Not just for snacks: vending machines as an innovative method for harm reduction

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The current buzz around vending machines

LOCAL

Where to find a Narcan vending machine in San Diego

by: Amber Coakley
Posted: Mar 10, 2023 / 08:29 AM PST
Updated: Mar 10, 2023 / 09:10 AM PST

This photo shows a newly installed Narcan vending machine at the McAlister South Bay Regional Recovery Center in Chula Vista. (KSWB Photo)

The current buzz around vending machines

First Narcan vending machine in Kentucky emptied out one day after opening

by ZACHARY ROGERS | The National Desk | Thu, October 6th 2022, 3:25 PM EDT

FILE - Narcan vending machine (SBG)

VINE GROVE, Ky. (TND) — The city of Vine Grove, Kentucky, along with its police department, was proud to unveil the first Narcan vending machine in the state last Thursday.

Narcan, the brand name for the drug naloxone, is a lifesaving medication used to reverse the effects of a drug overdose, particularly the effects of opioid overdoses. Police officers across America have used Narcan and naloxone to save lives.

The current buzz around vending machines

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Wisconsin and the World. npr

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WPR

The first vending machine distributing free Narcan and fentanyl test strips can be seen here in Milwaukee at the Marcia P. Coggs Human Services Center. *Evan Casey/WPR*

Milwaukee County will place vending machines filled with free Narcan, fentanyl test strips throughout community

The current buzz around vending machines

Clark Memorial Health first hospital in the state with a naloxone vending machine

January 19, 2022

The current buzz around vending machines

Philly unveils first-of-its-kind Narcan vending machine at West Philly Free Library

The pilot program for distributing the overdose-reversing drug is funded by a grant from the Centers for Disease Control and Prevention.

By Nina Feldman · February 3, 2022

Health Commissioner Cheryl Bettigole with the Narcan vending machine. (Nina Feldman / WHYY)

Vending machines

A pragmatic, non-stigmatizing, low-barrier, 24/7 platform for delivering critical health “items” in underserved areas to improve community health

Obtained from: https://smrt1.ca/

What are the benefits of using vending machines?

Available 24/7

- Open when businesses and other services are closed (night-time, holidays, weekends)

Anonymous

- Avoids in-person interaction
- Reduces stigma

Flexible and customizable

- Adjust items based on community's needs
- Offer multiple items to serve different needs

Potentially increase engagement among hard to reach, vulnerable populations

Bridge gaps in care unmet by traditional healthcare and public health programs

Increase accessibility of items & services needed for community health

History of using vending machines for harm reduction

- Largely started with clean syringe exchanges in 1989 with the HIV epidemic
- Locations:
  - Mostly in Australia and Europe
  - Based within public settings, occasionally in prisons and schools
- Other variations:
  - Condoms, HIV self-tests, nicotine replacement therapy, and now naloxone
- Target demographics:
  - People who use drugs (PWUD)
  - Men who have sex with men (MSM)
  - Young (sexually active) adults

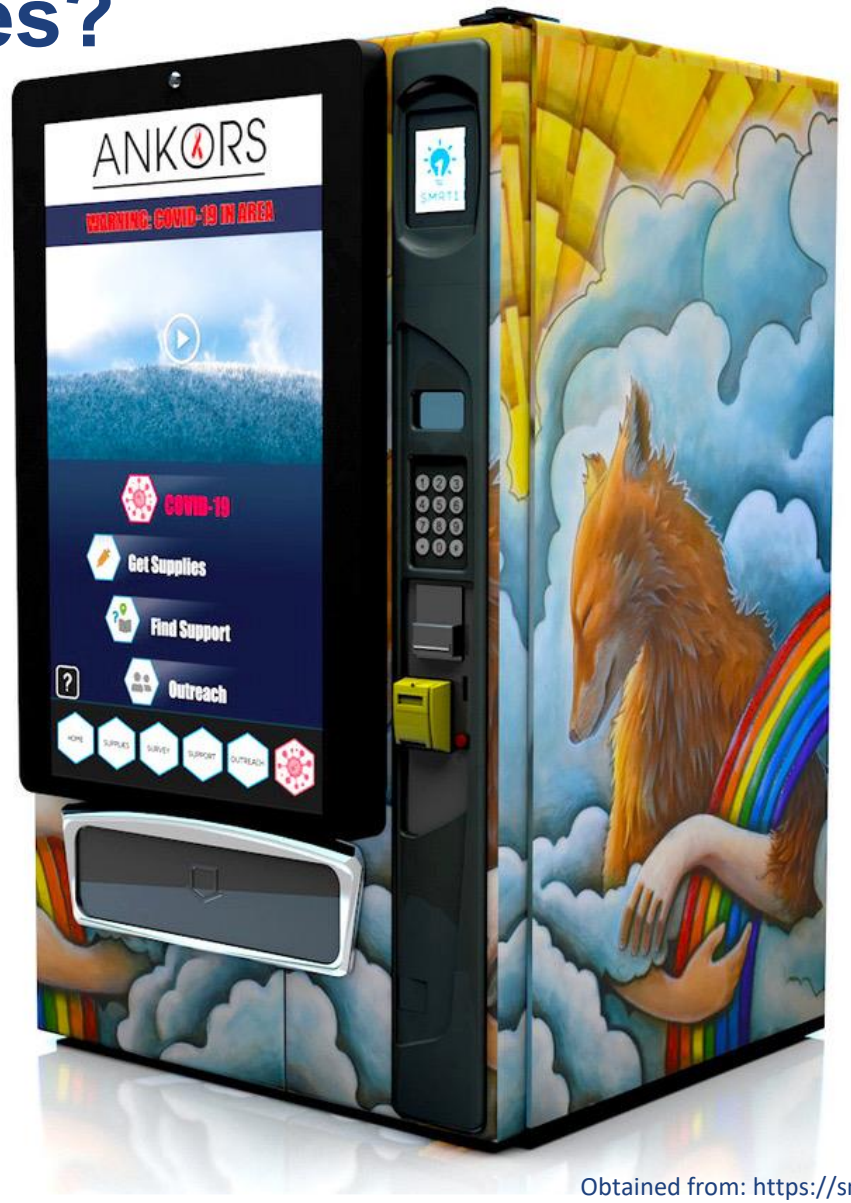
Our pilot study in central PA

Goal of pilot study:

Implement “smart” vending machines in the community as a means to promote health and harm reduction in underserved, hard-to-reach populations.

What are “smart” vending machines?

- 42” interactive touch screen + cellular/WiFi connection allows for:
  - playing customized videos
  - needs assessment & data collection from users’ interactions
  - real-time alerts
  - connections to treatment, social services, peer recovery coaches
- Automatic cloud-based data collection provides real-time data on dispensed items, services, item re-stocking needs

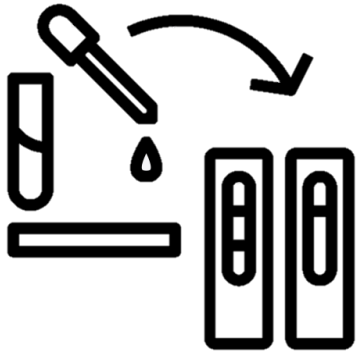


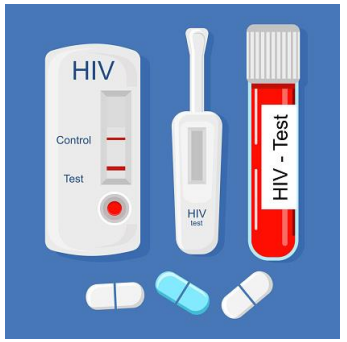
Obtained from: https://smrt1.ca/

Obtained from www.Narcan.com

While Naloxone is one item that can be dispensed…

…there are many other potential items that can be included to improve the community's health





Obtained from iStock

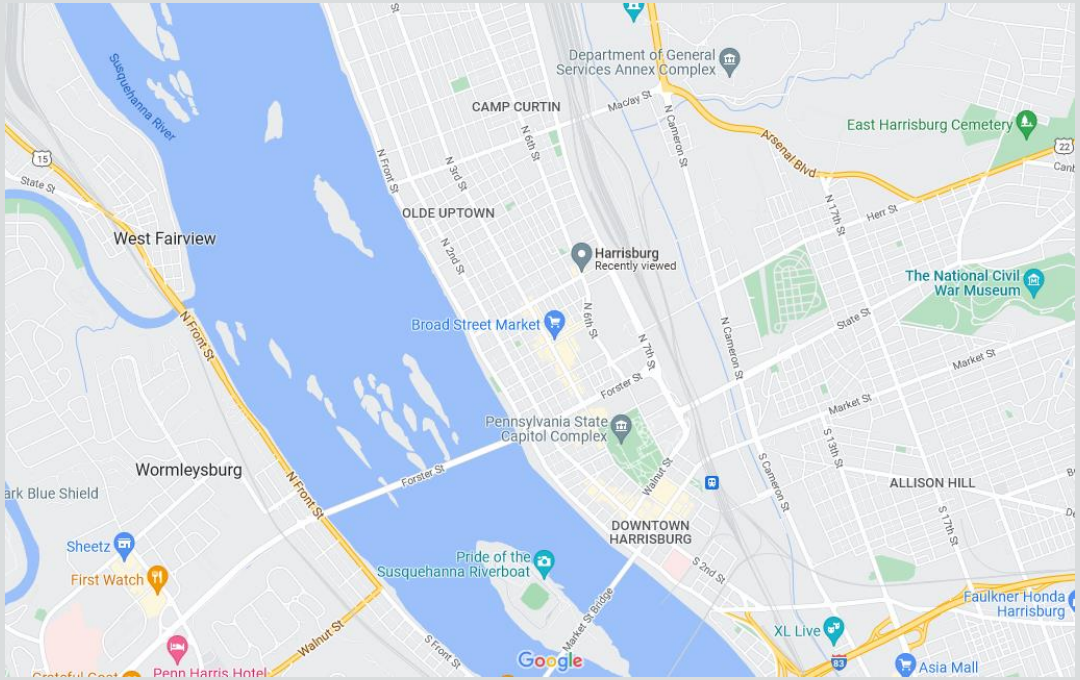
Obtained from: https://smrt1.ca/

Beyond dispensing items…

The vending machine can also connect individuals to treatment, social and medical services, peer support

Obtained from: https://smrt1.ca/

Here is a list of nearby supports and services to help you connect to care. This map shows the locations of resources near this vending machine.



Choose a category or browse listings.

- Addiction and mental health
- Hospital and health services
- Shelter and Housing
- Food and clothing
- Support Services

Obtained from: https://smrt1.ca/

Beyond dispensing items and connecting individuals to services…

The vending machine can also collect data on usage and have users answer customized survey questions

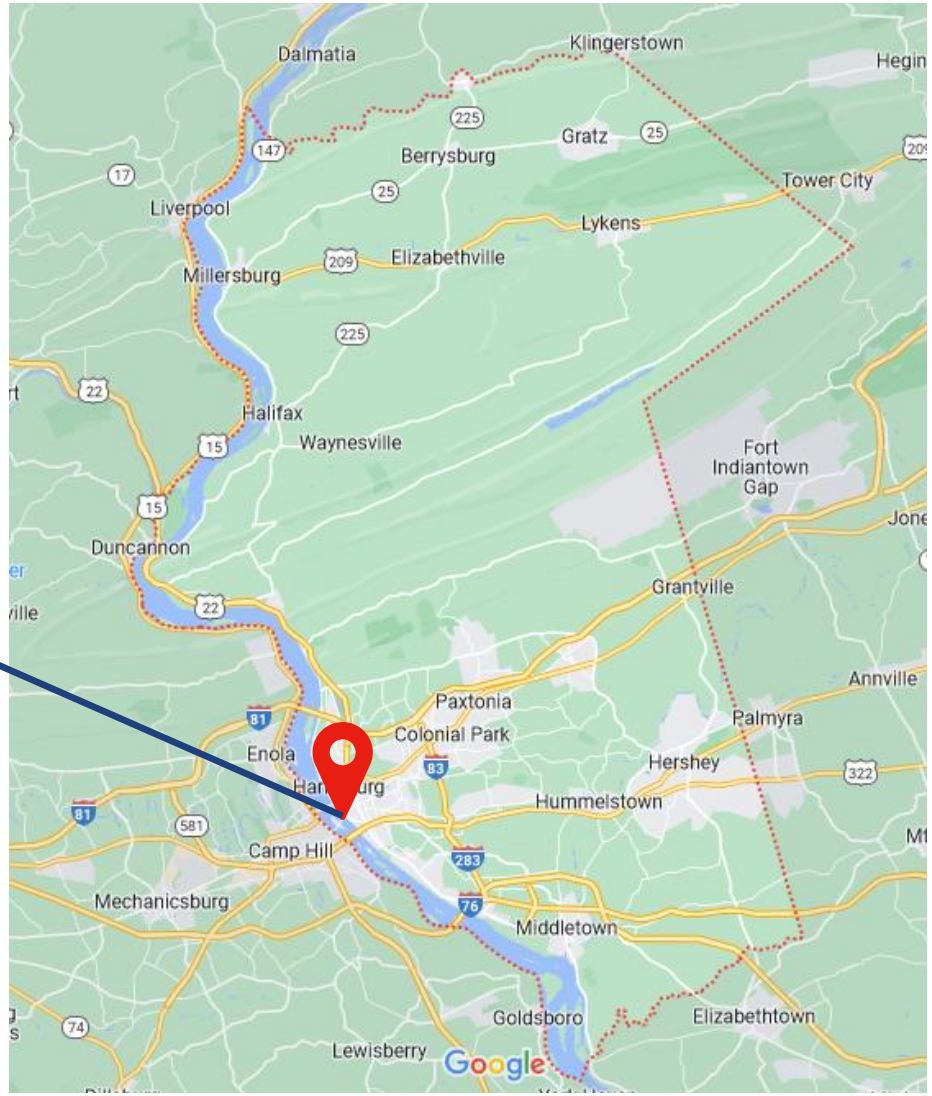
Proposed Vending Machine Location #1: Harrisburg

Harrisburg location

Outside UPMC ED entrance

High community need index score
Higher rates of drug overdose deaths, chlamydia, gonorrhea, syphilis

High proportion African-American (52%)



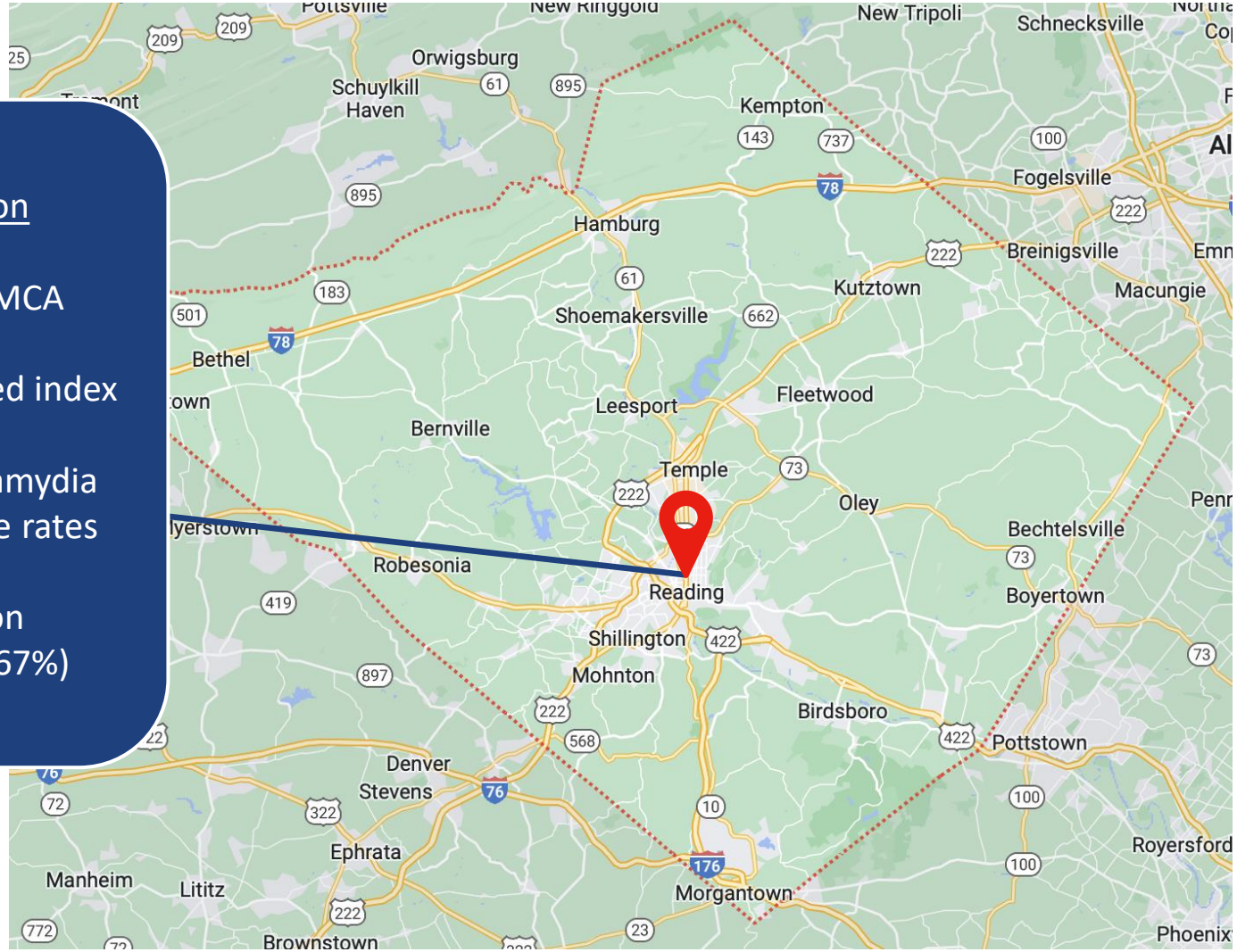
Proposed Vending Machine Location #2: Reading

Reading location

Inside Reading YMCA

High community need index score
Higher rates of chlamydia
Increasing overdose rates

High proportion
Hispanic/Latino (67%)

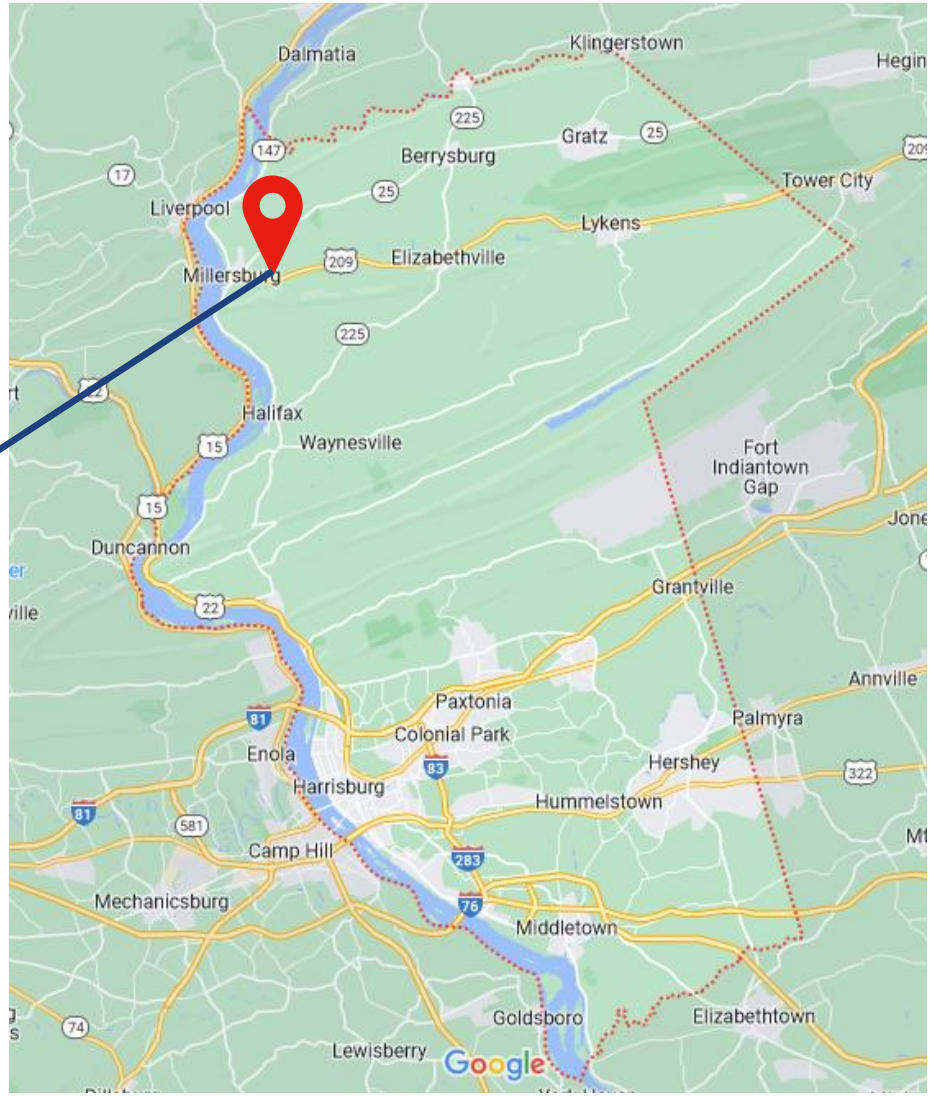


Future Vending Machine Location #3: Millersburg

Millersburg location

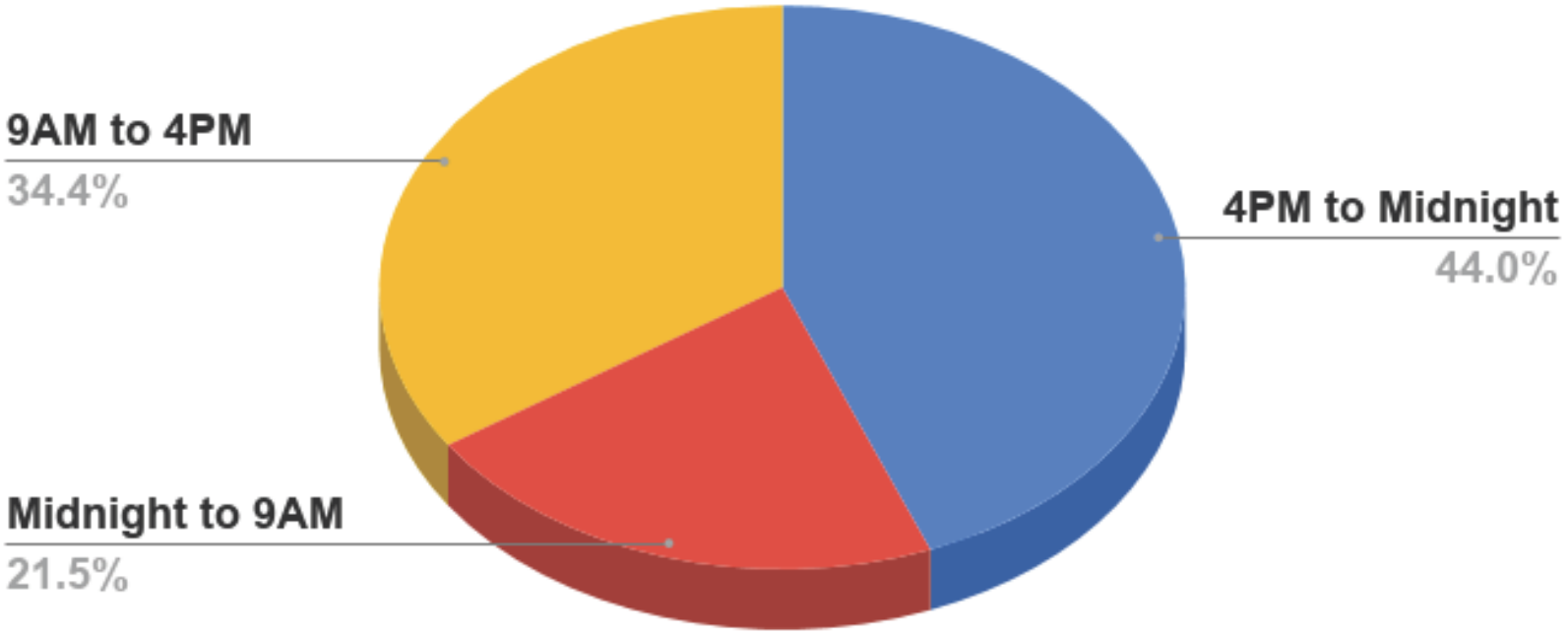
Location TBD

Rural location, with reduced access to health care

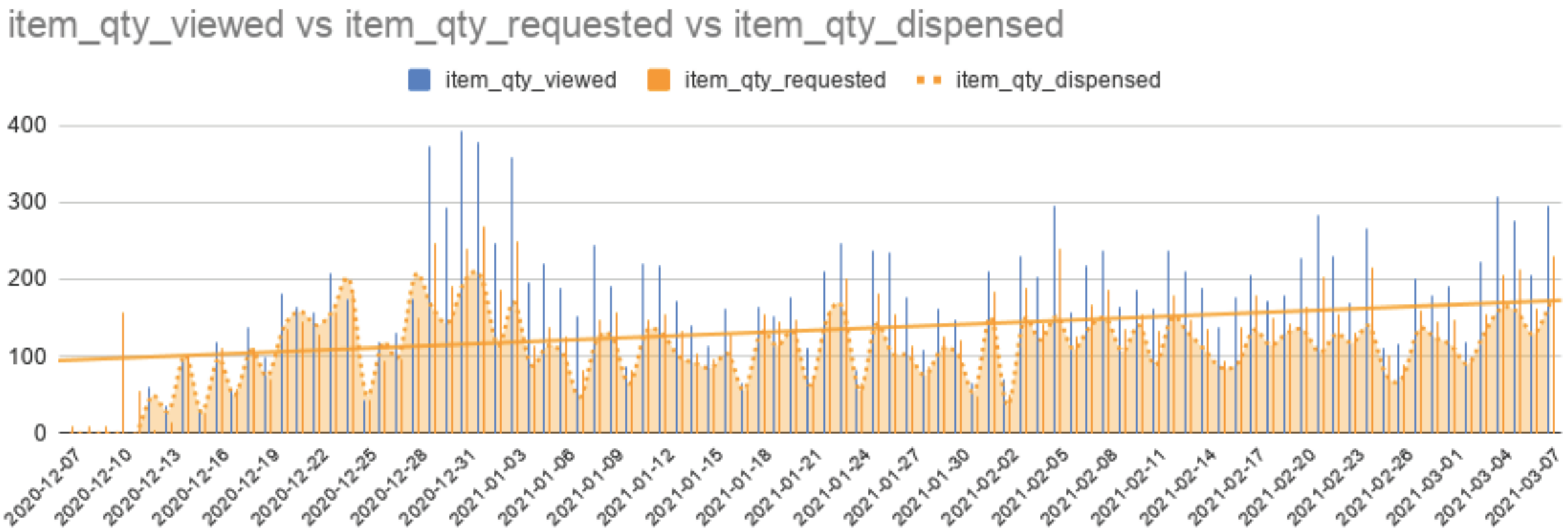


Proposed Data Evaluation

Data collected from the vending machine: usage (examples from Canada)



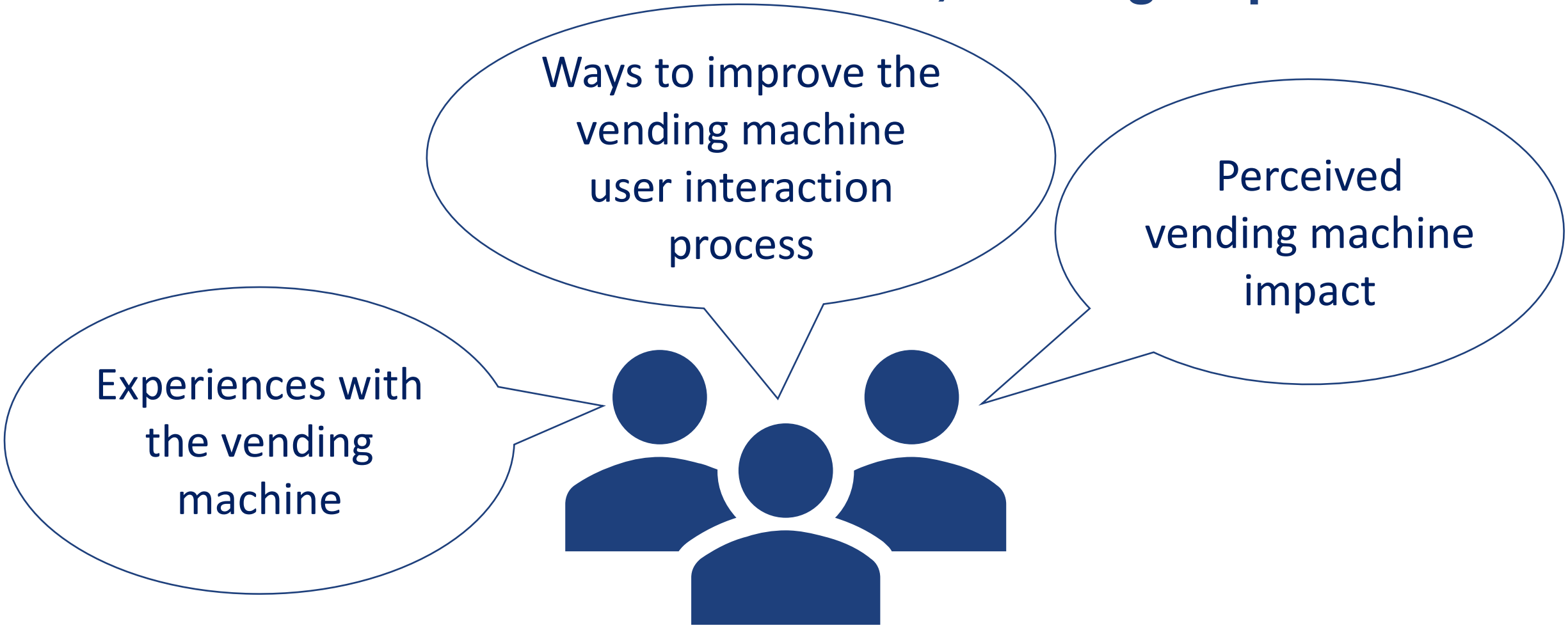
Data collected from the vending machine: item utilization (examples from Canada)



Data collected from the vending machine: survey questions

- Customizable survey questions on the touchscreen, e.g.:
  - **Demographics:** Housing status, sex, gender, race, ethnicity, etc.
  - **Health care access:** “Have you seen a health care provider in the past year?”
  - **Naloxone access, use:** “How often do you access Naloxone?”
  - **Overdoses:** “When you encountered an overdose and used naloxone from our vending machine, what did you do?”
  - **Satisfaction:** “Which items are you satisfied with?”
  - **Perceived impact:** “Is this vending machine making an impact on reducing stigma (negative opinions) around harm reduction supplies?”
- User registration: create an anonymous user ID & track over time

Other data collection: interviews, focus groups



Other data collection: exploring larger impact

1) International data

- Pilot-testing of smart vending machine is starting across all Canadian provinces (~ 100 VMs in 2-3 years)
- “Our HealthBox” focused on HIV self-testing & harm reduction supplies

2) Local public health metrics (e.g. naloxone administration, overdose response, law enforcement arrests)

- Pilot project on utilization of upcoming opioid settlement funds in PA

Our current status

Project timeline

Phase 1: Engage with stakeholders to identify community's preferences and needs, and develop an implementation and evaluation plan for the vending machine

- Identified optimal locations for vending machine placement
- Assembled advisory council of stakeholders
- Obtaining feedback from community partners

Phase 2: Place vending machines into the community

- Collect data from vending machines' cloud-based data system on items distributed, number of linkages facilitated, time of day accessed
- Continued engagement with stakeholders, community members & advisory council on iterative feedback

Phase 3: Explore community-level impact of vending machines by leveraging existing public health metrics

- Obtain data from EMS, public health department, local law enforcement, ED on overdoses and other related metrics

Unexpected changes and hurdles

IRB approval process: novel type of project

PA elections in November 2022, including for governor

Finding the right location: not all enthusiastic

Legalization of fentanyl tests, other drug checking tests

FDA's approval for over-the-counter use of Narcan

Our goal is to have vending machines be an ubiquitous part of the community

Image obtained from: https://www.health.pa.gov/topics/HealthStatistics/VitalStatistics/CountyHealthProfiles/Documents/current/index.aspx#choose-a-county-profile

Obtained from: https://smrt1.ca/

Smart vending machines:

an innovative way to help reach underserved populations, reduce health disparities, and improve community health

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Dauphin County
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Addiction and Harm Reduction Community Organizations

THE RASE project

LANCASTER HARM REDUCTION PROJECT

Canada

SMRT1 TECHNOLOGIES

reachnexus

Berks County

SOS Berks
Stop Overdoses... Save Lives

FACES & VOICES OF RECOVERY
ADVOCATE. ACT. ADVANCE.

Thank you!

Questions? Thoughts?