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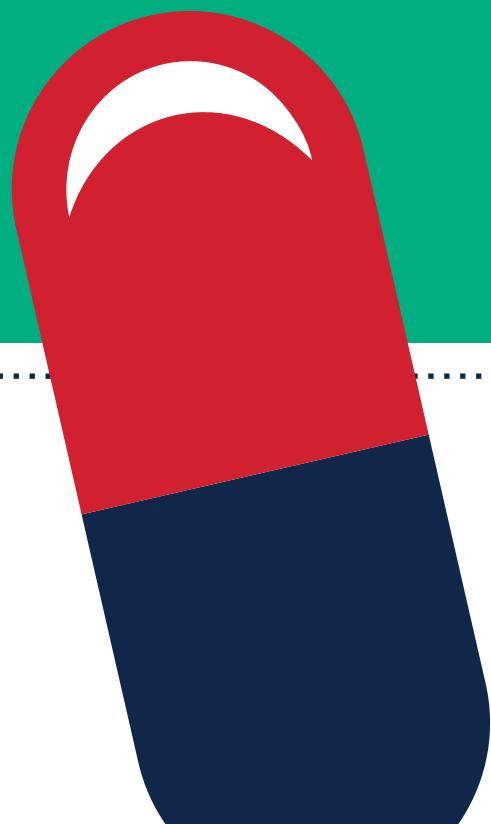
MIDDLE  
SCHOOL

# DIGITAL LESSON EDUCATOR GUIDE

Is our community influenced  
by the U.S. opioid epidemic?



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# LESSON OVERVIEW



Students will examine the reasons people turn to opioid use and misuse, and act as investigative reporters to consider the who, what, when, where, why, and how of opioid use and misuse. They will also investigate how the opioid epidemic may be impacting their own community.

The accompanying presentation was created with PowerPoint so that it can be used in a variety of classrooms. If you are using a laptop with an LCD projector, simply progress through the PowerPoint by clicking to advance. All interactive aspects of the presentation are set to occur on click. The corresponding videos link to the slides. Click on the images to play the videos. If you are using an interactive whiteboard, tap on each slide with your finger or stylus to activate the interactive aspects of the presentation. It does not matter where you tap, but you can make it appear as if you are making certain things happen by tapping them. Teacher notes are included for each slide that include information on how to proceed.

## Content Areas

English Language Arts and Health Education

## Activity Duration

3-4 class sessions (45 minutes each)

## Grade Level

Grades 6-8

## Essential Questions

- What is a public health epidemic?
- Why is there an increase in the use and misuse of opioids?
- Who does the opioid epidemic impact?
- How does an opioid epidemic impact a community?

## Materials

- Access to the Internet
- Tablets, journals, or blank paper
- Chart paper
- [Orphaned by America's Opioid Epidemic Student Handout](#)
- Research Plan Student Handout
- Tips for Finding Credible Online Resources Student Handout
- Graphic Organizer for Argumentation from Evidence Student Handout
- Levels of Reflection Student Handout

## Objectives

- Investigate what opioids are and how they affect individuals.
- Examine and evaluate how a public health epidemic impacts a community.
- Design a plan or strategy to help mitigate or prevent an opioid epidemic in your own community.

# BACKGROUND INFO

Medications are chemicals or compounds used to treat diseases and save lives. Today's medications are produced using a variety of sources. Many medications are developed using substances from nature. When used responsibly, medications can help manage and prevent disease, ease symptoms, and in some cases, diagnose illnesses.

Opioids, a type of prescription medication, are prescribed to treat pain. Prescription opioids and heroin, an illegal type of opioid, are the main causes of overdose deaths. The use and misuse of opioids such as heroin, morphine, and prescription painkillers is a serious public health threat.

Endorphins, chemicals that are naturally produced and released in the brain, interact with our brain's opioid receptors. Think of how good you can feel after you eat a good meal, when you engage in fun activities, exercise or do sports, or socialize and laugh with friends and family. Endorphins engage with these natural receptors to block the experience of pain. That is, they don't make the pain go away; they just block your feeling of it.

There are approximately 144 drug overdose deaths per day in the United States with just over 63 percent of those deaths related to prescription opioids or heroin. The number of prescription opioids sold in the U.S. and the number of prescription opioid deaths have both quadrupled since 1999. Since then, more than 165,000 people have died from prescription opioid overdoses.

This lesson sequence is designed to help middle school students research the proper use of prescription opioids in managing pain, and research why the drugs are often misused. They then will investigate conditions that lead to opioid misuse and why it has become a public health epidemic.

This guide was created to give educators ideas and strategies for presenting the content in the digital lesson. It provides slide-by-slide details for educators to be prepared to engage with students as they explain, discuss, and effectively facilitate the content in the presentation. The presentation is designed to cover three 45-minute class sessions, but it is flexible, depending on the students' needs and time available.

During the lesson sequence, students will explore the reasons why opioids are prescribed, how they are often misused, and how misuse can lead to physical dependency. In their role as investigators, students will plan and conduct original research to obtain information about the opioid epidemic in their own communities and design strategies for reducing or preventing an epidemic.

At different points in the lesson, students may be tempted to share personal information regarding misuse by themselves or others. As always, be sure to follow school or district policies about the sharing of personal information about minors.

## SLIDES 1-4

# ENGAGE AND EXPLORE

## What is the impact of the U.S. opioid epidemic?



## SLIDE 1

As an engage activity, students will share what they know about the U.S. opioid epidemic and its impact to different parts of a community.

Divide students into groups of 3-4. Display 4 large sheets of chart paper along one side of the room. Create another set of 4 large sheets with the same prompts on the other side of the room. Each sheet should have one of the following prompts:

- How has the opioid epidemic affected people?
- How has the opioid epidemic impacted emergency room related costs?
- How has the opioid epidemic involved families as part of the solution?
- How has the opioid epidemic involved education as part of the solution?

Distribute a different color marker to each group. Start off each group at one sheet of paper and provide 2-3 minutes for students to respond to the prompt. Repeat three more times as teams rotate through each prompt and add their ideas. Students should be guided to be additive and not repetitive. When time is up, invite students to go back to their original papers and direct groups to summarize the ideas.


Ask each group to report out the information from the conversation and invite students to draw conclusions about consistent or conflicting information, predictions, and questions.

# DAY 1

What is the impact of the US opioid epidemic?

## WHAT KINDS OF **STORIES** ARE THERE?

- What claims does the author make?
- What evidence does the author use to support those claims?
- How is this document supposed to make me feel?
- What words or phrases does the author use to convince me that he/she is right?
- What information does the author leave out?



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## SLIDE 2

Distribute [Orphaned by America's Opioid Epidemic Student Handout](#).

Guide students to use a Close Reading Strategy as they obtain information by reading the article. Students should respond to the following questions on a blank sheet of paper as they read:

- What claims does the author make?
- What evidence does the author use to support those claims?
- How is this document supposed to make me feel?
- What words or phrases does the author use to convince me that he/she is right?
- What information does the author leave out?

Ask students to return to their groups from slide one and share their responses. Guide students to revisit the prompt they summarized in slide one and make any changes based on information from the article. Then, ask each group to evaluate what they think is the most significant impact.

What is the impact of the US opioid epidemic?

## FIND THE **FACTS**

Do you think our community is impacted by the opioid epidemic?

What evidence supports your response?



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## SLIDE 3

Ask students:

- Do you think our community is impacted by the opioid epidemic? What evidence supports your response? It is anticipated that students will share that they have seen news reports, discussed the topic in other classes, heard information on the radio, or noticed reports on social media. Students may say their community is not impacted because they have not noticed any reports.

Guide students to brainstorm five resources that could help them find out.

- Anticipated responses include news articles, infographics, interviews, outreach and awareness flyers, news videos, and guest speakers.



## SLIDE 4

Divide students into research teams of 2-3 students. Distribute the [Research Plan Student Handout](#). Explain to students that a research plan describes how you plan to conduct your research. It helps you prepare and organize your ideas to better understand your results. Students will use the graphic organizer to begin planning out how they will research if/how the opioid epidemic has impacted their community.

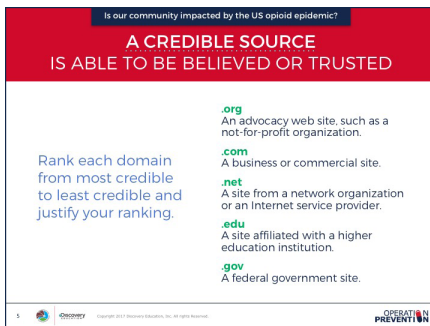
Use the following guiding questions to support students with completing their research plan.

- Does our community have an opioid addiction problem?
- How widespread is it?
- Who does it affect?
- How has the opioid epidemic affected people?
- How has the opioid epidemic impacted emergency room related costs?
- How has the opioid epidemic involved families as part of the solution?
- How has the opioid epidemic involved education as part of the solution?
- What ways could we begin, at our school, at home, or in our community, to work on drug education or prevention to stop this problem from spreading?

## SLIDES 5-9

# EXPLAIN

Is our community impacted by the U.S. opioid epidemic?



## SLIDE 5

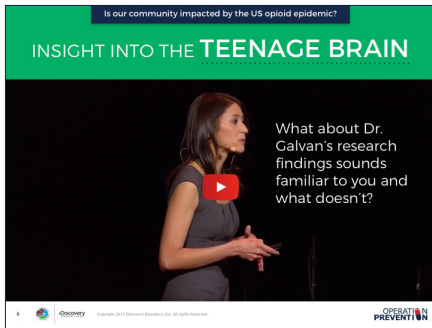
Use the slide to display common domains encountered during internet searches. Invite students to rank them from most credible to least credible and justify their ranking. This will help students identify credible sources when they start their research.

- .org: An advocacy web site, such as a not-for-profit organization.
- .com: A business or commercial site.
- .net: A site from a network organization or an Internet service provider.
- .edu: A site affiliated with a higher education institution
- .gov: A federal government site.

Emphasize that .org and .edu are typically more credible sites than the others.

Distribute [Tips for Finding Credible Online Resources Student Handout](#) to support students with evaluating websites. Invite students to review the resource and revisit their [Research Plan Student Handout](#) to add any additional ideas.

# DAYS 2 & 3



## SLIDE 6

Explain to students that they will review a video resource to help them kick-start their research with some background information.

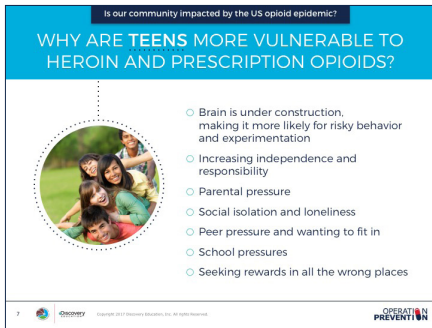
Display the [TED Talk](#), “Insight into the Teenage Brain” (9 mins. 38 secs.). Invite students to think about how they make decisions. While watching, have students consider what (things, items, issues?) about Dr. Galvan’s research findings sounds familiar to them, and what doesn’t.

**Teacher Note:** Consider providing guiding questions for students to respond to as they view the video.

- **How does the teenage brain make decisions?**  
Brains continue to mature and develop throughout adolescence and well into early adulthood. The brain is more likely to react strongly to positive feelings and make riskier decisions.
- **What is the last brain region to develop?**  
Prefrontal cortex.
- **What are the functions of the prefrontal cortex?**  
This part of your brain helps you think about consequences or potential consequences and regulates behaviors and emotions.
- **What is the striatum and what is its function?**  
The striatum is a region of the brain and key component of the reward system.
- **What does dopamine do, and why is it more active in teens?**  
When you receive something you find rewarding, your striatum releases dopamine. Dopamine regulates emotional responses and enables us to see rewards and take action.
- **When someone gets an fMRI scan, what are researchers seeing?**  
Researchers are seeing a snapshot of the brain in motion. While you are experiencing something you like, it can capture how your brain is responding.
- **Why do researchers think that teen brains are more activated when they get a reward (like sugar water, in the video)?**  
In the deeper layers of the brain, the striatum was excited by the sugar water across all age groups. However, the brain scans showed the magnitude of activation was much higher in the teenage brains than the adult brains.
- **During adolescence, teens seek more rewards. How do you think that might relate to using or misusing opioids?**  
Opioids target the brain’s reward system, flooding it with dopamine.
- **How might the focus on rewards translate into pursuing healthy activities? Think about being open to new challenges, meeting new people, creative activities and learning.**  
Answers will vary.



# DAYS 2 & 3



## SLIDE 7

Lead a discussion with the class to help them list key takeaways from the TED Talk on what they've learned about why teens might be more vulnerable to heroin and prescription opioids than adults.

Invite teens to share ways these changes show up for them:

- Brain is under construction, making it more likely for risky behavior and experimentation
- Increasing independence and responsibility
- Parental pressure
- Social isolation and loneliness
- Peer pressure and wanting to fit in
- School pressures
- Seeking rewards in all the wrong places



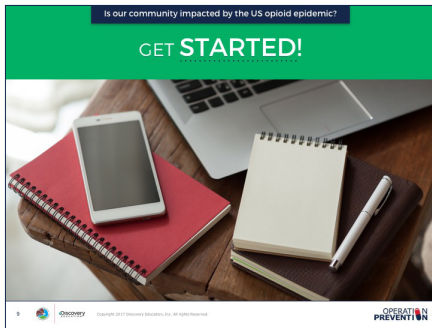
## SLIDE 8

Explain to students that it is said that pictures speak louder than words. Guide students to brainstorm: What are some of the ways reporters use to illustrate the facts to give readers a visual look at what is essential? Instruct students to review newspapers or online news sites to find images that support factual information.

Display additional ideas using the slide. Clarify with students that their evidence should also include visual elements they constructed or cited. Students can illustrate facts in both traditional ways (graphs, tables, charts) and in more pictorial ways ([infographics](#), wordless illustrations).

- Charts and tables
- Photos and/or videos
- Infographics
- Interactive maps

# DAYS 2 & 3



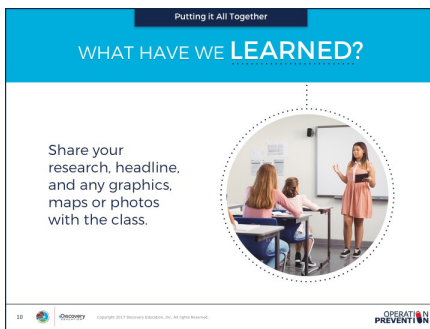
## SLIDE 9

Invite students to examine local news stories and other resources they identified in their research plan to investigate how widespread the use of opioids is, and get a context for the scope of the problem. Knowing now that teens are at a greater risk, students should target their research towards a teen audience. Provide time for students to conduct their research and record their findings.

## SLIDES 10-14

# EVALUATE

## Putting It All Together: What Have We Learned? What Can We Do?



### SLIDE 10

Ask each team to share its research, headline, and any graphics, maps or photos with the class. Ask one student from another team to serve as a recorder who writes the key ideas on the board. Ask each team to present, with students from other teams acting as reporters.



### SLIDE 11

Lead a discussion to review the main ideas. Using the class evidence, determine if their community is impacted by the opioid epidemic, or if the opioid epidemic has not impacted their community.

Designate one side of the room as "not affected at all" and the other as "significantly affected." Instruct students to create a human barometer to visualize their conclusion by placing themselves on either side of the room, or somewhere in-between, depending on their evidence based decision.

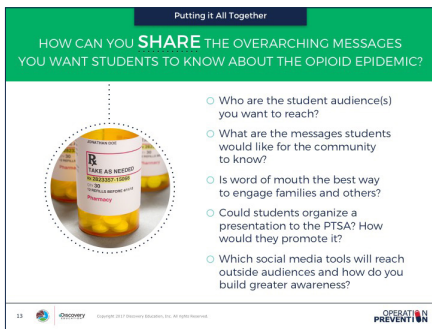
Guide students to complete [Graphic Organizer for Argumentation from Evidence Student Handout](#) to summarize their claim using evidence from their own research and their peers.

# DAY 4



## SLIDE 12

Once students have summarized their findings, it's time to share that with the school community. Students have spent time creating materials outlining the scope of the problem and what they have learned. Guide students to identify one or two key, overarching messages they would like other students to know about the opioid epidemic.



## SLIDE 13

Invite students to think about the audiences they want to reach with their overarching messages, who they are, what they care about, and the best ways to reach them.

- Who are the student audience(s) you want to reach?
- What are the messages students would like for the community to know?
- Is word of mouth the best way to engage families and others?
- Could students organize a presentation to the PTA? How would they promote it?
- Which social media tools will reach outside audiences and how do you build greater awareness?
- Students may choose to create a digital campaign, flyers, video PSA, podcast, or blog with posts of their research and interviews to share within the school and community, so that other students can benefit from their research.



## SLIDE 14

Distribute the [Levels of Reflection Student Handout](#) for students to summarize and reflect on the impact of the U.S. opioid epidemic. Ask students to select one question from each level to respond to as part of their reflection. The mirror invites students to consider the individual impact of researching the opioid epidemic. The microscope guides students to consider how this research helped students learn more about their community. The binoculars ask students to reflect on larger social issues and their own personal development.

# RESEARCH PLAN

A research plan describes how you plan to conduct your research. It helps you prepare and organize your ideas to better understand your results. Use the graphic organizer below to begin planning out how you and your team will research if/how the opioid epidemic has impacted your community.

## Objective(s)

State the objective(s) of your research.

## Focus & Topics

State the focus of your research and describe 3-4 topics that support the main idea.

## Activities & Methods

List the research methods and resources that will be used. This could include online resources, journals, and interviews.

## Responsibilities

Determine how the research can be broken up among group members.

# TIPS FOR FINDING CREDIBLE ONLINE RESOURCES

Adapted from University Library University of Illinois

## WHAT IS THE SITE'S DOMAIN?

The most common domains are:

- **.org:** An advocacy web site, such as a not-for-profit organization.
- **.com:** A business or commercial site.
- **.net:** A site from a network organization or an Internet service provider.;
- **.edu:** A site affiliated with a higher education institution.
- **.gov:** A federal government site.
- **.us:** A state government site, this may also include public schools and community colleges.
- **.uk (United Kingdom):** A site originating in another country (as indicated by the 2-letter code).
- **~:** The tilde usually indicates a personal page.

## WHAT IS THE AUTHORITY OF THE PAGE?

On the Internet, anyone can pose as an authority.

- Is the author's name visible?
- Does the author have an affiliation with an organization or institution?

## IS THE INFORMATION ACCURATE AND OBJECTIVE?

There are no standards or controls on the accuracy of information available via the Internet. The Internet can be used by anyone to share their **thoughts and opinions**.

- How accurate is the information presented?

Are sources of factual information or statistics cited? Is there a bibliography included?

- Compare the page to related sources, electronic or print, for assistance in determining accuracy.
- Does the page exhibit a particular point of view or bias?
- Is the site objective? Is there a reason the site is presenting a particular point of view on a topic?
- Does the page contain advertising? This may impact the content of the information included. Look carefully to see if there is a relationship between the advertising and the content, or whether the advertising is simply providing financial support for the page.

## CREDIBLE RESOURCES

Use these resources to consult, gather, explain, and support the facts about the opioid epidemic.

## FINDING THE EVIDENCE:

- Public health information: local and state. These may include: local hospitals, state public health agencies, local law enforcement agencies (police, emergency, fire, sheriff)
- Federal agencies: National Institute on Drug Abuse (NIDA), the U.S. Department of Health and Human Services (HHS), the Drug Enforcement Administration (DEA), the Centers for Disease Control (CDC), White House Office of National Drug Control Policy (ONDCP), Substance Abuse and Mental Health Services Administration (SAMHSA)

# GRAPHIC ORGANIZER FOR ARGUMENTATION

**Claim:**

I believe the opioid epidemic has impacted our community.

**OR**

I believe the opioid epidemic has not impacted our community.

**Evidence that strongly supports the claim:**

Evidence that strongly supports the claim includes:

**Reasoning:**

This evidence supports the claim because...

**Other evidence that supports the claim:**

Another line of evidence is...Additional evidence states that...

**Reasoning:**

This evidence supports the claim because...

**Counterclaim: Evidence that may refute the argument:**

Evidence that may counter the argument is...

**Reasoning:**

The counter-claim is weak because...

**Conclusion:**

Based on...

**I believe that...**

# LEVELS OF REFLECTION

Select one question to respond to, at each level of reflection, to summarize and reflect on the impact of the U.S. opioid epidemic.

<p><b>The Mirror</b> Self Reflection</p>	<ul style="list-style-type: none"><li>○ What have I learned about myself through this experience?</li><li>○ Do I have more or less understanding or empathy than I did before this lesson?</li><li>○ Are there any realizations, insights or lessons learned?</li><li>○ Will this experience change the way I act or think in the future?</li></ul>
<p><b>The Microscope</b> Makes the Small Experience Large</p>	<ul style="list-style-type: none"><li>○ What would you change about this situation if you were in charge?</li><li>○ What have you learned about community organizations, service recipients, or community?</li><li>○ Do you feel your actions had any impact?</li><li>○ What more needs to be done?</li></ul>
<p><b>The Binoculars</b> Makes the Distance Appear Closer</p>	<ul style="list-style-type: none"><li>○ From your research, are you able to identify any underlying or overarching issues that influence the problem?</li><li>○ What could be done to change the situation?</li><li>○ How will this alter your future behaviors, attitudes, or career?</li></ul>



# NATIONAL HEALTH STANDARDS

Students will comprehend concepts related to health promotion and disease prevention to enhance health. Students will demonstrate the ability to use decision-making skills to enhance health.

## Common Core English Language Arts

Reading Standards	Writing Standards	Research to Build & Present Knowledge
<p>RL6.1, RI6.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>	<p>W82 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p>	<p>W.7.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.</p>
<p>RI6.2 Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p>	<p>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aid comprehension.</p>	<p>W.6.8 Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.</p>
<p>RL.7.3 Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).</p>	<p>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</p>	<p>W.6.9 Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply grade level Reading standards to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). b. Apply grade level Reading standards to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims they are not."</p>
	<p>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</p>	<p>W.6.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>

# ORPHANED BY AMERICA'S OPIOID EPIDEMIC

## Orphaned by America's Opioid Epidemic

Published on December 17, 2016

Story by Danielle Rindler, Eli Saslow, Bonnie Jo Mount

SOUTH CHARLESTON, W.VA.

The midmorning sun came in through the curtains and Zaine Pulliam awoke to the debris of a weekend party. There were blankets strewn across the floor and half-finished plates of food on the couch. Zaine, 17, picked his way around a sleeping teenager and walked into the kitchen, where his grandmother was already drinking coffee. "Look at you," she said. "Long night?"

Madie Clark had allowed her three grandchildren to host a sleepover for friends the night before, and it had begun with pizza, Sunkist and board games. But eventually she had gone to bed, and now she could see a few beer cans and nicotine vaporizers scattered around the house. On the other side of the wall, in the bathroom, it sounded like a teenager was throwing up.

"You were being good last night, right?" she asked Zaine. "Nobody was driving? Nobody was acting stupid?"

"Of course not," he said. "We were fine. Everything was fine."

She looked at him and rolled her eyes. "Yeah, okay, bubby," she said. "I trust you. But you're walking right up to that line."

Nearly everyone in Zaine's life had been anxiously monitoring that line for the past year and a half, ever since both of his parents died of heroin overdoses in April 2015. His parents had become two of the record 33,091 people to die of opioid overdoses that year in a national crisis that has been worst of all in rural West Virginia, where health officials estimate that overdose rates are now eight to 10 times higher than the national average. Middle-aged white men in this part of the country have lost a full year of life expectancy during the past two decades. Middle-aged white women have lost more than two years. The opiate epidemic has essentially wiped out an entire generation of health advances, and now West Virginia has begun to focus more of its resources

on prevention and preservation among the next generation entering into the void.

These children are sometimes referred to by health officials here as opiate orphans, and three of the most recent ones live in a small house in South Charleston: Zoie, 10, who believed that her parents had died in their sleep; Arianna, 13, who was just starting to wear her mother's old makeup; and Zaine, 17, who had been the one to discover his parents that morning on their bedroom floor, and whose grades had begun to drop ever since.

Now Zaine started to clean up the house, carrying plates from the living room into the kitchen. Every wall was decorated with pictures of his parents, Austin and Amanda. They had started dating during their freshman year of high school and stayed together for nearly 20 years, spending most of that time in this house. Their clothes were in the closet and their old fish tank was still in the living room. Zaine dumped some fish food into the tank and his grandmother tapped her hand against the glass to make sure a fish was alive. "Wake up, buddy," she said.

Madie, 53, had retired from her maintenance job at the public schools and moved into the house to help take care of the children after the overdoses. "Mah-maw," they called her, and she told salty jokes, cooked their breakfast and slept in Zoie's bedroom when she had nightmares.

But, on some nights, it was Madie who couldn't sleep, when neither her doctor-prescribed antidepressants nor her occasional swallows of Fireball whiskey could quiet her grief or her rising anxiety. She had once struggled with addiction herself before getting clean. She had raised a daughter who had become an addict. Now she was responsible for three more children in a place where that same disease had officially been classified as a "widespread, progressive and fatal epidemic."

"What's to keep these kids from getting over on me?" she sometimes wondered. "How do I know they won't go the wrong way?"

Now one of Zaine's friends was calling his phone. He answered and spoke in a whisper. He hugged

# ORPHANED BY AMERICA'S OPIOID EPIDEMIC

Madie, told her he loved her and then said he needed to go.

"Go where?" she asked.

"I'll be back," he said. He started walking toward the door and grabbed her car keys.

"Don't you take my car," she said.

"Love you," he said, as he got into her car.

"When will you be back?"

"So many questions," he said, and then he smiled and waved to her as he drove away.



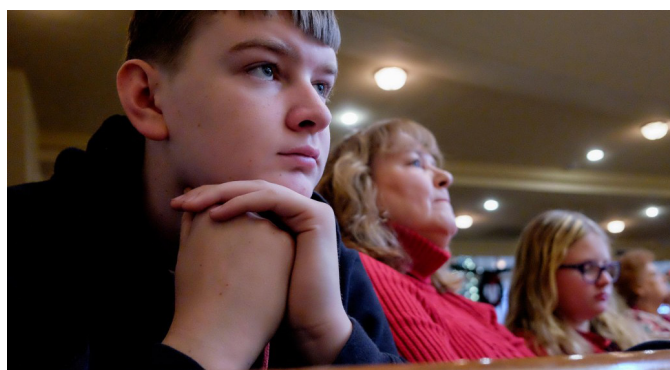
Madie Clark looks in on her granddaughter Zoie Pulliam, 10, and a visiting relative at their home in South Charleston. Clark moved into the bedroom where her daughter Amanda Pulliam and son-in-law Austin Pulliam died of heroin overdoses.

The most pressing question of all in the days after the overdoses was one that so many people here had begun to ask: What would happen to the kids? How could a generation of children in West Virginia overcome two decades of decay and despair?

The Kanawha Family Court, which lately had dealt with addiction and its impacts in about 80 percent of its cases, had begun considering some of the options available to the Pulliam children soon after the death of their parents. There was a great aunt who the children had sometimes stayed with during the summer, but she was already letting a few recovering addicts live in her basement. There was a grandfather in Georgia who thought he could help, so the court had sent the children to go for a trial visit, but they had gotten homesick and returned within the week.

So eventually it had been decided that the best place for the Pulliams was where they had always been: in West Virginia, where overdoses were continuing to rise; and in Kanawha County, which had more overdoses than anywhere else in the state; and in a three-bedroom house where two of those overdoses had happened in the back room. Madie had moved into her daughter's old bed. The Pulliam children's other grandmother had become their legal guardian, paying their bills and inviting Zaine to live with her during the school week.

Theirs was a big, loyal family that had persevered for five generations in West Virginia. Seemingly every relative wanted to help, and each had a different idea of what the children might need. Maybe more toys and video games to provide distraction. Maybe occasional drug tests for Zaine to make sure he stayed clean. Maybe a strict 11 p.m. curfew. Maybe therapy and counseling. Maybe more hugs and constant affection. Maybe weekend hunting trips. Maybe a military-style boarding academy across the state. Maybe helping to spread information about the danger of addiction, and so now one of Zaine's relatives was pulling up to the house and telling him to get dressed.



Zaine Pulliam, 17, attends church with his paternal grandmother Belinda Crookshanks, and sister Zoie, 10.

"I want you to see the place that saved my life," said Scott Hudson. He was taking Zaine to a weekly meeting of about 100 addicts at a rehab facility in Huntington, an hour down the highway. "These guys have stories you should hear, and they should hear from you, too," Scott said.

# ORPHANED BY AMERICA'S OPIOID EPIDEMIC

"That's good if somehow I can help them, but it's not like I need to be scared straight," Zaine said. "I've already seen what happens. I would never put a needle in my arm."

"I know, buddy," Scott said. "That's exactly what I said. That's what everyone says."

They drove to Huntington down a winding road known to some locals as the heroin highway, passing chemical plants and coal towns where opioid pain pills had first become popular as a salve for workers enduring long days in the mines. But, during the last decade alone, 65,000 of those mining jobs had disappeared from the West Virginia economy, and now there was so much more poverty, pain and hopelessness to chase away. Drug companies had bombarded West Virginia's rural towns with record numbers of narcotics, according to court records: 300,000 tablets of hydrocodone to the mom-and-pop pharmacy in the town of War, population 808; half a million oxycodone pills to Kermit, population 400. During a five-year period ending in 2013, a single drug company had shipped more than 60 million doses of hydrocodone into a state with fewer than 1 million working-age adults.

Though hydrocodone was essentially the same drug as heroin, heroin was stronger and also cheaper to buy on the street. Now the heroin highway had billboards advertising rehab programs, suicide hotlines, clean needle exchanges and budget funeral homes.

"It's the West Virginia disease," Scott said as he drove. "You don't even know you've started and you're already spiraling down."

Scott often talked about his own spiral, which had continued for much of his adult life, from meth to pills to heroin. Only after his 34th arrest had he finally ended up at Recovery Point, a rehab facility run by former addicts in a converted elementary school. He had stayed for a year and remained clean for more than four years since.

Now he led Zaine into the meeting a few minutes late. The room was packed, so they grabbed extra chairs and squeezed in near the back. A recovering

addict was telling a story about begging for money in his coal miner clothing. "I promised myself I wouldn't ever use a needle," he said. He finished his speech and then Scott walked to the front of the room. Everyone already knew who he was. After he had gotten clean, he had walked around South Charleston in a shirt that read "Neighborhood Hope Dealer" and persuaded dozens of addicts to enter treatment. He had spoken at these meetings several times. "I lit myself on fire twice while I was high and kept using," he said. "I lost my kid. I got high around her. I thought she'd be better off without me. How many people have lost their kids to this?"



About half of the people in the room raised their hands.

"Come on. Don't lie to yourselves," Scott said, and another 20 hands lifted into the air.

One of the Pulliam children's relatives, Scott Hudson, is a former drug addict and drug dealer. He was arrested 34 times before he found his way to recovery – he has been clean for almost five years.

"There's someone here who can tell you about what that does to a kid," Scott said, and then he pointed to Zaine. "Come on up here, bud," Scott said, but Zaine shook his head. "Come on," Scott said again, but instead Zaine stood and walked out into the hallway to go to the bathroom. He could hear Scott stalling at the front of the room, telling the group about Zaine's parents and how they had been "high functioning addicts." Austin had run the kitchen at a restaurant; Amanda had sometimes worked as a nurse aide and taught her daughters to play volleyball. They had been trying to get clean – always trying to get clean – and they had both gone away to detox early that April with plans to quit for good. But they couldn't afford to miss very

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many days of work, and they couldn't stand being apart from the kids, so they had come home early and then overdosed a few days later.

Zaine tried to slip back into the room. Scott noticed and pointed at him again. "Let's hear it for Zaine," he said, and when everyone started to applaud, Zaine walked to the front.

"It's a pretty normal story around here," he said, and then he started to tell them about Easter morning in 2015. It had been so quiet in his parents' room that morning, even though his father always snored. He had knocked on the door and gotten no answer. He had sent his sisters to wait in the car and then walked around the back of the house to look through a window into his parents' room. They were both lying on the floor. He thought they were passed out. He opened the window and leaned into the room to push over a fan, but his parents still didn't startle. He ran back into the house, called 911 and slammed into the locked door. He knew CPR. Maybe he could save them. He busted through the lock and fell into the room, landing on his father, whose body felt cold.

"It was a shock, but then again I always knew what they'd been doing, so it kind of wasn't," he said.

"If you don't think your kids know what's going on, they're smarter than you think," he said. "We might not be able to put words to it, but we feel it."

"It sucks. I know I'm trying to be positive, but I'm just telling you the truth. It's kind of hard to explain," he said.



A photo of Austin and Amanda Pulliam sits on the

dresser of Belinda Crookshanks, Austin's mother, in St. Albans, W.Va.

There was one place where he did feel understood, so one Saturday night he rode out of town and up into the hills alongside the Big Coal River. He crossed an unsigned railroad track and turned down a dirt road that led to a small house guarded by a Rottweiler. His uncle, Zach, was standing outside near an aluminum garage, holding a saw in one hand and a nicotine vaporizer in the other.

"Hand me my drill, will ya?" he said, when Zaine got out of the car.

"Where is it?" Zaine said, kicking through a pile of tools on the garage floor.

He found the drill and then sat in a plastic chair to watch his uncle work. The garage was cold and dark except for the sparks flying off the drill. There was poor cellphone service, nothing to eat other than a few hot dogs and nothing to do except help his uncle repair old cars. But Zaine had been coming here almost every weekend since his parents' deaths. Out here nobody was asking him to spread hope or pass drug tests or be responsible for his sisters. There weren't so many questions, and he could sit with another relative who seemed as grief stricken and uncertain as he sometimes was.

Zach had been two years sober and earning a good salary as a highly regarded mechanic until his only brother, Austin, died of the overdose. Now he said he was up and down, surviving on odd jobs and managing his way through addiction with a doctor-prescribed opioid called Suboxone. It dulled the cravings but didn't do much for the anger or the guilt. How many times had he gotten high with Austin and Amanda in that same bedroom? He had saved his brother in that room once after another overdose, giving him CPR until the paramedics came to revive him with an opiate antidote called Narcan. Now he wondered: Why couldn't he have been there to help again?

Zach set down the drill and lit a fire for warmth. The garage filled with smoke, but they stayed there anyway.

"I've been thinking about my worst memories with

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all of this," Zach said. "A lot involve you."

"Like what?" Zaine said.

"Mostly all those times you'd be sitting outside their bedroom and the door would be locked. We could hear you out there making noise."

"I was listening to make sure everybody was breathing," Zaine said.

"I hate myself for that," Zach said. "How early did you figure out what was going on?"

"Probably when I was 10. Maybe 11," Zaine said.

"What kind of childhood is that?"

"It was mostly okay," Zaine said, because he had lots of good memories, too. His mother had made it to almost every school event, taken the children shopping for nice clothes and planned their annual summer vacation to the beach. His father had taught him jokes, introduced him to music, hired him at the restaurant and showed him how to cook. But, by the time Zaine was 12, he was also beginning to notice how his parents would sometimes nod off at the dinner table, and how his father's hands were bruising around the veins. Sometimes, when the refrigerator started to get empty, Zaine would ask neighbors for eggs, cook breakfast for his sisters and then walk them to the school bus so that they didn't suspect anything was wrong.



Arianna and Zoie Pulliam play on the trampoline at their home in South Charleston. Their older brother, Zaine, took care of them even before their parents died last year.

He was used to assuming responsibility for his

sisters, so that Easter morning he had tried to take control, too. He had made sure his sisters stayed in the car. He had sat with his parents for six minutes while he waited for the paramedics to come, counting out his breaths and telling himself not to cry. He already knew they were dead, and he already knew what some people in South Charleston would say. Just addicts. Just a couple more overdoses. Nobody's fault but their own. So, while he waited for the medics, he had cleaned the drug residue off the bedroom counter and hid his parents' used needles in his shoe, hoping the police might mistake it for carbon-monoxide poisoning.

Soon after Zach learned of his brother's death, he had gone out to buy a pistol. He wanted revenge, but first he had to figure out whom to blame. Was it the dealers who were bringing heroin and pain pills to South Charleston? Or the rural doctors who had first prescribed those pain pills at record rates? Or the small-town pharmacies that had profited off extra-strength oxycodone and fentanyl lollipops? Or the drug companies that had increased sales of their opioids by marketing pain as the "fifth vital sign"? Or the politicians who had been slow to recognize a crisis and slower still to allocate adequate funding for treatment?

Eventually Zach had become so frightened by his own rage that he had given the gun to his mother. He had two daughters of his own, and he didn't want to spend his life in prison.

"As far as most people are concerned, drugs are just killing off the lower class," he said now. "Who's going to fix that? What do they care?"

"As soon as you're on drugs, it's like everything is your fault," Zaine said. "People think you're trash."

"You're a damn druggie. You're nothing."

Zaine wanted to be a welder. He was tall, muscular and congenial like his father, and he had always liked hard work. He had done some basic welding in high school and found that he was good at it. He wanted a union job that paid \$20 an hour so he could buy his own house nearby. Maybe his sisters could come live with him. Maybe he could help take care of them as they finished high school. He

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was already beginning to worry that Arianna was withdrawing little by little to spend more time with her friends.

"It's on me to make sure nothing goes bad for them," he said.

"They'll be okay," Zach said. The garage was almost entirely filled with smoke now. He stood up to douse the fire. "They're smart and tough."

"They're Pulliams," Zaine said.



Madie Clark, right, with Zaine and friend Jewels Hudson, moved in with her grandchildren after her daughter, their mom, died of an overdose. Clark is a former addict.

Maybe the only way for a generation of children to recover from a drug epidemic was gradually, by making one good decision at a time: A Saturday night. Another party at a friend's house. The parents were out of town and somebody had already gotten the beer. Zaine's girlfriend was on her way there and she wanted him to meet her.

"You're going to be safe and smart tonight, right?" Madie asked him.

"Yes. Of course. You don't even need to ask that," Zaine said.

"You're a good kid, so make good decisions," Madie said, as she watched him grab his vaporizer.

"You're a good kid," she said again, as he stuffed a blanket into his backpack in case he decided to spend the night.

He hugged her goodbye and went out the door, and then the house was quiet. Arianna, the 13-year-old, was away at a sleepover of her own. Zoie, the 10-year-old, was finishing a board game. Madie walked into her bedroom, where sometimes she still thought she could see the imprint of her daughter and her son-in-law on the floor. She had moved the bed and switched around some of the furniture to make the room feel different. She never locked the door and always left it open.

Zoie came in and tugged at her leg. "Let's watch a movie," she said, and Madie sat down next to her on the couch. She pulled a blanket over her legs. She thought about Zaine at his house party and what it was like to be on the verge of adulthood at 17. She thought about everything that adulthood had come to mean in rural West Virginia.

They started a movie and watched it for a few minutes, until she saw headlights pulling into the driveway. Zaine got out of a car and came back into the house with his backpack. He had only been gone for half an hour. "What are you doing back here so quick?" Madie asked, and so he told her about the party. Too many people had come. A few of his friends had gotten into a fight. It had felt out of control and like a bad place to be.

"I'd rather just hang out here and watch TV," Zaine said, squeezing in next to them on the couch.

He reached for the remote and grabbed some of his sister's candy. He noticed that Madie was still staring at him. "What?" he said.

"Nothing. Just glad you're doing good," she said.

"I'm fine," he said. "What were you worried about?"