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THE HIGHS OF TOMORROW: WHY NEW LAWS AND POLICIES ARE NEEDED TO MEET THE UNIQUE CHALLENGES OF SYNTHETIC DRUGS

JOSEPH A. COHEN*

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I. INTRODUCTION

Synthetic drugs, as opposed to naturally occurring drugs (e.g. cocaine and opium), are man-made chemical substances that are manufactured in laboratories and are designed to mimic the molecular structures and effects of controlled substances.¹ Traditional synthetic drugs, such as methamphetamine and ecstasy (MDMA or 3,4-methylenedioxymethamphetamine), were made by clandestine chemists and

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¹ *Dangerous Synthetic Drugs: Hearing Before the S. Caucus on Int’l Narcotics Control*, 113th Cong. 3–4 (2013) (statement of Joseph T. Rannazzisi, Deputy Assistant Administrator, Drug Enforcement Administration U. S. Dep’t of Justice).

introduced into the United States via the black market.² In 2008, law enforcement in America began to encounter a new generation of synthetic drugs that were marketed as “legal” alternatives to illicit drugs such as marijuana, cocaine, and heroin.³ Under the law, specifically the Controlled Substances Act (CSA), the legality of these substances is in a state of ambiguity due to an outdated Controlled Substances Analogue Enforcement Act (Analogue Act) and an overly restrictive Drug Enforcement Administration (DEA) temporary scheduling authority.⁴

This new generation of synthetic drugs is made up of two primary categories of substances: (1) synthetic cannabinoids (commonly referred to as “synthetic marijuana,” “Spice,” or “K2”) and (2) synthetic cathinones (commonly referred to as “bath salts”).⁵ Other substances that fall into this new generation of synthetic drugs include phenethylamines (e.g. the 2C compound series), piperazines, tryptamines, and arylcyclohexamines.⁶

Instead of being sold on street corners and back alleys like the illicit drugs they purport to mimic, this new generation of synthetic drugs is sold openly in small retail locations such as gas stations, convenience stores, and the Internet.⁷ Young people, who are a primary target consumer for synthetic drugs, are especially vulnerable to the mistaken belief that these substances are safe because they are marketed as legal.⁸ In addition, the seemingly infinite number of different chemical compositions of these drugs and the speed in which new varieties appear on the market has caused significant challenges to government control efforts, including state governments,⁹ which are unable to keep pace with the quickly changing product supply.¹⁰ Internationally, countries in all regions of the world face similar challenges and have experienced a proliferation of synthetic drugs in recent years.¹⁰

Urgent action is needed to control synthetic drugs before they take root in the U.S. drug market. The potential public health consequences of synthetic drugs are cause for significant concern due to widespread availability of these drugs and the

² *Id.*

³ Office of Nat’l Drug Control Policy, *Synthetic Drugs (a.k.a. K2, Spice, Bath Salts, etc.)*, THE WHITE HOUSE, <http://www.whitehouse.gov/ondcp/ondcp-fact-sheets/synthetic-drugs-k2-spice-bath-salts> (last visited Dec. 2, 2013).

⁴ Ben Paynter, *The Big Business of Synthetic Highs*, BLOOMBERG BUSINESSWEEK (Jun. 6, 2011), <http://www.businessweek.com/printer/articles/57544-the-big-business-of-synthetic-highs>; Comprehensive Drug Abuse Prevention and Control Act of 1970, Pub. L. No. 91-513, 84 Stat. 1236 (codified as amended at 21 U.S.C. §§ 801-971 (2012)), 21 U.S.C. § 813 (2012), 21 U.S.C. § 811 (2012).

⁵ Office of Nat’l Drug Control Policy, *supra* note 3.

⁶ Rannazzisi, *supra* note 1, at 16–19.

⁷ *Id.* at 5.

⁸ *Id.* at 7.

⁹ *Dangerous Synthetic Drugs: Hearing Before the S. Caucus on Int’l Narcotics Control*, 113th Cong. 4 (2013) (written statement of Michael P. Botticelli, Deputy Dir., Office of Nat’l Drug Control Policy).

¹⁰ U.N. OFFICE ON DRUGS & CRIME, WORLD DRUG REPORT, U.N. Sales No. E.14.XI.7 iii (2013).

violent and unpredictable behavior they can cause in users.¹¹ Also, violent drug trafficking organizations are likely to enter the synthetic drugs business, if they have not already done so, due to the existence of a market worth billions of dollars.¹² In addition, terrorist organizations in the Middle East have begun to use synthetic drug sales in the U.S. as quick and easy financing opportunities.¹³

This article reviews the federal government's attempts to control the influx of synthetic drugs, particularly synthetic cannabinoids and cathinones, into the U.S. recreational drug market since 2008. It offers three recommendations targeted at Congress, the DEA, and the Department of State on ways to prevent and control synthetic drug use in America: (1) Congress should grant the DEA a new "immediate scheduling" authority; (2) the DEA should improve information sharing with states; and (3) the Department of State and the DEA should prioritize the development of a global early warning system.

II. BACKGROUND

In 2009, the DEA's national forensics database contained fifteen synthetic cannabinoid reports related to two different substances and thirty-four synthetic cathinone reports related to four different substances.¹⁴ By 2012, the number of synthetic cannabinoid reports exceeded 41,200 and related to fifty-six different substances, and the database contained 14,100 synthetic cathinone reports related to thirty-one different substances.¹⁵ In addition, seventy-six other synthetic substances were identified in 2012,¹⁶ bringing the total number of synthetic substances identified to well over 150 in that year alone.¹⁷ Due to the volume and speed in which synthetic drugs appear on the market, federal, state, and local governments have found it difficult to keep pace.¹⁸ The attempt to stop the cycle of a new

¹¹ See Thomas M. Penders et al., *Excited Delirium Following Use of Synthetic Cathinones (Bath Salts)*, 34 GEN. HOSP. PSYCHIATRY 647, 647–50 (2012), available at <http://www.sciencedirect.com/science/article/pii/S016383431200196X#>.

¹² See JUNE S. BEITTEL, CONG. RESEARCH SERV., R41576, MEXICO'S DRUG TRAFFICKING ORGANIZATIONS: SOURCE AND SCOPE OF THE VIOLENCE 38–39 (2013); Ben Paynter, *The Big Business of Synthetic Highs*, BLOOMBERG BUSINESSWEEK (Jun. 6, 2011), <http://www.businessweek.com/printer/articles/57544-the-big-business-of-synthetic-highs> (stating the synthetic cannabinoid market alone could be worth \$5 billion annually).

¹³ Dan Box, *Synthetic Drugs Funding Terror*, THE AUSTRALIAN (Jun. 29, 2013), <http://www.theaustralian.com.au/news/nation/synthetic-drugs-funding-terror/story-e6frg6nf-1226671653448>; Jack Cloherty & Sally Zhang, *Bath Salts and Other Synthetic Drugs Making "Millions" for Terrorists*, ABC NEWS (Jun. 27, 2013), <http://abcnews.go.com/Politics/bath-salts-synthetic-drugs-making-millions-terrorists/story?id=19507041>; Mary Kilpatrick, *Houma Drug Profits May be Tied to Middle East, Police Say*, WWLTV.COM (Jun. 27, 2013), <http://www.wwltv.com/news/lafourche-terrebonne/213360701.html>.

¹⁴ Rannazzisi, *supra* note 1, at 4.

¹⁵ *Id.*

¹⁶ Botticelli, *supra* note 9, at 3.

¹⁷ *Id.*

¹⁸ Emily Ethridge, *Lawmakers Attempt to Keep Up with Synthetic Drugs*, ROLL CALL (Oct. 28, 2013), http://www.rollcall.com/news/lawmakers_attempt_to_keep_up_with_synthetic_drugs-228680-1.html.

substance emerging, being banned, and immediately having another new substance take its place has been likened to a “whack-a-mole game.”¹⁹ Halting this cycle is made even more challenging by the existence of multiple compound classes of synthetic drugs, each with its own unique characteristics.²⁰

A. Synthetic Cannabinoids

Synthetic cannabinoids are man-made chemicals that are manufactured and marketed to mimic the effects of THC (delta-9-tetrahydrocannabinol), the primary psychoactive ingredient in marijuana.²¹ Synthetic cannabinoids are generally sprayed onto dried plant material and then consumed through smoking or oral ingestion.²² In November 2008, U.S. Customs and Border Protection (CBP) became the first federal law enforcement agency to encounter synthetic cannabinoid products in the United States.²³ Most synthetic cannabinoid chemicals are manufactured in Asia, primarily China, by chemists who ignore quality control standards and are shipped to the U.S. under misbranded imports, where local distributors apply the drug to plant material.²⁴ The final product is sold in individual packets in small retail outlets, such as gas stations and convenient stores, as well as on the Internet, under hundreds of different brand names such as “Spice,” “K2,” and “Black Magic.”²⁵ The average price for 2.5 grams of synthetic cannabinoid product is approximately \$30.²⁶

Synthetic cannabinoid products are often marketed as “herbal incense” to hide their true purpose.²⁷ In addition, their packaging usually carries the phrase “not for human consumption” in an attempt to frustrate the application of the Analogue Act, which states that controlled substance analogues shall, “to the extent intended for human consumption,” be treated as a controlled substance in Schedule I,²⁸ the most restrictive of the five schedules in the CSA.²⁹

¹⁹ Olga Khazan, *Synthetic Drugs Are Multiplying Too Fast for Regulators to Outlaw Them*, THE ATLANTIC (Jun. 27, 2013), <http://www.theatlantic.com/international/archive/2013/06/synthetic-drugs-are-multiplying-too-fast-for-regulators-to-outlaw-them/277321/>.

²⁰ Rannazzisi, *supra* note 1, at 5–19.

²¹ Office of Nat’l Drug Control Policy, *supra* note 3.

²² Rannazzisi, *supra* note 1, at 6.

²³ *Id.*

²⁴ *Id.* at 6.

²⁵ *Id.* at 5–6.

²⁶ Mary Kilpatrick, *Houma Drug Profits May be Tied to Middle East, Police Say*, WWLTV.COM (Jun. 27, 2013), <http://www.wwltv.com/news/lafourche-terrebonne/213360701.html>.

²⁷ Rannazzisi, *supra* note 1, at 5.

²⁸ *Id.*; 21 U.S.C. § 813 (2012).

²⁹ Drugs, substances, and certain chemicals used to make drugs are classified into five distinct schedules in the CSA depending upon the drug’s acceptable medical use and the drug’s abuse or dependency potential. The abuse rate is a determinate factor in the scheduling of the drug; for example, Schedule I drugs are considered the most dangerous class of drugs with a high potential for abuse and potentially severe psychological and physical dependence.

Young people are the primary users of synthetic cannabinoids.³⁰ According to the 2013 Monitoring the Future survey of youth drug-use trends, about eight percent of twelfth graders in America reported using synthetic cannabinoids in the past year.³¹ This rate puts synthetic cannabinoids as the third most frequently used drug among high school seniors after marijuana and amphetamines.³² Many young people have tried synthetic cannabinoids and suffered adverse health consequences believing that, because these products can be bought in a store or are marketed online as being legal, they must be safe.³³

In reality, use of synthetic cannabinoids can be extremely harmful. Clemson University Professor John W. Huffman, credited with synthesis of some of the first cannabinoids such as JWH-018, was quoted as saying “these things are dangerous—anybody who uses them is playing Russian roulette.”³⁴ The contents and effects of synthetic cannabinoids have profound psychological effects.³⁵ They are also unpredictable due to a constantly changing variety of chemicals used in manufacturing processes devoid of quality controls and government regulatory oversight.³⁶

B. Synthetic Cathinones

A number of synthetic cathinone products are central nervous system stimulants.³⁷ They attempt to mimic the effects of traditional stimulants such as amphetamine, ecstasy, and cocaine.³⁸ Common compounds found in synthetic cathinones include methcathinone, methylone (3,4-methylenedioxy-N-methylcathinone), and 4-MEC (4-methyl-N-ethylcathinone).³⁹ Unlike methamphetamine, ecstasy, and cocaine, these substances are marketed as legal alternatives to banned drugs.⁴⁰ They are sold under the guise of products such as

³⁰ Press Release, Drug Enforcement Agency, DEA News: Nationwide Synthetic Drug Takedown (Jul. 26, 2012), available at <http://www.justice.gov/dea/pubs/pressrel/pr072612.html>.

³¹ LLOYD D. JOHNSTON ET AL., MONITORING THE FUTURE, 2013 OVERVIEW: KEY FINDINGS ON ADOLESCENT DRUG USE 13, 59 (2014), available at <http://www.monitoringthefuture.org/pubs/monographs/mtf-overview2013.pdf>.

³² *Id.* at 59–60.

³³ Rannazzisi, *supra* note 1, at 4.

³⁴ David Zucchino, *Scientist's Research Produces a Dangerous High*, L.A. TIMES (Sept. 28, 2011), <http://www.latimes.com/news/nationworld/nation/la-na-killer-weed-20110928,0,2646834.story?page=1>.

³⁵ *Id.*

³⁶ Office of Nat'l Drug Control Policy, *supra* note 3.

³⁷ Rannazzisi, *supra* note 1, at 12.

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

“bath salts” and “plant food” and, similar to synthetic cannabinoids, are labeled “not for human consumption” in an attempt to avoid application of the Analogue Act.⁴¹

Most synthetic cathinones are made in bulk in Asia, primarily China, and shipped to distributors in the United States.⁴² Similar to synthetic cannabinoids, synthetic cathinones are sold at small retail locations such as gas stations and online under brand names such as “Ivory Wave,” “Vanilla Sky,” and “Energy-1.”⁴³ Powder and crystal forms of synthetic cathinones are sold for \$20 to \$50 for approximately 500 milligrams and are snorted, smoked, or injected by users.⁴⁴

C. Other Synthetic Drugs

Other substances associated with this new generation of synthetic drugs include phenethylamines, piperazines, tryptamines, and arylcyclohexamines.⁴⁵ The 2C compound series, a category of phenethylamines, have become popular hallucinogenic drugs.⁴⁶ These substances are often promoted as legal alternatives to LSD (lysergic acid diethylamide).⁴⁷ Unlike synthetic cannabinoids and cathinones, these substances are often sold on blotter paper or in dropper bottles.⁴⁸ They are also not found in retail environments and are instead sold primarily online for between five dollars and ten dollars per dosage.⁴⁹ An especially strong variety of the 2C series, 25I-NBOMe, was linked to at least fourteen deaths in a fourteen-month period during 2012 and 2013.⁵⁰

Piperazines are a class of compounds that are often sold as legal ecstasy and are marketed to produce euphoria in users.⁵¹ Tryptamines are sold as hallucinogens and can cause changes in sensory, visual, and gustatory perceptions, among other effects.⁵² Arylcyclohexamines are a class of compounds that are structurally and pharmacologically similar to PCP (phencyclidine), a drug known for producing highly unpredictable behavior.⁵³ The substance most commonly found in products in this class, MXE (methoxetamine), is about 2.5 times more potent than PCP.⁵⁴

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.* at 12–13.

⁴⁴ *Id.* at 13.

⁴⁵ *Id.* at 16–19.

⁴⁶ *Id.* at 17.

⁴⁷ *Id.*

⁴⁸ *Id.* at 18.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *See id.*

⁵² *See id.* at 19.

⁵³ *See id.*

⁵⁴ *See id.*

D. The Rise and Adulteration of “Molly”

The term “Molly” dates back several years and has traditionally been used to describe the pure, high quality, powder form of ecstasy.⁵⁵ Molly became popular in the concert and club scenes and was mostly used by teenagers and people in their twenties.⁵⁶ Musical artists such as Miley Cyrus, Kanye West, and Rihanna have all included verses about Molly in their music.⁵⁷ However, synthetic drug manufacturers have attempted to cash in on the popularity of Molly by replacing the traditional Molly ingredient, MDMA, with a myriad of other substances, including ingredients commonly found in synthetic cathinone products.⁵⁸ Between October 2009 and September 2013, the DEA found that only thirteen percent of seized drugs believed to be Molly that were submitted to a laboratory in New York contained MDMA.⁵⁹ The results of the adulteration of Molly have been grave. In June 2013, at a large electronic music festival at the Gorge Amphitheatre in Washington State, one person died and 125 were hospitalized after taking a drug marketed as “Molly.”⁶⁰ In the one-week period surrounding Labor Day weekend in 2013, four people died in three East Coast cities after taking substances sold as “Molly.”⁶¹

The rise of Molly, and its subsequent adulteration, is an example of the dangerous uncertainty inherent in all synthetic drugs. Even if buying the same brand from the same dealer, users are unaware of what they are putting into their bodies from one package to the next. Chemical ingredients and dosage amounts vary widely. As exemplified by products being marketed as “Molly,” such uncertainty can be deadly.⁶²

III. A SENSE OF URGENCY IS NEEDED

A sense of urgency is needed to control synthetic drugs before they take permanent root in the U.S. drug market. There are three primary reasons reform is urgently needed: (1) decrease negative public health consequences; (2) prevent the incentive for large scale trafficking; and (3) eliminate an easy income stream for terrorist organizations. First, synthetic drugs endanger public health and burden the

⁵⁵ *See id.* at 13.

⁵⁶ Dave Savini, *2 Investigators: Overdoses of Drug ‘Molly’ Skyrocketing*, CBSLOCAL.COM (Oct. 8, 2013), <http://chicago.cbslocal.com/2013/10/08/2-investigators-overdoses-of-drug-molly-skyrocketing/>.

⁵⁷ *Molly Is a Drug & There Are a Lot of Songs About Molly*, HUFFINGTON POST (Sept. 5, 2013), http://www.huffingtonpost.com/2013/09/05/molly-drug-songs_n_3874047.html.

⁵⁸ Rannazzisi, *supra* note 1, at 15.

⁵⁹ Drew Griffin et al., *9 Things Everyone Should Know About the Drug Molly*, CNN (Nov. 23, 2013), <http://www.cnn.com/2013/11/22/health/9-things-molly-drug/>.

⁶⁰ Rannazzisi, *supra* note 1, at 14.

⁶¹ Peter Hermann & Jenna Johnson, *Clubgoer Who Died in D.C. Might Have Used Drug Linked to Deaths in Boston, New York*, WASH. POST (Sept. 5, 2013), http://www.washingtonpost.com/local/clubgoer-who-died-in-dc-might-have-used-drug-linked-to-deaths-in-boston-new-york/2013/09/05/e2245a8c-1662-11e3-804b-d3a1a3a18f2c_print.html.

⁶² *See id.*

healthcare system.⁶³ The potential threat of these substances to users themselves and the subsequent impact on our communities is alarming. According to a 2013 report by the Substance Abuse and Mental Health Services Administration's (SAMHSA) Drug Abuse Warning Network, 28,531 emergency department visits involving a synthetic cannabinoid product occurred in 2011.⁶⁴ This number of visits was 2.5 times higher than the 11,406 emergency department visits that took place in 2010.⁶⁵ In addition, in 2011 (the only year for which there is available data), bath salts products were involved in 22,904 emergency department visits.⁶⁶

In many hospitals around the country, emergency departments must regularly confront users of synthetic drugs, many of whom are in delusional states and are dangerous to hospital staff.⁶⁷ Communities in general are also seeing unpredictable and dangerous behavior caused by these substances.⁶⁸ Use of synthetic drugs can cause anxiety, tachycardia (fast, racing heartbeat), elevated blood pressure, tremors, seizures, hallucinations, paranoid behavior, and non-responsiveness.⁶⁹ It has also caused significant organ damage, as well as death.⁷⁰ Some users of synthetic cannabinoid products have described their experience under the drug as a hell from which they cannot escape,⁷¹ and online discussion boards are full of posts from users who have described harmful behavior under these substances.⁷² In at least one case, the anxiety produced from such an experience has led to suicide.⁷³

In addition, users of synthetic cathinones can experience a syndrome called "excited delirium," which can cause paranoia, severe agitation, and violent

⁶³ A *National Security Strategy for A New Century*, NAT'L SEC. COUNCIL (May 1997), <http://clinton2.nara.gov/WH/EOP/NSC/Strategy/>.

⁶⁴ *Drug Abuse Warning Network, 2011: National Estimates of Drug-Related Emergency Department Visits*, DEP'T OF HEALTH & HUMAN SERVICES (May 2013), <http://www.samhsa.gov/data/2k13/DAWN2k11ED/DAWN2k11ED.htm>.

⁶⁵ *See id.*

⁶⁶ *Data Spotlight: "Bath Salts" Were Involved in Over 20,000 Drug-Related Emergency Department Visits in 2011*, DAWN REPORT (SAMHSA) (Sept. 17, 2013), available at <http://www.samhsa.gov/data/spotlight/spot117-bath-salts-2013.pdf>.

⁶⁷ Michael Booth, *Denver ERs Say Synthetic Pot Spurs Surge of Agitated, Violent Patients*, DENVER POST (Aug. 29, 2013), http://www.denverpost.com/breakingnews/ci_23973376/.

⁶⁸ Rannazzisi, *supra* note 1, at 8.

⁶⁹ *See id.*

⁷⁰ Botticelli, *supra* note 9, at 2.

⁷¹ Anna Schechter, *Amazon.com Sells 'Legal Pot'*, ABC NEWS (Jun. 2, 2011), <http://abcnews.go.com/Blotter/amazon-sells-legal-pot/story?id=13743738>; SirDoughBoy, *Hell Inside My Own Mind Posting*, EROWID EXPERIENCE VAULTS (Apr. 17, 2012), <http://www.erowid.org/experiences/exp.php?ID=85174>.

⁷² *See Inoxia, A Trip Worse Than Hell*, EROWID EXPERIENCE VAULTS (Oct. 13, 2010), <http://www.erowid.org/experiences/exp.php?ID=85005>.

⁷³ Schechter, *supra* note 71.

behavior.⁷⁴ A study of two poison centers reported that fifty-seven percent of patients who used synthetic cathinones exhibited combative and violent behavior.⁷⁵ Emergency departments are often ill-equipped to handle the delusional state and ferocity of people under these substances.⁷⁶

The underlying reason as to why synthetic drugs pose such a significant risk to public health is their availability.⁷⁷ According to the Office of National Drug Control Policy, a 2013 poll of local law enforcement around the country reported that synthetic cannabinoids, synthetic cathinones, or both are readily available in their jurisdictions, and many reported an increase in availability.⁷⁸ Unlike traditional drugs such as cocaine, sellers of synthetic drugs market the sale of their “legal” products openly in small retail outlets and on the Internet, which reduces the barriers to purchase.⁷⁹ While most traditional drugs must be bought on street corners and back alleys, synthetic drugs can be bought from brick and mortar businesses or shipped directly to homes via the Internet.⁸⁰ Sellers openly market their products as legal because, due to an ambiguous federal analogue law, they can quickly change the chemical compositions of their products and then make the argument that they have not violated government bans.⁸¹ Should the availability of synthetic drugs persist, and should emergency departments continue to be inundated with users, America could end up in the middle of a drug epidemic on a scale it has never seen before.

The second reason that a sense of urgency is needed is the potential for violent Drug Trafficking Organizations (DTO) to enter the synthetic drugs business. Because the profits from synthetic drugs are so immense, international criminal syndicates, particularly DTOs, are likely to become major players in synthetic drug trafficking if demand persists.⁸² The DEA currently estimates that synthetic drugs arrive in the United States primarily from Asian manufacturers who are not bound by the same controls on substances that American manufacturers are.⁸³ However, because DTOs already have extensive distribution networks in place, it is unlikely

⁷⁴ See Penders et al., *supra* note 11, at 647–50.

⁷⁵ Henry A. Spiller et al., *Clinical Experience with and Analytical Confirmation of “Bath Salts” and “Legal Highs” (Synthetic Cathinones) in the United States* 49 *CLINICAL TOXICOLOGY* 499, 499–505 (2011), available at <http://new.dhh.louisiana.gov/assets/docs/BehavioralHealth/BathSaltsarticlefromClinicalToxicologyJuly2011.pdf>.

⁷⁶ Booth, *supra* note 67.

⁷⁷ See Ethridge, *supra* note 18.

⁷⁸ Botticelli, *supra* note 9.

⁷⁹ Rannazzisi, *supra* note 1, at 5.

⁸⁰ *Id.* at 28.

⁸¹ *Id.*

⁸² See BEITTEL, *supra* note 12.

⁸³ Rannazzisi, *supra* note 1, at 6.

they will stay out of the synthetic drugs business if they believe they are missing out on easy profits.⁸⁴

The recreational drug market in North America is estimated to be valued at approximately \$121 billion.⁸⁵ The enormous amounts of money that can be made from selling drugs have given rise to large DTOs, many of which are headquartered in Mexico.⁸⁶ Violence, including mass killings, torture, political assassinations, and car bombs, is an inherent feature of DTOs.⁸⁷ It is estimated that between 2006 and 2012 there were 60,000 organized crime related homicides in Mexico.⁸⁸

With immense profits to be made, DTOs will almost certainly enter the synthetic drug market if they have not already done so. A 2012 United Nations resolution highlighted “the potential opportunities for transnational organized criminal groups to exploit the market for these substances.”⁸⁹ While the total market for synthetic drugs in the U.S. is difficult to estimate, perhaps because of its relatively recent appearance in this country, by one estimate, the North American market for synthetic cannabinoids alone is \$5 billion.⁹⁰

Perhaps more concretely indicative of the large amounts of money to be made in the synthetic drugs business were two DEA-led synthetic drugs law enforcement operations in 2012 and 2013 that seized currency and assets of \$45 million and \$53 million respectively.⁹¹ During the 2013 operation, a synthetic cannabinoids distributor near Houston told undercover DEA agents that he initially invested \$80,000 and turned it into \$6 million.⁹² This distributor noted that “you can’t rob banks and make this kind of money.”⁹³ DTOs would be highly interested in such a lucrative new revenue stream, especially because they already have the proper infrastructure in place with drug distribution networks in more than 1,000 U.S. cities.⁹⁴ They are also already heavily involved in the trafficking of traditional synthetic drugs, such as methamphetamine.⁹⁵ The resulting competition for synthetic

⁸⁴ NAT’L DRUG INTELLIGENCE CTR., U.S. DEP’T OF JUSTICE, NATIONAL DRUG THREAT ASSESSMENT: 2011 (Aug. 2011), available at <http://www.justice.gov/archive/ndic/pubs44/44849/44849p.pdf>.

⁸⁵ Ben Paynter, *The Big Business of Synthetic Highs*, BLOOMBERG BUSINESSWEEK (Jun. 6, 2011), <http://www.businessweek.com/printer/articles/57544-the-big-business-of-synthetic-highs>.

⁸⁶ BEITTEL, *supra* note 12.

⁸⁷ *Id.* at 1.

⁸⁸ *Id.* at 37.

⁸⁹ U.N. Comm. on Narcotic Drugs Res. 55/1, 9th Plenary Sess. (Mar. 2012).

⁹⁰ Paynter, *supra* note 84.

⁹¹ Rannazzisi, *supra* note 1, at 24.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ NAT’L DRUG INTELLIGENCE CTR., *supra* note 84.

⁹⁵ Tony Rizzo, *Mexican Meth Flows into the Kansas City Area*, KANSAS CITY STAR (Aug. 17, 2013), <http://www.kansascity.com/2013/08/17/4417695/mexican-meth-flows-into-the-kansas.html>.

drug sales supremacy among DTOs, clashes over territory with existing distributors, and conflict with law enforcement, would be bloody. In addition, synthetic drugs would likely become even cheaper and easier to purchase than they already are as the resources and distribution networks of large DTOs create economies of scale.

The third reason that a sense of urgency is needed is that the U.S. synthetic drugs market has also attracted the attention of terrorist organizations looking for quick and easy financing opportunities.⁹⁶ The DEA has stated that the proceeds from synthetic drug sales in America have gone to countries in the Middle East,⁹⁷ and news reports specify that millions of dollars of such proceeds are flowing into the hands of terror groups.⁹⁸ While the connection between terrorism and drugs is not a new phenomenon,⁹⁹ the connection with synthetic drugs in particular makes sense. Instead of needing acres of land and field workers to grow poppy or coca plants, all terrorist organizations need to make synthetic drugs is a laboratory and a chemist.¹⁰⁰ The internet can provide most of the necessary information on ingredients and recipes.¹⁰¹ The organization would then only require a willing distributor in the United States to whom products could be shipped. Because of the link between synthetic drugs and terrorism, the harm is twofold; terror groups harm Americans by selling them dangerous synthetic substances while using the profits to finance terror operations.¹⁰²

IV. A SYSTEM OF INSUFFICIENT FEDERAL STATUTORY REGULATION

While the potential for an increase in harms associated with synthetic drugs continues to grow, Congress has done surprisingly little to update the CSA to meet the unique challenges of these substances. The CSA, enacted in 1970, regulates the manufacture, possession, use, importation, and distribution of certain drugs, substances, and precursor chemicals.¹⁰³ Under the CSA there are five schedules, with Schedule I being the most restrictive.¹⁰⁴ Originally, there were only two ways to schedule substances. First, Congress could schedule through legislation.¹⁰⁵ Second, the Attorney General (through the DEA), with a recommendation from the Secretary of Health and Human Services (HHS), could schedule through the formal

⁹⁶ Box, *supra* note 13; Cloherty & Zhang, *supra* note 13; Kilpatrick, *supra* note 13.

⁹⁷ Press Release, Drug Enforcement Admin., Updated Results from DEA's Largest-Ever Global Synthetic Drug Takedown Yesterday (Jun. 26, 2012), *available at* <http://www.justice.gov/dea/divisions/hq/2013/hq062613.shtml>.

⁹⁸ Box, *supra* note 13; Cloherty & Zhang, *supra* note 13; Kilpatrick, *supra* note 13.

⁹⁹ *Narco-Terrorism: International Drug Trafficking and Terrorism—A Dangerous Mix: Hearing before the S. Comm. on the Judiciary, 108th Cong. 103–06 (2003)* (statement of Steven C. McCraw, Assistant Director, Office of Intelligence, FBI).

¹⁰⁰ *See id.*

¹⁰¹ *See id.*

¹⁰² Box, *supra* note 13; Cloherty & Zhang, *supra* note 13; Kilpatrick, *supra* note 13.

¹⁰³ 21 U.S.C. §§ 801–971 (2012).

¹⁰⁴ 21 U.S.C. § 812 (2012).

¹⁰⁵ U.S. CONST. art. I, § 1.

rulemaking process.¹⁰⁶ The CSA mandated that eight factors be considered when scheduling through formal rulemaking, which is often referred to as “permanent scheduling.”¹⁰⁷ However, it soon became apparent that these two methods were not sufficient to keep pace with the changing landscape of drugs in the late 1970s and early 1980s.¹⁰⁸ As a result, Congress made two amendments to the CSA.¹⁰⁹

The first change made by Congress came in 1984 and gave the Attorney General, who delegated to the DEA, temporary scheduling authority.¹¹⁰ Often referred to as “emergency scheduling,” this authority allows the DEA to place a substance onto Schedule I of the CSA to “avoid imminent hazards to public safety.”¹¹¹ Only three of the eight factors considered in the permanent scheduling process must be considered when the DEA is determining whether a substance is an imminent hazard: (1) the drug’s history and pattern of abuse; (2) scope, duration, and significance of abuse; and (3) risk to public health.¹¹² Also, the DEA does not need to go through the formal rulemaking process when using its temporary scheduling authority.¹¹³ The scheduling goes into effect thirty days from the date the DEA publishes its notice of temporary scheduling in the Federal Register and notifies the Secretary of HHS.¹¹⁴ Once a substance has been scheduled through the temporary scheduling process, a substance may remain on Schedule I for up to three years.¹¹⁵

The second amendment Congress made to the CSA was to enact the Analogue Act in 1986.¹¹⁶ The law was meant to “prohibit persons who specifically set out to manufacture or to distribute drugs which are substantially similar to the most dangerous controlled substances from engaging in this activity.”¹¹⁷ The Analogue Act provides that a “controlled substance analogue shall, to the extent intended for human consumption,” be treated as a controlled substance in Schedule I.¹¹⁸ As interpreted by various courts, to establish that a substance falls within the definition of a “controlled substance analogue,” a federal prosecutor must prove the following elements:

¹⁰⁶ 21 U.S.C. § 811 (2012).

¹⁰⁷ *Id.*

¹⁰⁸ *See Dangerous Synthetic Drugs: Hearing Before the United States S. Caucus on Int’l Narcotics Control*, 113th Cong. 1 (2013) (statement of Timothy J. Heaphy, U.S. Attorney, Western District of Virginia).

¹⁰⁹ *See id.*

¹¹⁰ *See id.*; *see also* 21 U.S.C. § 811(h) (2012).

¹¹¹ 21 U.S.C. § 811(h) (2012).

¹¹² 21 U.S.C. § 811(c) (2012).

¹¹³ 21 U.S.C. § 811(h).

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ 21 U.S.C. § 813 (2012); *see also* Heaphy, *supra* note 108.

¹¹⁷ *See United States v. Forbes*, 806 F. Supp. 232, 235 (D. Colo. 1992) (quoting S. Rep. No. 99–196, at 5); *see also* Heaphy, *supra* note 108.

¹¹⁸ 21 U.S.C. § 813.

- (1) the substance was intended for human consumption; AND
- (2) the chemical structure of the substance is substantially similar to the chemical structure of a schedule I or II controlled substance; AND EITHER that
- (3) the substance has a similar or greater pharmacological effect on the central nervous system than a schedule I or II controlled substance; OR that
- (4) with respect to a particular person, that such person represents or intends the substance to have a pharmacological effect substantially similar to or greater than a schedule I or II controlled substance.¹¹⁹

Soon after law enforcement first began to encounter significant quantities and varieties of synthetic cannabinoids and cathinones in 2008, it became apparent that the existing CSA was not a sufficient tool to combat this new generation of synthetic drugs.¹²⁰ Small retail shops and internet sites were openly selling such substances without fear of prosecution.¹²¹ Amazon.com was even allowing independent retailers to sell synthetic cannabinoids as “herbal incense” products on its website.¹²² Because these new synthetic substances were not scheduled, the Analogue Act became federal law enforcement’s primary enforcement authority.¹²³ As a result, the number of individuals charged under the Analogue Act increased significantly.¹²⁴ Between 1984 and 2011, the Analogue Act had only been used to prosecute sixty-two individuals.¹²⁵ Between 2011 and September 2013, 280 individuals were similarly charged.¹²⁶

However, those attempting to prosecute manufacturers and sellers of this new generation of synthetic drugs under the Analogue Act have encountered a challenging road to conviction. According to Timothy J. Heaphy, U.S. Attorney for the Western District of Virginia, the primary prosecutorial challenge is that expert testimony must be used to convince lay juries that an analogue is “chemically similar” to a scheduled drug.¹²⁷ Heaphy explained that whether compounds are substantially similar or dissimilar are subjective opinions, rendering each expert’s testimony open to debate.¹²⁸ This debate—which is often described as a “battle of the experts”—is especially difficult because of the government’s burden to convince juries lacking scientific expertise that a substance is an analogue “beyond a

¹¹⁹ 21 U.S.C. § 802(32); *see* Heaphy, *supra* note 108, at 2–3.

¹²⁰ *See* Rannazzisi, *supra* note 1, at 28–29.

¹²¹ *See id.* at 5.

¹²² *See* Margo Gray, *Synthetic Drugs Still Available Online, with Consequences*, WAFF.COM (Oct. 17, 2011), <http://www.waff.com/story/15716481/synthetic-drugs-still-available-online>.

¹²³ *See* Heaphy, *supra* note 108, at 2.

¹²⁴ *See id.*

¹²⁵ *See id.*

¹²⁶ *See id.*

¹²⁷ *See id.* at 3.

¹²⁸ *See id.*

reasonable doubt.”¹²⁹ In addition, substances that are proven in one case to be analogues do not carry over to subsequent cases.¹³⁰ Such challenges to proving that a drug is an analogue under the CSA complicates successful prosecutions, and the uncertainty present in Analogue Act cases can be a reason why overburdened federal prosecutors may choose not to pursue such cases.¹³¹

Congress attempted to fix the deficiencies in the CSA by enacting the Synthetic Drug Abuse Prevention Act of 2012 (SDAPA).¹³² However, SDAPA fell far short of implementing the changes needed to stem the growing tide of synthetic drug use. SDAPA placed twenty-six of the most common synthetic drugs into Schedule I of the CSA.¹³³ These included fifteen synthetic cannabinoids, two synthetic cathinones, and nine synthetic phenethylamines in the 2C compound series.¹³⁴ The law also added five “cannabimimetic agents” to Schedule I, which was essentially an effort to ban all of the broad structural classes of synthetic cannabinoids.¹³⁵ SDAPA also doubled the maximum amount of time the DEA could temporarily schedule a substance from eighteen months to three years.¹³⁶

While Congress deserves credit for enacting SDAPA, it must do more. The law only served to buy time against the flood of synthetic drugs impacting America. It did not directly address the fundamental statutory problem: that the DEA’s temporary scheduling authority and the Analogue Act were not designed to, and are not capable of, providing sufficient statutory tools for law enforcement and prosecutors against the vast quantities of synthetic drugs that have inundated America since 2008. SDAPA banned twenty-six substances, but hundreds more were ready to take their place.¹³⁷ In fact, the DEA estimates that there are at least 250 synthetic drug compounds currently in the market.¹³⁸ A September 25, 2013 statement by a senior DEA official in front of Congress puts the effect of SDAPA into context: “[t]he extent and magnitude of the trafficking, regional distribution, and use of these drugs remains a problem since the passage of SDAPA and, in fact, designer drugs continue to proliferate throughout the country.”¹³⁹

¹²⁹ *See id.*

¹³⁰ *See Botticelli, supra* note 9.

¹³¹ *See id.*

¹³² Food and Drug Administration Safety and Innovation Act, Pub. L. No. 112–44, §§ 1151–53, 126 Stat. 1130 (2012).

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ *See Rannazzisi, supra* note 1, at 29.

¹³⁸ *See id.*

¹³⁹ *See id.* at 9.

V. RECOMMENDATION ONE: CONGRESS SHOULD GRANT THE DEA A NEW,
“IMMEDIATE SCHEDULING” AUTHORITY

The DEA’s scheduling authority should be enhanced in order to meet the intent of the original 1984 temporary scheduling amendment to the CSA. The DEA has attempted to combat synthetic drugs through its current temporary scheduling authority, but it is fighting an uphill battle. In 2011, the DEA temporarily scheduled five synthetic cannabinoids and three synthetic cathinones that were eventually permanently scheduled.¹⁴⁰ In addition, in 2013, the DEA temporarily scheduled three more synthetic cannabinoids and three synthetic phenethylamines.¹⁴¹

These temporary scheduling actions by the DEA do not come close to keeping up with the vast numbers of synthetic substances in the market. Under the current statutory system, the DEA is being forced to constantly play catch-up against synthetic drug manufacturers and distributors that are always one or two moves ahead. Enacted in an era where it was difficult to imagine the speed of today’s world commerce that is quickened by the proliferation of internet access, cell phones, and other technologies, the temporary scheduling law and Analogue Act are simply outdated.¹⁴²

The temporary scheduling process, while a faster and more flexible authority than permanent scheduling, still requires a significant expenditure of time and resources by the DEA, making it an ill-suited tool to keep pace with the quickly changing synthetic drug supply.¹⁴³ The relatively few temporary scheduling actions that have taken place since 2008 compared to the high volume of synthetic substances is telling.¹⁴⁴ The DEA must collect, analyze, and study data related to abuse of synthetic drugs in a manner sufficient to satisfy consideration of the three factors required to state that a substance is an “imminent hazard.”¹⁴⁵

Satisfying consideration of these factors may have been a wise congressional check on the DEA’s authority in 1984, but that was also before the Internet and other technologies changed the speed of world commerce. The technology and knowledge needed to quickly synthesize new synthetic drugs has become ubiquitous.¹⁴⁶ For example, a manufacturer in China, upon learning that a substance has been scheduled in the U.S., can go through the relatively easy process of synthesizing a chemically similar, yet different substance and have it for sale on a website in a few

¹⁴⁰ Temporary Placement of Five Synthetic Cannabinoids into Schedule I, 76 Fed. Reg. 11075 (proposed Mar. 1, 2011) (to be codified at 21 C.F.R. pt. 1308).

¹⁴¹ Temporary Placement of Three Synthetic Cannabinoids into Schedule I, 78 Fed. Reg. 11075 (proposed May 16, 2013) (to be codified at 21 C.F.R. pt. 1308); Temporary Placement of Three Synthetic Phenethylamines into Schedule I, 78 Fed. Reg. 61991 (proposed Oct. 10, 2013) (to be codified at 21 C.F.R. pt. 1308).

¹⁴² See Timothy P. Stackhouse, *Regulators in Wackyland: Capturing the Last of the Designer Drugs*, 54 ARIZ. L. REV. 1105, 1111 (2012).

¹⁴³ See Rannazzisi, *supra* note 1, at 10.

¹⁴⁴ See Botticelli, *supra* note 9.

¹⁴⁵ 21 U.S.C. § 811(h) (2012).

¹⁴⁶ See Rannazzisi, *supra* note 1, at 5.

days.¹⁴⁷ A few days later, that substance could be on sale by local distributors in the United States.¹⁴⁸ A new scheduling authority is needed to narrow the uneven playing field that currently exists between federal law enforcement and synthetic drug manufacturers and sellers.

The DEA should be given a brand new “immediate scheduling” authority that is completely separate from its current temporary scheduling power and is specifically designed to combat synthetic drug analogues. This authority would allow for faster temporary scheduling, would be narrower in scope, and would expire quicker. Specifically, immediate scheduling, as recommended here, would authorize the Attorney General, through the DEA, to do the following:

- (1) Place on Schedule I of the CSA any substance that falls within the major compound classes of synthetic drugs, including synthetic cannabinoids, synthetic cathinones, phenethylamines, piperazines, tryptamines, and arylcyclohexamines.
- (2) (a) The DEA would be required publish its intent to schedule in the Federal Register.
(b) Thirty days following the date of publication in the Federal Register, the substance would be placed on Schedule I of the CSA.
- (3) The scheduling of substances under this process would expire at the end of six months, except that the DEA could extend the scheduling for up to six months, for a total amount of time not to exceed one year.
- (4) (a) The Secretary of HHS would have a “veto” authority to deny any proposed scheduling action under this scheduling process once the DEA has published a notice of intent to schedule in the Federal Register.
(b) The Secretary of HHS would also have the ability to remove any substance placed on Schedule I of the CSA through this scheduling process at any time.

This immediate scheduling authority would allow the DEA to schedule a substance that it believes to be a dangerous synthetic drug without expending the time and resources necessary to analyze the substance against the three factors required in temporary scheduling. It would also resolve the most significant challenge to prosecutions under the Analogue Act: proving beyond a reasonable doubt—through a battle of experts in court—that a substance is chemically similar to a scheduled drug. Under a system of immediate scheduling, the DEA would simply use its authority to immediately schedule substances it believes to be dangerous analogues. Eliminating this prosecutorial hurdle would make prosecutors more certain of outcomes in court and thus more willing to pursue synthetic drug cases. It would also act as a deterrent to manufacturers and sellers who could no longer claim ignorance based on the excuse that substances they were selling were not specifically scheduled.

While the DEA would not be required to provide evidence and analysis of its reasons for scheduling when using this authority, there are three important checks on the DEA’s power under this recommendation. First, the DEA would only be authorized to schedule substances in the primary compound classes that currently encompass the synthetic drug market. By limiting immediate scheduling authority to

¹⁴⁷ See Gray, *supra* note 122.

¹⁴⁸ See *id.*

synthetic drugs, the DEA would only be given immediate scheduling authority to control substances that, due to a quickly changing product supply, require a fast and unfettered scheduling process.

Second, the Secretary of HHS would have absolute veto and removal power over the process. This would allow the Secretary to disallow the scheduling of any substance that would negatively impact public health and medical research interests. For example, if the DEA sought to immediately schedule a chemical that was also used in cancer research, the Secretary would have the authority to block the DEA's scheduling attempt. In reality, the Secretary would likely only need to make the DEA aware that the chemical was important to research, and the DEA would withdraw the scheduling action themselves. However, because the Secretary is closer to the medical community than the DEA, it is important that the Secretary have a defined responsibility in immediate scheduling. Third, the expiration timeframe of a maximum of one year for substances scheduled under this authority would allow enough breathing room for the DEA to collect further data for potential permanent scheduling, but would limit the time allotment to balance the lack of initial evidence and analysis needed for immediate scheduling.

VI. RECOMMENDATION TWO: THE DEA SHOULD IMPROVE INFORMATION SHARING WITH STATES

States play a vital role in the effort to control synthetic drug use in America. Many states have shown themselves to be more willing than Congress to enact serious synthetic drug control legislation. In fact, by the time SDAPA was passed into law in July 2012, many states had already enacted laws.¹⁴⁹ For example, Iowa's synthetic drug law, a similar law to SDAPA, was passed almost a full year prior to SDAPA.¹⁵⁰ By the time SDAPA was passed, Iowa was working on upgrading its synthetic drug law.¹⁵¹ Overall, at least forty-five states have banned one or more synthetic cannabinoids,¹⁵² and at least forty-three states have banned one or more synthetic cathinones.¹⁵³

In addition, many state attorneys general across the country have identified synthetic drugs as a priority issue during their tenure.¹⁵⁴ Many of these attorneys

¹⁴⁹ Rannazzisi, *supra* note 1, at 9; *Substituted Cathinones (A.K.A. "Bath Salts") Enactments*, NAT'L CONFERENCE OF STATE LEGISLATURES (Nov. 2012), <http://www.ncsl.org/research/civil-and-criminal-justice/SUBSTITUTED-CATHINONES-ENACTMENTS.ASPX>.

¹⁵⁰ Amy Erickson, *Experts Confirm Synthetic Drug Use in Northwest Iowa*, LEMARS DAILY SENTINEL (Jan. 23, 2012), <http://www.lemarssentinel.com/story/1807570.html>.

¹⁵¹ Emily Carlson, *Synthetic Drugs: Illegal Drugs in Iowa*, WHOTV.COM (May 25, 2012), <http://whotv.com/2012/05/25/synthetic-drugs-illegal-drugs-in-iowa/>.

¹⁵² Rannazzisi, *supra* note 1, at 15.

¹⁵³ NAT'L CONFERENCE OF STATE LEGISLATURES, *supra* note 149.

¹⁵⁴ See *Protecting Floridians from Synthetic Drugs*, FLA. OFFICE OF THE ATTORNEY GEN., <http://myfloridalegal.com/pages.nsf/Main/E8A7D22B0760FDEF85257A45004C799A> (last visited Dec. 2, 2013).

general have emergency scheduling authority, which they use frequently.¹⁵⁵ For example, since taking office in January 2011, Florida's current attorney general has used her emergency scheduling authority three times to temporarily schedule thirty-two synthetic substances.¹⁵⁶ Emergency scheduling authority is an especially valuable tool at the state level because legislatures are often only in session for a few months each year and thus only able to legislatively schedule substances during these months. This reality leaves large time gaps for new, unscheduled synthetic drugs to emerge. Emergency scheduling authority allows attorneys general to temporarily place synthetic substances on state scheduling lists and then wait for legislatures to reconvene for permanent legislative scheduling.¹⁵⁷

While many states are eager to control synthetic drugs, they often do not have the resources and manpower to identify all the substances that are flooding into their forensic laboratories in a timely manner.¹⁵⁸ State and local forensic laboratories that were seeing only a small number of standard drug types a few years ago are now inundated, and often encumbered, as they attempt to identify a vast array of new synthetic drugs.¹⁵⁹ The delay in identifying new substances leads to a delay in legislative or emergency scheduling, which helps create the "whack-a-mole" cycle described above.¹⁶⁰

Increased information sharing by the DEA can help resolve the whack-a-mole cycle. In contrast to states, whose knowledge of forensic testing and law enforcement seizures of new substances are limited to what takes place within their own borders, the DEA has a national perspective.¹⁶¹ The DEA's National Forensic Laboratory Information System (NFLIS) includes data from forensic laboratories that handle approximately ninety percent of an estimated one million distinct annual state and local drug analysis cases.¹⁶² NFLIS includes forty-nine state forensic systems and ninety-four local forensic systems.¹⁶³ It also includes the DEA's and CBP's forensic systems.¹⁶⁴

Because the DEA is the only entity in the country with a complete national perspective on synthetic drugs, it should provide states with as much information as possible to allow them to keep pace with, or stay ahead of, the quickly changing

¹⁵⁵ See *Florida Synthetic Drug Scheduling Actions 2011–2013*, FLA. OFFICE OF THE ATTORNEY GEN., [http://myfloridalegal.com/webfiles.nsf/WF/RMAS-98NQAK/\\$file/History-of-AGs-Scheduling-Actions.pdf](http://myfloridalegal.com/webfiles.nsf/WF/RMAS-98NQAK/$file/History-of-AGs-Scheduling-Actions.pdf) (last visited Dec. 2, 2013).

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ Botticelli, *supra* note 9.

¹⁵⁹ *Id.*

¹⁶⁰ Khazan, *supra* note 19.

¹⁶¹ DRUG ENFORCEMENT ADMIN., NATIONAL FORENSIC LABORATORY INFORMATION SYSTEM: 2012 ANNUAL REPORT 4 (2012), available at http://www.deadiversion.usdoj.gov/nflis/2012/annual_rpt.pdf.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

synthetic drug supply. The DEA currently shares raw information related to the chemical structure and characteristics of synthetic drugs it identifies on swdrug.org, a website for federal, state, and local forensic law enforcement personnel.¹⁶⁵ However, the DEA must go a step further and actively monitor NFLIS to immediately alert states of new substances that should be scheduled.

The DEA's ability to know what new synthetic substances are emerging across the United States in real time through NFLIS would allow the DEA to effectively warn states about new synthetic drugs. For example, if a new synthetic cannabinoid is identified in a forensic laboratory in Ohio, the DEA, upon seeing the presence of a new substance in NFLIS and deeming it a threat, could alert states. Legislatures around the country could then add the new synthetic cannabinoid to lists of substances they plan on banning during the current legislative session or, for attorneys general with emergency scheduling authority, during their next round of emergency scheduling. As a result, the new synthetic cannabinoid that was first discovered in Ohio would be banned before it even arrived in the rest of the country.

VII. RECOMMENDATION THREE: THE DEPARTMENT OF STATE AND THE DEA SHOULD PRIORITIZE THE DEVELOPMENT OF A GLOBAL EARLY WARNING SYSTEM

The synthetic drug (or "new psychoactive substance," as it is referred to by the international community) problem is international in scope and cannot be effectively controlled by the United States alone.¹⁶⁶ According to the United Nations Office on Drugs and Crime (UNODC), an ever-increasing number of synthetic drugs have emerged across the world in recent years.¹⁶⁷ Indeed, eighty-eight percent of countries that responded to an UNODC survey reported the emergence of synthetic drugs.¹⁶⁸ In addition to the United States, synthetic substances are especially prevalent in many European countries.¹⁶⁹ The largest European country, Russia, is an example of a nation that has seen devastating consequences as a result of synthetic drugs.¹⁷⁰

The harmful effects in Russia stem in part from the prevalence of a particularly dangerous synthetic drug called "krokodil" (or crocodile).¹⁷¹ Krokodil, also known by its chemical name, desomorphine, is manufactured and marketed to mimic heroin, although its effects are not as long lasting.¹⁷² It is also cheaper than heroin and can

¹⁶⁵ See *Monographs*, SCIENTIFIC WORKING GRP. FOR THE ANALYSIS OF SEIZED DRUGS, <http://www.swdrug.org/monographs.htm> (last visited Dec. 2, 2013).

¹⁶⁶ U.N. OFFICE ON DRUGS & CRIME, *supra* note 10, at 59.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.* at 67.

¹⁶⁹ *Id.*

¹⁷⁰ Meghan Ralston, *Desperation Breeds Disaster: The Ugly Truth About Krokodil*, HUFFINGTON POST (Sept. 27, 2013), http://www.huffingtonpost.com/meghan-ralston/krokodil_b_4005804.html.

¹⁷¹ Maria Vultaggio, *Crocodile Drug Photos: What Russia's 'Zombie' Krokodil Can Do*, INT'L BUS. TIMES (Sept. 27, 2013), <http://www.ibtimes.com/crocodile-drug-photos-what-russias-zombie-krokodil-can-do-nsfw-1412670>.

¹⁷² Ralston, *supra* note 170.

be made relatively easily in homes.¹⁷³ In Russia, a country with a serious heroin problem and few treatment options, many heroin addicts have made the switch to krokodil.¹⁷⁴ The results have been alarming.

Krokodil gets its name from its flesh rotting effect on the skin of its users.¹⁷⁵ Users' skin turns scaly and continues to harden and turn gray before rotting away, a process known as necrosis.¹⁷⁶ In addition, the life expectancy of users is only two to three years.¹⁷⁷ Because it is so addictive (more addictive than heroin), and because Russia generally lacks a drug treatment infrastructure, users are unable to quit.¹⁷⁸ As a result, the number of users has skyrocketed.¹⁷⁹ Between 2009 and 2011, the amount of krokodil seized in Russia increased twenty-three fold, and in the first three months of 2011 alone Russian authorities confiscated sixty-five million doses.¹⁸⁰

Fortunately, krokodil has not yet reached the United States.¹⁸¹ The DEA reported in October 2013 that NFLIS had not registered a desomorphine submission in the United States since 2004.¹⁸² However, the scourge of krokodil in Russia is just one example of the harmful international prevalence of synthetic drugs. And, as with other international challenges, controlling synthetic drug use will require international cooperation, especially due to the quickly changing nature of the product supply.

Preliminary steps have been taken at the international level to confront synthetic drugs, and the U.S. has been a part of advocating for progress.¹⁸³ Most importantly, the United Nations Commission on Narcotic Drugs (CND), of which the U.S. is a member, enacted Resolution 55/1 in 2012, which requested that the UNODC create a global early warning system.¹⁸⁴ The CND reaffirmed its request to the UNODC in 2013 with Resolution 56/4.¹⁸⁵ The UNODC has since created an early warning

¹⁷³ Vultaggio, *supra* note 171.

¹⁷⁴ Ralston, *supra* note 170.

¹⁷⁵ Charles Poladian, *Krokodil Comes to America: First Cases of 'Russia's Most Dangerous Drug' Reported in Arizona*, INT'L BUS. TIMES (Sept. 26, 2013), <http://www.ibtimes.com/krokodil-comes-america-first-cases-russias-most-dangerous-drug-reported-arizona-1411282>.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ *See* Ralston, *supra* note 170.

¹⁷⁹ *Id.*

¹⁸⁰ Simon Shuster, *The Curse of the Crocodile: Russia's Deadly Designer Drug*, TIME (Jun. 20, 2011), <http://content.time.com/time/world/article/0,8599,2078355,00.html>.

¹⁸¹ DRUG ENFORCEMENT ADMIN., DESOMORPHINE FACT SHEET (2013), http://www.deaddiversion.usdoj.gov/drug_chem_info/desomorphine.pdf.

¹⁸² *Id.*

¹⁸³ Rannazzisi, *supra* note 1, at 27.

¹⁸⁴ U.N. Comm. on Narcotic Drugs Res. 55/1, *supra* note 89.

¹⁸⁵ U.N. Comm. on Narcotic Drugs Res. 56/4, 10th Plenary Sess. (Mar. 2013).

system, but it is in its infancy.¹⁸⁶ The creation of such a system—which is meant to monitor synthetic drug activity worldwide and alert countries of new synthetic substances—is an important step at the international level.¹⁸⁷

However, in order for the system to be effective, it must incorporate information from domestic systems across the world, particularly countries with high synthetic drug use. The Department of State—the agency with primary U.S. authority at the UNODC and CND—with assistance from the DEA, should make development of the system a foreign affairs priority and take the international lead on implementation.¹⁸⁸ As a country with a significant amount of synthetic drug use, it is in the interest of the United States to use its influence to ensure the UNODC’s early warning system is robust.¹⁸⁹ The U.S. should therefore invest the diplomatic time and energy, monetary resources, and political capital to develop the system.

First, the U.S. should incorporate its equivalent of a domestic early warning system, NFLIS, into the UNODC’s system as soon as possible. This would show the rest of the world that the United States will lead by example regarding development of the system. The next priority would be to incorporate the European Union’s early warning system. The European Union’s system—the only regional early warning system in existence—comprises twenty-seven European Union countries, as well as Norway, and two European Union candidate countries, Croatia and Turkey.¹⁹⁰ Individual countries with significant synthetic drug problems, such as Russia, Canada, and Australia, should also be prioritized for early inclusion into the UNODC’s system.¹⁹¹

It is possible to imagine a reality where new synthetic drugs would only last a few weeks on the street in one country before the entire world was aware of information pertaining to their chemical structure, trafficking, and use. Governments around the world would then be able to schedule or otherwise control and prepare for these substances before they arrive. Such a system would be especially effective in the United States should it be combined with recommendation two above. Indeed, if the DEA alerted states to new synthetic drugs identified at both the international and domestic levels through NFLIS, as incorporated into the UNODC’s early warning system, instead of playing catch-up with synthetic drug manufacturers, states would then have the advantage. For such a reality to come to fruition, the U.S. must first take the lead on developing the nascent UNODC early warning system.

VIII. CONCLUSION

Synthetic drugs pose unique challenges to government control efforts due to a quickly changing product supply and the ability of manufacturers and retail sellers to

¹⁸⁶ *Designer Drugs on The Rise as Demand for Traditional Drugs Levels Off*, UN Reports on World Drug Day, U.N. NEWS CENTRE (Jun. 26, 2013), <http://www.un.org/apps/news/story.asp?NewsID=45272#.U965ZfldVrU>.

¹⁸⁷ *Id.*

¹⁸⁸ See *Department Organization*, U.S. DEP’T. OF STATE, <http://www.state.gov/r/pa/ei/rls/dos/436.htm> (last visited Dec. 2, 2013).

¹⁸⁹ Rannazzisi, *supra* note 1, at 29.

¹⁹⁰ U.N. OFFICE ON DRUGS & CRIME, *supra* note 10, at 74.

¹⁹¹ *Id.* at 79–100.

market them to the general public as “legal” alternatives to illicit drugs. Urgent action must be taken to prevent these substances from taking permanent root in the U.S. drug market. The consequences of inaction are likely to lead to a rise in negative public health effects,¹⁹² violent DTOs competing with law enforcement and each other for a lucrative new revenue stream,¹⁹³ and more profits going to finance terror groups.¹⁹⁴

The federal statutory regime, particularly the DEA’s temporary scheduling authority and the Analogue Act, were not designed to, and are not capable of, providing federal law enforcement and prosecutors with effective tools to control these substances.¹⁹⁵ A fast and flexible new “immediate scheduling” authority is needed. In addition, with Congress unwilling to prioritize synthetic drugs, states, who are more willing to act but do not have the resources or national perspective to keep up with the quickly changing product supply, need the DEA to use NFLIS to alert them of new synthetic substances emerging across the country.¹⁹⁶ Finally, because synthetic drugs are a problem that is international in scope, the U.S. should make the development of a strong UNODC global early warning system a foreign policy priority.¹⁹⁷

The effort to control synthetic drugs in America is not a fight that can be “won” or “lost.” These substances and their progeny will likely be with us for the indefinite future. However, by prioritizing the issue early and taking the steps discussed above, their potentially devastating consequences can be limited. Based on the speed and ease in which these substances are created and evolve in a globalized world, time is of the essence.

¹⁹² See Penders et al., *supra* note 11, at 647–50.

¹⁹³ See BEITTEL, *supra* note 12, at 38–39; Paynter, *supra* note 12.

¹⁹⁴ Box, *supra* note 13; Cloherty & Zhang, *supra* note 13; Kilpatrick, *supra* note 13.

¹⁹⁵ 21 U.S.C. § 813 (2012); 21 U.S.C. § 811 (2012).

¹⁹⁶ Botticelli, *supra* note 9, at 5.

¹⁹⁷ See *supra* Part VII.