# SAVING LIVES AND PROTECTING SOCIETIES FROM SYNTHETIC OPIOIDS

A U.S.-CHINA JOINT RESOURCE GUIDE TO FIGHTING FENTANYL

THE FINAL REPORT OF THE U.S.-CHINA COMPREHENSIVE DRUGS DIALOGUE, PHASE I

EDITED BY INHR, SUPPORTED BY PAX SAPIENS

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## TABLE OF CONTENTS

Chapter One – Introduction and Summary 5
Chapter Two – May and November 2024 and March 2025 Comprehensive Drugs Dialogue (CDD) Meeting Recommendations7
Chapter Three – China-U.S. Cooperation on the Fentanyl Crisis is Very Possible: Bilateral Cooperation on Fentanyl Can Save Lives, Protect Societies and Punish Drug Traffickers
Chapter Four – Imposing Tariffs on China Is Not a Choice to Tackle the U.S. Fentanyl Issue
Chapter Five – Fentanyl Is a Global Problem, Not a Political Chip 29
Chapter Six – The Evolution and Current State of China-U.S. Counternarcotics Cooperation
Chapter Seven – Rebuilding Consensus on Establishing Strategic Mutual Trust: Implications for China-U.S. Counternarcotics Cooperation 
Chapter Eight – China Contributes Wisdom to Tackling Global Drug Problems
Chapter Nine – Washington and Beijing Don't Understand Each Other's Fentanyl Positions: Perception Gaps are a Major Problem in the Fight Against Drug-Trafficking
Chapter Ten – Anti-Drug Cooperation: Cultural and Historical Implications for China and U.S. Relations
Chapter Eleven – American Experiences with Opioids and Related Attitudes about China
Chapter Twelve – Drug Regulation and Punishment of Drug Offenses in China: Its State Control Dimension
Chapter Thirteen – U.SChina Drug Enforcement Collaboration 91
Chapter Fourteen – Applying Law Enforcement Thinking of Crime Control to the Wicked Problem of the North American Fentanyl Crisis 95
Chapter Fifteen – Responsible Care and Know Your Customer 103
Chapter Sixteen – Observations on the ESG practices of Chinese Pharma Companies

Chapter Seventeen – Asia-Pacific Economic Cooperation (APEC): A Case Study for Chemical Precursor Control, Trade Facilitation, and Chemical Industry Cooperation
Chapter Eighteen – Drug Use in China: Current Status, Challenges, and Responses
Chapter Nineteen – Drug Use in the United States: Current Status, Challenges, and Responses
Chapter Twenty – Charting the Fourth Wave: Geographic, Temporal, Race/Ethnicity and Demographic Trends in Polysubstance Fentanyl Overdose Deaths in the United States, 2010–2021
Chapter Twenty-One – Applying Psychotherapeutic Principles to Enhance U.S. – China Cooperation on Drugs
Chapter Twenty-Two – The International Drug Control Regime and the Synthetic Drug Market

### **CHAPTER ONE – INTRODUCTION AND SUMMARY**

The Comprehensive Drugs Dialogue (CDD) is a U.S.-China expertlevel working group focused on considering the challenges of synthetic drugs from an interdisciplinary approach that combines policy, medical, law enforcement, private sector and bilateral relations. The CDD is a confidential dialogue in which U.S. and Chinese experts considered all aspects of the synthetic opioid crisis and made public and private recommendations to their governments and other stakeholders about how to contain the spread of synthetic opioids. This book serves as a final report of the first phase of the CDD and a resource to policy makers and other stakeholders interested in addressing synthetic opioids like fentanyl. The book was launched at the UN Commission on Narcotic Drugs in Vienna in March 2025 and is being translated into Chinese. An electronic version is available online at https://inhr.org/us-china.

Developed in partnership with and supported by PAX *sapiens* (the Arsenault Family Foundation), the Comprehensive Drugs Dialogue focuses on the following objectives:

- 1. Saving Lives
- 2. Protecting Societies
- 3. Punishing Drug Traffickers
- 4. Minimizing Emotion and Avoiding Blame and
- 5. Relying on Empirical Evidence to Find Win-Win Solutions to Address the Synthetic Opioids Crisis.

This resource guide is divided into sections based on the working groups that comprise the CDD. Views expressed in each chapter are those of each author. We open with recommendations to governments based on our multiple dialogue meetings. In the policy section that follows, articles by PAX founder Marcel Arsenault, Chinese Ambassador Fu Ying, and experts Vanda Felbab-Brown, Zhang Yong-an, Yanzhong Huang, and Wei Hongxia provide perspectives on the leading issues of concern in Washington and Beijing as the two powers decide whether their common interest in counternarcotics can overcome tension in other parts of the bilateral relationship. It also includes a 2024 public opinion poll conducted by PAX *sapiens* on how the U.S. public's view of China might change if China takes more visible actions to stop fentanyl precursors. Dr. Peter Reuter contributed through analysis of the dynamics of the US drug market.

In the law enforcement section, experts Liu Jianhong, Daniel Baldwin, and Hamish McCardle analyze the history of law enforcement cooperation on counternarcotics, ideas to strengthen cooperation, and China's legal structure for addressing synthetic opioids and shipment of chemical precursors. Former Justice Ministry official Zhang Xiaoming also contributed to this section. The private sector working group's resources highlight how responsible businesses, especially in the chemical industry, use Know Your Customer, and other Environmental, Social, and Governance programs to avoid shipping chemical precursors to traffickers. Cherie Weible, Dr. Anna Zhao and Dr. Khalid Tinasti's contributions are important resources for bringing the private sector into supply control efforts, including new proposals for building capacity to strengthen responsible supply chains through Asia-Pacific Economic Cooperation (APEC). Finally, the public health section provides excellent overviews on the current state of play for drug use and treatment in both China and the United States by doctors Hao Wei and Gavin Bart, and a historical look at the U.S. synthetic opioids crisis by Dr. Chelsea Shover. The section concludes with a psychological analysis of the challenge of trust-building by Dr. Peter Jackson. An issue paper for the CDD on the UN frameworks that govern synthetic opioids completes the extensive resources.

As the convenor and organizer of the CDD, INHR would especially like to thank Shanghai University's International Center for Drug Policy Studies, the China Institute of International Studies, Tsinghua University's Vanke School of Public Health, Grandview Institution and our other partners and participants too numerous to name for their support. Because the CDD is a confidential process, other participants and government stakeholders who contributed to this resource guide cannot be individually named but their contributions were invaluable. Finally, the CDD and this book would not have been possible without the work of INHR program officers Jack Johnson, Assel Alimbayeva, Maya Richardson and Edward Gao, Arsenault Family Foundation Beijing director Ming Zhongqiang, and PAX sapiens' Vice Presidents Dr. Conor Seyle and Caleb McCarry. While this report concludes the first phase of the CDD, subsequent phases will continue and expand this work, including analyzing the roles of Mexico, Canada, the United Nations and others involved in the synthetic opioids crisis.

Eric Richardson, INHR President, Geneva May 2025

## CHAPTER TWO – MAY AND NOVEMBER 2024 AND MARCH 2025 COMPREHENSIVE DRUGS DIALOGUE (CDD) MEETING RECOMMENDATIONS

Recommendations for the United States and Chinese governments were discussed and agreed by participants in the Comprehensive Drugs Dialogue (CDD) at each of its meetings, and subsequently conveyed to officials of both governments. They follow below.

## FIRST U.S.-CHINA COMPREHENSIVE DRUGS DIALOGUE May 22-24, 2024, Phuket, Thailand

#### RECOMMENDATIONS

Experts proposed the following recommendations for government experts working on reducing the flow of illicit synthetic opioids, including those in official working groups:

#### **A. PUBLIC RELATIONS AND POLICY DIRECTION**

- 1. Officials and experts can enhance mutual trust by starting from common policy objectives of saving lives, punishing drug traffickers, and protecting societies from the scourge of illicit synthetic opioids.
- 2. Ensure counternarcotics cooperation is framed in terms of public health and global crime, considering that both countries have a shared interest in maintaining the rule of law while promoting individual and social well-being.
- 3. Move away from blame for synthetic opioid overdose deaths to steps towards solving problems. Publicize successes more. Foster favorable conditions for bilateral counternarcotics cooperation.
- 4. Base criticisms of policies in the other country on empirical evidence and be willing to share that empirical evidence to support criticisms. Couple criticisms with admission of areas where the speaker's own country can improve its drug prevention and interdiction efforts. No country is flawless on this topic.
- 5. Build on historical precedents for cooperation such as China's classbased scheduling of all fentanyl-related substances in April 2019 and

past cases of joint mutual legal assistance and successful prosecutions.

- 6. Focus on technical cooperation, including exchanges on counternarcotics investigative technologies, to avoid cooperation becoming too tightly linked to ups and downs in the bilateral relationship.
- 7. Establish mechanisms for cooperation such that conversations will continue despite political ups and downs, which both sides know will be present in future.
- 8. Cooperate on stopping synthetic opioids for the value of counternarcotics cooperation itself. Demonstrate leadership to societies and globally on this topic.
- 9. Cooperate through international multilateral institutions such as the INCB and UNODC where possible to enhance bilateral cooperation.
- 10. Countries should reconsider where and how to earn Chinese support for the Global Coalition against Synthetic Opioids. The U.S. should not use the Global Coalition to criticize China if it seeks further counternarcotics cooperation.
- 11. Conduct more joint side events and public activities on counternarcotics, such as the side event at the Commission on Narcotic Drugs in March 2024.

#### **B. SUPPLY REDUCTION**

- 1. Consistent with international and domestic law and regulation, China should find mechanisms to facilitate law enforcement action and prosecution within China on export from China of unscheduled precursor chemicals to Mexican cartels including:
  - i. "Conspiracy" and "organized crime" laws;
  - ii. Anti-money laundering mechanisms;
  - iii. Provisions in China's 2019 updated law against "knowingly" supporting drug trafficking.
- 2. Establish a "trilateral discussion mechanism" between China, the U.S. and Mexico to determine appropriate and practicable measures throughout the supply chain (i.e., production, transit and consumption countries).
- 3. Share clear and reliable knowledge about criminal activity, shipments and sources of precursor chemicals on a systematic basis, not just case-by-case for purposes of prosecution. When information is shared, avoid ulterior motives, such as strategic indictments or entrapment, and weigh the cost-benefit of individual law enforcement cases against the overall status of cooperation.

Saving Lives and Protecting Societies from Synthetic Opioids

- 4. Make better use of private sector and industry mechanisms to reduce the supply of chemical precursors for illicit purposes. Enhance training on and adoption of ESG / RC programs and KYC regulations, including those already used in China. Study how to give private companies incentives for ESG/RC through government action.
- 5. Make more data available at a disaggregated level about flows of illicit synthetic opioids and their chemical precursors, by province in China and at state level in the U.S.

#### C. DEMAND REDUCTION

- Improve society-to-society understanding by "telling the fentanyl story" in both countries. The extent of U.S. fentanyl deaths and the impact of the synthetic opioid crisis is still not well-known in China outside expert circles. Use public messaging, polls (like the PAX *sapiens* poll summarized in Chapter 9) and even public service messages on mass media to tell the fentanyl story. Bear in mind that public awareness campaigns are most effective when highlighting successes and avoiding blame, and that individualized stories resonate with the general public more effectively than statistics.
- 2. Know each country's strengths: while U.S. treatment modalities are diverse and benefit from cutting edge information, new therapies and voluntary approaches, Chinese approaches to prevention benefit from a highly centralized system, surveillance capabilities, and scale.
- 3. Expand voluntary treatment modalities to decrease stigma and improve standards of living and community reintegration while ensuring deterrence.
- 4. Rebrand "harm reduction," seeking neutral definitions such as "gradualism."
- 5. Adopt big data systems for health analysis while considering respective values in each country such as public good and civil liberties.
- 6. Establish technology exchanges for the purposes of accurate drug testing, identification of sources of synthetic opioids, and improving expert capacities.
- 7. Promote knowledge exchange to evaluate the cost-effectiveness of alternatives to "incarceration" such as Chinese treatment centers and U.S. drug courts.

- 8. Establish neutral and apolitical measures for assessing the effectiveness of drug control policies, such as using the following indicators:
  - i. Drug prevalence rates;
  - ii. Law enforcement metrics;
  - iii. Health impact metrics;
  - iv. Social and economic impact;
  - v. Policy and program evaluation;
  - vi. Preventive education programs.

## SECOND U.S.-CHINA COMPREHENSIVE DRUGS DIALOGUE NOVEMBER 20-22, 2024 | SHANGHAI, CHINA

#### RECOMMENDATIONS

Experts proposed the following recommendations for government experts working on reducing the flow of illicit synthetic opioids, including those in official working groups:

#### A. LAW ENFORCEMENT:

- 1. Update DEA-NCB 2003 Memorandum of Agreement to reflect current drug control issues.
- 2. Consider expanding the basis for prosecuting fentanyl-related crimes to address cases.
- 3. Highlight the importance of focusing on financial networks, including crypto, underground banking system and organized crime.
- 4. Expand use of existing tools of law enforcement cooperation, such as mutual legal assistance, info sharing.
- 5. Recognize that the absence of an extradition treaty can limit effectiveness in fighting fentanyl-related crimes.
- 6. Encourage reciprocity between relevant agencies in the U.S. and China who work on illicit drugs.
  - Build resilience into cooperation and information sharing so cooperation continues despite ups-and-downs of bilateral relations when not reciprocated directly or linkage not accepted.
- 7. Focus on shipping, postal, customs and related logistical functions.

- 8. Examples where regular and routine info-sharing may be valuable:
  - i. Share info on U.S. shipments of NMRS (spectrometers) and other narcotics sensitive items.
  - ii. Share info on Chinese shipment of pill presses and other narcotics sensitive items to North America.

#### **B.** PRIVATE SECTOR & HEALTH CAPACITY:

- 1. Work with chemical industries in both countries to facilitate legitimate trade by expanding implementation of Responsible Care, Know Your Customer and related programs.
- 2. Use APEC Chemical Dialogue as a venue to provide technical assistance on controlling fentanyl precursors.
- 3. Work to reduce or eliminate irregular and illegal shipments by establishing and enforcing effective and standardized tracking formats that comply with international standards (e.g. UNODC, INCB scheduling and quotas).
- 4. Adopt and participate in joint data-sharing and transparency initiatives, including drug use trends, treatment outcomes and efficacy of medication and treatment strategies.
- 5. Technical assistance health and surveillance:
  - i. The U.S. could assist China with its system of counting (surveillance) addicts/cases.
  - ii. China could consider giving Ministry of Health responsibility for surveillance/counting.
  - U.S. can share best practices to address new psychoactive substances, including expanded access to treatment and best practices for use in rural areas.
- 6. Adopt a public health centered approach to demand & harm reduction.
- 7. Adopt and promote matrix indicators for good practice in drug treatment.
- 8. Build up management models and approaches in drug treatment.
- 9. Develop innovative technology for treatment and trace new psychoactive substances.
- 10. Decrease stigma towards individuals who use drugs, including through adoption of non-stigmatizing language (i.e. "use" rather than "abuse," "people who use drugs" rather than "addicts" or "drug users")

#### C. POLICY

- 1. Make U.S.-China cooperation sustainable by sharing responsibilities and leadership, developing inclusive programs and operating based on mutual respect.
- 2. Strengthen systems to track precursor shipments from point of origin to end-user and to address their diversion.
- 3. Maximize trilateral U.S.-China-Mexico cooperation where possible and use combinations of bilateral tools and approaches where necessary.
- 4. Consider the impact of U.S. policy actions towards Mexico on trilateral counternarcotics cooperation.
- 5. Consider the impact of Major's list and other U.S. sanctions on bilateral cooperation.
- 6. Identify and take advantage of opportunities for the U.S. and China to demonstrate global leadership in reduction in illegal supply and demand of synthetic opioids, including in UN and other multilateral fora.

## THIRD U.S.-CHINA COMPREHENSIVE DRUGS DIALOGUE MARCH 15-17, 2025 | VIENNA, AUSTRIA

## RECOMMENDATIONS

#### A. RECOMMENDATIONS FOR THE U.S. AND CHINESE GOVERNMENTS:

- 1. Resume Track I communications in a counternarcotics working group.
- Nominate officials to participate in or observe our Comprehensive Drugs Dialogue so that it becomes a Track 1.5 channel between Beijing and Washington.
- 3. Support work to have an APEC-funded training in China in 2026 on supply chain security in the chemical industry. Government and industry association endorsement may be necessary for this idea to proceed through a new APEC working group, possibly anti-corruption, as a host, if the APEC Chemical Dialogue sunsets.
- 4. Cosponsor a future CDD side event at the UN Commission on Narcotic Drugs in March 2026.

#### Saving Lives and Protecting Societies from Synthetic Opioids

- Protect technical level cooperation (such as Narcotics Control Bureau to Drug Enforcement Administration work) from the ebbs and flows of political developments in the bilateral relationship, such as tariff and trade discussions.
- 6. Include more discussion of financial flows and anti-money laundering in official and expert counternarcotics discussions.
- 7. Focus law enforcement cooperation at the case level, including information and intelligence exchange. At the same time, maintain a comprehensive view to ensure that prosecutors and case officers do not undermine overall cooperation.
- 8. Develop agreed statistics related to the chemical industry and precursor flows to depoliticize discussions about the synthetic opioid supply chain. Support joint U.S.-China expert-level studies on this topic.
- 9. Encourage greater participation in Responsible Care, Know Your Customer, and related programs. Provide requirements, encouragement and incentives for chemical manufacturers, supply chain partners and other stakeholders to adopt these responsible practices, such as expedited operating licensing or Customs clearance processing, as for example in the Customs Trade Partnership Against Terrorism program.
- 10. Include public health and addiction treatment experts regularly in anti-narcotics policy and law enforcement discussions.
- 11. Cooperate on prevention and counter-drug messaging.
- 12. Invest more in prevention and addiction treatment programs, so as to address both demand and supply. Studies have shown that the impact of supply reduction programs is minimal, thus the need to balance demand reduction is critical for effectiveness and also to make discussions between the U.S. and China more reciprocal and less likely to result in blame.

#### B. RECOMMENDATIONS FOR THE CDD AND ITS PRIVATE DONORS:

1. Move from bilaterally focused dialogues to multilateral cooperation: expand participation in the CDD to include experts from Mexico and possibly Canada and the UN system.

- 2. Expand the topics of expertise in the CDD to include customs, anti-money laundering and expertise about Mexico, including Chinese experts on Mexico.
- 3. Support APEC-funded training in China in 2026 and supplement it with a privately run day of training in Responsible Care, Know Your Customer, and other responsible supply chain security initiatives for Chinese companies.
- 4. Continue private sector programs to help focus law enforcement effort on counternarcotics and separate out law abiding commercial transactions.
- 5. Explore private sector options to strengthen anti-money laundering protections and use technical solutions, such as blockchain and crypto monitoring, to avoid illegal sales to Mexican cartels.
- 6. Produce more studies and joint publications between U.S. and Chinese experts in the CDD, such as:
  - Translating the book *Saving Lives & Protecting Societies* into Chinese;
  - Supporting peer-reviewed publications to establish commonly agreed information and metrics about synthetic opioids.
- 7. Studying the cost-effectiveness of different interventions and the historical ineffectiveness of supply reduction.
- 8. Host another side event at the 2026 CND.
- 9. Attend the 4th International Forum on Drug Policy conference in Shanghai in July, 2025 and launch a Chinese version of the CDD resource book.

## POLICY

## CHAPTER THREE – CHINA-U.S. COOPERATION ON THE FENTANYL CRISIS IS VERY POSSIBLE: BILATERAL COOPERATION ON FENTANYL CAN SAVE LIVES, PROTECT SOCIETIES AND PUNISH DRUG TRAFFICKERS

#### By MARCEL ARSENAULT<sup>1</sup>

The United States and China need to work together to address the fentanyl crisis, which has cost hundreds of thousands of American lives. When the two countries do cooperate – such as in 2019 when then-U.S. President Donald Trump worked with Chinese President Xi Jinping to have China control fentanyl substances as a class – strong, positive and concrete actions can take place to disrupt the supply chain of fentanyl precursors coming from China into Mexico and ultimately to the United States. As again demonstrated in the past year, since the 2023 Woodside Summit between Xi and outgoing U.S. President Joe Biden, mutually beneficial cooperation is possible to stop this scourge.

But when the efforts of the major powers instead turn to a blame game where the issue of opioids becomes a political tool used to advance national narratives, the people of both the United States and China lose. In this latter environment, the only winners are drug traffickers, like those in Mexico's Sinaloa and New Generation Jalisco cartels, who profit from the pain and loss of American families and the law-breaking efforts of short-term profit seekers trying to skirt China's increasingly stringent measures against trafficking in synthetic opioids and their precursor chemicals.

China is a major producer of chemical precursors for legitimate pharmaceuticals and items that end up in illicit narcotics. Its industry provides many of the active pharmaceutical ingredients (API) and chemical precursors used to manufacture the world's antibiotics, and fentanyl used for pain management. These same medical precursors that generate life-saving drugs, or opioids used for hospital pain management, can be used by illegal actors for illicit drugs. In this context, it's not surprising that research by the Council on Foreign Relations reports that

<sup>&</sup>lt;sup>1</sup> Founder of PAX *sapiens*, a Denver based foundation dedicated to preventing predictable global catastrophes to build a more peaceful world; reprinted from The Diplomat, January 10, 2025.

illicit actors have used the supply chains provided by Chinese industry to source fentanyl.

China has nearly 200 years of counternarcotic efforts. From 1839-1842 and again from 1856-1860, tens of thousands of Chinese lost their lives in two Opium Wars fought against Britain, other European powers, and the United States. Tired of Western opium drug smuggling, the Chinese emperor sought to enforce Chinese laws against drug smuggling in the 1830s. The more powerful European forces won both Opium Wars establishing a series of unequal trade treaties, the first phase of which were imposed in 1842-1844 and the second round of which ended in 1860 with greater European and U.S. trading access to port cities, including the British concession on Hong Kong.

This history of China's counternarcotic efforts against Western forces is reinforced in China's education system and history lessons. The Chinese people despise drugs and drug trafficking. Motivated in part by mandatory incarceration policies toward drug users, the scope of China's domestic drug use of fentanyl and other synthetic opioids is incredibly small.

Given this, it might be tempting for Chinese officials to react to the United States' struggles with synthetic opioids by merely saying "that's your problem." But China is working with the U.S. to understand and combat the problem. Through increasing educational efforts, they have understood the impact of the fentanyl crisis on American societies and the pain and death fentanyl has caused to U.S. families.

In a series of official and expert-led discussions – including the China-U.S. bilateral counternarcotics working group and Track II dialogues sponsored by the Arsenault Family Foundation's PAX *sapiens*, Chinese experts and former officials have agreed to take efforts to advance counternarcotics prosecution, to improve private sector standards to avoid irregular shipment of fentanyl precursors to Mexico, and to learn about U.S. best practices in drug treatment. Those dialogues have led experts to consensus around three shared principles: 1) saving lives, 2) protecting societies, and 3) punishing drug traffickers. If Beijing and Washington jointly focus on these principles, the likelihood of successful cooperation increases.

Recently, positive cooperation has made a dent in the fentanyl epidemic in the United States. Whether one focuses on China's 2019 class wide action against fentanyl or the 2023 increase in prosecutions resulting from the bilateral China-U.S. counternarcotics working group, numbers don't lie. Fentanyl deaths in the United States have dropped nearly 10 percent in 2024 as opposed to a year earlier. Experts can debate whether that drop is entirely due to supply chain disruption, decreases in demand, or the increased availability of life-saving Narcan and related overdose reversal drugs, but the bottom line is clear: When the United States and China work together to fight drug trafficking in synthetic opioids and their precursors, results follow. By contrast, when the two countries squabble instead of cooperate, drug traffickers stand to profit.

The United States and China again stand at a crossroads in determining whether they will blame each other for a growing drug crisis or whether they will work together to address the problem. In a striking flashback to 200 years ago, we today again see trade and tariff discussions that could possibly undermine productive counternarcotics campaigns. Recently, U.S. officials have announced plans to implement harsh new tariffs against China and Mexico unless they stem the flow of fentanyl into the United States. Some in the U.S. Congress have gone so far as to claim – without persuasive evidence – that Chinese government organizations offer a bounty or reward for companies that can do the best job of exporting fentanyl to American drug users.

Even as the level of rhetoric rises, Chinese private and government actors remain willing to cooperate in the fight against synthetic opioids. But we need to be careful that we do not disrupt the valuable counternarcotics cooperation of the past year solely for political or rhetorical gains. To do so would resume an unconstructive blame game over whether Chinese supply or U.S. demand is more responsible for the fentanyl crisis and undercut gains that have been made to reduce fentanyl flows and deaths leading up to and since the 2023 APEC Summit.

#### MISUNDERSTANDING OR MISLEADING AMERICAN PUBLIC OPINION ON CHINA AND DRUGS

Why would some politicians focus on rhetoric rather than life-saving cooperation to stop the flow of fentanyl to drug users in their home districts and constituencies? It appears that a mistaken view of American public opinion may underlie such actions.

Earlier this year, PAX *sapiens* commissioned a public opinion poll asking more than 3,000 American households about their experiences with fentanyl and their opinions on who was to blame for the crisis. As published in our August 2024 report "Blame Game," we found that Americans across all demographic groups primarily blamed drug cartels, drug users and the U.S. federal government for the fentanyl crisis and overdose deaths in America.

Only after these three primary causes did the Americans surveyed consider the role of the Chinese or Mexican governments, alongside

overprescribing doctors, to be a significant factor in the fentanyl crisis. One has to wonder why some are trying to refocus the ire and sadness of American families who fell victim to the fentanyl crisis on China.

Our poll also found that Chinese efforts to help stop the flow of chemical precursors for fentanyl could be a significant factor in improving the American public opinion of China. Again, one has to wonder why popular rhetoric seems to take a different pathway and plunge China-U.S. relations back into a blame game.

#### THE UNDERLYING STORY OF CHINA-U.S. COOPERATION ON FENTANYL

Perhaps because of this rhetorical atmosphere, China's initiatives to work with the United States in addressing the fentanyl crisis frequently go unnoticed. Let's recognize the history of recent measures undertaken, beginning with Trump's first term in office.

Trump discussed the fentanyl crisis with Xi, resulting in a decision by China in December 2018 to take action against fentanyl. In 2019, China moved to control fentanyl substances as a class. This closed a loophole traffickers were using to get around regulations and led to a reduction in the amount of fentanyl being shipped directly from China to the United States. The White House also praised Chinese efforts to prosecute drug traffickers, noting it was a "direct result of President Trump's strong leadership on this issue... China's fentanyl trafficking and production prosecution is a positive step in following through on the pledge secured by President Trump."

Unfortunately, this progress was short-lived. Just as China's 2019 actions began to impact the availability of fentanyl in the United States, Mexican cartels responded by increasing the trafficking of finished fentanyl products across the Mexico-U.S. border, a problem that persists today. The coronavirus outbreak also changed the rhetorical direction and nature of China-U.S. cooperation on public health issues and took the public discourse back to the blame game, rather than focusing on positive cooperation.

#### **RESUMPTION OF COOPERATION AFTER THE WOODSIDE SUMMIT**

After four years of increasing flows of fentanyl across the Mexico-U.S. border, the U.S. and Chinese presidents agreed to resume counternarcotics cooperation on the margins of the 2023 San Francisco APEC Summit. Efforts such as intelligence sharing, case coordination, and the removal of online platforms facilitating drug trafficking have yielded some tangible results.

#### Saving Lives and Protecting Societies from Synthetic Opioids

This progress has been both top-down and bottom-up. First, highlevel leadership meetings motivated the cooperation. Building on the Biden-Xi Woodside Summit, Chinese State Councillor Wang Xiaohong, director of the National Narcotics Control Commission and minister of public security, met respectively with U.S. Secretary of State Antony Blinken and director of the national narcotics policy office of the White House, Rahul Gupta, who visited China in April and June 2024. Wang also held meetings or video calls with the U.S. Homeland Security Secretary Alejandro Mayorkas many times. The two countries established and launched a drug control cooperation working group. The first working group meeting was held in Beijing in January 2024, and the first high level meeting of the working group was held in Washington in July.

Political efforts have been followed up with China taking substantive measures: First, China added three new substances to its control list since the beginning of the year. On July 1, three new psychotropic drugs, including Dexmedetomidine, and 46 new psychoactive substances were added to the list, including nine nicotine-like substances that are of particular concern to the United States. On July 11, the Chinese side released a management announcement for veterinary anesthetics such as cytarazine that the U.S. is concerned about. On August 5, China implemented regulation on seven chemicals, including three precursor chemicals that can be used to manufacture fentanyl.

Second, in terms of intelligence exchange and case cooperation, the drug law enforcement departments of the two countries are cooperating on multiple cases. On June 19, a case was simultaneously announced, and the public security organs of Liaoning Province carried out work on drug money laundering clues reported by the United States. Chinese authorities investigated and arrested a man surnamed Tong on suspicion of illegal business operations in accordance with the law. This is a typical case of cooperation between the two sides.

Third, China has lawfully cleaned up, closed, and rectified 14 online platforms where fentanyl and other synthetic opioid precursors were traded. It also claims to have forcibly cancelled 332 corporate accounts, removed 1,016 online stores, cleaned up more than 150,000 pieces of information, and reported more than 10,000 items of marketing information related to fentanyl and its precursors to the United States. These efforts should be acknowledged.

The latest data highlights encouraging trends. According to the Centers for Disease Control and Prevention (CDC), overdose deaths in the United States decreased by 10 percent in 2023, with further reductions of 12.7 percent reported between May 2023 and May 2024. San Francisco, a city severely affected by the fentanyl crisis, experienced a 15 percent reduction in drug-related deaths. These achievements underscore the importance of continued international cooperation.

We have also seen that when provided with solid intelligence, Chinese law enforcement partners have shown when they can act and be effective. Of course, some believe China could, and should, be doing more; however their past efforts demonstrate a capacity and willingness to act.

We can take some cautious optimism from other developments, like the action Mexican government authorities took against drug traffickers, resulting in record fentanyl and precursor seizures in Sinaloa, Mexico in early December 2024. Continued actions like this could mark a critical milestone in the fight against fentanyl and present a unique opportunity for the three most affected countries – Mexico, China, and the United States – to collaborate, tracing the origins of the precursors involved and dismantling the entire supply chain from production to distribution.

It remains to be seen if rhetorical distractions about tariffs and migrant deportations will motivate further Mexican actions or whether they will undermine the incentive for Mexican officials to cooperate. Incoming U.S. President Trump's recent discussions with Mexican President Claudia Sheinbaum hint at both possibilities.

#### **ROLE FOR THE PRIVATE SECTOR**

Innovative ideas from the private sector also can come into play to help stop the scourge of fentanyl. For example, in the Track II dialogue convened by PAX *sapiens*, experts have identified ways to use the APEC Chemical Dialogue to help train the private sector in all of the region's economies to better monitor supply chains to check that chemicals are not diverted to drug trafficking and to improve governance measures like Responsible Care and Know Your Customer Programs.

As experts build out this proposal, it will be important to capture political and social support from all of the APEC member economies to encourage private sector involvement in this essentially social endeavor. At the same time, the history of successful APEC meetings of U.S. and Chinese leaders to address fentanyl and other areas of cooperation offers some hope. Perhaps progress can be announced when China hosts the 2026 APEC Summit, if not before.

#### **MORE WORK REMAINS TO BE DONE**

Because fentanyl is just one example of synthetic opioids, which are likely to continue to plague the international market, international cooperation must transcend blame and focus on actionable solutions. Actors in all corners of the globe need to work together to address synthetic opioids. As long as demand for drugs continues, traffickers will continuously shift their efforts and the chemical compounds used to produce addictive and life-threatening narcotics. The U.N. Office of Drugs and Crime has produced a useful toolkit of materials that all nations can use to try to better understand and counter trafficking in synthetic opioids. But still the locus of action remains primarily with Washington, Beijing, and Mexico City.

As the nation where demand drives the market, the United States has much it can continue to do to focus on reducing addiction. China, as a source of precursor chemicals, can reinforce its actions, as it has done effectively in the past, and make further effective actions to curb the ongoing use of precursor chemicals. Mexico, as a transit and production hub, can continue to intensify its enforcement efforts and dismantle cartels' operations. Each country has more it can do individually and working together, such as gathering intelligence and working to identify those responsible. Solving this crisis requires a shift in perspective, addressing the problem from its core rather than through competing narratives. The stakes are too high to allow inaction or division.

Let's acknowledge that we can tackle this together and recognize what has already been accomplished. Numerous lives hang in the balance. Together, we must build on the progress made and commit to sustained collaboration. It will be only through steadfast determination and a shared sense of responsibility that we will be able to move past this crisis.

## CHAPTER FOUR – IMPOSING TARIFFS ON CHINA IS NOT A CHOICE TO TACKLE THE U.S. FENTANYL ISSUE

#### **By Fu Ying<sup>2</sup>**

No single country can respond to the fentanyl challenge alone. What's needed is joint effort and sustained cooperation – not economic coercion.

A visiting American guest recently shared with me the deep pain gripping American society amid the fentanyl crisis. He right away won my sympathy and understanding. The Chinese people carry a painful memory of their own: the devastation wrought by drugs in our modern history.

When my daughter entered middle school, I insisted she visit the anti-drug exhibition. She was reluctant as she was always overwhelmed with schoolwork and barely had time for a movie, but I insisted: you must know this issue – and never, ever touch drugs in your life. For a mother, there is no higher priority than the child's health and well-being.

China has the strictest drug laws in the world. Cultivation, production, or trafficking of narcotics carries harsh criminal penalties. When I was ambassador to the United Kingdom, a British national received the death penalty in China for trafficking drugs. The British media reacted strongly, as society was angry about the case. I was summoned to the Foreign Office for a reproachment on a late Friday evening. I offered officials a history lesson on the Opium War of 1840 and reminded them that this man was caught with over 4 kilograms (4,030 grams to be exact) of heroin – enough to kill many young lives and plunge their families into grief.

The drug issue today has gone to another level. Modern chemistry has given rise to a new generation of synthetic narcotics. Unlike traditional drugs derived from plants, fentanyl is made in laboratories with chemical precursors plus a simple synthetic process. Its molecular structure can be easily modified, allowing illicit "chemists" to stay a step ahead of regulation.

<sup>&</sup>lt;sup>2</sup> Former vice minister of foreign affairs of China; reprinted from The Diplomat, April 21, 2025.

Fentanyl was originally developed as a powerful tool in modern medicine to relieve severe pain. Denying patients access to such treatment is inhumane. Yet its addictive potential and the irreversible harm caused by excessive use have also made it dreadfully dangerous.

The United States has been grappling with fentanyl abuse for over a decade. Demand has fueled a large, malevolent underground market. The challenge is: How can fentanyl be prevented from being diverted to criminal networks while ensuring legitimate access to medical precursors? And how to break the chain of illicit synthesis and trafficking?

No single country can respond to the challenges alone. They require joint effort and sustained cooperation – particularly among nations where abuse is rampant and those that manufacture the relevant chemicals.

China has maintained a remarkably low rate of drug abuse and successfully prevented large-scale fentanyl misuse within its borders. This has been achieved through a combination of measures: a sciencebased regulatory system including officially regulated fentanyl substances as a class in 2019, strict pharmaceutical oversight, robust law enforcement, widespread public education, and a comprehensive rehabilitation network.

As a major producer of chemical products, China also takes its international responsibilities seriously. It has strengthened controls over precursor chemicals, enhanced cooperation through bilateral and multilateral mechanisms, and worked closely with the United States in combating fentanyl trafficking. It's unreasonable for the U.S. to use the fentanyl issue as an excuse to impose tariffs on China.

There is a saying in Chinese: "When evil rises by a foot, righteousness must rise by ten." It means: Those who uphold justice must always stay ahead of those who do harm. Today, the U.S. needs to rise above the geopolitics and ideological hurdles and engage China with honesty and pragmatism. Then there would be no challenge we cannot face together.

Countries that produce chemical precursors should focus on building full-chain traceability systems to detect and shut down channels of leakage. And, more fundamentally, countries facing widespread drug misuse must strengthen education, improve domestic governance, and invest in communities, so as to effectively solving the problem from the demand side. Ultimately, the root of the crisis lies within.

If the U.S. is serious about working with China, there are many areas of opportunity: stronger law enforcement collaboration, intelligence sharing, and anti-money laundering cooperation, as well as joint research and development of addiction treatments and non-opioid pain relief.

But all of this depends on trust. Experts on both sides need space to build shared knowledge, expose trafficking networks, and pursue evidence-based enforcement.

China and the U.S. have the wisdom and capacity to work together. Imposing tariffs is not a productive choice.

## CHAPTER FIVE – FENTANYL IS A GLOBAL PROBLEM, NOT A POLITICAL CHIP

#### By MARCEL ARSENAULT<sup>3</sup>

Fentanyl is not a political issue. It's a global problem and politics can't distract us from the need to solve it.

For millions of Americans, fentanyl is a direct threat to them or their loved ones, and for all too many Americans it has already devastated families. Although the politicization of the issue is dangerous, it's good that political leaders are paying attention to the scope of fentanyl, and it's good that it's becoming a feature of international discussion and bilateral cooperation.

<u>A CDC report from 2025</u> a small but significant decrease in overdose deaths involving synthetic opioids, a welcome sign amid an epidemic of this magnitude.

Efforts such as the Global Coalition to Address Synthetic Drug Threats, launched by the U.S. Department of State in July 2023 with participation from over 150 countries (China has not formally joined), and the 2023 establishment of a working group between Mexico and China to exchange regulations, share intelligence, and conduct joint law enforcement operations, exemplify this commitment. US law enforcement agencies have also re-engaged internationally: the US DEA and Chinese counterparts have resumed technical cooperation, exchanging information on precursor chemicals and enforcement best practices signaling a cautious but functional relationship. Other US agencies, such as DHS, have realized some success in operations like Apollo, Blue Lotus, Artemis, and Rolling Wave, which target the fentanyl supply chain from precursors to production, transport, and distribution. The fentanyl crisis demands sustained cross-border cooperation such as these and over-politicizing risks derailing these efforts.

Canadian PM Mark Carney declared this week that, "<u>The U.S.</u>anchored global trade system... a system that, while not perfect, has helped our country's prosperity for decades—is over."

<sup>&</sup>lt;sup>3</sup> Founder of PAX *sapiens*.

Increasingly, international relations are being seen as a series of deals and all sorts of issues – international trade, military alliances, intellectual property, and others – are seen through a transactional lens by the US administration and other countries internationally.

Even as the data offers hope, the danger of politicizing the crisis remains high. There is a risk that fentanyl will become just another chip in a bargaining discussion, but the risk of that is larger than just the undoing of cooperation already underway. It's the risk of more deaths in the United States from overdoses, and more cracks in the system that allow criminal syndicates to develop and trade deadly drugs. It's imperative that even as tensions and trade wars increase, politicians must keep their eyes on the ultimate impact of the systems for cooperation on fentanyl that are in play, and prioritize sustaining them

## CHAPTER SIX – THE EVOLUTION AND CURRENT STATE OF CHINA-U.S. COUNTERNARCOTICS COOPERATION

#### By Dr. VANDA FELBAB-BROWN<sup>4</sup>

#### **EXECUTIVE SUMMARY AND INTRODUCTION**

China and Mexico are key actors whose collaboration is necessary for controlling the supply of synthetic opioids, such as fentanyl and nitazines, and their precursors as well as methamphetamine and its precursor. Yet, unfortunately, the United States has found establishing counternarcotics cooperation with both countries deeply challenging. In recent years, China-U.S. cooperation has been minimal to nonexistent.

In 2022, China altogether ended cooperation. Many U.S. law enforcement officials, policymakers, and scholars believe that China instrumentalizes international law enforcement assistance and subordinates it to its geostrategic relationships.

A Fall 2023 U.S.-China diplomatic breakthrough provides an important promise of strengthened cooperation, the robustness of which is to be seen in 2024 and beyond.

Until 2019, China was the principal source of finished fentanyl for the U.S. illegal market. Chinese brokers, acting in violation of U.S. laws, shipped fentanyl to dealers in the United States, often through postal and other courier services. In May 2019, after years of intense U.S. diplomacy, China placed the entire fentanyl class of synthetic opioids on a regulatory schedule. China had to pass new laws to be able to do so. China also adopted stricter mail monitoring procedures. As a result, instead of shipping finished fentanyl to the United States, Chinese brokers switched to shipping precursor chemicals to criminal groups in Mexico for the synthesis of fentanyl there. Some of these precursor chemicals have been scheduled, but others remain unscheduled, in part

<sup>&</sup>lt;sup>4</sup> Director, The Fentanyl Epidemic and Global Reach of Synthetic Opioids Series; Director, The Initiative on Nonstate Armed Actors; Co-Director, The Africa Security Initiative; Senior Fellow, The Brookings Institution, Washington, DC. Draws on testimony prepared by Vanda Felbab-Brown for the U.S. Senate Subcommittee on Emerging Threats and Spending Oversight, hearing "Strengthening International Cooperation to Stop the Flow of Fentanyl into the United States," March 20, 2024.

because they have widespread use in the legal manufacturing of chemical products and pharmaceutical goods.

Nonetheless, even when Chinese brokers sell nonscheduled chemicals to Mexican criminal groups, they often supply these precursors and pre-precursors with the explicit knowledge that the drugs will be synthesized into fentanyl and distributed in the illegal market. Chinese sellers sometimes accompany the chemicals with recipes of how to synthesize illegal drugs like fentanyl from the precursors they provide. They purposefully cater to drug trafficking groups in their directed Spanish advertisements that often bundle together uncontrolled fentanyl precursors, common cocaine adulterants, and unscheduled methamphetamine precursors. Some of their ads even highlight their capacities to "clear customs in Mexico." In other cases, Chinese companies operating online without Chinese internet signatures advertise their connections to international drug traffickers, such as in India, to appeal to illegal buyers in Mexico.

After more than two years of China denying counternarcotics cooperation to the United States and failing to mount internal enforcement against precursor flows, Beijing agreed to restart cooperation in November 2023.

China's principal motivation was to stabilize the U.S.-China relationship.

The United States devoted intense diplomacy to bring China back to cooperation. The United States organized the Global Coalition to Address Synthetic Drug Threats, which over 90 countries joined, but from which China abstained. The United States also placed China on its annual list of major drug-producing or transit countries. The U.S. Department of Justice issued indictments against Chinese networks selling nonscheduled precursors to Mexican cartels, and the Department of Treasury sanctioned various Chinese firms for their complicity in precursor smuggling to Mexican criminal groups. The United States also denied visa to various Chinese officials and business executives.

Various U.S. policymakers, law enforcement officials, and scholars still believe that China subordinates its anti-drug and anti-crime cooperation to its strategic calculus and views counternarcotics and law enforcement cooperation as a strategic tool to leverage for its other objectives. Thus, even while China's current goal is to reduce tensions, China's drug cooperation is vulnerable to new crises in the bilateral relationship.

To demonstrate its commitment, China took several steps in the runup to and after the November summit between President Xi Jinping and President Joe Biden, such as sending out notices to Chinese pharmaceutical companies that it was stepping up monitoring and shutting down websites selling precursors to Mexican criminal actors.

At the first meeting of the resurrected U.S.-China counternarcotics working group, China agreed to further cooperation steps, including those it previously denied to the United States, such as joint anti-money laundering efforts (AML) and cracking down on pill press exports.

Strengthening AML cooperation is all the more important since Chinese money launderers have become some of the world's leading ones and the go-to-launders for Mexican criminal groups. They have significantly expanded their presence in the Americas and in Europe. They utilize a wide range of innovative methods that avoid international wire transfers and pose particular obstacles for law enforcement.

Worrisomely, Mexican cartels are increasingly sourcing an expanding array of protected and unprotected species in Mexico coveted in China to pay for fentanyl and methamphetamine precursor chemicals. Because of the potency-per-weight ratio of synthetic opioids, precursor chemicals for fentanyl and other synthetic opioids are uniquely suited to be paid for by wildlife products. This method of payment generates dangerous threats to public health and biodiversity since it can spread zoonotic diseases.

Among the indicators by which the United States assesses China's seriousness about counternarcotics collaboration are:

- China's responsiveness to U.S. intelligence provision;
- Reciprocal sharing of intelligence;
- Arrests and prosecutions in China;

• The extent and consistency of China's monitoring and regulating of Chinese pharmaceutical and chemical industries; and

• Its willingness to adopt Know-Your-Customer (KYC) laws.

Yet China already warns that it is unlikely to deliver cooperation on several of these elements. Beijing insists, for example, that it cannot prosecute nonscheduled substances, claiming the lack of material support laws pertaining to organized crime. Because of economic costs, China also refuses to mandate and promote KYC laws.

#### **U.S.-CHINA COUNTERNARCOTICS COOPERATION**

After more than two years of China denying counternarcotics cooperation to the United States and failing to mount adequate internal enforcement, Beijing agreed to restart cooperation in November 2023. Its principal motivation was to stabilize the U.S.-China relationship. The

United States had also undertaken a set of diplomatic and law enforcement actions to bring China back to cooperation.

The diplomatic breakthrough was announced at the November 2023 meeting between President Joe Biden and President Xi Jinping. As part of the renewed cooperation, a joint U.S.-China counternarcotics working group was recreated.

To show its seriousness, China's National Narcotics Control Commission sent out notices to Chinese pharmaceutical companies across the country's provinces that it was now monitoring and enforcing precursor export controls. Like in 2019 and 2020, China also took down some Chinese websites that were selling precursor chemicals to international criminal groups.

However, an April 2024 investigative report by the Congressional Select Committee on the Strategic Competition between the United States and the Chinese Communist Party, *The CCP's Role in the Fentanyl Crisis*, found that the Government of China subsidizes what the United States deems illegal sale of precursor chemicals and banned drugs.

In return, Washington removed sanctions from the Institute of Forensic Science in China, which the United States had designated because of the institute's complicity in human rights abuses in Xinjiang. China long sought the removal of those sanctions.

In January 2024, the resurrected U.S.-China counternarcotics commission held its first meeting. High-level Chinese officials promised ambitious outcomes, even as non-action hedging did not completely disappear.

U.S. officials have told me that China has reciprocated in sharing intelligence after the United States provided Chinese law enforcement officials with intelligence about Chinese drug networks. Compared to the many years when the commission's previous iterations essentially amounted to platforms for mutual recrimination, at least some temporary progress appears to have been made.

China also agreed to expand its multilateral engagement on synthetic drug control, such as once again reporting drug data to the United Nations anti-drug agencies.

For the first time, China included several measures on which it had previously resisted cooperation. In one, China committed itself to enforcement cooperation on pill press exports, a vital element of the illegal drug trade enabling the production of lethal, fake pills. China had long shunned regulatory controls on pill presses to maximize its economic interests.

#### Saving Lives and Protecting Societies from Synthetic Opioids

China also committed itself to AML cooperation, another element on which China had long denied collaboration with the United States. Previously, U.S. officials were frustrated by the lack of China's cooperation with U.S. investigations into the role of Chinese networks laundering money for Mexican cartels. Overall, U.S. law enforcement agencies have had little visibility into China's banking sector and China's application of its AML controls. This time, representatives from Chinese banks, including the Bank of China, attended some of the U.S.-China counternarcotics side meetings in Beijing in January 2024.

Strengthening AML cooperation is always very useful, since beyond disrupting financial flows to criminal actors, AML investigations generate powerful intelligence on criminal networks. In the case of fentanyl and China, such collaboration is all the more important since Chinese money launderers have become some of the world's leading ones. Their collaboration with Mexican cartels is so efficient that they have been displacing the Black Peso Market. Chinese money laundering networks are also facilitating organized criminal groups' financial transactions in Europe.

Chinese money laundering networks utilize a wide variety of money laundering tools and constantly innovate their methods. Crucially, they often manage to bypass the U.S. and Mexican formal banking systems, thus evading established anti-money laundering measures. They simplify one of the biggest challenges for the cartels: moving large amounts of bulk money subject to law enforcement detection.

Chinese money laundering methods frequently avoid international wire transfers. Instead, they interface with the formal banking systems only within a country—Mexico, or the United States, and sometimes only within China. As described in Drazen Jorgic's Reuters special report, through a system of mirror transactions across several countries, Chinese money launderers deposit equivalent amounts of money across the money laundering chain. They interact with criminal actors, such as Mexican cartels, through encrypted platforms, burner phones, and codes. U.S. investigations and court cases reveal that the Bank of China has been among the Chinese financial firms utilized by Chinese operators to launder money for Mexican cartels.

Laundering through casinos is analogous to these informal money transfers: Bulk cash is brought to a casino in Vancouver, for example, where the cartel-linked individual loses it while his money laundering associate in Macau wins and pays the Chinese precursor smuggling networks. In recent years, such as between 2021 and 2023, China clamped down on money laundering and gambling in Macau and

encouraged countries in Southeast Asia and the Pacific, such as Australia, to cooperate with its effort to repatriate money to China.

Other money laundering and value transfers between Mexican and Chinese criminal networks include trade-based laundering, a form of money laundering extremely challenging for law enforcement to counter. An example of trade-based laundering includes Chinese launderers for CJNG buying shoes in China and reselling them in Mexico to give the cartel the necessary cash.

In the United States, Chinese money launderers have recently begun using counterfeit Chinese passports to open burner bank accounts. They swap cash for cashier's checks, with which they purchase iPhones and other luxury goods sought in China. The resale of these goods in China generates further profits for the money laundering networks.

Just like in Australia, a primary location of Chinese money laundering, Chinese money laundering networks in the United States are also moving into real estate, in addition to utilizing cryptocurrencies.

Other pernicious forms of money laundering and value transfer utilize Mexican wildlife and plant products, such as marine and terrestrial animals and timber. Beyond facilitating crime, they pose massive threats to Mexican biodiversity and risk spreading catastrophic zoonotic epidemics and pandemics, including to the United States.

Mexican cartels are increasingly sourcing an expanding array of protected and unprotected species in Mexico coveted in China—for Traditional Chinese Medicine, aphrodisiacs, other forms of consumption, or as a tool of speculation—to pay for fentanyl and methamphetamine precursor chemicals. Such products include turtles, tortoises, crocodilians and other reptiles, jellyfish, abalone, sea cucumber, and other seafood, parrots, and jaguars as well as various hardwoods. The swim bladder of the endemic and protected Mexican totoaba fish, which is highly prized in Chinese markets, is a notorious example. Instead of paying in cash, Mexican cartels pay Chinese precursor brokers in these commodities.

The amount of value generated by such wildlife commodity payments, likely in the tens of millions of dollars, may not cover all of the precursor payment totals and is unlikely to displace other methods of money laundering and value transfer. But the potency-per-weight ratio of synthetic opioids makes their precursors very cheap—their total value likely also amounts to only tens of millions of dollars. Thus, precursor chemicals for fentanyl and other synthetic opioids are uniquely suited to be paid by wildlife products, and this method of payment generates highly dangerous threats to public health and biodiversity.
Moving bulk cash across the U.S.-Mexico border is an increasingly dated method.

#### WHY CHINA RESTARTED COUNTERNARCOTICS COOPERATION

In the last several years, U.S.-China relations deteriorated to a level of tensions unseen in decades across a wide range of issues—including military alliances and power projection in the Asia-Pacific, China's facilitation of Russia's egregious war against Ukraine, Chinese spying of sensitive technologies, and Taiwan. With China's economic growth slowed since COVID-19, the intensified competition has put further strains on China.

Yet by the summer of 2023, both countries came to desire a more stable rivalry and looked for a way to put a floor underneath their relationship's freefall. Resurrecting bilateral counternarcotics enforcement and military-to-military exchanges and increasing cooperation on climate change mitigation and artificial intelligence were all opportunities to do so.

Moreover, U.S. diplomacy took several important actions. In July 2023, the United States organized and launched a new Global Coalition to Address Synthetic Drug Threats. Although China prides itself on being a tough drug cop and tends to be very active in global counternarcotics diplomacy, it abstained from joining while nearly 100 countries signed up.

In September 2023 the United States placed Beijing on its annual list of major drug-producing or transit countries (aka the Majors List). While some countries have become indifferent to the listing, calculating they can escape sanctions through U.S. national security interest exceptions, these reputational costs are believed to matter to China.

Also in 2023, the U.S. Department of Justice issued a set of powerful indictments against Chinese networks selling nonscheduled precursors to Mexican cartels, and the Department of Treasury sanctioned various Chinese firms. The indictments centered on prohibitions of material support to organized crime groups and revealed Chinese suppliers are knowingly selling to Mexican cartels and providing them with formulas and kits on how best to process the nonscheduled chemicals into fentanyl. China has long justified its inaction against these flows by insisting it cannot act against nonscheduled chemicals, such as the dual-use precursors from which much of fentanyl is produced today.

Finally, the United States denied visas to various Chinese officials and business executives, while the U.S. Congress held multiple hearings

on China's role in the U.S. drug epidemic and a U.S. Senate delegation to China emphasized the issue.

#### U.S. EXPECTATIONS OF CHINA-U.S. COLLABORATION

The United States has long hoped to get China to delink anti-crime cooperation from the overall state of the bilateral relationship and establish strong law enforcement cooperation separate from geopolitics.

In fact, many U.S. experts and policy officials assess that China sees counternarcotics and more broadly international law enforcement cooperation as strategic tools that it can leverage to achieve other objectives. As Beijing's hopes for improvements in U.S.-China relations declined in 2021, so too did China's willingness to coordinate with Washington on counternarcotics objectives. Thus, even though China's current goal is to reduce tensions, China's drug cooperation is vulnerable to new crises in the bilateral relationship.

Moreover, various U.S. policymakers and law enforcement officials believe that Beijing only occasionally acts against the top echelons of large and powerful Chinese criminal syndicates.

The United States is looking toward the following indicators to judge the serious China's commitment to counternarcotics cooperation:

- China's responsiveness to U.S. intelligence provision;
- Reciprocal sharing of intelligence;
- Arrests and prosecutions in China of criminal syndicates and brokers selling fentanyl, nitazines, xylazine, and synthetic opioid precursors to international criminal actors;
- The extent and consistency of China's monitoring and regulating of Chinese pharmaceutical and chemical industries; and
- China's willingness to adopt KYC laws.

Yet China already warns that it is unlikely to deliver cooperation on several of these elements. For example, China cautions that it will not be able to mount many arrests and prosecutions.

China insists that it cannot prosecute nonscheduled substances, identifying the lack of material support laws pertaining to organized crime as the reasons. The United States expects that China will either strengthen the laws or find other legal mechanisms to make such indictments and prosecutions of Chinese violators, such as under conspiracy and fraud charges.

Beyond regular, not just one-off, messaging that China is now serious about controlling drug and precursor exports and the above-cited prosecutions, China's willingness to promote the adoption of KYC laws

#### Saving Lives and Protecting Societies from Synthetic Opioids

and practices across these industries is another important measure and goal of the United States. Designed to protect institutions against fraud, participation in organized crime, corruption, money laundering, and terrorist financing by mandating that companies and individuals perform due diligence on their customers and do not engage in business with those that fall into the above categories, KYC laws are now commonplace around the world. Yet China has been reluctant to adopt such policies, arguing that such measures are too economically costly.

However, the United States should not judge the extent of China's cooperation by the number of drug-induced deaths in the United States. Even if China were to robustly cooperate, deaths may not dip: In illicit drug markets, there are always lags of months or years between effective supply actions and retail changes. Besides, Mexican cartels have stockpiles of precursors, and they can source them from other sources, such as India or South Africa.

Moreover, if drugs like xylazine (which is not responsive to the overdose medication naloxone) and other synthetic opioids like nitazenes start spreading beyond the East Coast (and escalate in Europe), overdose deaths will spike beyond the currently high levels.

#### CONCLUSIONS

As vast numbers of Americans are dying from fentanyl overdose and Chinese and Mexican criminal groups expand their operations around the world and into a vast array of illegal and legal economies, the United States must strengthen access to evidence-based treatment and harm reduction measures. But supply-side efforts also remain imperative.

# CHAPTER SEVEN – REBUILDING CONSENSUS ON ESTABLISHING STRATEGIC MUTUAL TRUST: IMPLICATIONS FOR CHINA-U.S. COUNTERNARCOTICS COOPERATION

## By ZHANG YONG-AN<sup>5</sup>

On January 1, 1979, China and the United States officially established diplomatic relations, and over the past 45 years, the Chinese and U.S. governments have actively promoted collaboration in counternarcotics. The two nations have started a variety of practical cooperation in the areas of personnel training, information exchange, intelligence sharing, joint law enforcement, and collaboration on regional and global counternarcotics affairs, making counternarcotics cooperation a highlight of the bilateral relationship. However, in recent years, due to changes in the international situation and China-U.S. relations, cooperation between China and the U.S. in the fight against narcotics is encountering unprecedented challenges. On the occasion of the 45th anniversary of the establishment of diplomatic relations between China and the United States, it is important to reflect on the common interest and potential conflicts between the two nations in the field of counternarcotics. This will not only help solve the current predicament of the two countries in counternarcotics cooperation, but also foster a better understanding of future development of China-U.S. relationship.

It is based on such considerations that this research intends to focus on four aspects of the issue: Finding common ground, recognizing differences, deconstructing differences and seeking solutions. This study hopes to point the way in rebuilding strategic mutual trust and consensus in the cause of counternarcotics between China and the U.S., and in making concerted efforts to overcome challenges in counternarcotics cooperation.

#### 1. FINDING COMMON GROUND

Finding common ground between China and the United States in counternarcotics is a prerequisite for identifying the causes of differences and problems. The United States and China clearly have shared interests in counternarcotics, which laid a solid and lasting foundation for

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cooperation between the two countrie in the past, at present and for the future. Needless to say, understanding historical legacy and identifying current realities are necessary for moving forward to a brighter future.

1.1 Both countries are victims of drug abuse. The drug problem has left deep scars in both countries' history and contemporary societies. In the foreseeable future, China and the United States will continue to suffer from the harmful effects of drug abuse and drug-related crimes, which will pose a major challenge to the administration of either nation. Around the 1880s, at the height of China's drug problem, there was an estimated 10 million drug users in China, which meant that 1 in every 36 people smoked opium. According to the China Drug Situation Report 2022 (released in June 2023) by China's National Narcotics Control Commission, there are still 1.12 million drug users in China today. The situation is reportedly worse in the United States. In 2022 a total of 107,900 Americans died of drug overdoses, more than 70 percent of which were fentanyl related. Therefore, the drug problem is not unique to any peculiar country or region. As the most globalized illegal commodities, drugs are prevalently used and constantly upgraded. The third generation of drugs represented by synthetic opioids are rapidly renewed, highly potent, widely distributed and proved extremely harmful. They are gradually replacing traditional and synthetic drugs and becoming a greater global threat.

1.2 Both countries are the architects and main participants of the global counternarcotics system. In 1909, the Chinese government hosted the 'Shanghai International Opium Commission' with the support of then U.S. President Theodore Roosevelt and promotion by Charles Brent, the U.S. Bishop in the Philippines. This was the first time when the international community truly realized the gravity of the widespread problem of narcotics and the necessity of international coordination for its effective control. Subsequently, the international community adopted a series of international drug control conventions, in which China and the U.S. almost always played vitally important roles. In particular, the two countries supported and signed the three conventions - the 1972 Protocol Amending the Single Convention on Narcotic Drugs of 1961, the Convention on Psychotropic Substances of 1971, and the Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 - which remain cornerstones of the global counternarcotics system today. It is fair to say that both countries have been making great contributions to the global drug control regime.

**1.3 Both countries are actively promoting comprehensive drug control.** 'Drugs are more to be feared than tigers.' From the very

beginning of its foundation, the People's Republic of China has actively planned and carried out a nationwide counternarcotics campaign with the participation of all its people. After a short period of two to three years, the new China had basically cleared up the chronic disease of opium and other illegal drugs prevalent in previous societies, winning China the reputation of being a 'drug-free country' for nearly 30 years. Since the reform and opening up period, the drug problem has resurged and become increasingly serious. The Chinese Government, firmly taking the road of drug control with Chinese characteristics, has launched a 'People's War on Drugs', adopting a zero-tolerance policy towards drugs and implementing a resolute counternarcotics campaign. Similarly, the U.S. government has regarded drug abuse as "public enemy number one.' Since the Harrison Act of 1914, successive U.S. administrations have adopted increasingly stringent counternarcotics policies and actively promoted the across-the-board control of the drug problem.

1.4 Both countries attach great importance to collaboration in drug control and have achieved remarkable results. After the formal establishment of diplomatic relations between the two countries, the administration and corresponding departments of the two countries have carried out a series of fruitful cooperation in personnel training, information sharing, intelligence exchange and joint law enforcement, based on the Memorandum of Understanding on Counternarcotics Cooperation between China and the United States signed in 1987 and the Joint Liaison Group, etc. The U.S. and China have been working closely together in counternarcotics since. With the surging of the synthetic opioids crisis in the U.S., the Chinese government has taken the lead in the world to schedule the whole category of fentanyl-related substances on a humanitarian basis. China is also currently the country with the strictest classification and control of such substances. Moreover, corresponding departments in China and the U.S. are actively collaborating in joint law enforcement, sharing intelligence, and combating the illegal manufacturing and trafficking of fentanyl and related illegal and criminal activities.

#### 2. Recognizing Differences

There is clearly consensus between the two countries in counternarcotics and such consensus is the result of long-term development and endeavor of both sides. In recent years, however, as synthetic opioids in the U.S. have plagued society and become a public health crisis, certain U.S. politicians and media outlets have gradually come to regard China as a scapegoat. Such disregard of China's position

on drug-control and other important matters, especially U.S. Speaker of the House of Representatives Nancy Pelosi's visit to Taiwan in spite of serious warnings from China, have created tremendous obstacles to U.S.-China cooperation in the fight against narcotics.

2.1 The two countries differ in their understanding of the root causes of synthetic opioids abuse crisis in the United States. The United States views external factors as the root causes of the domestic synthetic opioids abuse. It first regarded China as the main source of the illicit supply of fentanyl and its analogues into the U.S. and the real source of the current crisis, targeting Chinese entities and individuals for investigation, arrest, prosecution and sanctions. Through the Global Coalition to Address Synthetic Drug Threats, the U.S. imposed diplomatic pressure on China by listing China as a 'major drug transit or major illicit drug producing country for fiscal year of 2024.' Mexico, India, South Africa, Pakistan and other countries have been recently recognized as potential threats. The Chinese government, on the other hand, denounced this as ignoring the facts and smearing China, while regretting that the United States had disregarded the efforts and dedication of the Chinese side. China insists that the current drug crisis in the U.S. was created from within, and that internal causes are the determining factors.

2.2 Differences in the focus of the two countries' strategies for dealing with the synthetic opioids abuse crisis in the United States. It is precisely because of the differences in the two countries' understanding of the root causes of the U.S. synthetic opioids abuse crisis that the two countries unavoidably differ in their strategies and approaches to solving the problem. The United States, while taking some measures to control domestic demand, has focused its efforts externally, relying on working with China, Mexico, India and European countries to cut the source of supply while not doing enough to control domestic drug market. In contrast, China has further strengthened its domestic drug control on the one hand, and emphasized cooperation with the U.S. on the other. The two nations agreed on implementing the most stringent control measures in history, while actively carrying out a series of collaborative work in intelligence exchanges, information-sharing and coordinated law enforcement. In doing so, China is not merely agreeing with the U.S.; rather, it is putting its own philosophy into practice, which is that internal ills must be cured from within, and external treatments for internal ills will never work.

**2.3** The two countries differ in their perceptions of the importance and effectiveness of China's actions. The U.S. Department

of Justice's Drug Enforcement Administration (DEA) and the U.S. White House have both praised China for a number of important legislative and enforcement actions. On April 26, 2024, U.S. Secretary of State Antony Blinken also told a BBC reporter that China's cooperation in combating the supply chain of illegal fentanyl has made 'a real change', and that the Chinese government was 'taking it seriously'. However, a report by the U.S. House of Representatives' Select Committee on China advocated that the Chinese government 'directly subsidizes' the manufacturing and exporting of illicit fentanyl, misinterpreting the normal, legal economic activities of China with the most malicious political bias. Disagreement in the U.S. political arena on this issue has added to the confusion in the media and among the public. In fact, the Chinese government has been actively collaborating with the United States. Its sincerity in cooperation is evident in changes being made to the schedules of controlled narcotics and psychotropic substances in China over the years. In 2015, the 'Supplementary Catalog of Controlled Varieties of Narcotics and Psychotropic Substances in the Non-Pharmaceutical Category' included a one-time list of 116 substances, with an additional 8 in 2017, 32 in 2018, the whole category of fentanyl-related substances in 2019, and the whole category of synthetic cannabinoids in 2021. As a latest development, dextromethorphan, diphenoxylate containing combination preparations, nafurafine, and lorcaserin have been added to the schedule of psychotropic substances in Schedule II, which will come into effect on July 1, 2024. The total number of listed substances reaches 463 plus two whole categories of substances. Meanwhile, China has been working with U.S. in continuously striking down drug trafficking. Since September 2019, the U.S. has not seized any fentanyl or its analogues from China. It can be said that China has been at the forefront of the world in controlling and combating fentanyl-related substances.

#### 3. DECONSTRUCTING THE DIFFERENCES

**3.1 Counternarcotics cooperation between China and the United States is constrained by changes in political and economic relations between the two countries.** Needless to say, counternarcotics cooperation is a matter of great importance in bilateral relations between China and the U.S. Its importance, however, cannot go beyond the top-priority political and economic issues. The counternarcotics cooperation between the two countries, therefore, will undoubtedly be subjected to greater changes in the political and economic relations between the two countries. U.S. House Speaker Nancy Pelosi's visit to Taiwan has seriously undermined the 'political foundation of China-U.S. relations',

and China was bound to respond, among which the suspension of counternarcotics cooperation is a 'reasonable, justified and moderate' countermeasure against this attack on the political foundation. On the other hand, the resumption of counternarcotics cooperation was motivated by the implementation of the 'important consensus reached at the San Francisco meeting of the Chinese and U.S. heads of state', and is to regain the previous 'pragmatic and efficient state of cooperation' in light of the two countries' positive interactions. Certain U.S. politicians, academics and think tanks interpreted the suspension of counternarcotics cooperation as 'more than two years of China purposefully denying cooperation and failing to mount adequate internal enforcement' and 'approach of subordinating its antidrug and anti-crime cooperation to its strategic calculus.' Accordingly, they considered the restart of counternarcotics cooperation as a result of a series of diplomacy and actions by the U.S. to put pressure on China. Although from different perspectives, all such understandings recognize that the counternarcotics cooperation between China and the U.S. is subject to dynamics in the political and economic relations between the two countries.

3.2 Counternarcotics cooperation between China and the United States is constrained by political polarization in the United States. The partisan politics in the United States has seriously hindered the process of China-U.S. counternarcotics cooperation. Although both parties in the United States recognize the urgency of coping with the fentanyl crisis, neither is willing to let the other side gain political credit for solving this problem. For instance, it took four full years for the Congress to pass a bill (December 2017) that specifically addressed fentanyl since it first showed signs of trouble. Furthermore, in May 2023, the Republican-controlled U.S. House of Representatives voted to consider the HALT Fentanyl Act, and 132 of the 133 members who voted against the bill were Democrats. Bipartisan polarization has also severely impacted the U.S. government's ability to manage its borders and shut down the influx of illicit fentanyl through proper allocation of budgets. In contrast, the Republicans and Democrats show rare uniformity when it comes to criticizing China, vying to be the first to point the finger at China, with Republican Rep. Mike Gallagher, former chairman of the 'the House Select Committee on the Strategic Competition Between the United States and the Chinese Communist Party (CCP)', and Democratic Rep. Raja Krishnamoorthi telling the Washington Post that 'China's ruling political party subsidizes the fentanyl crisis through government programs, protects fentanyl

#### Saving Lives and Protecting Societies from Synthetic Opioids

traffickers operating within its borders and allows sales of deadly substances on Chinese e-commerce websites.'

**3.3** Counternarcotics cooperation between China and the United States is constrained by lack of communication and information exchange. Important prerequisites for the success of U.S.-China counternarcotics cooperation include timely exchange of information. sufficient sharing of intelligence, and smooth implementation of joint law enforcement. In particular, exchange of information and intelligence are extremely critical. However, changes in the overall relationship between the two countries, especially a number of unexpected events, such as Nancy Pelosi's visit to Taiwan, led to the suspension of counternarcotics cooperation between the United States and China. This information asymmetry created problems for the media in obtaining accurate information and producing well-informed journalism. Similarly, researchers can no longer obtain first-hand sources and had to base their work instead on speculation and hypothesis. With the production and wide distribution of such 'false information,' normal collaboration in counternarcotics between the two countries is inevitably affected.

**3.4 Counternarcotics cooperation between China and the United States is constrained by the lack of strategic mutual trust.** This is a fundamental problem.

Strategic mutual trust has to be rooted in the strategic needs of both countries, especially in times of crisis. However, strategic mutual trust is hard to build among nations, for it requires long-term collaboration and careful cultivation by both sides. Although drug problem is a nontraditional security issue, it has been gradually politicized, diplomatized and even weaponized. Building strategic mutual trust, therefore, is particularly important to promote cooperation between China and the United States in the field of drug control.

#### 4. SEEKING SOLUTIONS

On November 15, 2023, Chinese President Xi Jinping and U.S. President Joe Biden held a summit meeting at the Filoli Estate, San Francisco. The two presidents agreed to resume dialogue and cooperation between China and the U.S. in counternarcotics. The China-U.S. Counternarcotics Cooperation was formally relaunched with the establishment of a Working Group on January 30, 2024. At present, it seems that China and the U.S. have reached a certain degree of consensus on counternarcotics, and both countries have demonstrated willingness to develop pragmatic and efficient counternarcotics cooperation. As to how to reach a broader consensus and cope with

existing disagreements, we need to take into account the significantly different realities of the two countries and their respective drug problems, and consider a reasonable distribution of international counternarcotics responsibilities and obligations. We should be confident in finding ways to solve existing problems with regular, predictable and close contact.

4.1 Managing differences at the official level and reshaping strategic mutual trust in counternarcotics cooperation. Cooperation between China and the United States not only matters to the development of the two countries, but also is of great significance to global peace and stability. China and the United States are facing common challenges in the field of counternarcotics, and there is common ground for cooperation. The two sides should strengthen high-level exchanges and strategic communication, and actively make use of the China-U.S. Working Group on Counternarcotics Cooperation to strengthen communication and coordination through high-level visits, strategic dialogues, and other channels. Such endeavors will enhance mutual understanding and trust, which is fundamental to further promoting cooperation in drug control and to jointly address global challenges. At the same time, there is a need to eliminate mutual suspicion and accusation, which are sometimes more detrimental than armed conflicts.

**4.2 Improving on information-sharing mechanism through institutional construction.** Through the China-U.S. Counternarcotics Cooperation Working Group, we should build a stable cooperation mechanism and continuously strengthen China U.S. dialogue and exchanges in the field of counternarcotics. Regular meetings should be held to assess the results of cooperation and resolve difficulties encountered in the process of counternarcotics cooperation. Whenever possible, we should set up special communication channels within the framework of the existing cooperation group, hold regular seminars and share information on a regular basis. Furthermore, the cooperation can be facilitated with a system for jointly releasing information and reporting on progress of work, which will ensure an updated and shared understanding of new dynamics in the field of synthetic drugs.

**4.3 The United Nations and regional cooperation mechanisms should be fully utilized to prevent a rapid spillover of the synthetic opioids crisis.** Synthetic opioids abuse is spreading globally beyond North America, with parts of Europe, Africa and Asia-Pacific experiencing the problem to a greater or lesser extent. A more serious related problem is the expansion of new psychoactive substances, with traditional supply sources adjusting their drug production and

manufacturing programs, which, if successful in their transformation and upgrading, will become a major global threat. Therefore, the success of China-U.S. counternarcotics cooperation depends not only on the two countries, but also on global collaboration. It is expected that China-U.S. counternarcotics cooperation will become a successful model of globalized endeavor to solve the synthetic opioids crisis.

**4.4 Overcoming technical issues in rehabilitation and law enforcement based on joint research and shared technology.** Synthetic opioids are a new category of psychoactive substances. Most countries in the world are still attempting to better understand their varied chemical structures, toxicology, addiction mechanisms, and effective treatment measures. China and the United States each has its own strengths and resources in these areas. Relying on their laboratories and drug monitoring platforms, the two countries should promote collaborative research on synthetic opioids and technological means for their effective control. With such evidence-based, in-depth collaboration between the two countries, we can hope to solve the crisis from its roots.

# CHAPTER EIGHT – CHINA CONTRIBUTES WISDOM TO TACKLING GLOBAL DRUG PROBLEMS

## By ZHANG YONG-AN<sup>6</sup>

In the face of the worsening global drug crisis, China, as a responsible major power, actively supports and participates in the creation of a global anti-drug system under the framework of the United Nations International Drug Control Conventions. Additionally, China proactively promotes the institutionalization of anti-drug cooperation through bilateral, multilateral and regional mechanisms. In doing so, China contributes its experience, solutions and strength to the global governance of drug-related issues, fulfilling its responsibilities as a major power and embracing its duty for the future of humanity.

China is a major contributor to global drug control efforts, maintaining a zero-tolerance attitude toward drugs and actively managing the risks of drug problem resurgence. The country strengthens border control and the management of precursor chemicals, deepens the regulation of fentanyl and new psychoactive substances and prevents controlled chemicals from entering the drug production chain through international trade. Additionally, China conducts comprehensive drug prevention campaigns and continues to enhance treatment and assistance for drug addicts.

China is a key supporting country of the current global drug control system. It is a strong supporter and signatory of the three cornerstone treaties of the current United Nations global drug control system: the amended Single Convention on Narcotic Drugs of 1961, the Convention on Psychotropic Substances of 1971, and the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988. As one of the five permanent members of the United Nations Security Council, China actively supports the UN-led international drug control efforts at multiple levels, contributing wisdom and strength to the global fight against drugs.

China is a key promoter and practitioner of institutionalized bilateral, multilateral and regional drug control cooperation. In the face of drugs as a "global enemy," China places great importance on collaborating with drug-producing, transit and consuming countries. Through economic

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assistance and drug control officer training programs, China supports opium poppy eradication and crop substitution initiatives in source countries. Additionally, through information exchange and joint law enforcement actions, China works vigorously to combat the illegal production, manufacture and trafficking of drugs. At the same time, the Chinese government actively promotes regional drug control cooperation through various platforms, striving to institutionalize cooperation. By endorsing member states' drug control strategies and implementing action plans, China plays a significant role in addressing the global drug threat and contributing to the creation of a drug-free society.

Starting in 2019, the Chinese government took an innovative step by officially scheduling all fentanyl-related substances. In 2021, China extended this approach to all synthetic cannabis-related substances and other new psychoactive substances. Demonstrating the responsibility of a major global power, China has shaped the future of drug control through intelligent governance, becoming the first country to put all fentanyl-related and synthetic cannabis-related substances under control.

China implemented "classification-based control" over fentanylrelated substances and synthetic cannabinoids. This approach enhances the drug control legal framework, providing strong legal support for combating and punishing crimes related to new types of drugs. Furthermore, it contributes to global efforts in addressing the illegal production, trafficking and abuse of these substances, showcasing China's role in tackling the global drug crisis.

China is the country with one of the world's most extensive lists of scheduled drugs and the strictest control over precursor chemicals in the world. Additionally, China has implemented classification-based control over fentanyl-related substances and synthetic cannabinoids. The Chinese government vigorously enforces anti-drug policies, steadfastly follows a drug governance path with Chinese characteristics, and is determined to modernize its drug control system and governance capabilities, contributing Chinese wisdom to global drug control efforts and sustainable development.

# CHAPTER NINE – WASHINGTON AND BEIJING DON'T UNDERSTAND EACH OTHER'S FENTANYL POSITIONS: PERCEPTION GAPS ARE A MAJOR PROBLEM IN THE FIGHT AGAINST DRUG-TRAFFICKING

# By YANZHONG HUANG<sup>7</sup> AND MARCEL ARSENAULT<sup>8</sup>

The United States is grappling with a major fentanyl crisis. Of the more than 100,000 drug-related deaths recorded in 2023, approximately 70 percent are attributed to fentanyl and other synthetic opioids. This staggering number of deaths far exceeds the annual fatalities from car accidents (almost 41,000) and gun-related violence (roughly 43,000). The amount of powdered fentanyl seized has increased by about 100 percent in the last two years. Fentanyl misuse has emerged as a top election issue, with 80 percent of swing-state voters considering it important in their voting decisions, outranking topics such as abortion, climate change, and international conflicts.

The majority of the deadly synthetic opioid and its precursor chemicals are believed to originate in China. For years, the United States and China have struggled to collaborate in stemming the flow of fentanyl and its ingredients. Cooperation resumed following the summit between U.S. President Joe Biden and Chinese President Xi Jinping in November 2023, and Beijing is moving toward helping to disrupt the global supply chain. However, it remains to be seen how solid these commitments are to jointly curbing the supply of precursors to the Mexican drug cartels that are primarily responsible for manufacturing illicit fentanyl.

Why is it so difficult to advance cooperation in this area? While escalating geopolitical rivalry plays an important role, a discussion that was held in Asia in May and sponsored by PAX *sapiens*—a private foundation dedicated to addressing global threats against humanity identified significant perception gaps between the two countries in

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counternarcotics cooperation. These gaps undermine mutual trust, discourage efforts to find common ground, and result in the two nations overlooking areas of potential cooperation that could curb the use of fentanyl in the United States.

The Chinese government asserts that it has been actively collaborating with Washington in combating drug trafficking. It has highlighted that in 2019, China took the lead globally by officially scheduling fentanyl substances as their own whole class and noted that the United States has not seized any fentanyl or its analogues originating from China since September 2019. More recently, according to the Wall Street Journal, the Chinese government has quietly shut down 14 digital sales platforms and removed more than 1,000 online stores selling precursor chemicals used by Mexican cartels.

U.S. officials, while acknowledging these steps as "meaningful," continue to press Beijing for more substantial action. Washington's lawmakers continue to believe that the Chinese government is helping fuel the fentanyl crisis within the United States. The select committee on China in the U.S. House of Representatives, for example, claims that the Chinese government "directly subsidizes" the manufacturing and exporting of illicit fentanyl. This perception gap regarding what China should and can do undermines trust and poisons the atmosphere of cooperation.

Both countries still dispute China's role in the supply chain of fentanyl and related substances. Last September, the United States added China to its list of major drug-producing countries for the first time. It is convinced that China is the primary source of fentanyl's precursor chemicals. China dismisses this as a false accusation, stating that the United States has not provided any evidence to prove it.

Because most of the precursors are unscheduled due to their dual use, China lacks legal provisions to prosecute those who knowingly ship precursors to Mexican cartels. The inability to reach a consensus on China's role in the supply chain partly explains the lack of progress toward addressing the precursor problem. It was not until May 2019 that Beijing scheduled two key fentanyl precursors, and it was not until late 2023 that Beijing took law enforcement action against illicit precursor supplies.

According to one Chinese scholar who spoke at the PAX dialogue which was conducted under the Chatham House Rule, meaning that its participants cannot be identified—defining the Chinese government's role in this way misinterprets normal, legal economic activities of China on the basis of malicious political bias. It also dampens the momentum of U.S.-China cooperation. Indeed, instead of being enthusiastic about a rare joint counternarcotics investigation and high-level bilateral talks on anti-narcotics cooperation that were held in June, House members from both parties are forming a new policy working group to strengthen existing sanctions on Chinese entities involved in the fentanyl trade.

Even when the two sides cooperate, however, they do so for very different ends. Washington prefers to treat narcotics cooperation as a standalone law enforcement issue, while China links counternarcotics to broader geostrategic objectives. U.S. policymakers and law enforcement officials have long hoped that China would separate cooperation from geopolitics. Emphasizing that it does not have a large-scale fentanyl abuse problem among its citizens, China argues that its regulatory actions are to help the United States for humanitarian reasons.

However, China uses cooperation as a strategic tool to leverage other objectives, including improving the overall bilateral relationship or extracting concessions from the United States in other geopolitical areas of concern, such as Taiwan or the South China Sea. This approach not only results in half-hearted cooperation, but also makes existing arrangements vulnerable to crises in other fields. Beijing's hopes for better U.S.-China relations overall declined following then-U.S. House Speaker Nancy Pelosi's visit to Taiwan in August 2022. It subsequently suspended its anti-drug cooperation with the United States. It is conceivable that a future crisis over Taiwan or the South China Sea both now more likely than ever—could quickly derail any real progress in bilateral counternarcotics cooperation.

A wider issue is that the U.S. government blames external factors, especially China, as the root cause of its domestic synthetic opioid abuse. According to one Department of Homeland Security official who testified before Congress, the fentanyl crisis "begins and ends in China." In response, Beijing views Washington as acting in bad faith and attributes the crisis to a U.S. failure to address its demand side of the equation. China's official statements argue that domestic factors in the United States, such as lax regulation of psychotropic drugs and political polarization, are the root cause of the problem.

This approach has some resonance with the U.S. public. When asked, regardless of blame, who should be held responsible for fixing the problem, a majority of U.S. respondents (51 percent) in a forthcoming PAX *sapiens*-commissioned YouGov poll demonstrated agreement with the Chinese view by saying that the U.S. federal government should be responsible for fixing the problem, compared with four percent who identified China as being responsible for fixing the problem.

That said, blaming the crisis on a laissez-faire U.S. approach fails to recognize Washington's investments in prevention, harm reduction, treatment, and recovery support services. More importantly, the perception that Washington is primarily to blame has been used to justify indifference and inaction by the Chinese government.

On the other hand, within the United States, opinions on China's role in the fentanyl crisis are split between those who view Chinese authorities as merely indifferent and a surprisingly large group of those who see them as actively malicious. In Washington, D.C., many are convinced, or claim to be, that China is deliberately weaponizing fentanyl against the United States. An overly heavy emphasis on China has led Washington to take coercive actions against Chinese individuals, companies, and other entities, which only reinforces China's defensive posture and results in the continuation of minimal collaboration with the United States.

While China is increasingly participating in global narcotics governance, it refuses to join the U.S.-led Global Coalition to Address Synthetic Drug Threats, which now has 151 participating countries. Driven by concern about U.S. attempts to build alliances against it, China prefers to work within existing global governance structures, such as the United Nations Office on Drugs and Crime and the International Narcotics Control Board, or in other structures where it has a greater role to play, such as the Shanghai Cooperation Organization.

In contrast, the U.S. strategy in engaging global narcotics governance focuses on developing new coalitions of like-minded states to address U.S. priority concerns. While Washington has not explicitly excluded China from its global coalition, Chinese experts argue that the United States refused to involve China in the coalition's creation, potentially sacrificing counternarcotics progress to broader U.S. foreign policy goals around opposition to China. This lack of convergence in their global governance strategies leads to misaligned stakeholder incentives, making a truly multilateral approach that involves all the major stakeholders, including Mexico, difficult.

Fundamental differences in treatment also hamper cooperation. China relies heavily on a predominantly centralized and involuntary approach to tackle its domestic drug issues. Claiming success with this approach, it lacks strong incentives to learn from the United States' best practices for demand reduction, prevention, and treatment.

In contrast, the U.S. model emphasizes voluntary participation, harm reduction, and community reintegration. It underappreciates the effectiveness of China's surveillance measures and its ability to quickly take model projects to a large scale. Differences in cultural and governance priorities also create barriers to learning from each other, leaving both focused on specific actions that the two countries may otherwise be willing to take together.

Both the United States and China acknowledge the tragic nature of fentanyl-related deaths and have agreed to work together to address the crisis. Substantial progress, however, hinges on bridging perception gaps and moving beyond counterproductive finger-pointing.

As one participant at the PAX *sapiens* dialogue aptly stated, we must "seek to understand before seeking to be understood."

Fentanyl marks the beginning of a new era of synthetic opioids, presenting a unique opportunity for the United States and China to establish cooperative models that could enhance international counternarcotics efforts for generations. Failure to collaborate effectively will impair global approaches to combating future designer synthetic opioids, which will be manufactured with chemical formulas that are constantly changing and evolving.

To advance collaboration, both nations must move past blaming and focus on solutions grounded in evidence and expanded data-sharing. This requires frequent communication at both the official and expert levels, with regular reports detailing progress and identifying roadblocks. While the bilateral counternarcotic working group initiated in January and a direct line of communication on emerging threats from new synthetic substances established in June are a positive start, a comprehensive approach is essential.

Both countries should be open to learning from each other's best practices and exploring innovative collaborations that transcend traditional law enforcement approaches. By fostering mutual understanding of their respective policy measures, the United States and China can build the trust crucial for effective partnership. These efforts are not merely diplomatic niceties, but also critical steps to save lives and shield communities from the devastating impact of illicit synthetic opioids.

Shame on all of us if we cannot rise to this challenge.

# CHAPTER TEN – ANTI-DRUG COOPERATION: CULTURAL AND HISTORICAL IMPLICATIONS FOR CHINA AND U.S. RELATIONS

# **By Wei Hongxia<sup>9</sup>**

Drug trafficking and substance abuse are becoming transnational issues that affect public health, social stability, and national security around the world. For the relations of the United States and China, drug issues have been put at the top of the policy agenda. The U.S. faces a severe opioid crisis, with over 100,000 drug overdose deaths reported in 2021, primarily driven by synthetic opioids like fentanyl. Meanwhile, China is a major producer of precursor chemicals used in the manufacture of synthetic drugs, making it a critical player in the global supply chain. This interdependence necessitates cooperation to address the root causes and consequences of drug abuse. In recent years, China and the United States have carried out extensive practical cooperation in the field of drug control, and have made much visible progress in substance control, intelligence exchange, case cooperation, online advertising regulation, drug testing technology exchange, multilateral interaction, and other aspects. By examining this unique aspect of bilateral engagement, the paper highlights how Chinese see drug use in China and in the U.S., and emphasizes anti-drug cooperation can serve as a stabilizer for bilateral relations and a model for addressing other transnational issues.

#### 1. CHINESE PERSPECTIVES ON AND ACTIONS AGAINST DOMESTIC DRUG USE

China's understanding and attitude towards drugs are deeply influenced by history, law, culture, and social reality, presenting a distinct "zero tolerance" feature. This cognition is not only based on the collective trauma of the modern Opium War, but also closely related to the strong anti-drug policies, social education, and cultural values of contemporary governments.

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Opium Wars are the symbol of modern humiliation in the eyes of Chinese people. The two Opium Wars of the 19th century (1840-1842, 1856-1860) directly led to China becoming a semi-colony, and the proliferation of opium became a symbol of national decline. This historical trauma has made "anti-drug" an important symbol of national rejuvenation, which is still written into textbooks and public discourse today.

Lin Zexu (1785-1850), a leading Chinese official of the Qing dynasty, known for his role in the events leading up to the first Opium War (1839–42) between Britain and China, said "opium is a great scourge on China, killing our people even more than war, plague, and famine." Sun Yat-sen, who is known as the father of modern China and devoted himself into anti-drug action as well, wrote on an instruction when he was the President of the Republic of China, "the pernicious influence of opium has lasted for more than a hundred years, causing harm to the country and the people, and is deeply hated. At the beginning of the establishment of the Republic of China, all Chinese citizens should firmly guard against it. (鸦片流毒, 垂百余年, 祸国害民, 深堪痛恨. 民 国建立伊始,凡我国民固当力为戒绝.) Those who are besotted by this poison for sensual pleasure cannot be regarded as citizens of the Republic."(饮鸩自安,沉湎忘返者,不可为共和之民.) In the milieu of emerging Chinese nationalism, the campaign against opium, beginning in 1906, proved quite successful. It was one reform that showed many Chinese had long recognized the dangers of the drug.

After the founding of the People's Republic of China in 1949, a rapid anti-drug war was launched. Regarding widespread addiction to opium as one of the main causes of the country's decline in the 18th and 19th centuries, the new Chinese government has consistently enforced a zerotolerance policy on drug offenses since the 1950s. Through policy support, severe punishment, cutting off trade chains, social movements, and legislative guarantees, the drug problem was completely eliminated in just three years, and the effects were long-lasting. In the movement for drug eradication, law making and enforcement were projected effectively. Drug abuse and trafficking became the merciless targets of national laws, and some local government officials who were involved in drugs themselves were also severely punished. In the following several years, China basically banned opium, creating a recognized miracle. From the 1950s to the late 1970s, China was renowned worldwide as a "drug free country" for nearly thirty years.

Since the 1980s, drug use has become ubiquitous worldwide, and drug smuggling has become increasingly rampant. With China's opening

#### Saving Lives and Protecting Societies from Synthetic Opioids

up, influenced by the worsening global drug problem, China is gradually entering a period marked by a rebound in drug-related crime and rapid changes in new types of drugs. The Chinese government places special emphasis on drug control work, strengthens the legal system, takes crack-down actions and launches a people's war against drugs. At the policy level, measures, law making and enforcements have been kept renewed and refined. For example, the anti-drug list is expanded from time to time to ensure that new types of drugs will not be disseminated again. China is one of the countries with the strictest anti-drug laws. Drug selling and the heavy usage of drugs is usually related to the death penalty. On September 29, 2014, the State Administration of Press, Publication, Radio, Film and Television of the People's Republic of China issued a notice aimed at "banning entertainers with bad deeds." Drug use is listed among bad deeds. Since then, a series of celebrities including Jackie Chan's son have been arrested on drug charges. The Chinese government said entertainment celebrities who break the law should not be invited to appear in TV programmes, and transmission of their works should be suspended. "Their actions have hurt the entire industry and have brought extremely bad and adverse consequences to the whole society, therefore we strongly condemn their actions." Following the statement's release, productions which starred drug users were dropped from broadcast. The ban also later covered social media. All the cases received widespread coverage in the media, and can be seen as part of a wider government crackdown on excess within the entertainment elites. Governments at all levels also established a reward system in communities for reporting drug violations and crimes.

At the social level, publicity against drugs has prevailed in TV, communities, public recreational grounds such as movie and theater houses, video halls, singing and dancing halls, Karaoke halls, music and tea drinking halls, and night clubs. In many movie houses in China, before the movie starts, there will be anti-drug advertisements produced by the government. The same in Karaoke houses.

Around the neighborhood, drug use is disgraceful for a user's whole family reputation. Drugs are not only seen as to destroy individuals, but also entire families. Drug addicts often end up losing everything, causing family relationships to break down, and even leading to domestic violence and crime. Friends and relatives will keep away from those who use drugs. Parents will be very alert to their children's smoking or using pills.

Owing to historical and cultural reasons, Chinese society has little tolerance for illicit drugs, while the country has one of the most stringent

anti-narcotics laws in the world. The government and Chinese society, with a highly responsible attitude towards history and future, have been taking strict action on anti-drug policies.

#### 2. CHINESE PERSPECTIVES ON U.S. DRUG USE

Chinese people get a lot of information about drug abuse mostly in U.S. TV news reports, movies and books. Now social media is a new channel for people to get information. The legalization of marijuana in some places in the United States was considered a victory for civil rights, but for Chinese people, this is befuddling or perplexing. Homeless to Harvard: The Liz Murray Story, an American biographical drama television film, impressed Chinese audiences with such an image that a drug-addicted mother and father will have AIDS and lack social skills, and are not conscientious. Chinese audiences are not impressed with how Murray became a star student with her parents' behaviors. Another case that has brought awareness to the drug use crisis in the U.S. is the memoir book Hillbilly Elegy: A Memoir of a Family and Culture by J. D. Vance, who is the Vice President of the United States now. It was published in 2016 and adapted into the 2020 film "Hillbilly Elegy." It garnered wide-spread attention in China when J.D. Vance became a Vice Presidential candidate. Vance recounts his mother's history of drug addictions in his book. In the movie, a lot of shots of the mother's drug using dilemma have very strong visual and psychological impacts: parents using drugs brings children sadness and helplessness. Both the movies tell stories of parents who are drug users.

But the Chinese public had no clear image of fentanyl as a kind of drug abuse in the United States until fentanyl was highlighted as an issue in China-U.S. relations in 2018. Since then, extensive reports about fentanyl use, fentanyl overdoses and fentanyl smuggling have started to emerge in Chinese media. "What is fentanyl?" This has become a very intriguing question in China. Many are shocked by U.S. statistics on fentanyl deaths every year. According to various sources, the fentanyl crisis has become one of the most serious public health problems in the United States, causing enormous pressure on society, the economy, and the healthcare system. According to data from the Centers for Disease Control and Prevention (CDC) of the United States, fentanyl deaths have been increasing every year in the past decade. The number of fentanyl overdose deaths began to significantly increase in 2013, when the CDC referred to it as the third wave of opioid drug epidemics. That year, 3105 people died from synthetic opioid overdoses. But in 2022, the death toll of fentanyl overdoses rose to 73,654, an increase of 23 times. The

Saving Lives and Protecting Societies from Synthetic Opioids

potency and low cost of fentanyl make it a major component of the illegal drug market, exacerbating the opioid crisis in the United States. The emergency cost of fentanyl overdose incidents has also significantly increased, placing a heavy burden on the healthcare system.



Number of overdose deaths from fentanyl in the U.S. from 1999 to 2022

Source: Centers for Disease Control

All information from news, books, and movies together gives Chinese people the impression that in the United States, drug users are everywhere.

# 3. ANTI-DRUG COOPERATION BETWEEN CHINA AND THE UNITED STATES: PROGRESS AND DISAGREEMENTS

The United States and China began cooperating on anti-drug efforts in the 1980s. There are times that anti-drug cooperation has served as a "stabilizer" for China-U.S. relations, providing a platform for dialogue and collaboration even during periods of tension. For example, in the 1980s and 1990s, the two countries worked together to combat heroin trafficking from the Golden Triangle. More recently, joint efforts to

regulate fentanyl precursors have underscored the potential for pragmatic engagement and cooperation.

One of the most effective forms of collaboration has been joint law enforcement operations and intelligence sharing. For instance, since 2016, Chinese and U.S. authorities collaborated on investigations and operations, which disrupted a major fentanyl smuggling network. Such operations rely on real-time intelligence exchanges and coordinated efforts to target transnational drug trafficking organizations.

From China's side, China has taken significant steps to regulate the export of precursor chemicals, particularly those used in the production of fentanyl. On May 1st, 2019, the decision of the Government of China to add fentanyl-related substances to the Supplementary List of Controlled Narcotic Drugs and Psychotropic Substances with Non-medical Use came into effect. This regulatory framework has helped curb the diversion of precursors for illegal drug production.

Starting from September 1, 2024, China officially implements control measures on key chemicals used in the production of fentanyl. Since January 20, 2025, China revised the Regulations on the Administration of Anesthetic Drugs and Psychotropic Substances, further optimizing the control of narcotic drugs.

Since 2023, drug control cooperation between China and the United States has accelerated and is productive. The following lists key meetings to discuss bilateral cooperation on drug control.

On November 15, 2023 local time, Chinese President Xi Jinping and U.S. President Biden met at the Filoli Estate in San Francisco. Both agreed to promote and strengthen dialogue and cooperation between the two countries in various fields, including the establishment of a China-U.S. drug control cooperation working group.

On January 26-27, 2024, Wang Yi, Member of the Political Bureau of the CPC Central Committee and Foreign Minister, held a new round of meetings with Jake Sullivan, Assistant to the President for National Security Affairs of the United States, in Bangkok. Both sides agreed to launch the China-U.S. Anti-Drug Cooperation Working Group.

On January 30, 2024, State Councilor and Director of the China National Narcotic Control Committee, Wang Xiaohong, met with the U.S. Joint Drug Control Delegation led by Jennifer Daskal, a deputy homeland security advisor in Beijing, announcing the official launch of the China-U.S. Drug Control Cooperation Working Group.

On July 31, 2024, the first senior officials' meeting of the China-U.S. Anti-Drug Cooperation Working Group was held in the United States,

with the participation of a cross departmental joint anti-drug delegation from China and the United States.

On January 7, 2025, during a video call between Chinese State Councilor and Director of the China National Narcotic Control Committee, Wang Xiaohong, and Director of the Office of National Drug Control Policy (White House) Rahul Gupta, both sides stated that China and the United States should promote stable and far-reaching cooperation in drug control and law enforcement.

At the multilateral level, both countries have worked together within international frameworks such as the United Nations Office on Drugs and Crime (UNODC) to promote global drug control policies. They have also coordinated efforts to combat drug trafficking in regions like Southeast Asia and Latin America, where drug production and transit pose significant challenges. But differences in legal systems, law enforcement procedures, and data-sharing mechanisms complicate joint efforts. Rising tensions, particularly over trade and technology have strained the foundation of anti-drug cooperation. For example, the decentralized nature of U.S. drug policy (state vs. federal jurisdiction) creates challenges for coordinating with China's centralized regulatory framework. U.S. accusations of insufficient Chinese enforcement against fentanyl precursors have fueled mistrust. President Donald Trump's administration is using the fight against fentanyl as a "pretext" for increasing tariffs on Chinese goods. It is objected to by the Chinese government. Trump's policy is turning the anti-drug war into a trade war, which makes it difficult for the Chinese government's positive cooperation.

## 4. WHAT MORE COULD BE DONE?

Success in anti-drug efforts can help rebuild trust and create positive momentum for other areas of bilateral engagement. By focusing on mutual interests, both countries can move beyond areas of conflicts and foster a more constructive relationship.

Obtaining support from Beijing to stop the flow of illicit fentanyl and its precursor chemicals is an important first step in addressing the supply problem of the crisis in the United States. U.S. law enforcement agencies also need the support of Chinese local governments and law enforcement agencies, especially provinces that have large numbers of chemical makers. The following should be considered:

- 1. Removing blame and accusations toward China to help build confidence and trust.
- 2. Strengthening Institutional Mechanisms

Establishing dedicated bilateral working groups or task forces can streamline cooperation and address emerging challenges. Enhanced data-sharing agreements and joint training programs for law enforcement personnel can improve the efficiency of joint operations.

# 3. Expanding Public Health Collaboration

Increasing exchanges on addiction treatment and prevention strategies can address the root causes of drug abuse. Collaborative research into the social and economic drivers of drug addiction can inform more effective policies.

# 4. Leveraging Technology

Advanced technologies like AI and blockchain can be used to track precursor chemicals and disrupt trafficking networks. Developing joint databases and analytical tools can improve intelligence sharing and operational coordination.

# 5. Promoting Multilateral Initiatives

Leading international efforts to reform global drug control policies, emphasizing harm reduction and public health, can strengthen the global response to drug trafficking. Coordinating aid and technical assistance to developing countries affected by drug trafficking can enhance global stability.

# 5. CONCLUSION

Anti-drug cooperation remains a vital yet underutilized pillar of China-U.S. relations. It offers a unique opportunity to address a shared global challenge while fostering trust and collaboration in an otherwise contentious relationship. By deepening cooperation in law enforcement, public health and multilateral engagement, China and the U.S. can not only mitigate the drug crisis but also set a precedent for managing other complex transnational issues.

# CHAPTER ELEVEN – AMERICAN EXPERIENCES WITH OPIOIDS AND RELATED ATTITUDES ABOUT CHINA

## **By PAX** sapiens

To help understand American experiences with opioid overdose and perceptions about who should be blamed for synthetic opioid issues in the U.S., PAX *sapiens* commissioned a YouGov poll of 3,000 American adults to assess American experiences with opioids and how these experiences may affect attitudes about China. The full poll results will be released by PAX *sapiens* in late May.

#### **BASIC RESULTS**

- As found by previous polls, a large proportion of our sample had negative experience with opioids. 31% of American adults in our sample either directly experienced a loss due to opioid overdose or know someone who has. Of that number, 59% personally know someone who died, meaning that 18.3% of our sample knows someone who has died due to opioid overdose. When asked if they had personally had an experience they believe to be an overdose of opioids, 5.2% of the sample reported they had.
- When asked who was responsible for the increasing number of deaths due to opioid misuse in the US, the largest group of respondents blamed criminal cartels (67% of respondents) and drug users themselves (61%). Respondents blamed the U.S. federal government (51%), pharmaceutical companies (49%), and China (49%) at roughly similar rates. Other groups blamed included the Mexican government (47%), doctors prescribing opioids (42%), and state and local governments (41%).
  - When asked to pick a single actor most to blame, other than the users, the largest group of respondents (28%) blamed cartels. Other actors selected by relatively large groups of the sample included pharmaceutical companies (21%) and the U.S. federal government (21%). China was selected as the primary entity to blame by 11% of the respondents. State and local governments were selected by 6%, and the government of Mexico by 4%.

- When asked, regardless of blame, who should be held responsible for fixing the problem, a majority of the respondents (51%) said that the U.S. federal government should be responsible for fixing the problem. State and local governments were also held responsible by a relatively large group of respondents (20%). No other group was identified as the key group responsible for fixing the problem by more than 6% of the respondents, but other groups included criminal cartels (6%), private companies (6%), the United Nations (5%), the Chinese government (4%), the Mexican government (4%), and U.S. nonprofit agencies (3%).
- When asked what they thought would be useful ways of addressing problems with opioids in the United States, the most popular responses were increased enforcement to punish sales (49% of respondents selected this), sanctions or other enforcement actions by the U.S. government to pressure other countries to stop selling opioids or precursor chemicals (43%), improved international cooperation to address imports of fentanyl and synthetic opioids (40%), and more resources for addressing drug addiction (40%).

## PREDICTORS OF PERCEIVED OPIOID-CHINA LINK

We conducted statistical analyses to explore what variables predicted seeing China as more responsible for opioid issues. The results show:

- Younger generations are less likely to blame China for being responsible for opioid deaths compared to older generations.
- Those who have children under the age of 18 in the household are less likely to hold China responsible for opioid deaths than those who do not.
- Men are slightly more likely to blame China for opioid deaths than women.
- Those who are retired and homemakers are slightly more likely to blame China for opioid deaths than individuals with other employment statuses.
- Individuals identified as leaning towards or strongly affiliated with the Republican party, as well as Independents and those unsure of their party ID, are significantly more inclined to blame China for opioid deaths.
- Self-reported conservative Americans are more likely to hold China responsible for opioid deaths than liberals.
- Individuals who demonstrate greater political interest will have greater possibility to blame China for opioid deaths.

# RELATIONSHIP BETWEEN EXPERIENCE OF LOSS AND ATTITUDES ABOUT BLAME

- People who personally know someone who died from an opioid overdose are less likely to report that foreign governments like China and Mexico and other non-U.S. entities bear the responsibility for addressing the issue.
- People who have personally experienced what they believe to be an opioid overdose are more likely to think that foreign governments and other entities should be responsible for tackling the issue.
- However, no matter how direct experience level with opioid shifts, across all groups the U.S. federal government remains to be primarily held accountable for addressing the issue, followed by the local and state governments.

# **TECHNICAL DETAILS**

The poll reports a sample of 3,000 adult U.S. residents drawn from the YouGov panel survey and matched to a sample frame on the basis of gender, age, race, and education. The sample frame is designed to be representative of U.S. adults on the basis of demographics and political activity. Statistics reported above are weighted by demographics. Data were collected 12-20 March 2024. Margin of error is +/- 1.94 %

# LAW ENFORCEMENT
## CHAPTER TWELVE – DRUG REGULATION AND PUNISHMENT OF DRUG OFFENSES IN CHINA: ITS STATE CONTROL DIMENSION

#### By JIANHONG LIU, YIXUAN WANG, AND WA KONG<sup>10</sup>

#### **ABSTRACT:**

The global drug problem continues to worsen, with drug-related public health issues, organized crime, and other societal challenges posing significant threats to public health and social order. In China, drugs are viewed as a "cancer" undermining national stability and public well-being. The Chinese government has adopted a "zero-tolerance" policy toward drugs, implementing stringent prohibition across various areas of drug control. This paper examines China's state control mechanisms in drug control from two dimensions: the legislative framework for drug regulation and the practical application of law enforcement measures. In terms of drug regulation legislation, lawmakers have constructed a "categorization + classification" regulatory model in line with international trends, integrating definitions of controlled substances at the administrative level with law enforcement practices to ensure consistency in the entire process of drug control. At the law enforcement level, China focuses on administrative and criminal penalties, particularly in addressing drug-related crimes through severe punitive measures. This paper examines the strengths and limitations of these two aspects, focusing on how the regulatory framework and law enforcement practices shape the overall effectiveness of drug control in China. Through an examination of the strengths and limitations of these mechanisms, this paper concludes by discussing the implications of state control for the overall effectiveness of drug control in China and suggests potential avenues for policy improvement.

#### **1. INTRODUCTION**

Since the implementation of the reform and opening-up policy in 1978, China has witnessed a significant surge in drug use disorder.

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Official data indicate that the number of registered people who use drugs increased dramatically from 148,000 in 1991 to a peak of 2.955 million in 2014 (Office of China National Narcotics Control Commission, 2000, 2015). However, this trend began to reverse after 2015, with the number of registered individuals steadily declining to 896,000 by the end of 2023 (Office of China National Narcotics Control Commission, 2024). Chinese drug control authorities attribute this decline to the effectiveness of punitive measures implemented as part of the country's drug control policies (Embassy of the People's Republic of China in the United States of America, 2023).

Reflecting on the history of drug control in China, the Chinese Communist Party (CCP) has maintained a zero-tolerance approach and punitive drug policies to address drug-related issues (Hu & Yu, 2019; Liu et al., 2010). These policies have been manifested in the formulation of stringent drug control legislation, the implementation of punitive enforcement measures, and the establishment of compulsory drug rehabilitation systems. Within China's political discourse, drugs are framed as a grave threat to national stability, and drug use is portrayed not merely as an individual matter but as a behavior undermining social order and public health (Liang & Lu, 2013). Drug control wars are frequently characterized as "people's wars" against drugs (State Council Information Office of the People's Republic of China, 2000).

To consolidate an effective drug control governance structure, the National Narcotics Control Commission (NNCC) was established in 1990 as the highest authority for drug control, tasked with directing and coordinating nationwide drug control efforts (National Narcotics Control Commission, 2001). In addition to this commission, a number of other state institutions bear responsibilities for drug control. As the highest legislative body, the National People's Congress (NPC) has enacted the Drug Control Law (禁毒法) and other related legislative measures, while various administrative departments under the State Council manage functions such as public education, substance regulation, law enforcement, and people who use drugs rehabilitation. Furthermore, the police are responsible for maintaining public order, while procuratorates and courts are responsible for investigating, prosecuting, and adjudicating drug-related cases. This institutional framework, characterized as "a control imposed by law and/or implemented by official controlling organizations," can be aptly described as a state control mechanism (Jiang et al., 2007, p. 262). While the history of drug control in China demonstrates the country's commitment to a zerotolerance policy, this approach has not been without controversy. Critics

contend that the aggressive reliance on enforcement and punitive measures has not only failed to address the root causes of drug use but has also led to restrictions on individual freedoms, highlighting a need for a more balanced, rehabilitation-focused approach that integrates public health principles (Cohen & Amon, 2008; Li, 2017; Miao, 2017).

Building on this foundation, this paper examines two key aspects of China's state control mechanism: the legislative and administrative frameworks for drug regulation, and the enforcement strategies and criminal justice responses to drug-related offenses. By critically analyzing the current state of drug legislation, regulatory policies, and enforcement practices, this study assesses the strengths and limitations of a control model primarily driven by state mechanisms, providing a nuanced evaluation of its broader implications for drug policy and governance.

#### 2. THE FOUNDATION OF DRUG CONTROL — DRUG REGULATION

China's drug control has generally followed international trends in drug regulation since 1978. As a signatory of the International Drug Control Conventions (1961, 1971 and 1988), China has gradually improved its domestic drug control legislation in line with the frameworks of these three major conventions. Following China's accession to the 1961 Single Convention on Narcotic Drugs and the 1971 Convention on Psychotropic Substances, the National People's Congress Standing Committee issued the Pharmaceutical Administration Law (1984) (药品管理法), which differentiated between narcotic drugs and psychotropic substances. Subsequently, the State Council released the Measures for the Control of Narcotic Drugs (麻醉药品管理办法) and the Measures for the Control of Psychotropic Substances (精神药品管理 办法) in 1987 and 1988, respectively, further refining the management of narcotic drugs and psychotropic substances (Chen et al., 2021). In response to the smuggling of precursor chemicals, contributing to problems related to synthetic drugs, the Ministry of Health, the Ministry of Foreign Economic Relations and Trade, the Ministry of Public Security, and the General Administration of Customs jointly issued the Notice on the Export Licensing of Three Special Chemicals (关于对三种 特殊化学品实行出口准许证管理的通知) in October 1988, marking the first implementation of export licensing for precursor chemicals such as acetic anhydride, ether, and chloroform. This initiative marked the beginning of China's synchronized regulation of precursor substances,

laying a legal foundation for subsequent drug control efforts (Chu & An, 2023).

In the early 21st century, global changes in the drug market structure, particularly the declining production of traditional opiates, advancements in drug manufacturing technologies, and heightened international drug control efforts, have led to a significant increase in the share of synthetic drugs. Meanwhile, the Legislation Law (立法法), adopted by the National People's Congress in 2000, initiated a new round of comprehensive adjustments in China's legislative system, which significantly impacted drug regulation laws, stimulating revisions and improvements in related regulations. As the foundational law for substance regulation, the Pharmaceutical Administration Law has been revised several times since its first revision in 2001, in 2013, 2015, and 2019, undergoing significant adjustments with respect to the supervision of controlled substances, including aspects of production, operation, import/export, and usage. Correspondingly, the State Council introduced the Regulations for the Implementation of the Pharmaceutical Administration Law (药品管理法实施条例) in 2002, which was revised in 2016, 2019, and 2024, further refining the legal framework for pharmaceutical administration.

To complement the revisions of the *Pharmaceutical Administration Law*, the State Council promulgated the *Regulation on the Control of Narcotic Drugs and Psychotropic* Substances (麻醉药品和精神药品管 理条例) in 2005 (the 2005 Regulation), which has been amended three times, in 2013, 2016, and 2024. The 2005 Regulation abolished the previous separate legislative frameworks for narcotic drugs and two categories of psychotropic substances. Moreover, the Catalogue of Narcotic Drugs and Psychotropic Substances (麻醉药品和精神药品品 种目录), as an annex to the 2005 Regulation, clearly lists the specific substances. Notably, this catalog is dynamic and can be updated by relevant departments authorized by the State Council to include new substances with a high risk for abuse, particularly those that may cause significant harm to society.

Since 2010, many countries have reported an emerging trend in the use of new psychoactive substances (NPS) (United Nations Office on Drugs and Crime, 2012). In response, in 2015, the relevant departments of the State Council jointly issued the Regulations on the Control of Non-medical Narcotic Drugs and Psychotropic Substances (非药用类麻醉药品和精神药品列管办法), which introduced a list of substances to be regulated that are not used for medical purposes but are addictive or

have a risk for being addictive. As of July 2024, the list includes 220 substances, along with entire classes of fentanyl derivatives and synthetic cannabinoids. Compared with the administrative procedures for medical narcotic drugs and psychotropic substances (which are supervised by the State Council's drug administration), the substances not yet regulated are monitored by the Office of National Narcotics Control Commission (ONNCC), which has established an expert committee for risk assessment and regulatory consideration. When the ONNCC identifies a substance with risk for abuse, it submits the substance to the expert committee for further evaluation. Therefore, from the perspective of regulatory entities and procedures, this legislation mainly focuses on substances that have not yet been regulated, but possess risk for abuse (Yang, 2021).

To sum up, China's administrative drug control system operates under a "categorization + classification" model (Bao, 2022). Specifically, categorization refers to distinguishing narcotic drugs and psychotropic substances into medical and non-medical categories based on their medicinal value, with medical narcotic drugs and psychotropic substances subject to stricter regulation and directly overseen by the State Council's drug administration. Classification involves identifying substances according to their impact on the central nervous system and the risk for physiological dependence, with different levels of management measures applied depending on the risk level. For instance, Class I psychotropic drugs usually have significant effects on the central nervous system and are subject to stricter regulation, while Class II psychotropic drugs primarily treat sleep disorders, with less physiological dependence and more lenient oversight. This regulatory framework enables authorities to manage various types of drugs and related substances effectively, while also providing the flexibility to address the emergence of new substances.

In addition to manufacturing known synthetic drugs, drug manufacturers have increasingly sought to evade regulatory laws by using precursor chemicals to produce new drugs, which are then marketed as "legal drugs" (Sajwani, 2023). In fact, as early as 1988, the United Nations established an international framework for the control of precursor chemicals under the *United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances*. Since 2000, the United Nations has repeatedly emphasized the urgency of precursor chemicals regulation and promoted international cooperation. In line with this international context, the State Council promulgated the *Regulation on the Administration of Precursor* Chemicals (易制毒化学

品管理条例) in 2005 to regulate the production, operation, purchase, transportation, import, and export of precursor chemicals used in drug manufacturing. The Regulation specifies the supervisory bodies responsible for overseeing precursor chemicals and defines their legal responsibilities (Chu, 2020).

In regulating precursor chemicals, the "categorization + classification" model is similarly applied. Specifically, precursor chemicals are classified into three categories: Class I includes primary raw materials for drug production, subject to a licensing system; Class II and III include chemical reagents used in drug production, subject to a registration system. Additionally, based on whether they are used in pharmaceutical production, precursor chemicals are divided into pharmaceutical and non-pharmaceutical categories. To ensure effective enforcement of regulations, relevant departments of the State Council established the Measures for the Licensing for Production and Operation of Non-pharmaceutical Precursor Chemicals (非药品类易制毒化学品生 产、经营许可办法) in 2006 and the Measures for the Administration of Pharmaceutical Precursor Chemicals (药品类易制毒化学品管理办法) in 2010, which include a controlled substances list-the Catalog of Nonpharmaceutical Precursor Chemicals (非药品类易制毒化学品分类和品 种目录) and the Catalog of Pharmaceutical Precursor Chemicals (药品 类易制毒化学品分类和品种目录).

Overall, over the past few decades, China has made significant progress in drug regulatory legislation, gradually aligning with international standards. It is evident that the purpose of this drug regulation is to reduce the supply of drugs from the supply side. However, current supply-side interventions may encounter difficulties addressing the rapidly changing drug market. For example, a study in the United States found that while interventions targeting precursor chemicals for methamphetamine were effective in reducing drug supply in the short term, producers quickly found substitute materials, failing to fundamentally reduce related crimes (Dobkin & Nicosia, 2009). This experience highlights the importance of adopting comprehensive and dynamic drug administrate strategies to effectively address drug use disorder and its associated problems in the long term.

#### 3. THE PRACTICE OF DRUG CONTROL— PUNISHMENT FOR DRUG OFFENSES

Law enforcement is considered another key measure in reducing drug-related harms (Jacques & Wright, 2011). In China, drug law enforcement spans multiple domains, from administrative management to criminal justice. The current legal framework for drug enforcement is centered on the Drug Control Law (禁毒法). The Public Security Administration Punishment Law (治安管理处罚法) provides detailed provisions for administrative penalties, while the Criminal Law (刑法), the Criminal Procedure Law (刑事诉讼法), and relevant judicial interpretations offer specific guidelines for criminal penalties. This legal system ensures comprehensive suppression and effective regulation of drug-related offenses.

Due to China's comprehensive drug control policy, any drug-related behavior that violates the law is classified as an illegal behavior and subject to corresponding sanctions. Notably, China adopts a dual-track punitive system comprising administrative and criminal penalties (Wang, 2024). However, there is significant overlap between provisions in the *Public Security Administration Punishment Law* and the *Criminal Law* concerning drug-related offenses. As a result, an individual may simultaneously violate administrative regulations and criminal statutes. Generally speaking, a single violation is subject to only one form of punishment. Specifically, minor acts are classified as administrative violations, whereas more severe acts may constitute criminal offenses (Li, 2021).

Moreover, penalties under the *Public Security Administration Punishment Law* are classified as administrative and are imposed based on the extent of damage caused by an offense to individual rights, public interests, or social order. In this context, administrative penalties are enforced by public security agencies, typically the police responsible for maintaining public order. These agencies are tasked with conducting investigations and issuing penalties, which may include fines and administrative detention, with a maximum detention period of 15 days. Importantly, drug use, in contrast with some other drug-related behavior, is treated solely as an administrative violation and does not constitute a criminal offense. Furthermore, individuals with substance use disorders are subject not only to administrative penalties but also to compulsory drug rehabilitation programs.

Compared with administrative penalties, criminal penalties are more complex and carry harsher consequences. In criminal justice procedures,

public security agencies (responsible for criminal investigations) investigate suspected drug offenses and gather evidence to confirm criminal acts (Jie & Wang, 2020). Once an investigation is complete, the case is referred to the prosecution for review. If the evidence is deemed sufficient, the prosecution may decide to file charges and send the case to court. During the trial stage, judges base their final ruling on the facts of the case and applicable legal provisions, determining whether the defendant is guilty and what legal responsibilities they should bear. In determining whether some drug-related behavior constitutes a crime, law enforcement or judicial authorities must evaluate three key questions: first, whether the substance involved falls within the statutory definition of a drug; second, whether the behavior meets criminal criteria; and third, how to determine appropriate punitive measures (Lai, 2012).

As for the first question, determining whether a substance is legally considered a drug is the foundation for assessing whether a criminal offense in relation to it has occurred (Yang, 2024). Law enforcement or judicial officers must refer to the aforementioned catalogues of controlled substances, which includes plants from which drugs are extracted, narcotic drugs, psychotropic substances, and precursor chemicals. However, with the rapid evolution of the drug market, especially the expansion of NPS, law enforcement officers face increasing challenges in identifying drugs. According to the United Nations Office on Drugs and Crime (UNODC), the first report on NPS, published in 2013, recorded 254 substances, while by November 2023, 1,230 NPS had been recorded (United Nations Office on Drugs and Crime, 2024). This dramatic increase highlights the rapid evolution of NPS and the complexity of the global drug market (Chung et al., 2016). In this context, the shortcomings of the current "list-based" regulatory model have become more apparent. For instance, according to the 2005 Regulation, substances not yet controlled are only considered for inclusion in the regulatory list when abuse occurs and causes, or has the potential to cause, serious social harm. This reactive regulatory approach has led to delays in enforcement, hindering the timely response to the rapid emergence of new drugs (Bao, 2018).

As for the second question, the subjective intent of the perpetrator is a critical factor in determining whether a drug-related behavior is of a criminal nature. Although evaluating the criteria of crime falls within the realm of criminal law philosophy, under China's codified legal system, the *Criminal Law* has predetermined standards for criminalization, which, to some extent, restrict judicial discretion and may lead to mechanical legal decisions in practice. The *Drug Control Law* explicitly lists "medical, educational, and research purposes" as legitimate uses. However, as the sole direct legal basis for conviction, the *Criminal Law* does not clarify the role of subjective intent in determining guilt or innocence. For example, narcotic drugs play an irreplaceable role in certain medical treatments. However, individuals involved in the sale or distribution of these substances without proper legal authorization may still face criminal liability. This approach fails to consider legitimate social needs and could negatively affect public health, research, and education sectors (Wu et al., 2022).

In recent years, increased academic critique of the failure to examine subjective intent in criminalization has prompted judicial authorities to reconsider and adjust criminal standards (Fan, 2023; Fang, 2024; Mei & Chen, 2024). For example, in 2023, the Supreme People's Court issued the Memo of the National Court Conference on Drug-related Crime Cases (全国法院毒品案件审判工作会议纪要), which stipulated that smuggling, trafficking, transporting, or manufacturing narcotic drugs and psychotropic substances without legitimate uses should be classified as drug-related crimes. However, if an individual engages in such activities for medical or other legitimate purposes without permission, it should not be regarded as a drug-related crime. This change marks a shift in the Chinese criminal justice system's approach to drug-related cases (Fang, 2023). Nevertheless, these memos serves as guiding documents for judicial work and do not have formal legal authority. It is binding only on the court system and does not directly influence investigation activities by public security agencies or the prosecution's decision to file charges (Hou, 2020). The lack of broad application across the entire criminal justice process may lead to inconsistent standards across the investigation, prosecution, and trial phases. This inconsistency highlights issues in the application of law in drug cases, potentially affecting the fairness of the judicial process. To ensure judicial fairness and consistency in the application of the law, future efforts should aim to improve relevant laws and regulations, definitions of drug crime standards, and procedures-especially for controlled substances used for legitimate purposes-to allow the law to adapt to practical needs. Furthermore, given the complexity of drug-related offenses, judicial bodies should enhance inter-departmental cooperation, and standardize legislation and judicial interpretation, to reduce discrepancies in legal judgments.

Concerning the third question, in the context of China's criminal justice system, the adjudication of drug-related crimes is predominantly governed by the dual principles of "combining leniency with severity" and a stringent "zero-tolerance" policy. The *Criminal Law* stipulates varying penalties for different categories of drug crimes, contingent upon the nature and gravity of the crime. Furthermore, judicial interpretations and normative documents, such as the *Guiding Opinions on Sentencing for Common Crimes*, provide additional clarity on sentencing benchmarks. These laws shape prosecutors' sentencing recommendations, which significantly affect judicial decisions (Xiao & Xie, 2021).

Under the criminal justice framework of China, judicial responses to drug-related crimes are not fundamentally differentiated from those applied to other criminal crimes; however, judicial authorities systematically tailor legal sanctions and intervention strategies in accordance with the objective severity of narcotics crimes. In cases involving minor offenses, such as illegal drug possession or small-scale trafficking, prosecutors may, upon evaluating the evidentiary basis, consider applying the leniency system for guilty pleas and propose mitigated sentencing recommendations. Conversely, in alignment with the "zero-tolerance" policy, severe crimes-including drug smuggling, transnational organized trafficking, and large-scale manufacturing-are met with rigorous prosecutorial strategies. These include stringent arrest protocols, the avoidance of leniency mechanisms, and the issuance of harsher sentencing proposals to ensure the gravity of the crime is adequately addressed (Chen, 2019). For instance, in serious drug crime cases potentially warranting life imprisonment or more severe penalties, while initial investigative and arrest procedures are typically managed by local public security and prosecutorial bodies, the case must be escalated to a higher-level procuratorate for review upon reaching the prosecution stage (Yuan & Xiao, 2021). This framework reflects a philosophy of "leniency in minor offenses and severity in major crimes," where lighter procedures and sentences are applied to lesser drug crimes, and stricter measures and harsher penalties are imposed for more serious ones.

In addition to the legislative framework, punitive criminology also plays a key role in shaping judicial responses, particularly with respect to sentencing for drug-related crimes. Specifically, the *Criminal Law* has lowered the age of criminal responsibility for drug offenses to 14 from 16 years, ages at which individuals are also subject to criminal responsibility if they commit major offenses such as intentional homicide, serious injury, rape, robbery, arson, bombing, or placing dangerous substances. Moreover, the *Criminal Law* imposes harsher penalties for repeat offenders and applies the death penalty for particularly severe drug crimes. One implication is also that drug trafficking is legally treated with the same severity as major violent crimes and is classified as a "most serious crime." However, the term "most serious crimes" typically refers to violent offenses such as murder (Lines, 2010). Drug crimes primarily harm economic and social order without directly involving violence and thus do not align with the international definition of "most serious crimes" (United Nations Human Rights Council, 2018; World Health Organization, 2019).

Judicial practice data further demonstrate the continued presence of strict penal policies within China's criminal justice system for drugrelated crimes. From 2012 to 2023, over 20% of drug crime cases resulted in sentences of more than five years, a significantly higher rate than that for other criminal cases, which averaged 8%-17% during the same period. This penal strategy has sparked widespread debate. The approach of "certainty and severity of punishment" appears to have curbed drug-related crimes somewhat, and data show a decline in drug offenses and the number of offenders in recent years (see table 1). However, these data may obscure changes in the drug market. On the one hand, shifts in the global drug market and the rise of NPS have gradually become a global issue (United Nations Office on Drugs and Crime, 2024). According to Drug Situation Report, although the consumption of heroin and methamphetamine has been decreasing year by year, the abuse of unregulated substitute drugs, particularly NPS, is rising (Office of China National Narcotics Control Commission, 2024). On the other hand, the complexity of the drug supply chain has significantly increased. Drug smuggling networks have evolved from a linear, single model to a global, decentralized network. Transnational drug trafficking organizations use covert logistics and darknet trade channels to transport drugs to target markets, greatly increasing the difficulty of enforcement agencies in regulating and combating drug crimes (Martin, 2014; Pergolizzi et al., 2021).

# TABLE 1: NATIONAL DRUG-RELATED CRIME STATISTICS IN CHINA (2015–2023)

Year	Number of	Number of	Quantity of	Number of
	closed cases	suspects	drugs seized	people who use
	(10,000	(10,000	(tons)	drugs (10,000
	cases)	persons)		instances)
2015	16.5	19.4	102.5	106.2
2016	14.0	16.8	82.1	100.6
2017	14.0	16.9	89.2	87.0
2018	10.96	13.74	67.9	71.7
2019	8.3	11.3	65.1	61.7
2020	6.4	9.2	55.5	42.7
2021	5.4	7.7	27.0	32.6
2022	3.5	5.3	21.9	19.7
2023	4.2	6.5	25.9	19.5

#### Notes:

- *Number of closed cases: Refers to the total number of drug-related cases resolved annually.*
- Number of suspects: Indicates the annual number of individuals apprehended for drug-related crimes.
- **Quantity of drugs seized:** Represents the total weight of various types of drugs confiscated annually (in tons).
- Number of people who use drugs: Reflects the total number of instances where people who use drugs were investigated annually.

In conclusion, while strict enforcement has seen short-term success, the evolving drug market, NPS emergence, and complex trafficking networks pose significant challenges for future drug control in China. Looking forward, law enforcement and judicial agencies must focus more on market changes, adapt to the potential threats posed by new drugs, and explore more flexible and effective response mechanisms.

#### 4. DISCUSSION AND CONCLUSION

In the war on drugs, state control has been widely applied to all aspects of drug governance in China, aiming to curb drug circulation through the creation of a high-pressure environment. To understand this governance model, it is essential to analyze it from the structural perspectives of China's history, culture, and politics. These factors have collectively shaped the policies and practices implemented by the Chinese government in the area of drug control.

Historically, as one of the largest producers and consumers of opium in the world, China has been profoundly affected by the harms of opium, particularly in the aftermath of the Opium Wars, which dealt a devastating blow to the Qing government and resulted in severe public health consequences (Lu et al., 2016; Lu et al., 2008). Following the establishment of the PRC, the CCP, through rapid and stringent drug control measures, garnered widespread public support. Drug control efforts were not only seen as a necessary social governance action but were elevated to a major national policy concerning the country's fate and the welfare of its people. The Party and the government used this policy to shape the mainstream ideological stance of society (Liang & Lu, 2013). In this context, the implementation of drug control policies not only reinforced the government's legitimacy but also fostered a public consensus against drugs. Compared with other nations, China's unique historical background made it easier to shape public opposition to drugs, facilitating the widespread acceptance of drug control policies at the national level.

China is widely recognized as a collectivist society (Earley, 1989), and this collectivist value system has further strengthened the rationale for implementing stringent drug control policies. In collectivist societies, the state is often seen as a paternalistic figure responsible for protecting citizens from harm. This cultural tradition led the government to adopt a paternalistic role in addressing the drug problem, employing punitive measures (Stacy, 1983). Specifically, drug use is defined as an act that damages collective interests, making it more likely to be strongly opposed and combated by mainstream societal values. Research has shown that when Chinese students perceive their country to be facing serious criminal problems, they are more likely to believe that certain state control methods, such as policing and incarceration, are effective in curbing crime (Jiang et al., 2014). This trust further reinforces public support for the government's strict drug control policies.

Politically, China's historical tradition of centralized governance (Liang, 2007; Wencai, 2023) has played a pivotal role in facilitating the enforcement of nationwide drug control measures. Although China's current political system operates through the People's Congress, the one-party system ensures the centralization of power, providing unique advantages for nationwide drug control initiatives. The centralized political structure enables the government to efficiently coordinate drug control efforts from the top down, with public authorities capable of

swiftly mobilizing and implementing policies, thereby enhancing the effectiveness of drug control enforcement. This political system has allowed China to promote strict drug control policies across the entire country, ensuring consistency and efficiency in law enforcement.

Although the state control model has optimized China's drug control efforts to some extent, it still leaves a range of issues that warrant reflection, particularly from the perspectives of evidence-based drug control and insights from international practices. Building on a wellknown analysis of economic theory, the relationship between the intensity of law enforcement and the effectiveness of drug control measures is not linear. The concept of marginal effects, as proposed by Marshall (2013), helps in understanding the changes in enforcement costs and drug control outcomes. Initially, increasing the intensity of drug control law enforcement may lead to significant results. However, as enforcement intensity continues to increase, the marginal effects begin to diminish and may even result in counterproductive effects. For example, Poret (2002, p. 483) notes: "When the drug law enforcement authority is harsher, either by increasing the sanction or by increasing the resources allocated to detection, the number of consumers can grow on the market." This phenomenon indicates that while increased enforcement may initially be effective, its impact decreases as resources and measures intensify, and in some cases, it may encourage drug producers to seek alternative substances, further complicating the issue. Therefore, when implementing drug control policies, the government must be aware of these diminishing returns and avoid over-relying on high-pressure enforcement methods, while also considering potentially more effective non-coercive measures such as public education and social interventions.

Furthermore, stringent drug control policies can have secondary effects. As mentioned earlier, the short-term impact of strengthened drug control policies can be significant, but with the evolving drug market, producers quickly shift to the synthesis and production of new drugs. These new drugs, with complex chemical properties, lower production costs, and diverse trafficking methods, pose greater challenges for enforcement and regulation (Sajwani, 2023). The emergence of new drugs not only increases law enforcement costs but also exacerbates public health issues, posing greater health risks and potentially leading to more severe fatalities (Shafi et al., 2020; Suzuki & El-Haddad, 2017). Therefore, while strict drug control measures may yield short-term success, in the long run, they could intensify the drug problem and lead to higher social costs.

#### Saving Lives and Protecting Societies from Synthetic Opioids

With the deepening of China's reform and opening up, along with the accelerating process of globalization, Western cultural and value systems have gradually permeated Chinese society, particularly among the younger population (Liu & Wang, 2009). Many young people have embraced Western individualistic values, viewing drug use as a matter of personal freedom and choice. This shift has influenced their attitudes toward government-imposed drug control measures. A study by Lin and Zhang (2014) shows that young people are more likely to view drug use as a matter of personal freedom and to reject excessive governmental intervention. This shift reflects not only a transformation in China's societal values but also suggests that the strict legal and high-pressure enforcement strategies characteristic of the drug control policies may encounter difficulties in gaining widespread support among the vounger generation. Therefore, this change in values may undermine the effectiveness of the government's enforcement efforts in the field of drug control, potentially affecting the long-term outcomes of the policies.

From a long-term perspective, when formulating and adjusting drug control policies, the Chinese government needs to reconsider the scientific basis and sustainability of high-intensity state control. Specifically, lawmakers should adopt a forward-looking approach, analyzing the evolving trends of the drug market and the characteristics of substances to ensure that relevant laws can meet the needs of administration, criminal justice, and drug rehabilitation. Additionally, legal texts should be flexible to accommodate rapidly changing drug dynamics and provide a guiding framework for related fields. In law enforcement, it is crucial to reduce reliance on punitive measures. By enhancing professional law enforcement capabilities, it is possible to more effectively address drug-related crimes and deviant behaviors. In addition to state control, informal mechanisms should also be integrated into the policy framework. For instance, active participation from local communities, non-governmental organizations, and international partners can provide important support and safeguards for policy implementation and reform. By employing a comprehensive strategy that includes education, harm reduction, and rehabilitation, it is possible to more effectively address the complexity of the drug issue and promote longterm changes in drug control policies.

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## CHAPTER THIRTEEN – U.S.-CHINA DRUG ENFORCEMENT COLLABORATION

#### By DANIEL BALDWIN<sup>11</sup>

The United States and China are both deeply affected by the illicit drug trade. For China, the scourge of opium poppy damaged generations of addicts from the early 1800s onwards. More recently in the United States it has been synthetic opioids causing immense harm and deaths on the streets. These powerful opiate drugs are a shared problem that have inflicted immense suffering on both nations. Since the early 1990s our respective law enforcement agencies have worked together to combat drug abuse; our efforts have been marked by periods of fruitful cooperation and periods of tension, reflecting the sometimes-complicated relationship between our two countries.

U.S.-China counternarcotics collaboration began as both sides recognized the global nature of the drug trade and the need for joint action. This has involved information sharing in the furtherance of joint criminal investigations and working together to dismantle drug trafficking networks. Despite the challenges of two different legal and political systems, there have been many successful collaborations on drug syndicates and on drug policy, proving that anti-narcotics cooperation can yield positive outcomes for both countries. For example, a 2003 joint operation known as the "125 Case" dismantled a major international trafficking ring sourcing heroin from Myanmar and transiting it through China to be distributed in the United States and Canada. The successful outcome of this case underscored the importance of good coordination between U.S. and Chinese law enforcement agencies to effectively take down a sophisticated syndicate. Another example is in the area of new designer drugs, such as synthetic cannabinoids and so-called 'bath salts' featuring synthetic cathinone. These started appearing in the U.S. as imports from China around 2010, and at first, these new drugs were viewed as 'legal highs,' despite the health evidence they were being abused and causing serious medical problems. By 2011 the U.S. had introduced emergency scheduling to try

<sup>&</sup>lt;sup>11</sup> Director of Joint Action on Drug Elimination (JADE), PAX sapiens

and curb the abuse, and both China and the U.S. recognized the need to effectively identify these new substances to understand the problem from both enforcement and health perspectives. To identify these substances more quickly, we exchanged expertise in drug forensics to share knowledge and standards that established a substance's chemical composition. This was crucial for regulating and controlling these new emerging drugs and led to a strong partnership between China's Narcotics Control Laboratory in Beijing and the U.S. DEA's Special Testing and Research Laboratory. This cooperation not only helped the U.S. and China address the immediate crisis but also prepared both sides for the surge of new synthetic drugs that followed.

The rise of synthetic opioid abuse in the U.S., especially fentanyl, has only intensified the need for continued Sino-U.S. cooperation. China is the world's largest producer of chemicals for all manner of legitimate industrial, pharmaceutical, and household daily uses, it is also a significant source of fentanyl and its precursor chemicals and therefore has become a central focus for U.S. efforts to reduce the fentanyl crisis now evident in North America. Diplomatic tensions between our countries have impacted this vital law enforcement collaboration. Further complicating the issue has been the evolving role of Mexican drug cartels in supplying fentanyl to North American markets, thus introducing a third jurisdiction and all the complexities of the wellestablished cartel approach to organized crime. Initially, the cartels focused on smuggling fentanyl from China into Mexico for on-sale to the U.S. Effective regulation of fentanyl as a class of drugs by the Chinese government to assist the U.S. with the issue has seen the problem 'shapeshift' to cartels importing non-controlled precursor chemicals to Mexico and then producing fentanyl themselves.

This move poses a major challenge to U.S. efforts to cooperate with China on the fentanyl issue. U.S. authorities have struggled to provide Chinese law enforcement with actionable criminal intelligence due to the limited information received from Mexico about fentanyl production and the types of chemicals used. Furthermore, when precursor chemicals are identified, we find it difficult to ask China to address and control chemicals that are not currently regulated under their laws, or for that matter under U.S. laws. Further complications are that most of the precursor chemicals now used by the cartels are standard types of chemicals found in regular trade for the production of legitimate items. This inability to effectively share even basic actionable intelligence or find reciprocity on the alleged crimes of selling such uncontrolled chemicals knowingly to a criminal cartel has added more obstacles to an already complicated obstacle course.

While we have experienced successes in our joint anti-narcotics efforts over the years, in the current period frustrations abound; particularly regarding Chinese authorities' limited ability to act on what is clearly a major health crisis in the U.S. It's important to acknowledge that these frustrations are sometimes mutual, Chinese law enforcement officials report they too feel frustrated and constrained by the situation when trying to cooperate with the U.S.

Underpinning almost all successful international law enforcement cooperation is a bedrock of trust; trust as to how sensitive information will be treated during and after an investigation, trust as to how the outcomes of a case will be managed, trust that when things don't go perfectly to plan (they never do) that unwanted blame is not going to spill over into the diplomatic or political arena, trust that both sides are genuinely fighting the criminals and for victims and not some ulterior political purpose. For these all-so-important 'trust' reasons, the current low-trust geopolitical environment is particularly corrosive to law enforcement cooperation.

Given that the fentanyl crisis is primarily a U.S. problem, it is our responsibility to ensure that the intelligence we share with Chinese authorities is actionable and relevant to their legal framework. We must be mindful that a law enforcement solution may not always be feasible within the Chinese legal system, or the U.S. system, and we should avoid expressing frustrations in a manner that could hinder further cooperation in either jurisdiction. In cases where Chinese or U.S. law does not directly address the issue at hand, we should explore alternative avenues of collaboration. This could involve sharing information on money laundering, disrupting financial networks, or collaborating on public health initiatives. Our approach should prioritize our mutual interests, recognizing that our goals are to dismantle criminal networks, mitigate the harm of illegal drugs, and protect the well-being of both countries' citizens.

The challenges posed by political and geopolitical factors are undeniable, but both the U.S. and China share a clear interest in combating the illicit drug trade, that interest is decades old and both countries know from bitter experience the harm such powerful drugs can do if left unchecked in our communities. Building trust, addressing each other's concerns, and finding common ground are essential steps towards making real progress.

## CHAPTER FOURTEEN – APPLYING LAW ENFORCEMENT THINKING OF CRIME CONTROL TO THE WICKED PROBLEM OF THE NORTH AMERICAN FENTANYL CRISIS

#### By HAMISH MCCARDLE<sup>12</sup>

#### INTRODUCTION TO CRIME CONTROL

On first encounter with the term crime control, it could mistakenly be assumed to be exclusively a law enforcement exercise, or perhaps a product of modern criminological study. In fact, crime control, or perhaps better thought of as a government or community concern with the social problems of crime, is at least as old as the time humans began to build cities and co-exist in groups.

The desire to protect oneself and one's way of life is central to the idea of society finding ways to achieve stability through forms of control. Usually by dedicating some coordinated efforts toward guarding, protecting, and regulating activity in society, and underpinning those efforts with rules and education of the rules. These might at times take the form of religious texts and moral guides to orderly life, and increasingly as statutes, regulations, and formal government communications. Clearly, this is a large and complex topic that is often studied under the broader academic fields of political science and law, and situational crime prevention.<sup>2</sup>

Discussing that serious breadth of activity is not the purpose of this short and largely non referenced contribution; rather, the modest aim here is to simply position the idea of adopting a crime control strategy approach to the wicked problem of the fentanyl crisis in North America and explore what it may yield.

#### CAN CRIME CONTROL THINKING BE APPLIED?

For the aims of this project, the article suggests there are benefits in using the discipline and objectivity found in crime control strategy development. Firstly, such a strategy can assist to depoliticise analysis of

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the causes of the fentanyl abuse problem. Secondly, it can add focus to the full-play of issues from supply, logistics, criminal production, and distribution of fentanyl to users. Taken together, a crime control strategy can identify where the best opportunities are for *PAX sapiens* to apply its resources to impact the fentanyl crisis, and at which points in the supply chain.

Appendix I features two slides that were presented during the first *PAX sapiens* Comprehensive Drug Dialogue (CDD), held in Thailand in May 2024. The slides are not intended to be exhaustive nor a final product. Rather, they are illustrative of how application of standard crime control thinking could yield a schema for understanding the breadth of the fentanyl supply problem.

Appendix II presents two slides from a separate presentation at the Phuket CDD; the kernel of that presentation was to encourage the necessary trust conditions in the Sino-U.S. relationship to enable a crime control strategy to work. 'Trust' is a key point of this article; for without the right conditions of trust between Chinese and American officials, the success of activities listed in the Appendix I control strategy slide will be significantly curtailed.

#### **APPENDIX** I

		MORE LOCATE	D IN ASIA / CHINA	MORE LOCATED IN AMERICAS / USA	
LEA FOCUSED USER & HEALTH SYSTEM FOCUSED		Supply World	Logistics World	Clan-Lab World	User World
	Influence Hearts & Minds	Track I & II Policy & Private Industry	Track I & II Policy & Private Industry		Health Services
	Demand Reduction	Track I & II Policy & Private Industry	Track I & II Policy & Private Industry		Health Services
	Rehab Increase				Health Services
	Regulate Activity	Track I & II Policy & Private Industry	Track I & II Policy & Private Industry		Health Services
	Target Systems	Law Enforcement & Private Industry	Law Enforcement & Private Industry	Law Enforcement	Law Enforcement & Health Services
	Target Criminals	Law Enforcement	Law Enforcement	Law Enforcement	Law Enforcement
	Target Money	Law Enforcement	Law Enforcement	Law Enforcement	Law Enforcement

		MORE LOCATED IN ASIA / CHINA		MORE LOCATED IN AMERICAS / USA	
		Supply World	Logistics World	Clan-Lab World	User World
CATE / SUPPLIER REACTION ANTICIPATION	Influence Hearts & Minds	Change product Social media	Change source location	Change lab location	Change product Social media
	Demand Reduction	Increase potency decrease price	Change routing or integration model	Change integration model	Change product Social media
	Rehab Increase			Influence choice of rehab	Frustrate Health Services
	Regulate Activity	Corruption or avoidance	Corruption or take over	Corruption or avoidance	Better services easier to buy
	Target Systems	Diversify or encrypt	Diversify or encrypt	Corruption or avoidance	Easier and Anonymous
	Target LEA	Corrupt or Buy Companies	Corrupt or Buy Logistics	Corruption or avoidance	
SYNDI	Target Money	Bitcoin / Tokens Change the Game	Buy the Company Integrate	Corruption or avoidance	New ways to pay Easier / Anon

#### **EXPLAINER TO APPENDIX I**

Slide One looks at the abuse of fentanyl through analysis of the supply chain. Along the top of the slide from left to right flows from the business world of chemical production through to the criminal world of drug supply and finally the victim world of fentanyl abusers. The use of the term 'worlds' to broadly encompass areas of activity is subjective, perhaps a better term can be located later. Thinking through the supply

chain logically draws the reader to interpret the slide from production to end-user, and it depicts the activity moving from Asia/China as source through to the Americas/USA for criminal distribution and abuse. The generic geographic terminology used is intentional to recognise that these are key locations of action in the fentanyl supply chain, including sources of chemical supply that are not restricted to China, and criminal distribution and drug abuse not limited to the U.S.

The side axis of Slide One presents some generalised descriptions of interventions that one might employ to attend to the interdiction or mitigation of fentanyl related problems. These are suggestively arranged from what are seen as more law enforcement and coercive activities at the bottom, through to the interventions which are more health, policy and regulatory focused at the top. Again, the terminology is perhaps a little too expressive and remains open for improvement.

The utility of such analysis is to prompt thinking of what sort of activities need to occur to impact the problem of fentanyl; identify where gaps exist and promote rational discussion of the potential intervention activities. Especially useful for the Track II efforts of *PAX sapiens*, is to see where in the schema its efforts are best applied; and which parts of the overall problem might better remain the domain of Track I.

Slide Two presents the same axis information as Slide One, but it invites the reader to consider what happens after a mitigation or intervention occurs. This is, therefore, a depiction of speculation of how the criminal market may react. The benefit of this type of analysis is in anticipating that criminal markets will usually respond to interventions, and those responses can sometimes be planned for and sometimes not. Anticipating these reactions, to the extent possible, improves the overall planning and execution of a crime control strategy.

#### APPENDIX II

## When enough is not enough...

What I mean by this is - why international criminal case cooperation fails even when the following favourable circumstances exist:

- A universal crime is in play of concern to both countries
- The evidence is clear and robust
- The investigation quality and presentation of the facts is good
- Assurances around evidence, suspect treatment and trial are all given and robustly examined
- There is clear public interest in the prosecuting of the case and no entanglement of political interest or a politically exposed person in the mix.

How in this circumstance would international case cooperation not happen?

## It surely ought to, but....

- It all comes down to **TRUST**, aspects of trust and perceptions of trust Trust being such a delicate and fragile (sometimes fickle) quality.
- Without trust little of consequence can happen. Sure, there can be surface level cooperation with all the above elements, but in the end **no actual result as sought or expected**.
- There also needs to be **MUTUAL INTEREST** in some level. Often expressed in treaty language as 'reciprocity'. At some point in the process, a country will naturally ask themselves, or the other side "what's in this for me".
- Justice may be blind, fair and just... but that does not mean justice has no self interest. Justice is always about serving an interest.
- Building trust is paramount without it, frankly there's little we can achieve. It's that simple.

#### **EXPLAINER TO APPENDIX TWO**

The two slides in Appendix Two do not require additional explanation. The point is to emphasise the need for 'trust' between cooperating partners to make international criminal case cooperation a success. By asking the question of readiness to 'trust each other', both Chinese and United States practitioners can more efficiently evaluate their own state of readiness to cooperate. The acceptance, or not, of the importance of 'trust' as a bedrock to cooperation is also a useful guide for the CDD's future effort areas.

# **PRIVATE SECTOR**

## CHAPTER FIFTEEN – RESPONSIBLE CARE AND KNOW YOUR CUSTOMER

#### BY CHERIE L. WEIBLE<sup>13</sup>

#### **EXECUTIVE SUMMARY**

Through the International Council of Chemical Associations (ICCA), domestic trade associations worldwide implement Responsible Care®, a voluntary initiative of continuous improvement in safe chemicals management. Under the global Responsible Care initiative, domestic trade association members agree to implement a management system to address risks to chemical product safety and stewardship through the supply chain, for both domestic and exported products. In China, the Responsible Care initiative is managed by two associations, the China Petroleum and Chemical Industry Federation (CPCIF) and the Association of International Chemical Manufacturers (AICM). The American Chemistry Council (ACC) manages Responsible Care in the United States.

In addition to the broadly applied Responsible Care program, chemical companies worldwide may also adopt Know Your Customer (KYC) policies and programs. Developing a KYC program helps to verify that a chemical is purchased by, delivered to, or received by a known, approved individual or entity and reduces the risk of misuse of dangerous materials. A KYC program may include a policy of refusing to sell certain materials to those who do not meet the pre-established customer environmental, health, safety and security qualification criteria set up by an organization. Within the chemical industry, KYC programs add an additional security component to Responsible Care's legacy product stewardship activities to further enhance the security and integrity of chemical supply chains.

#### **RESPONSIBLE CARE**

Responsible Care is the chemical industry's comprehensive environmental, health, safety and security performance improvement

<sup>&</sup>lt;sup>13</sup> Senior Director, Strategy and Global Affairs, American Chemistry Council; Responsible Care® is a licensed trademark of the American Chemistry Council and should be read that way throughout this article.

initiative. It is both an ethical framework and a set of program elements intended to drive excellence. Responsible Care is a global initiative, and national chemical associations work with member companies to implement the program in their respective regions. Responsible Care was first adopted by the Chemistry Industry Association of Canada in 1985. Today, Responsible Care has been adopted by 64 national associations operating in nearly 70 economies around the world. In China, there are two associations implementing Responsible Care – the China Petroleum and Chemical Industry Federation (CPCIF) and the Association of International Chemical Manufacturers. The American Chemistry Council (ACC) manages Responsible Care in the United States.

#### **GLOBAL RESPONSIBLE CARE IMPLEMENTATION**

The International Council of Chemical Associations (ICCA) represents the chemical industry on the global stage. The ICCA Responsible Care Leadership Group manages Responsible Care globally and works to expand Responsible Care to new geographies; build the capacity of host associations and their members to safely manage chemicals; and measures the performance of Responsible Care implementing companies.

ICCA has created several key documents and program elements to guide the initiative. One of those is the Responsible Care Global Charter, launched in 2006, which is designed for individual companies which pledge to implement Responsible Care in their operations globally regardless of whether there is a local Responsible Care program in a specific geography. The Global Charter sets out broad commitments for Responsible Care companies and reminds companies to extend their Responsible Care commitments throughout their operations. CEOs sign and pledge to implement the Global Charter and uphold its six core elements:

- Corporate Leadership Culture
- Safeguarding People and the Environment
- Strengthening Chemicals Management Systems
- Influencing Business Partners
- Engaging Stakeholders
- Contributing to Sustainability
- Responsible Care Fundamental Features for Associations

When agreeing to administer the Responsible Care initiative, domestic associations agree to the Responsible Care Fundamental

#### Saving Lives and Protecting Societies from Synthetic Opioids

Features. These eight features provide the framework for all Responsible Care programs. All eight Fundamental Features may not be fully implemented at the time Responsible Care is launched. Rather, as maturity against the objectives of the initiative evolves, additional Fundamental Features are implemented based on guidance and timelines established by ICCA. The features are not intended as a one-size-fits-all framework. Individual associations may modify their Responsible Care programs to meet local socio-political needs. Importantly, the Fundamental Features include the establishment of a set of systems, codes, and policies covering environmental protection; employee, process and distribution safety; product stewardship; security, community awareness and emergency response.

#### **CHEMICAL INDUSTRY RESPONSE TO SECURITY THREATS**

The chemical industry's threat landscape has evolved over time, with new challenges emerging from a variety of sources. They include theft of products on site or while in the supply chain and site security challenges, including cyber security. Following the attacks of September 11, 2001, the American Chemistry Council took action to address stakeholder concerns about security of the nation's critical infrastructure by adopting the Responsible Care Security Code. Since then, a stand-alone Security Code has been adopted by many ICCA associations while others have incorporated security practices into existing Responsible Care program elements. Chemical manufacturers must follow legal requirements in their respective economies and the Responsible Care Security Code is designed to complement and build on government security regulations within each country.

#### **KNOW YOUR CUSTOMER PROGRAMS**

Stealing or diverting chemicals is not the only way that nefarious actors can procure dangerous chemicals—they can also use legitimate means, such as purchasing those chemicals from manufacturers, from distributors (traders) or from informal markets. Developing a KYC program can verify that a chemical is purchased by, transported by, or received from a known, approved individual or entity and helps prevent the misuse of dangerous materials. A KYC program may include a policy of refusing to sell dangerous materials to those who do not meet the preestablished customer qualification criteria identified by an organization.

KYC programs may include training manufacturer's sales/marketing/logistics personnel to recognize red flags related to

product inquiries. Simulated scenarios can be used to identify warning signs that may trigger additional scrutiny of a prospective customer. The training courses are typically conducted on an ongoing basis as bad actors will often change tactics.

Good communication between the sales/marketing/logistics team and facility personnel that manage product movement is a critical KYC element. All employees involved need a clear understanding of the product being shipped, the transportation company being used, and the product's destination. KYC programs may also require visits to existing customer facilities for periodic review of its chemical safety and security management programs and to gain confidence that the customer shares a similar commitment to safety and security excellence along its value chain.

### CHAPTER SIXTEEN – OBSERVATIONS ON THE ESG PRACTICES OF CHINESE PHARMA COMPANIES

#### By Dr Anna Zhao, MBA

#### INTRODUCTION

With China's reform, opening-up, and the improvement of the production capacity of the pharmaceutical industry, Chinese pharma companies are gradually moving towards the international market. In the global supply chain, the ESG (environmental, social, and governance) practices of Chinese pharma companies, especially Active Pharmaceutical Ingredients (API) companies, are also becoming the focus of international attention. Under the framework of overall China-U.S. drug control cooperation, the compliance management of fentanylbased APIs is not only a legal requirement, but also a core issue for Chinese companies to reshape their international image and achieve high-quality development.

From the perspective of ESG, this article provides an objective analysis and puts forward suggestions for improvement to help Chinese enterprises comply with international laws and compliance requirements in the process of internationalization, build an honest and trustworthy corporate image, and achieve sustainable development.

The author was trained as a clinical anesthesiologist who has been responsible for bilateral health & pharma & Medtech trade policies and market access in diplomatic missions and is currently working for a health focused philanthropy organization in China. I (the author) am not a government official, nor am I a research scholar at a university or think tank. The following is my personal observation of the industry, so please add corrections if there are imperfections.

#### I. DEFINITION OF RELEVANT CHINESE PHARMACEUTICAL ENTERPRISES AND API EXPORT ENTERPRISES

#### **1. DEFINITION OF RELEVANT CHINESE PHARMACEUTICAL COMPANIES**

For the purposes of this article, Chinese pharmaceutical enterprises refer to companies engaged in the research and development, production,

sales and service of pharmaceutical-related products such as drugs, medical devices, in vitro diagnostic products, and biological products. These companies include pharmaceutical companies, biotechnology companies, medical device manufacturers, etc., covering the entire industry chain from API production to finished medicine manufacturing. The core business of Chinese pharmaceutical enterprises involves medicine research and development, clinical trials, manufacturing, marketing and sales.

The CDD sub-working group for private sector also has representatives of the Chinese chemical industry, so most of the content in this article does **not** cover chemical companies and chemical precursors.

#### 2. DEFINITION OF RELEVANT API EXPORTING ENTERPRISES

For the purposes of this article, an API exporter refers to an enterprise that specializes in the production of active pharmaceutical ingredients (APIs) and exports them to the international market. APIs are active ingredients in pharmaceutical manufacturing, which are pharmacologically active or directly used in the diagnosis, treatment, mitigation, and prevention of diseases. Chinese API companies play an important role in the global supply chain.

# **3.** THE CURRENT SITUATION OF CHINA'S PHARMA INDUSTRY AND THE EXPORT OF **APIs**

According to public information from the Ministry of Commerce of China and the China Chamber of Commerce for Import and Export of Medicines and Health Products (CCCMHPIE), the import and export trade volume of China's pharmaceutical products in 2024 is US\$199.376 billion, a year-on-year increase of 2.13%. Among them, the import value was US\$91.412 billion, a year-on-year decrease of 2%, and the export value was US\$107.964 billion, a year-on-year increase of 5.9%. In 2024, China's pharmaceutical exports to countries along the "Belt and Road " initiative reached US\$44.466 billion, a year-on-year increase of 7.7%.

In terms of global market share, China is said to be the world's largest producer and exporter of APIs, accounting for more than 20% of the global API market share, especially in the fields of antibiotics, vitamins, hormones and fentanyl. With the opening-up of China and the increasing diversification of export markets, China's API export market covers emerging markets around the world, including developed
countries in Europe and the United States, as well as Southeast Asia and Africa.

Despite the large scale of China's API exports, companies face challenges in the international market, including international legal compliance, supply chain transparency, environmental standards, and social responsibility.

#### II. OBSERVATIONS ON THE ESG PRACTICES OF CHINESE PHARMA COMPANIES

To some extent, China is a government-driven society. The Chinese government and enterprises are working together to promote the continuous improvement of ESG practices of Chinese pharma companies from 0 to 1 and from 1 to N.

#### **1. ENVIRONMENTAL**

In May 2018, the Ministry of Industry and Information Technology officially released the national standard of "General Principles for Green Factory Evaluation", promoting the creation of "green factories" nationwide and helping to achieve the "double carbon" goal, that is, achieving carbon peaking in 2030 and carbon neutrality in 2060. By 2024, there are 6,430 state-level green factories in China, accounting for about 20% of the total output value of the manufacturing industry. These factories have basically realized intensive land use, harmless raw materials, clean production, waste recycling, and low-carbon energy.

In January 2020, the Ministry of Industry and Information Technology, the Ministry of Ecology and Environment, the National Health Commission, and the National Medical Products Administration jointly issued the "Guiding Opinions on Promoting the Green Development of the API Industry" to achieve the green upgrading of the API industry through technological innovation and the promotion of green standards. This guidance will increase the environmental protection expenditure of API manufacturing enterprises, forcing some small production capacity to withdraw from the market, thereby reinforcing the overall performance of the industry.

At present, some API companies in China still rely on traditional high-energy-consumption and high-emission processes in the production process, especially the production of fentanyl-based APIs. For example, wastewater treatment technologies fail to fully degrade the active pharmaceutical ingredient, resulting in residues entering the environment that can have long-term effects on ecosystems. In addition, in order to

reduce costs, some enterprises do not adopt clean energy, and the carbon emission intensity is higher than that of international peers.

However, the industry as a whole still faces the challenge of low green certification rate. ISO14001 Environmental Management System Certification is a set of environmental management system standards developed by the International Organization for Standardization (ISO) to help organizations control environmental aspects in their activities, products, or services in order to achieve environmental goals. Based on incomplete statistics, the number of Chinese pharma companies that have passed ISO14001 certification is 100 or so.

#### 2. SOCIAL

In March 2022, the State-owned Assets Supervision and Administration Commission of the State Council established the Bureau of Social Responsibility to research and propose policy recommendations to promote the fulfillment of social responsibilities by state-owned enterprises (SOEs) and guide the enterprises under its supervision, including pharmaceutical state-owned enterprises, to fulfill their social responsibilities.

In April 2022, the China Securities Regulatory Commission (CSRC) issued the "Guidelines for the Management of Investor Relations of Listed Companies", which for the first time included "the company's environmental, social and governance information", emphasizing corporate social responsibility.

In addition, Chinese pharma companies lack effective interaction, to some extent, with local communities in overseas markets, and need to strengthen their participation in philanthropic activities for domestic communities. For example, in some developing countries, some companies only focus on sales and do not cooperate with local governments to carry out anti-drug abuse advocacy or healthcare professional training, resulting in limited community feedback of corporate social responsibility fulfillment.

#### **3. GOVERNANCE**

In July 2023, the National Health Commission, together with the Ministry of Education, the Ministry of Public Security and other departments, launched a year-long intensified anti-commercial corruption campaign covering the whole pharma value chain nationwide. This campaign has a relatively serious impact on the circle of China's

#### Saving Lives and Protecting Societies from Synthetic Opioids

pharmaceutical enterprises, and within pharmaceutical enterprises, "everyone to learn about compliance" is becoming the norm.

As the so-called "growing pain", although some Chinese pharma companies have established compliance departments, the implementation of the compliance system is not perfect, and some of them are yet to be formalized. There is a phenomenon of "two faces" in actual implementation. For example, in the export approval process of a listed pharmaceutical company, the compliance review only relied on paper documents and did not verify the true use of the customer through technical means, resulting in possible illegal export incidents.

At the same time, the senior management of enterprises is not being sufficiently alert to the updates of international laws and regulations, and the ability to govern international affairs needs to be strengthened.

#### **III. THOSE THAT CHINESE PHARMA COMPANIES NEED TO STRENGTHEN IN THE INTERNATIONAL MARKET ENVIRONMENT**

### **1.** INSUFFICIENT UNDERSTANDING OF RELEVANT LEGAL REQUIREMENTS IN CHINA AND OVERSEAS

In response to the topics discussed in this article, the Chinese government has relatively clear regulatory requirements for the foreign trade of Chinese pharma including APIs' companies, which are

- "Measures for the Registration of Environmental Management of New Chemical Substances" - The Measures, which came into effect in 2021, regulate the production, storage, transportation and use of chemicals, and require companies to strengthen the management of chemicals to prevent them from being used illegally
- "Export Control Law of the People's Republic of China" This law, which came into force in 2020, strictly controls the export of sensitive items and technologies, requiring enterprises to comply with relevant laws and regulations during the export process to ensure the legitimate use of exported items
- "Drug Administration Law of the People's Republic of China" -This law was promulgated and implemented in 2019, which strictly regulates the production, circulation, and use of drugs, requiring enterprises to ensure the quality and safety of drugs and prevent drugs from flowing into illegal channels

At the same time, some Chinese pharma companies do not have critical understanding of international drug control laws, chemical

control regulations such as the Controlled Substances Act (CSA) of the United States, and the requirements of international drug regulatory agencies, resulting in possible violations in the export process. For example, some Chinese pharma companies did not fully understand the requirements of the Controlled Substances Act on "Suspicious Order Monitoring", resulting in failure to report abnormal purchasing behaviors in a timely manner.

### **2.** THE CAPACITY TO RESPOND TO INTERNATIONAL PUBLIC OPINION NEEDS TO BE STRENGTHENED

There is an old Chinese saying that "knowing oneself and knowing one's opponent will not be defeated in a hundred battles", but in fact, this is not exactly the case in the practice of ESG. When the fentanyl crisis attracted international attention, some Chinese pharma companies failed to take effective information disclosure and public relations measures in a timely manner, resulting in damage to their corporate image. When the U.S. media repeatedly hyped the issue of "China's fentanyl supply chain", most Chinese pharma companies only denied it through a brief statement and could not come up with strong data support to actively counterattack. For example, failing to systematically disclose its own export data and customer compliance review records, this kind of passive response to negative reports, makes itself miss the dominance of public opinion.

In addition, the proportion of Chinese pharma companies participating in international industry organizations in the process of "going global" is insufficient, resulting in a lack of international discourse. According to statistics, only 15% of Chinese pharma companies are members of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA), resulting in a lack of voice in the formulation of fentanyl control measures.

# 2.1 The Chinese government encourages corporate information disclosure

In December 2024, in order to promote economic, social and environmental sustainable development and standardize the disclosure of corporate sustainable development information, the Ministry of Finance of China, together with the Ministry of Foreign Affairs, the National Development and Reform Commission, the Ministry of Industry and Information Technology, the Ministry of Ecology and Environment, the Ministry of Commerce, the People's Bank of China, the State-owned Assets Supervision and Administration Commission of the State Council, the State Administration of Financial Supervision and the China Securities Regulatory Commission, formulated the "Corporate Sustainability Disclosure Standards - Basic Standards (Trial)", which was officially issued and implemented by enterprises on a **voluntary basis**. The issuance of this standard is an important milestone in the construction of a unified national sustainability disclosure standard system in China.

In addition, taking into account the development stage and disclosure capabilities of Chinese enterprises, the implementation of the Corporate Sustainability Disclosure Standards will not adopt a "one-size-fits-all" mandatory implementation requirement, but will adopt a strategy of differentiating priorities, piloting first, and progressing step by step, expanding from listed companies to non-listed companies, **from large enterprises to small and medium-sized enterprises**, from qualitative requirements to quantitative requirements, and **from voluntary disclosure to mandatory disclosure**.

The overall goal of achieving a unified national sustainability disclosure standard system is to issue basic standards for corporate sustainability disclosure, climate-related disclosure standards and application guidelines by 2027. By 2030, China's national unified sustainability disclosure standard system will be basically completed.

Regarding the Chinese pharma companies that we focus on in this article, according to China's Corporate Sustainability Disclosure Standards, all parties advocate that companies to regularly publish sustainability reports, disclose their environmental, social and governance performance, improve transparency, and strengthen public communication, therefore to demonstrate companies' fentanyl control and sustainability efforts, and enhance international credibility of Chinese pharma industry.

# 2.2 Chinese social organizations (NGOs) to lead in international communication given own expertise

Chinese pharma companies should maintain close communication with relevant government departments in China and the United States through social organizations such as industry associations, keep abreast of policy changes and adjust corporate strategies. For example, participating in the U.S.-China Comprehensive Drug Dialogue to demonstrate corporate compliance efforts. At the same time, Chinese social organizations can pay attention to the developments of international anti-drug abuse organizations such as the United Nations Office On Drugs and Crime (UNODC), actively approach international NGOs based in China, and jointly invite and organize Chinese pharma companies to participate in dialogues to jointly combat the illegal circulation of fentanyl-like substances.

At the level of international cooperation, the Belt and Road Green Supply Chain Standard promoted by the Chinese government is taking shape. Through the ASEAN-China Drug Monitoring Center, established in 2011, China exports environmentally friendly production technologies to Southeast Asian countries and promotes the integration of ESG compliance into regional trade agreements. For example, the Memorandum of Understanding on Regulatory Cooperation in Drugs, Medical Devices and Cosmetics between the National Medical Products Administration of the People's Republic of China and the Ministry of Health of the Socialist Republic of Vietnam, signed by China and Vietnam in 2024, clearly requires Vietnamese importers to provide blockchain traceability certificates, which increases China's API export compliance rate to 92%.

#### **3.** IMPROVE THE TRANSPARENT GOVERNANCE OF THE SUPPLY CHAIN

The Chinese government has been improving the regulatory system for API exports, including enhancing the transparency of cross-border supply chains and introducing advanced technological means such as blockchain to track the flow of products. At the same time, through industry associations and other social organizations, we jointly advocate the improvement of corporate compliance awareness, and regularly carry out training on international law, compliance management and supply chain management for enterprises, so as to improve the compliance awareness and operational ability of employees in key positions.

The purpose is to prevent the following risks for Chinese pharma companies:

- Legal risks: Regulatory evasion may expose companies to legal risks, including administrative penalties, criminal penalties, and international litigation
- Reputational damage: The problem of misuse of APIs can damage a company's international reputation and affect its competitiveness in the global market
- Market access restrictions: Some countries may tighten regulations and restrictions on China's API exports, resulting in the loss of important international markets

#### 3.1 Enterprises need to implement compliance controls

Many of the multinational corporation (MNC) pharma companies in China are with hundred years history which have accumulated fruitful experience in compliance, risk control and corporate legal governance. The practices of these multinational companies are also imperceptibly influencing the compliance infrastructure building of Chinese local pharmaceutical industry ecosystem. Those we could learn from multinational pharma companies are as follows

- Intensive supply chain management: Multinational pharma companies often adopt advanced supply chain management systems to ensure that every step of the product from production to sales meets international legal and regulatory requirements
- Due Diligence Check: Multinational pharma companies have strict background checks on various customers and suppliers e.g. Contract Sales Organizations in the supply chain, and have a complete system to ensure that these stakeholders are eligible to work with
- Compliance training: Multinational pharma companies regularly conduct compliance training to improve the compliance awareness and operational capabilities of employees in various departments

Chinese pharma companies are learning from the above-mentioned mature experience in the management of the whole supply chain, strengthening the popularization of compliance awareness, and implementing "everyone to deliver compliance".

China's industry associations, with their not-for-profit characteristics, are positioned to take the lead in carrying out corresponding supply chain governance, compliance training and other activities, and as the neutral third party, they can anonymously share real company cases, play a role in reference and alerting, and improve the compliance awareness and practical capability of the overall practitioners in the industry.

# **3.2** The suspended "Compliance Non-prosecution" pilot project

"Compliance non-prosecution" refers to a system whereby the procuratorate makes a decision not to prosecute an eligible enterprise in accordance with the law by urging it to establish a compliance management system, rectify illegal acts, and meet compliance standards when handling cases of suspected crimes of enterprises. The purpose of this system is to reduce the occurrence of criminal behavior and promote the healthy development of enterprises by incentivizing them to take the initiative to comply with regulations.

In June 2021, the Supreme People's Procuratorate of the People's Republic of China, together with several departments, formulated the Guiding Opinions on the Establishment of a Third-Party Supervision and Assessment Mechanism for the Compliance of Enterprises Involved in Cases (for Trial Implementation). In April 2022, the Supreme People's Procuratorate officially announced that regional persecuting authorities across the country had comprehensively launched a pilot program for the compliance reform of enterprises involved in cases, and led several departments to formulate the Measures for the Compliance Construction, Assessment and Review of Enterprises Involved in Cases (for Trial Implementation), so that the compliance assessment of enterprises involved in cases would be handed over to a third-party supervision and assessment organization and an assessment conclusion would be issued. and the procuratorate would then refer to the assessment conclusion to "make a decision not to approve arrest, modify compulsory measures, or not prosecute".

Leaving the judgment and assessment of the cause of an enterprise's guilt to a third party other than the judicial adjudication authority may bring risks, such as inconsistencies in the quality of the third-party organization's assessment and possible interests involved. At present, the "compliance non-prosecution" pilot has been **suspended**.

During the "compliance non-prosecution" pilot period, some pharma industry associations **once** suggested that the export of pharmaceutical APIs should be included in the key areas of the compliance nonprosecution pilot, and that enterprises that voluntarily disclose violations and rectify them should be exempted from criminal penalties but required to pay a high compliance deposit for supply chain governance. At the same time, it has also **once** been suggested that a third-party assessment may be able to recruit the United Nations Office on Drugs and Crime (UNODC) to certify the compliance system of the pilot enterprises to enhance international credibility.

#### 4. INTERDISCIPLINARY INTERNATIONAL TALENTS NEEDED

Chinese pharma companies need to realize the transformation from individual based management (e.g. by the owner or the CEO and the senior management team members) to systematic corporate governance and establish an organizational structure and human resource reserve that can support their international business exchanges.

At present, the professional background of the personnel of China's pharmaceutical enterprises is mainly technical talents, including graduates majoring in chemistry, pharma, bioengineering etc., who have

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strong capabilities in technology research and development and production operations, but may not have a strong international vision. Some practitioners lack training in the business environment and **crosscultural communication**, which may lead to misunderstandings in business dealings.

Although the coverage rate of compliance training within Chinese pharma companies has increased from 45% in 2022 to 78% in 2024, and the legal awareness of employees is increasing, some local pharma company personnel **use local experience to interpret** international laws and compliance requirements due to lack of overseas experience, leaving potential risks for business behavior. According to the 2024 industry survey, only 18% of Chinese API companies have a full-time compliance officer, compared with more than 90% of multinational pharmaceutical companies. To this end, Shanghai has taken the lead in piloting the "International Pharmaceutical Enterprise Talent Program" to provide settlement and tax incentives for the introduction of compliance experts and has attracted 23 senior executives with medical products administration background to join local pharma companies.

## **5.** INSUFFICIENT INTERACTION WITH DESTINATION MARKETS, COUNTRIES, AND COMMUNITIES

When entering the international market, Chinese pharma companies encounter a certain degree of challenge in establishing cooperative relationships with local governments, communities and NGOs due to issues such as **language communication**, ethnic background and even religious customs. Chinese pharma companies should not only ensure that their products are adapted to the needs of the local market but also aim to create long-term value beyond short-term profits, especially when entering countries or regions with cultural and religious differences.

Given the large number of unmet medical needs in these regions, Chinese pharma companies should rely on local partners and position themselves as value-added solution providers, not just suppliers. The key to the sustainable success of Chinese pharma companies in going overseas lies in their deep integration into the local cultural ecosystem and becoming an indispensable contributor to the value chain.

#### **IV. SUGGESTIONS TO BOOST SUSTAINABLE DEVELOPMENT**

In 2022, the World Health Organization launched the One Health Joint Action Plan, which aims to improve the harmonious coexistence of humans, animals, plants and ecosystems, to promote health and well-

being globally. In traditional Chinese terms, this can be understood as "the unity of nature and human being", which is also the part of sustainable development.

Some suggestions are as follows:

#### 1. Environmental - Technological innovation and green transition

Improve environmental protection standards: Enterprises should increase investment in environmental protection, adopt international leading green production technology, reduce pollutant emissions in the production process, and ensure compliance with international environmental protection standards

Promote technological upgrading: The government may set up a **designated philanthropic fund** with industry associations and other social organizations to support enterprises to develop low-toxicity synthesis processes (such as enzyme catalysis instead of traditional chemical synthesis), and provide tax breaks to enterprises that adopt clean energy

Mandatory green certification: ISO 14001 environmental management system certification is included in the preconditions for API export licenses, forcing enterprises to improve environmental protection standards

# **2.** SOCIAL - RESPONSIBLE SUPPLY CHAIN AND JOINT EFFORT WITH COMMUNITY

Strengthening the fulfillment of social responsibility: Enterprises actively participate in international anti-drug abuse cooperation, establish strict internal risk management and control mechanisms, and ensure that fentanyl-based APIs are only used for legitimate purposes. At the same time, enterprises can enhance their sense of social responsibility by funding anti-drug abuse advocacy and supporting drug abuse rehabilitation projects. Third, through media and public relations activities, to demonstrate corporate efforts in fentanyl control, publish corporate social responsibility reports, and disclose corporate contribution to the API supply chain to enhance public image

Exploring the establishment of a "responsible supply chain" alliance: Led by industry associations and other social organizations to sign the "Self-Discipline Convention on the Export of Fentanyl-based APIs", requiring member companies to share a blacklist of high-risk customers and conduct third-party compliance audits on regular basis

#### Saving Lives and Protecting Societies from Synthetic Opioids

Embedding community development projects: In key export markets such as Latin America, companies can work with local NGOs to carry out integrated "health and anti-narcotic" projects, such as funding the construction of drug abuse rehabilitation centers and providing community vocational training, to enhance their corporate social responsibility image

# **3.** GOVERNANCE - RESTRUCTURING OF THE RELEVANT INTERNATIONALIZATION SYSTEM

Improve the compliance management system: Enterprises should implement the existing compliance management system to ensure that every step of the product from production to export meets legal and regulatory requirements, and use possible technical means to track the flow of products to ensure supply chain transparency

Executive accountability mechanism: Add the "supply chain compliance achievement" indicator to the ESG report of listed companies, and link the board of directors' financial incentives package with compliance performance, so as to prevent management from sacrificing corporate long-term reputation for short-term profits

Strengthen international management capabilities: Enterprises need to change from individual based management to systematically corporate governance, using external influencers to optimize the internal management mechanism, and recruit talents with overseas experience

#### CONCLUSION

The ESG transformation of China's pharma companies are shifting from reactive response to active leadership. Through technological innovation, responsibility synergy and governance reinforcement, enterprises can not only avoid risks relevant to cross-border activities but also play the role of "responsible suppliers" in the global value chain.

In the context of China-U.S. Comprehensive Drugs Dialogue, ESG practice is not a challenge, but a historical opportunity for China's pharma industry to re-proposition from "cost competitor" to "**value creator**".

#### CHAPTER SEVENTEEN – ASIA-PACIFIC ECONOMIC COOPERATION (APEC): A CASE STUDY FOR CHEMICAL PRECURSOR CONTROL, TRADE FACILITATION, AND CHEMICAL INDUSTRY COOPERATION

#### INTRODUCTION:

APEC Member states and economies ("APEC Member States") provide strong examples of regulation to address chemical precursor controls, especially in light of the expansion of drug markets in the last decade, including production and trafficking through transpacific routes. Methamphetamine is probably the most widely used and supplied synthetic drug worldwide, and its use continues to expand. Markets for other synthetic drugs are concentrated regionally, including synthetic opioids such as fentanyl in North America and stimulants in Latin America and East Asia.

Numerous factors of synthetic drug production intersect with trade economies. These encompass the availability of precursor chemicals and skilled chemists, the selection of suitable sites for synthesis, the existence of efficient transportation networks and key points of entry (such as ports and border crossings), and the accessibility of consumer markets. Synthetic drugs can be manufactured in virtually any location, as evidenced by the occurrence of such production.

The chemical industry players of APEC Member States are key actors in the global response to the diversion of chemical precursors. They have begun participating constructively toward the objective of disrupting transpacific drug markets, through national regulations, transnational cooperation within APEC, and compliance efforts by chemical industry actors.

#### **BACKGROUND:**

The global challenge of precursor chemical diversion into illicit drug manufacturing remains a pressing issue, particularly with the ongoing trafficking of synthetic opioids such as fentanyl. The International Narcotics Control Board (INCB) has consistently highlighted troubling trends, including the increasing use of online platforms to market precursor chemicals and the rise of non-scheduled and designer

precursors. These developments are compounded by more sophisticated trafficking methods, making enforcement and control more complex.

The INCB's 2023 report reveals a decline in the seizure of traditional precursors such as acetic anhydride, but an increase in the use of nonscheduled chemicals. For example, while APEC countries have significantly increased efforts to disrupt precursor supply chains, including cracking down on sellers of fentanyl precursors, the resilience of these trafficking networks underscores the need for international cooperation to effectively combat precursor chemical trafficking. APEC economies like Singapore provide best practice experience and comprehensive regulatory framework for a strong national response, involving stringent licensing systems, multi-agency enforcement, and active international partnerships.

A cooperative effort among APEC Member States to share best practices for regulation and control is key to enhance their individual capabilities and to provide an effective framework for global cooperation to disrupt the flow of precursor chemicals. Through their collective efforts, APEC Member States can help the chemical industry to combat precursor chemical diversion, to regulate the growing role of digital marketplaces in facilitating sales of drug precursors, and to learn about emerging trends such as the illicit use of non-scheduled chemicals. These are necessary tools to support ongoing regulatory efforts.

APEC Member States are crucial in preventing the development of transpacific trafficking routes and contribute to the broader global effort to combat illicit drug manufacturing. APEC can play a pivotal role in shaping the future of chemical precursor regulation and providing a unified response to an evolving threat.

#### INTERNATIONAL CONTROL AND SCHEDULING SYSTEM:

The 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances is the key international treaty against the diversion of precursor chemicals. The convention obligates parties to adopt measures to prevent the diversion of chemicals used in the manufacture of illicit drugs. It includes provisions for the monitoring and control of precursor chemicals, including reporting systems, and penalties for illegal diversion. The precursors and chemicals are grouped and listed in two Tables, Table I and II, depending on the relationship between the extent, importance and diversity of the licit use of the substance, and its frequent use in the illicit manufacture of narcotic drugs or psychotropic substances which then creates serious public health or social problems (Article 12, paragraph 4). The salts of the substances listed in Table I and II, whenever the existence of such salts is possible, are under international control. However, the salts of

TABLE I	TABLE II
Precursors of psychotropic substances, such as ephedrine, piperonal, safrole, phenylacetic acid, lycergic acid; and a few key regeants such as acetic anhydride used in the conversion of morphine into heroin and potassium permanganate used in the extraction of cocaine	A wide range of regeants and solvents that can be used in the illicit production of narcotic drugs and psychodropic substances, but also have widespread licit industrial uses, including acetone, ethyl ether, tonuene and sulphuric acid

hydrochloric acid and sulphuric acid are specifically excluded.

### Source: Global Commission Drug Policy (2019) Classification of Psychoactive Substances

The International Narcotics Control Board (INCB) is an independent body (15 members elected by the UN Member States) established by the 1961 Single Convention on Narcotic Drugs. It is the body tasked with the monitoring of precursor chemicals. The INCB coordinates international efforts to control and regulate precursor chemicals and shares information among Member States. It publishes annual reports on precursor chemical trends and provides technical assistance and training to countries.

The INCB offers various tools and resources to support publicprivate partnerships in controlling precursor chemicals. These include practical guidance documents aimed at fostering voluntary cooperation between governments and the private sector, such as industries involved in e-commerce, freight forwarding, and express couriers. The INCB also provides a voluntary code of practice for the chemical industry, tools for developing memorandums of understanding, and access to the Limited International Special Surveillance List of non-scheduled substances (ISSL) to help track the use of precursor chemicals. These resources aim to enhance the prevention of chemical diversion through collective efforts.

#### NATIONAL REGULATIONS AND LAWS ON CHEMICAL DIVERSION CONTROL:

APEC Member States have national frameworks regarding their domestic control and international control cooperation, and all APEC Member States are parties to the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. Some examples of national control include:

#### Australia:

Australia has developed a strong framework for controlling precursor chemicals, particularly in response to the growing concern about methamphetamine production. Australia controls precursor chemicals under the **Criminal Code Act 1995** and the **National Drug Strategy**. The **Australian Federal Police (AFP)**, along with **Australian Border Force (ABF)** and **Australian Customs**, work to regulate the import, export, and domestic trade of precursor chemicals. The **National Precursor Control Strategy** sets up guidelines and controls for monitoring the supply chain of chemicals used in drug manufacture.

#### Canada:

Canada has strict controls on precursor chemicals, particularly due to concerns about the production of methamphetamine and other synthetic drugs. Canada regulates precursor chemicals under the **Controlled Drugs and Substances Act (CDSA)** and the **Precursor Control Regulations**. The **Royal Canadian Mounted Police (RCMP)** and the **Canada Border Services Agency (CBSA)** are the main agencies responsible for monitoring the import, export, and distribution of precursor chemicals. Businesses involved in the production or sale of controlled chemicals must obtain a license from Health Canada, and they are required to submit regular reports on their activities.

#### Chile:

Chile is a relatively smaller player in the global precursor chemical trade but has implemented robust controls to prevent illegal diversion. Chile regulates precursor chemicals under the **Decree Law 3,269/1980** and the **Law 20,000**, which address drug trafficking and the control of precursor chemicals. The **Chilean Customs Department** and **Investigations Police (PDI)** are responsible for controlling precursor chemicals at ports, borders, and through domestic monitoring.

#### China:

China plays a crucial role in the global chemical trade and is one of the largest producers of precursor chemicals. Domestically, **the Narcotics Control Law** and **The Chemical Safety Law** regulate the handling of precursor chemicals in China. These laws require that chemicals such as acetic anhydride, ephedrine, and pseudoephedrine be controlled to prevent their diversion into the illicit drug market. **The Ministry of Public Security (MPS)** oversees law enforcement concerning precursor chemicals. The **MPS Narcotics Control Bureau**  (NCB) is in charge of monitoring chemical production, distribution, and exports.

#### Japan:

Japan has stringent regulations due to the country's concern about both synthetic drugs and illicit use of precursor chemicals. Japan regulates precursor chemicals under the **Pharmaceutical Affairs Law** and **Narcotics and Psychotropics Control Law**. The **National Police Agency (NPA)**, **Japan Customs**, and **Ministry of Health**, **Labour**, **and Welfare** are responsible for monitoring precursor chemicals. Japan closely regulates substances like ephedrine, acetic anhydride, and pseudoephedrine to prevent their diversion into illicit drug markets.

#### Mexico:

Mexico regulates precursor chemicals under the Federal Law of Health and the General Health Law. The Federal Commission for the Protection Against Sanitary Risks (COFEPRIS) is the regulatory agency that oversees precursor chemical control. Mexico has a comprehensive system for tracking the importation, production, and distribution of precursor chemicals, and businesses must report all transactions of regulated substances.

#### Singapore:

Singapore has some of the strictest drug control laws in the world, with a zero-tolerance approach to drug-related activities, including the diversion of precursor chemicals, and high compliance with laws regulating it. The Misuse of Drugs Act (MDA) and the Precursor Control Act serve as the main legal frameworks, criminalizing the unauthorized possession, manufacture, and trafficking of controlled drugs and their precursors. Violations carry severe penalties, including long prison sentences and, for large-scale trafficking, capital punishment. Multiple agencies work together to enforce these regulations. The Central Narcotics Bureau (CNB) is the lead agency, investigating chemical diversion and conducting enforcement operations. The Health Sciences Authority (HSA) ensures precursor chemicals in pharmaceuticals and research are properly regulated. Singapore Customs and the Singapore Police Force (SPF) oversee the movement of chemicals across borders, while the National Environment Agency (NEA) monitors industrial chemicals that could be misused in drug production. Singapore also enforces strict licensing and monitoring for businesses handling precursor chemicals. Companies must obtain a

license from the CNB and maintain detailed transaction records. The country's strict border controls help prevent the illegal import or export of these substances.

#### The United States:

The United States has a comprehensive regulatory framework to prevent the diversion of precursor chemicals into illicit drug manufacturing. The Controlled Substances Act (CSA) is the primary legislation governing these chemicals, classifying them as List I (high risk, such as ephedrine and pseudoephedrine) or List II (lower risk but still monitored, like acetic anhydride and potassium permanganate). Other key laws include the Chemical Diversion and Trafficking Act (CDTA) of 1988, which mandates registration and reporting for businesses dealing with precursor chemicals, and the Combat Methamphetamine Epidemic Act (CMEA) of 2005, which introduced restrictions on retail sales of pseudoephedrine. Later laws, such as the Methamphetamine Production Prevention Act of 2008, established electronic tracking of sales, while the SUPPORT Act (2018) increased international controls on fentanyl precursors. Several federal agencies enforce these laws. The Drug Enforcement Administration (DEA) oversees the registration, licensing, and investigation of precursor chemical transactions. The Customs and Border Protection (CBP) monitors and intercepts illegal chemical imports at U.S. borders. The Food and Drug Administration (FDA) ensures that over-the-counter medications containing precursor chemicals comply with federal restrictions. The Department of Justice (DOJ) prosecutes cases of chemical diversion, working alongside other agencies to disrupt drug trafficking networks. Domestically, strict monitoring and reporting mechanisms help prevent diversion. Businesses involved in precursor chemical production or distribution must register with the DEA and comply with detailed recordkeeping requirements. Companies are also required to report suspicious transactions, such as bulk or frequent purchases, to law enforcement. Violations of these regulations carry severe legal penalties.

#### **CHEMICAL INDUSTRY SECURITY INITIATIVES:**

APEC Member States should also leverage long-standing chemical industry practices to support their efforts to control chemical precursors. Beginning in the 1970s, chemical companies embraced the concept of product stewardship as a means of working with their commercial partners to foster the safe management and use of chemicals. Examples of effective product stewardship programs included the sharing of handling information with customers and others in the supply chain; provision of hands-on training in the proper use, handling and disposal of chemical products; assisting customers in addressing instances of mishandling of products; and working with value chain partners to ensure chemicals were used for their intended purposes. Product stewardship practices focusing on preventing harm to the environment as well as occupational safety and health along the value chain were codified as part of the chemical industry's Responsible Care Initiative beginning with its adoption in Canada in 1985. Today, Responsible Care is practiced in nearly 70 economies around the world including nearly all APEC Member States.

Following the events of 11 September 2001, the chemical industry placed additional emphasis on securing its facilities, supply chains and technology against possible attacks. Using Responsible Care as a platform, chemical trade associations and their members adopted security practices and/or Codes intended to thwart terrorists and others seeking to use chemicals for nefarious purposes. Security practices, colloquially known as "Know Your Customer" programs, focused on strengthening supply chains and customer security processes leveraged existing relationships with commercial partners that were established through earlier product stewardship programs. Whereas prior to 11 September 2001, company "know your customer" programs focused on traditional environment, health and safety (EHS) issues, after 11 September 2001, security was added to the EHS focus areas of commercial relationships.

Effective Know Your Customer programs can serve as a safeguard against the diversion and/or misuse of chemical precursors whether for weapons, illegal drugs, or other purposes. These programs rely on the product seller's commitment to thoroughly vet its customers and others taking possession of the seller's products and to periodically review their performance and use of these products, commensurate with risks associated with the products. Vetting and review requires the establishment of specific criteria against which commercial partners are measured, and business decisions are weighed. Know your customer programs can also extend to informal sectors of national economies. In many cases, outreach to proprietors in the informal economy to promote know your customer programs are best carried out by academic and/or NGOs as opposed to government agencies.

#### **CONCLUDING REMARKS:**

Despite these national efforts in APEC Member States, several challenges persist. The rise of chemical precursors has created new enforcement difficulties, as traffickers frequently modify chemical structures to evade regulations. The dark web and online platforms have also become major channels for the illegal sale of precursor chemicals. Additionally, traffickers continue to exploit legal trade routes and free trade zones to smuggle chemicals for illegal use. While countries are enhancing intelligence-sharing, increasing inspections, and leveraging new technologies to detect and prevent chemical diversion, APEC Member States have the opportunity to further engage with their private sector and businesses to allow for better information, adaptation to new diversion models and synthetic drug markets, and increased efficiency.

# **PUBLIC HEALTH**

#### CHAPTER EIGHTEEN – DRUG USE IN CHINA: CURRENT STATUS, CHALLENGES, AND RESPONSES

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#### ABSTRACT

China's drug abuse problem has undergone a complex historical evolution, and in recent years, significant progress has been made under the government's systematic governance. This paper reviews the current state of drug abuse in China, analyzes trends in drug use and changes in drug types, including opioids, synthetic drugs, and the spread of new psychoactive substances (NPS). It also examines the major challenges in drug control, such as the rapid iteration of new substances, gaps in addiction treatment systems, and issues in the management of narcotic and psychotropic drugs.

In response, the paper highlights the need to balance the three major drug control strategies: supply reduction, demand reduction, and harm reduction. It proposes leveraging technology, such as big data and artificial intelligence, to enhance drug monitoring and management efficiency. Additionally, it underscores the importance of optimizing social co-governance mechanisms, strengthening de-stigmatization campaigns, vocational training support, and privacy protection to facilitate the rehabilitation and reintegration of people who use drugs. Furthermore, the paper advocates for strengthening international cooperation, and working with key countries to address transnational drug issues.

Looking ahead, China should adopt a "full-chain governance" approach, continuously improving its legal framework, innovating technological solutions, and building social consensus to achieve longterm sustainable drug control. These efforts will not only contribute to public safety and social stability but also offer valuable insights and experiences for global drug governance. END OF ABSTRACT.

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China has a long and painful history of opium addiction. After the two Opium Wars, Britain aggressively exported opium to China, leading to its rapid spread along the coastal regions. Despite anti-opium laws enacted by both the Qing and Nationalist governments, opium abuse remained rampant. Before the founding of the People's Republic of China, it was estimated that around 20 million people across all social strata were opium users, with opium dens ubiquitous in both urban and rural areas. This earned the Chinese people the derogatory Western label of the "Sick Man of Asia." Following the establishment of the People's Republic, through measures such as eradicating opium poppy cultivation and severely cracking down on drug trafficking and use, China eliminated the widespread use of opium within a few short years, achieving a drug-free society for three decades [1].

However, with the onset of reform and economic opening, drug problems in China have resurfaced and shown a trend of annual increase. In recent years, although China's drug control efforts have yielded significant results and the scale of drug abuse has continued to shrink, drug problems remain a severe social challenge [2-6].

This paper will review the current status and trends of drug abuse in China, analyze the challenges faced in the field of drug control, and discuss corresponding countermeasures. China's experience in drug control has the potential to provide valuable reference and contributions to global drug control efforts.

#### I. CURRENT STATUS AND TRENDS OF DRUG ABUSE IN CHINA

Figures 1-3 illustrate the recorded number of people who used drugs (primarily opioids, amphetamines, and ketamine) in China from 1990 to 2023 [2-6]. Key characteristics include:

#### 1. Changes in the number of people using drugs

Since 1990, the recorded number of people who use drugs in China has increased annually, reaching a peak of 2.553 million in 2017, as shown in Figure 1. Despite the severe drug situation, China's substance use rate is relatively low compared to the global situation. Subsequently, the recorded number of people who use drugs in China has declined for six consecutive years, from 2.553 million in 2017 to 896,000 in 2023. This represents a decrease of 20.3% year-on-year, accounting for 6.4 per thousand of the total population; the number of people who have not relapsed for three years after quitting drug use has reached 4.078 million, an increase of 7.6% year-on-year. [4, 5].

Saving Lives and Protecting Societies from Synthetic Opioids



Figure 1: Changes in the recorded number of people who use drugs in China from 2014 to 2023 (unit: 10,000)

*Note: The statistical caliber changed after 2015, excluding people who had quit drug use for more than three years.* 

#### 2. Changes in drug types

As shown in Figure 2, synthetic drugs, represented by methamphetamine and ketamine, began to proliferate in China from the year 2000. In 2005, synthetic drugs became the primary drug type among newly identified consumers nationwide. By 2014, the number of consumers of opioid and synthetic drugs in the country was basically equal, making this year a key turning point in the transformation of drug consumption patterns in China. Since 2015, synthetic drugs have gradually become the mainstream of drug use, and new users mainly use synthetic drugs. As of 2022, there were approximately 620,000 synthetic drug (mainly methamphetamine and ketamine) consumers nationwide, accounting for 55% of the total number of drug users [3-6].



Figure 2: Proportion of opioid and synthetic drug (methamphetamine, ketamine) use in China (%)

# **3.** Changes in the number of newly identified drug consumers

As shown in Figure 3, the number of newly identified users decreased significantly from 344,000 in 2017 to 71,000 in 2022, representing a 79.3% drop. Notably, even after the COVID-19 pandemic, China has continued to experience a marked and sustained decline in drug use [3-6].



*Figure 3: Changes in the recorded number of people who use drugs in China (in 1000)* 

#### 4. A downward trend in drug-related crimes

In 2022, the number of drug-related cases investigated, criminal suspects arrested, various drugs seized, and users identified decreased by 28.6%, 24.3%, 18.7%, and 39.7% year-on-year, respectively. Drug-related criminal activities have fallen to their lowest level in a decade [3-6]. In addition, the supply of drugs has decreased significantly, and drug prices have increased heavily. For example, in 2020 the price of heroin was 1261 yuan/gram, an increase of 31.6% year-on-year; the price of methamphetamine was 1207 yuan/gram, an increase of 37% year-on-year; and the price of ketamine was 794 yuan/gram, an increase of 57.7% year-on-year [6].

#### II. CHALLENGES IN CHINA'S DRUG CONTROL EFFORTS

#### 1. Rapid spread of new psychoactive substances

The use of new psychoactive substances (NPS) in China has been developing for nearly 20 years, and its characteristics and social impact have become increasingly complex. Since the beginning of this century, ketamine abuse has been a major problem. From 2010 onwards, the variety of NPS has gradually increased, with synthetic cannabinoids and mephedrone becoming increasingly popular. After 2020, with the further strengthening of drug control, the prices of traditional drugs, such as heroin and methamphetamine have generally risen and purchasing difficulties have increased, making it easier for law enforcement agencies to crack down on the use of traditional drugs. Against this background, the use of NPS and non-controlled psychoactive substances has grown significantly, becoming an important way to replace traditional drugs and evade legal regulation.

In recent years, common NPS in China include synthetic cannabinoids, etizolam, and cathinones. The China Drug Situation Report indicates that from 2018 to 2022, the proportion of non-methamphetamine and non-opioid substance abuse in China increased from 6.9% to 10.7%. At the same time, the country has continuously increased its control over NPS. In 2015, China listed 116 NPS at once, and in 2021, it listed 188 substances as well as fentanyl and synthetic cannabinoids as a whole category. However, many types of psychoactive substances are still not under control, and the risk of illicit use still exists [6, 7].

Synthetic cannabinoids are mixed into e-liquid, tea, and other daily consumer products, while "stamp" drugs, whose main ingredient is LSD (lysergic acid diethylamide), are disguised as ordinary stickers in the form of micro-paper or thin films, which can easily be mistaken and misused by adolescents. The appearance of these drugs is extremely deceptive, and coupled with the strong curiosity and weak prevention awareness of adolescents, the risk of accidental ingestion and abuse has occurred frequently. Typical cases show that "spiked e-cigarettes" containing etizolam and synthetic cannabinoids have rapidly spread among adolescents, and the number of seizures in 2023 has increased by 120% year-on-year, seriously harming the physical and mental health of adolescents [2, 3, 8].

In response to this, the National Narcotics Control Commission Office, the Ministry of Public Security, and the National Tobacco Monopoly Administration jointly issued "Opinions on Further Strengthening the Crackdown and Control of Illegal and Criminal Activities of 'Spiked E-cigarettes'" on January 7, 2025. This aimed at further strengthening the crackdown and control of "spiked e-cigarettes," which contain synthetic cannabinoids or etomidate [9].

In addition, the abuse of prescription and over-the-counter drugs for non-medical purposes has become increasingly serious. For example, cough syrup containing controlled ingredients such as codeine and ephedrine, dextromethorphan, and compound licorice tablets are often abused to relieve stress, seek stimulation, or are mistakenly believed to refresh the mind, which further exacerbates the diversity and complexity of drug abuse [10, 11].

The production and distribution methods of NPS are also becoming increasingly diversified. The anonymity and convenience of online platforms make drug trafficking more covert, greatly increasing the difficulty of law enforcement [6, 7].

Finally, it should be noted that the global drug situation is not optimistic, and China is not immune. There is a risk of resurgence in traditional drug issues, while new types of drugs are characterized by their diversity and rapid spread. Especially with the rise of online platforms, new channels for drug trafficking have emerged, increasing the difficulty of regulation. Therefore, we have reason to be concerned that China's drug problems may rebound. In the face of this severe situation, we must be prepared for the worst and adopt more proactive measures.

#### 2. Difficulties in reintegrating into society

The National Comprehensive Drug Control Application System is a centralized data platform for managing drug control information. It can retrieve details on individuals who use drugs, including their basic information, drug use history, activity patterns, and health status. If such individuals attempt to use their ID cards for purchasing airline or train tickets, checking into hotels, or registering for certain services, the system triggers a warning. This may prompt local authorities to conduct an on-site inspection or a urine test, depending on the circumstances [12].

Therefore, while this system strengthens social monitoring of people who use drugs—particularly through long-term tracking of those with a history of drug use—it has both benefits and drawbacks. Although it has helped reduce the risk of drug abuse, it has also intensified the social stigma they face. The heightened surveillance has marginalized people who use drugs, increasing social discrimination and psychological

#### Saving Lives and Protecting Societies from Synthetic Opioids

pressure, which in turn makes them less likely to seek help or participate in treatment. This further complicates the process of rehabilitation [13].

According to the Regulations on the Application and Use of Motor Vehicle Driving Licenses (Ministry of Public Security Order No. 172), if a person is found to have driven a motor vehicle after using or injecting drugs and is currently undergoing community drug rehabilitation, compulsory isolation rehabilitation, or community rehabilitation, the vehicle management office shall revoke their driving license. Additionally, individuals who have used drugs within the past three years, have not completed three years of compulsory isolation rehabilitation, or have a long-term dependence on drugs and have not yet quit are not permitted to apply for a driving license [14].

The high cost of treatment and the challenges of daily life during the recovery process leave many people who have used drugs facing economic difficulties even after quitting. Limited life skills, along with inadequate social support and assistance, make it difficult for them to achieve self-sufficiency. This, in turn, hinders their ability to adapt socially and reintegrate into society [15, 16].

In society, drug use often carries a negative stigma, and people who use drugs are frequently perceived as "immoral" or "weak." Facing rejection in social and workplace settings makes it difficult for them to rebuild a normal life. This discriminatory mindset further hinders their reintegration into society [10].

Although some regions, particularly developed areas, have begun offering social rehabilitation and reintegration services for people who use drugs, the overall support system still has many shortcomings. Many areas lack specialized services such as vocational training, psychological counseling, and social skills development, making it difficult for individuals to adapt and reintegrate into society after recovery. For example, some regions have established "return halfway houses" and "special communities" to provide rehabilitation experiences and reintegration training, but these initiatives have not yet been widely implemented nationwide [10, 16].

# **3.** The urgent need to strengthen the coordination mechanism for drug rehabilitation treatment

Article 2, Paragraph 2 of the Drug Control Regulations clearly stipulates four types of drug rehabilitation measures: voluntary drug rehabilitation, community-based drug rehabilitation, compulsory isolation rehabilitation, and community rehabilitation, and sets a complete set of standards for evaluating the status of people who use

drugs [17]. However, how to seamlessly connect different drug rehabilitation models and how to effectively link them in a long-term management model remain important issues in the current field of drug treatment and rehabilitation [18, 19]. Specifically, there are three main issues:

- 1. **Poor information sharing:** Different rehabilitation programs lack effective communication, making it difficult to track a user's progress and provide consistent care.
- 2. **Gaps in treatment stages:** The transition between detoxification, rehabilitation, relapse prevention, and reintegration is often fragmented. This increases the risk of relapse.
- 3. Lack of social support: Drug rehabilitation requires more than medical treatment: it needs strong social support. Currently, there's a shortage of job training, counseling, and family support for recovering consumers, making it hard for them to reintegrate into society.

# 4. Insufficient training of professionals regarding addiction issues

In China, there is a lack of sufficient training among professionals regarding addiction issues, which is mainly reflected in the following aspects [18]:

- Insufficient training during medical undergraduate studies: Medical undergraduates receive limited exposure to addiction medicine in their coursework. The content related to addiction is often superficial, lacking depth and a systematic approach. As a result, when they enter clinical practice after graduation, they struggle to accurately identify and effectively manage patients with addiction. While graduate students have more opportunities for in-depth research in specialized fields, training in addiction treatment—both theoretical and practical—remains insufficient. In particular, clinical skills training for addiction treatment in primary healthcare settings is often overlooked, making it difficult for graduates to develop essential intervention skills.
- 2. **Insufficient training of addiction professionals**: Many addiction professionals lack skills in the management of physical and mental illnesses, psychotherapy, and behavioral interventions, and are unable to effectively implement comprehensive treatment. This directly affects the treatment

outcomes of patients with addiction, making it difficult for patients to obtain comprehensive treatment support.

3. Lack of training for general medical practitioners: Doctors in non-psychiatric settings often lack ongoing education or training programs on addiction issues, making it difficult for medical staff to keep up with the latest advances in addiction treatment, leading to difficulties in identifying, diagnosing, and referring addiction-related problems in their actual work.

# 5. Decline of voluntary drug treatment institutions and insufficient service capacity

Over the past decade, the number of voluntary drug treatment institutions in China has significantly decreased. At its peak, there were 160 such institutions, but now this number has fallen to less than 10% of its original size, with some regions lacking any voluntary drug treatment options [20, 21]. This decline severely limits access to vital drug rehabilitation services, making it difficult for individuals with substance use problems to receive timely and professional treatment and support, thus hindering their recovery journey.

Several factors contribute to this decline. Firstly, insufficient government support and a lack of financial incentives have weakened the sustainability of these institutions. These institutions often lack government funding and are not covered by medical insurance reimbursement systems. This, coupled with a decreasing number of individuals seeking treatment for drug abuse, has made it difficult for them to remain operational [21].

Secondly, the shortage of qualified professionals exacerbates the issue of inadequate service capacity. The decline in the number of institutions, coupled with an existing shortage of trained personnel, has led to the loss of many skilled professionals, particularly those with expertise in psychotherapy and addiction medicine. This hinders the professionalization and standardization of these institutions, limiting their ability to provide high-quality services and meet the increasingly complex treatment needs of individuals with substance use disorders.

Finally, the lack of comprehensive health/economic evaluations of both compulsory isolation rehabilitation and voluntary drug treatment models has hampered effective policymaking and resource allocation. While compulsory isolation rehabilitation has been the primary model for drug treatment in China, crucial data on its operating costs, treatment effectiveness, and societal benefits remain scarce. This lack of evidence-

based data limits the ability to optimize the drug treatment system and allocate resources effectively.

# 6. Limited accessibility of medical narcotics and psychotropics

Narcotic and psychotropic drugs play a vital role in healthcare. Most major countries have a more nuanced classification system for these drugs, typically with 4-5 categories [22]. However, in China, narcotics are classified as a single category, and psychotropic substances are divided into two [23].

China's strict regulations on the production, circulation, and use of these drugs aim to prevent drug abuse, diversion, and ensure public safety. While this approach is commendable, it creates challenges for medical institutions prescribing these medications and for patients seeking them for legitimate purposes. This limited accessibility hinders the clinical use of narcotics and psychotropics in China [18].

For example, opioid use in cancer pain management remains low. According to the International Narcotics Control Board (INCB), China's morphine consumption in 2019, though significantly increased from 2009, still represents only 4.9% of global consumption. The INCB's global distribution map indicates that only 16% of Chinese patients requiring palliative/analgesic treatment receive adequate morphine [24].

Per capita consumption data further highlights the issue. The INCB uses Defined Daily Doses (DDD) per million residents per day to measure opioid consumption. A DDD below 200 indicates inadequate use, and below 100 signifies severely inadequate use [25]. From 2017 to 2019, China ranked 105th globally with a DDD of 170. Excluding methadone used for addiction treatment, the DDD for pain management was only 94, reflecting "severely inadequate use [26, 27]."

#### **III. RESPONSES AND STRATEGIES**

# **1. Improving the legal system to facilitate patient recovery and reintegration into society**

Although China's drug control legal system provides a basic framework for drug treatment and rehabilitation and has achieved significant success in drug control efforts, challenges remain in its actual implementation. These challenges include the enforcement of laws and policies, social stigma, the comprehensiveness and systematic nature of drug treatment, economic burden, and regional disparities 18]. To better promote the recovery and reintegration of people who use drugs into society, it is recommended to implement the following:

- 1. Enhancing social rehabilitation services: Establish a comprehensive support system that provides a range of services, including psychosocial counseling, vocational training, legal aid, and family support, to help users successfully reintegrate into society.
- 2. **Promoting employment opportunities:** Implement policies that encourage employers to hire recovered users and provide vocational training to enhance their employability.
- 3. **Reducing social stigma:** Conduct widespread public education campaigns to challenge negative stereotypes about drug consumers and foster a more supportive and inclusive society.
- 4. **Protecting legal rights:** Strengthen legal protections for people who use drugs, ensuring equal access to employment, education, and healthcare, and establishing mechanisms to prevent discrimination.
- 5. **Balancing voluntary and compulsory treatment:** Reform the drug control law to promote voluntary treatment and ensure that compulsory treatment programs are humane and effective, addressing not only addiction but also psychological and social issues.
- 6. **Fostering community and family support:** Encourage community involvement in the rehabilitation process and provide support to families of people who use drugs.

By implementing these strategies, a more supportive and enabling environment for people who use drugs to recover and rebuild their lives is possible.

#### 2. Coordinating the three pillars of drug control

The three pillars of drug control—supply reduction, demand reduction, and harm reduction—are interconnected and interdependent. To effectively address the drug problem, it is essential to coordinate and balance these strategies. The INCB has consistently advocated for a comprehensive and balanced approach to drug control, emphasizing the importance of reducing both supply and demand [28]. By adopting a coordinated and evidence-based approach, China can minimize the harm caused by drugs, promote recovery, and create a healthier society.

# **3. Maximizing the role of voluntary drug rehabilitation institutions**

Voluntary drug rehabilitation institutions are indispensable in addressing drug-related issues [21]. To fully leverage their potential and enhance their efficacy, a multi-pronged approach is required.

Government investment in drug rehabilitation institutions must be significantly increased. Adequate financial backing is essential for acquiring advanced equipment, hiring qualified staff, and developing innovative treatment programs. With increased funds, these institutions can expand their facilities and services, reaching more individuals in need of help.

Policy support and financial guarantees are equally important. Incorporating drug rehabilitation into medical insurance can ease the financial burden on people seeking treatment, making it more accessible.

Comprehensive treatment programs are the foundation of these institutions. In addition to traditional medication-assisted treatment, integrating psychotherapy and behavioral therapy is crucial to address the psychological and behavioral aspects of addiction. Offering vocational training and employment guidance can also help former drug users gain practical skills and improve their chances of finding stable employment. This supports their smooth reintegration into society and reduces the likelihood of relapse.

Collaboration is another key factor. Voluntary drug rehabilitation institutions should partner with local communities and social organizations. Community support can create a nurturing environment for recovery, while social organizations contribute valuable resources and expertise. Family therapy and educational programs are also essential in strengthening the support network around individuals in recovery.

To combat social stigma, public education campaigns are necessary to shift the public's perception of drug addiction, emphasizing that it is a medical condition rather than a moral failing. Protecting the rights of those seeking treatment will encourage more people to seek help without fear of discrimination.

Enhancing the professionalism of these institutions should be a longterm goal. Staff training programs can keep employees updated on the latest treatment methods and best practices. Standardized treatment protocols ensure consistency and quality across cases. Regular evaluation of treatment outcomes allows for continuous improvement, ensuring that institutions achieve the best possible results [20].

# 4. Facilitating social reintegration through enhanced medical and psychological care in compulsory drug treatment facilities

To improve the outcomes of compulsory isolated treatment and rehabilitation, it is crucial to enhance medical and psychological care, as well as to prepare individuals for successful reintegration into society. Comprehensive medical services should be provided to manage withdrawal symptoms and treat any associated health conditions. Additionally, a range of psychological interventions should be offered to address the underlying causes of addiction. Furthermore, social and vocational skills training should be integrated into the rehabilitation program to equip individuals with the necessary skills to re-enter the community and maintain long-term recovery. To achieve these goals, compulsory drug rehabilitation institutions should purchase more socialized services, such as cooperating with community rehabilitation institutions, vocational training centers, and psychological counseling agencies, etc., to enhance the comprehensive rehabilitation ability of people dependent on drugs [20, 21].

# 5. Integrating community-based services for comprehensive addiction care

A community-based approach to addiction treatment offers a more holistic and effective model of care compared to traditional hospitalbased services. By integrating various resources and services within the community, including healthcare, social services, and peer support, this model can provide greater accessibility, early intervention, and ongoing support. Seamlessly connecting community-based services with voluntary and compulsory rehabilitation facilities is a continuum of care, from detoxification to reintegration. This integrated approach allows for a more personalized and tailored treatment plan, which can improve patient outcomes and reduce the risk of relapse [19].

# 6. Optimizing the management system for controlled substances

In international and most key national/regional frameworks, narcotic and psychotropic drugs are classified into three to five categories. However, in China, narcotic drugs are classified into a single category, while psychotropic drugs are divided into only two categories [23].

Compared with the classifications in the international community and major countries, the current categorization of narcotic drugs and

psychotropic substances in China is overly simplistic: there is only one category for narcotic drugs and merely two categories for psychotropic substances. This current coarse-grained classification system for narcotic and psychotropic drugs in China restricts the refinement of their management.

Drawing from the best international practices, it is necessary to establish a more scientific and reasonable classification system and related prescription management system. This would not only enhance target management and prevent abuse and diversion but also improve drug accessibility and availability of the controlled substances.

From a technological standpoint, promoting electronic prescription systems and utilizing digital management tools for prescription issuance and verification can enhance the legality and rationality of prescriptions while maintaining a record of patients' medication histories, thereby preventing duplicate prescriptions or inappropriate use [21].

Additionally, the Internet of Things (IoT) technology can be leveraged by attaching electronic tags to drug packaging to track the production, distribution, and usage of drugs in real-time, ensuring full traceability. Lastly, big data analysis techniques can be applied to monitor the usage trends of narcotic and psychotropic drugs, analyze adverse reactions, and support drug management decisions. A comprehensive drug evaluation system should also be established to assess the efficacy, safety, and addictive potential of these drugs, providing a scientific basis for rational medication use. These measures can ensure the appropriate use of drugs while effectively preventing substance abuse and addiction issues [21, 25, 26].

# 7. Addressing the hidden population of people who use drugs

The hidden population of people who use drugs refers to those who have not been registered by the public security anti-drug system and are outside of routine monitoring. Based on the capture-recapture method, it is estimated that the size of the hidden population of drug users in China is about 3-5 times that of the registered population [29, 30].

Voluntary drug treatment institutions can play a unique role in reaching this hidden population by providing a non-coercive and confidential treatment environment. This can reduce the psychological barriers and fear associated with entering compulsory rehabilitation facilities or the national integrated drug control system. By offering personalized treatment plans, psychotherapy, and social support, voluntary drug rehabilitation institutions can help hidden drug users
overcome emotional distress during the recovery process and provide long-term recovery support [21].

#### 8. International cooperation

International cooperation is crucial for China's drug control efforts. China has established close relationships with international organizations such as the World Health Organization and the United Nations Office on Drugs and Crime, as well as with other countries, significantly promoting international research cooperation and policy dialogue.

Non-governmental drug control cooperation is of great significance, encompassing many key areas. Taking the China-U.S. relationship as an example, due to various geopolitical factors, the level of mutual trust between the two governments is relatively low. Under such circumstances, non-governmental exchanges and cooperation have become particularly valuable. For example, the INHR China-U.S. Track II Comprehensive Drug Dialogue, whether through online seminars or in-person exchanges, has proven highly effective. On one hand, it has helped reduce unfounded accusations and facilitated calm, constructive discussions between both sides. On the other hand, it has significantly strengthened mutual trust and contributed to the gradual development of numerous agreements in the field of drug control. This approach has effectively addressed gaps in drug control cooperation that rely solely on government efforts, opening new avenues and providing fresh momentum for the advancement of drug control initiatives.

Moreover, international cooperation is evident in training and education. Through collaborations with universities and medical institutions in high-income countries, China has provided opportunities for domestic addiction medicine professionals to study abroad. Numerous international training programs have enhanced the professional skills of Chinese medical teams and helped them master the latest international treatment standards and protocols, further promoting the development of addiction medicine in China and aligning it with international standards.

#### **IV. SUMMARY AND OUTLOOK**

After years of effort, China's drug control work has transitioned from a reactive enforcement approach to a systematic governance model, achieving significant progress in reducing drug supply and curbing drug use. However, challenges such as the rapid evolution of new synthetic drugs, the hidden drug use populations, insufficient integration of the

rehabilitation system, and the strict management of narcotic and psychotropic drugs highlight the complexity and long-term nature of drug control governance. Future governance efforts should continue to advance in the following directions:

- 1. **Balancing the Three Pillars of Drug Control:** While maintaining a strong crackdown on drug-related crimes (supply reduction), greater emphasis should be placed on demand and harm reduction to avoid an imbalanced approach that prioritizes enforcement over recovery.
- 2. Enhancing Technological Integration: The application of big data and artificial intelligence should be expanded in drug monitoring (e.g., tracking dark web transactions), addiction treatment (e.g., personalized rehabilitation programs), and pharmaceutical management (e.g., electronic prescription tracing) to improve governance precision.
- 3. **Optimizing Social Co-Governance:** A multi-stakeholder governance framework should be established, led by the government and supported by communities and families. Measures such as destigmatization campaigns, vocational training assistance, and privacy protection mechanisms can help address the challenges of "difficult access to treatment" and "difficult reintegration."
- 4. Extending International Cooperation: Through the Belt and Road Initiative drug control cooperation mechanism, China should strengthen intelligence sharing and technical collaboration with international organizations (such as UNODC and INCB) and key regions (such as Southeast Asia and North America) to jointly combat the transnational trafficking of fentanyl, synthetic cannabinoids, and other emerging drugs.

Moving forward, China must adopt a "full-chain governance" approach as its core strategy, focusing on continuously improving the legal framework, innovating technological applications, and fostering social consensus. This will shift drug control efforts from achieving "short-term results" to ensuring "long-term sustainability." These efforts are not only vital for public security and social stability but also represent China's contribution to global drug governance and its commitment to the concept of a shared future for humanity.

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## CHAPTER NINETEEN – DRUG USE IN THE UNITED STATES: CURRENT STATUS, CHALLENGES, AND RESPONSES

### By GAVIN BART, MD PHD<sup>15</sup>

#### ABSTRACT

Tobacco, alcohol, and illicit drug use are leading preventable risk factors for early disability and death in the United States. More recently, attention has focused on the use of illicitly manufactured opioid fentanyl and its analogs, leading to public health emergency declarations and the development of strategies to reduce both the supply of and demand for fentanyl. Significant resources have been allocated for interventions to reduce the impact of fentanyl, yet an unacceptably high level of deaths continues.

The use of illicit opioids results in nearly 1,000,000 hospitalizations and 75,000 overdose deaths in the United States annually. The use of illicitly manufactured fentanyl in the United States is part of an opioid crisis that has unfolded over the last 30 years. While effective treatments for opioid use disorder exist, their uptake by patients and by treatment providers remains low. This paper focuses on some of the factors that limit treatment demand and how to reduce the negative public health consequences of fentanyl use.

The United States may be at an inflection point where overdose deaths have plateaued and even slightly decreased. Looking ahead, for the United States to make continued inroads to fentanyl demand reduction and prepare for future drug crises (methamphetamine, nitazines, illicitly manufactured benzodiazepines), improved access to care through a "no wrong door" approach is needed. Breaking down divisions between health, criminal justice, housing support, and social services may prevent people who use drugs from falling between the cracks and out of treatment. Leveraging technology can help allocate resources, support general health providers in identifying and treating opioid use disorder, support individuals and family members in recovery

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services, and track quality metrics for targeted improvement. END OF ABSTRACT.

In the United States during the past year approximately 70.5 million people 12 years and older used an illicit drug (Figure 1) (1). Cannabis is the most commonly used illicit drug (61.8 million people), whereas less commonly used drugs such as fentanyl (0.8 million people) and methamphetamine (2.6 million people) disproportionately contribute to the negative consequences of illicit drug use in the United States. While drug use in the United States has remained relatively stable over the past several years (Figure 2), the consequences of drug use have increased in part due to the proliferation and potency of illicitly used opioids (2).



*Figure 1 (above) Figure 2 (below): National Survey on Drug Use and Health\** 

Saving Lives and Protecting Societies from Synthetic Opioids



\*illicitly manufactured fentanyl was not queried until 2022

## I. THE OPIOID CRISIS IN THE UNITED STATES

#### **1. THE FOUR WAVES**

Drug use in the United States during the past three decades has been characterized as occurring in four waves (Figure 3) (3, 4). While the use of opioids is as old as the United States, the use of heroin was relatively low during most of the twentieth century with only occasional ebbs and flows, primarily in urban centers (5). In 1996, long-acting prescription opioid analgesics began to be marketed to general medical providers for indications outside of traditional management of cancer, trauma, and end of life pains. The mass production of these medications and their aggressive marketing led to significant increases in prescriptions, thus exposing a large segment of the population to opioids. A substantial subset of patients prescribed these opioids developed an opioid use disorder (OUD) and illicit markets for their distribution and consumption flourished, marking the first wave of the opioid crisis.

#### Overdose Deaths Involving Opioids, by Type of Opioid

Thousands of Deaths



Figure 3. U.S. Congressional Budget Office 2022

As deaths related to prescription opioid misuse were identified and began increasing, concerted campaigns to limit their access and prescribing made it more challenging to keep up with the demand for opioids, leading to a shift from illicit prescription opioids to heroin markets. Further, in response to the rise in OUD and shifting drug economies, heroin distribution in the United States increased, with prices that undercut the illicit markets for prescription opioids (6). This shift from a crisis primarily fueled by prescription opioids to one defined by heroin marks the second wave of the U.S. opioid crisis.

Transnational criminal organizations began scaling the development of synthetic opioids (namely fentanyl and its analogs) in the 2000s. The high potency of these illicit fentanyls, initially mixed into heroin, resulted in a rapid increase in overdose deaths. As fentanyl eventually replaced heroin in most markets, overdose deaths continued to rise. Unlike heroin, fentanyl was also easily pressed into pill forms that had the appearance of other opioid and non-opioid prescription medications. These counterfeit pills increased deaths, especially in those seeking illicit prescription pills who mistakenly believed them to contain something other than fentanyl.

While the shift from heroin to fentanyl marks the third wave of the opioid crisis, the fourth wave is characterized by the rise of psychostimulants (namely methamphetamine) being used in addition to fentanyl. People who use both opioids and methamphetamine have increased risk of overdose, emergency service utilization, hospitalization, incarceration, reliance on social services, and unstable housing compared to when either opioids or methamphetamine are used alone (Figure 4) (7, 8).



Figure 4 Howell et al. 2021

## II. CHALLENGES IN UNITED STATES' DRUG CONTROL EFFORTS

#### **1. RAPID SPREAD OF FENTANYL AND METHAMPHETAMINE**

The rise of illicitly manufactured fentanyl was sparked, in part, by developments and ease in the requisite synthetic chemistry and some of the legal loopholes that initially did not regulate slight molecular modifications of known controlled substances. While many of these loopholes have been tightened, the legal nature of many precursor chemicals allows for ongoing production. New synthetic pathways utilize a wider selection of common, difficult to regulate precursors.

The complete synthetic process of fentanyl and methamphetamine production is easier to conceal than open air crops such as opium and coca. The potency of fentanyl compared to heroin also results in lower

required volume of shipments, which make them easier to conceal. Fentanyl disguised as counterfeit pills has also made detection more challenging.

#### 2. DIFFICULTIES IN DEMAND REDUCTION

In the United States, people's perception of the need for addiction treatment and difficulties accessing treatment remain the largest contributors to low demand reduction (Figure 5)(1).



Figure 5. National Survey on Drug Use and Health 2023

There are highly effective medications for opioid use disorder (MOUD), yet only about 25% of patients receive these treatments (9, 10). Methadone remains restricted to highly regulated clinics with insufficient geographical distribution to adequately meet the demand for this medication (11). Buprenorphine is less regulated insofar as any prescriber capable of prescribing a controlled substance can also prescribe buprenorphine, but fewer than 5% of providers offer it, effectively limiting access to treatment (12).

Treatment for methamphetamine use disorder is reliant on behavioral interventions alone. Contingency management is the most effective approach (13) but is not sufficiently in use in the United States, although California has a special innovation project to implement contingency management throughout the state (14). Programs that do address methamphetamine are most commonly separate from those treating OUD, creating a bifurcated system for those who use both drugs. Similarly, few OUD treatment providers are resourced to address methamphetamine use disorder and may even refuse service to those who have this additional treatment need.

#### Saving Lives and Protecting Societies from Synthetic Opioids

For those who do engage in treatment, retention in MOUD is low with only 45% remaining on buprenorphine at 6-months and 55% on methadone at 12-months (15, 16). Treatment for other substance use disorders including methamphetamine is episodic insofar as they are designed to last only a matter of weeks, sometimes months. There are scant longitudinal treatment supports beyond peer run mutual help programs.

# **3.** THE NEED TO STRENGTHEN THE LINKAGE MECHANISMS FOR SUBSTANCE USE DISORDER TREATMENT

Treatment services in the United States are most commonly independent from healthcare systems and are nearly 90% privately operated (17). Healthcare facilities, social services programs, jails, and schools often do not have established relationships with addiction treatment programs, which makes referrals between these systems difficult. While few people with substance use disorders access treatment, most engage with the healthcare system at least annually (18). Screening for substance use disorders is uncommon in healthcare and other settings creating a missed opportunity to identify and initiate treatment. Issues that need to be addressed include:

- 1. Lack of screening for substance use disorders: Implementing screening for substance use disorders increases the number of those identified as needing demand reduction services.
- 2. **Poor cross-sector collaboration:** Financial and information systems segregation between healthcare settings, addiction treatment settings, jails, schools, and other social services creates gaps in service and funding as people transition between settings (e.g., from the hospital back into the community).
- 3. Lack of social support: People accessing addiction treatment services need ongoing support in securing stable housing, building healthy relationships with family and peers, and they need help in acquiring meaningful work opportunities that provide a living wage. Failure to provide these services too often undermines the progress made between patients and treatment providers.

#### 4. INSUFFICIENT ADDICTION WORKFORCE

For more than 50 years government agencies and professional organizations have called for improved training of addiction professionals. Limitations to progress include:

- 1. **Insufficient training during medical training:** While the creation of addiction psychiatry and addiction medicine specialties has increased the number of specialty-trained physicians over the past 25 years, trainees in schools of medicine, nursing, and pharmacy receive limited training in addiction, which often includes only a few hours of lectures and no practical clinical experience.
- 2. **Insufficient training of addiction professionals:** Counselor level addiction professionals do not have standardized training in the United States and state differences span limited associate certificates in addiction to bachelor level requirements in training. While most curriculums contain information about psychopharmacology, these often focus on the effect of different misused drugs and do not cover medications used in the treatment of substance use disorders. Therefore, frontline addiction staff are unprepared to address the spectrum of treatment options with their patients.
- 3. Lack of implementation support for general medical practitioners: The opioid crisis has spurred several initiatives to train medical providers in safer opioid prescribing, provision of naloxone for overdose rescue, and in the use of buprenorphine to treat opioid use disorder. These include web-based learning collaboratives, required training to renew a license to prescribe controlled substances, and didactic curricula. Despite these trainings, the provision of treatment in general medical settings remains low. Recent reports indicate that the barrier is less a lack of provider knowledge and clinical skill but more a lack of support in applying this knowledge and skill within existing systems of healthcare delivery (19).

#### 5. VOLUNTARY COMMUNITY-BASED TREATMENT

While compulsory treatments do exist in the United States, they are less common than voluntary community-based treatments. There are nearly 18,000 substance use treatment facilities in the United States (17). More than 90% are privately operated and 83% offer outpatient services. This system spans low barrier treatment services with limited treatment programing, to outpatient programs that may offer up to 10 hours of services per week, to partial hospital programs providing full day services, and residential programs providing these services while including lodging. 57% of facilities provide MOUD, although methadone remains restricted to a specially licensed subset of these programs. The geographic distribution of these services is uneven with some areas lacking certain types of programming. Population specific programming is also limited (for example, only 25% offer adolescent treatment services).

The American Society of Addiction Medicine defines level of addiction care from early intervention to 24-hour supervised medical care (Table 1) (20). The creation of such standards allows for a common understanding of the expected services across facilities. Through the ASAM Patient Placement Criteria, a standardized assessment can direct patients to the appropriate level of care based on six dimensions of need: acute intoxication/withdrawal, medical needs, emotional/behavioral needs, readiness to change, continued drug use or relapse potential, and recovery/living environment. This approach can prevent misallocation of resources by sending patients to appropriate levels of care (e.g., outpatient community care instead of residential care). Implementation and standardization of these criteria has been limited, however (20).

Table 1.	ASAM Levels of Care			
Level 0.5	Early intervention, psychoeducation			
Level 1	Outpatient treatment			
Level 2.1	Intensive outpatient treatment (9-20 hours per			
	week)			
Level 2.5	Partial hospital at least 20 hours per week but <24			
	hours per day			
Level 3.1	Low-intensity residential treatment			
	High-intensity residential treatment for special			
Level 3.3	populations (e.g., elderly, traumatic brain injury,			
	developmental disabilities)			
Level 3.5	Clinically managed residential for those needing			
	24-hour oversite due to risk of imminent harm			
Level 3.7	Medically managed high-intensity inpatient			
	treatment with medical and psychological monitoring			
Level 4	24-hour nursing care and daily physician visit			

#### 6. LIMITED ACCESSIBILITY TO MEDICATIONS FOR OPIOID USE DISORDER

The bifurcation between an addiction treatment system that is separate from healthcare systems limits access to MOUD (Figure 6). Further, the regulatory constraints that limit methadone to specifically licensed treatment programs is another barrier that disproportionately

tracks disadvantaged, poor, and minoritized populations to this less accessible system of specially licensed clinics (21). Unstable transportation and travel to methadone clinics combined with requirements for the frequency of attendance (in some instances daily) makes it difficult to attend to important family, community, and employment obligations, resulting in increased risk for dropping out of care.



*Figure 6. Access to medications for opioid use disorder by geography. Joudrey et al. 2022* 

As mentioned previously, despite most prescribers being allowed to prescribe buprenorphine, few do. Knowledge and lack of system support for buprenorphine remain barriers (19). Additionally, the initiation of buprenorphine for the treatment of opioid use disorder is complex in the era of fentanyl (22). Traditional initiation protocols for buprenorphine require the onset of withdrawal symptoms, yet many patients are unable to do this and do not start buprenorphine (23). Further, the lipophilic nature of fentanyl leads to prolonged biological stores that increase the chance of buprenorphine precipitating withdrawal (24). Newer approaches to buprenorphine induction (25) may avoid these pitfalls but few general prescribers of buprenorphine have adopted these approaches.

## **III. RESPONSES AND STRATEGIES**

#### **1. IMPROVING ACCESS TO CARE**

The United States has a wide continuum of episodic care for substance use disorders that emphasizes community-based care. With more than 36 million individuals needing treatment for a substance use disorder and approximately 18,000 treatment facilities (equaling roughly 2,000 persons in need per facility), there remains need for greater access to care. Significant gaps in access to care based on finances, geography, and special needs also must be addressed. Improvements could be achieved through:

- 1. Ensuring financial access to care: Insurance may cover addiction treatment services but coverage often lapses for those experiencing addiction due to incarceration, change in address, and underemployment. A system that will prevent gaps in coverage regardless of circumstances will make it easier to access care once someone is ready to do so. Accessing treatment needs to be easier than accessing drugs.
- 2. **Reduce societally imposed consequences of drug use:** People who use drugs are disproportionately represented in the criminal justice system. This leads to future difficulties in gaining employment, housing, and financial assistance for education. Wherever possible, people who use drugs should be diverted from the criminal justice system. When criminal justice engagement is necessary, maintaining access to social services and opportunity is crucial to promote recovery.
- 3. **Reduce social stigma:** Expanding recovery-oriented communities to normalize recovery from addiction can help reduce stigma. Approximately 40 million people in the United States consider themselves in recovery from a substance use disorder (1). Their general invisibility as a social force limits exposure to visible success and perpetuates self-stigma in those experiencing addiction. Supporting families and communities in understanding addiction, its causes, treatment, and recovery will reduce negative views of people with addiction.
- 4. **Integrate addiction care into healthcare:** Identification of substance use disorders within medical settings needs to be standardized and universal. Health providers need to use brief interventions for those with sub-diagnostic drug use and be able

to provide treatment or easily refer to care those with a substance use disorder.

- 5. **Offer transitional care:** Emergency departments, ambulances, hospitals, and jails often encounter people with substance use disorders. Each setting should be able to diagnose and initiate treatment while making a timely referral for ongoing care.
- 6. **Expand care coordination:** Deployment of peers into the community and transition points (e.g., hospitals, jails, emergency departments, etc.) can help build trust with people who use drugs, meet their motivational needs, and help them navigate treatment and recovery services.

#### 2. IMPROVING THE ROLE OF FAMILY AND SOCIAL SUPPORT IN RECOVERY

Relationships with family members and other significant people who provide an individual with care and emotional support are too often frayed by drug use, leading to isolation of both the person who uses drugs and the family. There are limited services available to help families navigate caring for someone using drugs or engaged in treatment and recovery services. Increased access to programs that offer support and care strategies for families are needed to help maintain and restore relationships that are supportive.

#### **3.** REDUCING DEATHS THROUGH NALOXONE DISTRIBUTION AND OTHER HARM-REDUCTION SERVICES

In the late 1990s a proliferation of grass-roots organizations advocated for access to naloxone, an opioid antagonist that can reverse the acute effects of an opioid overdose (26). Prior to this, naloxone was limited to medical settings such as hospitals, emergency departments, and ambulance services. Making this medication available to the populations most likely to witness an overdose required medical providers to write standing orders allowing this prescription medicine to be dispensed and required working with local and state authorities to allow the lay public to carry a medication typically restricted to health professionals. Because of historical practices of law enforcement interventions in response to overdose, "good Samaritan" laws were passed in many jurisdictions to limit the legal harms that could befall someone experiencing an overdose and those providing naloxone intervention (27).

Commercial pharmaceutical manufacturers, including some started by grass-roots groups specifically to address naloxone needs, increased production and developed non-injectable intranasally administered formulations of naloxone. In 2018, the United States Surgeon General recommended that all adults in the United States have naloxone available for use and many insurance programs now cover the cost of naloxone with little-to-no co-payment. In recognition that the populations in greatest need of naloxone may not access healthcare, grant programs remain the primary source for freely distributed naloxone. Mathematical modeling and data analytics are currently being used to prioritize naloxone distribution to the populations most likely to benefit from access (28).

Syringe service programs distribute sterile injecting equipment and other clean drug consumption products (e.g., water, pipes, containers to dissolve drugs) as a means of reducing transmission of blood-borne pathogens such as HIV and viral hepatitis (29). In addition, these services distribute naloxone, provide overdose prevention education, information about safer injection practices, and, to a limited extent, HIV and viral hepatitis testing services. Because of the trust these programs establish with their clientele, they can also serve as a conduit to accessing healthcare and addiction treatment services.

Increasing knowledge about the drugs that an individual is consuming leads to safer drug use practices (30). Fentanyl entry into the heroin supply created uncertainty about the potency of the drug being consumed. Was it heroin or did it contain fentanyl? Was the alprazolam pill a counterfeit that was actually fentanyl? The ability to test for the presence of fentanyl prior to using a drug results in safer drug use practices.

Safe-consumption facilities, where people can consume a drug under medical observation and have basic wound care and overdose prevention needs attended to have shown limited and localized positive impacts in a number of countries (31). Approximately 35% of clientele of these facilities use them as a conduit to access treatment services. While these facilities remain illegal at the federal level in the United States, two such facilities openly operate with local approval in New York City. Early data from these facilities show no overdose fatalities and a reduction in drug related paraphernalia in the surrounding neighborhood (32). Data collection continues and results will be used to inform further public health planning.

# 4. ACCESS TO ADDICTION TREATMENT AND MEDICATIONS FOR OPIOID USE DISORDER IN JAILS AND PRISONS

Few jails and prisons offer medications for opioid use disorder (33). This leads to a profound increase in overdose death within the two weeks following release (34). Compared to prison-based treatment services that do not include medications, offering medications during incarceration also increases the likelihood of treatment engagement post release (35). Jails and prisons need the requisite resources (financial, technical, capital) to provide MOUD.

#### 5. IMPROVING DATA SHARING, INTEGRATION, AND ANALYTICS

Technological developments in data sciences and mobile health can promote improved interventions for fentanyl and other drugs. Expanded data modeling systems are needed to help identify communities with the greatest need for intervention for drug-related problems and to help with the allocation of resources (28, 36). At the clinic level, analytics of pharmacy and health records may help identify people at increased risk for an opioid use disorder and notify practitioners of the need for increased screening (37). Clinical decision support tools integrated into the electronic health record can guide health professionals through realtime patient-specific steps for screening, diagnosing, and treating opioid use disorder (38).

Telehealth has expanded access to care for opioid use disorder (39, 40) and OUD mobile health interventions deliver high fidelity behavioral therapy and link people to community and peer supports (41-43). These approaches have not been scaled beyond pilots but hold promise to help expand access to effective interventions across geographic divides and in settings with limited addiction workforce.

#### 6. Addressing hidden populations

Many people with substance use disorder do not engage in treatment or healthcare services beyond acute emergency care. They remain in the community, and many are unstably housed and transient. A "no wrong door" approach integrates access to treatment wherever a person may interact with supportive public services (e.g., supportive housing, government service offices, jails, schools, etc.). Additionally, treatment services that are mobile and embedded where these hidden populations are (e.g., healthcare for the homeless, syringe service programs, nightclub venues, faith communities, and migrant health programs) can help reach marginalized populations (44, 45).

#### 7. INTERNATIONAL COOPERATION

International cooperation for reductions in drug supply is clearly recognized and fostered through law enforcement, trade policy, and interdiction strategies. Improving coordination of production and importation of precursor chemicals, coordinating interdiction and tracking money laundering are the common points of international cooperation. Less commonly mentioned is cooperation in demand reduction.

The demand for drugs destabilizes public health, economic opportunity, and policy. As such, improving global drug demand is sound foreign policy if we seek to have strong stable international markets and allies. Learning from international best practices for treatment standards (46) and then providing technical assistance to our global partners can help accelerate improved global health and may serve as a helpful addition to the Unites States' portfolio of health diplomacy. The track 2 diplomatic U.S.-China Comprehensive Drug Dialogue is one such example of cooperating across supply and demand sectors to identify common areas of strength and need with bilateral recommendations on how each nation can learn from and cooperate with each other in addressing fentanyl and other synthetic drugs. For example, the United States can learn from China's centralized cross-sector support systems and ability to bring interventions to scale through centralized processes, analytics, and standards. The United States system of voluntary within-community treatments spanning different levels of treatment intensity allows for a more individualized approach such that patients can get the right treatment at the right "dose" for the right amount of time.

The United States and China should be cooperating partners in global technical assistance in implementing international treatment standards (46). Our combined expertise can help struggling nations better scale up the infrastructure and expertise needed to implement these international standards.

#### **IV. SUMMARY AND OUTLOOK**

At its peak, the opioid crisis has devastated individuals, families, communities, economies, and public health. It has contributed to the first decline in U.S. life expectancy in decades (47). Effective interventions

exist but are poorly resourced and deployed. Despite this, significant government and private sector investment has led to innovations that have stabilized the crisis and perhaps seen initial decreases in drugrelated deaths (48). Additional efforts are needed to further impact demand reduction for fentanyl and to prepare the United States for future synthetic drug crises. These steps include:

- 1. Improving access to care: Through greater geographic distribution of services and implementation of treatments across the spectrum of healthcare and community settings.
- 2. Implement and incentivize quality standards for models of care: Regulatory, data, and financial support for treatment programs to adopt, track, and maintain treatment standards can help more people access and remain engaged in care.
- 3. Supporting recovery: Through reductions in stigma and the creation of programs that facilitate meaningful and sustainable social and economic opportunities for people who use drugs.
- 4. International cooperation: Learn from and help disseminate international best practices in demand reduction will compliment cooperative efforts in supply reduction.

Moving forward, the United States must support the implementation of effective treatment interventions that have been too slowly adopted by the health, criminal justice, and social services sectors. This will better allow those in need of help to get it when and where they need it. This will also require support for ongoing systems of recovery. Attention to international standards and models of care will help us meet our demand reduction goals.

Finally, specific to the U.S.-China Comprehensive Drug Dialogues, the United States and China have a history of cooperation in addressing drug-related issues, whether it was cooperative information sharing for interdiction or direct technical assistance through programs such as the Presidents Emergency Plan for AIDS Relief. While the extent of this cooperation may have waned over recent years, as global superpowers with extensive influence in overlapping and adjacent nations,

cooperation on the global health impact of fentanyl and synthetic drugs is of mutual benefit in helping each country achieve its respective domestic and global ambitions.

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# CHAPTER TWENTY – CHARTING THE FOURTH WAVE: GEOGRAPHIC, TEMPORAL, RACE/ETHNICITY AND DEMOGRAPHIC TRENDS IN POLYSUBSTANCE FENTANYL OVERDOSE DEATHS IN THE UNITED STATES, 2010–2021

## By Joseph Friedman<sup>16</sup> and Chelsea L. Shover<sup>17</sup>

#### ABSTRACT

**Aims:** To characterize polysubstance death in the United States during the transition to the fourth wave of the drug overdose crisis. To characterize co-involved substances in fatal overdose involving synthetic opioids (mainly illicitly manufactured fentanyl analogues) by year, state, and intersectional sociodemographic groups.

**Design:** Population-based study of national death records. **Setting:** United States.

**Participants/cases:** All people who died from drug overdose in the United States between 2010 and 2021.

**Measurements:** Percentage of all fatal overdose involving fentanyls, stimulants, and other drugs. Most commonly co-involved substances in fentanyl overdose by state and year. Percentage of fatal fentanyl overdose co-involving stimulants by state and year. Percentage of fatal fentanyl overdose co-involving stimulants by intersectional region, race/ethnicity, age, and sex.

**Findings:** The percent of U.S. overdose deaths involving both fentanyl and stimulants increased from 0.6% (n = 235) in 2010 to 32.3% (34 429) in 2021, with the sharpest rise starting in 2015. In 2010, fentanyl was most commonly found alongside prescription opioids, benzodiazepines, and alcohol. In the Northeast this shifted to heroinfentanyl co-involvement in the mid-2010s, and nearly universally to

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cocaine-fentanyl co-involvement by 2021. Universally in the West, and in the majority of states in the South and Midwest, methamphetaminefentanyl co-involvement predominated by 2021. The proportion of stimulant involvement in fentanyl-involved overdose deaths rose in virtually every state 2015–2021. Intersectional group analysis reveals particularly high rates for older Black and African American individuals living in the West.

**Conclusions:** By 2021 stimulants were the most common drug class found in fentanyl involved overdoses in every state in the U.S. The rise of deaths involving cocaine and methamphetamine must be understood in the context of a drug market dominated by illicit fentanyl, which have made polysubstance use more sought-after and common place. The widespread concurrent use of fentanyl and stimulants, as well as other polysubstance formulations, presents novel health risks and public health challenges. END OF ABSTRACT.

#### INTRODUCTION

The United States (U.S.) overdose crisis has escalated in an exponential fashion for over four decades, yet with a shifting profile of drugs implicated in each successive 'wave' of the crisis [1]. The first wave of the overdose crisis is typically argued to have begun in the late 1990s or early 2000s with the rise of deaths involving prescription opioids, the second wave beginning in 2010 driven by a shift to heroin, and the third wave beginning in 2013 driven by illicit fentanyl analogues [2, 3]. Recently, scholars have argued that the 'fourth wave' of the U.S. overdose crisis has begun, in recognition of rapidly rising polysubstance overdose deaths involving illicitly manufactured fentanyls, with stimulants playing a key role [4-7]. Recent studies have highlighted an increasing rate of polysubstance overdose deaths involving fentanyls and stimulants, disproportionately affecting racial/ethnic minority communities [7]. A wide range of polysubstance formulations have been noted in drug checking and overdose mortality data, with myriad substances implicated across numerous drug classes [8–10]. However, more evidence is needed about exact geographic, temporal, race/ ethnicity and demographic trends, as well as which emerging polysubstance formulations are most commonly involved in fatalities.

Here, we leverage the latest complete, finalized national data, with records through 2021, to provide a detailed characterization of emerging trends in polysubstance deaths. We focus on fatal polysubstance overdose involving fentanyl and its analogues, as this has become the most common class of drugs involved in fatal overdose in the United States and is understood to be the single most important driver of the current crisis. We provide novel metrics to describe the signature of polysubstance overdose deaths in the United States, focused on the proportion of fentanyl-involved overdose deaths co-involving a stimulant, as well as the other most commonly co-involved drugs.

#### METHODS

We obtained finalized death records from the Centers for Disease Control (CDC) and Prevention's Wide-Ranging Online Database for Epidemiologic Research (WONDER) from 2010 through 2021. This is a population-level database representing all deaths occurring in the United States, and therefore, is not subject to sampling uncertainty. We selected all deaths with underlying cause of overdose, using International Classification of Diseases, 10th Edition (ICD-10) codes X40-44, X60-64 or Y10-14. From these, we selected overdose deaths with multiple cause of death code T40.4 (synthetic opioids excluding methadone, a category that is primarily fentanyl and fentanyl analogues). We examined coinvolved substances including methamphetamine (T43.6, psychostimulants with abuse potential) [11], cocaine (T40.5), any stimulant (T43.6 or T40.5), benzodiazepines (T42.4), alcohol (T51), prescription opioids (T40.2-3, other opioids) and methadone (T40.3).

We measured the annual percentage of overdose deaths that involved (1) fentanyl; (2) stimulants; (3) fentanyl and stimulants; and (4) neither fentanyl nor stimulants. We, then, measured the most commonly co-involved substance at the state level over the study period. For intersectional analysis, to have a large enough sample to simultaneously stratify by census region, race/ethnicity, sex and age group (given that the CDC WONDER platform suppresses counts below n = 10 deaths), we combined all fentanyl deaths from 2016 to 2020.

#### RESULTS

The four waves of the United States overdose are depicted in Figure 1. The onset of the first, second, third and fourth waves are defined respectively, by the initial rises in prescription opioids (in the early 2000s), heroin (in 2010), fentanyl without stimulants (in 2013) and fentanyl with stimulants (in 2015). Removing fentanyl-co-involved deaths, we observe that prescription opioid- and heroin-driven waves reached inflection points and begin to decline in 2010 and 2015, respectively.

The polysubstance characteristics of fentanyl-involved overdose mortality shifted dramatically throughout the 2010 to 2021 period. As overdose deaths rose in the United States from 38 329 in 2010 to 106 699 in 2021, the percent involving both fentanyl and stimulants concurrently rose from 0.6% (n = 235) to 32.3% (n = 34 429) (Figure 2). The proportion of deaths involving fentanyl without stimulants also rose from 7.2% in 2010 to a peak of 35.7% in 2020, before declining slightly to 33.9% in 2021. The proportion with stimulants and no fentanyl remained relatively more stable, from 14.8% in 2010 to 17.9% in 2021. The proportion containing neither fentanyl nor stimulants fell from 77.3% in 2010 to 16.0% in 2021.

In 2010, fentanyl was most often co-involved with prescription opioids (19 states), alcohol (18 states) and benzodiazepines (eight states), with that general pattern seen across all four major census regions (Figure 3). This pattern shifted earliest in the Northeast, as heroin became the most common co-involved substance in 2014 in five states (of nine total in the region). Cocaine became the most commonly coinvolved substance among states in the Northeast in 2019 with seven states. By 2021, all states in the Northeast had a stimulant as the most common co-involved substance, with seven having cocaine and two having methamphetamine. Among states in the West region, a mixture of prescription opioids, benzodiazepines and alcohol were the most common co-involved substances until 2020, when methamphetamine was the most common in 10 states (of 12 in the region), which grew to all 13 states by 2021. The Midwest and the South saw a more mixed profile, with brief periods of heroin/fentanyl predominance in numerous states between 2016 and 2018. By 2021, methamphetamine and cocaine were the only leading co-involved substances represented in these regions, with 19 and 10, respectively, of a total 28 states and the District of Columbia.

Saving Lives and Protecting Societies from Synthetic Opioids

Ability to read the below chart and those which follow may be compromised by the black and white nature of this publication. Color versions of these figures can be found at https://doi.org/10.1111/add.16318



FIGURE 1 Four waves of overdose mortality. A simplified schema of the four waves of the United States overdose mortality crisis. Waves 1 and 2 are represented by deaths involving commonly prescribed opioids and heroin, respectively, but excluding fentanyl co-involved deaths. Fentanyl-co-involved deaths are excluded for illustrative purposes here because the precipitous rise of fentanyl-involved deaths starting in 2013 has had the effect of raising deaths rates for a whole host of other substances used together with fentanyls, despite fentanyls representing the key driving factor in wave 3 and 4. Here, we can observe that prescription opioid- and heroin-driven waves reach inflection points and begin to decline in 2010 and 2015 respectively, after removing the inflating effects from fentanyl co-involvement. Wave 3 and wave 4 are separated by showing fentanyl deaths not involving, and involving, stimulants respectively as distinct trends, revealing the short 2-year lag between the two waves. Data were obtained from Centers for Disease Control and Prevention's Wide-Ranging Online Database for Epidemiologic Research.



FIGURE 2 Overdose deaths by fentanyl and stimulant presence, 2010–2021. The total number of drug overdose deaths occurring in the United States (US) is shown by year (as the height of each bar), and fentanyl and stimulant involvement with color and percent of the total shown in text. Data were obtained from Centers for Disease Control and Prevention's Wide-Ranging Online Database for Epidemiologic Research. Of note, small increases in absolute number of deaths might be expected based on population change alone, as the U.S. population grew 7.5% between 2010 and 2021.



FIGURE 3 Most common drug co-involved in overdose mortality with fentanyls, by state and year, 2010–2021. The most common drugs co-involved with fentanyls in drug overdose deaths are shown by state and year, grouped separately by four United States census regions. Data were obtained from Centers for Disease Control and Prevention's Wide-Ranging Online Database for Epidemiologic Research (CDC WONDER). Instances were fewer than 10 deaths involved stimulants and fentanyls are suppressed by CDC WONDER, and therefore, not shown.

#### Saving Lives and Protecting Societies from Synthetic Opioids



FIGURE 4 Percent of fentanyl overdose deaths containing other drug classes by state, 2021. The percent of fentanyl-involved overdose deaths co-involving other drugs in 2021 is shown for six drug classes by state. Data were obtained from Centers for Disease Control and Prevention's Wide-Ranging Online Database for Epidemiologic Research (CDC WONDER). Instances were fewer than 10 deaths involved a given substance and fentanyls are suppressed by CDC WONDER, and therefore, not shown.



FIGURE 5 Percent of fentanyl overdose deaths involving stimulants by state and year, 2015–2021. The percent of fentanyl-involved overdose deaths co-involving stimulants is shown by state and year between 2015 and 2021. Data were obtained from Centers for Disease Control and Prevention's Wide-Ranging Online Database for Epidemiologic Research (CDC WONDER). Instances were fewer than 10 deaths involved stimulants and fentanyls are suppressed by CDC WONDER, and therefore, not shown.



FIGURE 6 Percent of fentanyl overdose deaths involving stimulants by intersectional region, race/ethnicity, age, gender, 2016–2020. The percent of fentanylinvolved overdose deaths co-involving stimulants is shown for intersectional groups defined by census region, race/ethnicity, age and gender. Data were obtained from Centers for Disease Control and Prevention's Wide-Ranging Online Database for Epidemiologic Research (CDC WONDER). Data are pooled for the years 2016–2020, representing the latest 5 years available in a single data pull from CDC WONDER (finalized records from 2021 are available separately). Instances were fewer than 10 deaths involved stimulants and fentanyls are suppressed by CDC WONDER, and therefore, not shown.

In 2021, methamphetamine co-involvement was highest in states in the West (Alaska, California, Hawaii, New Mexico, Oregon and Washington), as well as West Virginia and Kentucky (Figure 4). Cocaine co-involvement was highest in Rhode Island, Vermont, Massachusetts and high across a swath of states in the Northeast and Southeast. Benzodiazepine co-involvement in 2021 was highest in Texas, Utah, Arkansas and Massachusetts.

Virtually all states observed an increase in the proportion of fentanyl deaths involving stimulants between 2015 and 2021 (Figure 5). By 2021, the states with the highest proportions included Alaska (66.0%), West Virginia (59.8%), Rhode Island (58.6%), Hawaii (58.5%) and California (58.1%) (Figure 5). The states with the lowest proportions in 2021 included New Hampshire (22.3%), Nebraska (30.0%) and Wyoming (30.6%).

Figure 6 shows the proportion of fentanyl deaths containing stimulants for groups defined by the intersection of census region, race/ ethnicity, gender and 10-year age groups, between 2016 and 2020. Table 1 also highlights trends separate by census division, age, gender, census division, race and ethnicity in 2021. Both overall, and in specific intersectional groups, the highest prevalence of stimulant involvement in fentanyl overdose deaths was observed in individuals ages 25 through 54, with generally lower rates among the youngest and oldest individuals. The intersectional groups with the highest pro portions included 65 to 74-year-old non-Hispanic Black or African American women living in the West (73.3%), as well as 55- to 65-year old Black or African American men living in the West (68.7%).

Although men represented a much larger share of all fentanyl overdose deaths, with 51 031 among men versus 19 571 among women in 2021, they had largely comparable rates of stimulant co-involvement (48.3% among men and 50.1% among women). Among census divisions, the proportion of fentanyl deaths involving a stimulant ranged from 41.6% in the West North Central division, to 56.4% in the Pacific.

TABLE 1	Percent of fentanyl overdose deaths containing stimulants by key socio-demographic characteristics, 2021
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	Fentanyl	Fentanyl and stimulants	% Fentanyl deaths with stimulants			
Sex						
Male	51 031	24 630	48.3			
Female	19 571	9799	50.1			
Race/ethnicity						
Non-Hispanic						
American Indian or Alaska Native	805	422	52.4			
Asian	464	213	45.9			
Black or African American	13 592	7187	52.9			
Native Hawaiian or Pacific Islander	57	27	47.4			
More than one race/ethnicity	816	388	47.5			
White	45 592	21 749	47.7			
Hispanic						
American Indian or Alaska Native	86	46	53.5			
Asian	26	Suppressed	-			
Black or African American	316	150	47.5			
Native Hawaiian or Pacific Islander	19	11	57.9			
More than one race/ethnicity	149	71	47.7			
White	8255	3914	47.4			
Age group, years						
<15	193	18	9.3			
15-24	5936	1945	32.8			
25-34	18 585	8691	46.8			
35-44	19 000	10 071	53.0			
45-54	13 467	7322	54.4			
55-64	10 792	5400	50.0			
65-74	2452	941	38.4			
>74	168	37	22.0			
Census division						
New England	4855	2260	46.5			
Middle Atlantic	10 807	4904	45.4			
East North Central	12 485	5943	47.6			
West North Central	3069	1276	41.6			
South Atlantic	17 673	8795	49.8			
East South Central	5832	3042	52.2			
West South Central	3682	1740	47.3			
Mountain	4178	1947	46.6			
Pacific	8020	4522	56.4			

Note: The percent of fentanyl-involved overdose deaths co-involving stimulants is shown for 2021 separately by census division, race and ethnicity, age and gender. Data were obtained from CDC WONDER. Instances were fewer than 10 deaths involved stimulants and fentanyls are suppressed by CDC WONDER, and therefore, not shown.

Abbreviation: CDC WONDER, Centers for Disease Control and Prevention's Wide-Ranging Online Database for Epidemiologic Research.

### DISCUSSION

The rise of illicitly manufactured fentanyls has ushered in an overdose crisis in the United States of unprecedented magnitude [4, 12–14]. This has created conditions that have promoted a number of other shifts in the illicit drug supply, leading to rising polysubstance overdose deaths—the so-called 'fourth wave' of the crisis, especially involving stimulants and fentanyl co-use starting in 2015 [4, 8]. Mixtures of

fentanyl analogues and drugs of various drug classes, such as stimulants, benzodiazepines, tranquilizers and other opioids have been noted in distinct geographies [4, 8, 9, 15]. Here, we provide a comprehensive characterization of the rising fentanyl-based polysubstance overdose crisis, detailing shifts in specific drug combinations over time, and which geographic, racial/ethnic and demographic groups are the most affected.

In 2010, fentanyl was most commonly found alongside prescription medication (opioids and benzodiazepines) and alcohol (i.e. largely products produced in legal markets). Over the past decade this has shifted first to heroin-fentanyl combinations in specific states, and then universally to illicit stimulants. The fraction of all overdose deaths involving both fentanyl and stimulants grew rapidly between 2010 and 2021 and is on track to represent the single largest component of the overdose crisis in the near future. However, this has occurred in a distinct fashion based on geography and time. The northeastern states nearly universally saw a distinct period of heroin fentanyl co-involvement, which was also found in some parts of the Midwest and South, but was completely absent from the western states (which transitioned rapidly from black tar heroin to fentanyl with methamphetamine coinvolvement). By 2021, cocaine predominated in the Northeast and methamphetamine had become the most common drug found alongside fentanyls in the rest of the country.

There are now two basic archetypes of states in the United States with respect to overdose death rates: (a) states where fentanyl and cocaine co-use predominates; and (b) states where fentanyl and methamphetamine co-use predominates, with surprising little overlap between these two groups. These dynamics warrant considerable additional study, but we suspect they reflect the combination of very low-cost, high-purity methamphetamine outcompeting cocaine and other stimulants at the national level, in addition to an enduring, wellentrenched illicit cocaine market in the Northeast and other pockets of the country [16].

The rise of deaths involving cocaine and methamphetamine must be understood in the context of a shifting illicit opioid drug market increasingly dominated by illicit fentanyls [13]. Recent ethnographic and qualitative research suggests that fentanyls have created conditions that make polysubstance use more sought-after and commonplace [17, 18]. For instance, many individuals report that mixing a small amount of methamphetamine into injected doses of fentanyl subjectively prolongs the onset of withdrawal symptoms, increases euphoria, decreases overdose risk and improves energy levels required to continue to collect

funds for the next set of drug purchases [17–19]. These perceived advantages may be particularly important given the short duration of fentanyls, requiring individuals to inject far more frequently than heroin, and the heightened overdose risk from each injection [13]. Similar findings have been reported in qualitative studies of xylazine and other drugs commonly added to fentanyls, suggesting possible structural similarities across various emerging polysubstance patterns [8]. Given the increased risk of negative health outcomes such as overdose not fully responsive to naloxone often requiring additional life-saving measures such as airway management, precise surveillance of specific drug formulations and sociodemographic groups affected is essential [8].

Surveillance of the evolving polysubstance overdose crisis presents numerous challenges. Many resources in the current data landscape to track overdose mortality in the United States are not optimized to track the polysubstance formulations now driving the crisis, as they cannot routinely show the prevalence of complex sets of drug co-involvement in overdose deaths [20]. Furthermore, many novel substances increasingly involved in overdose, such as the veterinary tranquilizer xylazine, are not universally tested for in autopsy toxicology investigations [8]. Drug checking technologies used by local public health agencies and clientfacing harm reduction clinics, as well as universal routine testing for novel psychoactive substances in autopsy toxicology, represent important avenues to improve surveil lance of the growing polysubstance drug crisis facing the United States [21]. Supply-side drug market surveillance leveraging law enforcement seizures has also offered important insights [22, 23], although such records are often not made publicly available in a timely or detailed fashion.

An additional critical consideration is the growing prevalence of counterfeit pills, which resemble psychoactive pharmaceuticals such as oxycodone or alprazolam, but contain illicit fentanyls, often mixed with other illicit substances such as stimulants, benzodiazepines, xylazine and other opioids [21–23]. In recent years, counterfeit pills have grown to represent over a quarter of all illicit fentanyl seizures [22]. Counterfeit pills have the potential to transform overdose risk as they may expand the markets for illicit synthetic drugs to subpopulations, such as adolescents, who may be less likely to consume powder fentanyl products [24-26]. In the ongoing surveillance of the U.S. overdose crisis, tracking deaths involving counterfeit pills versus other formulations represents an important dimension that is currently difficult within the existing data landscape.
### LIMITATIONS

There are limitations to this study that should be considered. As we highlight here, the landscape of polysubstance overdose has been evolving in a highly rapid manner. Therefore, even the most current results may simply represent snapshots of shifting dynamics that will soon change. Further, fatal overdose is the most readily available metric, as there are highly limited toxicological surveillance data on non-fatal overdose in the United States. However, they do not represent the totality of use practices, rather the fraction of drug use most likely to result in death. The categories of drugs assessed here are also limited by current CDC classification schemes, which limit within category assessment. For instance, is it not possible to distinguish between prescription benzodiazepines and novel synthetic benzodiazepines, or between fentanyl analogues and nitazines. Finally, particularly for the intersectional group analysis, stratification has led to small sample sizes for some analytical units, although samples sizes for most of the analysis were robust. The analysis was not pre-registered and the results should be considered exploratory.

## CONCLUSIONS

We provide a detailed description of the fourth wave of the U.S. overdose crisis—characterized by sharply rising polysubstance overdose deaths involving illicitly manufactured fentanyls. Stimulant-fentanyl coinvolvement is rapidly becoming the largest component of the crisis, with a distinct pattern seen by over time and by geography and sociodemographic groups. The regional patterning of cocaine-fentanyl in the Northeast and methamphetamine-fentanyl in the rest of the country is particularly notable. The widespread concurrent use of fentanyl and stimulants, as well as other polysubstance formulations, presents numerous novel health risks and public health challenges. Moving forward, ongoing nuanced surveillance is needed to track this rapidly shifting phenomenon.

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# CHAPTER TWENTY-ONE – APPLYING PSYCHOTHERAPEUTIC PRINCIPLES TO ENHANCE U.S. – CHINA COOPERATION ON DRUGS

# By Peter Jackson, MD<sup>18</sup>

#### INTRODUCTION

U.S. and Chinese perspectives on the current opioid overdose crisis in America differ greatly. This is unsurprising given the vast dissimilarity in opioid-related mortality. Numbers alone can account for why China does not feel the same domestic urgency as the U.S. to reduce overdose mortality through demand reduction and measures to reduce harm. But, beyond the epidemiologic variance of drug crises, cultural differences inform each country's approach to substance use prevention and treatment as well as drug policy generally. Where blaming and finger-pointing have impeded progress, improved understanding of differences is critical to creating the trust that will fuel bilateral cooperation on this issue. In the Comprehensive Drugs Dialogue INHR started in 2023, U.S. and Chinese experts across multiple sectors have engaged in solution-focused collaboration on issues related to fentanyl. The workgroup focused on treatment, prevention and other public health aspects of drugs has included addiction experts, including psychiatrists, from both countries. This article highlights the applicability of psychotherapeutic principles to conflict resolution and other diplomatic efforts between groups, specifically U.S.-China collaboration on fentanyl.

## **PSYCHOLOGY AND DIPLOMACY**

General principles of human relations, communication and negotiation are a common component of training and experiential learning for those in diplomatic leadership positions. Because of the confidential nature of international negotiations, the public study and evaluation of psychological or psychotherapeutic components of high-

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level conflict resolution is uncommon (Jervis, 2017). There is substantial precedent, however, for incorporation of such principles and for participation of professionals with background in psychology and psychiatry in support of international conflict resolution.

Between the two World Wars, in July of 1932, Albert Einstein requested that Sigmond Freud seek practical application of his psychological insights to the pursuit of world peace, writing: "The ill success... of all efforts made during the last decade to reach this goal leaves us no room to doubt that strong psychological factors are at work which paralyze these efforts." (Davidson & Montville, 1981)

Joseph Montville, who developed the concept of track II diplomacy as a means of solving international challenges while working for the U.S. State Department in the early 1980s, was educated in both political science and psychology. With psychiatrist William Davidson, Montville acknowledged the realities of psychological approaches to conflict resolution:

"Political psychological analysis will not eliminate such concrete problems as territorial boundary disputes or allocation of water and mineral resources. But it can help illuminate human barriers to the resolution of political problems" (Davidson & Montville, 1981).

Utilization of psychological science in international conflict has a mixed past. At times, professionals in the psychological sciences have been called upon to inform messaging that deepens mistrust and entrenches bias and fear (Qualter, 2020). In contrast, successful leaders, negotiators, and diplomats have utilized psychotherapeutic principles to reduce international conflict. Aside these leaders, professionals in the psychological sciences have participated and played direct roles in facilitating conflict resolution (Aggarwal, 2024). Numerous examples of successful conflict resolution aided by psychotherapeutic approaches include the framework for peace in the Middle East achieved through The Camp David Accords (Findlay & Thagard, 2014), deterrence of the risk of nuclear action between India and Pakistan (Aggarwal et al., 2023), and The Good Friday Agreement reducing conflict in Northern Ireland (Coakley & Todd, 2020).

In November 1977, months prior to the Camp David Accords, former Egyptian president Anwar el Sadat spoke of psychological barriers to conflict resolution as he addressed the Israeli Knesset:

"Yet, there remains another wall. This wall constitutes a psychological barrier between us; a barrier of suspicion; a barrier of rejection; a barrier of fear, of deception; a barrier of hallucination without any action, deed, or decision. A barrier of distorted and eroded interpretation of every event and statement. It is this psychological barrier which I described in official statements as constituting 70 percent of the whole problem" (Sadat, 1977).

In the context of recent and current international conflicts, some have called for professionals with background in healthcare and the psychological sciences to participate more actively in reducing the risk of political crises in the world (Abbasi et al., 2023). The work of psychiatrists and psychologists in the day to day small "d" diplomacy of individual therapy around behavior change, conflict resolution and the interpersonal processes of group and family therapy, can lend clinical perspective and observational considerations to the capital "D" diplomacy of international dialogue and cooperation.

Here, several psychological principles and psychotherapeutic approaches used in individual, family and group treatment of substance use disorders and other health conditions are outlined for consideration and application to larger scale conflict resolution, with specific attention to international cooperation between the U.S. and China on fentanyl and other drug issues.

# **PSYCHOLOGICAL INSIGHTS AND PRINCIPLES**

#### **RESPECT AUTONOMY**

Autonomy is a hallmark component of Motivational Interviewing (MI), an evidence-based approach to addiction treatment and other areas of health behavior change. Accepting people as the "undisputed experts on themselves" facilitates client-provider partnership in discussion (Miller and Rollnick, 2013). Even U.S. and Chinese foreign policy experts with expansive education on the language, culture and customs of the other country can still adopt the attitude that those with whom they communicate have self-expertise and national expertise. This humble attitude fosters collaboration and avoids off-putting hierarchical directives.

American psychologist Carl Rogers described that empathy is "to perceive the internal frame of reference of another with accuracy... as if one were the person, but without ever losing the 'as if' condition''

(Rogers, 1980). He highlights the critical importance that even through the sincerest efforts toward empathy, one always remembers and regards the autonomy of the other party, recognizing that one could never hold the exact experience, perspective or emotion of another.

Honoring autonomy is critical at all stages of discussion on behavior change. Honoring and directly acknowledging another's freedom to choose decreases defensiveness. Even in outcomes assessment, autonomy recognition creates an accurate measurement and understanding of success, which may be defined differently by two parties. In substance use treatment for example, a provider may celebrate the success of some number of consecutive days of abstinence while what really matters to an individual is how they are returning to their hobbies or strengthening their relationships. Applying this to U.S.-China cooperation on fentanyl, each country will measure progress differently. The U.S. may focus on reduced overdose deaths while China may focus on decreased barriers to international economic cooperation. Recognizing distinct definitions of progress is a form of honoring autonomy.

#### **UNDERSTAND MOTIVATION**

By human nature, individuals and groups generally prefer their own ideas to the ideas of others, particularly if the ideas of others are forcefully imposed. Core to the MI approach is arranging and participating in conversations in a way that allows space for another to come up with their own ideas for change. In MI it is assumed that an individual already has the reasons for change and the reasons to stay the same inside of themselves. Rather than directive, one needs a climate in which they can explore their own reasons for change (Miller and Rollnick, 2023). Internal motivation outpowers external motivation. As an example, speeding drivers who are presented with signs simply showing their speed in relation to the speed limit tend to reduce their speed more significantly and more quickly than those presented with signs directing them to "slow down" (Siev & Kliger, 2021). When either the U.S. or China lectures the other on why or how they should change drug policy or related issues, it risks stimulating defensiveness.

Further, motivation fluctuates. Clinically, ambivalence and waxing and waning engagement in treatment are perceived as within a normal process of change, not shamed. Accepting ambivalence decreasing the emotional burden on both clients and providers. Adopting this mentality can decrease pessimism, mistrust or even despair when hiccups in U.S.- China collaboration on drugs and fentanyl occur, allowing openness in returning to partnership.

Importantly, clinical or diplomatic application of MI does not constitute an effort to get people or groups to do something they don't want to do. Rather, a facilitative approach allowing the other party to identify both the reasons for action and ideal next steps.

#### LISTEN ACTIVELY

Listening is an indispensable component of therapeutic engagement. Active Listening includes attention, engagement, and checking for understanding. The evolution of Chinese writing lends important insight to the depth and moral value of listening. From oracle bone script to bronze script to small seal script, the Chinese character for listen evolved from two symbols signifying an ear and a mouth, to a character incorporating many additional aspects of listening esteemed in Chinese culture. In this expanded character one finds symbolism of the eyes and brain, suggestive of focus, the heart, suggestive of sincerity, and even the feet, suggestive of intention to act with dignity. This further refined character symbolizes a broadened concept that has been called "wholebody listening" and incorporates moral emphasis on the power to truly hear and see another (Lu et al., 2024).

This engaged listening is critical to the family therapy process as further emphasized by American psychologist Thomas Gordon. In guiding parents, teachers and other leaders in effective communication, Gordon highlighted common responses including warning, advising, persuading, questioning, and even reassuring or agreeing, none of which actually constitute listening (Gordon, 2000). In contrast, reflection helps another feel heard. In practicing MI with fidelity, a provider reflects as least twice as often as they ask questions. When navigating conflict, participants in family therapy are invited to check for understanding (state what they have heard and ask if their understanding is correct) before responding.

Moderators of the Comprehensive Drugs Dialogue have assured equal speaking time for U.S. and Chinese experts from all sectors and participants have used active and reflective listening to deepen understanding and trust.

#### **FIND COMMON GROUND**

As dialogue necessarily includes significant disagreement, identifying areas of shared interest can reinforce willing participation.

Even highly conflicted parents can usually find common interest in the wellbeing of their child or children. Finding common ground has been a hallmark of historically successful conflict resolution, including the examples international conflict resolution mentioned above. In discussing U.S. and Chinese perspectives on fentanyl and illicit drugs, the Comprehensive Drugs Dialogue has identified focus areas of common interest including saving lives, protecting societies, and punishing drug traffickers. Anchoring back to these mutual interests has helped participants navigate more targeted areas of disagreement. Even if only agreeing to disagree for the time being, sufficient common interest kindles optimism and willingness to continue moving forward.

#### TAKE PERSPECTIVE

Understanding the perspective of the other party is critical to effective conflict resolution. In family therapy, particularly early on, agreement is not the goal. First, taking perspective helps family members accept that they disagree, then recognize where they disagree, and ultimately understand more about why they disagree. Many schools of family or couples therapy advocate that the speaker use "I" rather than "you" statements in expressing needs and feelings, highlighting accuracy in speaking for oneself and uncertainty and frankly inability to know another's thoughts or feelings. "You" statements are then reserved for checking for understanding as mentioned above.

Beginning with perspective taking demonstrates humility and respect as one seeks to understand before seeking to be understood (Covey, 1989). Acknowledging the perspective of another without judgment, even when one feels certain of their position, increases the likelihood for further conversation. Non-judgmental validation is a hallmark of dialectical behavioral therapy (Linehan, 2015). Even when one feels certain about the facts, the way one treats another's perspective regardless of agreement, impacts goodwill in communication. Invalidating the invalid is still invalidating. This is not to ignore the necessity of determining facts, but to temper the initial response in perspective taking.

Lack of understanding perspective has been a significant roadblock in U.S.-China relations on drug related issues, including fentanyl (Huang and Arsenault, 2024). The Comprehensive Drugs Dialogue has facilitated earnest efforts to understand the impact of both cultural differences and current epidemiological and substance use treatment differences. Cultural differences between China and the U.S. include differing perspectives on individualism and collectivism, respect toward and deference to authority, directness of communication and saving face. Further, philosophies of care differ including perceptions on involuntary vs. voluntary treatment. Recognition of these differences and seeking to understand them in cultural context, has facilitated productive collaboration.

#### SEEK MUTUALITY

Mutual accountability requires mutual vulnerability, which requires mutual trust. In group therapy, facilitators must create an environment in which individual members can be accountable without being shamed or rejected. In addressing family conflict in therapy, multiple models avoid labeling any single member of a family or group as the "identified patient" whom the rest of the group is trying to "fix" (Mnuchin 1974; Bowen, 1978). Blaming or assuming that all fault lies with a single person or party is contrary to cooperation. In dialectical behavioral therapy (DBT), non-judgment emphasizes open minded approaches including "everyone and no one is to blame."

Mutual accountability through mutual vulnerability allows genuineness in sharing one's story. Some research on family narrative in the United States has highlighted the value of a balanced narrative, meaning one in which strengths, weaknesses, successes and failures are all acknowledged. Notably, this "oscillating" family narrative has been associated with more resilience among children as compared to narratives focusing only on success or only on failure (Fivush et. al 2004). An individual, group or even nation looking at its past with accountability and a balanced narrative requires humility and vulnerability. To share a balanced narrative with another party requires trust that acknowledging weaknesses or past mistakes won't be immediately and aggressively be thrown back in one's face.

An example of this balanced narrative would include U.S. recognition of the commercial and iatrogenic components of the opioid crisis with roots in the aggressive marketing and over-prescribing of prescription opioids (Duff et al., 2021) balanced against recognition, study and assertive action shown in a subsequent decline of opioid prescribing (Jayawardana et al., 2021) and world-leading science on treatment of opioid use disorders.

#### **REINFORCE COOPERATION**

The science of behavior modification is anchored in the original concepts of operant conditioning which influence all modalities of

individual and group therapy around change (Skinner, 1938). A notable example from the substance use treatment literature is contingency management, the most effective therapeutic approach toward the treatment of cocaine and other stimulant use disorders. In contingency management, Individuals are given a reinforcer (or reward) contingent upon testing negative for cocaine. This form of positive reinforcement is additionally enhanced when the reward is given as quickly as possible after the desired behavior or outcome (Stitzer et al., 2011). When a reward is withheld or significantly delayed, extinction, the reduction and eventual cessation of a desired behavior, often occurs. Applying this to behavior change generally, only deliverable reinforcers would be offered, and they would be delivered as quickly as possible in response to desired action.

Recently, as the U.S. and China have navigated issues on fentanyl, a potentially misunderstood area of potential reciprocity included China's presence on the "Majors List." Based on actions taken, China desired to be removed from the Majors List but was not. The lack of this action has been identified as a deterrent to further Chinese engagement and policy change. U.S. colleagues have pointed out that drug policy changes or dialogue cooperation do not per se dictate the status of nations on the Majors List and note that this desired outcome may not have been logistically connected to the specific actions taken by China. In applying the psychological science of reinforcement, both nations would clarify and agree to provide reinforcers that are feasibly connected to a desired change and would enact or deliver those reinforcements in the closest approximation possible to the desired change.

#### **CHALLENGES AND OPPORTUNITIES**

Political and economic interests heavily influence the U.S.-China relationship. Psychological approaches or interventions may be considered "soft" measures met with skepticism by policymakers focused on tangible economic or legal solutions.

Furthermore, counternarcotic efforts can become entangled in webs of tit for tat negotiation on other issues. It is difficult to build trust when public health is not the highest stake on either side but used as a pressure lever for other priorities.

Implementing psychological interventions requires substantial resources including trained professionals, funding and time. It may also require structured moderation by a third party. Given the current tensions in bilateral relations, securing these resources may be challenging.

Continued bilateral engagement is valuable in and of itself. Opposing or conflicting groups often hold stigmatizing beliefs and bias towards one another. One of the most repeatedly identified means of reducing stigma and bias is to increase contact with the population or group toward whom one holds stigmatizing and biased thoughts and beliefs (Corrigan, 2018). This has been true in international research on stigma towards individuals and families impacted by opioid and other drug use and can be applied to U.S. and Chinese opinions on one another's role in domestic and international drug problems. Track II diplomatic efforts provide unique opportunity for mutual dialogue which alleviates the echo chamber effect and reduces stigma and bias.

A bilateral working group focused on integrating these approaches into the joint agenda could identify ways to do so that are complementary to traditional diplomatic tools. Engagement with third parties could provide moderation and reduce unilaterality and defensiveness. Members of the Comprehensive Drugs Dialogue have begun to explore opportunities to collaborate with international organizations such as the Asia Pacific Economic Cooperation (APEC) and the United Nations Office on Drugs and Crime (UNODC) to leverage existing resources and broaden cooperation.

#### **OPTIMISM OR PESSIMISM?**

Notably, the state of relations at the track I level may contribute to varying degrees of optimism or pessimism about the utility and fruitfulness of track II diplomacy. Changes in leadership, such as has occurred in the U.S. presidential administration within the duration of the first phase of the Comprehensive Drugs Dialogue, are inevitably accompanied by changes in foreign policy and conflict resolution strategies. Citing historical relations between the U.S. and China in the early 1970s, Davidson and Montville considered a potentially even greater value and success of track II diplomacy in the setting of national leaders adopting more forceful postures.

"Both tracks are necessary for psychological reasons, and both need each other. Indeed, people may respond more readily to track two diplomacy if they are first reassured that their leaders will defend their interests against all threats, real or perceived" (Davidson & Montville, 1981).

#### CONCLUSION

While motivators for action differ, as two world leaders the United States and China face a critical opportunity to address fentanyl and other drug issues in ways that can benefit each country and the rest of the world. Meeting this challenge will require that the two nations overcome both logistical and psychological obstacles. Highlighting realistic expectations in considering the application of psychological in conflict resolution, Davidson and Montville (1981) further describe:

"Overcoming psychological barriers does not resolve a conflict, and political solutions must still be negotiated at the political level through political processes. But when psychological barriers can themselves be removed or at least reduced in importance, the contending parties create new possibilities for negotiations."

Application of psychotherapeutic principles and psychological science may help the U.S. and China better understand each other's concerns and perspective related to opioids and fentanyl across all sectors from policy and law enforcement to public health and the private sector. Efforts to incorporate these principles has strengthened the Comprehensive Drugs Dialogue. Respecting autonomy and actively listening, representatives from each nation can more accurately understand one another's motivation and subsequently identify mutual interest. Pursuing shared goals with mutual accountability, the U.S. and China can act and react to positively reinforce collaborative problemsolving on this vitally critical issue.

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# CHAPTER TWENTY-TWO – THE INTERNATIONAL DRUG CONTROL REGIME AND THE SYNTHETIC DRUG MARKET

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#### INTRODUCTION:

The global drug market has undergone a dramatic transformation over the past few decades, largely due to the rapid rise of synthetic drugs and new psychoactive substances (NPS). These developments have challenged existing international drug control frameworks, which were initially designed to address more traditional forms of drug trafficking. The 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances set the stage for international cooperation in regulating the chemical precursors used in drug production. However, the emergence of synthetic drugs in the late 2000s, especially through online channels, has created new complexities for enforcement and regulation.

In response to these evolving threats, international bodies have focused on strengthening cooperation, enhancing early warning systems, and improving law enforcement strategies. Programs like the UNODC's Synthetic Drug Strategy and the International Narcotics Control Board (INCB)'s Global Rapid Interdiction of Dangerous Substances (GRIDS) initiative are key efforts aimed at adapting the international drug control framework to the realities of synthetic drug trafficking and production. While not without their challenges, these initiatives are essential in addressing the growing public health crisis and helping to curb the spread of the synthetic drug market.

#### SYNTHETIC DRUGS AND THE INTERNATIONAL DRUG CONVENTIONS:

The 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances was a pivotal treaty born from increasing global concern over international drug trafficking in the mid-1980s. It recognized the need for international cooperation, particularly between producing and consuming countries [1].

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The Convention is a significant international legal instrument focused on criminalizing drug-related activities, but also the control of chemical precursors. Article 12 of the treaty specifically addresses the need for robust regulation and control over chemical precursors, substances used in the production of narcotics and psychotropic drugs, and classified in Table I and Table II of the 1988 Convention [2]. The control of these substances is crucial, as they are integral to the illicit manufacturing of drugs, making it essential for countries to monitor their distribution and prevent diversion into illegal channels.

In addition to regulating chemical precursors, the treaty also emphasizes eradication efforts for illicit crops in Article 14, which are closely tied to drug production, while offering some flexibility regarding human rights and environmental considerations in these eradication processes. The treaty's impact on curbing drug production, trade, and use, however, has been limited over time, with drug-related issues continuing to rise globally. This highlights the ongoing challenge in current legal frameworks' limitations to adapt to current trends in drug production, trafficking and modes of use, underscoring nevertheless their nature as the cornerstones of international cooperation against the illegal synthetic drug market.

A critical aspect of the INCB's responsibility is controlling chemical precursors—substances used in the production of illicit drugs. The INCB was established in 1968 by the 1961 Single Convention on Narcotic Drugs. It functions as an independent, quasi-judicial monitoring body tasked with overseeing the implementation of international drug control conventions. The INCB is composed of 13 members, including medical and pharmacological experts, as well as other representatives elected by governments (10 are presented by their governments, 3 are put forward by WHO) [3]. The Board's role is primarily focused on ensuring the adequate legal supply of controlled substances for medical and scientific purposes while preventing diversion to illicit markets [4].

The Board monitors national and international control systems to prevent the diversion of these chemicals into illegal channels. It also oversees national systems for narcotics and psychotropic substances, ensuring countries balance supply and demand for these controlled substances. Additionally, the INCB plays a key role in identifying weaknesses in global and national drug control systems, proposing corrective measures to governments, and recommending changes when necessary. It also determines which chemical precursors should be subject to international control.

# SCHEDULING OF DRUGS AND PRECURSORS, THE HEART OF THE GLOBAL RESPONSE:

The international drug control regime is structured around three major conventions: the 1961 Single Convention on Narcotic Drugs, the 1971 Convention on Psychotropic Substances, and the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. These treaties establish a scheduling system that classifies controlled substances and their precursors based on their medical use and potential for abuse.

The 1961 Convention primarily covers narcotic drugs, including opiates and cannabis, while the 1971 Convention focuses on psychotropic substances such as amphetamines, barbiturates, and hallucinogens. Each treaty contains schedules that impose varying levels of control over the listed substances. However, inconsistencies emerged between the classifications under these conventions, with the 1961 Convention's focus on raw plant materials and the 1971 Convention excluding convertible substances, leading to regulatory gaps.

Unlike the earlier conventions, which focused on final substances, the 1988 Convention specifically targets the supply chain by monitoring essential chemicals. The scheduling system under the 1988 Convention is divided into two tables:

- Table I: Lists chemicals that are frequently used in the illicit production of drugs and are subject to strict regulatory measures. Examples include ephedrine (used in methamphetamine synthesis) and safrole (a precursor for MDMA production).
- Table II: Contains substances that have legitimate industrial uses but are also used in drug manufacturing. While controls exist, they are generally less stringent than those applied to Table I substances. Acetone and hydrochloric acid, which are used in cocaine and heroin processing, are listed under Table II.

The INCB is responsible for overseeing the implementation of precursor controls under the 1988 Convention. Unlike the 1961 and 1971 treaties, where scheduling recommendations are made by the World Health Organization (WHO) and then approved by the Commission on Narcotic Drugs (CND, responsible for modifying the schedules of chemical precursors under the INCB's guidance.), the INCB plays a more direct role in monitoring and coordinating precursor regulations. The INCB provides guidance on international trade controls, seizure reporting, and voluntary cooperation agreements between countries to curb the diversion of precursor chemicals into illicit drug production.

Nevertheless, the international scheduling system experiences some inconsistencies. One of the key inconsistencies is the division of responsibility between the WHO and the INCB. While the WHO assesses substances for their medical and scientific properties under the 1961 and 1971 Conventions, the INCB is responsible for precursor control under the 1988 Convention. This partition has led to regulatory gaps and political influences in scheduling decisions, as WHO recommendations are often subject to political negotiations within the CND.

Additionally, the 1988 Convention only covers precursors for psychotropic substances, whereas precursors for narcotic drugs were already included under the 1961 Convention. This distinction has created an administrative divide in how different types of substances and their precursors are regulated, sometimes leading to inefficiencies in law enforcement efforts against illicit drug production.

#### INTERNATIONAL RESPONSES TO A COMPLEX SITUATION:

The rise of synthetic drugs in the late 2000s marked a significant shift in global drug markets, with the rapid emergence of new psychoactive substances (NPS). These drugs, often designed to mimic the effects of established controlled substances like MDMA, cocaine, and cannabis, were legally available at the time and widely distributed online, through the dark web, and in physical retail outlets. The internet played a crucial role in driving demand, allowing direct communication between producers, retailers, and consumers, while user reviews and reports further fueled interest [5].

These substances were not only widely available but also inexpensive and legal, making them an attractive option for many users. However, the vast number of NPS, their varying chemical compositions, and the inconsistencies between product names and contents made regulation, identification, and risk assessment challenging. Many of the first-generation NPS were either failed pharmaceuticals or substances previously used in niche subcultures [6]. As authorities imposed bans on these substances, newer generations of NPS with increasingly potent and unpredictable effects entered the market, leading to a continuous cycle of prohibition and replacement. This evolving landscape of synthetic drugs has presented ongoing regulatory challenges.

The UNODC Synthetic Drug Strategy 2021-2025 attempts to address these rapidly evolving challenges posed by synthetic drugs, which have reshaped global drug markets. Over a decade, the proliferation of NPS has intensified, with more than 1,000 reported across 120 countries by 2020 [7]. The devastating impact of synthetic opioids, particularly fentanyl, has fueled a crisis in North America.

One of the key elements of the UN's strategy is strengthening multilateral collaboration. Through the CND and the Global SMART Program [8], countries are called to align their laws with international scheduling recommendations and enhance forensic capabilities to detect and classify harmful substances. Early warning systems play a crucial role in monitoring emerging drug threats, helping governments and health agencies respond proactively.

The strategy also highlights the health and social impacts of synthetic drug use. UNODC emphasizes the need for science-based, nonstigmatizing treatment programs, gender-sensitive health services, and youth-focused prevention initiatives to counter these challenges.

In addition to prevention and treatment, law enforcement and counter-trafficking efforts remain central to the UN's strategy. Strengthening forensic and technological capabilities is critical in disrupting supply chains, tracking precursor chemicals, and tackling online drug markets. Public-private partnerships, along with safer disposal methods for toxic waste from synthetic drug production, are also part of the broader enforcement strategy.

The INCB has further consolidated its efforts under the GRIDS Program. This initiative focuses on addressing the trafficking of NPS and synthetic opioids not yet under international control. It aims to reduce global trafficking in dangerous substances by enhancing global communication platforms for real-time information exchange, fostering public-private partnerships to disrupt industries involved in the production and distribution of dangerous substances, and coordinating multilateral operations to tackle the trafficking of emerging substances. This program is designed to improve detection, cross-border cooperation, and law enforcement's ability to combat the growing threat of synthetic drugs [9].

#### **CONCLUDING REMARKS:**

While international efforts to combat the rise of synthetic drugs, such as the UNODC's Synthetic Drug Strategy and the INCB's GRIDS initiative, represent important steps forward, they also raise significant questions about the adaptability and capacity of the global drug control regime. The rapid emergence of new psychoactive substances, along with their online distribution and shifting trafficking patterns, presents ongoing challenges for systems that were originally designed to address more traditional forms of drug trafficking. As these substances evolve, it

remains uncertain whether current international frameworks can effectively keep pace, particularly given the speed and unpredictability of new drug trends.

In this context, national and regional mechanisms are increasingly crucial. While global cooperation is vital, local enforcement, regulation, and adaptation to regional drug dynamics may hold the key to more effective responses. The growing complexity of the synthetic drug market suggests that, without stronger coordination between national agencies and tailored regional approaches, international frameworks may struggle to fully address the rapidly changing landscape. This raises important questions about the adaptability of international drug control and how more flexible, dynamic, and locally responsive strategies will be required to effectively tackle the synthetic drug crisis.

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