

Strategies to Improve Engagement in Community HIV Care for People Who are Releasing from Prison

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Retrospective Cohort Study of HIV+ People Receiving a Patient Navigation Intervention after Release from Prison

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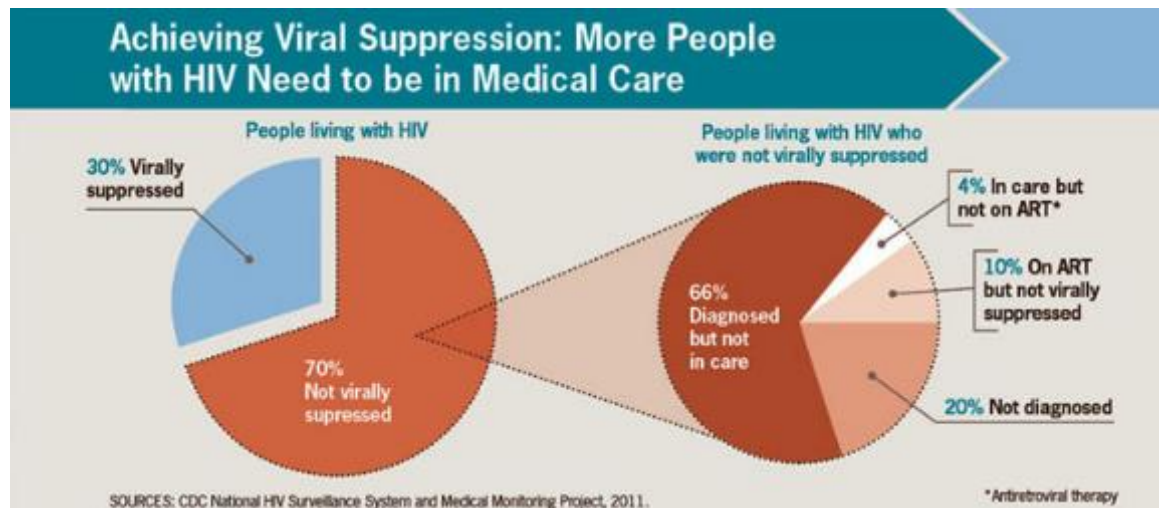
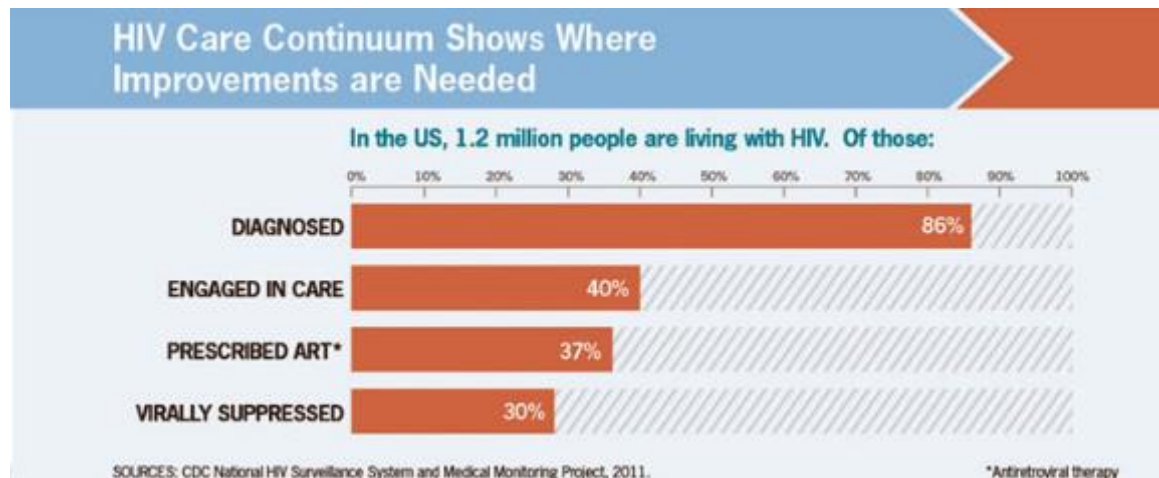
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Disclosures

Nothing to Disclose

Background



Background (cont.)


Systems Linkages and Access to Care Initiative

- HRSA “Special Projects of National Significance”
- Grants to health departments in 6 states
(LA, MA, NY, NC, VA, WI)
- Goal: improve access to and retention in high quality HIV care for hard-to-reach populations who have never been in care, have fallen out of care, or are at risk for falling out of care



Wisconsin's Strategy

- Linkage to Care Specialist (LTCS)
 - Patient navigator
 - Intensive case management and care coordination services
 - 5 patient populations: newly diagnosed, new to care, out of care, post-incarceration, at-risk of falling out of care
- Goals of LTCS program:
 - increase overall levels of client engagement in medical care, including both timely linkage and retention
 - increase the number of people living with HIV/AIDS in Wisconsin who are virally suppressed



Client Quote: “[My LTCS gave me] information about setting up appointments with the hospital or maybe even with a case manager. That made me feel, like, more confident, like I can get through this a little bit more.”



Wisconsin's Strategy

- Standardized process to identify & address barriers to HIV care
 - Intake
 - Assessment
 - Service plan development
 - Service plan implementation
 - Transition plan development
 - Discharge
- Time limited (9 months)
- Coordinated at the state (DHS) level
- Started 6/1/2013

Client Quote: *"[I] needed somebody that could take care of, you know, the medical part. Like when I got out, I didn't have my medical insurance or anything; so the Linkage to Care Specialist, you know, they're dealing with the doctors, they're making sure that I get my medications...so initially that was what the central focus was for my getting the Linkage to Care Specialist."*

Background (cont.)

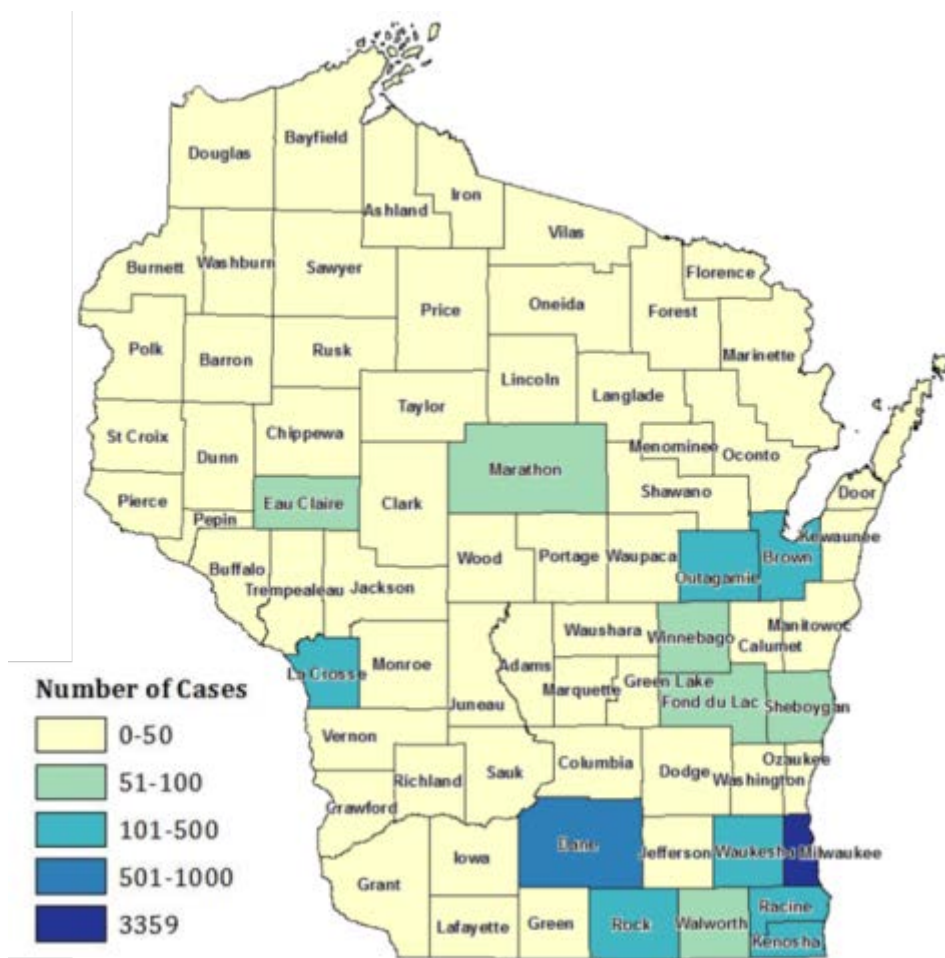
- Prior research has shown that while many patients successfully receive antiretroviral therapy (ART) while incarcerated in U.S. prisons, lapses in treatment and virologic failure are common after patients are released to the community.
- Patient navigation, or community-based intensive case management, has been implemented in many settings to improve utilization of complex health care and reduce health disparities.

Setting

Wisconsin: Estimated 2014 population of 5.7 million and an HIV prevalence of 1.4 per 1,000 residents.

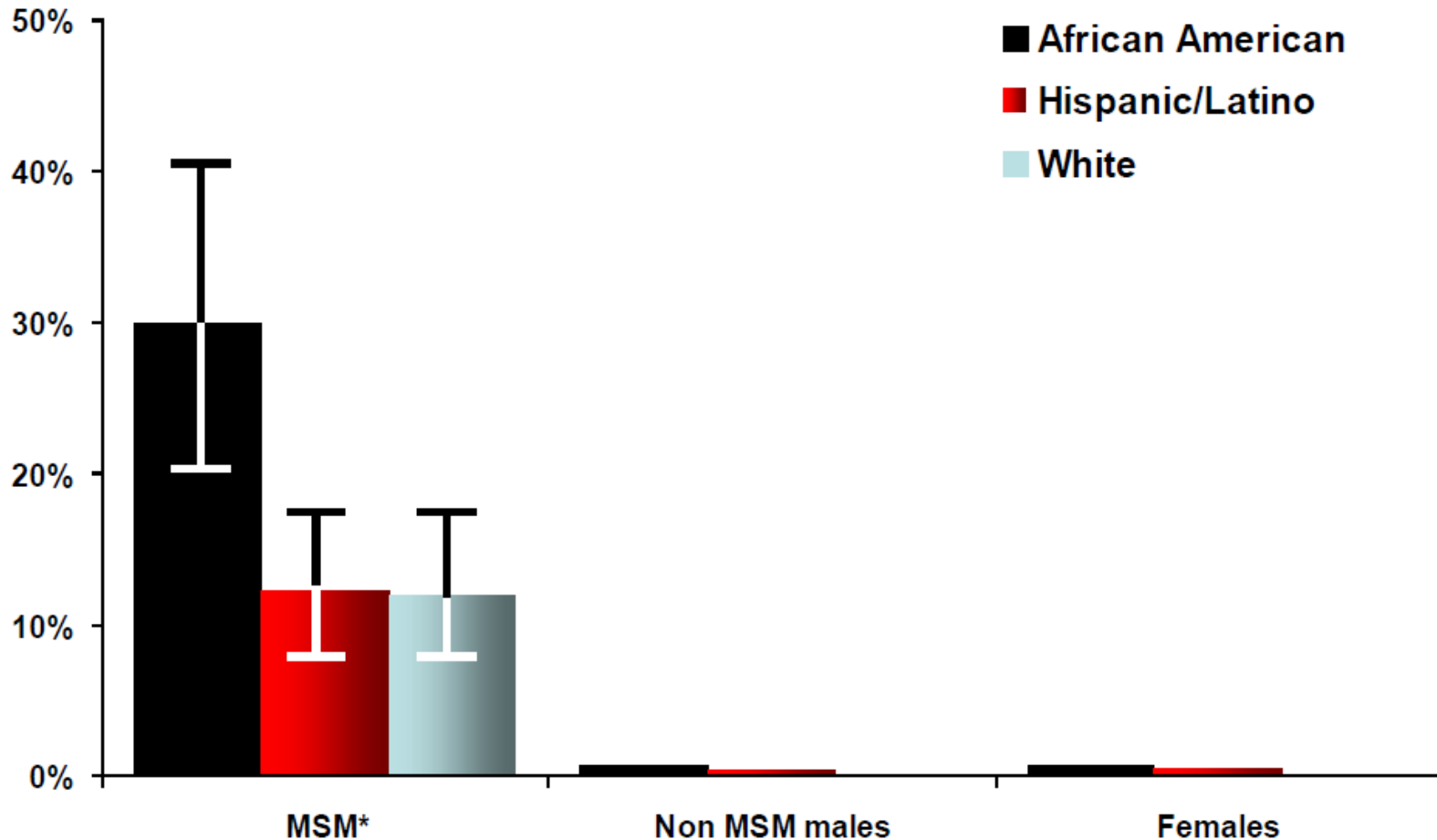
Milwaukee County: Accounts for 17% of population, but ½ of all cases

Wisconsin also has severe racial disparities in HIV and incarceration



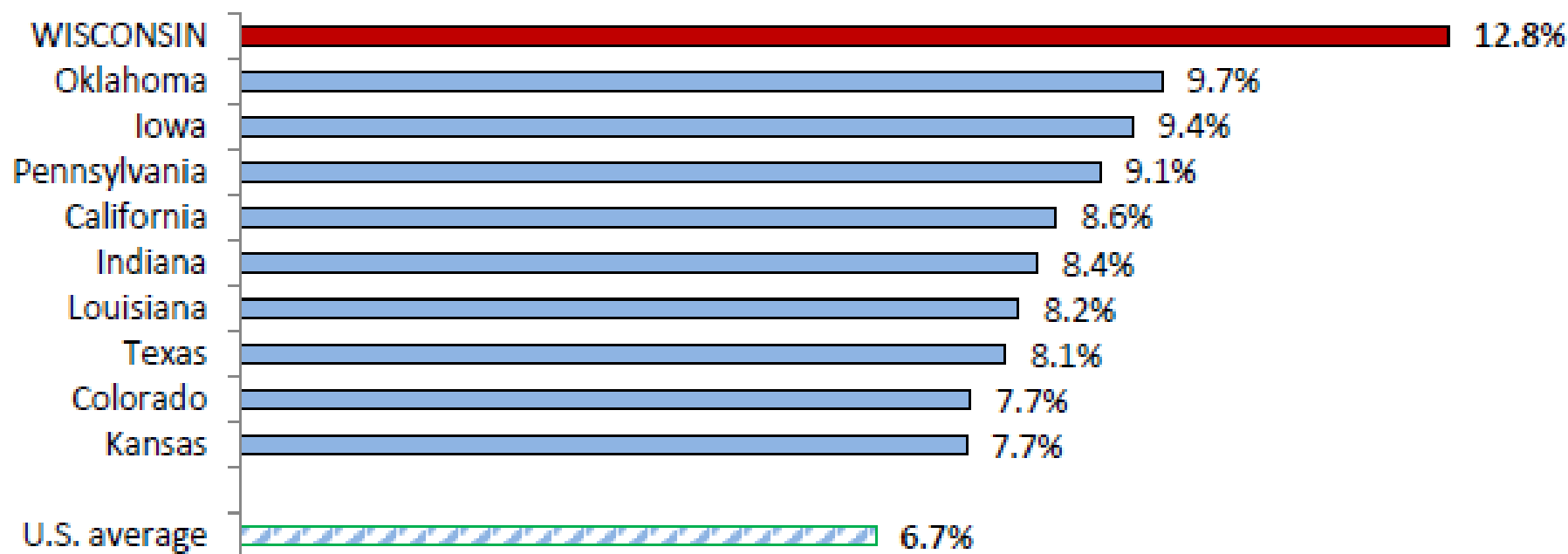
Racial Disparities in HIV Prevalence

Estimated HIV Prevalence, Milwaukee County, 2009



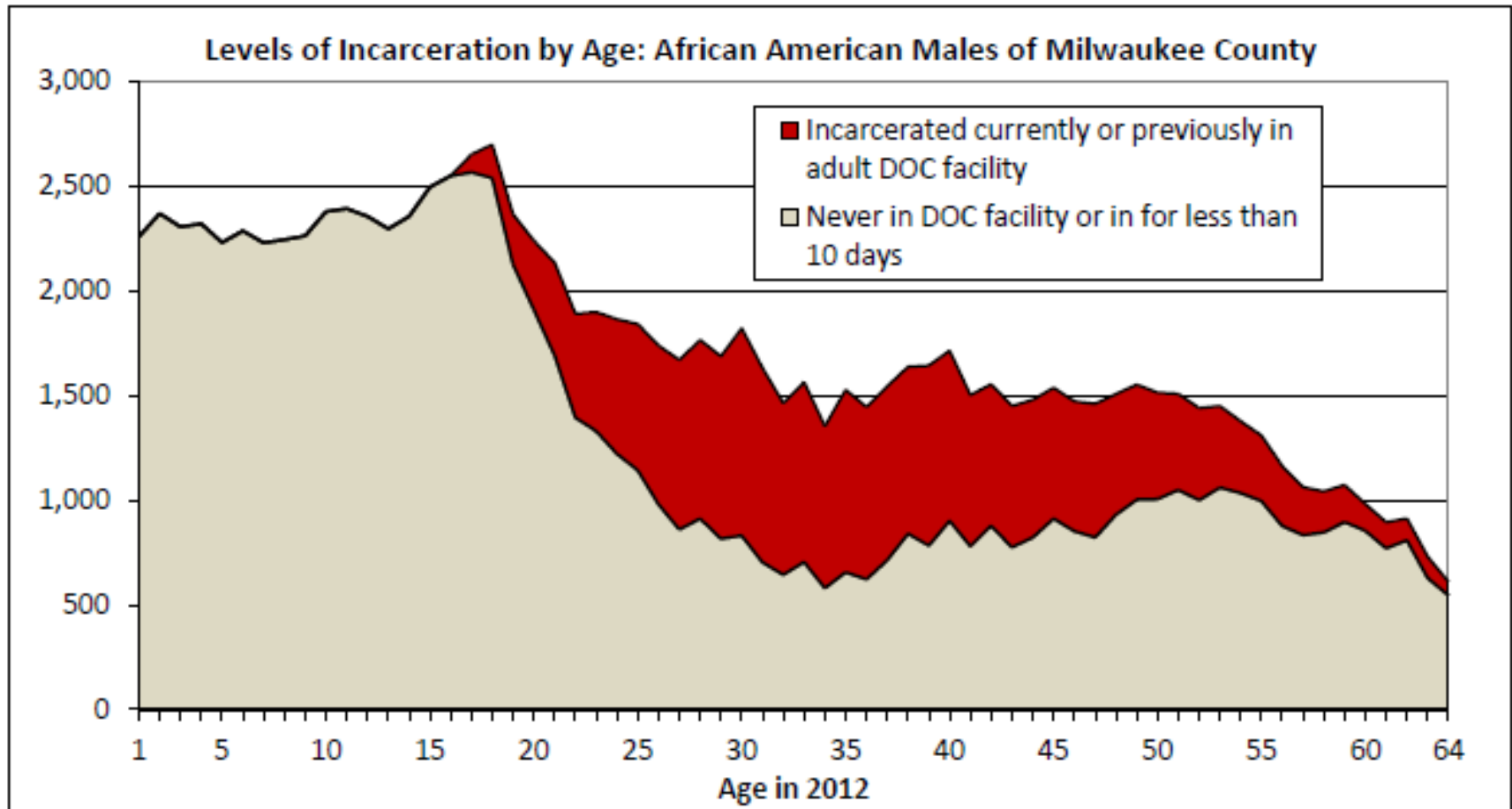
Racial Disparities in Incarceration

Ten Worst States for Incarceration of African American Men
(2010 U.S. Decennial Census)



Pawasarat & Quinn: Wisconsin's Mass Incarceration of African American Males: Workforce Challenges of 2013

Racial Disparities in Incarceration



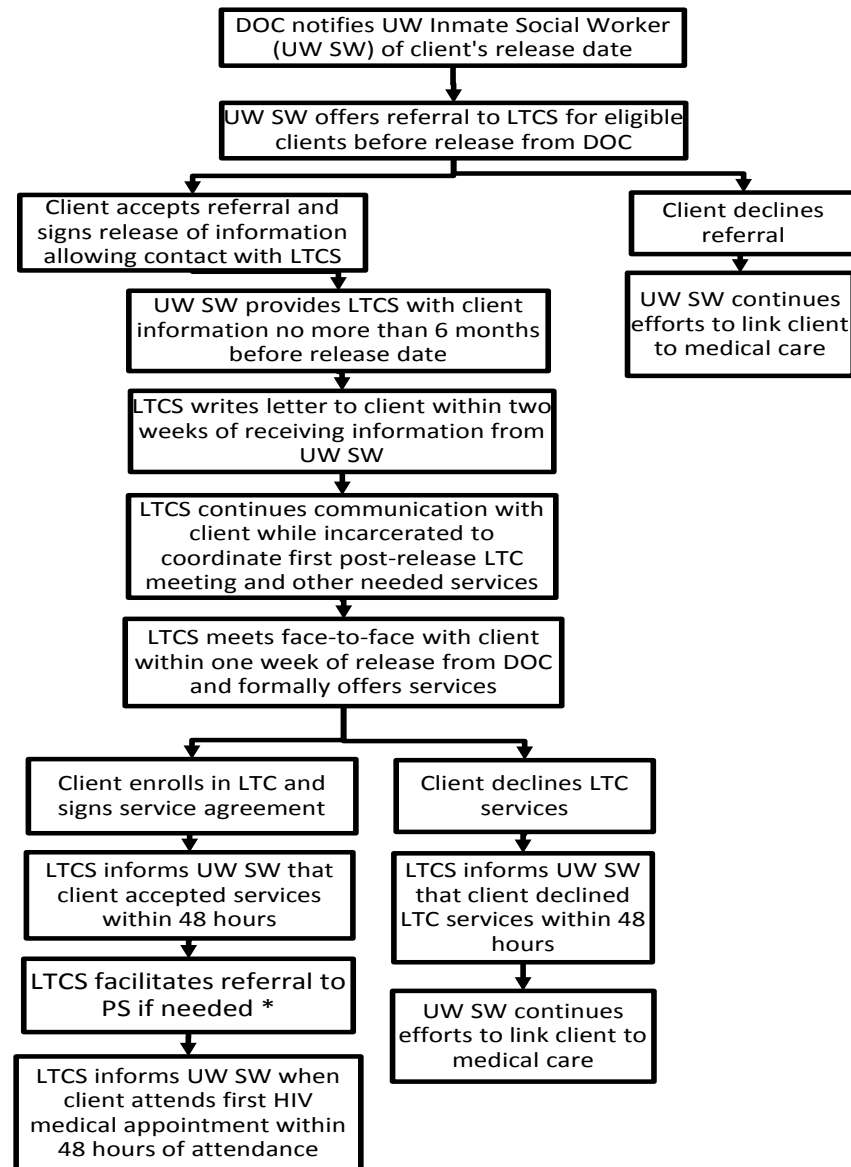
Pawasarat & Quinn: Wisconsin's Mass Incarceration of African American Males: Workforce Challenges of 2013

Setting

Intervention offered to all HIV+ clients in WI prison system who plan to live in Milwaukee or Madison after release.



Referrals



Objectives

1. To assess the impact of a multi-site patient navigation program on post-incarceration linkage to HIV care
2. To assess the impact of the patient navigation program on viral suppression among people prescribed ART after release from prison.
3. To determine whether engagement in HIV care for criminal justice-involved adults has improved over time in Wisconsin.

Methods

We conducted a retrospective cohort study including all HIV-infected patients receiving ART and released from a Wisconsin state prison between 2011 and 2015.

We analyzed data from three sources:

1. A public health surveillance database (eHARS)
2. A hospital-based electronic health records system (Epic)
3. An IRB-approved prospective cohort study (Wisconsin Transitions Study)

Methods (cont.)

The Wisconsin Transitions Study

- An NIH-funded, observational cohort study (K23DA032306)
- All HIV+ patients residing in a WI DOC facility since 2013 are invited to participate (>98% consent to participate)
- Data collection occurs before and after release from prison
- A waiver of informed consent was obtained to review charts of incarcerated patients released between 2011-13

	Electronic Health Record	HIV Surveillance (eHARS)	Pre- & Post-Release Interviews
<i>Retrospective Cohort (2011-13)</i>	◆	◆	
<i>Prospective Cohort (2013-16)</i>	◆	◆	◆

Methods (cont.)

- We searched the Wisconsin AIDS/HIV program database (eHARS), which captures HIV-related laboratory data through mandatory electronic reporting, to determine whether participants (1) were linked to care and (2) maintained HIV viral suppression during the first 6 months after their release date.

The 2 outcomes were defined as follows:

Linkage to Care: Evidence of any HIV RNA test reported to eHARS during the first 6 months after release

Viral Suppression: A participant was linked to care AND had HIV RNA < 200 copies/mL

Methods (cont.)

- We compared frequency of the 2 HIV care outcomes each time a person was released from prison and fell into one of two categories:

Intervention: Participated in LTC intervention at the time of release from prison (2013-15)

Control: Did not receive LTC intervention:

- Released in 2011-13
- Lived outside of intervention catchment area
- Declined to participate in the program

- Using logistic regression with generalized estimating equations to account for intra-individual correlation, we compared post-release outcomes between individuals who received the patient navigation intervention to those who did not.

Results

Baseline characteristics of study sample

	Ever received patient navigation intervention (N=48)	Received no intervention (N=97)	p-value
Age (mean \pm sd)†	40.4 \pm 10.4	43.9 \pm 9.2	0.26
Female gender	6 (12.50)	5 (5.15)	0.12
Race/ethnicity			0.16
African-American	29 (61.7)	55 (57.9)	
White	11 (23.4)	32 (33.7)	
Other	7 (14.9)	8 (8.4)	
Receiving HIV care prior to incarceration	35 (74.5)	52 (55.3)	0.028
HIV risk factors‡			0.59
Injection drug use	7 (25.0)	15 (29.4)	
Male-to-male sexual contact	6 (21.4)	12 (23.5)	
Heterosexual contact only	13 (46.4)	23 (45.1)	
Hepatitis C infected	9 (19.2)	19 (20.0)	0.90
Alcohol use disorder	5 (10.6)	6 (6.3)	0.36
Opioid use disorder	4 (8.5)	11 (11.6)	0.58

† All data presented are N (%), unless otherwise specified

‡ Risk factor data missing/unknown for 20 individuals in the navigation group, 46 individuals in the no intervention group.

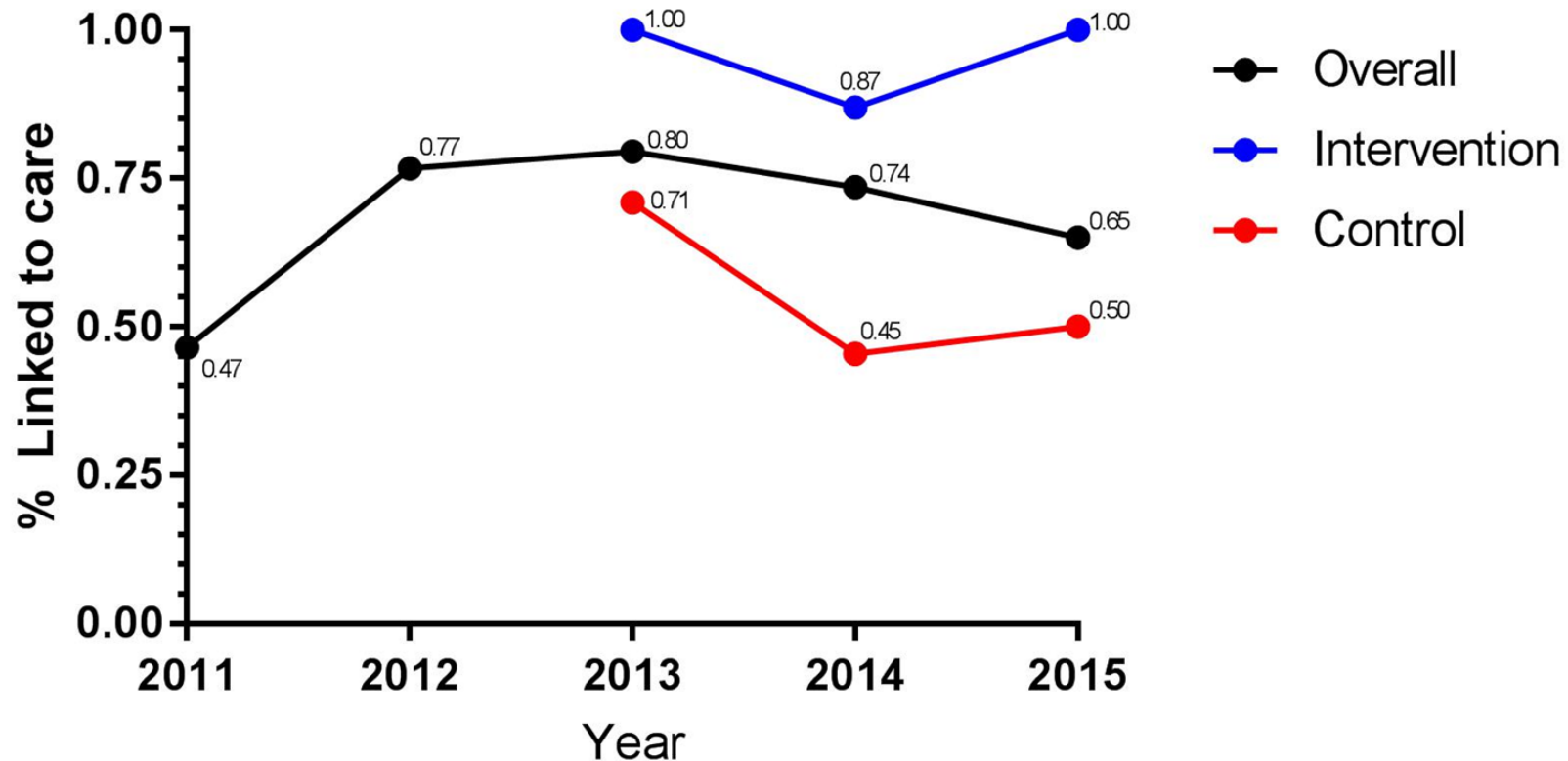
Results

Individual patients and release events

- Between January 2011 and June 2015, 145 individuals were released from prison a total of **184** times.
 - 42** releases: Received patient navigation intervention
 - 142** releases: Standard case management only
- Overall, participants were more likely to be linked to care within six months (**92.8% vs 65.5%, $p < 0.001$**) and were more likely to have viral suppression (**85.7% vs 45.1%, $p < 0.001$**) if they received the patient navigation intervention at the time of release from prison.

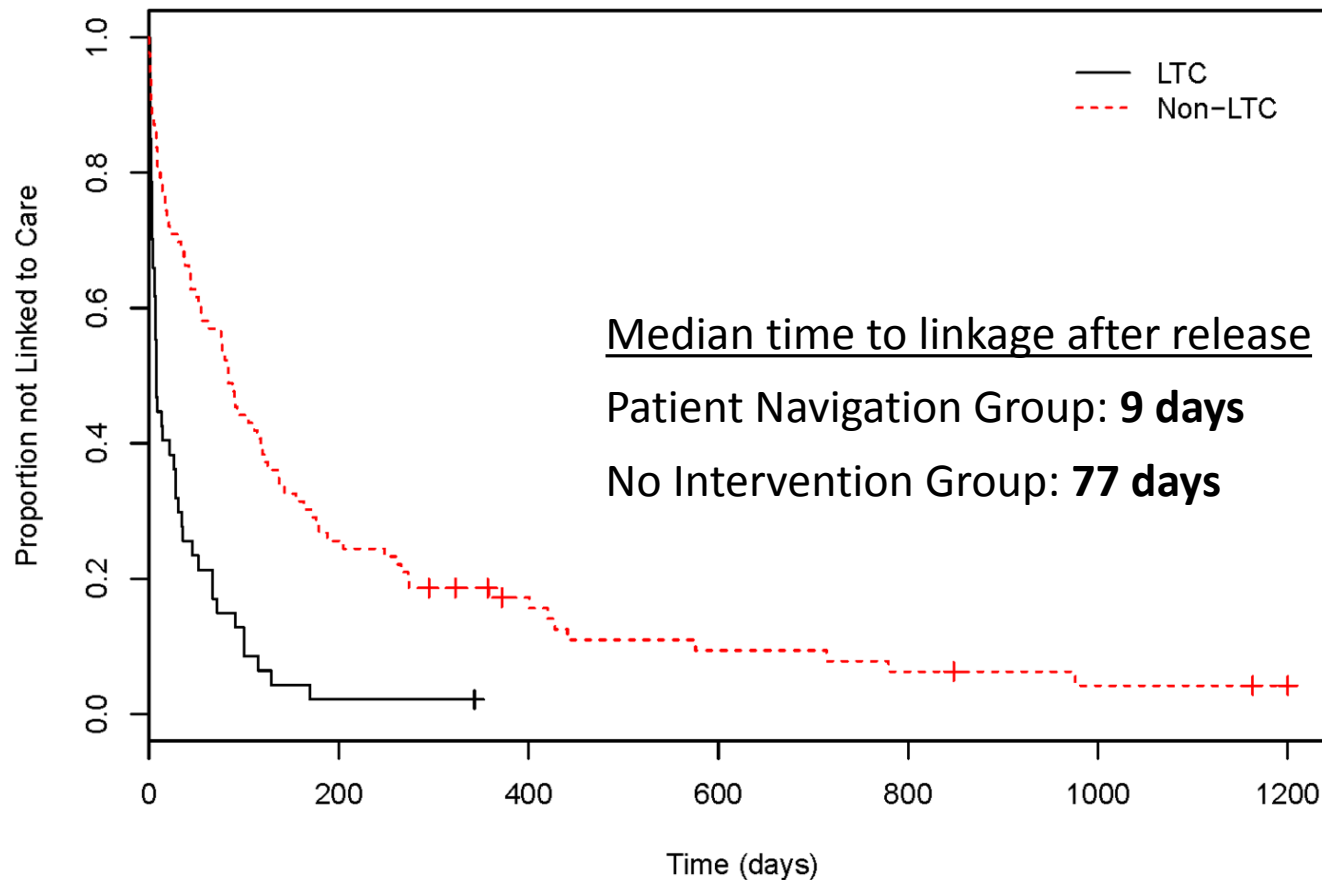
Results

Linkage to care within 6 months of prison release



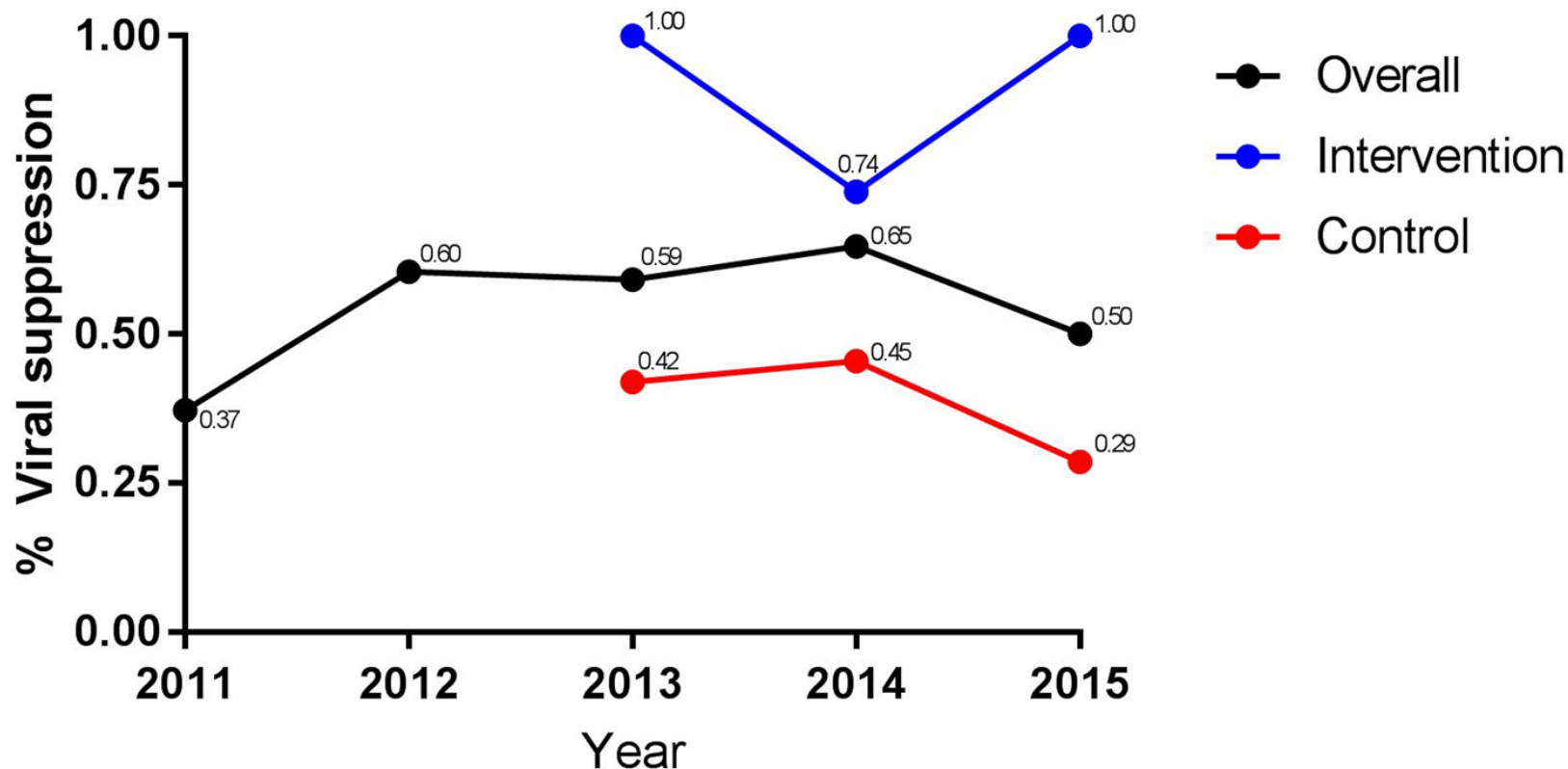
Results

Time elapsed between release and linkage to community-based HIV care



Results

Documented viral suppression (HIV RNA < 200 copies/ML) during first 6 months after release from prison



Results

Multiple logistic regression results

Factors associated with HIV suppression during first six months after prison release (N=184)

Participant characteristics	Adjusted Odds Ratio	95% Confidence Interval
Age (per 1 year)	1.02	0.98 – 1.06
Past injection drug use	0.73	0.35 – 1.51
Black/African-American race	1.04	0.52 – 2.07
Received HIV care before incarceration	0.61	0.30 – 1.24
Received patient navigation intervention	7.42	2.99 – 18.43

Discussion

- Patient navigation appears to significantly improve linkage to community-based HIV care and viral suppression after release from prison
- This was not a randomized trial. Interpretation of the findings should take into consideration the possibility that unmeasured confounders influenced the superior outcomes observed when participants received patient navigation.
- Ongoing qualitative analysis of interviews conducted with participants before and after release will yield additional insights into the specific barriers encountered by people living with HIV, and how interventions such as patient navigation can be best implemented to facilitate optimal HIV care outcomes.

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