Client Preferences for HIV Care Coordination Program Features: Latent Class Analysis of a Discrete Choice Experiment

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NO CONFLICTS OF INTEREST TO DISCLOSE
NYC Care Coordination Program (CCP) to address persistent disparities in HIV care

- 2009: NYC Department of Health launched multi-component CCP

- Substantial improvements in viral suppression

CDC Designation of Structural Evidence-Based Intervention

PROMISE study of revisions to the CCP

• Launched in 2018
• Evaluates implementation and impact of revisions to multi-component CCP
• Many aims, including exploring client preferences for CCP services
PROMISE Aims

Aim 1: To estimate the effects of the revised (vs. original) CCP on timely viral suppression (≤ 4 months) using experimental methods.

Aim 2: To estimate the effects of the revised CCP (vs. “usual care”) on longer-term viral suppression, including viral suppression at 12 months and durable viral suppression (at 24-36 months), using rigorous observational comparison group methods.

Aim 3: To identify attributes and drivers of provider and client engagement in the intervention and provider and client preferences for future revised-CCP delivery and receipt, respectively.
Client DCE Objective

To evaluate client preferences for care coordination program features, using a discrete choice experiment (DCE), to inform improvements to the program’s design and engagement.
DCE is a tool to evaluate preferences

- DCEs identify preferences by examining patterns of respondents’ choices across multiple comparisons of two or more sets of program features.
- Clients compared 10 different pairs of hypothetical approaches to receiving HIV care coordination.
- Each hypothetical model was made up of attributes, each with multiple levels (developed from client focus groups).
# Client DCE attributes & levels

## Help with Taking Medication

<table>
<thead>
<tr>
<th>Attribute level description</th>
<th>Helper image</th>
</tr>
</thead>
<tbody>
<tr>
<td>A staff member watches you take your medication</td>
<td><img src="image1.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>You receive reminders by phone or text to take your medication</td>
<td><img src="image2.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>You don’t receive medication reminders, but a staff member works with you on sticking to a medication schedule</td>
<td><img src="image3.png" alt="Helper Image" /></td>
</tr>
</tbody>
</table>

## Help with Issues other than Primary Care

<table>
<thead>
<tr>
<th>Attribute level description</th>
<th>Helper image</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff help with insurance, SSI benefits, and other general paperwork for health care coverage and benefits</td>
<td><img src="image4.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>Staff help with securing housing and food assistance</td>
<td><img src="image5.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>Staff help with mental health and well-being issues (such as stress, substance use, diet, or personal relationships)</td>
<td><img src="image6.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>Staff help with medical care from specialists (cardiologists, oncologists, neurologists, ear-nose-throat doctors, etc.)</td>
<td><img src="image7.png" alt="Helper Image" /></td>
</tr>
</tbody>
</table>

## Help with Primary Care Appointment

<table>
<thead>
<tr>
<th>Attribute level description</th>
<th>Helper image</th>
</tr>
</thead>
<tbody>
<tr>
<td>A staff member reminds you and goes with you to all primary care appointments</td>
<td><img src="image8.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>A staff member reminds you and arranges transportation for you to get to your primary care appointments</td>
<td><img src="image9.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>A staff member only reminds you about your primary care appointments</td>
<td><img src="image10.png" alt="Helper Image" /></td>
</tr>
</tbody>
</table>

## Where Program Visits Happen

<table>
<thead>
<tr>
<th>Attribute level description</th>
<th>Helper image</th>
</tr>
</thead>
<tbody>
<tr>
<td>A staff member meets you in person at your home</td>
<td><img src="image11.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>A staff member meets you by phone or video chat</td>
<td><img src="image12.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>A staff member meets you at a program location that is 30 minutes from your home</td>
<td><img src="image13.png" alt="Helper Image" /></td>
</tr>
<tr>
<td>A staff member meets you at a program location that is 60 minutes from your home</td>
<td><img src="image14.png" alt="Helper Image" /></td>
</tr>
</tbody>
</table>
Methods overview

Data Collection

Eligible participants:
Clients ages 18+ enrolled in CCP from 6 partner sites

Client Survey

Analysis

Preference estimation:
Relative importance of attributes & part-worth utilities of levels

Latent class analysis:
Identify client groups with heterogeneous preferences

Choice Simulation:
Model client preference for hypothetical CCP
Client demographics (n = 181)

- Median age: 53 years
- 55.3% cisgender men
- 76.8% heterosexual
- 66.9% Black
- 54.7% depression or anxiety disorder
- 25.4% had at least a high school diploma or GED
- 58.6% unemployed

- 68.5% report stable housing
- 25.6% received directly observed therapy (DOT) within a CCP
- 92.3% enrolled in care coordination >1 year
- 72.4% report no substance use in last 3 months
- 78.5% viral load suppression (<200 copies/mL)
DCE attribute importances for the total sample

Visit location with highest relative importance in the study overall
DCE attribute importances by latent class

Most important attributes (total & across all groups): Visit location & ART adherence support
Part-worth utilities of CCP features by client group

Group 1 (N=72, 40%)
Group 2 (N=67, 37%)
Group 3 (N=42, 23%)

Attribute levels related to telehealth
Preferences for hypothetical CCPs, based on choice simulation

- Choice Simulation to model preference for hypothetical CCPs as a whole
- Consulted experts on CCPs to develop hypothetical CCPs combining specific levels
- Basic and Medium hypothetical CCPs were endorsed more than Intensive CCPs.
## Key Findings & Limitations

**Key Findings:**
- Strong preference for telehealth
- Relatively low preference for intensive services (DOT, home visits)
- Client preferences for CCP services were heterogeneous

**Limitations:**
- Stated preferences, not actual behavior
- Sampling likely focused on clients with lower needs (mostly stably housed, able to achieve viral suppression without DOT)
- Data collection straddles pre-pandemic and early pandemic periods in NYC
  (sensitivity analysis showed preference for telehealth even pre-pandemic)
Conclusions & Implications

- The findings from this client DCE support:
  - Differentiated care
  - Remote service delivery options

- Further research is needed to explore the concordance of preferences between clients and CCP providers
Acknowledgements

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• Mary Irvine
Thank you!

Questions?

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Additional Slides
### Timing of Survey Completion with Respect to COVID-19 Service Disruption

<table>
<thead>
<tr>
<th>Timing of DCE completion</th>
<th>Overall (N=181)</th>
<th>Group 1 (N=72)</th>
<th>Group 2 (N=67)</th>
<th>Group 3 (N=42)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-pause, before the COVID-19 pandemic</td>
<td>140 77.3</td>
<td>55 76.4</td>
<td>47 70.1</td>
<td>38 90.5</td>
<td>0.053</td>
</tr>
<tr>
<td>Intra-pause, while in-person services were paused</td>
<td>15 8.3</td>
<td>9 12.5</td>
<td>5 7.5</td>
<td>1 2.4</td>
<td></td>
</tr>
<tr>
<td>Post-pause, in-person services resume</td>
<td>26 14.4</td>
<td>8 11.1</td>
<td>15 22.4</td>
<td>3 7.1</td>
<td></td>
</tr>
</tbody>
</table>