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# *Gender Affirmation and Incentives for Long-Acting PrEP: Stated Preferences of Transgender Adults*

Wilson-Barthes, Marta[a]; Restar, Arjee[b,c]; Dusic, Emerson[b], Operario, Don[a,d]; Souza, Tim[a]; Galárraga, Omar[a]

[a] *Brown University, Providence, RI USA;* [b] *University of Washington, Seattle, WA USA;*
[c] *Yale University, New Haven, CT USA;* [d] *Emory University, Atlanta, GA USA*

## BACKGROUND

Transgender and nonbinary (trans) people face a disproportionately high HIV risk,[1-4] yet adherence to pre-exposure prophylaxis (PrEP) remains low.[4] Conventional approaches to PrEP programming have not sufficiently engaged trans populations. In addition to PrEP gender-affirmative system[5] – in which trans patients receive PrEP care while having their gender goals/needs affirmed socially (e.g., using names and pronouns), medically (e.g., provision of hormone or other medical interventions), and legally (e.g., having correct name and gender marker in medical records) – other approaches targeting economic barriers to offset the immediate costs of care engagement (e.g., transportation costs, cost of taking time off work for a care visit) could be promising, particularly when experienced by trans populations with socioeconomic vulnerabilities.

Conditional economic incentives (CEIs) have been shown to increase the uptake of and adherence to HIV prevention and treatment programs in diverse settings and populations.[6-9] Conditional incentives can increase motivation to engage in a behavior that does not have an immediately visible health impact (like taking long-acting PrEP), which can then become a routine habit.[9] However, to our team's knowledge, there are no CEI studies applied to trans populations and PrEP programming. To understand preferences for incentive-based oral PrEP adherence programs , user-centered approaches are needed to inform the optimal design of trans-specific PrEP programming.

## METHODS

We conducted a discrete choice experiment (DCE) among 385 trans adults in Seattle/King County, Washington State to inform the optimal design of a conditional economic incentive (CEI) program that would provide free long-acting injectable PrEP (LA-PrEP) and gender-affirming care. Survey respondents were recruited via local organizations and community listservs serving trans individuals, as well as social media platforms and trans-focused support groups and events. Individuals were eligible if they were: 18 years or older, self-reported transgender and/or nonbinary, currently living in Washington State, and willing and able to provide electronic informed consent for study participation.

We used a best-best elicitation method where respondents were first asked to select their best option from three hypothetical choice profiles (Program A, Program B, or No Program) and then select their second-best option from the remaining two profiles.

We used a rank-ordered mixed logit model for the main results, and estimated respondents' marginal willingness-to-accept each program attribute.




**Figure 1. WA PATH Study Flyer**

*Trans adults in the United States would accept conditional economic incentives to help them adhere to free LA-PrEP with a gender-affirming care component as part of PrEP programming.*

*Based on this study, the optimal program design that offers incentives conditional on LA-PrEP and gender-affirming care adherence should:*

(1) Deliver incentives in cash
(2) Confirm PrEP adherence via blood testing
(3) Provide adherence counseling in-person rather than online
(4) Provide prescriptions for injectable rather than oral gender-affirming hormones.

**Table 1. Characteristics of N=385 survey respondents**

| | Mean (SD) or % (N) [a] |
|---|---|
| **Gender identity** | |
| Woman, including transgender woman | 87.5% (337) |
| Man, including transgender man | 6.8% (26) |
| Nonbinary, including gender nonconforming, genderqueer | 5.5% (21) |
| Two-spirit | 0.3% (1) |
| **Sex assigned at birth** | |
| Male | 88.6% (341) |
| Female | 11.4% (44) |
| **Age at survey (years)** | 29.04 (4.11) |
| **Age at survey squared** | 859.93 (260.47) |
| **Race** | |
| Asian/Asian American | 11.9% (46) |
| Black/African American | 14.0% (54) |
| Hispanic, Latino, or Spanish origin | 9.6% (37) |
| Native Hawaiian/Pacific Islander | 0.8% (3) |
| White | 62.9% (242) |
| American Indian or Alaskan Native | 0.8% (3) |
| **Currently covered by a health insurance plan** | |
| No | 0.5% (2) |
| Yes | 99.0% (381) |
| Missing | 0.5% (2) |
| **Ever taken PrEP** | |
| No | 79.2% (305) |
| Yes | 19.5% (75) |
| Missing | 1.3% (5) |
| **Ever engage in sex work** | |
| No | 94.0% (362) |
| Yes | 5.7% (22) |
| Missing | 0.3% (1) |
| **Geography of current residential community** | |
| Rural area | 13.5% (52) |
| Small city or town | 30.1% (116) |
| Large city | 36.4% (140) |
| Suburb near a large city | 20.0% (77) |
| **Highest education completed** | |
| Some high school (grades 9 – 12) | 14.8% (57) |
| High school graduate (grade 12 or GED) | 44.2% (170) |
| Some college or technical school (1 - 3 years of college) | 33.2% (128) |
| College graduate (4 or more years of college) | 6.0% (23) |
| Graduate school | 1.8% (7) |
| **Personal income (before taxes) last year** | |
| No income | 1.3% (5) |
| Less than $14,999 | 2.6% (10) |
| $15,000 to $29,999 | 14.0% (54) |
| $30,000 to $49,999 | 42.6% (164) |
| $50,000 to $74,999 | 33.0% (127) |
| $75,000 to $99,999 | 2.9% (11) |
| $100,000 to $149,999 | 0.3% (1) |
| $150,000 or more | 0.3% (1) |
| Missing | 3.1% (12) |

[a] Data are presented as mean (SD) for continuous measures, and % (n) for categorical measures.

## RESULTS

### Demographics

Table 1 shows the characteristics of the 385 DCE respondents. On average, respondents are 29.04 years of age, predominantly (62.9%) White, and have completed high school or at least some college (77%). Almost all (99%) respondents are covered by health insurance, and 79.2% (n=305) have never taken PrEP. Over half of respondents had an income below $50,000 per year.

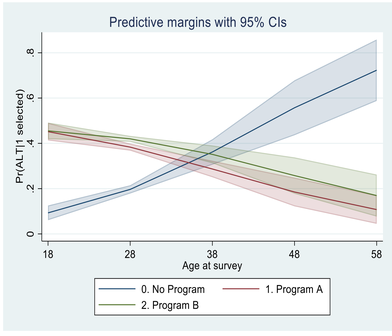



**Figure 2. Averaged choice probabilities over the entire age range.** The figure presents the averaged choice probabilities over the entire age range, excluding all other case-specific variables from the conditional logit model. Depending on the respondent's age, Program A has a 45.2% to 18.5% probability of being chosen, Program B has a 45.5% to 25.8% probability of being chosen, and No Program (opt-out) has a 9.3% to 55.7% probability of being chosen. Among respondents younger than 38 years of age, the No Program (opt-out) option always has a much lower probability of being chosen. As individuals age, the probability of selecting either hypothetical incentive-based program over the No Program option declines steadily.

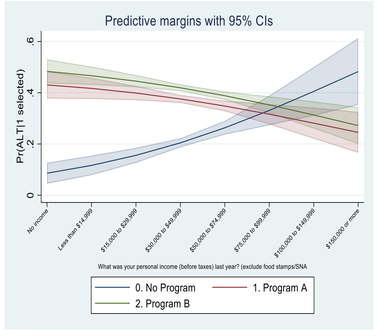



**Figure 3. Averaged choice probabilities over the entire income range.** The figure presents the averaged choice probabilities over the entire income range, excluding all other case-specific variables from the conditional logit model. Depending on the respondent's income, Program A has a 43.1% to 24.5% probability of being chosen, Program B has a 48.3% to 27.2% probability of being chosen, and No Program (opt-out) has a 8.6% to 48.7% probability of being chosen. Among respondents younger with an annual income below $75,000, the No Program (opt-out) option always has a much lower probability of being chosen. As income increases, the probability of selecting either hypothetical incentive-based program over the No Program option declines rapidly.

## RESULTS (continued)

### Discrete Choice Experiment Results

We find the optimal program design would: (1) deliver incentives in cash, (2) confirm LA-PrEP adherence via blood testing, (3) provide counseling in-person, and (4) provide co-prescriptions for injectable gender-affirming hormones. From a maximum yearly incentive amount of $1,200, respondents were willing to forgo up to $795 to receive incentives in cash (instead of voucher) and up to $587 to receive injectable rather than oral hormones. As shown in the figure, the probability of choosing a hypothetical program over no program waned as adults aged (>40 years) and as annual income increased (>$75,000/year).

## CONCLUSIONS

Conditional economic incentives may be effective for improving LA-PrEP adherence among trans adults who are younger and have fewer financial resources. A randomized trial is needed to confirm the validity of the DCE for predicting actual program uptake.

## ADDITIONAL KEY INFORMATION

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**Contact: restar@uw.edu**