

# Oasis Project Background

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# Problem

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- The epidemic of prescription opiates, heroin, fentanyl, and other illicit opiates in the US has a profound public health impact. There have been increases in fatal and non-fatal drug overdoses, HCV, and opiate dependence.
- Over 75% of nearly 107,000 drug overdose deaths in 2021 involved opioids
- Transmission of HIV/HCV and drug overdoses frequently occur in places where people use drugs. Understanding the dynamics of these settings will help us develop appropriate interventions.
- In Baltimore, drug use is geographically dispersed. Overdose varies widely based on characteristics of drug use setting, and it is critical to understand the diversity of the settings in which overdose occurs and prevention can be delivered

# Solution

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- We aim to identify and address location-based disparities to tailor community-specific interventions that prevent injection drug use and opioid-related harms.
- Studying the geospatial aspects of substance use will provide crucial information about engagement in high-risk or preventive behaviors at various drug use or overdose locations. Findings from this study can help inform overdose interventions that target high-risk environments
- A connected mobile and web application to improve access to resources that prevent drug overdose (Narcan) among people who inject drugs.

# Database

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- MySQL Database contains survey questions and response data
- Stored procedure for reformatting / parsing data
- Tables with participant login information and survey questions



# Lighthouse Oasis

# App

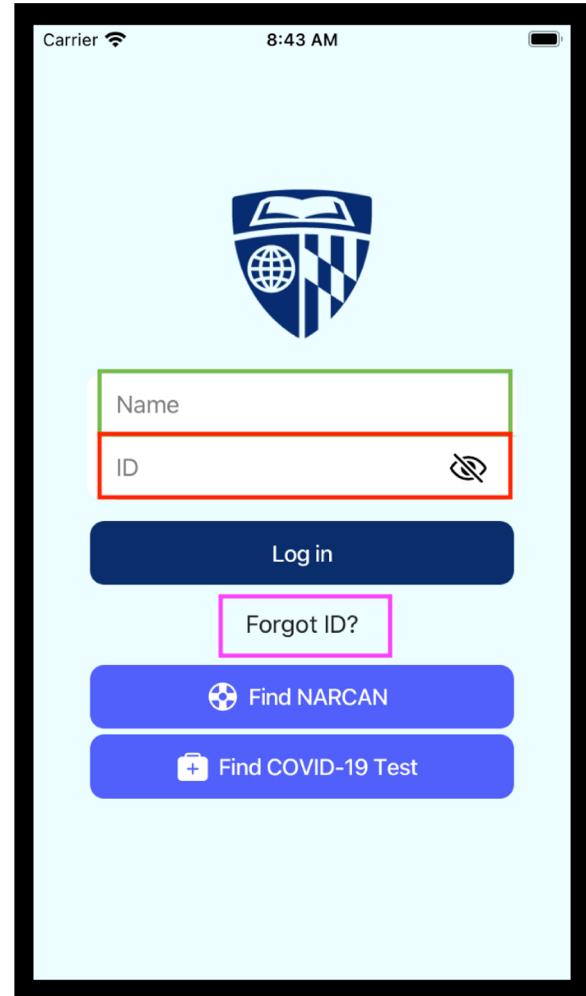
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# Login Screen

Enter your name in the “Name” field (green box), and participant ID given to you by the Lighthouse staff in the “ID” field (red box).

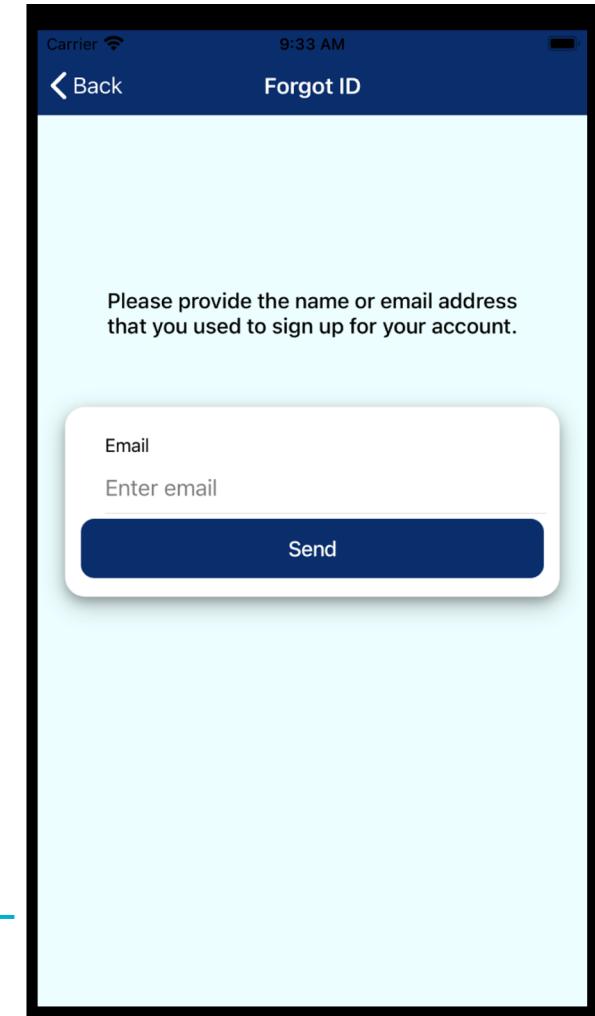
Click the “Forgot ID?” link (purple box) if you have forgotten your participant ID.

For the app demo, you may use the following login credentials: Name: testUser, ID: userID.



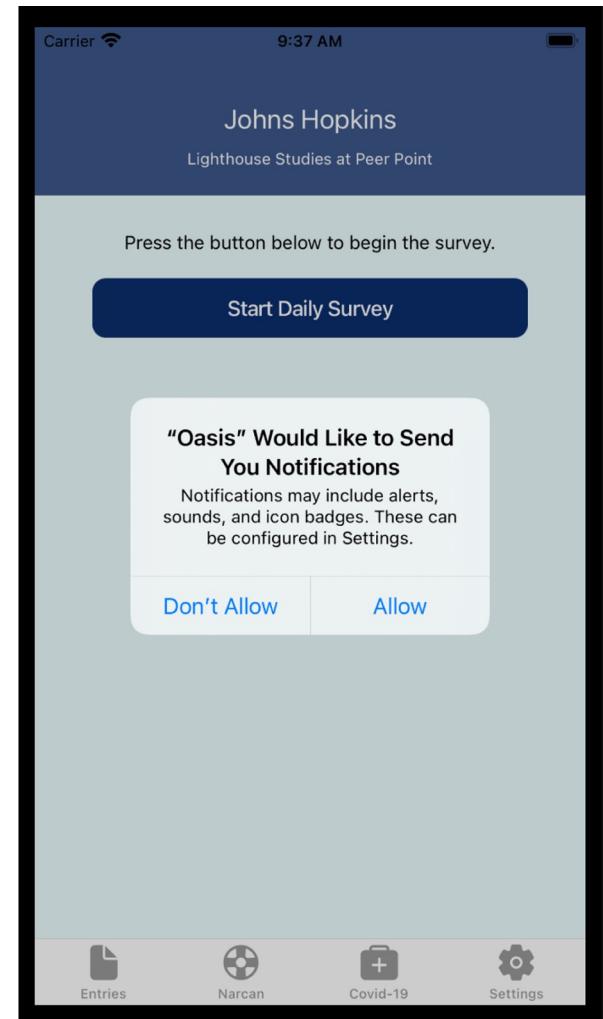
# Forgot ID Screen

If you click “Forgot ID?,” enter your name or email to receive your participant ID.



# Allowing Notifications

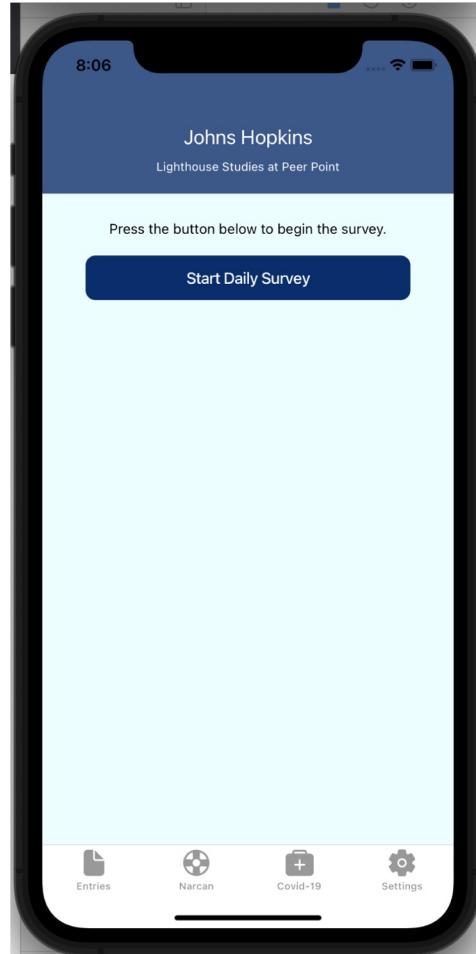
Once you log in, a pop up will ask if you would like the app to send notification reminders to complete the survey to your phone.



# Main Survey Screen

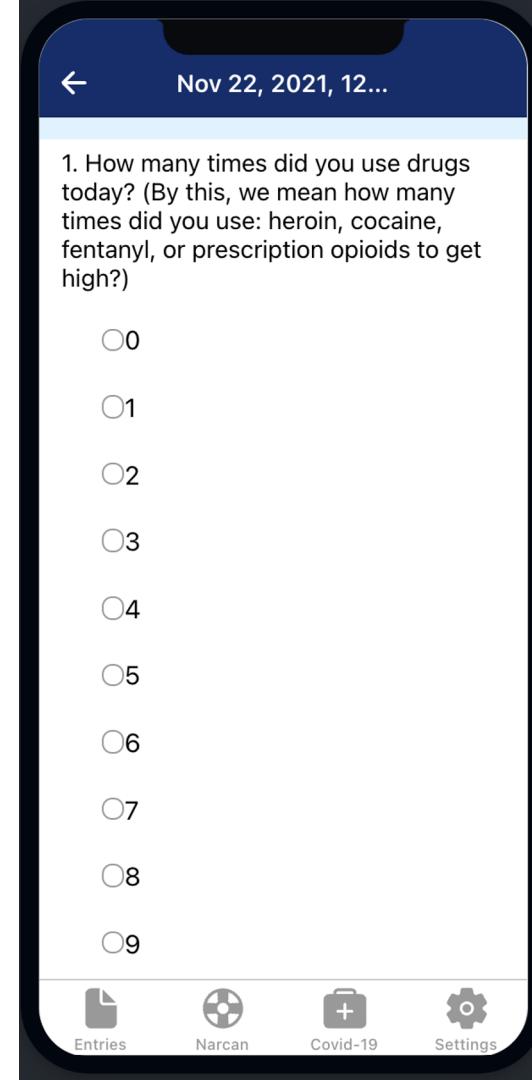
Once you have logged in to the app,  
you will be able to enter survey  
entries.

To start the survey, click the “Start  
Daily Survey” button.

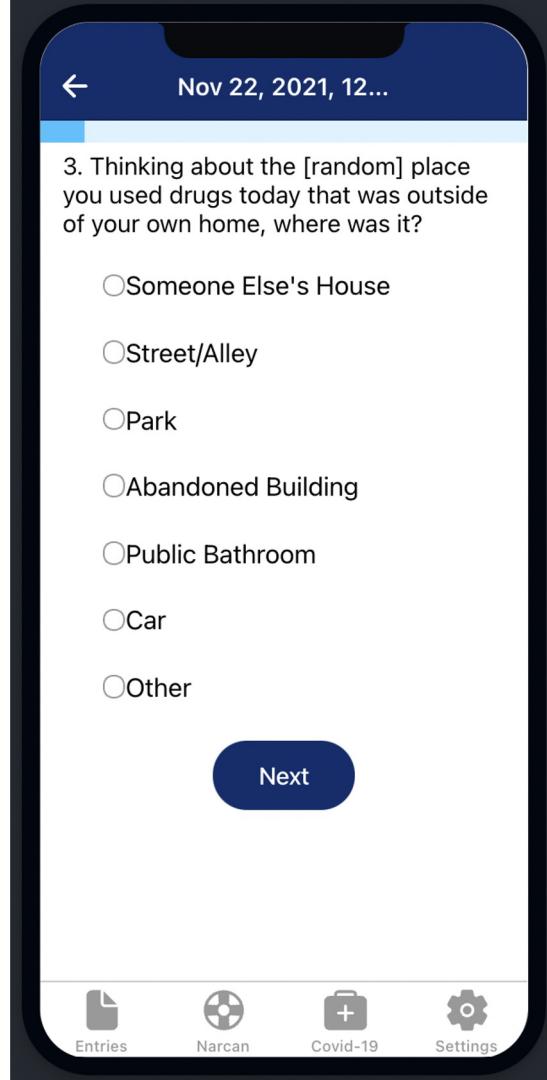


# Answering Survey Questions

Select answers for the questions and scroll to the bottom of the app screen to click the “Next” button to answer the next survey question

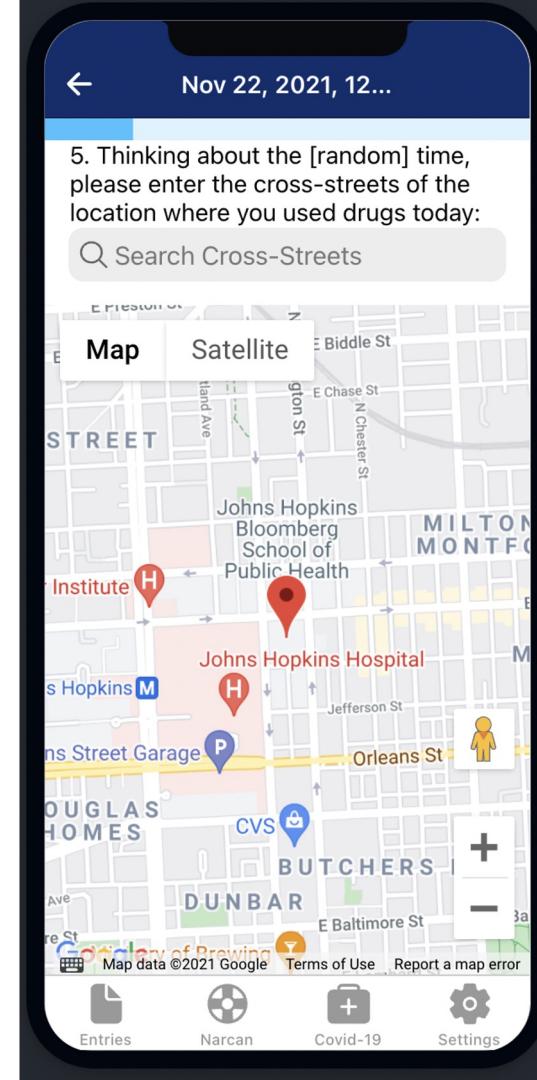


# Answering Survey Questions



# Location Search

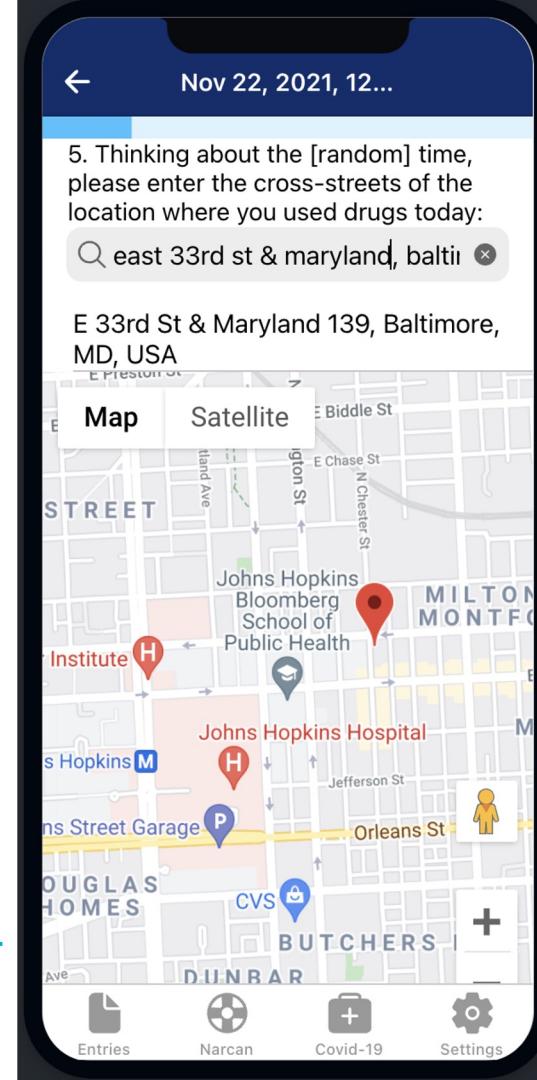
Enter the location by dragging the red marker or searching locations in the search bar. The + and - buttons can be used to zoom in or out in the map. Enter confirm once you have identified the location to continue to the next survey questions.



# Entering Cross-Street Information

To enter location information based on cross-streets use the & symbol:

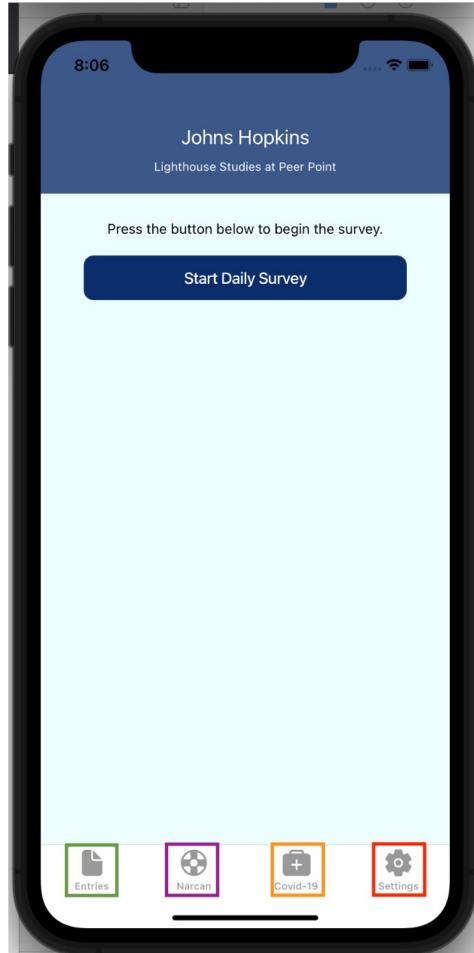
For example enter “Street 1” & “Street 2” to find the intersection of these two streets.



# Main Survey Screen

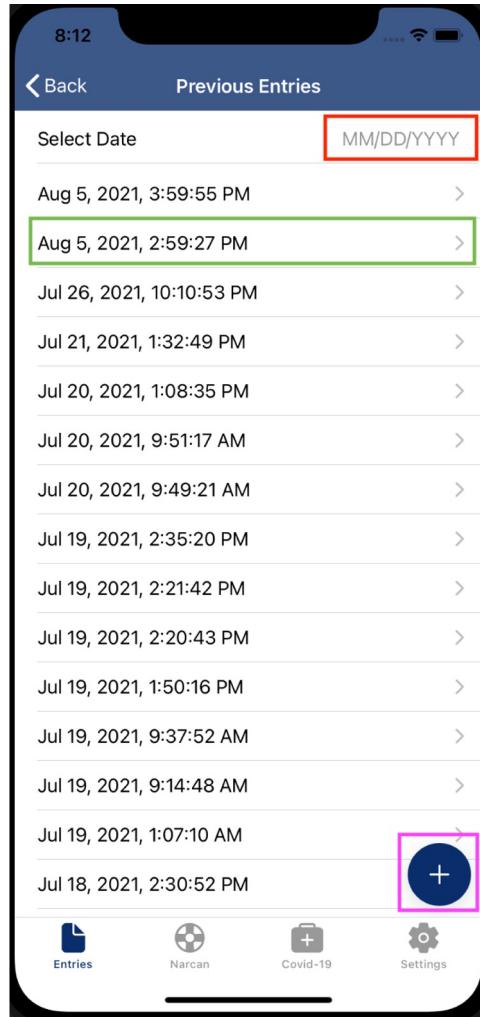
In the bottom bar of the app, the following functions can be used:

1. The “Entries” tab (green) can be used for viewing previous survey entries.
2. The “Narcan” tab (purple) can be used for locating community distribution sites for Naloxone.
3. The COVID-19 tab can be used to find nearby COVID-19 testing sites.
4. The Settings tab can be used to find contact information for Lighthouse staff, change notification settings for the app, or sign out from the app.



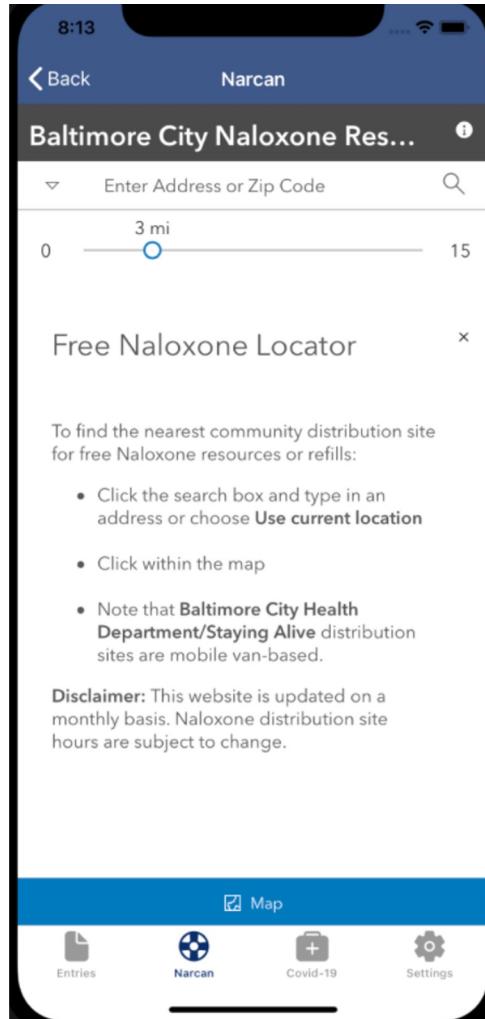
# Entries Tab

Entries tab. This tab is used to view previous survey entries. To search a particular date, click the area in the red box. Each entry (such as the one in the green box) is listed below. To add a new survey response, you can click the + button (in the purple box).



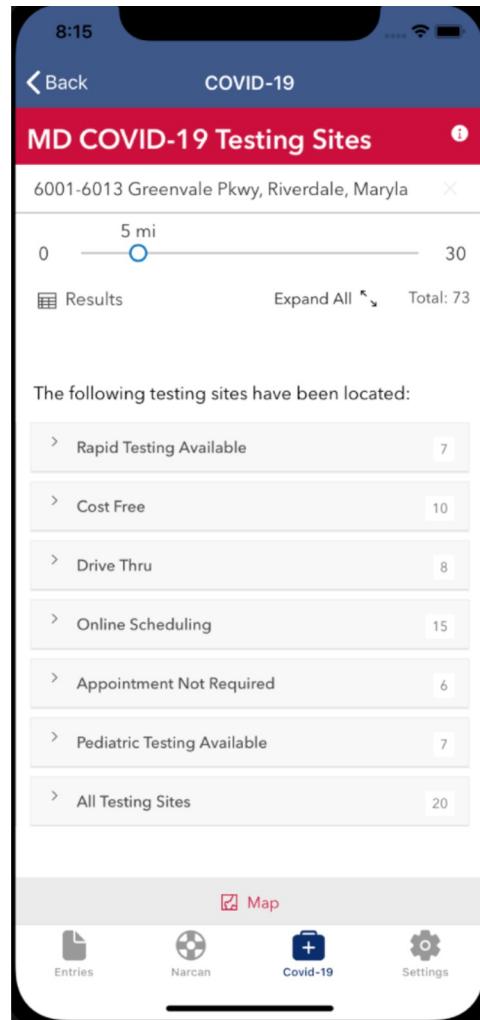
# Naloxone Tab

Naloxone tab can be used to identify nearby community distribution sites for Naloxone. Enter your address in the top search bar and you can find nearby sites.



# COVID-19 Tab

The COVID-19 tab can be used to find nearby COVID-19 testing sites.

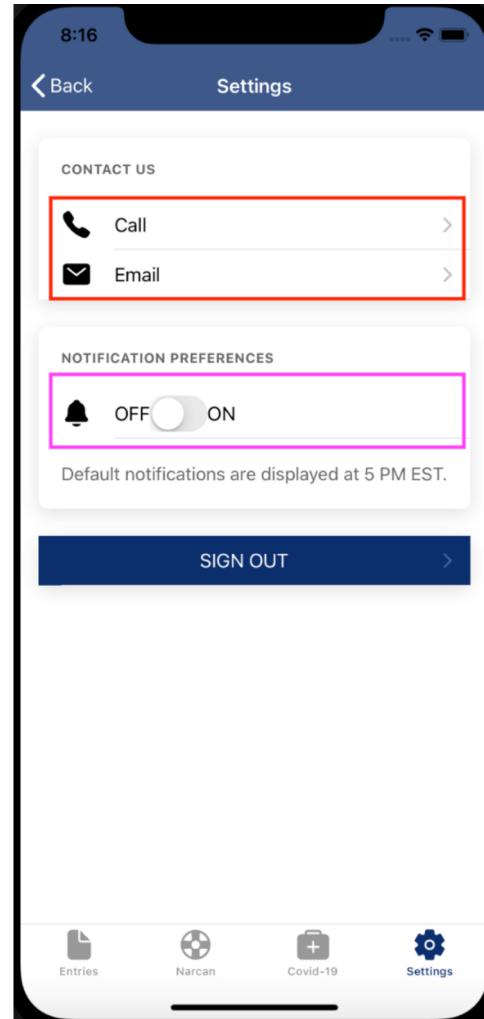


# Settings Tab

The Settings tab can be used to change settings for the app.

The Contact Us buttons (red box) can be used to contact the Lighthouse staff.

The Notifications button (purple box) is used to change whether the app sends push notifications to your phone.



# Lighthouse Oasis Website User Guide

Links:

<https://ugrad.cs.jhu.edu/~cnwosu3/oasis/index.html>

# Login Screen

Add your name in the “Name” (green) box, and the participant ID given to you by the Lighthouse staff in the “ID” (pink) box.

To see the ID as you are typing it, click the “Show ID” (blue) checkbox. Click “Login” (orange) button to log into the website.

At the bottom of the website, hyperlinks for the contact information, directions, and calendar is listed for the Bloomberg School of Public Health.

The screenshot shows the login interface for the Lighthouse Studies at Peer Point website. At the top, the Johns Hopkins Bloomberg School of Public Health logo is displayed. Below the logo, the text "Lighthouse Studies at Peer Point" is visible. The login form consists of several input fields and a button. The "Name" field is highlighted with a green border. The "ID" field is highlighted with a pink border. A blue checkbox labeled "Show ID" is positioned next to the ID field. An orange button labeled "Login" is at the bottom right of the form area. At the very bottom of the page, there is a footer bar containing links for "CONTACT US", "DIRECTIONS & MAPS", and "CALENDARS".

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BLOOMBERG SCHOOL  
*of* PUBLIC HEALTH

Lighthouse Studies at Peer Point

Name

ID

Show ID

Login

Johns Hopkins Bloomberg School of Public Health  
615 N. Wolfe Street, Baltimore, MD 21205

CONTACT US DIRECTIONS & MAPS CALENDARS

# Survey Screen

This is the Home screen for the website. Here, you can click the “Click to Begin Survey” (green box) button to fill out the study survey.

On the side of the page, you can see the sidebar with the website’s tabs, including Previous Entries, COVID-19, NARCAN, and Sign Out.

The screenshot shows the homepage of the Johns Hopkins Bloomberg School of Public Health. At the top, the school's logo and name are displayed: "JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH". Below the logo, the title "Lighthouse Studies at Peer Point" is shown. On the left side, there is a vertical sidebar with the following tabs: HOME (which is highlighted in dark blue), PREVIOUS ENTRIES, COVID-19, NARCAN, and SIGN OUT. To the right of the sidebar, a large button labeled "Click to Begin Survey" is visible, enclosed in a green rectangular box. Below the button, there is contact information: "2213 McElderry St, 2<sup>nd</sup> Floor Baltimore, MD 21205", followed by three phone numbers and a fax number. At the bottom of the page, there is a footer section with the text "Johns Hopkins Bloomberg School of Public Health 615 N. Wolfe Street, Baltimore, MD 21205" and links for "CONTACT US", "DIRECTIONS & MAPS", and "CALENDARS".

# Sidebar

On the side of the page, you can see the sidebar with the website's tabs, including Home, Previous Entries, COVID-19, NARCAN, and Sign Out. The dark color of a tab indicates it is the current tab you are on in the website, whereas the grey tabs are other options for tabs to switch to on the website.

1. “[Home](#)” can be used for completing the survey.
2. “[Previous Entries](#)” can be used for viewing how many survey submissions you have completed and the date/time of completion.
3. “[COVID-19](#)” can be used to find COVID-19 testing sites.
4. “[NARCAN](#)” can be used to find community distribution sites for free Naloxone resources (to treat drug overdose)
5. “[Sign Out](#)” can be used to sign out from your account on the website.

The screenshot shows the Lighthouse Studies at Peer Point website. At the top is the Johns Hopkins Bloomberg School of Public Health logo. Below the logo, the page title "Lighthouse Studies at Peer Point" is displayed. To the right of the title is a button labeled "Click to Begin Survey". On the left, there is a vertical sidebar with five tabs: "HOME" (highlighted with a green border), "PREVIOUS ENTRIES", "COVID-19", "NARCAN", and "SIGN OUT" (highlighted with a red border). Below the sidebar, there is contact information: "2213 McEllderry St, 2<sup>nd</sup> Floor Baltimore, MD 21205", phone numbers "410-502-5368", "1-800-967-5710", and a fax number "Fax: 410-502-5385". At the bottom of the page, the Johns Hopkins Bloomberg School of Public Health address "615 N. Wolfe Street, Baltimore, MD 21205" is listed, along with links for "CONTACT US", "DIRECTIONS & MAPS", and "CALENDARS".

# Previous Entries

The previous entries tab is used to view how many survey submissions you have completed and the date/time of completion. The **Search** field can be used to search for particular survey entries. The **New Entry** button can be used to add a new survey entry. The reverse entry order button allows you to view the entries from either first-to-last or last-to-first.

The screenshot shows a survey interface for 'Lighthouse Studies at Peer Point' hosted by Johns Hopkins Bloomberg School of Public Health. The left sidebar has tabs for HOME, PREVIOUS ENTRIES (which is active and highlighted in dark blue), COVID-19, NARCAN, and SIGN OUT. The main content area displays survey results in a table:

Entry #	Date	Time
12	10/11/2021	9:49 PM
11	10/10/2021	4:10 PM
10	10/02/2021	10:37 AM
9	10/01/2021	2:45 PM
8	10/01/2021	2:44 PM

At the top right, there is a search bar with a green outline and a 'Submit' button. A pink box highlights the '+ New Entry' button, and a green box highlights the search bar.

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Lighthouse Studies at Peer Point

HOME

PREVIOUS ENTRIES

+ New Entry

Reverse Entry Order

Search

Submit

COVID-19

NARCAN

SIGN OUT

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Baltimore, MD 21205  
410-502-5368  
1-800-967-5710  
Fax: 410-502-5385

# COVID-19

The COVID-19 tab is used to view COVID-19 testing sites. An address can be entered in the box indicated in green. The range of locations can be adjusted from 0 to 30 miles from the entered address using the slider indicated in blue. Testing sites will be listed below. A map of the location of identified COVID-19 testing sites can be found by clicking the "Map" button indicated in orange.

The screenshot shows a web-based application for finding COVID-19 testing sites. At the top, the Johns Hopkins Bloomberg School of Public Health logo is displayed. Below it, a navigation bar includes links for HOME, PREVIOUS ENTRIES, COVID-19 (which is highlighted in dark blue), NARCAN, and SIGN OUT. The main content area has a header titled "Lighthouse Studies at Peer Point". On the left, there is a sidebar with a list of categories: "MD COVID-19 Testing Sites" (highlighted with a green border), "6001-6013 Greenvale Pkwy, Riverdale, Maryland, 20737" (highlighted with a green border), "5 mi" (highlighted with a blue border), and a range slider from 0 to 30 miles. To the right of the sidebar, there is a "Results" section with a "Expand All" button and a total count of 70 results. Below this, a list of testing sites is shown, each with a green "View Details" button. The first site listed is "2213 McEllderry St, 2<sup>nd</sup> Floor, Baltimore, MD 21205" with contact information: 410-502-5368, 1-800-967-5710, and Fax: 410-502-5385. Further down the page, a sidebar lists various testing site features with counts: "Rapid Testing Available" (6), "Cost Free" (10), "Drive Thru" (8), "Online Scheduling" (14), "Appointment Not Required" (6), "Pediatric Testing Available" (7), and "All Testing Sites" (19). At the bottom of the page, there is an orange button labeled "Map".

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Lighthouse Studies at Peer Point

HOME

PREVIOUS ENTRIES

**COVID-19**

NARCAN

SIGN OUT

**MD COVID-19 Testing Sites**

6001-6013 Greenvale Pkwy, Riverdale, Maryland, 20737

5 mi

0 30

Results

Expand All Total: 70

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Baltimore, MD 21205  
410-502-5368  
1-800-967-5710  
Fax: 410-502-5385

The following testing sites have been located:

- > Rapid Testing Available 6
- > Cost Free 10
- > Drive Thru 8
- > Online Scheduling 14
- > Appointment Not Required 6
- > Pediatric Testing Available 7
- > All Testing Sites 19

**Map**

# NARCAN

The NARCAN tab is used to view the locations of community distribution sites for free Naloxone resources. An address can be entered in the box indicated in green. The range of locations can be adjusted from 0 to 30 miles from the entered address using the slider indicated in blue. Testing sites will be listed below. A map of the location of identified COVID-19 testing sites can be found by clicking the "Map" button indicated in orange.

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of PUBLIC HEALTH

Lighthouse Studies at Peer Point

HOME  
PREVIOUS ENTRIES  
COVID-19  
**NARCAN**  
SIGN OUT

Baltimore City Naloxone Resources i

Enter Address or Zip Code 🔍

3 mi 15

0

Free Naloxone Locator ×

To find the nearest community distribution site for free Naloxone resources or refills:

- Click the search box and type in an address or choose **Use current location**
- Click within the map
- Note that **Baltimore City Health Department/Staying Alive** distribution sites are mobile van-based.

**Disclaimer:** This website is updated on a monthly basis. Naloxone distribution site hours are subject to change.



Map

# Survey Questions



## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

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Baltimore, MD 21205  
410-502-5368  
1-800-967-5710  
Fax: 410-502-5385

**1. How many times did you use drugs today? (By this, we mean how many times did you use: heroin, cocaine, fentanyl, or prescription opioids to get high?)**

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- >10

**Next**



## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

---

2213 McElderry St, 2<sup>nd</sup> Floor  
Baltimore, MD 21205  
410-502-5368  
1-800-967-5710  
Fax: 410-502-5385

**3. Thinking about the last place you used drugs today that was outside of your own home, where was it?**

- Someone Else's House
- Street/Alley
- Park
- Abandoned Building
- Public Bathroom
- Car
- Other

[Previous](#) [Next](#)



## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

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1-800-967-5710  
Fax: 410-502-5385

**5. Thinking about the last time, please enter the cross-streets of the location where you used drugs today:**

east 33rd street & barclay, baltimore

East 33rd Street & Barclay Street Baltimore, MD, USA

powered by Google



## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

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1-800-967-5710  
Fax: 410-502-5385

**6. At this location today, what drug did you use? Select all that apply.**

- Heroin
- Fentanyl
- Powdered Cocaine
- Crack Cocaine
- Prescription Opiates
- Buprenorphine/Bupes
- Methamphetamine
- Marijuana

[Previous](#) [Next](#)



## Lighthouse Studies at Peer Point

HOME

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

### 7. Thinking about the last time, did you inject drugs at this location today?

- Yes
- No



[Previous](#) [Next](#)

## Lighthouse Studies at Peer Point

[HOME](#)

[PREVIOUS ENTRIES](#)

[COVID-19](#)

[NARCAN](#)

[SIGN OUT](#)

**8. Thinking about the last time, were other people around you injecting drugs when you were there?**

- Yes
- No

[Previous](#) [Next](#)



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1-800-967-5710  
Fax: 410-502-5385

## Lighthouse Studies at Peer Point

[HOME](#)

[PREVIOUS ENTRIES](#)

[COVID-19](#)

[NARCAN](#)

[SIGN OUT](#)

**11. Thinking about the last time, how many people were close enough to give you Narcan or call 911 if you needed it? For example, in the same house/building or on the same block?**

Enter Number

[Previous](#) [Next](#)



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## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

### 12. Thinking about the last time, how many people were injecting (including yourself)?

Enter Number

[Previous](#) [Next](#)



---

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1-800-967-5710  
Fax: 410-502-5385

## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

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Baltimore, MD 21205  
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1-800-967-5710  
Fax: 410-502-5385

### 13. Thinking about the last time, did you see or do any of these behaviors?

	Yes	No	Don't Know
share cookers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
share syringes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
used fentanyl test strips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
talk about how to prevent an overdose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
used a small amount first to test potency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



[Previous](#) [Next](#)

## Lighthouse Studies at Peer Point

[HOME](#)

[PREVIOUS ENTRIES](#)

[COVID-19](#)

[NARCAN](#)

[SIGN OUT](#)

### 15. Did you witness an overdose today or overdose yourself?

- Yes
- No



[Previous](#) [Next](#)

---

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## Lighthouse Studies at Peer Point

HOME

PREVIOUS ENTRIES

COVID-19

NARCAN

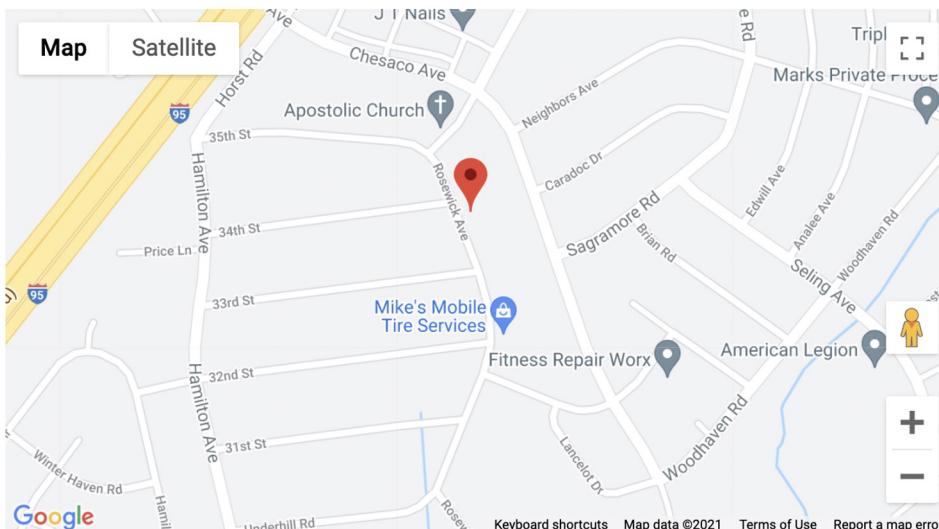
SIGN OUT

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1-800-967-5710  
Fax: 410-502-5385

16. Please enter the cross-streets of the location where you witnessed an overdose today:

1608 Rosewick Ave, Rosedale, MD 21237, USA

i.e. South Carey Street & West Baltimore Street, Baltimore, MD 21223, USA



Previous Next

## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

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Baltimore, MD 21205  
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1-800-967-5710  
Fax: 410-502-5385

### 17. Who was this person? (select one option)

- Drug buddy
- friend
- family member
- partner
- associate
- myself



[Previous](#) [Next](#)

## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

### 18. Was 911 called?

- Yes
- No
- Don't Know

[Previous](#) [Next](#)



---

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1-800-967-5710  
Fax: 410-502-5385

## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

### 19. Did anyone give the person Narcan?

- Yes
- No
- Don't Know

[Previous](#) [Next](#)

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Baltimore, MD 21205  
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1-800-967-5710  
Fax: 410-502-5385

## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

### 20. Who administered Narcan?

- Paramedics/police
- Me
- Someone Else

[Previous](#) [Next](#)



---

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410-502-5368  
1-800-967-5710  
Fax: 410-502-5385

## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

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410-502-5368  
1-800-967-5710  
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### 21. Did the person wake up?

- Yes
- No
- Don't Know

[Previous](#) [Next](#)



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## Lighthouse Studies at Peer Point

**HOME**

PREVIOUS ENTRIES

COVID-19

NARCAN

SIGN OUT

### 22. How are you feeling today?

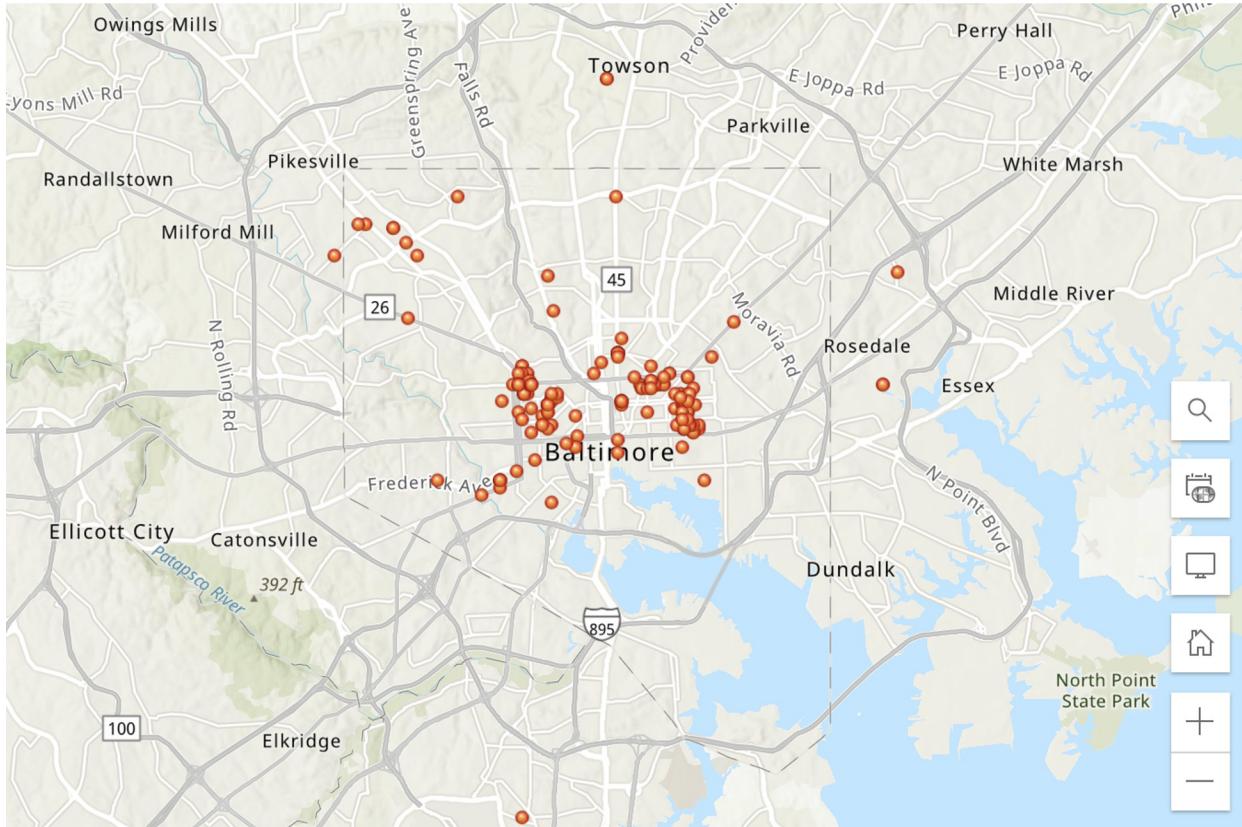


[Previous](#) [Submit](#)

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Baltimore, MD 21205  
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1-800-967-5710  
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# ArcGIS

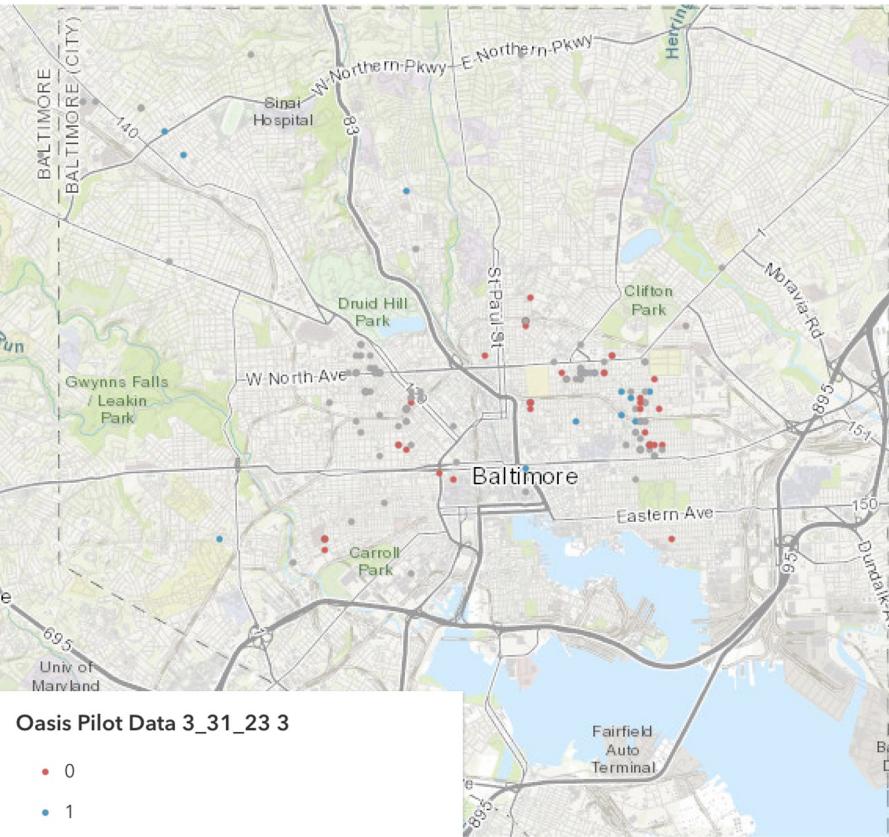
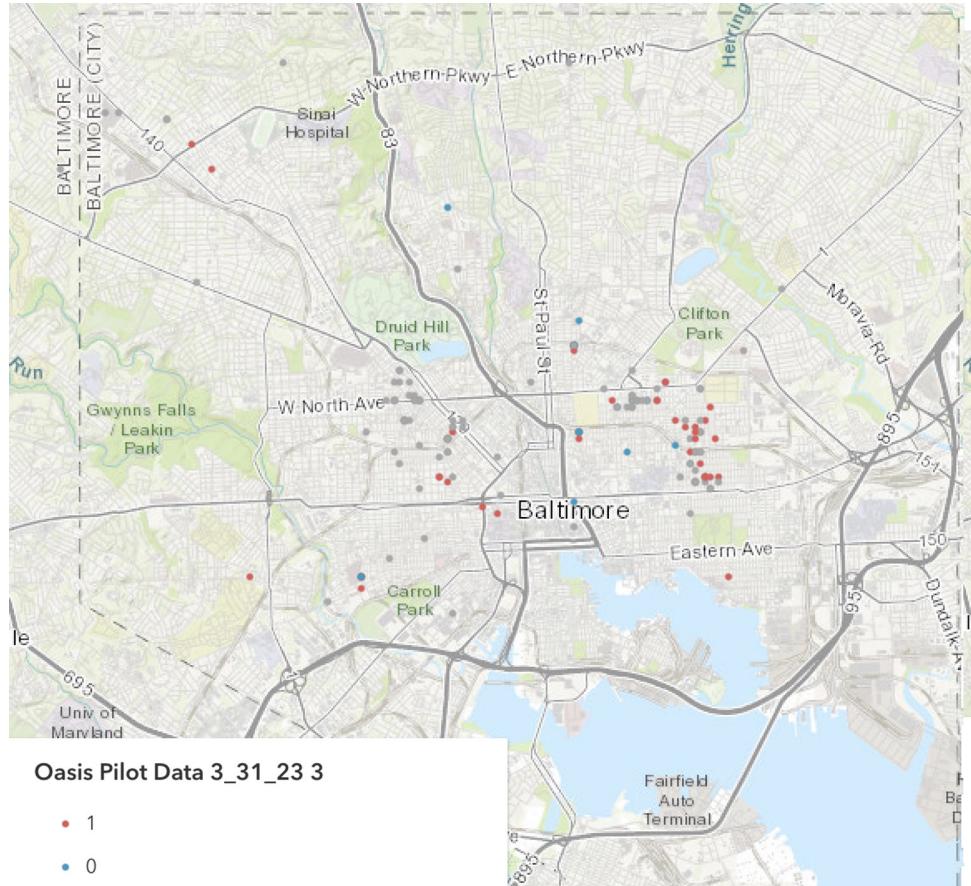
Link [here](#)



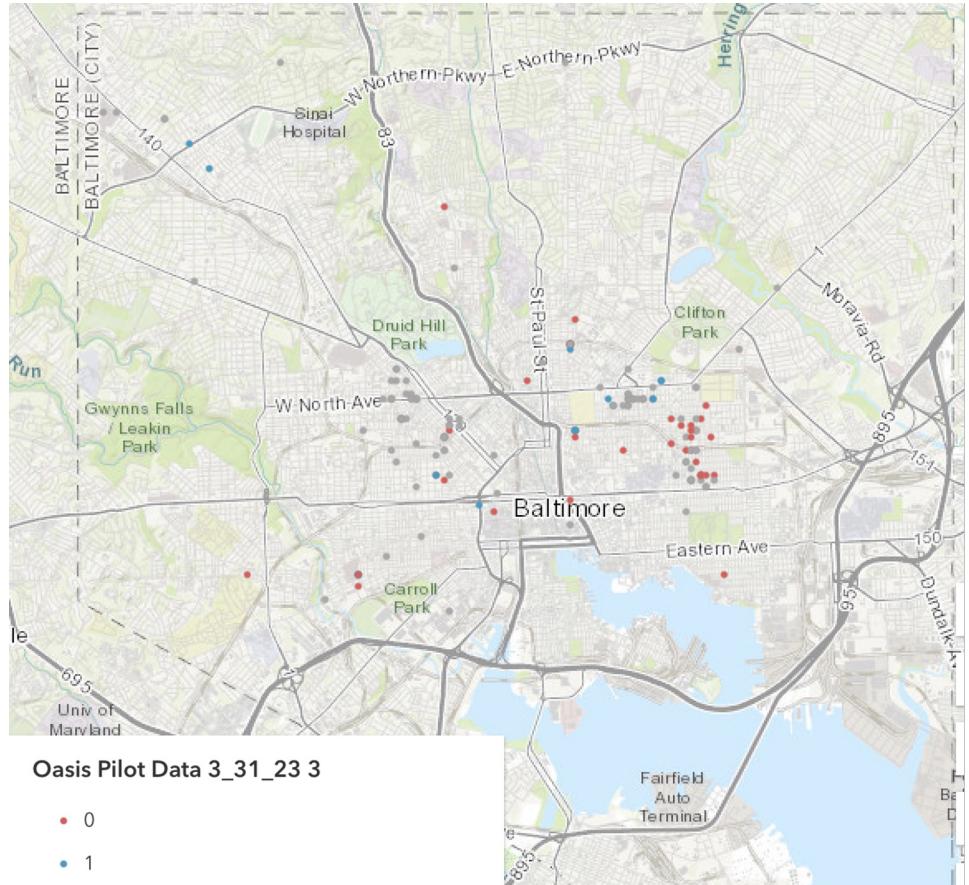
All Locations

6. At this location today, what drug did you use? Select all that apply.

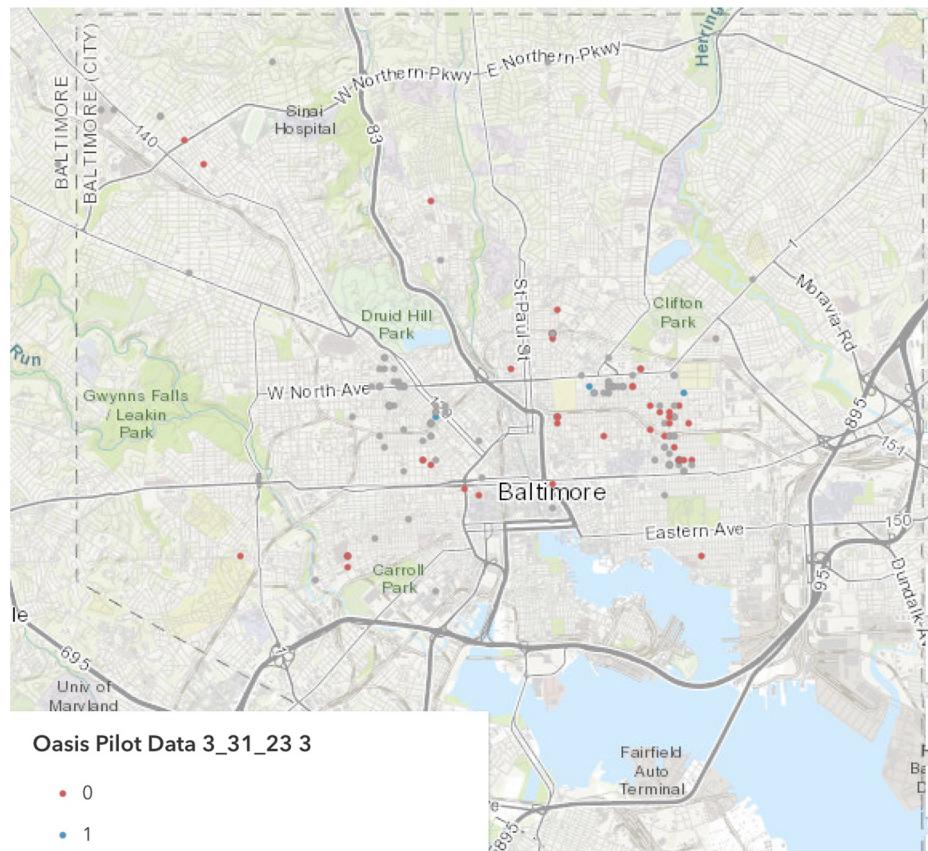
- Heroin
- Fentanyl
- Powdered Cocaine
- Crack Cocaine
- Prescription Opiates
- Buprenorphine/Bupes
- Methamphetamine
- Marijuana



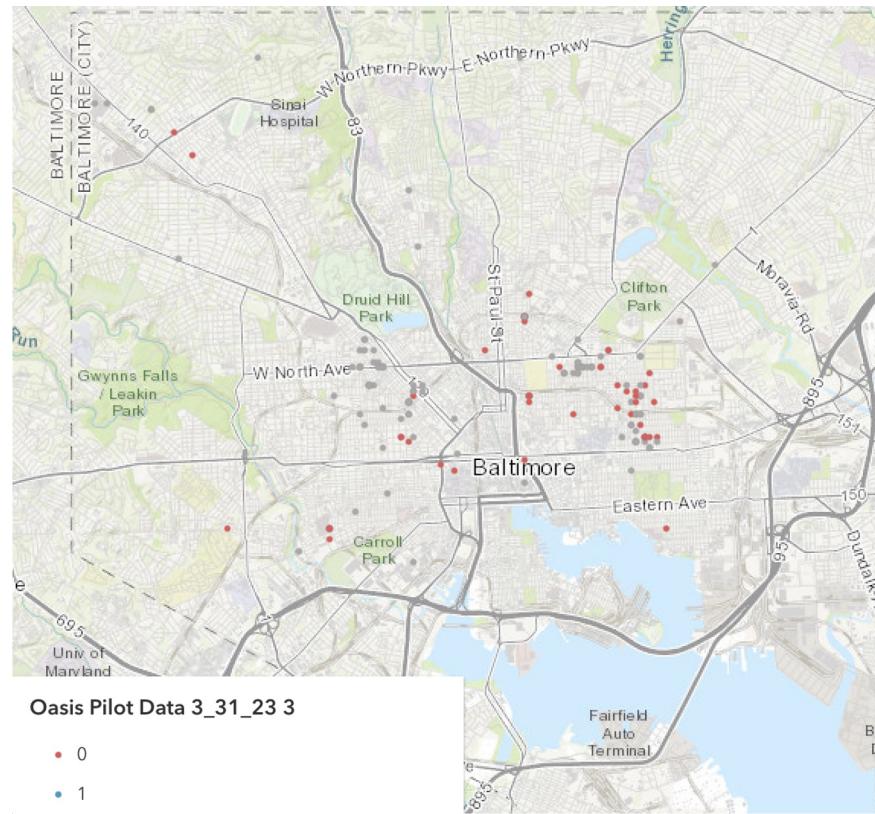
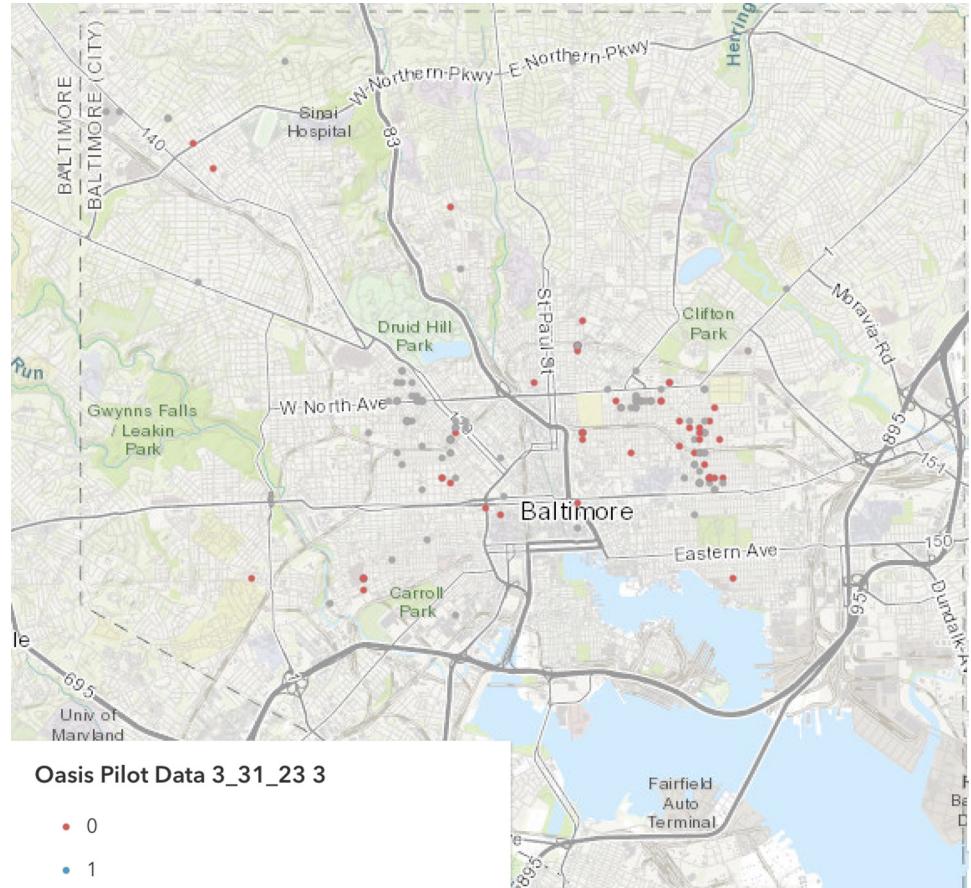
Heroin  
Fentanyl



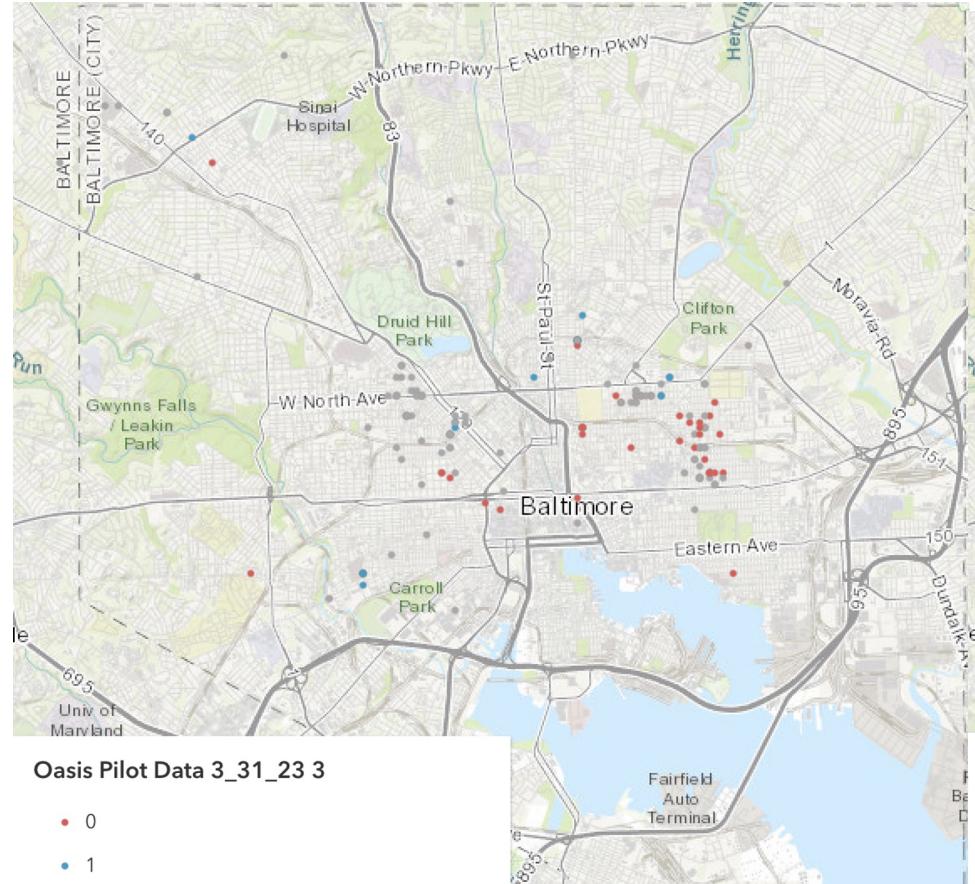
Powdered Cocaine  
Cocaine



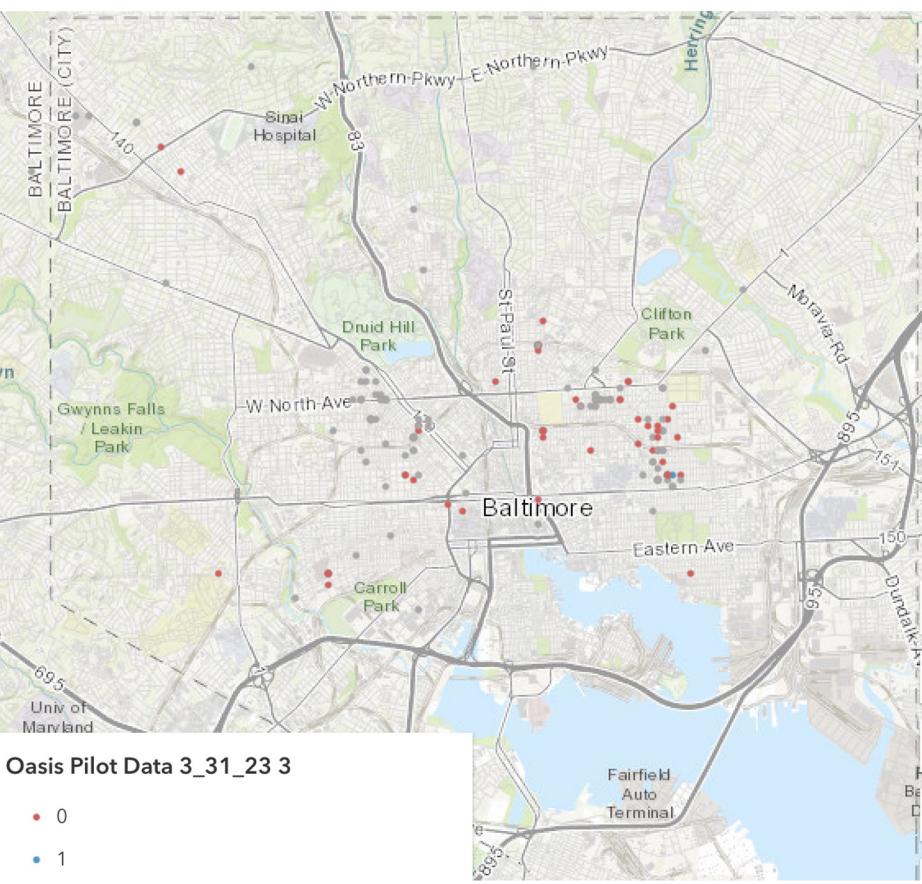
Crack



Prescription Opiates  
Buprenorphine

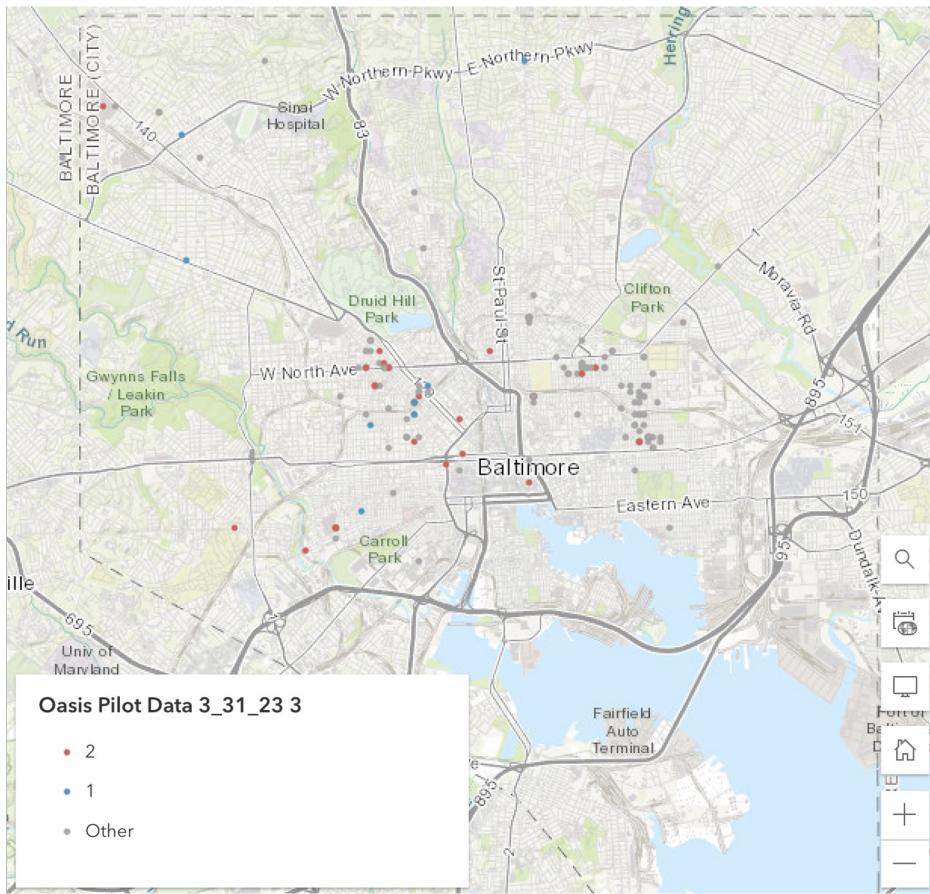


Methamphetamine  
Marijuana

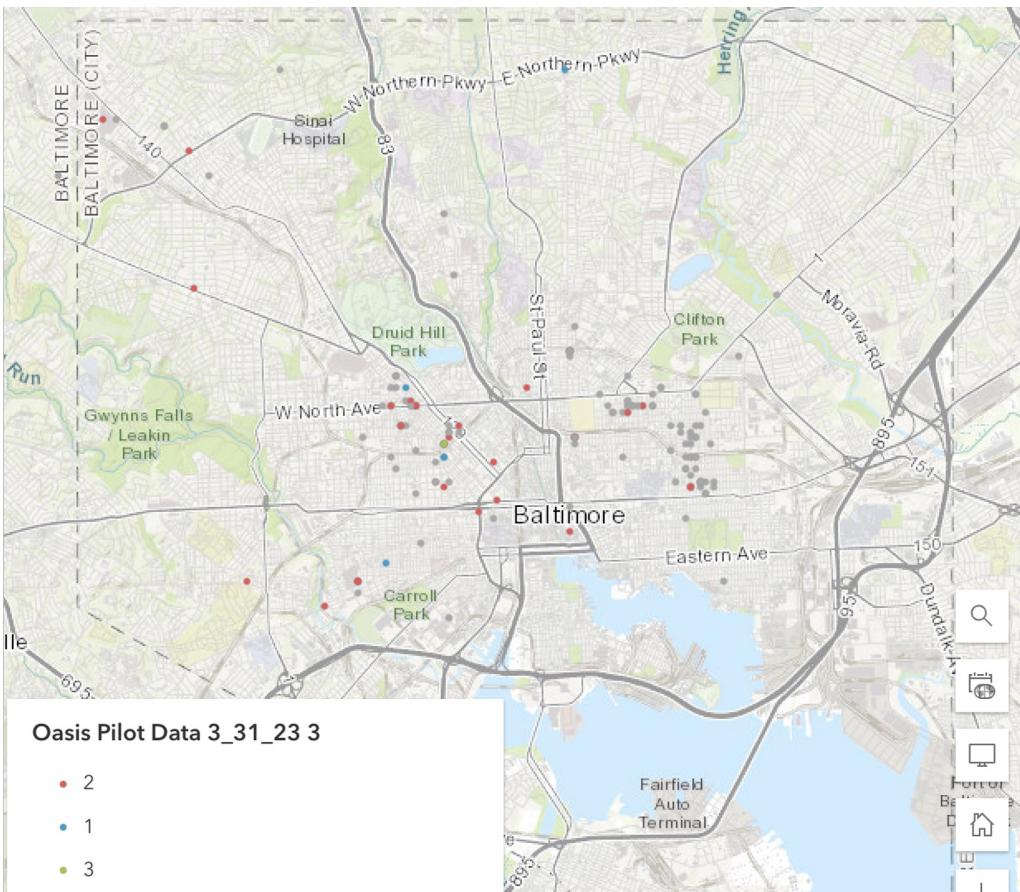


	Yes	No	Don't Know
share cookers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
share syringes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
used fentanyl test strips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
talk about how to prevent an overdose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
used a small amount first to test potency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

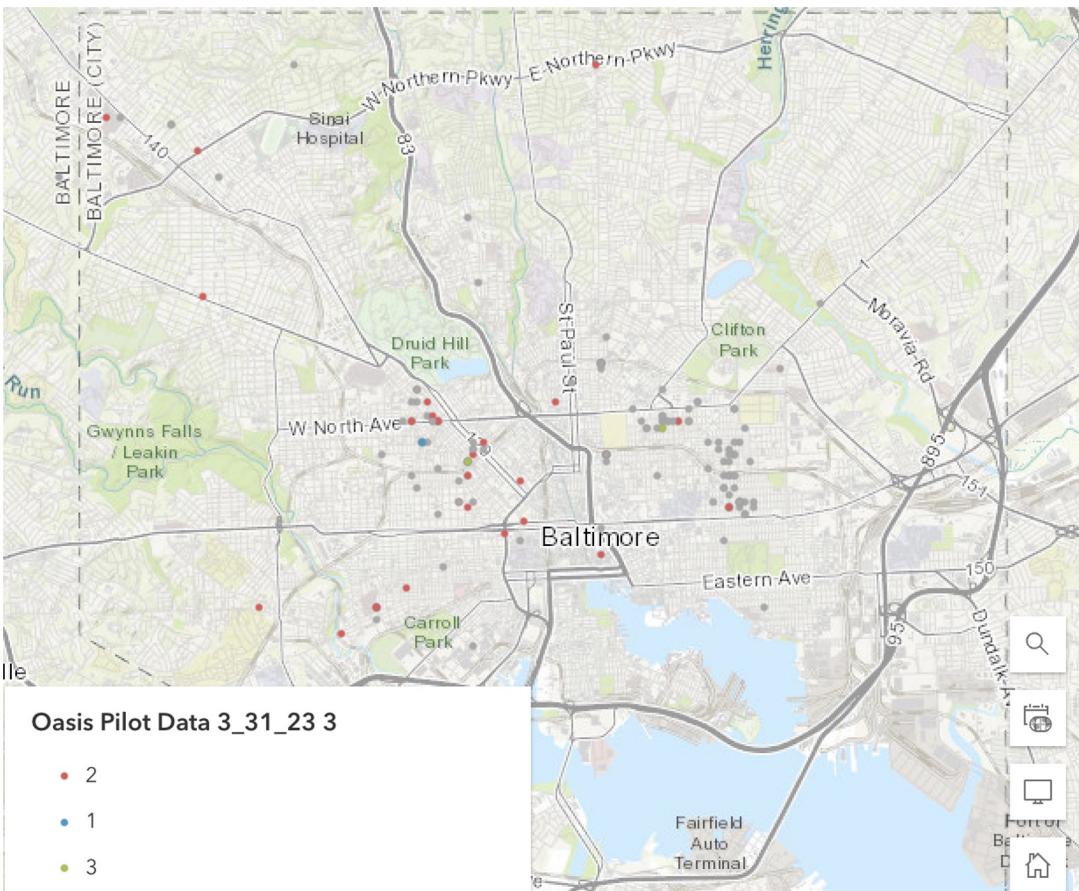
Q10



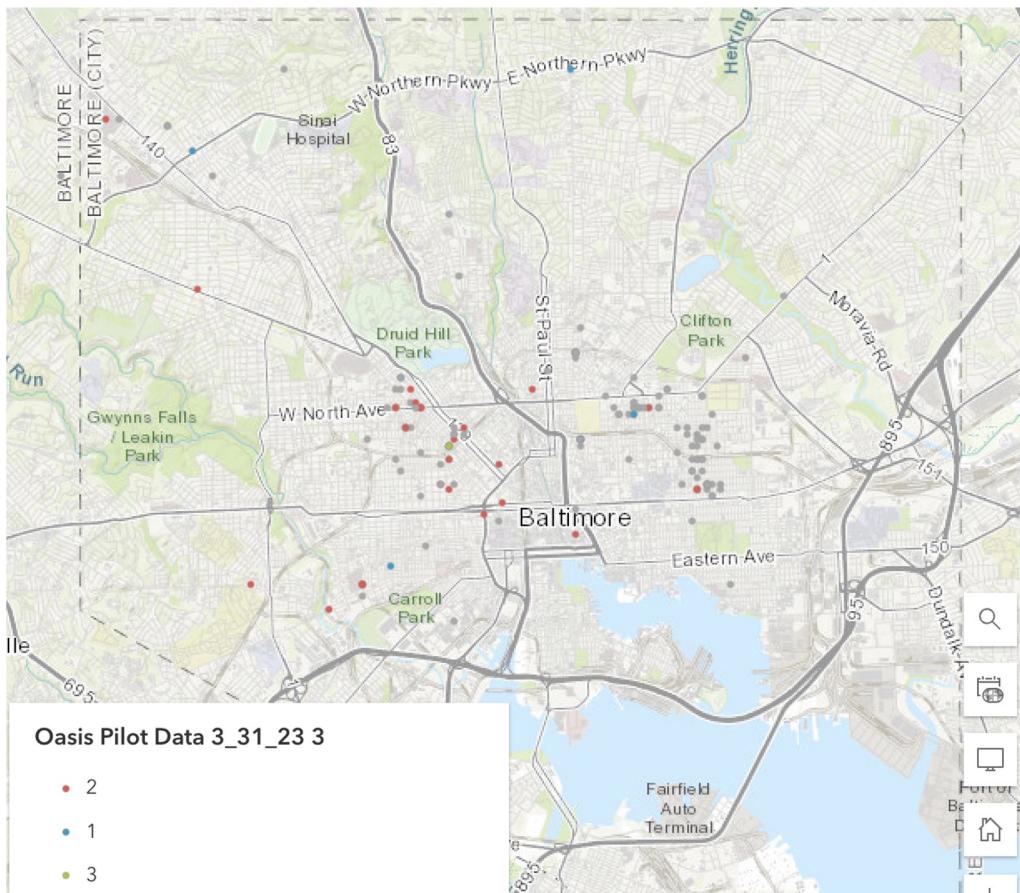
Share cookers



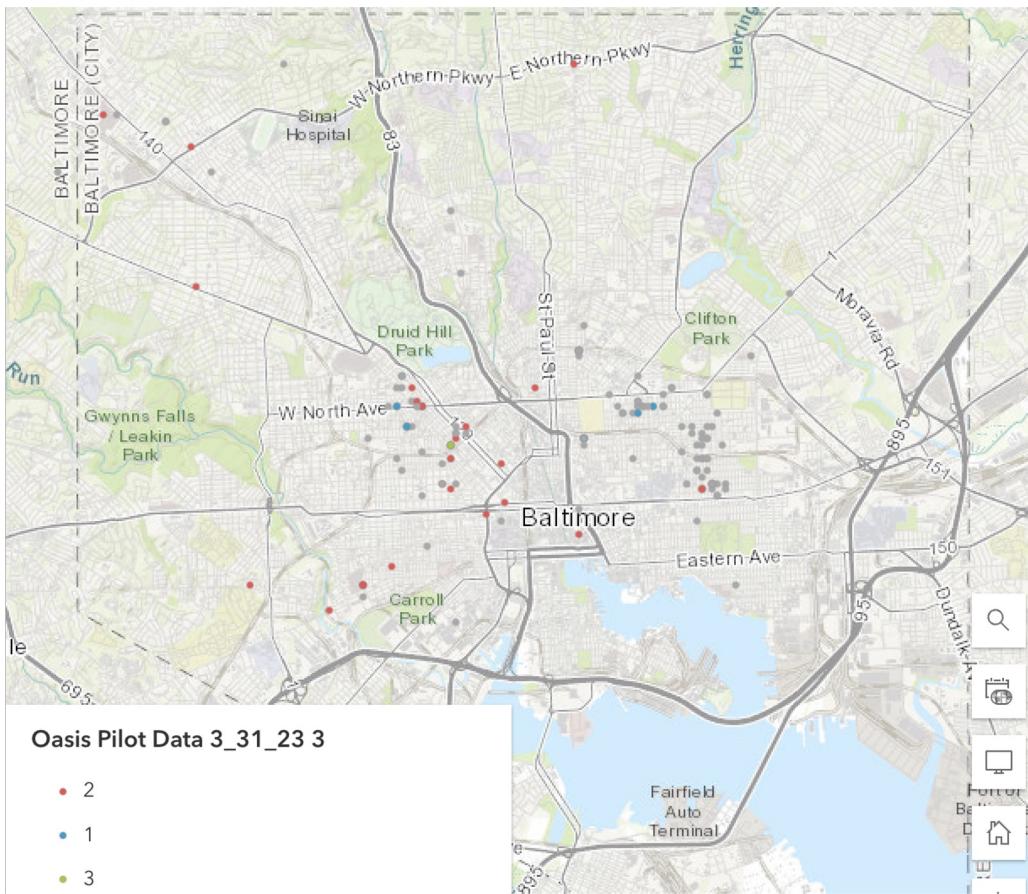
Share syringes



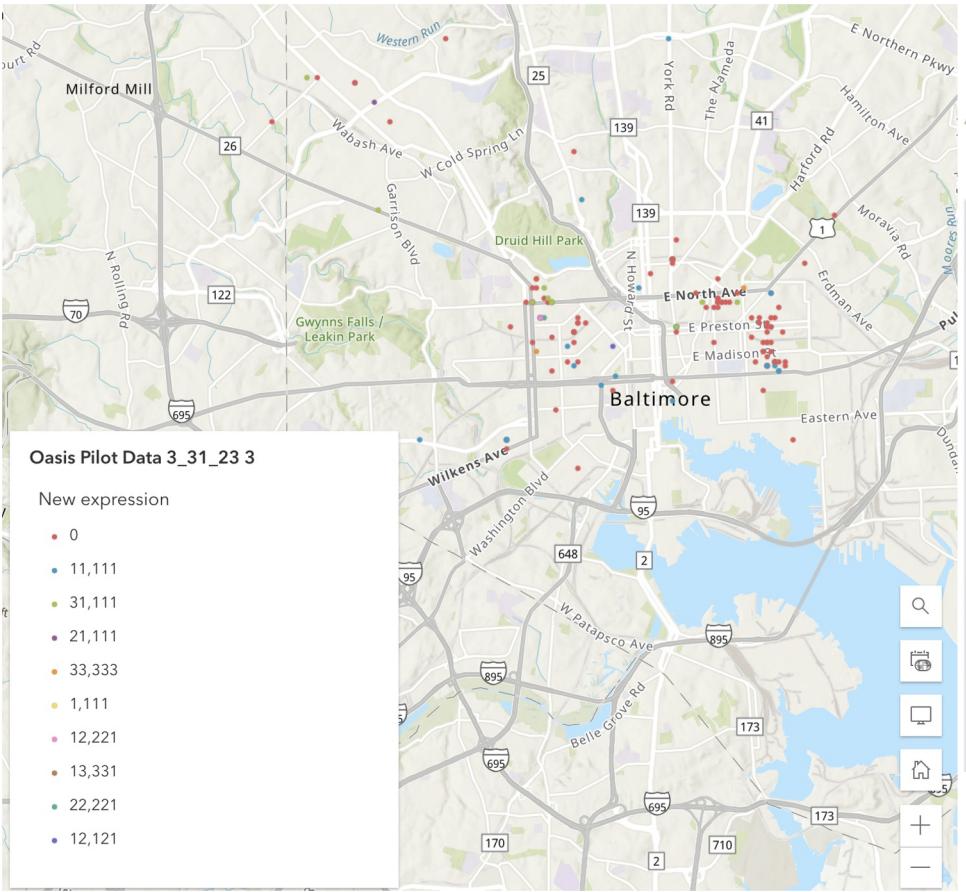
Used fentanyl strips



Talk about how to prevent overdose



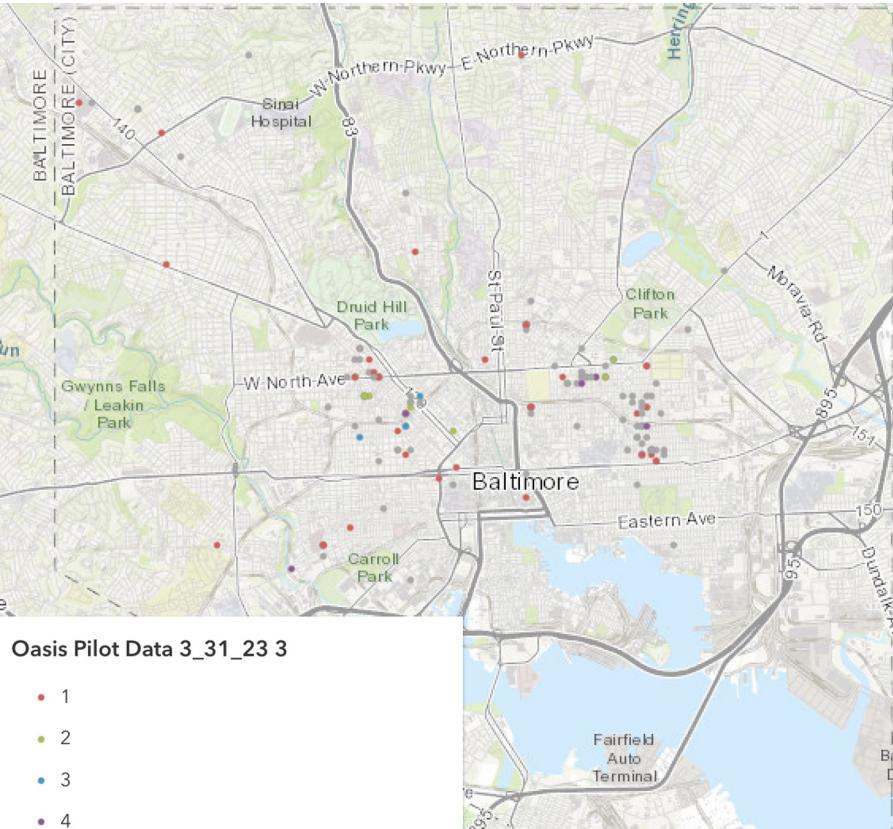
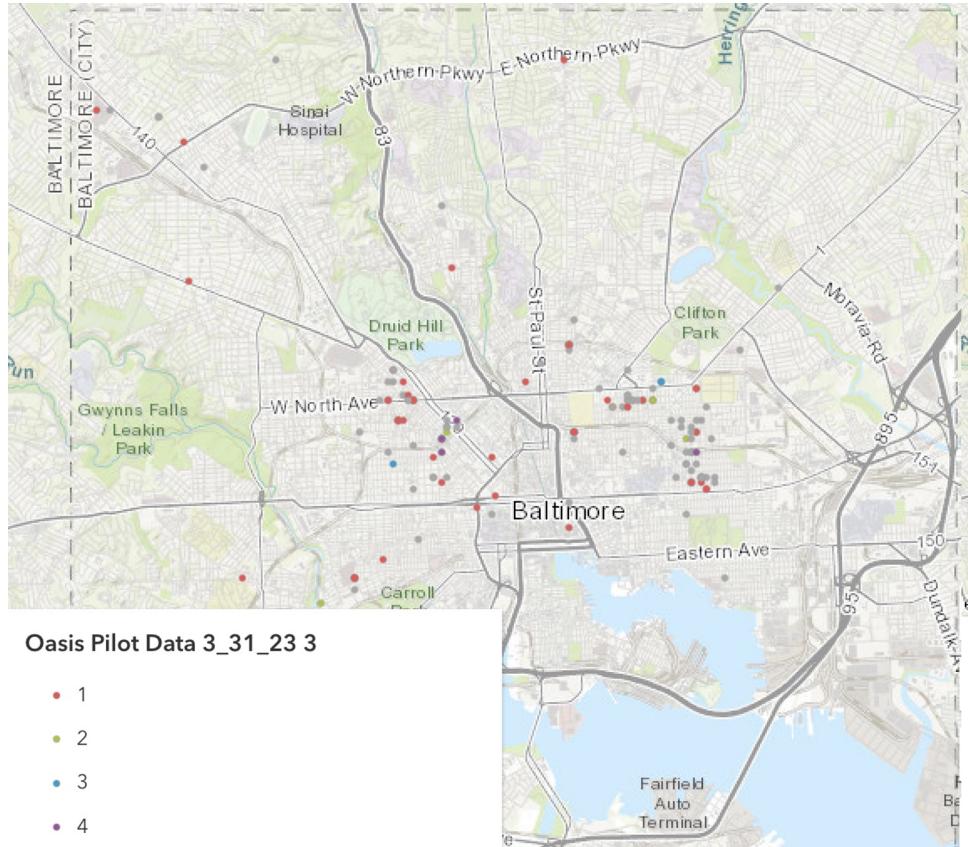
Used a small amount first to test potency



11. Thinking about the last time you used opioids today, were these things available?

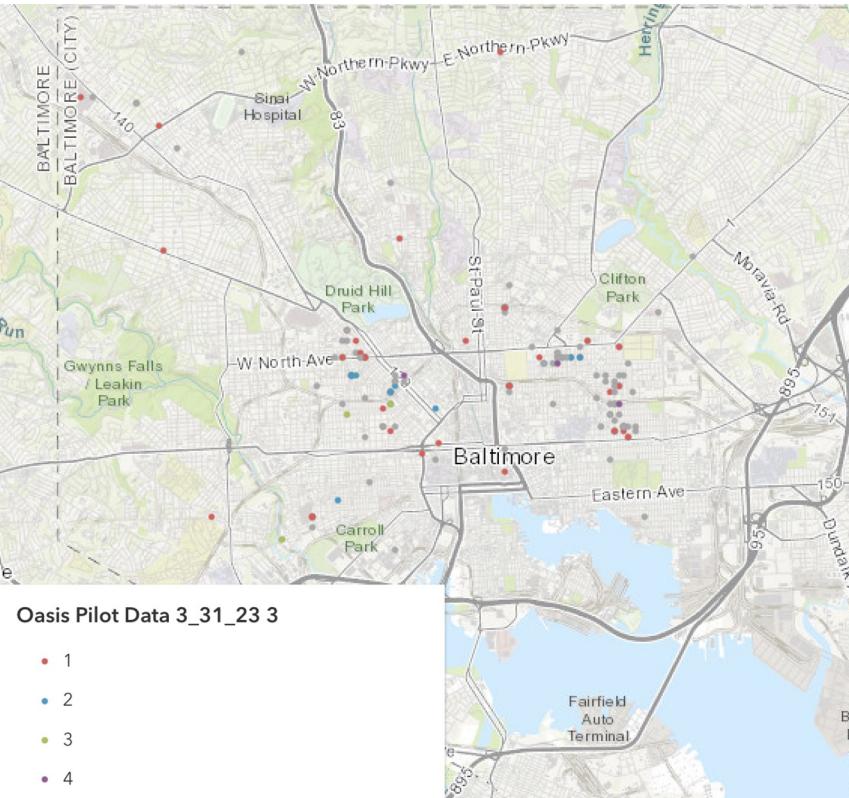
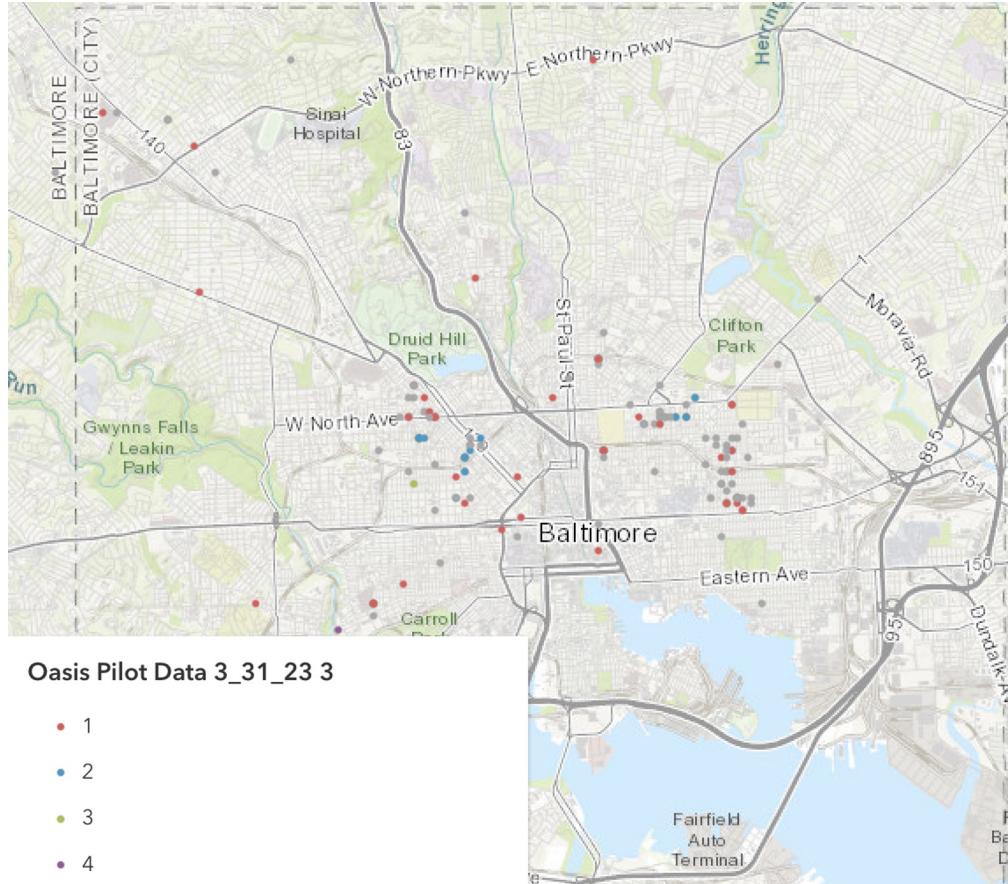
	Yes- I Had It	Yes- Someone Else Had It	No	Don't Know
<input type="radio"/> narcan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> clean cooker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> clean water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> clean syringes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> fentanyl test strips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11

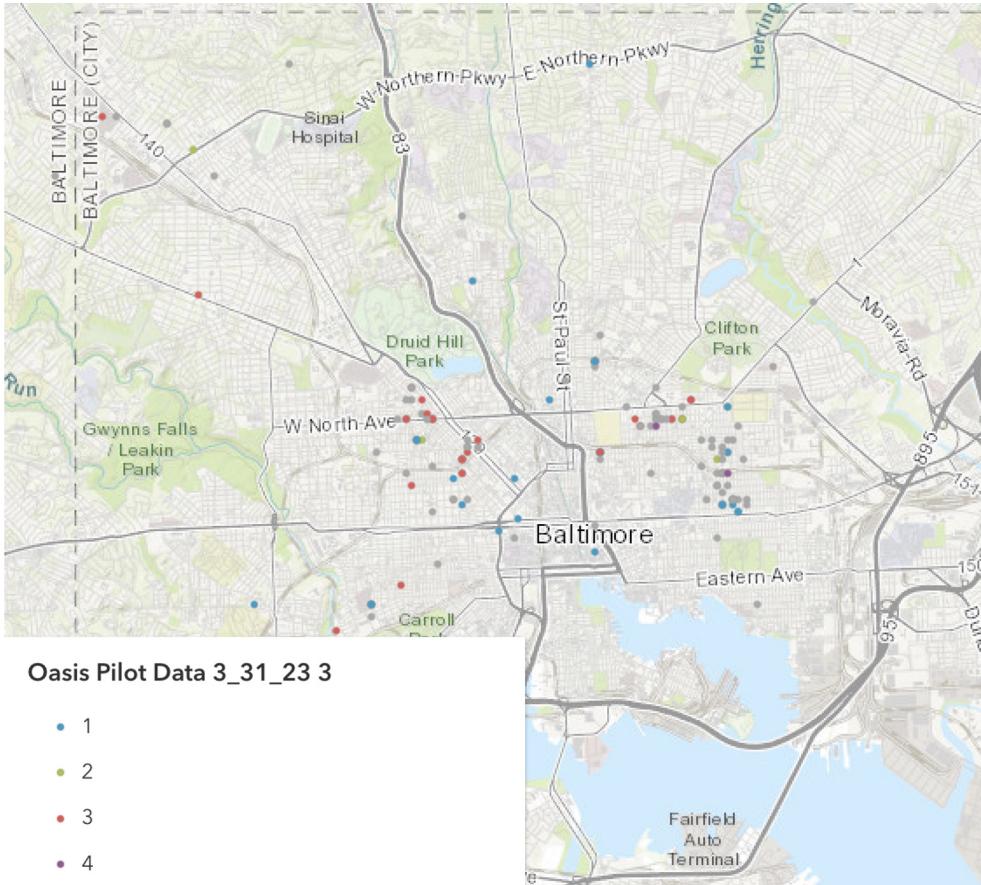


Narcan  
cooker

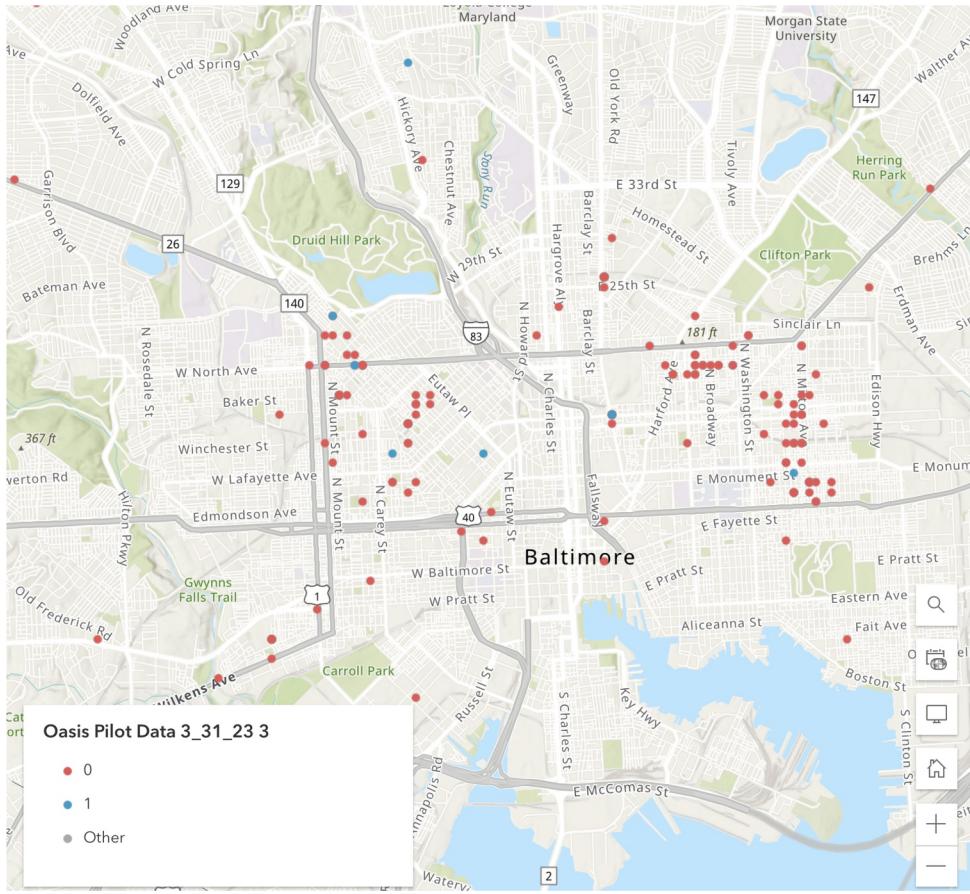
Clean



Clean Water  
Clean Syringes



Fentanyl test strips



**13. Did you witness an overdose today?**

- Yes  
 No

Q13