Opioids:
State Response in an Emerging Crisis

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Pennsylvania Department of Drug and Alcohol Programs
Overview

- Brief History
- Research on effective outcomes across the country
- Components of effective treatment
- Response initiatives
- Recommendations/Discussion
• Every dollar spent in AOD treatment saves 7$
• If medical expenses are included that rises to 11$
• Effective treatment works.
• Clinically appropriate levels of care work.
  – But what is that?

• Why care about drug and alcohol treatment?
  – 1 in 4 people has substance SUD in their families
  – 1 in 4 people with addiction will die as a result
  – Most addicted individuals never commit crimes
In 2007, the cost of illicit drug use alone (Does not include alcohol use disorder) totaled more than $193 billion. Direct and indirect costs attributable to illicit drug use are estimated in three principal areas: crime, health, and productivity.

- **Crime**: includes three components: criminal justice system costs ($56,373,254), crime victim costs ($1,455,555), and other crime costs ($3,547,885). These subtotal $61,376,694.

- **Health**: includes five components: specialty treatment costs ($3,723,338), hospital and emergency department costs for non-homicide cases ($5,684,248), hospital and emergency department costs for homicide cases ($12,938), insurance administration costs ($544), and other health costs ($1,995,164). These subtotal $11,416,232.

- **Productivity**: includes seven components: labor participation costs ($49,237,777), specialty treatment costs for services provided at the state level ($2,828,207), specialty treatment costs for services provided at the federal level ($44,830), hospitalization costs ($287,260), incarceration costs ($48,121,949), premature mortality costs (non-homicide: $16,005,008), and premature mortality costs (homicide: $3,778,973). These subtotal $120,304,004.

Taken together, these costs total $193,096,930, with the majority share attributable to lost productivity. The findings are consistent with prior work that has been done in this area using a generally comparable methodology (Harwood et al., 1984, 1998; ONDCP, 2001, 2004).

This report by ONDCP does not include alcohol related costs, which would add to these numbers.

**For Pennsylvania this cost for illicit drug use would be $8,289,740,227**
Substance Use Disorders: Snapshot

Treatment Gap
Numbers in Thousands Needing Treatment for Illicit Drugs or Alcohol, 2011

- According to the NSDUH report, nationally we offer enough drug and alcohol treatment to address the needs of 10.8% of individuals who need it.
  - In Pennsylvania we do a little better; about 13 percent of those needing services get them

- According to data from the Survey of Inmates in Local Jails, in 2002 more than two-thirds of jail inmates were found to experience SUD

- SUD expenditures represented 1.3 percent of all healthcare expenditures in 2003 ($21 billion for SUD vs. $1.6 trillion for all health expenditures).

- The 2010 U.S. Drug Control Strategy cites that untreated addiction costs society over $400 billion annually with $120 billion of that in wasted or inappropriate health care procedures.

Risk Factors

**Biology:**
Genetics, Biological Vulnerability

**Spiritual:**
Relationship with Higher Power, Relationship with Guiding Personal Values

**Psychological:**
Trauma, Cognitive Beliefs, Mental Health

**Emotional:**
Coping Skills Deficits, Anger, Guilt, Shame

**Social:**
Family Influences, Peer Pressure, Culture/Ethnicity, etc.
Overview of Substance and Drug Use

Past-Year Initiates for Specific Illicit Drugs Among Persons Age 12 or Older, 2008

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Numbers in Thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>2,208</td>
</tr>
<tr>
<td>Pain Relievers</td>
<td>2,176</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>1,127</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>894</td>
</tr>
<tr>
<td>Inhalants</td>
<td>729</td>
</tr>
<tr>
<td>Cocaine</td>
<td>722</td>
</tr>
<tr>
<td>Stimulants</td>
<td>599</td>
</tr>
<tr>
<td>LSD</td>
<td>394</td>
</tr>
<tr>
<td>Sedatives</td>
<td>181</td>
</tr>
<tr>
<td>Heroin</td>
<td>114</td>
</tr>
<tr>
<td>PCP</td>
<td>53</td>
</tr>
</tbody>
</table>


Past-Year Initiates for Specific Illicit Drugs Among Persons Age 12 or Older, 2014

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Numbers in Thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>2,568,000 (2.6 Million)</td>
</tr>
<tr>
<td>Pain Relievers</td>
<td>1,425,000 (1.4 Million)</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>1,133,000 (1.1 Million)</td>
</tr>
<tr>
<td>Cocaine</td>
<td>766,000</td>
</tr>
<tr>
<td>Stimulants</td>
<td>690,000</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>676,000</td>
</tr>
<tr>
<td>LSD</td>
<td>586,000</td>
</tr>
<tr>
<td>Inhalants</td>
<td>512,000</td>
</tr>
<tr>
<td>Heroin</td>
<td>212,000</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>183,000</td>
</tr>
<tr>
<td>Sedatives</td>
<td>173,000</td>
</tr>
<tr>
<td>Alcohol</td>
<td>4,655,000 (4.7 Million)</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>2,164,000 (2.2 Million)</td>
</tr>
<tr>
<td>Smokeless Tobacco</td>
<td>1,016,000 (1.0 Million)</td>
</tr>
</tbody>
</table>
Past Month Heroin Use among People Aged 12 or Older, by Age Group: 2002-2014

Source: Substance Abuse and Mental Health Services Administration. (2014). Results From the 2015 National Survey on Drug Use and Health: National Findings Rockville, Maryland.
Overdose Deaths in Pennsylvania 2015

National average: 14.7
PA Average 26

Overdose Deaths: 3,383
Overdose Deaths in Pennsylvania 2016

National average: 16.3
PA Average: 36.5
Number of deaths: 3,642
• Based on Pennsylvania Corners Association (PCA) reports in 43 counties, heroin and heroin related deaths have been on the rise for the past 5 years (PCA, 2013).

• Between 2009 and 2013 there were 2,929 heroin related overdose deaths identified by county coroners. Of these, 490 (17%) were heroin only, while 2,439 (83%) involved multiple drugs.

• Other drugs commonly found along with heroin overdose include
  – Other opiates: Methadone, Oxycodone, Fentanyl, Morphine, Codeine, Tramadol
  – Other illegal drugs: Marijuana, cocaine
  – Other sedating drugs: Alcohol, benzodiazepines
  – Antidepressant medications: Prozac, Celexa, Remeron, Trazadone, Zoloft
# Drug Related Overdose Deaths in Pennsylvania

## Figure 7: Ranking of Frequency of Drugs of Interest Present, and Rate of Change (Δ), In Drug-Related Overdose Decedents, Pennsylvania, 2014-2015

<table>
<thead>
<tr>
<th>Rank</th>
<th>Drug</th>
<th>% Reported Among 2015 Decedents</th>
<th>Δ From 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heroin</td>
<td>54.6%</td>
<td>5.4%</td>
</tr>
<tr>
<td>2</td>
<td>Fentanyl</td>
<td>27.0%</td>
<td>92.9%</td>
</tr>
<tr>
<td>3</td>
<td>Cocaine</td>
<td>23.9%</td>
<td>40.6%</td>
</tr>
<tr>
<td>4</td>
<td>Alprazolam</td>
<td>20.5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>5</td>
<td>Oxycodone</td>
<td>18.6%</td>
<td>3.9%</td>
</tr>
<tr>
<td>6</td>
<td>Clonazepam</td>
<td>9.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>7</td>
<td>Diazepam</td>
<td>7.5%</td>
<td>-9.6%</td>
</tr>
<tr>
<td>8</td>
<td>Marijuana</td>
<td>7.1%</td>
<td>7.6%</td>
</tr>
<tr>
<td>9</td>
<td>Methadone</td>
<td>6.7%</td>
<td>-11.8%</td>
</tr>
<tr>
<td>10</td>
<td>Hydrocodone</td>
<td>5.8%</td>
<td>7.4%</td>
</tr>
<tr>
<td>11</td>
<td>Tramadol</td>
<td>3.8%</td>
<td>-17.4%</td>
</tr>
<tr>
<td>12</td>
<td>Acetyl Fentanyl</td>
<td>3.6%</td>
<td>*</td>
</tr>
<tr>
<td>13</td>
<td>Methamphetamine</td>
<td>3.1%</td>
<td>95.0%</td>
</tr>
<tr>
<td>14</td>
<td>PCP</td>
<td>1.7%</td>
<td>-16.5%</td>
</tr>
</tbody>
</table>

*No Acetyl Fentanyl Reported in 2014

Source: Pennsylvania Coroner Data
Source of Nonmedical Use of Prescription Drugs

Source Where User Obtained
- More than One Doctor (1.8%)
- Free from Friend/Relative (54.0%)
- One Doctor (19.7%)
- Other (5.1%)
- Bought on Internet (0.2%)
- Drug Dealer/Stranger (4.3%)
- Bought/Took from Friend/Relative (14.9%)

Source Where Friend/Relative Obtained
- One Doctor (82.2%)
- More than One Doctor (3.6%)
- Free from Friend/Relative (5.4%)
- Bought/Took from Friend/Relative (5.4%)
- Other (1.8%)
- Drug Dealer/Stranger (1.4%)
- Bought on Internet (0.2%)
Pain as the Fifth Vital Sign

Pain Scale (English)
Escala de Dolor (Spanish)

No Pain: 0
Preoccupied: 2
Uncomfortable: 4
Dreadful: 6
Horrible: 8
Unbearable: 10

Ningun dolor: 0
Dolor molesto y moderado: 2
Dolor incómodo y moderado: 4
Dolor intenso y severo: 6
Dolor horrible y muy severo: 8
Dolor insuportable y el peor posible: 10
Addiction Rare in Patients Treated with Narcotics

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,2 Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

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NEJM, 1980
A 1989 monograph for the National Institutes of Health, which asked readers to "consider the work" of Porter and Jick.

A 1990 article in Scientific American, where it was called "an extensive study"

A 1995 article in Canadian Family Physician, where it was called "persuasive"

A 2001 Time magazine feature, which said that it was a "landmark study" demonstrating that the "exaggerated fear that patients would become addicted" to opiates was "basically unwarranted"

A 2007 textbook, "Complications in Regional Anesthesia and Pain Medicine," which said that it was "a landmark report" that "did much to counteract" fears that pain patients treated with opioids would become addicted.

(Jacobs, 2016)
Treatment Works: But what is treatment?

• Treat addresses a wide range of clinical issues that cause and exacerbate risks of substance use disorder.
  • These include the needs for habilitation and rehabilitation, including vocational supports, addressing trauma, learning coping skills, learning relapse prevention skills, improving relationships etc.

• This is not to be confused with supporting services such as detoxification, medications, peer supports, 12-step programs, housing and other similar approaches which complement the core treatment program.
Length of Stay

Studies consistently find length of stay as the primary predictor of outcomes, along with intensity of treatment and continuum of care.


NEW CONVICTIONS BY LENGTH OF STAY


Source: Zhang (2002). Does retention matter? Treatment duration and improvement in drug use. (4,005 clients)
Studies consistently find length of stay as the primary predictor of outcomes, along with intensity of treatment and continuum of care.

- Improvements in criminal recidivism and relapse rates are correlated to length of treatment, with highest rates of improvement among those with 9 months of treatment, and reduced effectiveness for treatment of less than 90 days (NIDA, 2002)
- Highest improvements were found in long term treatment with least improvement found in methadone maintenance (Friedmann et al, 2004)
- Lengths of stay are the number one predictor of outcomes for treatment (President’s Commission on Model State Drug Laws, 1993)
- Average length of stay for Medicaid clients was 90 days (Villanova Study, 1995). Best outcomes were found for longer lengths of stay and more complete continuum of care, measured as lack of criminal recidivism, abstinence, employment and higher paying jobs. No benefit was found for treatment less than 90 days. Currently, average length of stay in treatment for long term residential is 47 days (DPW, 2011)
- Length of stay has a direct linear relationship with improved outcomes (Toumbourou, 1998)
Which Brain do You Want?

During substance use

Normal healthy view. Top down surface view. Full, symmetrical activity

One year drug and alcohol free

Notice the overall holes and shriveled appearance during SUD and marked improvement with abstinence.
Progression of a Disease and Recovery

Prevention

- No drinking
- Social drinking
- Drinking feels good
  - Drink to relax
  - Drink to escape
- Withdrawal from friends
  - First DUI
- Conflict in relationships
  - Missed time from work
- Regular drinking
- Amount of drinking increases
  - Drink to stop feeling bad
- Disciplinary action at work
- Association with negative peer group
- Antisocial beliefs justify behaviors
  - Increasing health complications
  - Relationship isolation/ alienation

(Relapse) Prevention

- Give to others
- Optimism
- Regain job
- Face problems
- Honesty
- More relaxed
- Relationships improve
- Begin to develop trust
- Resolve legal issues
- Self respect returning
- Connect with sponsor/ positive peer group
- Self examination
- Medical stabilization
- Thinking begins to clear
- Desire for help

Outpatient Treatment

- Early Addiction
  - First DUI
  - Conflict in relationships
  - Missed time from work
  - Regular drinking
  - Amount of drinking increases
  - Drink to stop feeling bad
  - Disciplinary action at work
  - Association with negative peer group
  - Antisocial beliefs justify behaviors
  - Increasing health complications
  - Relationship isolation/ alienation

Intensive Treatment

- Middle Addiction
  - Early Recovery
  - Middle Recovery
  - Late Recovery

Late Addiction

- "Rock Bottom", Arrests
- Divorce, Loss of Job
- Depression, Hopelessness,
- Suicide, Death

- No addiction

- Early Recovery

- Late Recovery
Cognitive Therapy

• In CBT, Behaviors are motivated by beliefs
• Behavioral change is made by changing the belief patterns
  – Police car example.
• Examples of Addiction Generating Beliefs
  – I can’t do anything else.
  – I need it.
  – I can’t survive without the (drug).
  – I tried, but I’m not able to do it (terminally unique).
  – It is easier to avoid than to face life's difficulties and self-responsibilities.
  – I must have certain and perfect control over things.
Increasing attendance at 12-step meetings following treatment are associated with increased rates of abstinence (Timko & DeBenedetti, 2007).

- This includes a range of activities such as attendance, getting a sponsor, being a sponsor, reading at meetings, calling a 12-step member for help etc.
• **Physical warning signs of drug use**
  – Bloodshot eyes, pupils larger or smaller than usual
  – Sudden weight loss or weight gain
  – Deterioration of physical appearance, personal grooming habits
  – Unusual smells on breath, body, or clothing
  – Tremors, slurred speech, or impaired coordination

• **Behavioral signs of drug use**
  – Drop in attendance and performance at work or school
  – Unexplained need for money or financial problems; may borrow or steal to get it.
  – Engaging in secretive or suspicious behaviors
  – Frequently getting into trouble (fights, accidents, illegal activities)

• **Psychological warning signs of drug use**
  – Unexplained change in personality or attitude
  – Sudden mood swings, irritability, or angry outbursts
  – Periods of unusual hyperactivity, agitation, or giddiness
  – Lack of motivation; appears lethargic or “spaced out”
  – Appears fearful, anxious, or paranoid, with no reason
Overdose

• **Signs of an overdose:**
  – Slow or shallow breathing.
  – Very sleepy and unable to talk, or unconscious.
  – Does not respond to attempts to rouse to consciousness.
  – Skin color is blue or grayish, with dark lips and fingernails.
  – Snoring or gurgling sounds

• **If there are symptoms of an overdose:**
  – Lightly tap, shake, and shout at the person to get a response. If there is still no response, rub knuckles on the breast bone.
  – If the person responds, keep them awake.
  – Call 911
• What does “recovery” look like?
Dennis, Foss & Scott (2007)
Recovery Lessons Learned

• Faces and Voices of Recovery Survey of 3,200 individuals with an average of 10 years in recovery.

• **Personal Descriptions:**
  - The majority (75%) selected “in recovery”;
  - 14% chose “recovered,”
  - 8% “used to have a problem with substances and no longer do,”
  - 3% chose “medication-assisted recovery.”

• **Paths to Recovery:**
  - 71% professional addiction treatment
  - 18% had taken prescribed medications (e.g., buprenorphine or methadone).
  - 95% had attended 12-step fellowship meetings (e.g., Alcoholics Anonymous),
  - 22% had participated in non-12-step recovery support groups (e.g., LifeRing, Secular Organizations for Sobriety (S.O.S.).
Addiction and Other Chronic Conditions

Comparison of Relapse Rates Between Drug Addiction and Other Chronic Illnesses

- Drug Addiction: 40-60%
- Type 1 Diabetes: 30-50%
- Hypertension: 50-70%
- Asthma: 50-70%
Substance Use Disorder and Older Adults
Overdose deaths across the lifespan

(U) Figure 10: Age Distribution of Drug-Related Overdose Decedents, Pennsylvania, 2016
<table>
<thead>
<tr>
<th>Drug</th>
<th>Adverse Effect With Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
<td>Severe hepatotoxicity with therapeutic doses of acetaminophen in chronic alcoholics</td>
</tr>
<tr>
<td>Anticoagulants, oral</td>
<td>Decreased anticoagulant effect with chronic alcohol abuse</td>
</tr>
<tr>
<td>Antidepressants, tricyclic</td>
<td>Combined central nervous system depression decreases psychomotor performance, especially in the first week of treatment</td>
</tr>
<tr>
<td>Aspirin and other nonsteroidal anti-inflammatory drugs</td>
<td>Increased the possibility of gastritis and gastrointestinal hemorrhage</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>Increased central nervous system depression (additive effects)</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Increased central nervous system depression (additive effects)</td>
</tr>
<tr>
<td>Beta-adrenergic blockers</td>
<td>Masked signs of delirium tremens</td>
</tr>
<tr>
<td>Bromocriptine</td>
<td>Combined use increases gastrointestinal side effects</td>
</tr>
<tr>
<td>Caffeine</td>
<td>Possible further decreased reaction time</td>
</tr>
<tr>
<td>Cephalosporins and chloramphenicol</td>
<td>Disulfiram-like reaction with some cephalosporins and chloramphenicol</td>
</tr>
<tr>
<td>Chloral hydrate</td>
<td>Prolonged hypnotic effect and adverse cardiovascular effects</td>
</tr>
<tr>
<td>Cimetidine</td>
<td>Increased central nervous system depressant effect of alcohol</td>
</tr>
<tr>
<td>Cycloserine</td>
<td>Increased alcohol effect or convulsions</td>
</tr>
<tr>
<td>Digoxin</td>
<td>Decreased digitalis effect</td>
</tr>
<tr>
<td>Disulfiram</td>
<td>Abdominal cramps, flushing, vomiting, hypotension, confusion, blurred vision, and psychosis</td>
</tr>
<tr>
<td>Guanadrel</td>
<td>Increased sedative effect and orthostatic hypotension</td>
</tr>
<tr>
<td>Glutethimide</td>
<td>Additive central nervous system depressant effect</td>
</tr>
<tr>
<td>Heparin</td>
<td>Increased bleeding</td>
</tr>
<tr>
<td>Hypoglycemics, sulfonylurea</td>
<td>Acutely ingested, alcohol can increase the hypoglycemic effect of sulfonylurea drugs; chronically ingested, it can decrease hypoglycemic effect of these drugs</td>
</tr>
<tr>
<td>Tolbutamide, chlorpropamide</td>
<td>Disulfiram-like reaction</td>
</tr>
<tr>
<td>Isoniazid</td>
<td>Increased liver toxicity</td>
</tr>
<tr>
<td>Ketoconazole, griseofulvin</td>
<td>Disulfiram-like reaction</td>
</tr>
<tr>
<td>Lithium</td>
<td>Increased lithium toxicity</td>
</tr>
<tr>
<td>Meprobamate</td>
<td>Synergistic central nervous system depression</td>
</tr>
<tr>
<td>Methotrexate</td>
<td>Increased hepatic damage in chronic alcoholics</td>
</tr>
<tr>
<td>Metronidazole</td>
<td>Disulfiram-like reaction</td>
</tr>
<tr>
<td>Nitroglycerin</td>
<td>Possible hypertension</td>
</tr>
<tr>
<td>Phenformin</td>
<td>Lactic acidosis (synergism)</td>
</tr>
<tr>
<td>Phenothiazines</td>
<td>Additive central nervous system depressant activity</td>
</tr>
</tbody>
</table>
Applying DSM-IV Diagnostic Criteria to Older Adults With Alcohol Problems

Diagnostic criteria for alcohol dependence are subsumed within the DSM-IV’s general criteria for substance dependence. Dependence is defined as a “maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period” (American Psychiatric Association, 1994, p. 181). There are special considerations when applying DSM-IV criteria to older adults with alcohol problems.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Special Considerations for Older Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tolerance</td>
<td>May have problems with even low intake due to increased sensitivity to alcohol and higher blood alcohol levels</td>
</tr>
<tr>
<td>2. Withdrawal</td>
<td>Many late onset alcoholics do not develop physiological dependence</td>
</tr>
<tr>
<td>3. Taking larger amounts or over a longer period than was intended</td>
<td>Increased cognitive impairment can interfere with self-monitoring; drinking can exacerbate cognitive impairment and monitoring</td>
</tr>
<tr>
<td>4. Unsuccessful efforts to cut down or control use</td>
<td>Same issues across life span</td>
</tr>
<tr>
<td>5. Spending much time to obtain and use alcohol and to recover from effects</td>
<td>Negative effects can occur with relatively low use</td>
</tr>
<tr>
<td>6. Giving up activities due to use</td>
<td>May have fewer activities, making detection of problems more difficult</td>
</tr>
<tr>
<td>7. Continuing use despite physical or psychological problem caused by use</td>
<td>May not know or understand that problems are related to use, even after medical advice</td>
</tr>
</tbody>
</table>
Who is at greatest risk for medication misuse/SUD?

- Factors associated with prescription drug misuse/SUD in older adults
  - Female gender
  - Social isolation
  - History of a substance use disorder
  - History of or mental health disorder – older adults with prescription drug dependence are more likely than younger adults to have a dual diagnosis
  - Medical exposure to prescription meds with misuse potential

(Source: Simoni-Wastila, Yang, 2006)
<table>
<thead>
<tr>
<th>Variable</th>
<th>Early Onset</th>
<th>Late Onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at onset</td>
<td>Various, e.g., &lt; 25, 40, 45</td>
<td>Various, e.g., &gt; 55, 60, 65</td>
</tr>
<tr>
<td>Gender</td>
<td>Higher proportion of men than women</td>
<td>Higher proportion of women than men</td>
</tr>
<tr>
<td>Socioeconomic status</td>
<td>Tends to be lower</td>
<td>Tends to be higher</td>
</tr>
<tr>
<td>Drinking in response to stressors</td>
<td>Common</td>
<td>Common</td>
</tr>
<tr>
<td>Family history of alcoholism</td>
<td>More prevalent</td>
<td>Less prevalent</td>
</tr>
<tr>
<td>Extent and severity of alcohol problems</td>
<td>More psychosocial, legal problems, greater severity</td>
<td>Fewer psychosocial, legal problems, lesser severity</td>
</tr>
<tr>
<td>Alcohol-related chronic illness (e.g., cirrhosis, pancreatitis, cancers)</td>
<td>More common</td>
<td>Less common</td>
</tr>
<tr>
<td>Psychiatric comorbidities</td>
<td>Cognitive loss more severe, less reversible</td>
<td>Cognitive loss less severe, more reversible</td>
</tr>
<tr>
<td>Age-associated medical problems aggravated by alcohol (e.g., hypertension, diabetes mellitus, drug–alcohol interactions)</td>
<td>Common</td>
<td>Common</td>
</tr>
<tr>
<td>Treatment compliance and outcome</td>
<td>Possibly less compliant; Relapse rates do not vary by age of onset (Atkinson et al., 1990; Blow et al., 1997; Schonfeld and Dupree, 1991)</td>
<td>Possibly more compliant; Relapse rates do not vary by age of onset (Atkinson et al., 1990; Blow et al., 1997; Schonfeld and Dupree, 1991)</td>
</tr>
</tbody>
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SUD in the Elderly

• Factors associated with SUD
  – Genetics
  – Stress
  – Co-morbidities
  – Metabolism

• Structural Problems
  – Research not consider aged
  – Dosage one size fits all

• Age related changes in SUD
  – “Maturing out” Theory
    • Mortality
    • Morbidity
    • Maturational Factors

• Until problems emerge difficult to ID

• Access to prescription drugs is changing
Risk Factors

Life Changes Associated With Substance Abuse in Older Adults

Emotional and Social Problems

- Bereavement and sadness
- Loss of
  - Friends
  - Family members
  - Social status
  - Occupation and sense of professional identity
  - Hopes for the future
  - Ability to function
- Consequent sense of being a “nonperson”
- Social isolation and loneliness
- Reduced self-regard or self-esteem
- Family conflict and estrangement
- Problems in managing leisure time/boredom
- Loss of physical attractiveness (especially important for women)

Medical Problems

- Physical distress
- Chronic pain
- Physical disabilities and handicapping conditions
- Insomnia
- Sensory deficits
  - Hearing
  - Sight
- Reduced mobility
- Cognitive impairment and change
Prescription Drug Misuse

• Reason for misuse of meds
  – Difficulties reading and following prescription
  – Cognitive deficits
  – Cost
  – Complexity of drug treatment
Proper use of Medication → Misuse → Abuse → Dependence

Substance Use Disorder
Misuse is defined as non-adherence to prescription directions and can be either willful or accidental.

One-quarter of the prescription drugs sold in the United States are used by the elderly, use more meds than any other age group.

Older adults are likely to experience more problems with relatively small amounts of medications because of increased medication sensitivity as well as slower metabolism and elimination.

Factors associated with prescription medication misuse and SUD by older adults include female sex, social isolation, history of substance use or psychiatric disorder, poly-pharmacy, and chronic medical problems.

Commonly prescribed drugs with misuse potential include those for anxiety, pain, and insomnia, such as benzodiazepines, opiate analgesics, and skeletal muscle relaxants.
Medication Misuse Strategies

• Improve medication compliance by consumers
• Encouraging health care professionals to explain carefully how and when to take medications and what must be avoided, e.g. alcohol, OTC, etc.
• Improving doctor-patient communication
• Encouraging consumers to let physicians know all they are taking, e.g. OTC, herbal preparations, etc
• Addressing communication barriers, e.g. language, hearing or visual problems
• Patient medication list or brown bag with all prescriptions and OTC medications to be reviewed by ALL specialists and physicians
• Providing consumers aids, e.g. medication tracking devices
• Implementing policy changes, e.g. geriatric-relevant labeling
• Encourage annual “medication review” with primary care physician
Ageism: The term ageism was coined in the mid-1960s (Butler, 1969) to describe the tendency of society to assign negative stereotypes to older adults. Older adults often internalize such stereotypes and thus are less likely to seek out mental health and SUD care (Patterson and Dupree, 1994). Older individuals with SUD may be deemed not worthy of the effort involved in treating or changing behavior because "they are likely to die soon anyway."

Lack of Awareness: A second barrier to treatment is a lack of awareness of the problem that is often shared by the older individuals with SUD, his or her loved ones, the community, and society as a whole. If adults attribute their alcohol problems to a breakdown in morals, they are not likely to seek SUD treatment.

Clinicians' and Service Professionals' Behavior: Health care and older adult service providers may be as slow to spot SUD. With an older patient, health care providers are often in a quandary - symptoms such as fatigue, irritability, insomnia, chronic pain, or impotence may be produced or influenced by SUD, common medical and mental disorders, or a combination of these conditions.
Transportation: Transportation to treatment and coordinated care can be a challenge. This is less an issue for residential care than for other outpatient levels of substance use disorder treatment. An increasing number of at-risk older adults have no family members available to assist them in seeking advice.

Shrinking social support network: Fewer friends to support them, participate in the treatment process, or take them places.

Time: Despite the assumption that older adults have an excess of free time, they may well have to provide 24-hour supervision to a spouse, other relative, or friend, or have to care for grandchildren while the parent works.

Lack of expertise: Few programs have specialists in geriatrics, treat many older adults, or are designed to accommodate functional disabilities such as hearing loss or ambulation problems.

Financial: The structure of insurance policies can be a barrier to treatment.

Stigma: The stigma of behavioral health problems can prevent older adults from seeking treatment.
Warning Signs to Watch For

Signs of Alcohol Misuse and SUD

Early Signs
• Sneaking drinks
• Gulping first drinks
• Unwillingness to discuss drinking
• Guilty feelings about drinking
• More frequent memory blanks

Addictive Signs
• Conspicuous drinking
• Flashes of aggression
• Grandiose or “showy” behavior
• Personal relationships risked and devalued
• Decreased sexual drive
• Loss of friends due to drinking
• Unreasonable resentments
• Noticeable self-pity
• Most functioning is focused on getting and using alcohol
Recommendations

• Continuing education on risk management, SUD, identification of substance SUD risks
• Education in Screening, Brief Intervention, Referral to Treatment (SBIRT)
• Education in cultural issues in treating older adults
• Refer to recently adopted Prescribing Guidelines for:
  – PA Emergency Department (ED) Pain Treatment Guidelines
  – PA Opioid Guidelines with prescribing practices for chronic non-cancer pain
  – PA Prescribing Practices for Geriatric Pain
• SAMHSA TIP 26 Substance Abuse Among Older Adults
Commonwealth Response
**Naloxone and Act 139**

- **How do I get naloxone?**
  - Family members and friends can access this medication by obtaining a prescription from their family doctor or by using the standing order (a prescription written for the general public, rather than specifically for an individual) issued by Rachel Levine, M.D., PA Physician General.

- **What types of naloxone are available?**
  - Nasal Spray (Narcan by Adapt Pharma)
  - Auto Injector (Evzio by Kaleo)

- **Is additional training available?**
  - Training is available at one of the Department of Health approved training sites www.getnaloxononenow.org or https://www.pavtn.net/act-139-training.
Naloxone Reversals By Police Officers In Opioid Overdose Events

Number of successful overdose reversals per county

Municipal Police Reversals = 3,747  PA State Police Reversals = 98

TOTAL REVERSALS = 3,845

Estimated Population Covered = 9,499 million (74%)

Double asterisks ** signify counties that do not have municipal police departments and are only covered by the PA State Police
The Solution

• Prevention
  – Permanent Drop Boxes for medication disposal
  – Proper Storage Procedures (i.e. lockbox in the home)
  – Pennsylvania Youth Survey
  – Prescribing Guidelines
  – Prescription Drug Monitoring Program

• Intervention
  – Naloxone
  – Good Samaritan

• Treatment
  – Warm Handoff Initiatives
  – Centers of Excellence
  – Examine barriers to treatment (e.g. payment, access etc.)
Key elements include safety issues (falls, safe storage), pill box organizers, starting with opioid alternatives, using lower dose/durations.

Key elements include identification of best practices, recognition of red flags/risks, and quality practices such as patient validation, and prescription validation.
• Awareness of Insurance and other Protections
  – Act 106
    • Protects group health insurance plans
  – Act 152
    • Protects services in Medicaid plans
  – Mental Health and Parity and Addiction Equity Act
    • Requires SUD to be treated with equivalent coverage as other medical conditions
  – Patient Protection and Affordable Care Act
    • Requires the coverage of SUD as an essential benefit

  – 42CFR Confidentiality
    • Protects confidentiality of SUD patients from adverse effects from the stigma associated with the disease
Addiction Treatment Coverage:
- Detoxification – 100%
- Opioid Substitution Therapy – 50%
- Urine Drug Screen – 100%
  - 7 per year
- Wide variety in coverage across states

Diabetes Coverage:
- Physician Visits – 100%
- Clinic Visits – 100%
- Home Health Visits – 100%
- Glucose Tests, Monitors, Supplies – 100%
- Insulin and 4 other Meds – 100%
- HgA1C, eye, foot exams 4x/yr – 100%
- Smoking Cessation – 100%
- Personal Care Visits – 100%
- Language Interpreter – Negotiated

Source: (McLellan, 2013)
SUD treatment is now an “Essential Service”

1) Ambulatory patient services;
2) Emergency services;
3) Hospitalization;
4) Maternity and newborn care;
5) Mental health and substance use disorder services, including behavioral health treatment;
6) Prescription drugs;
7) Rehabilitative and habilitative services and devices;
8) Laboratory services;
9) Preventive and wellness services and chronic disease management;
10) Pediatric services, including oral and vision care

Funds full continuum of care
- Prevention, Intervention, Treatment
- Accesses federal funding
Elements of the Warm Handoff

• County Drug and Alcohol Agency (SCA) helps ensure active funding stream (e.g. Medicaid, county funding, etc)

• Their role is to identify payment sources, to complete an initial assessments, and to connect individuals to treatment

• DDAP has led efforts to address each of these areas, with specific action steps.
CURES
The 21st Century Cures Act is a United States law enacted in December 2016. It authorized $6.3 billion in funding, mostly for the National Institutes of Health.

State Targeted Response to the Opioid Crisis Grants of 2017

Pennsylvania awarded $26 million
Requirements:
- Needs Assessment
- Strategic Plan
- Outcomes to reduce opioid related overdose and death

Process: Interdepartmental Collaborations
- Department of Drug and Alcohol Services
- Department of Human Services
- Department of Health
- Department of Aging
– Majority of funding is directed at treatment for uninsured and underinsured individuals.
– Activities include a range of approaches
  • Prevention
    – PDMP
    – Evidence Based Prevention/Intervention Services
    – Public Education Materials
  • Intervention
    – Hotline for Substance Use Disorder
• Treatment
  – Pennsylvania Coordinated Medication Assisted Treatment

• Recovery
  – Use of Warm Handoffs in Emergency Departments

• Special Populations
  – Criminal Justice Drug Courts
  – Targeted workforce trainings
  – Older Adults
- Safe Prescribing guidelines

- Academic detailing:
  - Physician to Physician education
  - PDA/PACE partnership with ALOSA foundation
  - CURES money to fund 3-4 new detailers
  - Utilizing PDMP information in conjunction with PACE database information
  - Targeting counties with high prescribing rates, and a high geriatric population
What Can I Do? 10 Simple Steps

- Are my programs trained in cross-system needs (criminal justice, child welfare, medical etc)?
- Are my system partner programs trained in drug and alcohol treatment?
- Are we using adequate lengths of stay or terminating based on funding?
- Are we using a continuum of care?
- Are we educating on proper prescribing practices?
- Does our county have medication take back boxes?
- Are we expanding the use of Naloxone to save overdose victims?
- Are we facilitating access to funding for needed services such as implementing the jail Medicaid project?
- Are we supporting our community efforts for prevention, to reach long term improvement.
- Are we doing SOMETHING? Pick one and keep moving forward.
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