

Geographic Utilization of Gift Cards Used for Financial Incentives to Encourage Viral Suppression: Findings from HPTN 065

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BACKGROUND

HPTN 065 (TLC-Plus) evaluated the feasibility and effectiveness of providing financial incentives (FI) for achievement of viral suppression (VS) by HIV-infected patients on antiretroviral therapy (ART) at HIV care sites in two municipalities, the Bronx, NY (BNY) and Washington DC (DC). Patients who were established in care at an HIV care site randomized to the FI intervention, who were on antiretroviral therapy (ART) and who achieved and maintained viral suppression (VS) received quarterly \$70 FI in the form of gift cards. In this study, VS was defined as HIV RNA < 400 copies/mL.

A total of 39,359 FI gift cards were dispensed to virally suppressed patients over 2 years by 19 HIV care sites in BNY and DC. Analysis was conducted to determine the geographic location of where transactions were made with the gift cards.

METHODS

Data for each gift card disbursed included the source of the card, i.e. dispensing HIV care site, transaction amount, and the zip code where each transaction took place. Cards never used (789 gift cards [2%]) and transactions without valid zip codes (938 transactions [0.06%]) were excluded from the mapping analyses.

ZIP Code Tabulation Areas were used to map the location of transactions by municipality (BNY/DC). Python programming and Microsoft Excel 2010 were used for all analysis and visualization. Transactions that occurred outside of the study municipalities were defined as non-local transactions. A random number generator function in Excel was used to select a random sample of 50 non-local transactions from each municipality, which represented approximately 1% of non-local transactions. The sampled transactions were used to estimate the proportion of transactions in the population of all non local transactions that occurred in person versus by phone or internet. 95% confidence intervals (CI) were calculated to indicate the sampling error of these estimates, and are based on a large sample approximation.

RESULTS

GIFT CARD DISTRIBUTION AND TRANSACTIONS

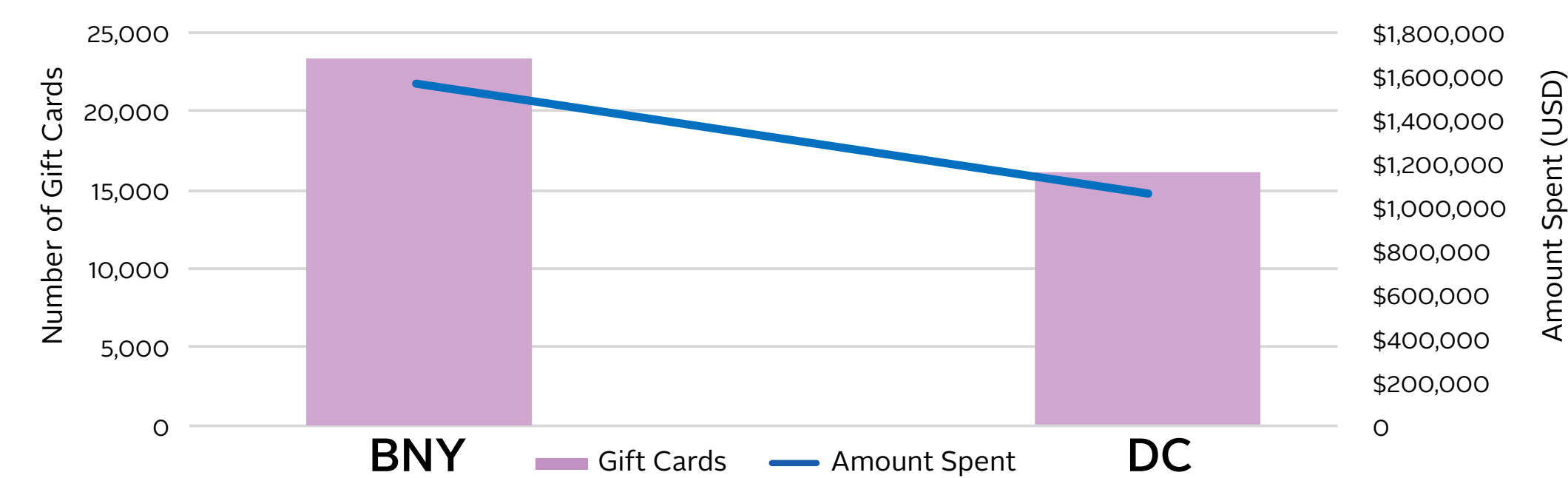


FIGURE 1: Overall Gift Card Distribution and Use

Figure 1 shows the total number of and the total amount spent on gift cards dispensed in each municipality.

- **39,359 \$70 gift cards (worth \$2,755,130)** were distributed to patients for VS, with 23,265 gift cards worth \$1,628,550 in BNY and 16,094 gift cards worth \$1,126,580 in DC.
- **140,551 transactions (worth \$2,627,399)** were made on gift cards distributed in BNY (78,529 transactions worth \$1,564,090) and DC (62,022 transactions worth \$1,063,309).
- The majority of transactions occurred **locally** (within or near the municipality where they were dispensed)
 - » 95.4% of all transactions from gift cards distributed in BNY occurred in New York State (NY).
 - » 93.7% of all transactions on gift cards distributed in DC occurred in Washington DC, Maryland (MD) and Virginia (VA).

RESULTS (CONTINUED)

LOCAL GEOGRAPHIC DISTRIBUTION OF GIFT CARD TRANSACTIONS

FIGURE 2: Gift Card Distribution by Site and Location of Gift Card Transactions by Zip Code

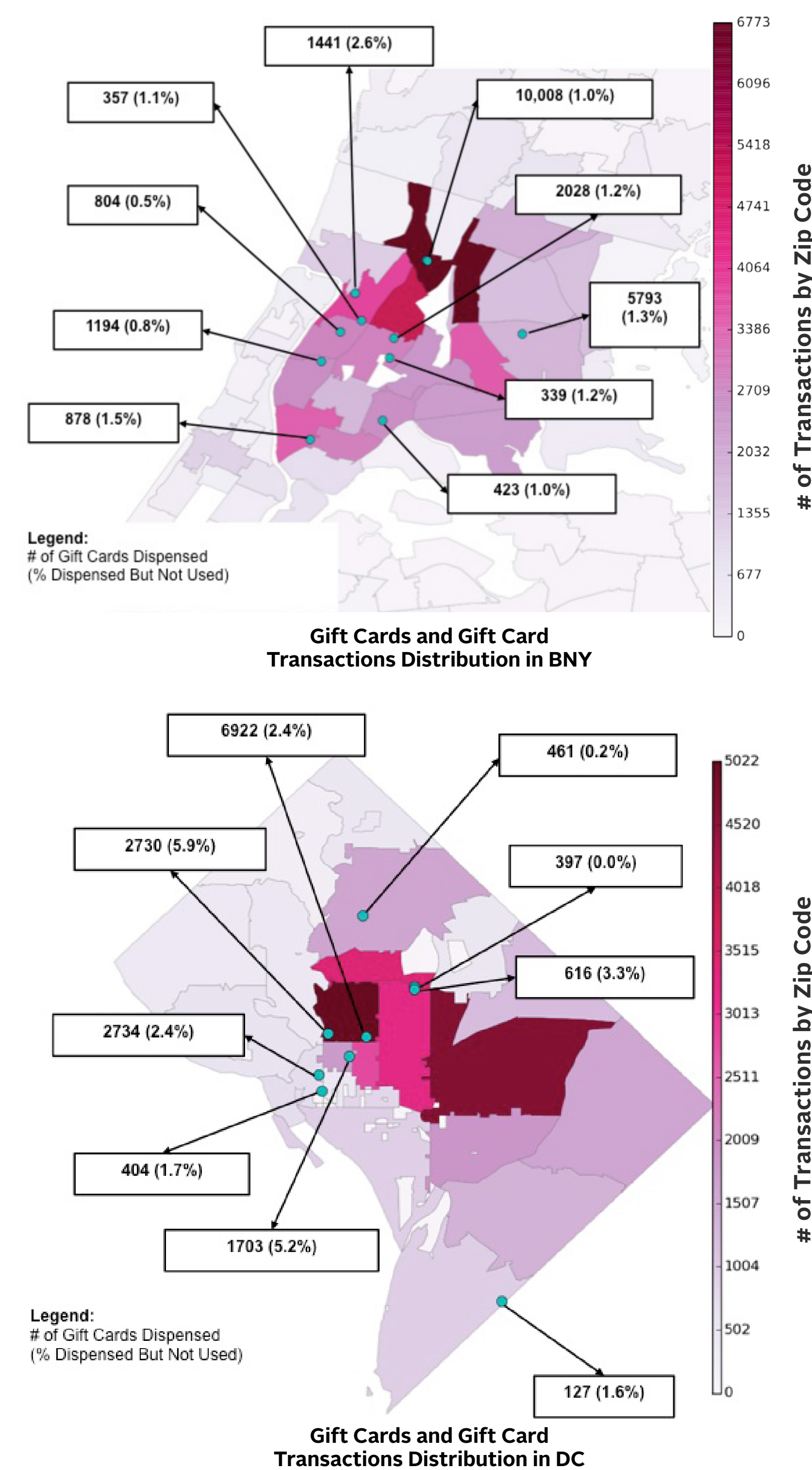


Figure 2 shows (a) the number of gift cards dispensed at each HIV care site (b) the percentage of those cards that were not used and (c) the number of gift card transactions by zip code within the municipalities (BNY/DC) where the cards were dispensed.

- There was a wide range (127 – 10,008) in the number of gift cards distributed at each HIV care site. However, this variation does not correlate with the density of transactions in each site's zip code. For example, the BNY site with the second highest number of gift cards dispensed (5793 gift cards) is in a zip code with a mid-range density of transactions (in the range of 2709 transactions), and one of the DC zip codes with the highest density of transactions contains no HIV care sites that dispensed gift cards. Gift card transactions were concentrated in a small number of zip codes within each municipality.
- A small percentage of gift cards that were given to patients were not used for transactions (789 gift cards = 2%). One site, an adolescent clinic in DC, had transaction(s) associated with every gift card dispensed.

GEOGRAPHIC DISTRIBUTION OF NON-LOCAL GIFT CARD TRANSACTIONS

FIGURE 3: Location of Gift Card Transactions by State

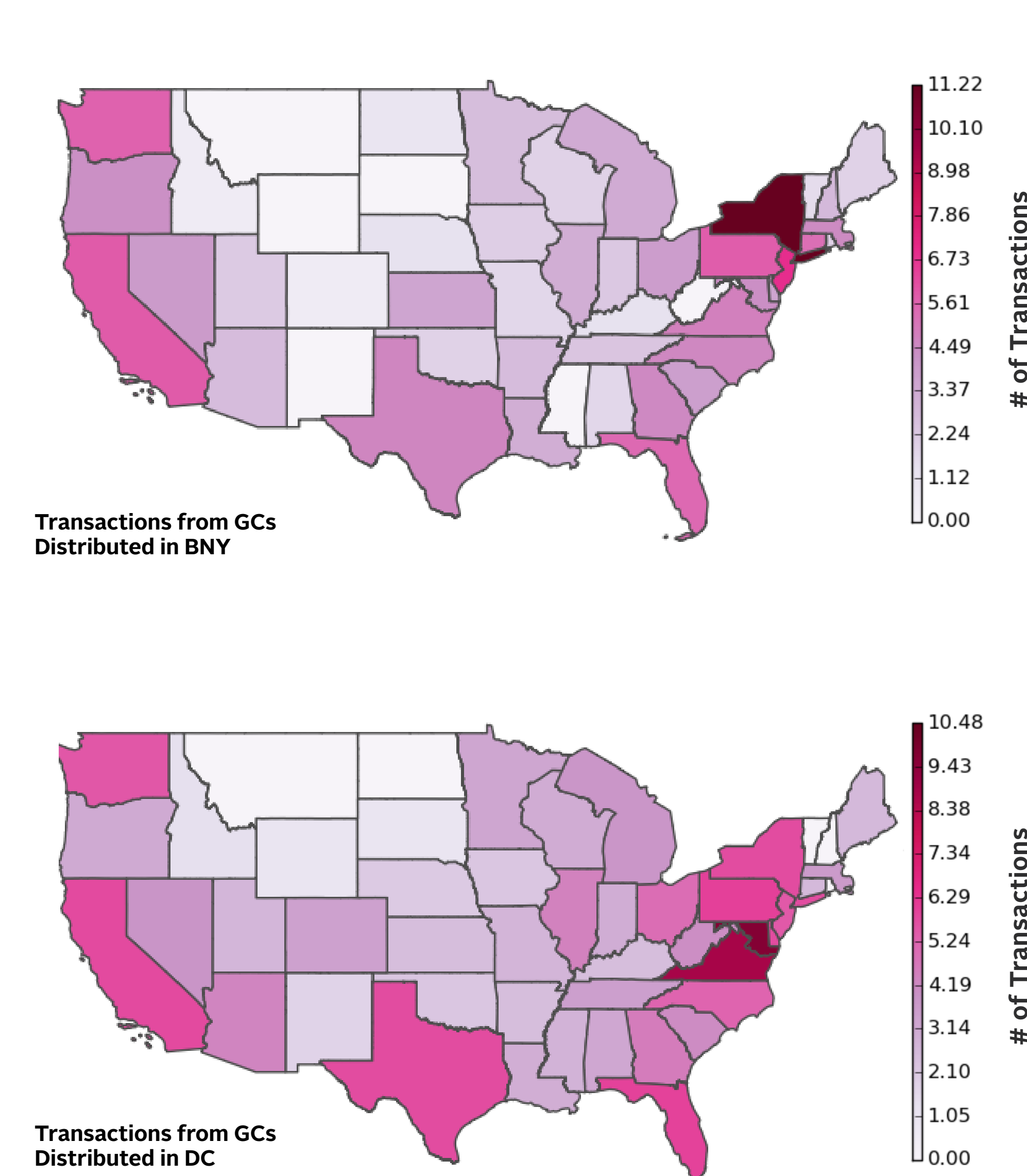


Figure 3 shows the distribution of gift card transactions in the US by municipality where the gift cards were dispensed.

- Gift card transactions occurred in all 50 US states, Puerto Rico, the Virgin Islands and a few international locations.
- **4.6% of the transactions** from gift cards dispensed in BNY occurred outside of NY State. These transactions corresponded to 1,852 (8.0%) of the BNY-distributed gift cards.
- **6.3% of the transactions** from gift cards dispensed in DC occurred outside of DC, MD and VA. These transactions corresponded to 1,987 (12.3%) of the DC-distributed gift cards.
- The majority of non-local transactions sampled in BNY were determined to have occurred in person (62%, 95% CI [48.5%, 75.5%]) rather than by telephone or internet. Similarly, the majority of non-local transactions sampled in DC were determined to have occurred in person (74%, 95% CI [61.8%, 86.2%]) rather than by telephone or internet.

CONCLUSION

- The findings from these analyses demonstrate that gift card utilization in HPTN 065 was high, with very a small percent of dispensed gift cards unused. Overall, of every dollar dispensed, 95 cents were accounted for by transactions.
- Geographic analysis revealed that the majority of the transactions with the gift cards occurred locally within the municipalities where they were dispensed. A limited number of zip codes in each municipality were the location of large number of transactions, which may reflect the presence of commercial outlets and/or where large proportion of patient resided.
- The vast majority of cards were used at least once, but a small percentage were never used by recipients. All of the gift cards distributed at an HIV adolescent care clinic were used at least once.
- Approximately 5% of all transactions took place outside of the local municipality where the gift cards were distributed. Based on further analysis, the majority of such transactions were made in person rather than via telephone or internet. These data suggest that HIV-infected individuals in the Bronx and DC travel throughout the US and beyond; thus, research is needed to understand their migration and/or travel patterns and the implications for interventions using ART for prevention.



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