.7%	ns
55+	**414**	**21.3%**	**67**	**15.3%**	**p=0.0046**
Risk Factor					
MSM	786	40.4%	183	41.8%	ns
Heterosexual	910	46.8%	216	49.3%	ns
Special Populations					
Young MSM (17-24)	47	2.4%	17	3.9%	ns
African American Men	**726**	**37.3%**	**190**	**43.4%**	**p=0.0195**
African American Women	491	25.2%	117	26.7%	ns
Women of Childbearing Age (17-39)	304	15.6%	82	18.7%	ns
Older Adults (55+)	**414**	**21.3%**	**67**	**15.3%**	**p=0.0046**

*unduplicated patients

Lessons Learned

- Bridge counseling at the clinic and statewide level can be effective in re-engaging out of care patients
- CAREWare was useful to track referrals and document reengagement efforts across multiple sites
- Close collaboration between the RBCs and SBC decreased the number of out of care patients requiring SBC intervention over time
- Staff buy-in was essential as bridge counseling was assigned in addition to daily responsibilities

Future Directions

- Analyze long term retention data for bridge counseling cohort, their clinical outcomes, and unique characteristics of the "repeaters"
- Build a data bridge between clinic EMR (EPIC) and CAREWare
- Standardize proactive outreach for patients with missed appointments

Future Directions

- Develop daily “HIV Priority Access Clinic” to accommodate rapid relinkage and walk in appointments
- Add additional patient navigator to work with new patients to better monitor linkage and retention in the first 6 months of care

Acknowledgements

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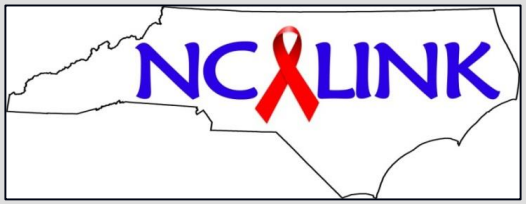

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Center for Health Policy & Inequalities Research AT DUKE UNIVERSITY

Our Patients and their Families
Wake Forest HIV Medical Providers
Wake Forest Patient Navigators
Wake Forest Triage Nurses
Wake Forest Infectious Disease Clinic Staff
Region III Network of Care Medical Case Managers
Kawanna Glenn, NC DHHS State Bridge Counselor
Jennifer Keller, MPH, Kristen Sullivan, PhD, MSW, MBA,
Katherine Schafer, MD, Mary Beth Cox, MPH, Amy Heine, MSN, RN, FNP-BC,
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Questions?

References

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