Historical Trends and Current Patterns of Cocaine Use in the U.S. and 2 NDEWS Sentinel Sites

New York City

Maine
Phases of a Substance Use Disorder Epidemic

- **Incubation**
- **Expansion**
- **Plateau**
- **Decline**

Graph showing the number of users and problems over time.
Contributing Factors of a Drug Epidemic

Supply Vectors

Demand Vectors

Phases of a Drug Epidemic

Incubation

Expansion

Plateau

Decline

Time

# of Users & Problems
Contributing Factors – Supply Vectors

- Production
- Patterns of Trafficking
- Price
- Purity
- Profit
- Availability
- Poisonous Contamination
Contributing Factors – Demand Vectors

• Attitudes:
  • Perceived Harmfulness
  • Perceived Wrongfulness
  • Acceptance by others

• Desired Effects

• Withdrawal – “Dope Sick”

• Public Consensus

• Affordability

• Rapid Onset of Action

• Access
Reoccurring Patterns of Cocaine Use Epidemics 1880 – 2019
Reoccurring Patterns of Cocaine Epidemics: 1880 - 2018

- Cocaine

- 1880 - 1920

- 1975 - 2018

# of users and level of consequences
Cocaine – The Origin

• Since 15th Century – Andean South American native people chewed coca leaves to relieve hunger and dispel fatigue

• 1859 – Alkaloid cocaine isolated by German pharmacist, Albert Niemann

• Dr. Theodore Aschenbrandt - Bavarian Army cocaine water solution for exhausted collapsed soldier who cheerfully resumed the march

• Dr. Sigmund Freud: “a magical drug”
  * recommended to friends and colleagues

• Because of numbing effects became a standard treatment for eye disorders and local anesthetic for minor surgery and dentistry

• By 1863 Vin Mariani – coca leaves and Bordeaux wine
“Fortifies and Refreshes Body and Brain”
Restores Heath and Vitality
The First Cocaine Epidemic 1880 - 1920

Introduction Phase - the Drug Rapidly Gains Acceptance

• 1884 – Purified cocaine commercially available in USA

• Wholesale cost very high $5-10 per gram but fell to 25 cents a gram until WW I compared to average wage at 20 cents per hour. Retail price $2.50 per gram

• Popular in the US: sold from drug and grocery stories, saloons and patent-medicine vendors
The First Cocaine Epidemic 1880 - 1920

Introduction Phase

• Freud published 5 papers about Cocaine

• Some physicians believed cocaine reduced cravings for opiate addicts and alcoholics

• Encouraged by medical authorities and entrepreneurs as an elixir for the masses

• Touted as a panacea for melancholia, neuralgia, hysteria and nervous afflictions
The First Cocaine Epidemic 1880-1920

Middle Period - Use Spreads, Adverse Effects Revealed

• 1885 – John Pemberton registers a trademark for: “French Wine Coca - Ideal Nerve and Tonic Stimulant”

• 1886- Renamed as “Coca-Cola”

• 1887 – Noted neurologist William Hammond’s cocaine wine 2 grams/pint instead of ½ gram in Vin Mariana

![Image of 2 grams and a wine bottle]
The First Cocaine Epidemic 1880-1920

Middle Period - Use Spreads, Adverse Effects Revealed

- 1890s – Decade of Hedonism and Creativity
- Reports of cocaine addiction becoming common in medical literature
- Late 19th and early 20th Century – Era of Bacteriology
  Allowed prescribing of specific medications for more illnesses
  Thus, fewer general elixirs with cocaine and opioids
The First Cocaine Epidemic 1880-1920

The Repressive Stage 1900 -1920

Cocaine Becoming Most Feared of All Illicit Drugs

• 1903 - Commission on the Acquisition of the Drug Habit declared cocaine, once favored by upper-class professionals, was being used mostly by "bohemians, gamblers, prostitutes, burglars, racketeers, and pimps."

• As use of cocaine increased so did abuse.

• Chronic abuse led to paranoid delusions, insomnia, malnutrition and nasal septum ulcerations.
The First Cocaine Epidemic 1880-1920

The Repressive Stage 1900 -1920

Cocaine Becoming Most Feared of All Illicit Drugs

- 1903 - Coca-Cola removes cocaine as an ingredient
- 1906 – Pure Food and Drug Act only required cocaine listed as an ingredient in Over-the-Counter remedies
- Cocaine becomes target of the Temperance Crusade
The First Cocaine Epidemic 1880-1920

The Repressive Stage 1900 -1920

Cocaine Becoming Most Feared of All Illicit Drugs

• 1914 - All 48 States had anti-cocaine laws

• The journal *Medical Record* reported: "There is no such thing as an occasional or moderate cocaine user. The line is very sharply drawn between the total abstainer and the fiend...."

• The Harrison Act passed, Nation's first major anti-narcotic law
  Cocaine classified as a narcotic, along with opium, morphine and heroin. Permitted sale of cocaine only by prescription. Banned any trace of cocaine in patent meds.
The Calm Between Epidemics: 
1930s to late 1960s

Nonmedical Use of Cocaine Nearly Non-Existent

References to cocaine rarely appeared in movies, music and literature if so portrayed negatively. In Cab Calloway's 1931 song "Minnie, the Moocher," Minnie was a "low-down hoochy coocher," but she took up with a "cokey" named Smokey. It didn't take long for Smokey and Minnie to wind up in the county jail. And it wasn't too long after that "poor old Min" was "kickin' up daisies."

- Public's attitude toward all drugs was downright antagonistic.
- 1930s-1940s – Mandatory drug education gradually disappeared
The Calm Between Epidemics: 1950s

Nonmedical Use of Cocaine Nearly Non-Existent

- 1950s - Antidrug laws increased in severity: Era of drug intolerance
- Cocaine use dwindled reaching 50,000 by the late 1950s
- Personal knowledge of a "dope fiend" was unusual for the vast majority of Americans during the 1950s.
- Cocaine Prohibition worked because of strong public consensus
- Cocaine: A problem we used to have and has now been almost eliminated
The Modern Epidemics: 1975 to 2018

The noted drug historian Dr. David Musto stated, "The people who had lived through the nation's first cocaine epidemic knew that the euphoria induced by the drug was a dangerous delusion," "When cocaine reappeared in the 1970s, few people remembered the previous American experience, because the earlier generations that had learned a hard lesson about cocaine were no longer around. Cocaine's notorious reputation died with them. By the 1970s, America was ready for another fling with this most seductive and dangerous drug."

Those in denial of History tend to repeat It

1971 – Law enforcement seizures of cocaine surpass those for heroin. The number of users and consequences of abuse would steadily climb until the late 1980s
Cocaine’s Second Epidemic

Escalating cocaine use among young adult users of other illicit drugs in the late 1970s and adolescents in the early 1980’s led to the outbreak of a second national cocaine epidemic.

Phases of a Drug Epidemic

Users & Problems X 1000

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Yr 10

Incubation Expansion Plateau Decline

Pot Quaaludes 714 MDMA Purple Micro-dots
Cocaine in the early 1980’s

- Chic
- Expensive
- “Non-addictive”
- Relatively “Safe”
- ...But really expensive

July 1981
Hurricane Crack

- The Ether Factor
- Coca Paste – “basuco”
- Netherlands Antilles and Caribbean Trafficking Nations
- Benzin-Washed Cocaine
- “baking soda base” introduced to Caribbean populations in South Florida

Crack accelerates all the consequences of cocaine abuse and escalates the cocaine epidemic
Cocaine in the mid 1980s

- Killer Cocaine
- Addiction from Hell
- Crack Monsters
- Nation’s #1 Drug Problem
- By 1986: Nation’s #1 Problem

September 1986
First Time Users of Stimulants

Total Past Year Stimulant Initiates
2,395,000

Rx Stimulants 1,200,000
Methamphetamine 195,000
Cocaine 1,000,000

Source: SAMHSA – 2017 National Survey on Drug Use and Health
Number of Users of Cocaine in the Past Year: 2011-2017

- Cocaine: 5,943,000
- Methamphetamine: 1,633,000
- Rx Stimulants: 5,839,000

Total Past Year Stimulant Use: 13,415,000

Source: SAMHSA – 2017 National Survey on Drug Use and Health
In 2017, approximately 2.2 million people aged 12 or older were current users of cocaine, this number represents 0.8 percent of the population aged 12 or older.
National Drug Overdose Deaths Involving Cocaine, by Opioid Involvement
Number Among All Ages, 1999-2017

Cocaine with any Opioid
With Fentanyl Analogues

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2017 on CDC WONDER Online Database, released December, 2018

## Top 10 Co-Occurring Substances Among Florida Cocaine-Caused Deaths in 2017

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Fentanyl</td>
<td>34.5%</td>
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<tr>
<td>Fentanyl Analogue</td>
<td>31.1%</td>
</tr>
<tr>
<td>Ethanol</td>
<td>31.0%</td>
</tr>
<tr>
<td>Morphine</td>
<td>28.2%</td>
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<tr>
<td>Alprazolam</td>
<td>20.7%</td>
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<tr>
<td>Heroin</td>
<td>19.4%</td>
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<tr>
<td>Cannabinoids</td>
<td>15.9%</td>
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<tr>
<td>Oxycodone</td>
<td>9.8%</td>
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<tr>
<td>Codeine</td>
<td>8.0%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

*n = 2,012 Cocaine Occurrences Considered a Cause of Death*

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*Sources: Florida Medical Examiners Commission 2017 Report and Florida drug-Related Outcomes Surveillance and Tracking (FROST) System*
33,939 kilos


Source: U.S. Customs and Border Protection
HIDTA Cocaine Seizures 2011-2017

Source: ONDCP 2018 High Intensity Drug Trafficking Areas National Threat Assessment
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Sources: ONDCP 2018 High Intensity Drug Trafficking Areas National Threat Assessment and CDC WONDER
DEA warns of deadly contaminated cocaine in South Florida

Fentanyl-Laced Cocaine Becoming A Deadly Problem Among Drug Users

Man faces charges in 3 fentanyl-laced crack cocaine deaths
Number of USA Crime Lab Reports of Fentanyl Alone and In Combination with Other Drugs in the USA: 2016

- **Fentanyl Alone**: 22,278 reports
- **Fentanyl & Heroin**: 8,017 reports
- **Fentanyl & Opioids**: 1,341 reports
- **Fentanyl & Cocaine**: 496 reports
- **Fentanyl & Other Substances**: 577 reports
- **Fentanyl & Heroin & Cocaine**: 492 reports

**Source:** DEA – National Forensic Laboratory Information System Data Queried August 2017
Reoccurring Patterns of Substance Use Disorder
Epidemics: 1880 - 2018

- Cocaine
- Pharmaceutical Stimulants
- Methamphetamine
- Opioids

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Maine