

## Fact Sheet Paper

(Paper, 5-minute Twitter Brief, Online Tweet)

Twitter Brief Date: \_\_\_\_\_

Name: \_\_\_\_\_

Topic: \_\_\_\_\_

CATEGORY	POINTS	SCORE
Handbook Compliant Grammar Clarity of Thought Punctuation Used Template Coherence in organization Spelling 6+ pages	6	
<ul style="list-style-type: none"> <li>• Introduction (1/2 page) [1 point]</li> <li>• Background/Problem Statement section – 3 sites (1.5 pages) (include Healthy People 2020) [7 points]</li> <li>• Research section – 2 sites (1 page) [4 points]</li> <li>• Statistics section – 2 sites (1 page) [4 points]</li> <li>• Consumer Information section - 2 sites (1 page) [4 points]</li> <li>• Solutions to the Problem – 2 sites (1 page) [4 points]</li> <li>• Conclusions (1/2 page) [1 point]</li> <li>• Summary of your paper that is posted on Blackboard [2]</li> </ul>	26	
<b>TOTAL POINTS FOR FACT SHEET</b>	<b>32</b>	
Post a summary of your paper on Black Board’s Class Blog by 5 PM the day before	2	
Post one factual tweet on PCH201wellness by 5 PM the day before and include a screenshot of it in your paper	1	
Submit hard copy with grid on date due for Twitter brief	1	
5-minute Twitter Brief	4	
<b>PROJECT COMPLETION POINTS</b>	<b>8</b>	
<b>SUBTOTAL PAPER + PROJECT COMPONENTS</b>		
LATE/INCOMPLETE	(-20%)	
Missing Grading Grid	(-3)	
<b>FINAL TOTAL POINTS</b>	<b>40</b>	

## **SPICE (synthetic marijuana)**

### **Introduction**

I chose spice (also known as K2) because it is a topic of interest to me. There was a recent outbreak in New Haven in 2018 of over 100 K2 overdoses. Because of this, I wanted to learn more about the drug and what it does to you and why people may choose to use this substance rather than natural grown marijuana.

Spice is synthetic marijuana that is made in labs. It is made from dried plant materials that have been sprayed with mind-altering chemicals. Synthetic cannabinoids are a class of molecules that bind to the same receptors that cannabinoids in cannabis plants THC and CBD attach. Side effects of this drug can include hallucinations, vomiting, confusion or paranoia, rapid heart rate, heart attack, psychotic and violent behavior, anxiety, tremor, seizures, loss of consciousness, high blood pressure, and even death. It is very easy to overdose on this substance.

### **Section 1: Background and Problem Statement**

- **Web site #1 Name: (Healthy People 2020)** HP2020 did not have a source for my topic. Instead I chose a government site called “National Institute on Drug Abuse.”
- **Web address:** <https://www.drugabuse.gov/publications/drugfacts/synthetic-cannabinoids-k2spice>
- **Background Information:**

This site explains synthetic cannabinoids as human-made mind-altering chemicals that are either sprayed on dried and shredded plant material or made as liquids to be vaporized. These are also known as herbal or liquid incense. Because of the similarity to natural marijuana, spice is often marketed as a safe and legal alternative to that drug. Spice is not safe and may affect the brain much more powerfully than marijuana does. Its actual effects can be unpredictable and may even be dangerous or life-threatening. Some

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of these substances have been around for years and have reentered the market in altered chemical forms, or come due to renewed popularity.

Manufacturers often sell these products in colorful foil packages and plastic bottles to attract the consumers. They market these products under a wide variety of specific brand names. Even though authorities have made it illegal to sell, buy, or possess, manufacturers have tried to go around these laws by changing the chemical formulas in their mixtures. Easy access and the belief that these products are “natural” have likely contributed to the use among young people.

- **Web site #2 Name:** Centers for Disease Control and Prevention
- **Web address:** <https://www.cdc.gov/nceh/hsb/chemicals/sc/default.html>
- **Background Information:**

This site shows just how dangerous synthetic cannabinoids are by having a big warning on the top of their page. This warning states, “**Warning!** The Illinois Department of Public Health (IDPH) has received reports of multiple cases, including some deaths, of severe bleeding among people who have used contaminated synthetic cannabinoids. Other states also have reported similar cases. If you have purchased any of this product, which go by names such as (K2, spice, and synthetic marijuana) do not use it. Throw it out. If you have used any of these products and start experiencing severe, unexplained bleeding or bruising, please have someone take you to the hospital immediately or call 911. Do not walk or drive yourself. Tell your health care or emergency care providers that you have used synthetic cannabinoids. Even if you don’t have symptoms, tell your medical care provider about any synthetic cannabinoid use if you are having a medical procedure. Learn more about the IDPH cases [hereexternal icon](#). See CDC’s two recent *Clinical Action* alerts [here](#) and [hereexternal icon](#).” The article also says how health effects from using synthetic cannabinoids can be unpredictable and

harmful, and even life threatening. They advise anyone who has a serious reaction to call 911 or go to the emergency department immediately. As a result of smoking these products one can react with rapid heart rate, vomiting, agitation, confusion, and hallucinations.

- **Web site #3 Name:** We are the Drug Policy Alliance
- **Web address:** <http://www.drugpolicy.org/what-synthetic-marijuana>
- **Background Information:** Synthetic cannabinoids are generally more harmful than plant-based marijuana. Many of the effects of synthetic cannabinoids have been noted involve dangerous physical symptoms, whereas reactions to natural marijuana include symptoms resembling anxiety and panic, which are not lethal. In 2012, state public health department officials, poison control centers, and CDC researchers found 16 cases of acute kidney injury, related to the use of synthetic cannabinoids. These reactions have never been seen with marijuana, which has never directly associated with drug-related deaths nor resulted in a fatal overdose. Deaths lined to synthetic cannabinoids do not compare to numbers from drugs like heroin and cocaine. Synthetic cannabinoids cause more harm than good.

## **Section 2: Research**

**Web site #1 Name:** AAP News

- **Web address:** <https://www.aapublications.org/news/2019/07/08/cannabinoids070819>
- **Summary of the research:**

This site shows the research of seizures and coma being more common with synthetic cannabinoids than cannabis. A study was done that found teens using synthetic cannabinoids were more likely to experience seizures and coma compared to those using cannabis. Synthetic cannabinoids often contain chemicals similar to ones in cannabis, but are much more potent as they have been linked to seizures, kidney and heart damage, psychosis and death. Researchers began to look at the neurotoxic effects among adolescents compared to cannabis. Using data

from the 2010-2018 Toxicology Investigators Consortium Registry, they analyzed 348 teenagers who were treated in an emergency department due to synthetic cannabinoid or cannabis. When synthetic cannabinoid users added other drugs, they commonly were stimulants such as cocaine, amphetamines, and MDMA. Those combining cannabis and other drugs often used stimulants or alcohol. About 19% of synthetic cannabinoid users experiences seizures where as only 6% of those using cannabis did. This confirmed pervious research, according to “Neuropsychiatric Sequelae in Adolescents with Acute Synthetic Cannabinoid Toxicity.” The article then states the evidence: "The developing brain is particularly vulnerable to the neurotoxic effects of CB1 (cannabinoid 1) overactivation by SCs, leading to aberrations in the neurotransmitters modulating the seizure threshold," authors wrote. Similarly, 28.5% of SC-only users experienced central nervous system depression/coma compared to 10.5% of cannabis-only users. However, cannabis-only users experienced agitation more frequently (63% vs. 23.5%), unlike in previous studies. That changed when teens used multiple drugs. About 47% of ED patients using SCs and other drugs experienced agitation compared to 21% of those using cannabis with other drugs. Those using SCs with other drugs also had higher rates of seizures (29% vs. 8%). “These results together offer insight into the expected clinical effects of adolescents with acute SC toxicity and emphasizes the need for targeted public health messaging to adolescents about the dangers of using SC, alone or combined with other substances,” authors wrote.”

- **Web site #2 Name:** Recovery First
- **Web address:** <https://www.recoveryfirst.org/synthetic-marijuana/>
- **Summary of the research:**

According to the 2015 Monitoring the Future survey, one finding was that any illicit drug use, including use of synthetic marijuana, remained unchanged in the 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders surveyed. Annual prevalence of synthetic marijuana specifically declined among 8<sup>th</sup> graders by

3%, 10<sup>th</sup> graders by 4%, and 12<sup>th</sup> graders by 5%. It was found that in 2011, synthetic marijuana had been the second most widely abused drug by these age groups after marijuana. Prevalence at that time was higher, as synthetic marijuana is perceived less safe now than it was in 2011.

A study done in 2014 by the University of Washington found that active-duty US army personnel were more likely to abuse synthetic marijuana compared to other drugs. This was mainly because the chemicals in it are more difficult to detect on standard drug tests. The survey used data from a telephone intervention for members of the Armed Forces who may have substance abuse problems, called Warrior Check-Up. The phone call asked questions such as drug use patterns, including synthetic marijuana, and have found that 30% of respondents used synthetic cannabinoids, which was twice as many as marijuana

### **Section 3: Statistics**

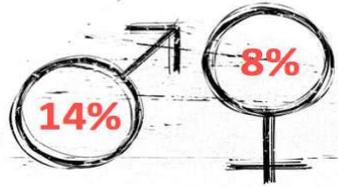
- **Web site #1 Name:** HP2020 did not have stats. Instead I did “National Institute on Drug Abuse”
- **Web address:** <https://www.drugabuse.gov/related-topics/trends-statistics/infographics/synthetic-marijuana-lands-thousands-young-people-in-especially-young-males>
- **Summary of the statistics:**  
Synthetic marijuana has become the most popular illegal drug among teenagers after natural marijuana. It is more popular among teenage boys. It is said to be a “natural” and “safe” and (until recently) legal alternative to natural marijuana. This is very false. This class of chemicals has shown to be a dangerous threat. Thousands of teens and young adults, being mostly young males, are ending up in emergency rooms with severe symptoms. These symptoms include seizures, elevated blood pressure, hallucinations, racing heartbeat, or vomiting. By gender, 14% of males and 8% of females abused synthetic marijuana as a senior in high school.

## Synthetic Marijuana Lands Thousands of Young People in the ER, Especially Young Males

Since bursting on the scene a few years ago, synthetic marijuana (MJ)—often called “Spice” or “K2”—has become the second most popular illegal drug among American teenagers, after MJ. It is especially popular among teenage boys. Sometimes touted as a “natural,” “safe,” and (until recently) legal alternative to pot, this very *un-natural* class of designer chemicals has shown itself to be a dangerous threat. Thousands of teens and young adults, mostly young males, are ending up in emergency rooms with severe symptoms that may include vomiting, racing heartbeat, elevated blood pressure, seizures, or hallucinations.

### How Many Teens Are Using Synthetic MJ?

In 2012, 11% of American high school seniors used synthetic marijuana in the past year.<sup>1</sup>



### 11,406 ER Visits In 2010 Were Associated With Synthetic MJ.<sup>2</sup>

75% were among adolescents and young adults ages 12-29.

22.5% of these visits involved females, and 77.5% involved males.



1. Monitoring the Future Survey, 2012; 2. Drug Abuse Warning Network, 2012

(copied and pasted from site)

- **Web site #2 Name:** National Institute on Drug Abuse
- **Web address:** <https://www.drugabuse.gov/related-topics/trends-statistics/infographics/synthetic-cannabinoids-k2spice-unpredictable-danger>
- **Summary of the statistics:**

There were four figures on this source that showed statistics and facts about synthetic marijuana. The first figure showed how it is often called synthetic marijuana or fake weed because some of its chemicals are like the ones in marijuana. Though, the effects can be unpredictable and even life threatening. The second figure shows how you never know what is going to happen with synthetic cannabinoids. There were 177 different synthetic cannabinoids reported in 2014. The amount and type of chemicals is different in every batch. Manufacturers are constantly changing their chemicals to go around laws. The third figure

expresses how the effects of synthetic marijuana are always unpredictable. It acts on many different brain cell receptors, including receptors that bind to THC, found in marijuana. They can produce nausea and vomiting, paranoia, hallucination, rapid heartbeat, violent behavior, and suicidal thoughts. Lastly, the fourth figure shows how synthetic cannabinoid use can be harmful to your health. 2,695 calls were made to poison control centers in 2016 for harmful exposure of synthetic marijuana. In 2011, 28,531 emergency room visits were linked to synthetic cannabinoids. Among these, 30% were female and 70% were male. About 78% of these emergency room visits were among people ages 12-29.

## **Section 4: Consumer Information**

- **Web site #1 Name:** Just Think Twice
- **Web address:** <https://www.justthinktwice.gov/article/facts-about-synthetic-drugs>
- **Summary of the information:**  
Synthetic marijuana is a mixture of plant material sprayed with synthetic psychoactive chemicals. It is often marked or labeled “not for human consumption.” Some street names of the drug include bliss, fake weed, genie, snax, black mamba, blaze, etc. It is taken by smoking joints, pipes, e-cigarettes, and can even be made into a tea. It affects the body as it is addictive and can cause confusion, organ damage, increase heart rate and blood pressure, paranoia, anxiety, panic attacks, hallucinations, giddiness, and even death.
- **Web site #2 Name:** We are the Drug Policy Alliance
- **Web address:** <http://www.drugpolicy.org/why-do-people-use-synthetic-cannabinoid-products-spice-and-k2>
- **Summary of the information:**  
Some people who use synthetic cannabinoids are using to pass drug tests. Because a standard drug test is only testing THC, found in plant-based marijuana, synthetic cannabinoid products do not trigger a positive result. This appeals to professional athletes, people on parole, active military personnel, and people in treatment for substance abuse. As synthetic

cannabinoids became an affordable replacement to marijuana and other drugs, those who are suffering from chaotic life situations, often homeless or low income, turn to it. Also, people may use synthetic cannabinoids when experimenting with other drugs while not even being aware of it.

## **Section 5: Solutions to the Problem (or Issue)**

- **Web site #1 Name:** New York State Department of Health
- **Web address:** [https://www.health.ny.gov/professionals/narcotic/synthetic\\_cannabinoids/](https://www.health.ny.gov/professionals/narcotic/synthetic_cannabinoids/)
- **Summary of the information:**  
New York State has recently experienced a dramatic increase in emergency department visits

and poison control center calls from health effects due to synthetic marijuana. Too many people fall victim to synthetic marijuana, and they must do what they can to get them off the streets. The Department of Health developed new regulations in order to strengthen the ability to fight back against those producing and selling these substances by expanding the list of banned chemical compounds. Synthetic cannabinoids are marketed as legal, and usually consist of plant materials coated by chemicals. These chemicals are supposed to mimic THC, the chemical in marijuana that gives you a high. These drugs are marketed as different things such as incense, herbal mixtures, or potpourri to mask their true purpose. There are many different street names for this drug. Use of these mixtures can never lead to certainty of effects, but users have experiences high blood pressure, violent behavior, tremors, seizures, hallucinations, anxiety, death, and more. New regulations have been passed by DOH in order to help combat the sale of synthetic cannabinoids in New York State. These tougher regulations expand the existing list of banned substances to include new chemicals that drug producers have been making. This was since Governor Cuomo first targeted synthetic marijuana in 2012.

- **Web site #2 Name:** The DAWN Report

- **Web address:**  
<https://www.samhsa.gov/data/sites/default/files/DAWN105/DAWN105/SR105-synthetic-marijuana.htm>

- **Summary of the information:**

While synthetic cannabinoids have been becoming more available, the number of emergency visits involving synthetic cannabinoids has increased. This has shown in a younger age group, having many patients ages 12 to 17. Results from a national survey showed 11% of high school seniors reported using synthetic marijuana in 2011. Being difficult to regulate the products that are easily available online, synthetic cannabinoids may be more accessible to younger people rather than marijuana. Educators can help prevent the use of synthetic cannabinoids by addressing use of these substances in different programs that are designed to prevent the use of the drugs. Parents can also discuss the dangers of these drugs with their children while using parental controls for online purchases. Although this drug doesn't test positive in drug tests, health care providers can remain alert to symptoms that may be contributed to synthetic marijuana. Further monitoring is always necessary to determine whether synthetic cannabinoid related problems continue to occur. Monitoring it can help with awareness among health care professionals of the possible adverse health effects of these substances. A patient's time in the ED is an important time for intervention and education.

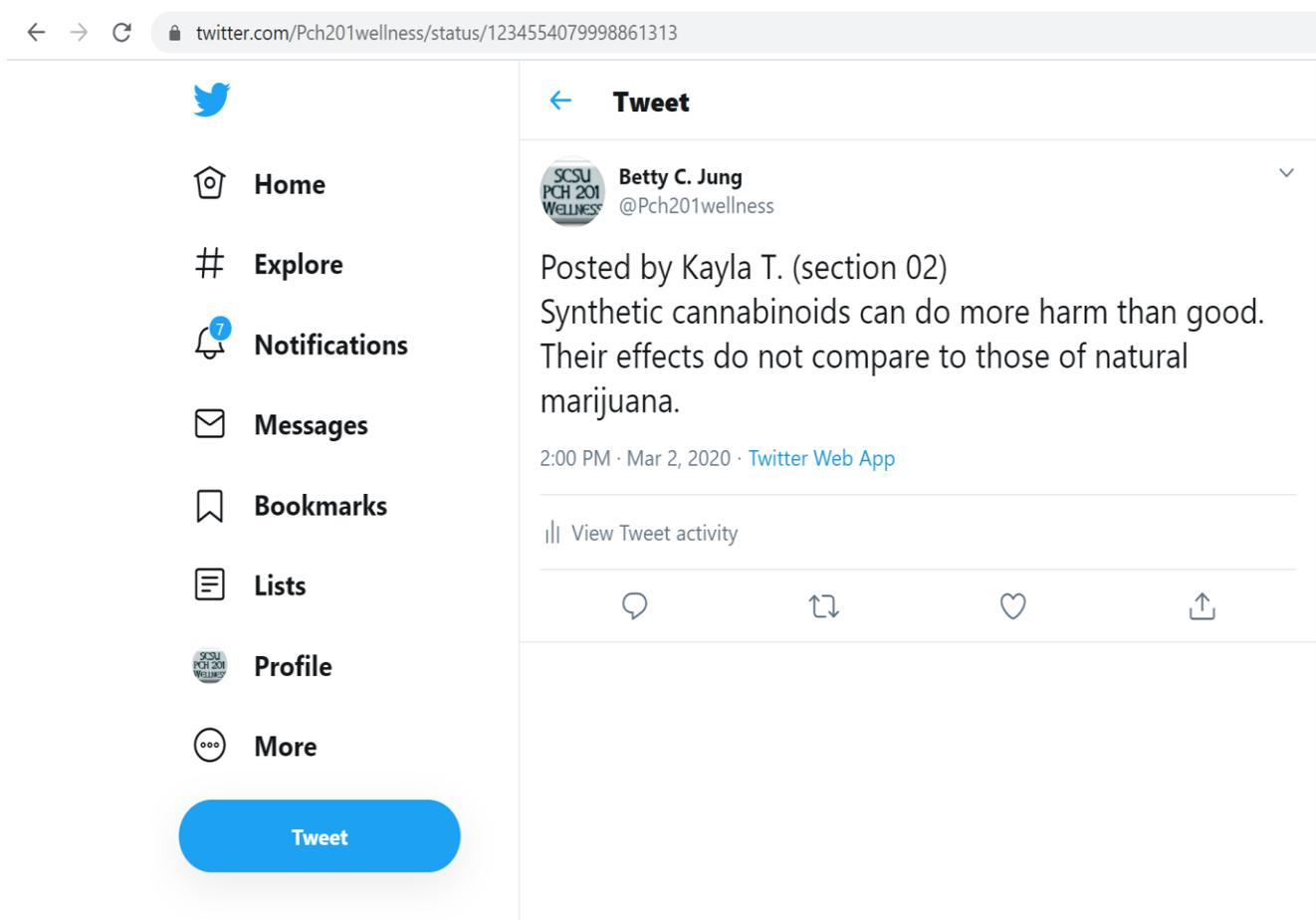
## **Conclusions**

I have learned a lot from my research on this topic. I learned that there are many different effects of using synthetic marijuana. I thought there was only seizures and death due to abusing this substance, but there are in fact many more ways it can harm you. I also learned that synthetic marijuana is mainly used by male high schoolers which surprised me. I thought the population of use of this substance would be more of an age range of 20-30 years old. It also surprised me that

there are many different chemicals you can use to make synthetic marijuana, as there aren't specific ones you have to use. Luckily, synthetic marijuana isn't as much of an issue as other drugs, but it is still completely dangerous. The effects are different for everyone, and you never know what could happen to you by using this substance. I also learned that there are many different street names for synthetic marijuana, as it is a way to hide what is being sold. It is a cheap drug, and easily accessible to those with low income. One more thing I learned is that synthetic marijuana can be used in tea, and I only thought it could be smoked or vaped.

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## **Include a screen-shot of your tweet here:**



## **Include your Fact Summary here:**

### **Fact Sheet Topic: Synthetic Marijuana (Spice, K2)**

**By: Kayla Traggianese**

#### **Introduction**

I chose spice (also known as K2) because there was a recent outbreak in New Haven in 2018 of over 100 K2 overdoses and it was a topic of interest. Because of this, I wanted to learn more about the drug and what it does to you and why people may choose to use this substance rather than natural grown marijuana.

Spice is synthetic marijuana that is made in labs from dried plant materials that have been sprayed with mind altering chemicals. Side effects of this drug can include hallucinations, vomiting, confusion or paranoia, rapid heart rate, heart attack, psychotic and violent behavior, anxiety, tremor, seizures, loss of consciousness, high blood pressure, and even death. It is very easy to overdose on this substance.

#### **Section 1: Background and Problem Statement**

Because of the similarity to natural marijuana, spice is often marketed as a safe and legal alternative to that drug. Spice is not safe and may affect the brain much more powerfully than marijuana does. Its actual effects can be unpredictable and may even be dangerous or life-threatening.

#### **Section 2: Research**

According to the 2015 Monitoring the Future survey, one finding was that the use of synthetic marijuana was by young audiences, those being in high school and as young as middle school.

A study done in 2014 by the University of Washington found that active-duty US army personnel were more likely to abuse synthetic marijuana compared to other drugs. This was mainly because the chemicals in it are more difficult to detect on standard drug tests.

### **Section 3: Statistics**

By gender, 14% of males and 8% of females abused synthetic marijuana as a senior in high school. There were 2,695 calls were made to poison control centers in 2016 for harmful exposure of synthetic marijuana. In 2011, 28,531 emergency room visits were linked to synthetic cannabinoids. Among these, 30% were female and 70% were male. 78% of these emergency room visits were among people ages 12-29.

### **Section 4: Consumer Information**

Some street names of the drug include bliss, fake weed, genie, snax, black mamba, blaze, etc. It is taken by smoking joints, pipes, e-cigarettes, and can even be made into a tea. It effects the body as it is addictive.

### **Section 5: Solutions to the Problem (or Issue)**

Department of Health developed new regulations in order to strengthen the ability to fight back against those producing and selling these substances by expanding the list of banned chemical compounds.

Educators can help prevent the use of synthetic cannabinoids by addressing use of these substances in different programs that are designed to prevent the use of the drugs. Parents can also discuss the dangers of these drugs with their children. Although this drug doesn't test positive in drug tests, health care providers can remain alert to symptoms that may be contributed to synthetic marijuana

### **Conclusions**

I learned that there are many different effects of using synthetic marijuana. I thought there was only seizures and death due to abusing this substance, but there are in fact many more

ways it can harm you. I also learned that synthetic marijuana is mainly used by male high schoolers. One more thing I learned is that synthetic marijuana can be used in tea, and I only thought it could be smoked or vaped.

**Revised 1/10/20**