

Do differentiated models of care for HIV treatment result in lower costs for recipients of care in Zambia?

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BACKGROUND

- Countries in sub-Saharan Africa are rapidly expanding differentiated service delivery (DSD) models for HIV treatment and care.
- One of the benefits that DSD models are assumed to generate is a reduction in direct and indirect costs to recipients of care (RoC).
- Savings may vary among the widely diverse DSD models.
- We estimated time, transport, and opportunity costs per RoC per year for models in use in Zambia in 2021

METHODS

- Surveyed 558 adult recipients of ART between May - November 2021 at 12 clinics in Zambia (6 in Lusaka Province and 6 in Central Province) to ask about time and cash costs incurred per clinic visit or DSD model interaction
- Calculated the average cost per health system interaction (clinic and out-of-facility) and multiplied by the participant-reported number of interactions per year
- Estimated annual opportunity costs using the Zambia minimum wage of \$1.99/day and annual transport costs per recipient of care by model of care
- Compared costs among models of care, including conventional care
- Descriptions of the DSD models can be found using the QR code to the right →



Most DSD models lower recipients' costs, but the number of clinic visits and other interactions required by a model matters a lot

RESULTS

- Conventional care required four facility visits per year
- Most (but not all) DSD models reduced facility visits to two per year, with or without additional external interactions (Figure 1).
- Some models increased the total number of interactions per RoC/year (such as adherence clubs and community medication pickups)
- Depending on the model, opportunity costs to RoC ranged from roughly 1 to 3 days' minimum wage (Figure 2).
- Fewer than half of RoC incurred any transport costs; for those who did, the cost averaged 1-1.5 days' minimum wage (Figure 3).

Figure 1. Self-reported median number of health system interactions/RoC/year

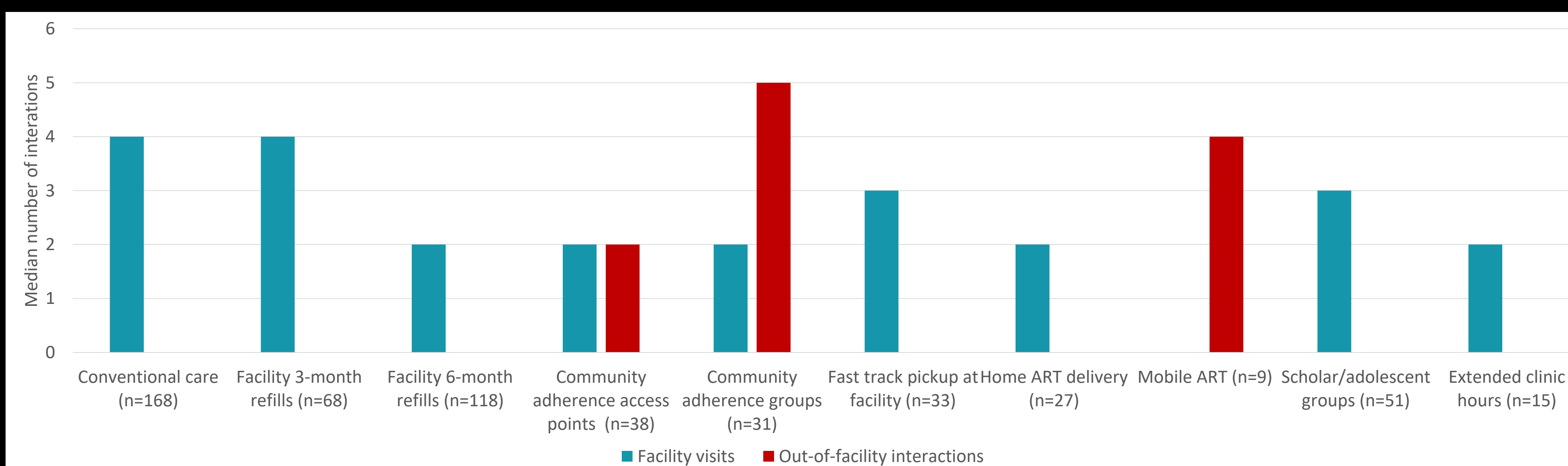
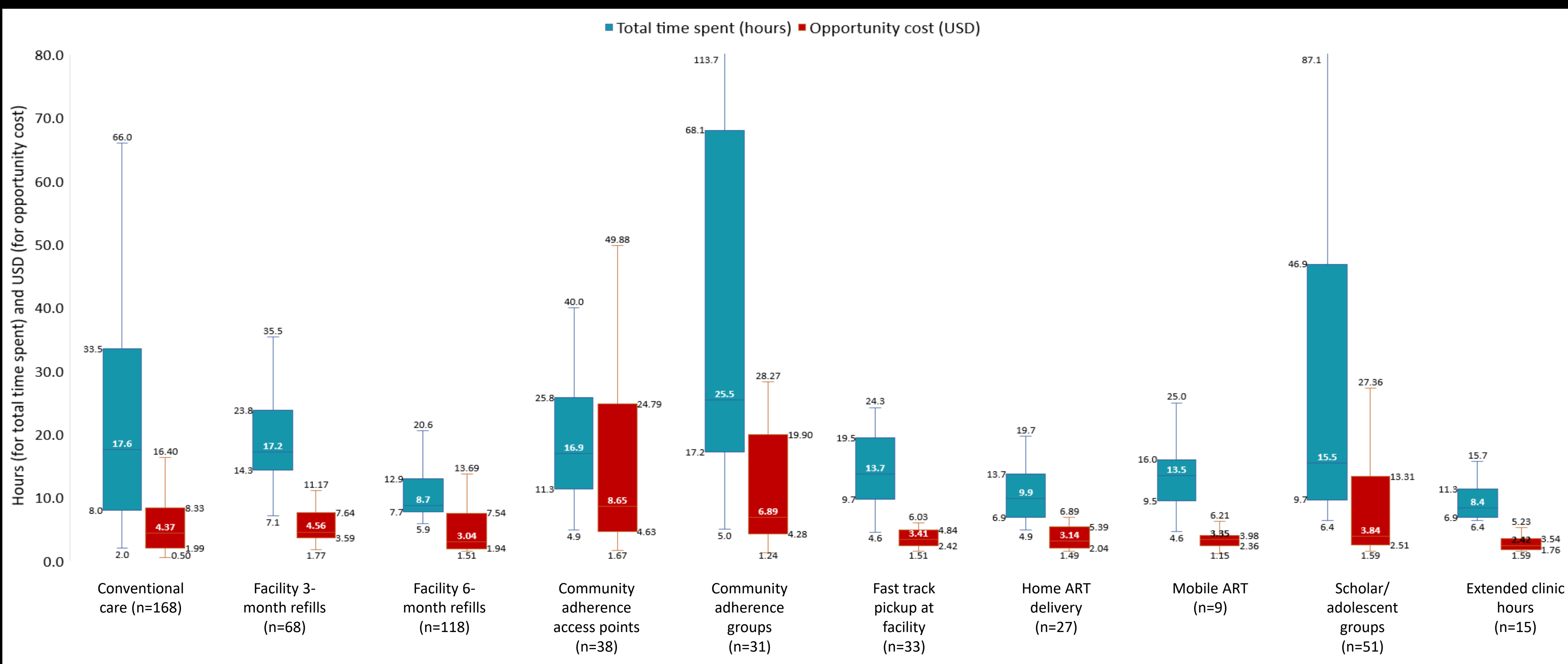


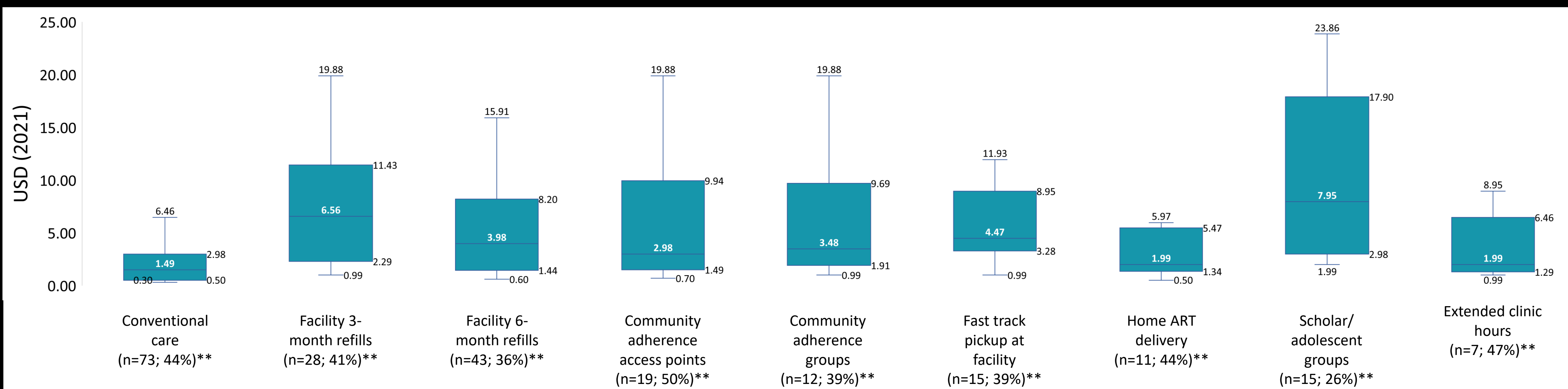
Figure 2. Median time spent (hours) and opportunity costs (2021 USD) per RoC per year



CONCLUSIONS

- Variation in transport costs may reflect RoC choices about paying for transport based on anticipated number and location of interactions.
- DSD models generally reduce costs and time for RoC as compared to conventional care, but this depends entirely on model design (number of interactions required/year).
- Implementing models that minimize RoC interactions with the healthcare system and model events may improve outcomes.
- Some models include elements that increase time and expense to RoC but may contribute to improved outcomes; added costs could be worth it if they add value for RoC.

Figure 3. Median transport costs (2021 USD) per RoC per year*



* Only among those with transport costs; ** Number and proportion in model with transport costs

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