CAPUS Demonstration Project

The Virginia Department of Health (VDH) Division of Disease Prevention (DDP) received an award from the Centers of Disease Control and Prevention (CDC) to implement the Secretary's Minority AIDS Initiative Fund for Care and Prevention in the United States (CAPUS) Demonstration Project from 2013 to 2016. National goals for the CAPUS project included improving the percentage of people who are aware of their HIV status (through expanding access to testing), improving the percentage of newly diagnosed people who are successfully linked to care, retaining those persons in care once they have been linked, and ultimately, increasing the percent of the HIV-positive population who have an undetectable viral load.

Virginia's CAPUS project had four key components:

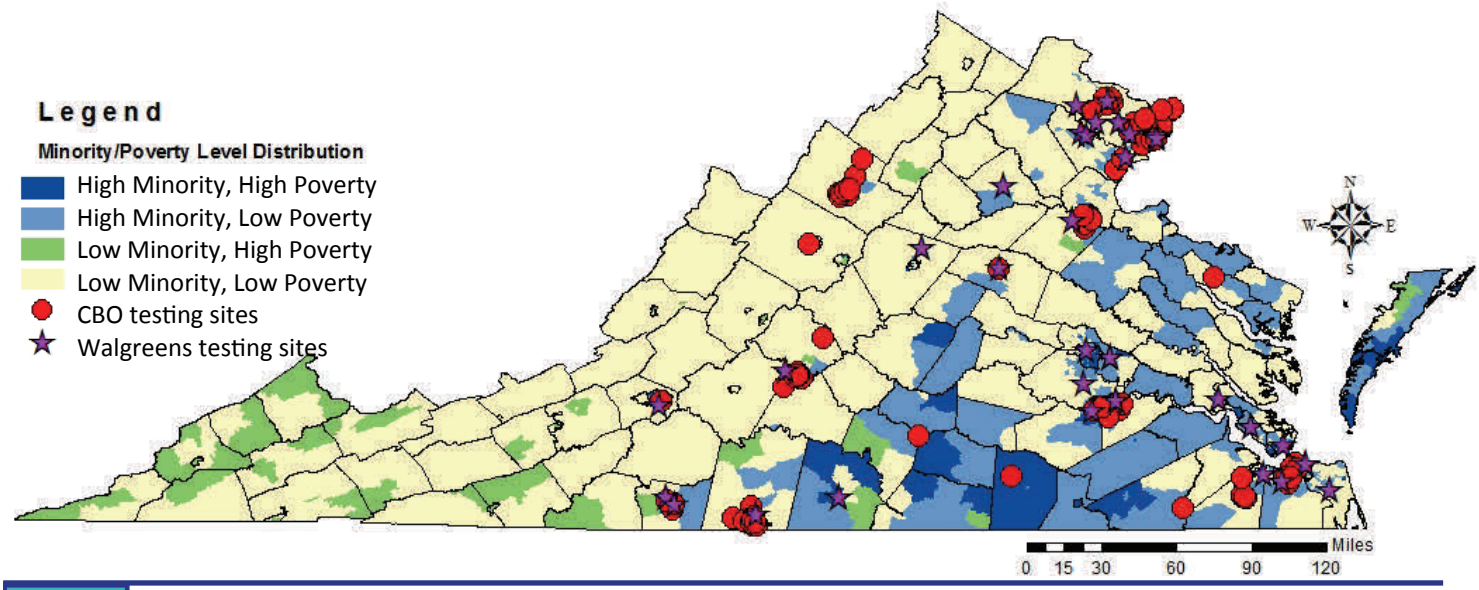
1. Integration and use of surveillance systems
2. Patient navigation for persons living with HIV
3. HIV testing in community and pharmacy settings
4. Addressing social/structural factors affecting testing, linkage to, and retention in care by piloting a housing program and implementing a series of social media campaigns

HIV TESTING

One of the primary goals of CAPUS is to increase access to HIV testing among Black, non-Hispanic Hispanic/Latino persons. Virginia's approach to reaching this goal involved providing testing in historically underserved areas. To identify the service areas covered under CAPUS, DDP utilized various geo-coding and mapping techniques to categorize areas with both high percentages of minority populations and high rates of poverty. on a census tract level.

DDP then gave priority to the areas with the largest population of Black and Latino persons, highest rates of poverty, and limited access to HIV testing. DDP issued two Request for Proposals (RFPs) for community HIV testing in clinical and/or nonclinical sites in the designated priority areas. After an extensive competitive negotiations process, DDP awarded contracts to five community-based organizations (CBOs) to provide HIV testing services in all five of Virginia's health regions. In 2014, DDP issued an RFP for pharmacy-based HIV testing and awarded one contract to Walgreens, Inc. (Walgreens).

Figure 1: Community and Pharmacy HIV Testing sites and Social Determinants of Health in Virginia, 2015



CAPUS Demonstration Project

COMMUNITY-BASED HIV TESTING

DDP established community HIV testing contracts for Virginia's five health regions. Funded agencies were required by DDP to test in designated high-priority census tracts, increasing access to services in those tracts for clients at greater risk of acquiring HIV due to social determinants of health, such as race and poverty.

Figure 2: CAPUS HIV Testing CBOs by Health Region

Health Region	Agency Name
Northern	Novasalud, Inc.
Northwest	Fredericksburg Area HIV/AIDS Support services
Southwest	Council for Community Services
Central	Minority Health Consortium
Eastern	International Black Women's Congress

From October 1, 2013 to September 29, 2016, the CAPUS CBOs administered 9,861 HIV tests and identified 46 HIV positive cases, achieving a 0.46% positivity rate. Of the 46 HIV positive cases, 74% were linked to medical care within 90 days of diagnosis. Black, non-Hispanic and Hispanic/Latino persons comprised nearly three-quarters of the total community-based HIV testing under CAPUS, representing 58% and 15% of the total, respectively. In comparison, non-Hispanic Whites made up 22% of all HIV tests. The "Other" combined race/ethnicity category includes Asians, Native Hawaiians/Pacific Islanders, American Indians/Alaska Natives, and individuals with multiple racial/ethnic categories (Figure 3).

Persons aged 20 to 29 years comprised the largest group of persons tested (38%), followed by persons aged 30 to 39 years (20%), 40 to 49 years (15%), 50 to 59 years (13%), 13 to 19 years (9%), and finally 60 years and older (6%). Less than one percent of all HIV tests did not have age reported (n=21) (Figure 4).

Figure 3: Community HIV Testing by Combined Race/Ethnicity, 2013-2016 (n=9,681)

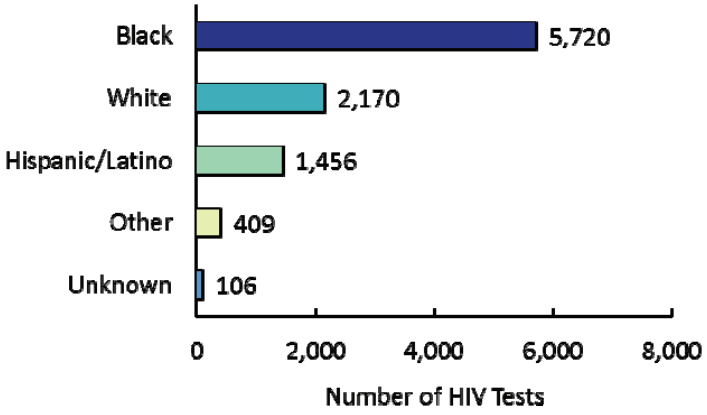
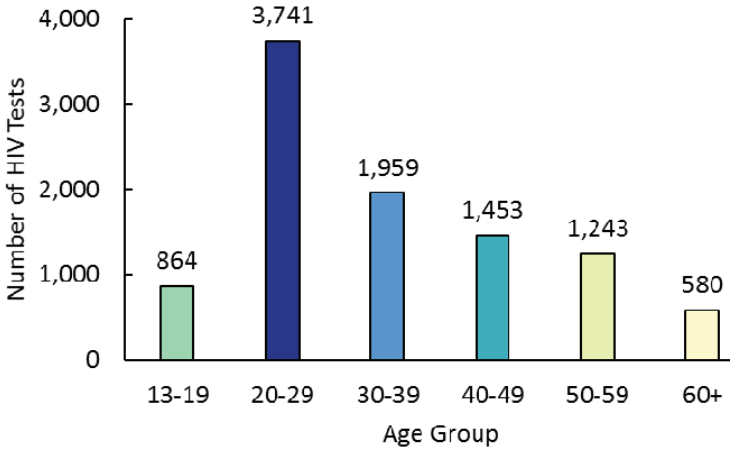


Figure 4: Community HIV Testing by Age Group, 2013-2016 (n=9,681)



Approximately 51% of all HIV tests were provided to male clients (n=5,040), 48% were provided to female clients, less than 1% were provided to transgender clients, and less than 1% of HIV tests had an unknown gender (n=44).

Rapid Rapid HIV Testing

Rapid Rapid is a diagnostic algorithm using two sequential rapid HIV tests. It is used by CBOs to provide an initial HIV diagnosis and allows for more seamless linkage to care within the same testing and counseling session. Rapid Rapid reduced the overall average number of days from diagnosis to HIV care to 10 days, compared to 28 days before CAPUS's statewide implementation of Rapid Rapid.

CAPUS Demonstration Project

PHARMACY-BASED HIV TESTING

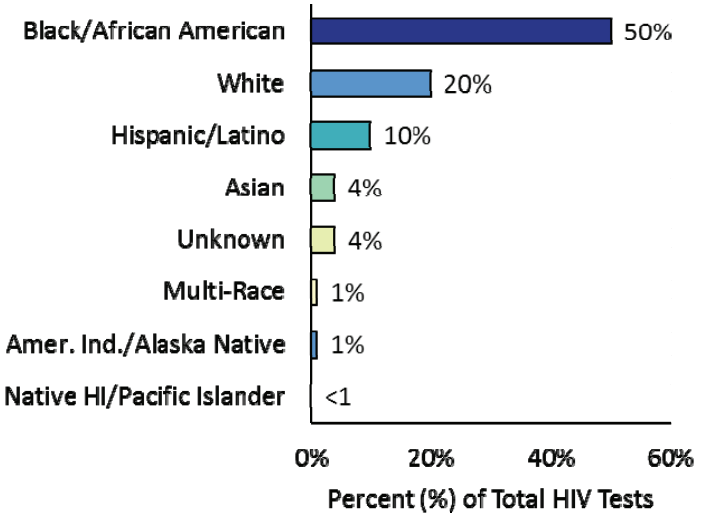
First Public-Private Partnership

Pharmacies are widely used as a point of access for common wellness screenings, prescriptions, and a variety of cosmetic and domestic items. As such, the retail pharmacy-based HIV testing program was conceived by DDP and Walgreens as a novel approach to increase access to, and destigmatize, HIV testing by providing it alongside other point-of-care wellness screenings and services. DDP established the pharmacist-provided HIV testing program in partnership with Walgreens in 2014, representing DDP's first public-private partnership for HIV prevention.

Figure 5: Programmatic Highlights and Outcomes

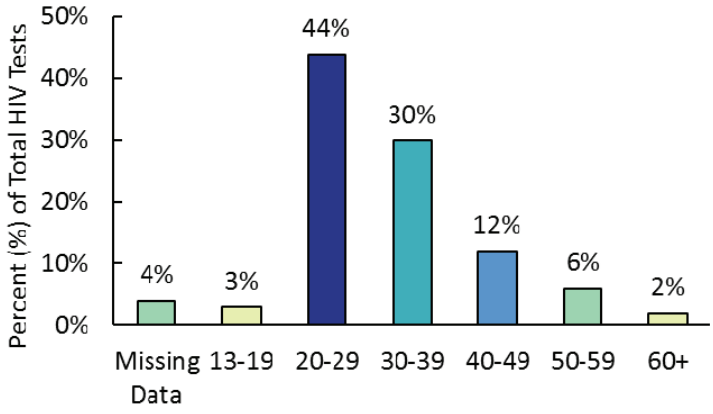
Pharmacy HIV Testing Program Highlights	
32 Stores	were selected to offer free HIV testing in rural and urban areas of the state. Store selection was based on social and structural determinants of health to increase access to HIV testing by reducing transportation barriers.
24/7 Support	was provided by DDP to all pharmacists and to new clients receiving reactive results.
200+	pharmacists trained in administering HIV tests, quality assurance, delivering
1-Minute	INSTI rapid HIV test was used by Walgreens pharmacists, allowing pharmacists to provide HIV testing alongside other routine pharmacy services.
Pharmacy HIV Testing Outcomes	
3,620	total HIV tests performed by Walgreens pharmacists
25	HIV-positive clients identified
91%	of all HIV positive clients linked to care
46%	of clients were first-time testers

Figure 6: Pharmacy HIV Testing by Race/Ethnicity, 2014-2016 (n=3,620)



Of the 3,620 HIV tests administered by Walgreens pharmacists, non-Hispanic Blacks comprised the largest racial/ethnic group (50%), followed by non-Hispanic Whites (29%), and Hispanics/Latinos (10%) (Figure 6).

Figure 7: Pharmacy HIV Testing by Age Group, 2014-2016 (n=3,620)



The 20 to 29 age group received the most tests at 44% of total tests, followed by the 30 to 39 age group (30%), the 40 to 49 age group (12%), the 50 to 59 age group (6%), the 13 to 19 age group (3%), and the 60 and older age group (2%) (Figure 7). Finally, more than half of all HIV tests were provided to males (58%) and 41% were provided to females. Less than 1% of all HIV tests were provided to transgender persons.

CAPUS Demonstration Project

DATA TO CARE

Persons living with HIV (PLWH) who are not in care are at a greater risk for poor health outcomes, premature death and transmitting HIV.

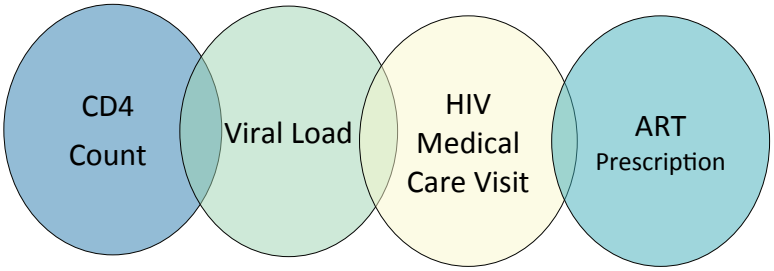
DDP's "Data to Care" (DtC) program uses HIV surveillance data to identify PLWH who are not in care, link them to care, and better monitor health outcomes of all PLWH in Virginia. Historically, HIV surveillance data has been used to monitor and characterize the HIV epidemic both locally and nationally. DtC reflects a shift from the typical use of HIV surveillance data to using the data to improve health outcomes for PLWH. The ultimate goals of DtC are to increase the number of PLWH who are 1) engaged in HIV care, and 2) have an undetectable viral load.

Care Markers and the Care Makers Database (CMDB)

HIV care markers are clinical indicators used to identify an HIV-positive individual's HIV care status. The four HIV care markers used by DDP to identify are CD4 count lab, viral load rest, HIV medical care visit or an antiretroviral therapy (ART) medication prescription (Figure 8).

DDP developed the CMDB over the course of the CAPUS four-year timeframe as an integrated database, pulling together HIV prevention, surveillance, and care data to better assess health outcomes along the HIV continuum of care. These data assisted in adding additional markers for HIV medical care on a client-level basis.

Figure 8: HIV Care Markers



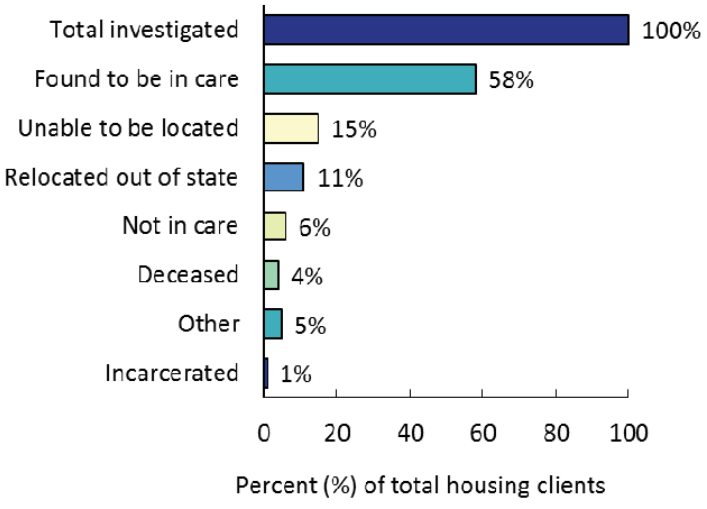
Training in DtC and Client Investigation

DDP developed a DtC implementation protocol and provided training to DIS and linkage staff at 19 contracted agencies on DtC processes and procedures. These trainings, which included DIS and agency staff, began in 2015 and continues to be offered on a routine basis and to new partner agencies or new hires at existing partner agencies.

Outcomes

By the end of the CAPUS project period on September 29, 2016, 235 clients who had previously received care at a contracted provider were investigated for follow-up by linkage staff. Of these, 58% were identified as in care, 11% had relocated out of state, 15% were unable to be located, 6% were not in care, 4% were deceased, 1% were incarcerated, and 5% had another outcome, such as being discharged from the program. Of the 13 persons who were identified as "not in care," nine clients were referred to care, and eight reengaged in care as a result of DtC efforts, verified by a reported care marker in the CMDB (Figure 10).

Figure 9: Data to Care Outcomes, 2015-2016 (n=238)



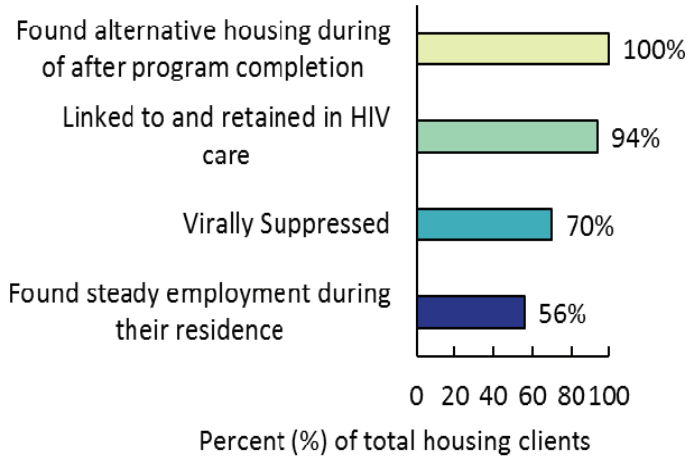
CAPUS Demonstration Project

HOUSING AND JOB TRAINING

Transitional Housing

As part of CAPUS, DDP established a transitional housing program for HIV-positive persons released from incarceration through Minority AIDS Support Services (MASS) in Newport News, Virginia. During the CAPUS project period, MASS provided temporary post-release housing to 49 clients. Ninety-four percent of clients were linked to and retained in HIV medical care, and 70% were virally suppressed. All clients who completed the program located alternative housing during the program or after completion (Figure 10). While in the house, 83% of clients re-established ties with family members, which often allowed them to leave the transitional house early.

Figure 10: Transitional Housing Client Outcomes, 2013-2016 (n=49)

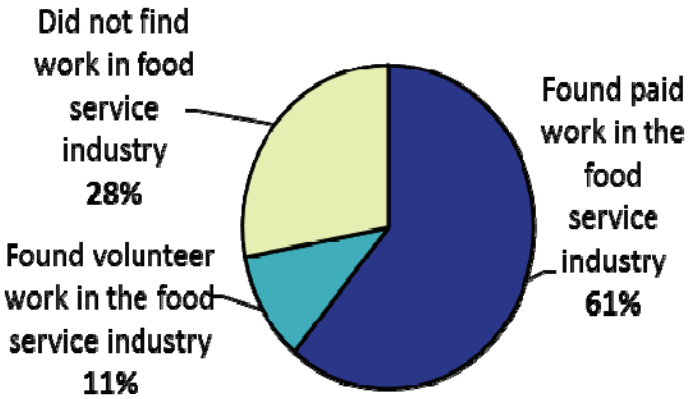


Due to the small number of clients able to be served, some of the program's successes are anecdotal. While the minimum sentence length for program eligibility was three years, MASS reported that many of its clients had been incarcerated for as long as 20 years. These clients, upon leaving incarceration, were at risk to become homeless upon release, potentially resulting in failure to transition to medical care in their communities and at higher risk of re-incarceration and mortality. The housing program provided evidence that clients can attain positive health outcomes when provided with a stable environment during post-release transition.

Job Training

During the second year of the CAPUS project, MASS began offering a vocational training program in the culinary arts. The culinary enhancement program lasted 18 weeks, and included cooking skills classes and internships with local restaurants. On Fridays, participants prepared food for clients of the soup kitchen, which provided the space for the program. Eighteen clients graduated from the culinary initiative. Of these clients, 61% found paid work in the food service industry, and an additional 11% found volunteer work. Among all clients of the housing program, 56% obtained steady employment of some kind during their residence in the house (Figure 11).

Figure 11: Culinary Training Graduate Outcomes, 2014-2016 (n=18)



SOCIAL MEDIA CAMPAIGNS

Virginia is Greater Than AIDS and Testing Makes us Stronger (TMUS)

Figure 12: *I Got Tested* Campaign Image

During the CAPUS project period, DDP initiated several public awareness campaigns. During the second year of the CAPUS project, DDP implemented the Kaiser Family Foundation's (KFF) "Greater Than AIDS" campaign, including three sub-campaigns: "Deciding Moments", which targeted Black men; "Empowered", which targeted Black women; and "I Got Tested (IGT)", which targeted the general public (Figure 12). DDP also ran "Testing Makes Us Stronger (TMU)", which focused specifically on Black men who have sex with men (MSM) in Year Two (Figure 13).

Figure 13: *TMUS* Campaign Image

DDP selected these campaigns due to their focus on de-stigmatizing being HIV-positive, disclosing one's HIV-positive status, and seeking an HIV test. DDP advertised campaign materials on public transit, billboards, online, on the radio, and on both broadcast and cable television. Channels and timeslots selected for radio and broadcast and cable television were selected with respect to programming that appealed most to young Black and Latino men and women.

Somos Familia (We are Family)

The Somos Familia, or We are Family, campaign focused on the role that family support plays in positive health outcomes for HIV-positive individuals. The design of the campaign was to destigmatize HIV in the Latino community by highlighting the role families play in supporting persons living with HIV. Similar to the Virginia is Greater than AIDS subcampaigns, messaging for this campaign was mainly placed in the three metropolitan areas of Richmond, Norfolk/Virginia Beach, and Northern Virginia in the form of transit, large format posters, radio, cable television, and billboard advertisements. Spokesmodels and their families shared their stories of how HIV has affected their lives and how important having each other is in remaining healthy (Figure 14).

Figure 14: *Somos Familia* Campaign Image

CAPUS Demonstration Project

PATIENT NAVIGATION

Service Partners

During Year One, DDP established contracts with three major HIV care providers: Inova Juniper (IJP) in Northern Virginia, Eastern Virginia Medical School (EVMS) in Eastern Virginia, and the University of Virginia (UVA) in Northwest Virginia to provide patient navigation to HIV-positive persons in each of the respective health regions. During the second year of the CAPUS project, DDP established contracts with two additional sites, one at an EVMS satellite clinic on Virginia's Eastern Shore, and the other with the Central Shenandoah Health District (CSHD).

Community Health Worker (CHW) Training

DDP partnered with the Institute for Public Health Innovation (IPHI) to deliver a comprehensive 80-hour CHW training to all new CAPUS CHWs. Over the course of the project period, CAPUS CHWs served 552 clients utilizing the core competencies of the CHW curriculum (Figure 15).

Figure 15: CHW Training Topics

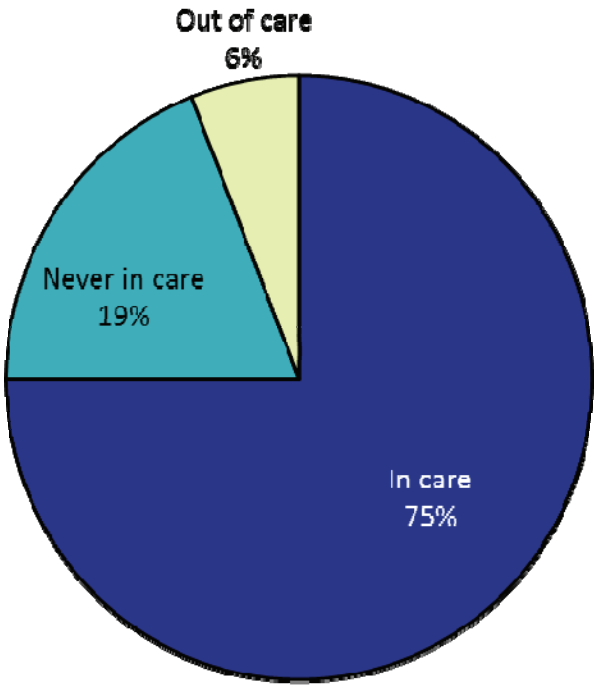
CHW Training Topics	
Equity: Perspective Transformation	Health Education and Prevention
Disease Self-Management and Chronic Core Disease Review	Resource Identification and Organization
CHW Scope of Practice: History, Roles, Professionalism, Team Integration.	Teaching and Capacity Building Skills and Clinical Practice
Public Health Knowledge Base	Communication and Counseling Skills
CHW Legal and Ethical Issues	Outreach and Advocacy
Data Collection and Medical Record Review	

In addition to providing navigation services for retention and medication adherence, CHWs also helped clients access a variety of additional services including insurance enrollment through the federal healthcare exchange, interpretive services, prevention interventions, peer social support, clinical trials, dental services, clothes, emergency financial and housing assistance, food banks, gynecology, hematology, HIV testing for sexual partners, legal aid, support groups for co-morbidities, mental health and substance abuse services, physical therapy, speech therapy, sexually transmitted disease/infection treatment, and vision services.

HIV Care Status at Enrollment

At time of enrollment, or at program entry, 6% of clients were out of care and required services to reengage them with HIV care, 19% of clients had never in care and needed to be linked to care, and 75% of clients were already in care but had other service needs (Figure 16).

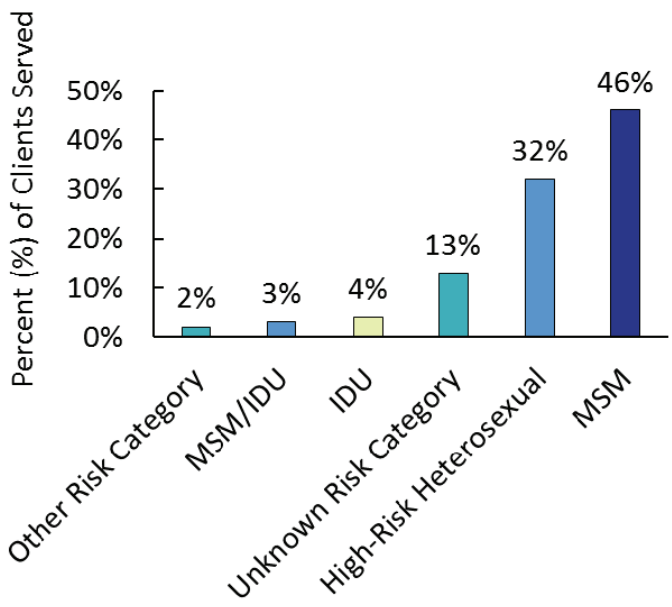
Figure 16: HIV Care Status at Program Enrollment, 2013-2016 (n=552)



CAPUS Demonstration Project

Client Demographics

Figure 18: Risk/Exposure Category of Patient Navigation Clients, 2013-2016 (n=522)

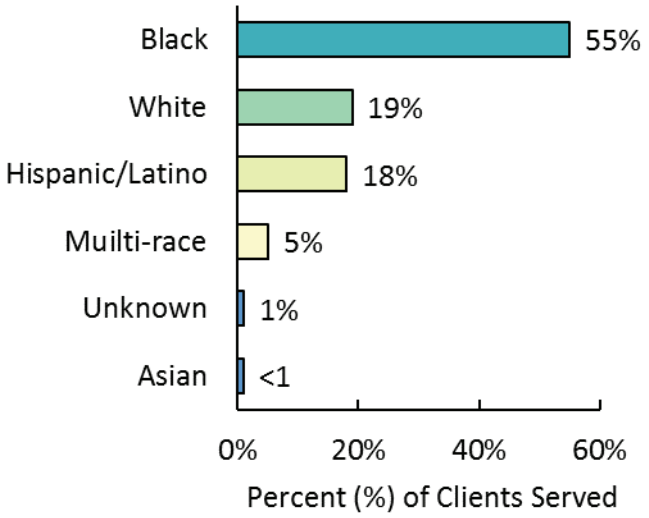


Nearly half of all Patient Navigation clients reported male-to-male sexual contact (MSM, 46%). The high-risk heterosexual risk/exposure category comprised 32% of all Patient Navigation clients, followed by the unknown risk/exposure (14%), injection drug use (IDU, 4%), combined MSM and IDU, and the other (2%) risk categories (Figure 18).

Non-Hispanic Blacks comprised the largest racial/ethnic group of all patient navigation clients, followed by Hispanics/Latinos (19%), non-Hispanic Whites (18%), and persons who reported multiple races (5%). Asians and clients with an unknown race/ethnicity each comprised 1% of total patient navigation clients served (Figure 19).

Finally, of the 552 clients who received patient navigation services throughout the course of the CAPUS demonstration project, 71% were male, 28% were female, and less than 2% were transgender.

Figure 19: Race/Ethnicity of Patient Navigation Clients, 2013-2016 (n=552)



Acknowledgments

The success and outcomes of the CAPUS demonstration project required significant effort, hours, creativity, and dedication to ending the HIV epidemic in Virginia. Thanks to the tremendous public service from program and management staff at the following agencies:

- **Council of Community Services**
- **Eastern Virginia Medical School, AIDS Resource Center**
- **Fredericksburg Area HIV/AIDS Support Services**
- **Horizon Behavioral Health**
- **Inova Juniper Program**
- **International Black Women's Congress**
- **Minority Health Consortium**
- **Novasalud, Inc.**
- **University of Virginia, Infectious Disease Clinic**
- **Valley AIDS Network**
- **Virginia Department of Health, Division of Disease Prevention**
- **Walgreens**