



## Out of Care HIV/HCV Co-Infected Persons into HCV Treatment

Maximilian Wegener<sup>1</sup>, Ralph Brooks<sup>1</sup>, Lisa Nichols<sup>1</sup>, Suzanne Speers<sup>2</sup>, Deborah Gosselin<sup>2</sup>, Merceditas Villanueva<sup>1</sup>  
<sup>1</sup>Yale University - New Haven, CT, United States; <sup>2</sup>CT Department of Public Health – Hartford, CT, United States

# This Data to Care approach

# successfully identified coinfecting

# out of care patients, provided them

# education, and directed them back

# to clinical care.



Project App for Android Phones



Project App for iPhones

### BACKGROUND:

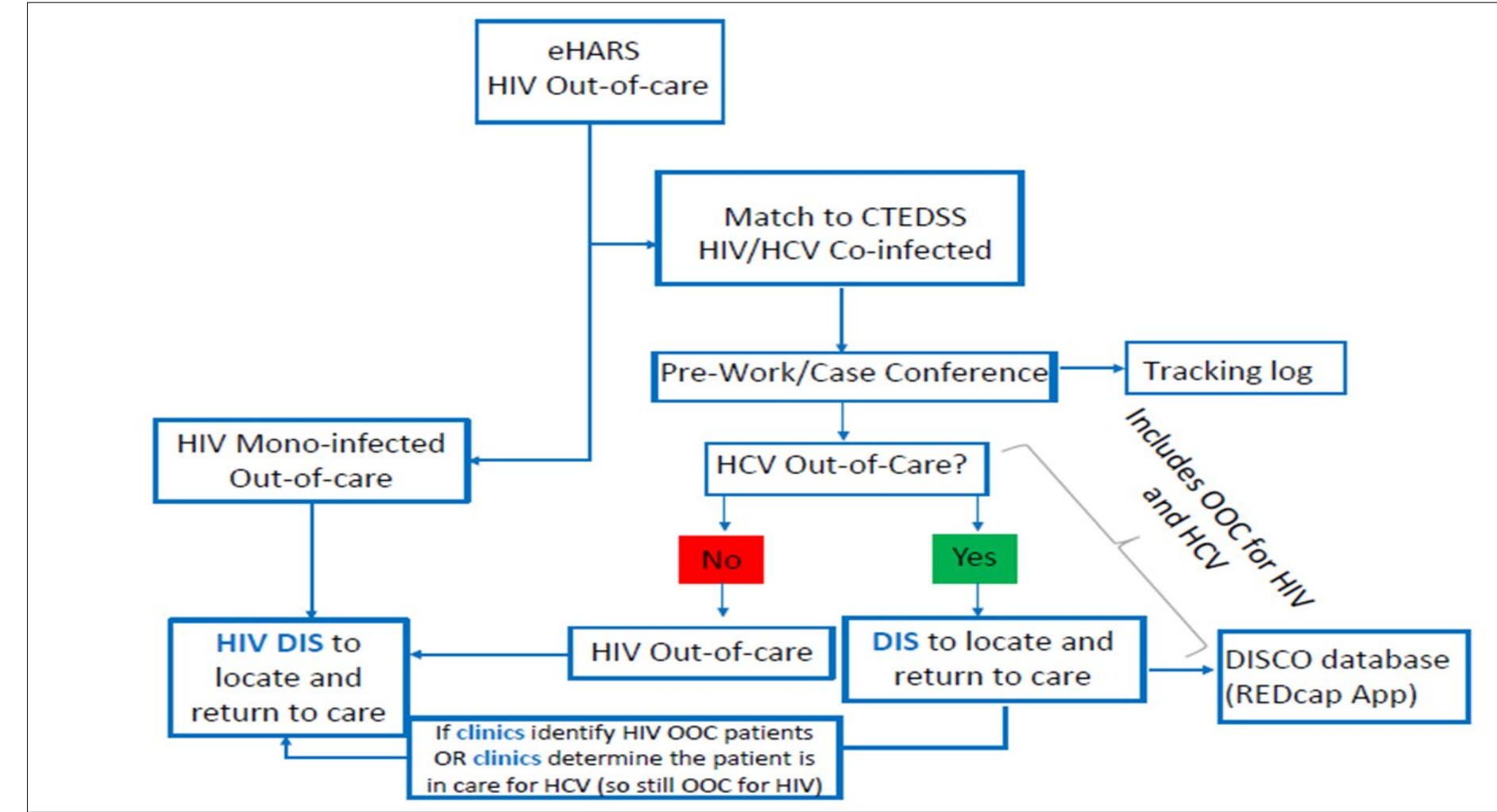
- The WHO has set an HCV elimination goal of curing 80% of chronically infected persons
- Persons with HIV/HCV coinfections are a focus population for HCV elimination
- Patients who are out of care (OOC) prevent achievement of this goal
- Data to Care methodology using a health department partnership is an important tool to promote reengagement

**METHODS:** OOC Lists (based on HIV OOC) are generated using data from two CT surveillance databases, eHARS (HIV) and CTESS (HCV). Two OOC cohorts were studied for 3 CT counties (New Haven, Hartford, and Fairfield):

Table 1: Out of care (OOC) case definition criteria

Criteria	12 Month OOC	18 Month OOC
Alive	✓	✓
CT Resident	✓	✓
HIV Dx Prior to 2018	✓	✓
Lab results in eHARS from 2015-2019	✓	✓
Lab results in eHARS from 2009-2019	✓	✓
No HIV labs between October 2018 and October 2019	✓	✓
No HIV labs between December 2017 and June 2019	✓	✓

Figure 1: Project data flow



- DIS were used to reengage eligible patients as outlined above - Key outcomes include:
  - Number successfully contacted by DIS
  - Number successfully reengaged (made/kept appointment)

Figure 2: Reengagement results for 12 month and 18 month OOC

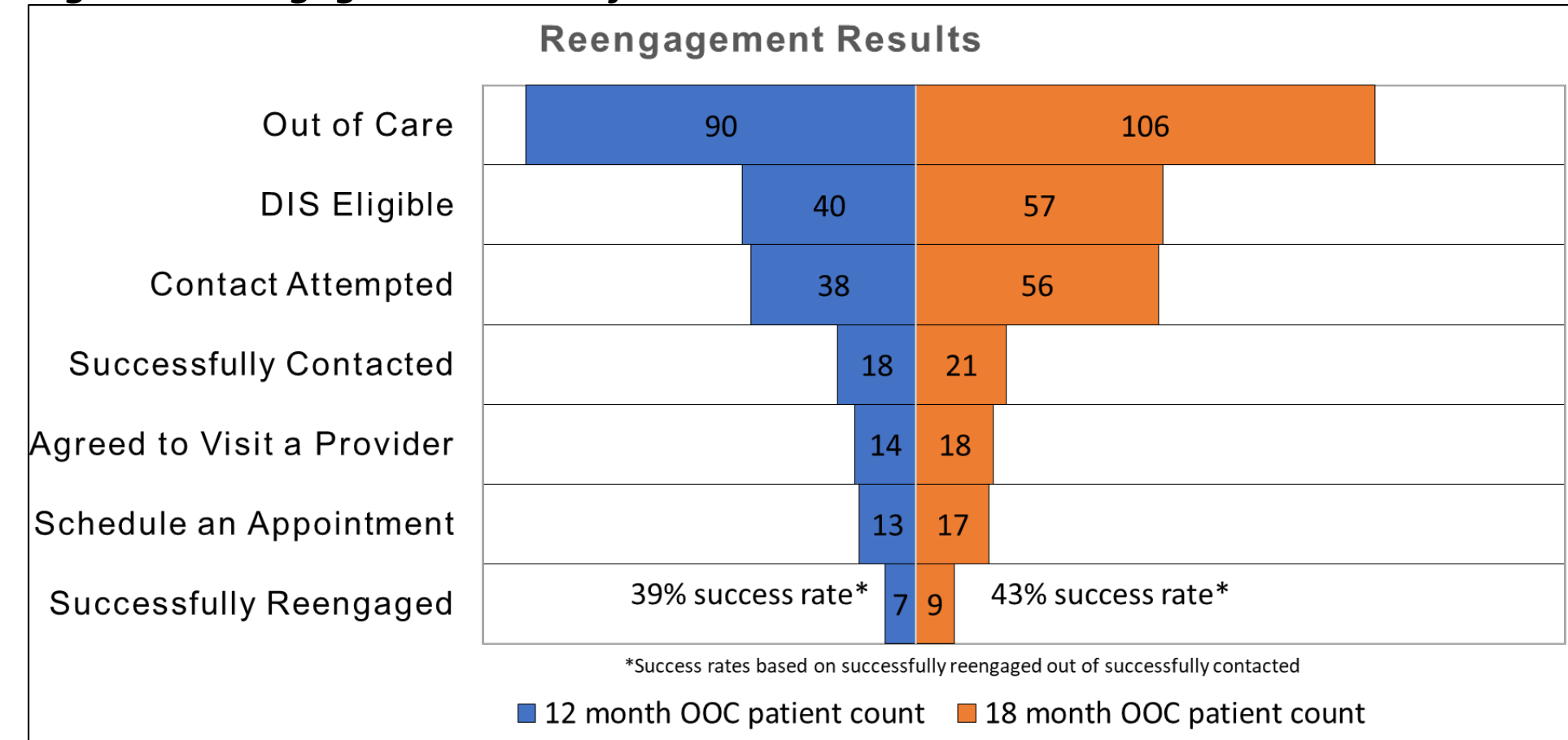


Table 2: Out of care assessment and workload analysis results by study group

Result Types	Variables	12 month OOC	18 month OOC
Who is most likely to be OOC	Non-Baby Boomers	X	X
	Detectable HIV VLs	X	X
	Hispanic and Black	X	X
Workload for Successful Contact	Average days (range)	7 (4-11)	12 (8-18)
	Total Phone Calls	75	74
	Total Field Visits	31	36

### SUMMARY:

- A Data to Care approach was successfully used to identify, characterize, and contact HIV/HCV coinfecting patients who are HIV OOC
- Reengagement success rates by DIS were small and efforts were labor intensive
- Those most likely to be OOC for HIV were non-baby boomers, persons of color, and those with detectable HIV VLs
- Timeframes used to define HIV OOC provided groups of individuals that are no longer active in the health care system (deceased, lost to clinic, out of state, etc.)
- Innovative reengagement approaches should be developed for these target populations

Figure 3: 12 month OOC study population flow

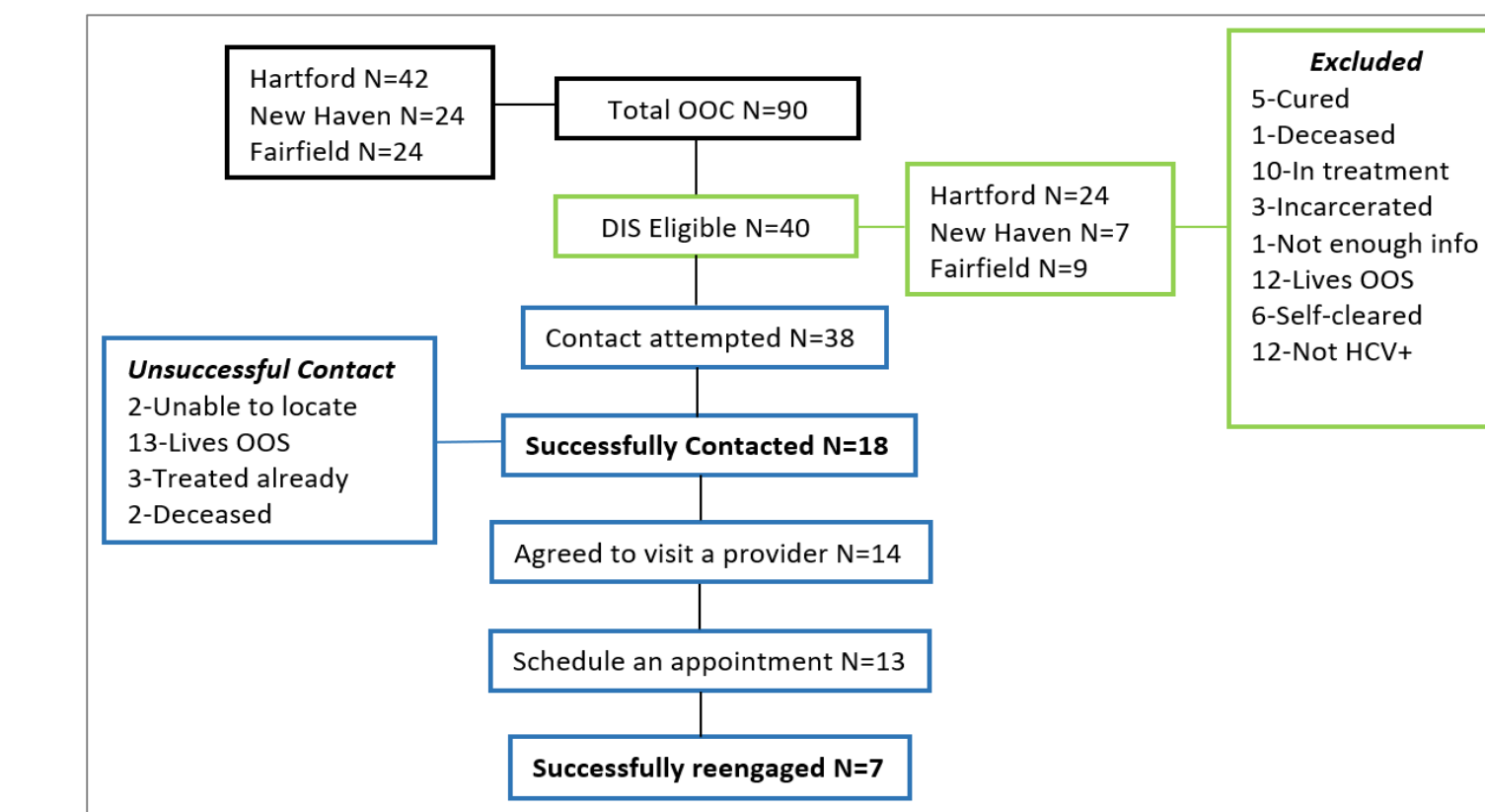


Table 3: 12 month group OOC vs Not OOC along with Demographics

Variable	Categories	12 Mo. OOC (N=90)	Not OOC (N=3608)	X <sup>2</sup> p-value	Odds Ratio (95% CI)
Birth Cohort	Baby Boomer	56 (62%)	2,586 (72%)	0.05	0.65 (0.42-1.00)
	Not Baby Boomer	34 (38%)	1,022 (28%)		Ref
Gender	Male	59 (66%)	2,537 (70%)	0.33	*
	Female	31 (34%)	1,071 (30%)		
	White	25 (28%)	983 (27%)		
	Black	25 (28%)	1,116 (31%)	0.84	*
Race/Ethnicity	Hispanic	38 (42%)	1,460 (41%)		
	Other	2 (2%)	49 (1%)		
	Heterosexual Contact	11 (12%)	392 (11%)		
	MSM	9 (11%)	319 (9%)		
	MSM and PWID	2 (2%)	156 (4%)	0.97	*
HIV Transmission Mode	PWID	64 (71%)	2,567 (71%)		
	Other/Unknown	4 (4%)	374 (10%)		
	High (>10,000)	10 (11%)	335 (10%)	0.04	1.26 (0.64-2.47)
	Low (200-10,000)	14 (16%)	282 (8%)		2.1 (1.16-3.78)
HIV Viral Load Level	Undetectable (<200)	65 (73%)	2,411 (67%)		Ref
	Detectable (≥200)	25 (28%)	1,197 (33%)		

Table 4: 12 month OOC Workload analysis

Communication method	Breakdown of Communication Methods for Those who Were Contacted Successfully		
	Hartford	New Haven	Fairfield
Phone (Total)	45	17	17
Range	2-6	3-6	3-8
Mean	4	4	4.24
Mode	5	N/A	N/A
Median	4	4	3
SD	1.24	1.25	2.17
Field Visits (Total)	15	4	12
Range	0-5	0-4	1-9
Mean	1	1.7	3
Mode	0	N/A	1
Median	1	1	1
SD	1.49	1.70	3.46

County	Time Difference Between DIS Initiation and Successful Contact				
	Range	Mean	Mode	Median	SD
Hartford	0-21 days	7 days	5 days	5 days	5.8 days
New Haven	2-21 days	11 days	N/A	10 days	7.8 days
Fairfield	0-7 days	4 days	N/A	5 days	2.7 days
Counties Combined	0-21 days	7 days	0 days	6 days	6.1 days

Figure 4: 18 month OOC study population flow

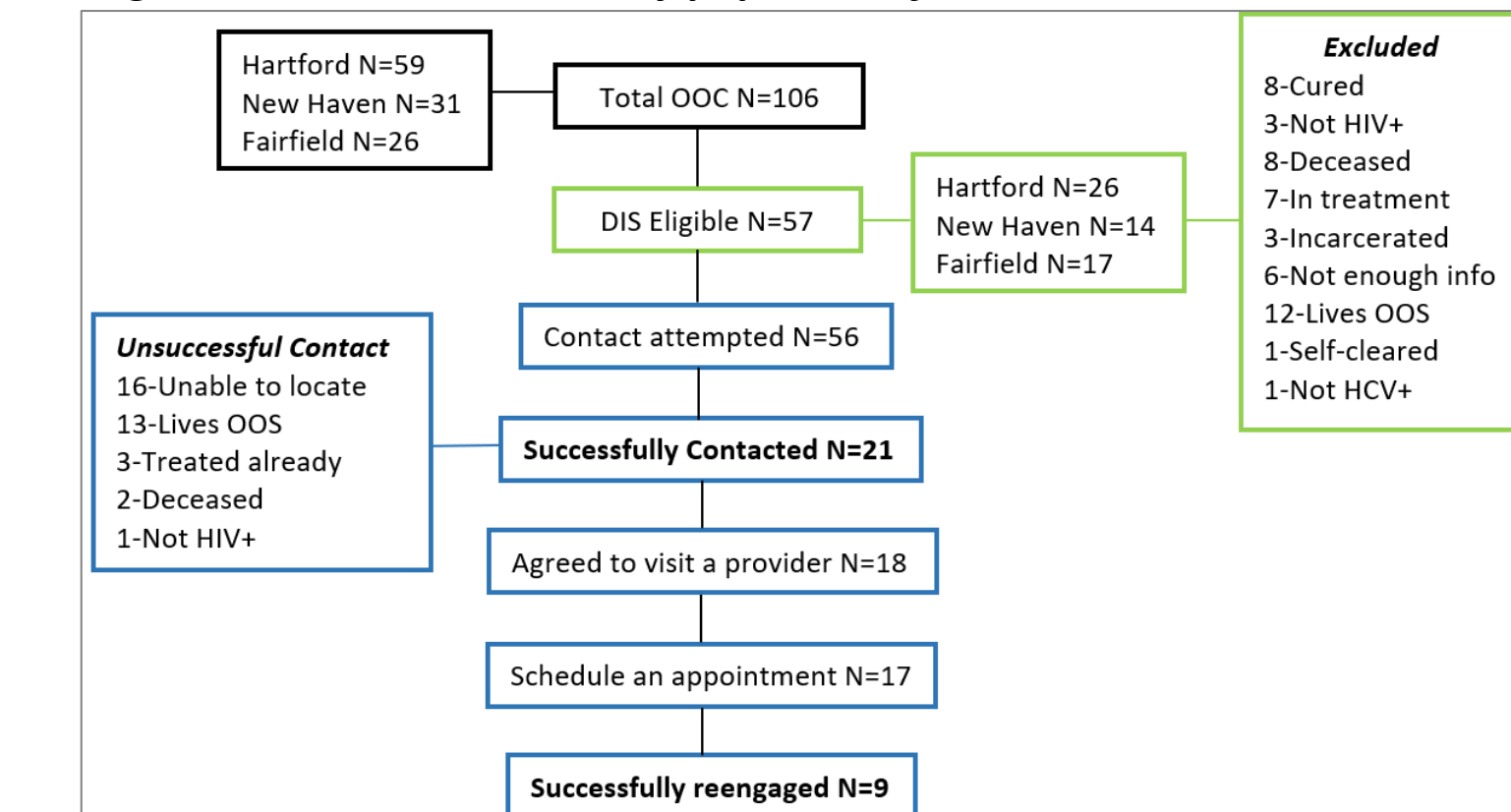


Table 5: 18 month group OOC vs Not OOC along with Demographics

Variable	Categories	OOC (N=106)	Not OOC (N=3,434)	X <sup>2</sup> p-value	Odds Ratio (95% CI)
Cohort	Baby Boomer	66 (62%)	2,502 (73%)	0.017	0.62 (0.41-0.92)
	Not Baby Boomer	40 (38%)	932 (27%)		Ref
Gender	Male	73 (69%)	2,420 (70%)	0.72	*
	Female	33 (31%)	1,014 (30%)		
	White	20 (19%)	943 (28%)		ref
	Black	28 (26%)	1,077 (31%)	0.043	1.23 (0.69-1.9)
Race/Ethnicity	Hispanic	56 (53%)	1,366 (40%)		1.93 (1.15-3.24)
	Other	2 (2%)	48 (1%)		1.97 (0.45-8.65)
	Heterosexual Contact	15 (14%)	357 (10%)		
	MSM	9 (8%)	271 (8%)		
	MSM and PWID	4 (4%)	145 (4%)	0.75	*
HIV Transmission Mode	PWID	73 (69%)	2,502 (73%)		
	Other/Unknown	5 (5%)	159 (5%)		
	High (>10,000)	16 (15%)	300 (9%)	0.002	1.92 (1.11-3.34)
	Low (200-10,000)	16 (15%)	271 (8%)		2.27 (1.30-3.95)
HIV Viral Load Level	Undetectable (<200)	70 (70%)	2,843 (83%)		ref
	Detectable (≥200)	36 (34%)	591 (17%)		

Table 6: 18 month OOC Workload analysis

Communication method	Breakdown of Communication Methods for Those who Were Contacted Successfully		
	Hartford	New Haven	Fairfield
Phone (Total)	21	24	29
Range	1-6	2-6	2-9
Mean	3.5	4	4.8
Mode	3	2	3
Median	3	4.5	3.5
SD	1.6	1.5	2.7
Field Visits (Total)	19	10	7
Range	1-6	0-5	1-2
Mean	3.8	1.7	1.17
Mode	6	0	1
Median	3	1	1
SD	1.9	1.8	0.4

County	Time Difference Between DIS Initiation and Successful Contact				
	Range	Mean	Mode	Median	SD
Hartford	0-21 days	11 days	6 days	3 days	6.5 days
New Haven	2-81 days	18 days	2 days	7 days	28.3 days
Fairfield	2-28 days	8 days	N/A	5 days	9 days
Counties Combined	0-81 days	12.4 days	6 days	7 days	16.9 days

## 18 month Out of Care Tables and Flow Chart

(No HIV lab results between December 2017 and June 2019)

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$2,300,000 with no percentage financed with nongovernmental sources. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

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