



MiTracking



Childhood Lead  
Poisoning Prevention

# How to Query Childhood Lead Data on MiTracking

Hello! Welcome to the Michigan Department of Health and Human Services (MDHHS) Michigan Environmental Public Health Tracking (MiTracking) tutorial on “How to query blood lead data on MiTracking.” This tutorial shows data users how they can access blood lead information and data for children less than 6 years of age on the MiTracking data portal.

The MDHHS Childhood Lead Poisoning Prevention Program (CLPPP) publishes annual reports that contain Michigan county-level blood lead data. In 2021, those data became available on MiTracking. Data are updated twice a year, allowing access before the CLPPP annual report is published.

Let's get started!



MiTracking



Childhood Lead  
Poisoning Prevention



## MiTracking

## MiTracking

- MiTracking is a federally funded program through the Centers for Disease Control and Prevention (CDC) and a part of the National Environmental Public Health Tracking Program (CDC Tracking Program).
- MiTracking gathers existing data, information, and resources about the environment and health and provides them all in one online location.
- MiTracking shares information and data on a public data portal.



## Childhood Lead Poisoning Prevention

# CLPPP

CLPPP is dedicated to eliminating childhood lead poisoning by:

- Ensuring that children at risk of lead exposure are tested and laboratories are reporting blood lead test results to MDHHS,
- Using blood lead test results in MDHHS's lead surveillance database for public health interventions,
- Linking exposed children to recommended services through local health departments, and
- Focusing on population-based interventions.

Childhood lead data on MiTracking come from the blood lead test surveillance database maintained by CLPPP.

# Homepage -1

- Go to the MiTracking homepage at [www.michigan.gov/MiTracking](http://www.michigan.gov/MiTracking).
- On the homepage, there is a short **Introduction** with links to the MiTracking data portal and CDC's Tracking Program.
- **Data Content Areas** are in the middle.
- At the bottom, **Quick Links** go to different areas of MiTracking including About, Metadata, Resources, and Contact Us. Quick links are on every page. These areas will be discussed in more detail later.

The screenshot shows the MiTracking homepage. At the top, the header features the 'MiTracking' title and the Michigan Department of Health & Human Services (MDHHS) logo. Below the header is a navigation breadcrumb: Home > Safety & Injury Prevention > Environmental Health > MiTracking. The main content area includes an introduction to the program, an 'Explore Data' button, and a section for 'Data Content Areas' with three columns: Environmental Topics, Health Conditions, and Population. At the bottom, a 'Quick Links' section contains icons for About, Metadata, Resources, and Contact Us.

**MiTracking**

Michigan Department of Health & Human Services

Home > Safety & Injury Prevention > Environmental Health > MiTracking

**MiTracking**

For many years, public health systems across the U.S. faced a knowledge gap about environmental hazards and public health. The Michigan Environmental Public Health Tracking Program, MiTracking, can help bridge this gap. The MiTracking Program gathers existing Michigan-specific environmental and health data and provides them in one online location.

These data can be easily queried on the MiTracking data portal. Results are provided in tables, charts, and maps that can be downloaded, saved, and printed. The data provided by the MiTracking program can create greater awareness of environmental health concerns, and inform public health actions and programs.

The MiTracking Program is part of the [Centers for Disease Control and Prevention's National Environmental Public Health Tracking Program](#). For more information about jurisdictions in CDC's Tracking Program, visit [Michigan's Tracking Profile](#) or other [program profiles](#).

**Explore Data**

**Data Content Areas**

**Environmental Topics**

- [Air Quality](#)
  - [Ground-level Ozone](#)
  - [PM2.5](#)
- [Climate Change](#)
- [Community Public Drinking Water](#)
- [Rabies](#)
- [Ticks](#)

**Health Conditions**

- [Asthma](#)
- [Birth Defects](#)
- [COPD](#)
- [Cancer](#)
  - [Adult](#)
  - [Childhood](#)
- [Carbon Monoxide \(CO\) Poisoning](#)
- [Drug Poisoning \(Overdose\) Deaths](#)
- [Heart Attack](#)
- [Heat Illness](#)
- [Lead Exposure](#)
  - [Adults](#)
  - [Children](#)
- [Pesticide-Related Illnesses and Injuries](#)
- [Reproductive and Birth Outcomes](#)
- [Work-Related Injuries and Illnesses](#)
  - [Workers' Compensation \(Paid Wage Loss Claims\)](#)
  - [Traumatic Work-Related Deaths \(Fatalities\)](#)

**Population**

- [Population Characteristics](#)
  - [Social Vulnerability Index \(SVI\)](#)

**Quick Links**

**About** **Metadata** **Resources** **Contact Us**

# Homepage - 2

- **Data Content Areas** shows MiTracking data organized into three Categories, which are **Environmental Topics**, **Health Conditions**, and **Population**.
- There are **Data Content Area Pages** under each category. Note “Lead Exposure – Children” is under **Health Conditions**.
- Let’s click on the **Lead Exposure-Children** content page.

**Data Content Areas**



Environmental Topics	Health Conditions	Population
<ul style="list-style-type: none"><li>• <a href="#">Air Quality</a><ul style="list-style-type: none"><li>◦ <a href="#">Ground-level Ozone</a></li><li>◦ <a href="#">PM2.5</a></li></ul></li><li>• Animals and Bugs<ul style="list-style-type: none"><li>◦ <a href="#">Rabies</a></li><li>◦ <a href="#">Ticks</a></li></ul></li><li>• <a href="#">Climate Change</a></li><li>• <a href="#">Community Public Drinking Water</a></li></ul>	<ul style="list-style-type: none"><li>• <a href="#">Asthma</a></li><li>• <a href="#">Birth Defects</a></li><li>• <a href="#">COPD</a></li><li>• Cancer<ul style="list-style-type: none"><li>◦ <a href="#">Adult</a></li><li>◦ <a href="#">Childhood</a></li></ul></li><li>• <a href="#">Carbon Monoxide (CO) Poisoning</a></li><li>• <a href="#">Drug Poisoning (Overdose) Deaths</a></li><li>• <a href="#">Heart Attack</a></li><li>• <a href="#">Heat Illness</a></li><li>• Lead Exposure<ul style="list-style-type: none"><li>◦ <a href="#">Adults</a></li><li>◦ <a href="#">Children</a></li></ul></li><li>• <a href="#">Pesticide-Related Illnesses and Injuries</a></li><li>• <a href="#">Reproductive and Birth Outcomes</a></li><li>• <a href="#">Work-Related Illnesses and Injuries</a><ul style="list-style-type: none"><li>◦ <a href="#">Workers' Compensation (Paid Wage Loss Claims)</a></li><li>◦ <a href="#">Traumatic Work-Related Deaths (Fatalities)</a></li></ul></li></ul>	<ul style="list-style-type: none"><li>• <a href="#">Population Characteristics</a><ul style="list-style-type: none"><li>◦ Social Vulnerability Index (SVI)</li></ul></li></ul>



# Content Area Page -1

- All content pages provide introductory information on the subject and additional resources.
- The **Explore Data** button is a link to the data portal.
- Let's click on the **Elevated Blood Lead Level** section.

Lead Exposure - Children

MiTracking > Lead Exposure - Children

Lead is a highly toxic metal that was commonly used in paint, gasoline, and plumbing pipes and fixtures. Statistics show that 96,462 (14.1%) Michigan children under 6 years old had a blood lead test in 2021 (MiTracking Data Portal). Of those tested, 3.5% (3,401) children had elevated blood lead levels (EBLL) of 3.5 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ) or greater (MiTracking Data Portal). Note: Blood lead testing throughout Michigan decreased starting in March 2020, associated with the COVID-19 pandemic. Stay-at-home orders, closures, and virtual care limited blood lead testing. The population tested in 2020 and 2021 is likely different from previous years. Comparing the EBLL percentage in 2020 and 2021 to other years will be difficult.

Childhood lead data are available on the MiTracking data portal for:

- Age of Housing
- Annual Blood Lead Levels
- Blood Lead Levels by Birth Year

Elevated Blood Lead Level

Lead Exposure

Risk Factors

Health Effects

Reduce Lead Exposure

Blood Lead Testing

Data

Learn More

Citations

Explore Data

# Content Area Page - 2

- The **Elevated Blood Lead Level** section when expanded discusses what Elevated Blood Lead Levels (EBLL) and Blood Lead Reference Values (BLRV) are.
- MDHHS updated their definition of an elevated blood lead level in May 2022 following the CDC change.

**Lead Exposure - Children**

Safety & Injury Prevention > Environmental Health > MiTracking > Lead Exposure - Children

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Childhood lead data are available on the MiTracking data portal for:

- Age of Housing
- Annual Blood Lead Levels
- Blood Lead Levels by Birth Year

**Elevated Blood Lead Level**

An elevated blood lead level is a blood lead test value at or above the "blood lead reference value" (BLRV) set by the Centers for Disease Control and Prevention (CDC). The BLRV identifies children with higher levels of lead in their blood than most children. The BLRV is not health-based. It is a tool to identify children who need public health services and medical evaluation and to prioritize communities that need interventions to reduce lead exposure. **There is no safe level of lead.** In Michigan, services available to families of children with elevated blood lead levels include in-home nurse case management, inspection of their homes for lead hazards, and abatement of lead-contaminated homes.<sup>1</sup>

In 2012, the CDC adopted the BLRV of 5  $\mu\text{g}/\text{dL}$ ; accordingly, MDHHS defined an elevated blood lead level in Michigan as 5  $\mu\text{g}/\text{dL}$  or greater (including results 4.5-4.9 rounded up). On May 1, 2022, MDHHS lowered the definition of elevated blood lead level to 3.5  $\mu\text{g}/\text{dL}$  or greater, based on an updated BLRV from CDC.<sup>2</sup>

Elevated blood lead measures are available for all years on the MiTracking data portal by:

- 3.5  $\mu\text{g}/\text{dL}$  (new BLRV)<sup>3</sup>
- 5  $\mu\text{g}/\text{dL}$  (old BLRV, due to rounding, includes results for 4.5-4.9)

<sup>3</sup>Note: BLLs 3.5-4.4 were not defined as elevated until 2022.

Learn more about lead at [Blood Lead Testing](#).

Explore Data >

# Content Area Page -3

- Let's go to the **Data** section, further down the content page.

Lead Exposure - Children

MDHHS

Home > Safety & Injury Prevention > Environmental Health > MiTracking > Lead Exposure - Children

Lead is a highly toxic metal that was commonly used in paint, gasoline, and plumbing pipes and fixtures. Statistics show that 96,462 (14.1%) Michigan children under 6 years old had a blood lead test in 2021 (MiTracking Data Portal). Of those tested, 3.5% (3,401) children had elevated blood lead levels (EBLL) of 3.5 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ) or greater (MiTracking Data Portal). Note: Blood lead testing throughout Michigan decreased starting in March 2020, associated with the COVID-19 pandemic. Stay-at-home orders, closures, and virtual care limited blood lead testing. The population tested in 2020 and 2021 is likely different from previous years. Comparing the EBLL percentage in 2020 and 2021 to other years will be difficult.

Childhood lead data are available on the MiTracking data portal for:

- Age of Housing
- Annual Blood Lead Levels
- Blood Lead Levels by Birth Year

Elevated Blood Lead Level

Lead Exposure

Risk Factors

Health Effects

Reduce Lead Exposure

Blood Lead Testing

**Data**

Learn More

Citations

Explore Data

# Content Area Page - 4

- Under **Find Out More**, look for the **Metadata** bullet.
  - **Metadata** provides technical information about the content, quality, and context of the data.
- Under Metadata, click on the **Annual Blood Lead Levels** link.
- Note: Quick Links also has a link to MiTracking metadata.

**Data**

**Lead Data on MiTracking include the Indicators:**

- Annual blood lead levels
- Blood lead levels by birth year
- Age of housing

**Data Can Tell Us**

- The number and percent of children tested for blood lead and among those tested, the number and percent with BLLs equal to or above:
  - 3.5 µg/ dL (new BLRV)
  - 5 µg/ dL (old BLRV, due to rounding, includes results for 4.5-4.9)
- Data are available by year, county, zip code, age group, and test type.

**Data Cannot Tell Us**

- The total number of children affected.
- The cost, effect, result, or consequence of lead exposure.
- Source of lead exposure.

**Find Out More**

Surveillance data from the Michigan Department of Health and Human Services (MDHHS) Data Warehouse were used to create this dataset through a Data Use Agreement with the Childhood Lead Poisoning Prevention Program (CLPPP). Find out more data information, visit:

- [About These Data](#) (found on the data portal after a query search).
- [Metadata](#) (Technical information about the content, quality, and context of the data):
  - [Annual Blood Lead Levels](#)
  - [Blood Lead Levels by Birth Cohort](#)

**Quick Links**

- [About](#)
- [Metadata](#)
- [Resources](#)
- [Contact Us](#)

# Metadata

- The Michigan Annual Blood Lead Levels data comes from CLPPP.
- It is recommended that all users read the metadata prior to data use.
- The metadata has CLPPP's contact information.

**Metadata:** Childhood lead testing data on MiTracking

## MICHIGAN ANNUAL BLOOD LEAD LEVELS

Publication Date: 5/25/2023

### Abstract

This dataset contains blood lead results by calendar year for Michigan children under 6 years of age, and children ages 1 and 2 years enrolled in Medicaid. The data are aggregated and stratified by geography of residence at the time of the test, year tested, test sample type, and venous elevated blood lead level (EBLL) categories. The measures are:

- Number tested for lead.
- Number with an elevated blood lead level (EBLL).
- Percent tested with an EBLL.
- Number with venous EBLL by category.
- Percent tested with venous EBLL by category.

The following measures are included only for children under 6 years old, for each geographic area:

- Population
- Percent tested for lead

MDHHS considers results at or above the CDC blood lead reference value (BLRV) to be an EBLL. In 2021, the CDC changed the BLRV from 5 µg/dL to 3.5 µg/dL.<sup>6</sup> Blood lead data in MiTracking will be provided for both definitions of an EBLL.

It is recommended that all users read and fully comprehend metadata prior to data use. To access these data, please visit the [MiTracking data portal](#).

### Purpose

The dataset is intended to provide public health professionals, researchers, and the general public with summary information on childhood blood lead testing in the state of Michigan. These data

**Metadata:** Childhood lead testing data on MiTracking

### Contact Information

Michigan Department of Health and Human Services  
Division of Environmental Health  
P.O. Box 30037  
Lansing, MI 48909  
1-800-648-6942

MiTracking e-mail: [MDHHS-MiTracking@michigan.gov](mailto:MDHHS-MiTracking@michigan.gov)  
CLPPP e-mail: [MDHHS-CLPPP@michigan.gov](mailto:MDHHS-CLPPP@michigan.gov)

# Data Portal

- The data portal can be accessed in three ways including:

1. The MiTracking homepage.
2. The childhood lead exposure content page.
3. The childhood lead exposure metadata page.

- From the metadata page, let's click the "MiTracking data portal" link found in the Abstract.



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# Terms of Use

The **Terms of Use** agreement will pop up. Please read the agreement terms and select “Agree” to continue to the data portal. Clicking on “Decline” will not allow access to the data portal.

## Terms of Use

These data are provided by the Michigan Department of Health and Human Services (MDHHS) [MiTracking Program](#) through a cooperative agreement with the Centers for Disease Control and Prevention (CDC). Please acknowledge MDHHS and CDC as original data sources in all reports or presentations based on these data.

By accessing these data and using the MiTracking Program, I acknowledge and agree to the following:

- I will use the data for statistical reporting and analysis only.
- I will not attempt to learn the identity of any person included in the data, and will not combine these data with other data for the purpose of matching records to identify individuals.
- In the event I discover the identity of any person or establishment through my use of this database; I will not disclose or make use of such information, and will immediately report the incident to [mdhhs-mitracking@michigan.gov](mailto:mdhhs-mitracking@michigan.gov).
- I will not imply or state, either in written or oral form, that interpretations based on these data are those of the original data sources unless I am formally collaborating with the data source.
- The environmental hazard and health outcome data shown on this website are not necessarily related. Some, but not all, environmental hazards are currently known or suspected to affect human health. Many personal risk factors that may be related to health outcome data are not represented.
- These data cannot be used for commercial purposes and shall not be used to engage in any method, act, or practice to conduct the solicitation or advertisement of goods, services, or real estate to Michigan consumers.
- MiTracking cannot guarantee the completeness of the information contained in these datasets and expressly disclaims liability for errors and omissions in their content.

Failure to comply with these Terms of Use may result in legal penalties.

Agree

Decline

# Search Bar

- Use the **Search Bar** to perform a quick search.
- Type keywords into the **Search Bar** and click Search.
- Available measures will pop up for us to select.

The screenshot displays the MiTracking interface. At the top, the logo for Michigan Department of Health & Human Services (MDHHS) and Michigan Environmental Public Health Tracking (MiTracking) is visible. Below the logo, there is a search bar with the placeholder text "Search Topics - use ' ' for exact search" and a "Search" button. The search bar is highlighted with an orange box. Below the search bar, there are several filter options: "Data Options", "Categories" (set to "Health"), "Content Areas" (set to "Lead Exposure - Children"), "Indicators" (set to "Select an Indicator"), and "Measures" (set to "Select a Measure"). There are also buttons for "Run Query", "Switch to Advanced Query", "Clear Query", and "Save Query". Below the filters, there are tabs for "Table", "Chart", "Map", and "About These Data". A message box says "Run a query to view tabular data." Below this, a "Search Results" window is open, showing a list of search results. The results are organized into a table with columns for "Health", "Lead Exposure", "Age of Housing", "Number of Homes Built Before", and "What is Age of Housing?". The results are filtered by "Health", "Lead Exposure", "Age of Housing", and "Number of Homes Built Before". The search results are also highlighted with an orange box. At the bottom of the search results window, it says "You searched for the following terms: lead, exposure, children" and has a "Close" button.

MDHHS Michigan Department of Health & Human Services  
MiTracking Michigan Environmental Public Health Tracking

Compare Measures

Search Topics - use " " for exact search Search

Data Options

\* = Required

\* Categories: Health

\* Content Areas: Lead Exposure - Children

\* Indicators: Select an Indicator

\* Measures: Select a Measure

Run Query Switch to Advanced Query Clear Query Save Query

Table Chart Map About These Data

Run a query to view tabular data.

Search Results

Health	Lead Exposure	Age of Housing	Number of Homes Built Before	What is Age of Housing?	Select
Health	Lead Exposure - Children	Age of Housing	1950	What is Age of Housing? Age of housing refers to about how many homes within a geographic area (for example, a county) were built before a certain time period (for example, 1980). For more information about age of housing and other population data, visit our <a href="#">population health content page...</a>	Select
Health	Lead Exposure - Children	Age of Housing	1980	What is Age of Housing? Age of housing refers to about how many homes within a geographic area (for example, a county) were built before a certain time period (for example, 1980). For more information about age of housing and other population data, visit our <a href="#">population health content page...</a>	Select
Health	Lead Exposure - Children	Age of Housing	1950	What is Age of Housing? Age of housing refers to about how many homes within a geographic area (for example, a county) were built before a certain time period (for example, 1980). For more information about age of housing and other population data, visit our <a href="#">population health content page...</a>	Select
Health	Lead Exposure - Children	Age of Housing	1980	What is Age of Housing? Age of housing refers to about how many homes within a geographic area (for example, a county) were built before a certain time period (for example, 1980). For more information about age of housing and other population data, visit our <a href="#">population health content page...</a>	Select
Health	Lead Exposure - Children	Annual Blood Lead Levels	1.Total Population of Children	What is Childhood Lead Exposure? Lead is a highly toxic metal that was commonly used in paint, gasoline, and plumbing pipes and...	Select

You searched for the following terms: lead, exposure, children Close

# Basic Query - 1

- Or we can conduct a **Basic Query** using the query tool. Let's conduct a **Basic Query** for annual blood lead level data.
- Using the drop-down boxes, select **Health** for **Category**, **Lead Exposure – Children** for **Content Area**, and **Annual Blood Lead Levels** for **Indicator**.

The screenshot displays the MiTracking interface for conducting a basic query. At the top left is the Michigan Department of Health & Human Services (MDHHS) logo and the text 'MiTracking Michigan Environmental Public Health Tracking'. A 'Compare Measures' button is on the left, and a search bar with a 'Search' button is on the right. A light blue notification box contains a note about data availability for children 1-2 years old in Detroit or Wayne. Below this is a 'Data Options' section with a gear icon and a dropdown arrow. A legend indicates that an asterisk (\*) denotes required fields. The query configuration is divided into four columns: '\* Categories:' with a dropdown set to 'Health'; '\* Content Areas:' with a dropdown set to 'Lead Exposure - Children'; '\* Indicators:' with a dropdown set to 'Annual Blood Lead Levels'; and '\* Measures:' with a dropdown set to 'Select a Measure'. At the bottom right are four buttons: 'Run Query' (green), 'Switch to Advanced Query' (blue), 'Clear Query' (white), and 'Save Query' (white). The entire query configuration area is highlighted with an orange border.

# Basic Query - 2

- Select measure number 5 - **Percent of children tested with an elevated blood lead level.**

The screenshot displays the 'Compare Measures' interface of the MiTracking Data Portal. At the top, there is a search bar with the placeholder text 'Search Topics - use " " for exact search' and a green 'Search' button. Below the search bar is a 'Data Options' section with a gear icon and a dropdown arrow. A red asterisk indicates that the following fields are required.

The required fields are:

- \* Categories:** Health
- \* Content Areas:** Lead Exposure - Children
- \* Indicators:** Annual Blood Lead Levels
- \* Measures:** 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)

Below these filters, there is a green 'Run Query' button and a blue 'Switch to Advanced' button. A 'Filter Selections Below' dropdown menu is open, showing a list of seven measures. Measure 5 is selected, indicated by a checkmark in a small box to its right.

At the bottom of the interface, there are navigation options: 'Table', 'Chart', 'Map', and 'About These Data'. A light blue banner contains the text: 'Run a query to view tabular data.'

The footer of the page includes the text: 'MiTracking Data Portal - Version 1.7.2 - PROD', 'MI.gov | MiTracking Home | Contact | Policies | Send Feedback', and 'Copyright 2023 State of Michigan'.

# Basic Query - 3

- Select **Run Query** for a basic query.
- Or click **Switch to Advanced Query** for additional options. Let's click **Switch to Advanced Query**.

The screenshot displays the MiTracking interface for configuring a query. At the top left is the MDHHS logo (Michigan Department of Health & Human Services) and the text 'MiTracking Michigan Environmental Public Health Tracking'. A search bar is located at the top right with the placeholder text 'Search Topics - use "" for exact search' and a green 'Search' button. Below the search bar is a light blue informational message box with a close button. The main configuration area is titled 'Data Options' and includes a legend '\* = Required'. It features four dropdown menus: 'Categories' (set to 'Health'), 'Content Areas' (set to 'Lead Exposure - Children'), 'Indicators' (set to 'Annual Blood Lead Levels'), and 'Measures' (set to '5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)'). At the bottom, there are four buttons: 'Run Query' (highlighted with an orange border), 'Switch to Advanced Query' (highlighted with a blue border), 'Clear Query', and 'Save Query'.

# Advanced Query - 1

- Additional **Geography and Time Periods** options are available for this measure.
- Under **Geographic Level**, there are three options: **Health Departments, State and/or County + Detroit**, and **Zip Code**.
- Click on **State and/or County + Detroit**.

\* Categories: Health

\* Content Areas: Lead Exposure - Children

\* Indicators: Annual Blood Lead Levels

\* Measures: 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)

Geography & Time Periods

\* Geographic Level: State and/or County + Detroit

Filter Selections Below

Health Departments (All)

State and/or County + Detroit ✓

Zip Code

\* State and/or County + Detroit: Statewide Only, Alcona, ... (85)

\* Year(s): 2021, 2020, ... (12)

\* Test Type: All Test Types

Blood Lead Reference Value: 3.5

Run Query Switch to Basic Query Clear Query Save Query

# Advanced Query - 2

- A list of Michigan State and/or County + Detroit is now available when the down arrow is clicked.
  - Click **Select All** to select all locations.
  - Click **Deselect All** to clear selections.
  - Select specific counties by typing or scrolling and clicking on each location.

The screenshot displays the 'Advanced Query' interface with the following configuration:

- \* Categories:** Health
- \* Content Areas:** Lead Exposure - Children
- \* Indicators:** Annual Blood Lead Levels
- \* Measures:** 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)
- Geography & Time Periods**
  - \* Geographic Level:** State and/or County + Detroit
  - \* State and/or County + Detroit:** Statewide Only, Alcona, ... (85)
  - \* Year(s):** 2021, 2020, ... (12)
- Other Filters**
  - \* Age Group/Status:** All Children <6
- Test Type:** All Test Types

The 'State and/or County + Detroit' dropdown menu is open, showing a search bar with the text 'Filter Selections Below' and two buttons: 'Select All' (checked) and 'Deselect All'. The list of counties includes: Statewide Only, Alcona, Alger, Allegan, Alpena, Antrim, Arenac, Baraga, and Barry. Each item has a checkmark in the right column.

At the bottom of the interface, there are buttons for 'Run Query', 'Switch to Basic Query', 'Clear Query', and 'Save Query'. The footer includes 'MI.gov | MITracking Home | Contact | Policies | Send Feedback' and '1.7.2 - PROD'.

# Advanced Query -3

- For this search, let's select **Genesee, Kent, Oakland, and Wayne (Out County) counties** plus **City of Detroit**, which is listed last.

The screenshot displays an advanced query interface with the following sections and settings:

- \* Categories:** Health
- \* Content Areas:** Lead Exposure - Children
- \* Indicators:** Annual Blood Lead Levels
- \* Measures:** 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)
- Geography & Time Periods**
  - \* Geographic Level:** State and/or County + Detroit
  - \* State and/or County + Detroit:** Genesee (with a dropdown menu open showing a list of counties: Dickinson, Eaton, Emmet, Genesee (checked), Gladwin, Gogebic, Grand Traverse)
  - \* Year(s):** 2021, 2020, ... (12)
- Other Filters**
  - \* Age Group/Status:** All Children <6
  - Test Type:** All Test Types
- Buttons:** Run Query (green), Switch to Basic Query (blue), Clear Query (white), Save Query (white)
- Footer:** Run a query to view tabular data.

# Advanced Query - 4

- Next, select **Years**. Let's choose **2018-2021** by selecting each.

The screenshot displays the MiTracking Data Portal's Advanced Query interface. The interface is organized into several sections:

- \* Categories:** Health
- \* Content Areas:** Lead Exposure - Children
- \* Indicators:** Annual Blood Lead Levels
- \* Measures:** 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)

Below these sections is the **Geography & Time Periods** section, which includes:

- \* Geographic Level:** State and/or County + Detroit
- \* State and/or County + Detroit:** Genesee, Kent, ... (5)
- \* Year(s):** 2021, 2020, ... (4)

The **\* Year(s)** dropdown menu is open, showing a list of years from 2013 to 2021. The years 2018, 2019, 2020, and 2021 are selected, indicated by checkmarks. The menu also includes a search bar, "Select All", and "Deselect All" buttons.

At the bottom of the interface, there are buttons for **Clear Query** and **Save Query**. A footer bar contains the text "MiTracking Data Portal - Ve" and "MI.gov | MiTracking Home | Contact Us | Policies | Send Feedback".

# Advanced Query - 5

- There are **Other Filters** for this search including **Age Group**, **Blood Lead Reference Value (BLRV)**, and **Test Type**.
- Let's click **BLRV** and **Select All**.

The screenshot shows an advanced query interface with the following sections:

- \* Categories:** Health
- \* Content Areas:** Lead Exposure - Children
- \* Indicators:** Annual Blood Lead Levels
- \* Measures:** 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)
- Geography & Time Periods**
  - \* Geographic Level:** State and/or County + Detroit
  - \* State and/or County + Detroit:** Genesee, Kent, ... (5)
  - \* Year(s):** 2021, 2020, ... (4)
- Other Filters**
  - \* Age Group/Status:** All Children <6
  - \* Blood Lead Reference Value:** 3.5, 5
    - Filter Selections Below
    - Select All  Deselect All
    - 3.5
    - 5
  - \* Test Type:** All Test Types

Buttons: Run Query, Switch to Basic Query, Clear Query, Save Query

Footer: Run a query to view tabular data.

# Advanced Query - 6

- Let's click on **Test Type** and select **Select All**.

The screenshot shows an advanced query interface with several filter sections:

- \* Categories:** Health
- \* Content Areas:** Lead Exposure - Children
- \* Indicators:** Annual Blood Lead Levels
- \* Measures:** 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)
- Geography & Time Periods** (expanded):
  - \* Geographic Level:** State and/or County + Detroit
  - \* State and/or County + Detroit:** Genesee, Kent, ... (5)
  - \* Year(s):** 2021, 2020, ... (4)
- Other Filters** (expanded):
  - \* Age Group/Status:** All Children <6
  - \* Blood Lead Reference Value:** 3.5, 5
  - \* Test Type:** All Test Types, Capillary Test, ... (3)

The **\* Test Type:** dropdown menu is open, showing a search bar with the text "Filter Selections Below" and three options, each with a checkmark:

- All Test Types
- Capillary Test
- Venous Test

Buttons for "Run Query", "Clear Query", and "Save Query" are visible at the bottom right. At the bottom left, there are tabs for "Table", "Chart", and "Map", along with a link "About These Data". A blue banner at the bottom left contains the text: "Run a query to view tabular data."

# Advanced Query - 7

- Select **Run Query** to execute the search.
- Click **Clear Query** to start over.
- Click **Save Query** to save the search and use it for later.

The screenshot shows an advanced query interface with the following sections and controls:

- \* Categories:** Health
- \* Content Areas:** Lead Exposure - Children
- \* Indicators:** Annual Blood Lead Levels
- \* Measures:** 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)
- Geography & Time Periods** (expanded):
  - \* Geographic Level:** State and/or County + Detroit
  - \* State and/or County + Detroit:** Genesee, Kent, ... (5)
  - \* Year(s):** 2021, 2020, ... (4)
- Other Filters** (expanded):
  - \* Age Group/Status:** All Children <6
  - \* Blood Lead Reference Value:** 3.5, 5
  - \* Test Type:** All Test Types, Capillary Test, ... (3)
- Action Buttons:** Run Query (highlighted with an orange border), Switch to Basic Query, Clear Query, and Save Query (highlighted with a green border).

# Query Results

- After a query, results appear in different formats in these tabs: **Table, Chart, and Map.**
- **About These Data** is also available.

The screenshot shows a data query results interface. At the top, there is a 'Compare Measures' button and a search bar with the text 'Search Topics - use " " for exact search' and a 'Search' button. Below the search bar is a 'Data Options' section with a gear icon and a right arrow. This section contains four tabs: 'Table', 'Chart', 'Map', and 'About These Data'. The 'Table' tab is highlighted with an orange border, and the 'About These Data' tab is highlighted with a blue border. Below the tabs are two buttons: 'Edit Data Options' and 'Download Data'. The main content area displays the title '5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL) - Selected year(s)'. Below the title is a table with the following columns and data:

<u>Geographic Area(s)</u> ⚙	<u>Year(s)</u> ⚙	<u>Age Group/Status</u> ⚙	<u>Test Type</u> ⚙	<u>Blood Lead Reference Value</u> ⚙	<u>Number of Children Tested</u> ⚙	<u>Number of Children with an EBLL</u> ⚙	<u>Percent of Children Tested with an EBLL</u> ⚙
Genesee	2018	All Children <6	All Test	3.5	6349	220	3.5

# Table

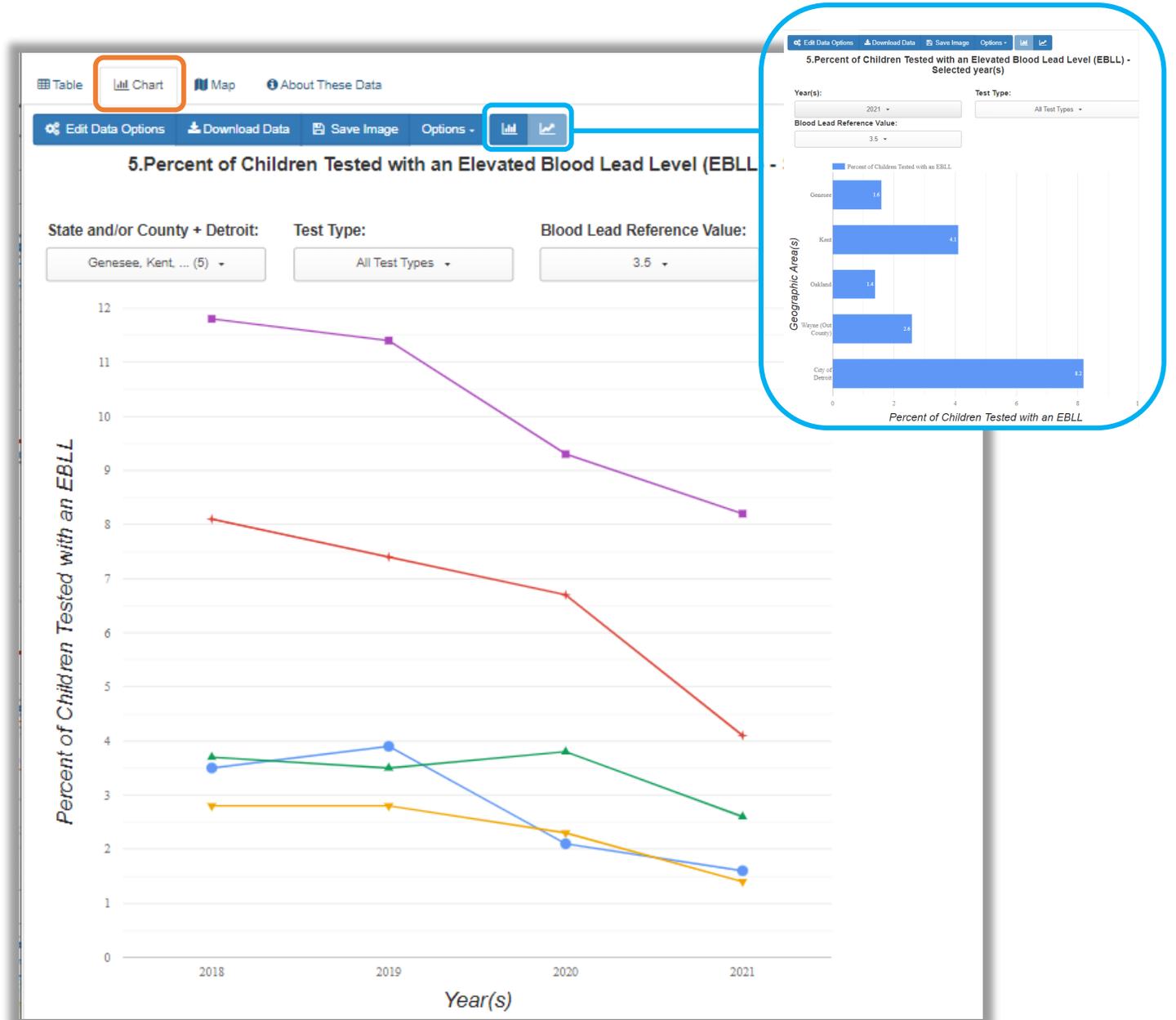
- The **Table** tab appears, which is sorted alphabetically by geographic area at first.
- Click on the column titles to sort the table by any variable.

The screenshot shows a data visualization interface with a 'Table' tab selected. The table title is '5. Percent of Children Tested with an Elevated Blood Lead Level (EBLL) - Selected year(s)'. The table has 8 columns: Geographic Area(s), Year(s), Age Group/Status, Test Type, Blood Lead Reference Value, Number of Children Tested, Number of Children with an EBLL, and Percent of Children Tested with an EBLL. The data is sorted by Geographic Area(s).

Geographic Area(s)	Year(s)	Age Group/Status	Test Type	Blood Lead Reference Value	Number of Children Tested	Number of Children with an EBLL	Percent of Children Tested with an EBLL
Genesee	2018	All Children <6	All Test Types	3.5	6349	220	3.5
Genesee	2018	All Children <6	All Test Types	5	6349	95	1.5
Genesee	2018	All Children <6	Capillary Test	3.5	6349	143	2.3
Genesee	2018	All Children <6	Capillary Test	5	6349	54	0.9
Genesee	2018	All Children <6	Venous Test	3.5	6349	77	1.2
Genesee	2018	All Children <6	Venous Test	5	6349	41	0.6
Genesee	2019	All Children <6	All Test Types	3.5	6069	237	3.9
Genesee	2019	All Children <6	All Test Types	5	6069	104	1.7
Genesee	2019	All Children <6	Capillary	3.5	6069	163	2.7

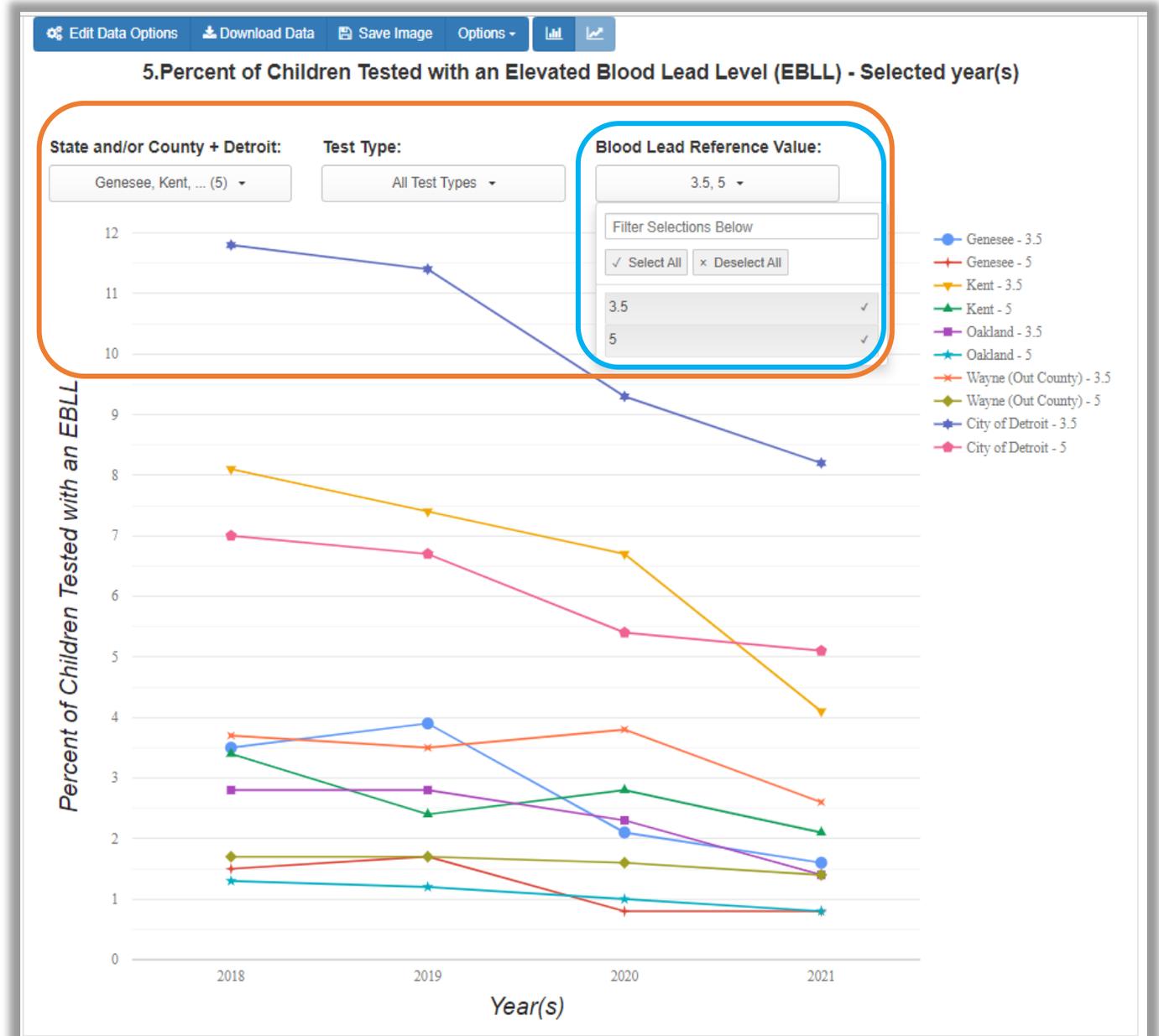
# Chart - 1

- To see results in chart or graph form, click on the **Chart** tab.
- Change the chart from a line chart to a bar chart by clicking on the button with the bar chart icon.



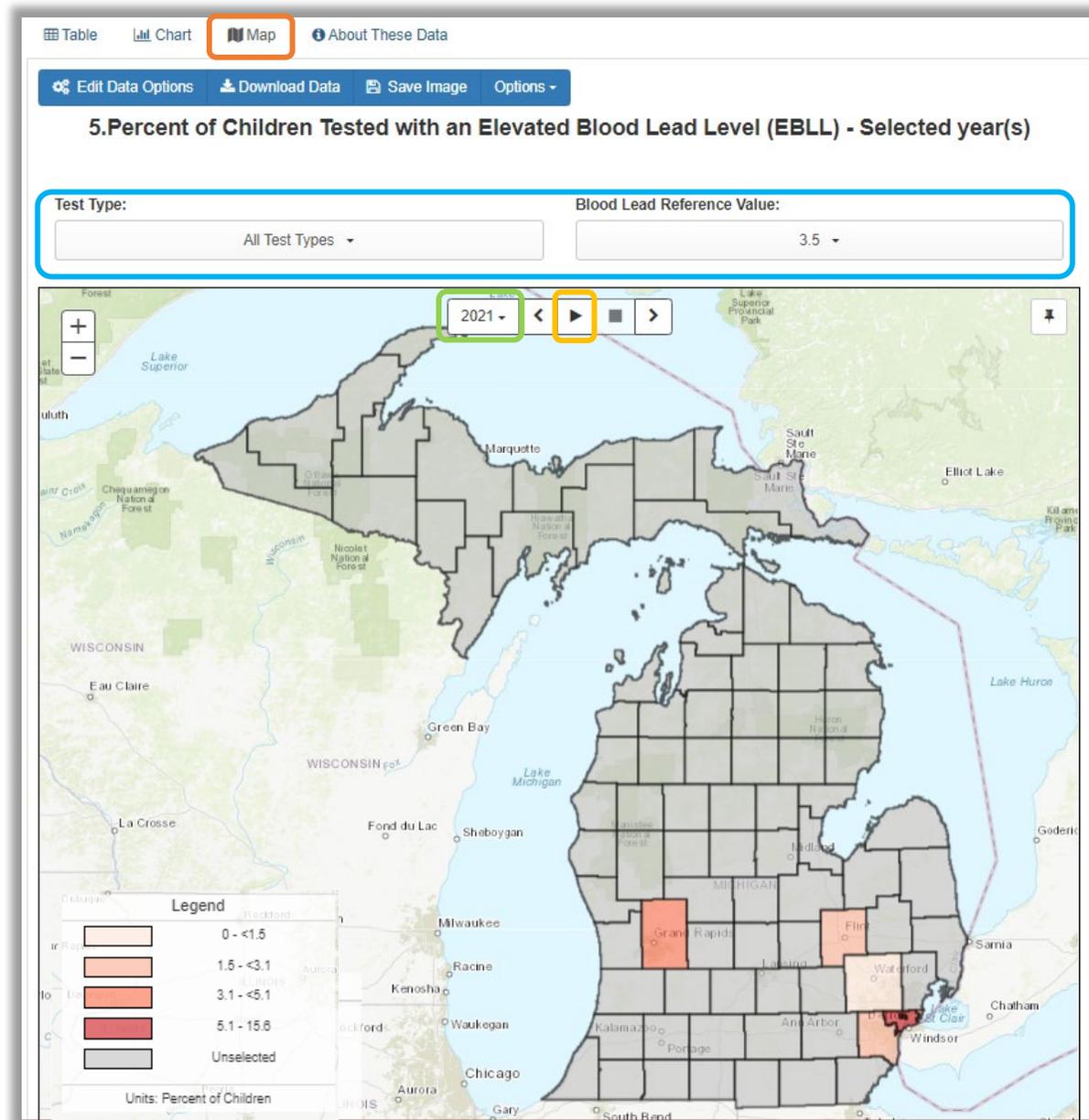
# Chart - 2

- Click on the drop-down boxes above the chart to deselect or select options.
- Geographies and other filters can be added and removed from the chart, since they were chosen in the advanced query.



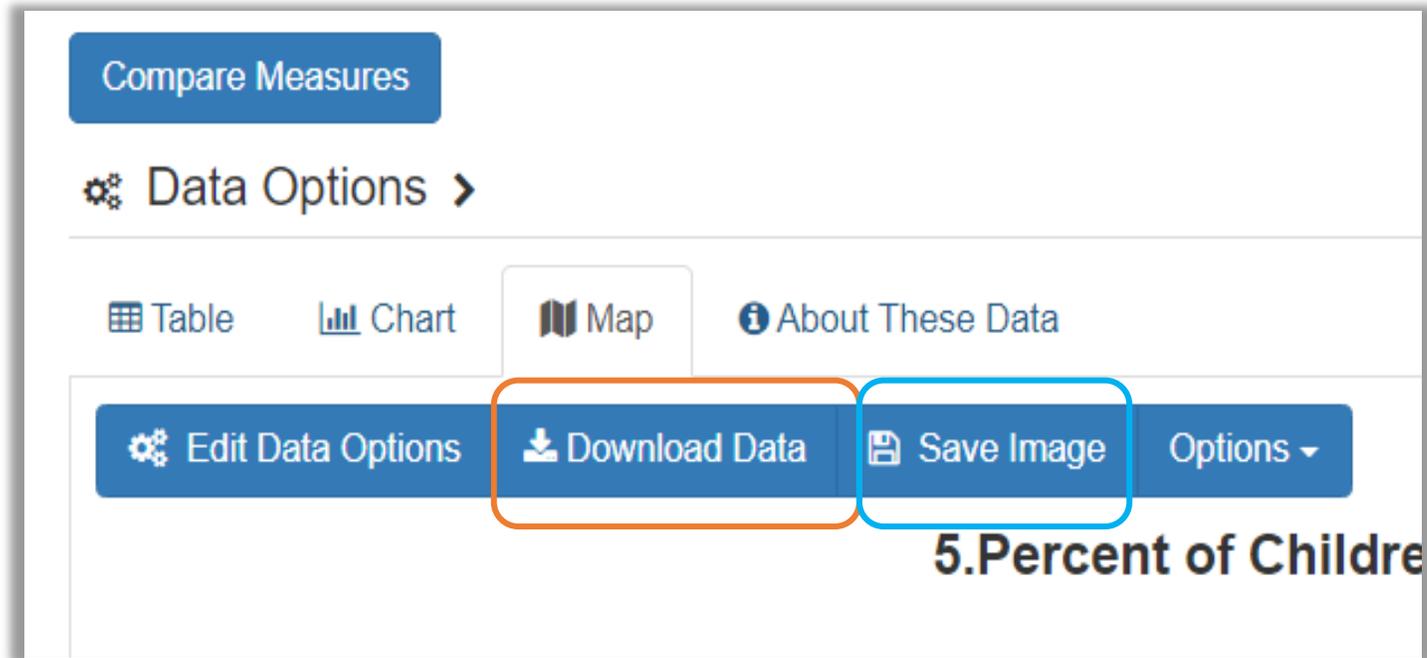
# Maps

- Click on the **Map** tab to see results in map form.
- Filters can be added and removed from the map.
- To see each year, select a specific year in the drop-down box.
- See the change over time with the time-lapse feature by clicking on the **Play** (triangle) button.



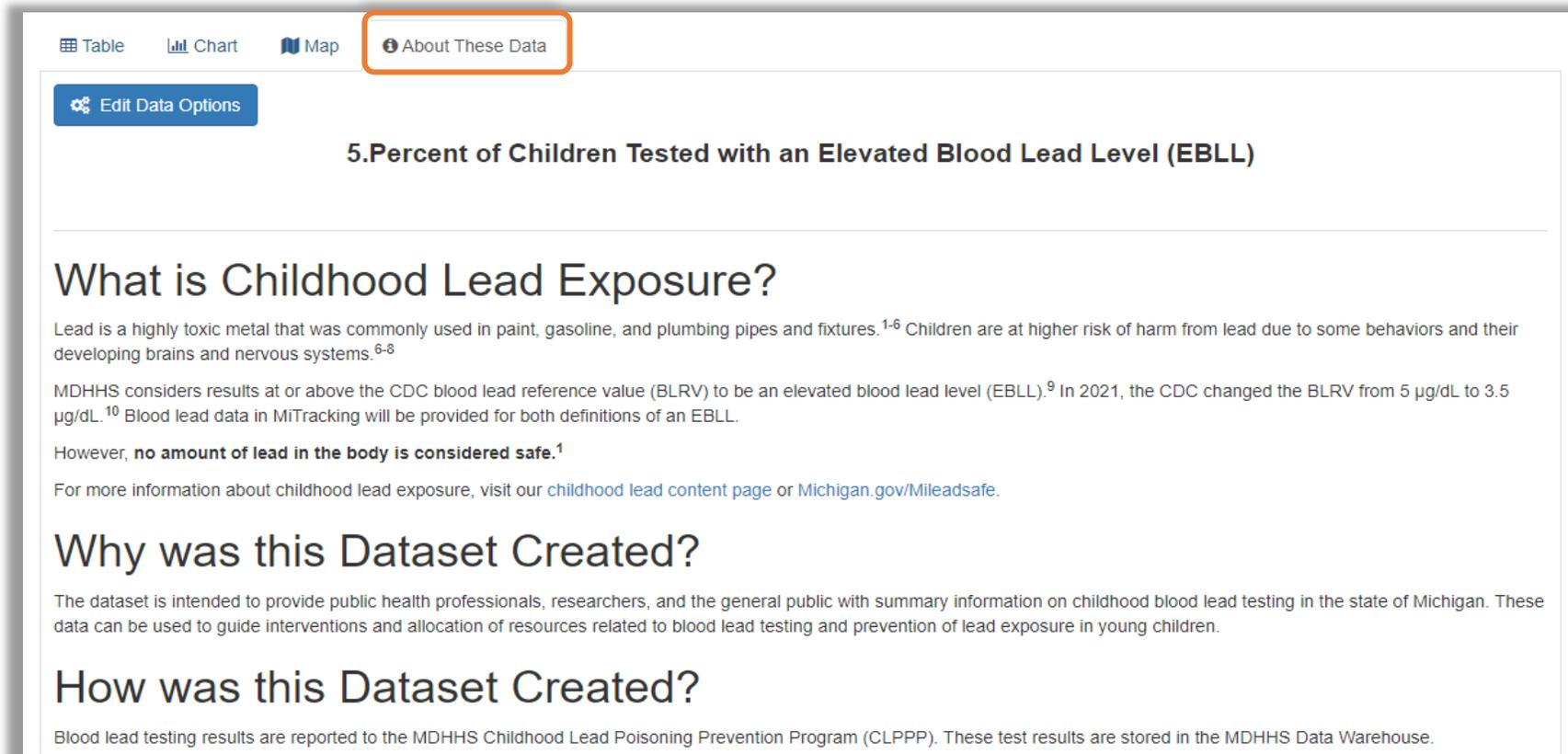
# Other Options - 1

- Click the **Download Data** button to download data in many different file types.
- To save images of charts and maps, click on **Save Image**.



# About These Data

- The **About These Data** section is a shorter version of the full metadata available only after a query has been run. It provides information on the dataset.



The screenshot shows a web interface with a navigation bar at the top containing 'Table', 'Chart', 'Map', and 'About These Data' (the latter is highlighted with an orange box). Below the navigation bar is a blue button labeled 'Edit Data Options'. The main content area is titled '5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)'. It features three sections: 'What is Childhood Lead Exposure?', 'Why was this Dataset Created?', and 'How was this Dataset Created?'. Each section contains explanatory text and links to external resources.

Table Chart Map **About These Data**

Edit Data Options

## 5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL)

### What is Childhood Lead Exposure?

Lead is a highly toxic metal that was commonly used in paint, gasoline, and plumbing pipes and fixtures.<sup>1-6</sup> Children are at higher risk of harm from lead due to some behaviors and their developing brains and nervous systems.<sup>6-8</sup>

MDHHS considers results at or above the CDC blood lead reference value (BLRV) to be an elevated blood lead level (EBLL).<sup>9</sup> In 2021, the CDC changed the BLRV from 5 µg/dL to 3.5 µg/dL.<sup>10</sup> Blood lead data in MiTracking will be provided for both definitions of an EBLL.

However, **no amount of lead in the body is considered safe.**<sup>1</sup>

For more information about childhood lead exposure, visit our [childhood lead content page](#) or [Michigan.gov/Mileadsafe](#).

### Why was this Dataset Created?

The dataset is intended to provide public health professionals, researchers, and the general public with summary information on childhood blood lead testing in the state of Michigan. These data can be used to guide interventions and allocation of resources related to blood lead testing and prevention of lead exposure in young children.

### How was this Dataset Created?

Blood lead testing results are reported to the MDHHS Childhood Lead Poisoning Prevention Program (CLPPP). These test results are stored in the MDHHS Data Warehouse.

# Other Options - 2

- Click on **Data Options** at the top of the page or the blue **Edit Data Options** button to edit the query or start a new query.

Compare Measures

Search Topics - use " " for exact search

Data Options >

Table Chart Map About These Data

Edit Data Options Download Data Save Image Options

5.Percent of Children Tested with an Elevated Blood Lead Level (EBLL) - Selected year(s)

Test Type: All Test Types

Blood Lead Reference Value: 3.5

2021



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MDHHS-Pub-1651 (10-23)

# That's It!

- We just ran a childhood lead exposure data query on the MiTracking data portal.
- If you have questions or need more information about childhood lead testing data, please contact the CLPPP program at [MDHHS-CLPPP@Michigan.gov](mailto:MDHHS-CLPPP@Michigan.gov).
- If you have questions about the MiTracking data portal or would like to share how you have used it, email us at [MDHHS-MiTracking@Michigan.gov](mailto:MDHHS-MiTracking@Michigan.gov).
- Thank you for taking the time to watch this tutorial. Check back later for more updates.