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IMPLEMENTING A HARM REDUCTION VENDING MACHINE IN MISSISSIPPI

BUSINESS PLAN

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EXECUTIVE SUMMARY

Overdose Data to Action (OD2A) is a program administered by the Mississippi State Department of Health (MSDH) and supported by a federal grant initiative funded by the United States Centers for Disease Control and Prevention (CDC). The purpose of the program is to collect high quality, comprehensive, and timely data on fatal and nonfatal overdoses to inform prevention and response efforts.¹ Prevention strategies include better utilization of Prescription Drug Monitoring Programs (PDMPs), development or enhancement of partnerships with public safety and first responders, and increased awareness about drug-related harms, treatment, and risk reduction strategies. In November 2022, the MSDH Public Health Pharmacy launched a naloxone distribution program to Mississippi residents at no cost to the patient. The program currently utilizes an online survey to collect information from patients to ultimately ship the naloxone from the MSDH Pharmacy to the patient's home. In an effort to make these products available 24/7 and eliminate delays in distribution, the MSDH Pharmacy can further expand its harm reduction efforts by offering naloxone, fentanyl testing strips, and sterile syringes dispensing through a harm reduction vending machine.

Objectives of Implementation:

- Increase accessibility of harm reduction tools
- Eliminate delays in distribution of harm reduction tools
- Decrease stigma associated with seeking harm reduction tools
- Introduce fentanyl testing strips to the public to reduce the risk of accidental overdose
- Decrease rates of Hepatitis C in Mississippi due to unsafe needle sharing
- Decrease opioid-related overdose deaths through increased availability of naloxone

Mission:

The Mississippi State Department of Health's mission is to protect and advance the health, well-being, and safety of everyone in Mississippi.² By offering around-the-clock access to harm reduction materials, such as naloxone, fentanyl testing strips, and syringes, the MSDH Pharmacy can promote this mission by advancing risk reduction strategies.

BUSINESS DESCRIPTION

ODfree.org is a grant-run program administered by the Mississippi State Department of Health and funded by the United States Centers for Disease Control and Prevention. The purpose of the Overdose Data to Action (OD2A) program is to collect comprehensive data on nonfatal and fatal overdoses to inform OD prevention and response efforts nationwide.¹ Data is provided by the Mississippi Opioid and Heroin Data Collaborative (MOHDC), which is a multiagency partnership between the Mississippi State Department of Health, Mississippi Department of Mental Health, Mississippi Board of Pharmacy Prescription Drug Monitoring Program, and the Mississippi Department of Public Safety Bureau of Narcotics.



THE GOAL OF THE HARM, DEMAND, AND SUPPLY REDUCTION INITIATIVE IS TO MOVE AWAY FROM PUNITIVE AND STIGMATIZING APPROACHES TOWARD AN OVERDOSE RAPID RESPONSE MODEL THAT IS COMPASSIONATE AND EFFECTIVE.

The Mississippi Opioid and Heroin Data Collaborative was formed to disseminate information on¹:

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- Nonfatal and fatal overdoses

 - Prescribing patterns

 - Drug-related criminal activity

 - Naloxone administrations by EMS providers

Overdose prevention and response efforts currently offered in Mississippi through the OD2A program include:

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- Free naloxone kits shipped directly to patients by completing an online survey

 - Mississippi Surveillance Overdose System MS-SOS Rapid Reports to track monthly nonfatal overdoses from hospital emergency departments and community medical services

 - Development of a Statewide Resource Directory centered around substance use disorder treatment, prevention, and recovery resources

 - Naloxone Leave Behind Kits provided through EMS services to leave on-scene with people who experienced a nonfatal overdose

 - High-dose naloxone for first-responder administration

 - Low-cost medications for substance use disorder, outpatient-based treatment, and behavioral health interventions offered through the internal MSDH prescriber network in partnership with the UMMC Department of Psychiatry and Human Behavior

SERVICE DESCRIPTION

The proposed service is implementing the use of a vending machine to dispense harm reduction supplies at no cost to the patient to combat the opioid epidemic.

Items Dispensed from the Vending Machine

- Naloxone nasal spray (2-pack)
Kloxxado® 8 mg nasal spray, Narcan® 4 mg nasal spray, or generic naloxone 4 mg nasal spray
 - Fentanyl test strips
 - Sterile needles and syringes
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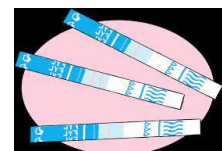
Naloxone is an opioid antagonist used to reverse opioid overdoses and is available in multiple dosage formulations, including nasal sprays, injections, and a prefilled syringe with nasal atomizer. Fentanyl test strips are used to test illicit substances for the presence of fentanyl. Readily available sterile needles and syringes prevent patients from using dirty needles to inject drugs, which can increase the spread of blood-borne diseases, such as hepatitis C and HIV.

ODfree can adjust the naloxone survey that is currently being used to ship naloxone to patient homes to capture which items the patient needs dispensed from the vending machine. Once the survey is complete, Redcap can generate a code that the patient enters to collect the harm reduction items.

To access the products in the harm reduction vending machine, patients should follow the steps below.

Dispensing Process

1. Use a smartphone to scan the QR code on the harm reduction vending machine that brings the patient to a Redcap survey
 2. Complete the Redcap survey by entering your demographic information, insurance information (if applicable), patient experiences, and items requested.
 3. Once the survey is complete, Redcap will generate a code that is specific to the item(s) for the patient to use to access the item(s) in the vending machine.
 4. Enter the code in the vending machine to dispense item(s) needed.
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MARKET PLAN

SWOT ANALYSIS:

Strengths

- Statewide standing order available to dispense naloxone
- HB 722 was signed by Governor Reeves excluding fentanyl test strips from the paraphernalia definition
- Redcap survey already available to collect information from patient before dispensing
- Harm reduction benefits other program areas at MSDH

- Harm reduction vending machine will only be available at one location, thus limiting these services to one region of Mississippi
- Cost of vending machine upkeep might not be sustainable
- If outdoors, the vending machine temperature would need to be regulated to prevent product deterioration from extreme temperatures

Weaknesses

Opportunities

- Reduce stress on the MSDH pharmacy workflow by decreasing naloxone shipment orders
- Could eventually include additional harm reduction supplies, including condoms, pregnancy tests, and emergency contraception
- Can offer 24/7 access to these harm reduction supplies, including naloxone

- Finding a suitable location for the vending machine placement that could offer privacy to users
- Community pushback from vending machine placement
- Potential theft of harm reduction supplies

Threats

Marketing Strategies:

1. Advertise through HealthyMS social media campaigns, local newspapers, and local news stations
2. Advertise on ODFree.org
3. Provide information about harm reduction vending machine to local pharmacists and EMS that can promote access to their patients



FINANCIAL PLAN

Harm Reduction Vending Machine

- Potential Vendors
 - VendTek Wholesale Equipment, Inc. Naloxone/Narcan® Vending Machine³:
 - Crane Media, Model 187: 38" D x 44" W x 72" H
 - \$9,795.00 or \$285.00 lease, 48 months
 - Service cost: Most service calls can be accommodated over the phone; however, if a call has to be made on location, the rates vary by geographic location and are typically \$150.00 for the call and \$75.00 per hour.
 - Intelligent Dispensing Solutions Harm Reduction Supply Dispenser⁴:
 - Unable to obtain cost without being a prospective new client.
- According to previous articles published, the cost of harm reduction vending machines range from \$7,000-\$10,000 and cost allocation should not exceed \$13,000, the maximum average cost for one vending machine.^{5,6}

Supplies

- Prices supplied through MSDH's contract with Morris & Dickson
 - Naloxone 4 mg nasal spray (2-pack):
 - \$35.64
 - Narcan® 4 mg nasal spray (2-pack):
 - \$44.38
 - Kloxxado® 8 mg nasal spray (2-pack):
 - \$56.06
- Average price:
 - Fentanyl test strips (manufactured by BTNX, Inc.)⁷
 - \$1/strip
 - Needle and syringe:
 - ~\$1

Financial Projections for the First Year

~1,000 doses of naloxone

~3,000 fentanyl test strips

~1,000 sterile needles and syringes

Using the cheapest product available to stock the machine, the generic naloxone nasal spray, the anticipated cost for 1 year is \$31,820.

This projection is based on the first-year records of a harm reduction vending machine placed in Cincinnati, Ohio.⁸ Cincinnati has approximately 308,935 residents, about three times the population of Jackson, Mississippi, so the numbers were adjusted to reflect this population difference.

Justification

Based on Morris & Dickson inventory costs:

- Zepatier™ 50/100mg 28 tabs = \$6,802.43

- Mavyret® 100/40mg 28 tabs = \$12,334.08

- Epclusa® 400/100mg 28 tabs = \$23,285.25

- Harvoni® 90/400mg 28 tabs = \$29,433.60

The cost of the harm reduction vending machine and its contents for 1 year is almost equal to the cost of stocking 1 month of Harvoni®.

By offering harm reduction supplies that reduce the risk of contracting Hepatitis C, thus decreasing the number of Hepatitis C drugs that we need to stock, we could offset the cost of the vending machine.

The MSDH Pharmacy could potentially receive insurance reimbursement for naloxone.

MANAGEMENT TEAM

The OD2A team is expanding at the MSDH Pharmacy and currently consists of pharmacists, a pharmacy technician, a communications coordinator, and a project manager.

The harm reduction vending machine operations team would consist of:

- 1 pharmacist at the MSDH Pharmacy to field the surveys and bill insurance (if applicable) for naloxone dispensed
- 1 pharmacy technician from the MSDH Pharmacy to restock the vending machine twice weekly
- 1 project manager to track the utilization of the vending machine
- Technical support from the manufacturer to service the vending machine

The MSDH staff would undergo the 1-hour training session on the vending machine, so they understand the operations and are equipped to answer questions from the public that may arise.

OPERATIONS

Once implemented:

1. The OD2A team should track the number of patients who utilize the harm reduction vending machine, the number of items dispensed, and the number of reversed overdoses reported in the area
2. The OD2A team should compare the number of MSDH naloxone survey responses at baseline to the number of individuals utilizing the harm reduction vending machine to access naloxone to determine if there is an increase in naloxone accessibility and uptake
3. The OD2A team can also compare the number of hepatitis C drugs dispensed at baseline and after implementation of the harm reduction vending machine to see if there is a correlation between increased access to sterile needles and syringes and the number of hepatitis C cases

REFERENCES

- 1 | [Overdose Data to Action \(OD2A\) - ODFree.org - Mississippi Overdose Data, Prevention & Treatment](#)
- 2 | [Mission - Mississippi State Department of Health \(ms.gov\)](#)
- 3 | [PPE - Vendtek Specialty Vending Machines \(specialtyvendingsystems.com\)](#)
- 4 | [Harm Reduction Vending Machines | IDS Vending](#)
- 5 | [Harm reduction supply dispensing machines a new option to deliver services, expand access \(interactforhealth.org\)](#)
- 6 | [Public-Health-Vending-Machine-Initiative-in-NYC-RFP-FINAL.pdf \(fphnyc.org\)](#)
- 7 | [Fentanyl Test Strips \(legislativeanalysis.org\)](#)
- 8 | [UC study: Harm reduction vending machine makes impact | University of Cincinnati](#)