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Illicit Drugs: Should they be legalized? Can technology and regulation make them safer?

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Abstract

For many years America has been the leading force in substance prohibition. Many countries blindly follow the USA in an attempt to earn their respect. As a result, very few countries actually know what uses these illicit substances have; before it ever reached the hands of the right people, the wrong people take it, use it incorrectly, and leave a bad name on that substance forever. If people could slander a substance, America would end up being found the main conspirator in the slanderous lies and misconceptions!

This study has been done in an attempt to clear the name of most illicit drugs to pave a path towards legalization. This path will require tumultuous amounts of research, experimentation, and education. Once that path is complete, a marked path should begin continuing education to the public and beginning regulation and sale of all illicit drugs.

Background

We likely have a friend, family member, or other close person who currently has or previously had a drug problem. We yearn to help them stop and/or recover. The Substance Abuse and Mental Health Services Administration [SAMHSA] conducts an annual National Survey on Drug Use and Health [NSDUH], which has found that “In 2013, an estimated 24.6 million Americans aged 12 or older—9.4 percent of the population—had used an illicit drug in the past month.” (DrugFacts) While some are addicted to legal drugs, some are addicted to illicit drugs. Whatever the case may be, it is disconcerting to see so many lives put on hold, sometimes temporarily, other times permanently.

A massive majority of people would agree that it is irresponsible to use drugs that have a high potential of dependence. However, it is increasingly irresponsible, even dangerous to give the government the right to control what the people can put into their own bodies. How can any person or group of people justify what we should put into our bodies? In the state of Indiana, as well as much of the US, it is illegal to sell raw, unpasteurized milk (Indiana BOAH). However, in all 50 states it is legal to sell tobacco, alcohol, firearms, and fireworks so long as citizens pay the taxes accrued on these items. Since when did milk become more dangerous than tobacco, alcohol, firearms, and fireworks?

From 1993 to 2006, the CDC recorded two total deaths related to unprocessed, pasteurized milk (CDC). However, it is estimated that each year the number of people that die as a result of tobacco use is 480,000 (NCCDPHP); Alcohol use is 88,000 (Division of Population Health); 33,000 from traffic accidents (NCHS); 8 deaths from fireworks (ATFE); and 1 death every other year from sharks (National Geographic). There was a push to ban pasteurized milk

because of 2 total deaths in a span of 13 years, where is the push for a ban on tobacco, alcohol, cars, fireworks, and sharks?

The government tends to overreact when new issues come to the table where they have little to no research and/or education. During the Second World War, America had internment camps meant to hold Japanese-Americans [and accused spies]; it was justified as “precautionary.” After 9/11 the US began making it next to impossible for any “Suspicious looking person/people” to fly, with the creation of Homeland Security and TSA; it was justified as “a safety measure.” After Japan’s Fukushima-Daiichi nuclear power plant meltdown, we began sticking even stricter standards on an already expensive and strict sector of our gross domestic product, electricity; once again justified as “a safety measure.” The case is no different for drugs. The sixties would be the demise of most drugs with the development of new laws by most states which eventually led to the creation of the Drug Enforcement Agency in 1973(DEA Museum).

The majority of the changes become permanent fixtures of everyday life. The country that is boastful of its freedoms and personal liberties unknowingly gives them away in the name of safety. In the case of many drugs, their medical qualities were given up, forgotten, and/or not researched in fear of retribution. Now the government admits they were wrong, especially in the case of Marijuana, but it continues to make it illegal in fear of looking weak and inconsistent.

Unknown Factors and Questions

Before drugs can have a chance to be reformed, they must be legalized. The momentum to move forward from our mistake is quickly catching steam. Many liberal ideas normally originate from the state of California and the legalization of medical marijuana is no different. In 1996 proposition 215 passed with an approval rating of 56% (ProCon.org). Since then the marijuana smoke seems to keep getting higher. On January 1st, 2014, Colorado became the first state in the Union to legalize recreational use of Marijuana (Martinez).

Marijuana will be the easiest of the illicit drugs to legalize on a nationwide level. The only people that steer clear of marijuana legalization are the far right Tea Party and religious zealots. The real question will be how do we legalize the rest of the drugs? Cocaine, opium, methamphetamine, and desomorphine [krokodil] are all drugs which have serious mortality risks. How do we overcome this big hurdle and justify its use even when death is near certainty? Will the people continue to be fooled into giving up their personal liberties and freedoms in the name of safety and security? These are just the questions that must be answered from the political side of the spectrum.

Most people throughout the world all ask the same questions, “How can you make a deadly drug such as krokodil safe when it all but guarantees death?” “How can we mass produce a drug that causes death and make profits off the lives of these people?” Technology can answer both of these questions. Technology won’t make most drugs 100% safe, but it will definitely make them much safer than they currently are. When drugs are left unregulated and in the hands of dangerous men and women such as the Mexican drug cartels, Inner city gangs, and biker gangs, people will die! All they will care about is the bottom dollar and not getting caught, not whether the person taking their drugs survives to see another day!

The strongest argument against the legalization of drugs is morals and greed. “What if the person taking these drugs is your parent, grandparent, sibling, or child?” “The big tobacco companies didn’t care who they sold to or how many people their products killed. How does anyone know that to-be-formed ‘big drug companies’ will be any different?” We must be willing to open our minds before changes can occur. Similar comments were made during the eugenics movements, prohibition, and very recently about the LGBT community. We have since ended the eugenics movement and prohibition as well as continue to extend the rights of the LGBT community.

What happened to separation of church and state? The majority of morals are derived from sayings in the bible, Quran, Dhammapada, canonical scriptures, Tao Te Ching, and other such religious works. Ron Paul was quoted saying “Religion has been hijacked by non-believers and used to support wars”. The war on drugs is certainly a war that has gotten in the hands of religion!

Conduction of research

For the majority of this paper, it will be simply an overview and research of various previously taken statistics, research, and papers which will be taken from legitimate sources, mainly government, news, museum, and non-profit organizations. I also intend to input my own observations, which I have made from breathing and being alive each day as well as from legitimate sources such as my doctor and coursework.

Summary

If we wish to continue to be the free, prosperous, and liberty-filled country we claim to be, we must end the war on drugs and answer the questions posed with solutions which few, if anyone, has ever thought of. Some answers will not be what many people want to hear. Tough questions always have tough answers, and tough answers don't always get public support. However, at a time when congress continues to do nothing in an effort to overrule an unruly president who continues to issue executive orders to overrule an ignominious congress, the hard answers and solutions are the only things that the people want to hear anymore!

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Drug definitions

Before any research can begin on drugs, we must define the various levels of drugs. The first and most important level is **legal drugs**. Most people think of tobacco and alcohol products, but people often forget about pills, supplements, foods, and drinks that are high in caffeine content. These would be the most common drugs, which likely have been consumed by the overwhelming majority of Americans as well as the rest of the world.

The next level is **narcotic medications**. These specifically entail schedule II, III, and IV controlled substances that require a doctor's authorization. The most commonly abused drugs in this country are prescription opioids [Vicodin, Oxycodone, etc], sedatives [Xanax, Lunesta, etc], and stimulants [Adderall, Ritalin, etc] (National Institute).

The next degree of drugs are schedule I controlled substances. Many people prefer to break these into two categories: **soft drugs** and **hard drugs**. Marijuana, opium, and hash oil are the most common forms of soft drugs and are more common than hard drugs. In their pure form they are less addicting than hard drugs. The most common hard drugs are methamphetamine, cocaine, and crack. Finally, comes a category which I have termed myself as **death drugs**. These are drugs which commonly and frequently result in death even after just one use, such as speedball, heroin, and krokodil.

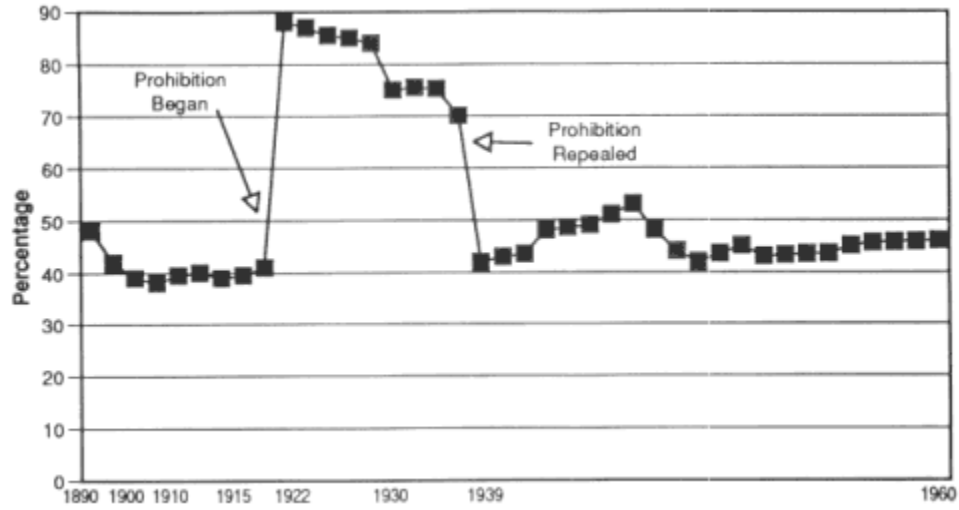
Fallacies against legalization of illicit drugs.

Before any drug can be legalized, we must be able to disprove many theories which plague the drug world. The most common fallacy is the gateway drug fallacy. Chris Christie was quoted stating, "Marijuana is a gateway drug. We have an enormous addiction problem in this country. And we need to send very clear leadership from the White House on down through the federal law enforcement. Marijuana is an illegal drug under federal law. And the states should not be permitted to sell it and profit from it." (Sullum). This is the same way that the majority of the GOP feels about marijuana. However, if we continue to use such fallacies, we could say soda and coffee are a gateway to energy drinks, which are a gateway to gas station caffeine pills. A common sense conclusion should tell most people that the minority who use gas station caffeine pills should NOT inhibit and scare the majority of coffee and soda drinkers.

Another fallacy which is continually used to keep marijuana legalization at bay is the slippery slope fallacy. "If we legalize marijuana today, we will be legalizing heroin tomorrow." This fallacy is used without connecting the "harder drug" to the "softer drug." When gay marriage laws were introduced in the US, similar fallacies were introduced from the religious population. When Maine became the fifth state to legalize gay marriage, "Pat Robertson responded by claiming that the "ultimate conclusion" of legalizing same-sex marriage would be the legalization of polygamy, bestiality, child molestation and pedophilia" (Corley). As we know today, the Supreme Court legalized gay marriage in all 50 states (CNN). Since that time, not one bill has been introduced to the floor of the House or the Senate which entails legalization of polygamy, bestiality, child molestation, or pedophilia. Though I believe we should legalize ALL forms of drugs, heroin will not be legalized as a direct result of marijuana legalization. Not all marijuana users use heroin and vice versa!

The most important hindrance to drug legalization is safety. With the legalization of any drug, it must go through FDA tests, trials, and certification. Why are schedule I controlled substances not subject to this same regulation? It has been proven time and time again that regulation and technology advancements further the safety of drugs. During prohibition, people continued to make alcohol at illegal, unsanitary, and unsafe stills, which had the potential to explode if heated too high. It was a known fact, and many movies will affirm, that in many instances the alcohol they made was nearly pure 195 proof or higher. As a result it was often put in vehicles as gasoline when they ran out of gas during police chases. I know I wouldn't want to drink gasoline, so why would anyone in their right mind drink that? Because it was the only thing available. Al Capone made multiple deals behind closed doors that moved alcohol from place to place. When a substance is made illegal, the government has empowered criminals such as Al Capone, not law abiding citizens such as you and me.

In the graph listed on the following page, we see the percentage of alcohol deaths that were NOT related to overdoses. This proves that safety of a regulated and legal drug is superior to that of a non-regulated illegal drug.



Source: Clark Warburton, *The Economic Result of Prohibition* (New York: Columbia University Press, 1932), pp. 114-15; and *Licensed Beverage Industry, Facts about the Licensed Beverage Industry* (New York: LBI, 1961), pp. 54-55.

Medical Use of various illicit drugs

When walking into various museums and historical places, many people see old prescription bottles and alike with substances that have since been made illegal. Cocaine, a natural substance from the coca plant, was prevalent during the mid to late 1800s. Doctors and other such professionals used this substance in all sorts of medications. Toothache drops, hemorrhoid creams, balms, as well as wines, sodas, and elixirs were all mixed with high concentrations of cocaine. “Prominent among these were Rayno’s Hay Fever remedy, a pure cocaine solution, and Lloyd’s cocaine toothache drops for children. By 1900, cocaine was in the top five pharmaceutical products in the US and was selling for around \$2.50 per gram. But this is also around the same time that the first real wave of cocaine addiction hit, exacerbated by the practice of prescribing cocaine as a cure for morphine addiction” (The Express Tribune). As an added note, a popular fact, which is constantly passed around was Coca-Cola, a product which is well known for having a birthplace in Terre Haute Indiana, had coca leaves infused in it for its nerve stimulant properties.

Today, artificial and man-made forms of cocaine are frequently used in pain ointments and creams. Lidocaine and Novocain are the most common synthetic forms available on the market today. These forms of the substance are most often found on dentist and Obstetrician-Gynecologist offices since they are highly effective in numbing the area where teeth are being pulled as well as in epidurals during pregnancy (The Express Tribune).

Opium, yet another natural substance made from the poppy plant, was largely used for its pain reducing, and in many cases, pain ending qualities. Its usage dates back well before Christ ever walked the Earth. China, India, and much of the Southeast Asian region was well known for

its use of poppy as a pain reliever. The two drugs which can be derived from opium are morphine and codeine (Kilham).

Morphine is well known in the US, as it can be found in nearly all hospitals. However, it is under lock and key under all circumstances due to its highly addictive and potent nature. It is likely that if a person was to be operated on for extreme pain, they would be given morphine since its pain relieving effect is often considered the gold standard in pain relief (Kilham).

Codeine is not nearly as well known since it is rarely used by its name. Some of the most overused and abused drugs in the US are made of this substance or a synthetic form of it. Vicodin, Oxycodone, Percocet, Tramadol, and Methadone are all pill forms of this substance, which have come to the forefront of narcotic pain relievers (Kilham).

Mescaline, a drug made from the peyote cactus, is a drug which was commonly used by the Native Americans, especially those located in the Southwest portion of the US. The Native Americans can still use it today under certain strict standards since it is part of their religion (DEA). The Native Americans used this drug because it "gives them courage to fight and not feel fear nor hunger nor thirst. And they say that it protects them from all danger" (Schultes). Many years later this ritual would be copied into the Mexican Indian's rituals for medicinal purposes since it was realized that many people wouldn't get sick for many months thereafter (Schultes). This may just be a major coincidence, more research need to be done to confirm these effects.

Finally, the most talked about illicit drug with medicinal purposes is marijuana, scientifically named cannabis. The active ingredient in marijuana is delta-9-tetrahydrocannabinol, otherwise known as THC (NIH). There are so many uses that have been discovered just in the past three years that it would be next to impossible to list all of their

potential and discovered uses in one book. For the sake of this paper, I will only introduce three uses which have been proven through various scientific studies.

Marijuana aids in cutting back on multiple sclerosis symptoms, otherwise known as MS. “Multiple sclerosis is a chronic disease that damages the nerves in the spinal cord and brain, as well as the optic nerves. Sclerosis means scarring, and people with MS develop multiple areas of scar tissue in response to the nerve damage. Depending on where the damage occurs, symptoms may include problems with muscle control, balance, vision, or speech” (Derrer M.D.). According to the journal *Neurology*, THC sprays that are only legal in parts of Europe and Canada as well as THC pills seem to be the most effective alternative therapy to ending MS pain. After 2608 subjects were tested, 2088 were successfully helped with these THC treatments, approximately an 80% success rate (Woerner).

Seizure patients receive more relief from marijuana than almost any other group of patients. While THC seems to be the wonder drug that marijuana produces and everyone wants to get their hands on, the seizure patients found relief in a different medical compound found in marijuana, cannabidiol, otherwise known as CBD. CBD is found in relatively low amounts and it is best to turn the marijuana into oil to get the full benefits of CBD. In this new age, genetic modification of most plants is possible, and marijuana is no different. With some genetic modification we are able to produce a marijuana plant that is high in CBD and low in THC. This was the strain of marijuana that has helped 62 confirmed cases of seizures, with plenty more that have not identified as helpful due to its legality (Young)

In my opinion, the most important use which marijuana has been found to help is fibromyalgia. For me, this hits very close to home. My mother is a fibromyalgia patient that is seeing less and less pain relief from prescription pain killers. It takes her almost two hours every

day before she is able to get out of bed because she has to wait for her medication to kick in. The FDA has been conducting tests on nabilone since 1985 on whether it can help multiple sets of patients with their pain, namely fibromyalgia. Nabilone is a synthesized version of CBD. They conducted human testing on 4385 subjects with fibromyalgia as of 2010. 3646 subjects found the test medication helpful (Harding). That is a whopping 83.5% success rate.

Now let me ask the reader of this paper, the numbers of patients which received help in these trials are small. 2088 confirmed MS patients, 62 seizure patients, and 3646 patients with fibromyalgia. However, if this patient happened to be your parent, grandparent, sibling, child, or other family member, would you not do everything you can to make sure they receive proper care? I live in a red state which is unlikely to legalize medical marijuana, let alone all drugs, anytime in the near future. But isn't it my right to fight for the rights of others which can't or won't fight for theirs?

Politics behind drugs.

There are many thoughts behind why drugs haven't been legalized. The most believed view as to why these drugs are illegal is because it would bankrupt the pharmaceutical companies in America if they were legal. This could potentially bankrupt the United States of America. The healthcare industry makes up 17.9% of our gross domestic product (Gimein). If these illegal drugs were found to be a complete cure for many drug resistant diseases... wouldn't that worry any investor in pharmaceutical drugs?

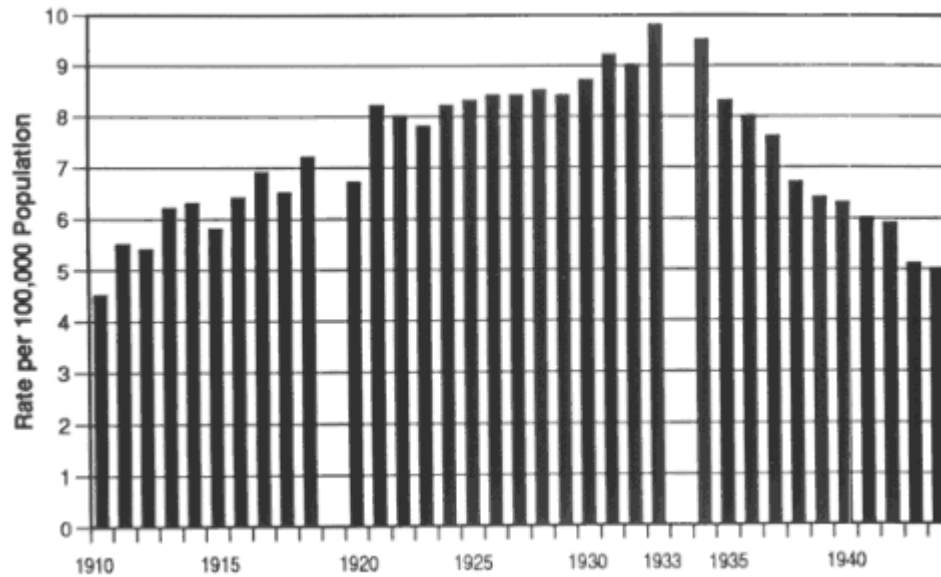
Another propaganda based theory that floats around is if the US legalized drugs, we would be considered an unsafe and blasphemous country. Believers of many religions, especially those that are in certain specific sects within the Christian faith, believe that all drugs, as well as a number of other addictive substances, are the apple of Eden. "The substances specifically and repeatedly identified by Church leadership as impacting temple worthiness are coffee, tea, tobacco, alcohol, and recreational drugs" (Packer). Add to that the propaganda that the US federal government continues to shove down our throats as facts. All drug users are considered to be attractors of crime and unwanted activities.

Here are the facts. Since Colorado legalized marijuana on January 1, 2014, the State made \$67 Million in taxes (Healy). With that money, the state government was able to invest more money where every citizen wants their tax money to go: education, law enforcement, and infrastructure. Many schools around the country are failing because of financial issues; law enforcement and first responders are continuing to use out of date and dangerous equipment because of financial issues; many people know of the infrastructure issues we face because of our aging roads and utilities. This money will certainly help repair/replace/update these places and hopefully make them stand out among the rest for being at the top of their game.

Crime in Denver has gone down by 15% and the murder rate has decreased by 42% (Healy). This only makes sense because drug prohibition opens up a new black market where territory is owned by certain gangs, and if you simply take a step in the wrong area, you can be killed. During alcohol prohibition, Al Capone began his ventures with alcohol. When politicians make something illegal, it doesn't cease to exist, it simply goes underground. We all know that alcohol prohibition didn't work, so why do we continue to repeat failed history over and over again expecting a different outcome?

Also it is ironic to note for all the church goers that 247 churches caught fire in the entire US last year, none of which occurred in Colorado, Washington, or Washington D.C. where recreational marijuana is legal (Healy). Since when did religion become a part of politics? Our Founding Fathers created this country in the hopes of separating religion from state. They would certainly roll over in their graves if they heard what the citizens of the US subject their neighbors to in the name of religion.

It is also interesting to note the homicide rate in response to prohibition as shown in the graph on the following page. Within four years of the repeal of prohibition, the homicide rate returned to pre-prohibition rates. As previously mentioned, prohibiting any substance empowers the criminals, not the law abiding citizens such as you and me.



Source: U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (Washington: Government Printing Office, 1975), part 1, p. 414.

Regulation and Technology

As an electrical engineer I know firsthand how technology has already reformed the big pharmaceutical companies. Before 1970, something as simple as counting how many pills were supposed to go in each prescription was a tediously frustrating task. Bottles and jars meant to hold as much as 3000 pills were a regular sight in the pharmacy setting. This would take a person upwards of one hour to count out 3000 pills per bottle. As much as half of what the pharmaceutical companies paid in wages went to pill, tablet, and capsule counters (P.R. Newswire)

Today we very much take for granted how little time it takes the pharmacist to fill a script. If a person was to walk into a modern pharmacy such as Walgreens, it could take as little as 30 seconds to fill a 90 pill medication. Twenty-five of those 30 seconds are devoted to signing the pen pad and printing the receipt (P.R. Newswire). This time saving technique may not seem that important to the average person, but imagine a heart attack patient that could die if a blood thinning agent is not introduced almost immediately. Those seconds saved could be a life saved.

Another way that the engineering has changed the pharmaceutical world is record filing systems. I've seen this switch happen first hand because my doctor is about as old as dirt. He used paper files his entire life and had three entire rooms in his office devoted to paper files. One of these rooms had his dad's paper files since he took over the medical practice after his passing. He was reluctant to switch to computer filing and likely wouldn't have switched had his medical partner not forced his hand back in 2009.

Many people in this country believe it is a major violation of our privacy to allow such connected systems as these. However, these connected online filing systems are tremendously important to our health. Now when a person moves from Terre Haute, Indiana to San Francisco,

California he/she doesn't have to wait three to four weeks for his/her old doctor to copy, stamp, and eventually send the files. If their doctor is anything like mine, they also have to hope that the new doctor can read the old doctor's handwriting.

With this new GE Centricity system in place, as long as that person goes to a medical practice that also uses the GE centricity file system, their files are available right there on the computer. This saves time and money, but more importantly, it saves lives! The GE Centricity system is installed in over 80% of hospitals and 43% of medical practices as of 2010. When new script information is added to the system, interactions with current medication, as well as medication allergies, will flash on the screen to prevent malpractice lawsuits. (GE Healthcare).

However, I am a realist, technology can occasionally be more bad than good. Prior to November 1998 technology in the form of billboards, television, movies, and other product placement ads were the main form of advertisement for the big three tobacco companies. They attempted to suck in the next generation of smokers with such ads, and it worked. At middle and high schools it was impossible not to see someone wearing a Joe Camel T-shirt or a Marlboro Man hat. These kids knew more about the tobacco companies and their products than they did about what was going to be on their test in class! (California DOJ). However, we have been down this road before, and we know where we went wrong, so we can only hope that we are smart enough to never repeat such a dark history again.

Automation and control uses for future legalizations are huge, the biggest of which is the entire amphetamine district. Currently several amphetamines are mass produced for use in attention deficit [hyperactivity] disorder and narcolepsy patients. With any amphetamine, there is a high risk of addiction and an even higher risk of overdose. I know from experience how

addictive amphetamines can be. I have been diagnosed with Attention Deficit Disorder. I was prescribed Vyvanse, scientifically named lisdexamfetamine, from 2008 to 2012.

The day I turned 19, I lost my health insurance due to age restrictions on Medicaid. In February of 2013 I was suddenly cut off from my medication. That spring semester of my freshman year I had the worst grades of my life mainly due to the withdrawals from the medications. That is when my doctor told me something startling. In many parts of Europe and 1st world African nations, they add three additives to their ADD medications. One additive prevents the medication user from taking more than prescribed by way of vomiting. Another additive prevents two similar but different amphetamines from mixing, also by way of vomiting. However, the third is the most impressive additive, which counteracts your dopamine receptors to keep addiction at bay. The ironic part is that Europe's amphetamine is illegal in America and America's amphetamine is illegal in Europe (Singh). If America took on Europe's model for all amphetamines, including Methamphetamine, maybe the deadly part of the drug can be nullified.

The biggest reason why methamphetamine is so deadly is the additives which are found in this drug from non-regulation. Between 2000 and 2005, there were 371 deaths related in some way to the use of methamphetamine which had been exhumed by a coroner in Australia. 51% of those deaths were found to be the direct result of drug interactions. In laymen's terms, Methamphetamine mixed with another drug is a cocktail meant for certain death. 14% were found to be a result of additives mixed into the deadly cocktail. 28% were a result of methamphetamine interacting with a prior medical condition. Only six percent of those 371 deaths were a result of overdosing on methamphetamine (Kaye et al).

If methamphetamine was regulated, the 28% and 51% would most likely have been prevented. Most people don't continue to smoke when they have bronchitis. Most doctors would

not prescribe a deadly interaction of medication without an extreme reason. Additionally, the 14% would have been nullified. The way it is now, addicts can only get their fix from a drug dealer whose primary concern is the bottom dollar. If the seller can hook the addict by adding another addictive and deadly substance that's super cheap, of course they will add it. If it is regulated, the average person would get a mostly pure product. I have worked with pharmaceutical grade devices in my automation courses which can titrate [measure] substances down to the quarter of a gram. These machines are outdated but rugged for use by students. The real machines used at Pfizer and Merck can titrate down to the microgram of a substance to make sure no impurities can be found, kind of similar to a "Breaking Bad" scenario.

Krokodil, the drug from Russia that everyone is currently talking about due to its deadly effects. No normal person would contemplate using such a dangerous drug. The pictures coming from Russia show walking zombies with rotting skin, exposed bone, even fingers falling off after chronic and habitual use of this drug. How can anyone justify its use and go to sleep at night?

Regulation, education, and experimentation can justify krokodil's use. This drug was created in 1932 in Switzerland under the name permonid and at the time was considered to be one of the strongest pain medications on any market in the entire world. It is approximately 10 times more potent than morphine when tailored to pharmaceutical grade. Shortly after Permonid's introduction, it was QUICKLY pulled from shelves in 1935 due to an infinitely immeasurable risk of dependence. After that it fell off the planet for almost 70 years. It suddenly reemerged in Russia in 2002 when people began going to hospitals with skin lesions looking similar to crocodile skin, hence the street name krokodil (Drug Enforcement Agency).

How krokodil came to the forefront of the illicit drug trade after almost 70 years of banishment is beyond even the most brilliant minds in the law enforcement community.

However, how it came to be is of little importance; how to stop its use is more important. After a couple of arrests, it was discovered that krokodil is extremely easy to make. “Users mix codeine with a brew of poisons such as paint thinner, hydrochloric acid and red phosphorus scraped from the strike pads on matchboxes.”(Shuster).

This is a drug that scares every ounce of blood out of me. However, the fact is that we can't control what people do with their body! In addition, the majority of people that begin using this drug are in it for one of two reasons; it's much cheaper and stronger than heroin, and/or they had nothing to lose since their pain was out of control (Shuster). Moreover, users don't care where it comes from so long as it is cheap. Hydrochloric acid was NOT used in the original formation of permonid. That is the substance which eats at a krokodil addict's skin. If we begin to regulate it, we can control how it is used and made, why it is used, and find any potential medical uses which may exist. That would mean no more hydrochloric acid or match strike pads being used. A purer pharmaceutical grade product will be, not necessarily safe, but safer than that made by an amateur lab cook.

Closing

The legalization of all drugs is an idea which is far from being brought to the floor from any sane politician who wants to win reelection. However, the points which have been brought up here strongly point to this eventual solution. Education, regulation, and experimentation need to be done with all substances before we just jump on the train of ending its use. Many drugs have potential medical uses which we have not discovered because they were made illegal so hastily. Other drugs have derivatives and synthetic analogues which could be made much safer. This is especially true today with the invention of genetic modifications.

I live in a red state which is unlikely to legalize medical marijuana, let alone all drugs, anytime in the near future. However, isn't it my right to fight for the rights of others which can't or won't fight for theirs? My mother can't fight for her rights because she is often times in so much pain she can't even get out of bed. People all across the US are dying of diseases, cancers, physical and mental ailments, among other things. These drugs which the US government overreacted to have the potential to be cures for AIDS, cancers, and cardiovascular diseases or could shield the effects of depression, anxiety, ADD, and dyslexia.

To conclude, the US government must end the War on Drugs if they wish to have any chance of surviving as the free and liberty-filled country we claim to be. In addition, we must find a way to do so in as safe a manner as possible. Doing so too rapidly could prove costly on certain drugs. Technology can lead the way in making drugs not necessarily safe, but safer than they are today.

Works Cited

- ATFE. "CPSC Reports Increase in Fireworks-Related Deaths and Injuries in 2013." U.S. Consumer Product Safety Commission. Alcohol, Tobacco, Firearms and Explosives (ATF), 26 June 2014. Web. 24 July 2015.
- California DOJ. "Tobacco Master Settlement Agreement Summary." *State of California Department of Justice*. Office of the Attorney General, n.d. Web. 26 July 2015.
- CDC. "Nonpasteurized Disease Outbreaks, 1993-2006." Centers for Disease Control and Prevention. 12 Dec. 2014. Web. 24 July 2015.
- CNN. "Map: Same-sex Marriage in the United States." *CNN*. Cable News Network, 26 June 2015. Web. 04 Aug. 2015.
- Corley, Matt. "Pat Robertson: Gay Marriage Is 'the Beginning in a Long Downward Slide' to Legalized Child Molestation." *ThinkProgress*. Huffington Post, 07 May 2009. Web. 04 Aug. 2015.
- Derrer M.D., David. "Multiple Sclerosis Pictures: MS Brain Lesions, Symptoms, Causes, Types, and Treatments." *WebMD*. 24 Mar. 2014. Web. 11 Aug. 2015.
- DEA. "Drug Fact Sheet: Peyote and Mescaline." *PsycEXTRA Dataset* (2012): n. pag. *Drug Enforcement Agency*. DEA, 2012. Web. 4 Aug. 2015.
- DEA Museum. "Illegal Drugs in America: A Modern History." *DEA Museum & Visitors Center*. N.p., n.d. Web. 24 July 2015.
- Division of Population Health. "Fact Sheets - Alcohol Use and Your Health." *Centers for Disease Control and Prevention*. Division of Population Health, 07 Nov. 2014. Web. 24 July 2015.

DrugFacts. "DrugFacts: Nationwide Trends." *DrugFacts: Nationwide Trends*. National Institute on Drug Abuse, 01 June 2015. Web. 24 July 2015.

Drug Enforcement Administration Office of Diversion Control. "Desomorphine (Dihydrodesoxymorphine; Dihydrodesoxymorphine - D; Street Name: Krokodil , Crocodil)." *Drug & Chemical Evaluation Section* (2013): n. pag. *US Department of Justice*. Office of Diversion Control, Oct. 2013. Web. 13 Aug. 2015.

GE Healthcare. "Achieving Meaningful Use with Centricity® EMR." *GE Healthcare GE Healthcare EMR Consulting CHUG Fall Conference* (2010): 1-5. 20 Sept. 2010. Web.

Gimein, Mark. "How Health Care Costs Wrecked Our Measures of Economic Growth." *Bloomberg.com*. Bloomberg, 27 June 2014. Web. 13 Oct. 2015.

Gumbiner, Jann, Ph.D. "Is Marijuana Addictive?" *Psychology Today*. *The Teenage Mind*, 05 Dec. 2010. Web. 24 July 2015.

Hall, John R., Jr. "Fireworks." *National Fire Protection Association (NFPA)*. Alliance to Stop Consumer Fireworks, 01 June 2013. Web. 24 July 2015.

Harding, Anne. "Medical Marijuana May Help Fibromyalgia Pain." *CNN*. Health.com, 22 Feb. 2010. Web. 11 Aug. 2015.

Healy, Jack. "In Colorado, Marijuana Taxes May Have to Be Passed Back." *The New York Times*. The New York Times, 01 Apr. 2015. Web. 12 Aug. 2015.

Indiana BOAH. "Frequently Asked Questions About Milk & Dairy Products." *BOAH: Frequently Asked Questions About Milk & Dairy Products*. Indiana State Board of Animal Health, n.d. Web. 24 July 2015

Kaye, Sharlene, Shane Darke, Johan Duflou, and Rebecca McKetin. *Addiction* 103 (2008): 1353-360. *Drug Aware*. Society for the Study of Addiction, 02 Dec. 2008. Web. 12 Aug. 2015.

- Kilham, Chris. "Opium: A Powerful Medicine for Pain Relief." *Fox News*. FOX News Network, 24 July 2013. Web. 04 Aug. 2015.
- Martinez, Michael. "10 Things to Know about Colorado's Recreational Marijuana Shops." *CNN*. Cable News Network, 01 Jan. 2014. Web. 24 July 2015.
- National Geographic. "SHARK ATTACK FACTS." *National Geographic Channel*. National Geographic Wild, 2013. Web. 24 July 2015.
- National Institute on Drug Abuse. *Common Drugs of Abuse*. Columbia, SC: South Carolina Dept. of Alcohol and Other Drug Abuse Services, 2015. *National Institute of Health*. Mar. 2015. Web. 3 Aug. 2015.
- NCCDPHP. "Tobacco Related Mortality." *Centers for Disease Control and Prevention*. National Center for Chronic Disease Prevention and Health Promotion, 06 Feb. 2014. Web. 24 July 2015.
- NCHS. "All Injuries." Centers for Disease Control and Prevention. CDC/National Center for Health Statistics, 29 Apr. 2015. Web. 24 July 2015.
- NIH. "DrugFacts: Is Marijuana Medicine?" *National Institute on Drug Abuse*. National Institute of Health, July 2015. Web. 04 Aug. 2015.
- P.R. Newswire. "Pharmacy Automation: Technologies And Global Markets." *The Street*. P.R. Newswire, 08 Apr. 2014. Web. 12 Aug. 2015.
- Packer, Boyd K. "Guided by the Holy Spirit." *The Church of Jesus Christ of Latter-day Saints*. President of the Quorum of the Twelve Apostles, Apr. 2011. Web. 12 Aug. 2015.
- ProCon.org. "23 Legal Medical Marijuana States and DC." *ProCon.org*. 1 July 2015. Web. 24 Jul. 2015.

Schultes, Richard Evans, and Albert Hoffman. "A Brief History of Peyote." *A Brief History of Peyote*. Healing Arts Press (Vermont), 1992. Web. 04 Aug. 2015.

Shuster, Simon. "The World's Deadliest Drug: Inside a Krokodil Cookhouse." *Time*. Time Magazine, 5 Dec. 2013. Web. 13 Aug. 2015

Singh, Dr. Surjit. "Dr. Surjit Singh Doctor Appointment." Personal interview. Jan. 2013.

Sullum, Jacob. "Why Chris Christie's Vow To Suppress Marijuana Legalization Is Politically Risky." *Forbes*. Forbes Magazine, 15 Apr. 2015. Web. 03 Aug. 2015.

The Express Tribune. "A History of Coke: Nothing to Sniff at - The Express Tribune." *The Express Tribune*. International New York Times, 18 Sept. 2011. Web. 04 Aug. 2015.

Woerner, Amanda. "Medical Marijuana May Alleviate Some Symptoms of Multiple Sclerosis." *Fox News*. FOX News Network, 25 Mar. 2014. Web. 11 Aug. 2015.

Young, Sandra. "Marijuana Stops Child's Severe Seizures - CNN.com." *CNN*. Cable News Network, 7 Aug. 2013. Web. 11 Aug. 2015.