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Cost-effectiveness of a collaborative data-to-care intervention for HIV prevention

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BACKGROUND

- Data-to-care programs utilize surveillance data to identify persons who are out of HIV care, re-engage them in care, and improve HIV care outcomes.
- The Cooperative Re-engagement Control Trial (CoRECT) employed a data-to-care collaborative model between health departments and HIV care providers.
- We estimate costs and cost-effectiveness of CoRECT intervention that identifies out-of-care patients and re-engage them in HIV care.

METHODS

- The health departments in Connecticut (CT), Massachusetts (MA), and Philadelphia (PHL) collaborated with HIV clinics to identify newly out-of-care patients (Figure 1).
- The participants were randomized to receive usual linkage and engagement in care services (standard-of-care control arm) or health department-initiated active re-engagement services (intervention arm).
- We used a microcosting approach to identify the activities and resources involved in the CoRECT intervention, including identifying out-of-care patients and health department-initiated active re-engagement services.
- The cost data were collected at start-up and recurrent phases of the trial to incorporate potential variation in the intervention costs.
- Primary outcomes of the analysis were total intervention cost, average cost, and incremental cost per participant re-engaged in care.

RESULTS

- Intervention outcomes in CT, MA, and PHL:
  - Number of participants per year: 327, 315, and 305.
    - CoRECT Intervention arm: 166, 159, and 155.
    - Standard-of-care arm: 161, 156, and 150.

Incremental cost per person re-engaged in HIV care was $27,224 in Connecticut, $31,553 in Massachusetts, and $12,919 in Philadelphia.

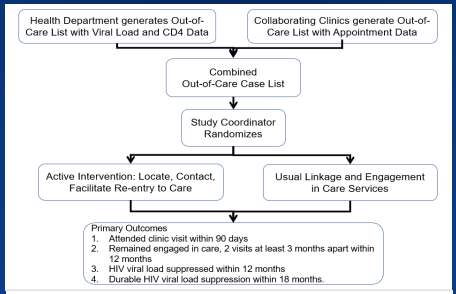


Figure 1. CoRECT methods to identify HIV-infected individuals out-of-care and randomize to an active intervention or usual care.

RESULTS CONT …

  - Number of participants re-engaged in care within 90 days:
    - CoRECT Intervention arm: 85, 84, and 98.
    - Standard-of-care arm: 67, 69, and 64.
  - Additional number of participants re-engaged in care in the CoRECT intervention arm compared with those in the standard-of-care arm: 18, 15, and 34.
- CoRECT intervention cost in CT, MA, and PHL (2018 US$):
  - Annual total cost: $490,040, $473,297, and $439,237.
  - Average cost per participant enrolled: $2,952, $2,977, and $2,834.
  - Average cost per participant re-engaged in care: $5,765, $5,634, and $4,482.
  - Incremental cost per participant re-engaged in care: $27,224, $31,553, and $12,919.

CONCLUSIONS

- The costs of the CoRECT intervention that identified newly out-of-care patients and engaged them in HIV care are comparable with other similar interventions, suggesting a potential for its cost-effectiveness.

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