Models for Accessing Harm Reduction Vending Machines: An Interrupted Time Series Design

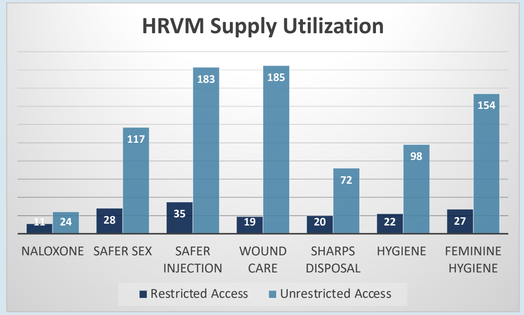
INTRODUCTION

- The fourth wave of the opioid epidemic has exacerbated health disparities among persons with limited opportunity structures, resulting in significant increases in opioid related morbidity and mortality among Black and Latine communities as well as people experiencing homelessness (PEH). (1,2,3,4)
- Low-barrier, low-stigma, and low-threshold harm reduction interventions, such as harm reduction vending machines (HRVMs), stand to increase naloxone engagement and re-engagement as well as access to other harm reduction supplies.
- While several studies have explored the impact of domestic HRVMs on the availability and distribution of harm reduction supplies, including naloxone,(5,6) no study to date has compared models of accessing HRVMs on the accessibility of harm reduction supplies, including safer sex, safer injection, naloxone, wound care, sharps disposal, hygiene, and feminine hygiene kits.

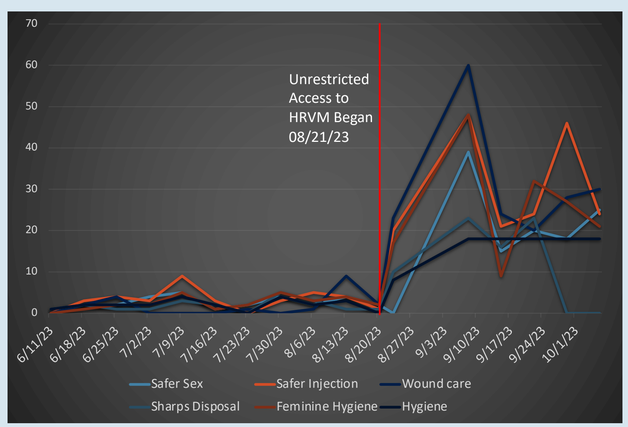
METHODS

- In June 2023, an outdoor HRVM (Project HOPE) became operational in Bakersfield, California in a geographic area with low naloxone kit saturation rate (2.76 kits per 1,000 residents) and medium fatality rate (62.6 per 100,000 residents).
- Between June and August 2023, only registered participants could access the HRVM with a personal ID number, and they were subject to product limits on harm reduction supplies.
- From August 2023 through October 2023, participants were no longer required to register and obtain a personal ID number to access harm reduction supplies from the HRVM, and the product limits were discontinued as well.
- Using an interrupted time series design, the number of harm reduction kits distributed by the HRVM were compared pre- and post-implementation of the unrestricted access model.

RESULTS



- **The shift from restricted access for only registered users with daily supply limits to unrestricted access with no supply limits** for the outdoor community-based HRVM was associated with **significant increases in distribution for <u>all the harm reduction kits</u>**.
- There was a 17.6% increase in safer sex kit utilization ($p < .001$), 28.12% increase in safer injection kit utilization ($p < .001$), 29.47% increase in wound care kit utilization ($p < .001$), 9.73% increase in sharps disposal kit utilization ($p = .022$), 24.06% increase in feminine hygiene kit utilization ($p < .001$), 14.22% increase in hygiene kit utilization ($p < .001$), and 6.69% increase in naloxone kit utilization ($p < .001$), respectively.



CONCLUSION

- Given the high level of stigma and shame experienced by people who use drugs (PWUD) and persons experiencing homelessness PEH, the lowest barrier harm reduction services should be adopted to promote equitable access to harm reduction supplies.
- Even though the outdoor HRVM was accessible to registered participants 24/7/365, utilization remained low, especially for the naloxone kits.
- The discontinuation of the registration process and product limits resulted in a significant increase in utilization for all harm reduction kits, including naloxone.
- **Unrestricted access models for HRVMs stand to increase naloxone saturation, enhance health equity, and decrease fatal opioid ODs among PWUDs and PEH**.
- With the high potency of fentanyl, HRVMs with **unrestricted access models provide the lowest barrier approach** to naloxone engagement and re-engagement.
- For programs distributing sterile syringes through HRVMs, HRVM software settings should allow unrestricted access to all other harm reduction supplies except the sterile syringes, as only registered users of SSPs are legally permitted to access sterile syringes through HRVMs and will require a participant ID number to do so.

AUTHORS & DISCLOSURES

1. Ashleigh Herrera, PhD, MSW, LCSW; Assistant Professor, Social Work, California State University, Bakersfield: Nothing to Disclose

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ACKNOWLEDGEMENT

Thank you to the Bakersfield street medicine and harm reduction teams and the patients served. We recognize and honor our patients who lost their lives this past year to opioid related deaths and preventable illnesses in PEH. We appreciate the support of the California Department of Public Health to provide access to lifesaving naloxone to our agencies free of cost through the Naloxone Distribution Project and harm reduction supplies through the California Clearinghouse.