

## **UNIT-4 : Avoiding risks and harmful habits**

Effects and health hazards from addictions

# Health Hazards

- Health issues: Cardiovascular, digestive and renal impairment, strokes, HIV/Aids, Cancer, Hepatitis B and C, Lungs, Fetal Alcohol Syndromes, etc.
- Mental health issues: Anxiety, depression, Schizophrenias, organic mental disorders due to substance abuse, cognitive dysfunction, personality disorder, etc
- Social health issues: Stigma, disrupted families, anti-social behaviours, higher crime records and law & order problems.

# Health Effects

The damage caused by substance abuse depends on the type of drug abused and the duration of abuse. The following factors also influence the severity of the problems that follow drug abuse:

**Age:** The damage is greater among adolescents as well those who are above 50 years of age.

Nutrition status and living conditions: Poor quality and inadequate quantity of food, unhygienic living conditions and poor access to health care increase the problems caused by drug abuse.

Health condition prior to abuse: The damage is less among individuals whose physical condition is good, as compared to individuals whose health was poor even before the onset of addiction.

Genetic loading factor: A family history of a specific medical or psychiatric problem makes the individual more susceptible to the same problems in comparison to another drug abuser who is not genetically prone to the disorder.

# Medical and psychiatric complications due to substance abuse:

## **a) Problems due to intoxication**

- Trauma or other physical injury: Mood changes caused by drugs reduce inhibitions as well as increase negative feelings leading to violence.
- Driving vehicles or operating machinery under the influence of alcohol/ drugs causes accidents and injury.
- Poor judgment and poor coordination can cause physical injury or even death.
- Perceptual distortions can also result in accidents.
- Acute intoxication reaction.
- Coma and overdose deaths.

b) Problems due to withdrawal-Physical withdrawal symptoms of varying intensity occur as part of withdrawal.

c) Psychiatric disorders associated with substance abuse-Psychoactive substances can induce psychotic disorders during or immediately after use such as cannabis.

d) Systemic disorders associated with substance abuse

# **Dermatological complications-**

When the same vein is used to inject the drug, repeated injections leave marks on the vein. The discoloration along the vein leaves dark lines called needle tracks.

Tattooing and scarring in IV drug users at injecting site.

Use of infected needles can cause infection at the injection site.

Pruritis and dermatitis

# Cardio-vascular complications

- Infection in the heart
- Blocking circulation: Repeated injections at the same site can cause blood clots or air bubbles (emboli) that can block the blood supply in the veins.
- Ventricular fibrillation: This may lead to hemorrhage and sudden death.



# Pulmonary complications

- Embolus formation
- Pulmonary oedema
- Aspiration pneumonia
- Pharyngitis, bronchitis, pneumonia and tuberculosis are common infective respiratory diseases among drug abusers.

# Hepatic complications

- Hepatitis: Hepatitis B, C & D are blood borne infections that can be transmitted through sharing of needles.
- Alcoholic hepatitis
- Fatty liver
- Alcoholic cirrhosis
- Hepatic trauma

# Complications in the reproductive system

- The incidence of sexually transmitted diseases is higher among drug abusers.
- Drug abuse can reduce sex drive and cause impotence.
- Reduced ovulation and menstrual abnormality are seen among female drug abusers.
- Children born to mothers who abuse drugs and alcohol during their pregnancy usually have low birth weight and other problems in their physical and mental development.

# Neuromuscular complications

- Cerebrovascular accidents
- Dementia
- Neuritis
- Bacterial meningitis

# Haematopoietic complications

- Reduced count of platelets in the blood may lead to bleeding disorders.
- Bone marrow depression: The count of both white and red blood corpuscles may fall.
- Poor nutritional status can cause anemia, especially among alcoholics.

# Endocrine system disorders

- Ganja, opiate and alcohol abuse lowers the testosterone levels in the body,
- Incidence of diabetes mellitus increases among alcoholics.

Renal function disorders:

- Damage to renal cells cause nephropathy.

# Gastro-intestinal disorders

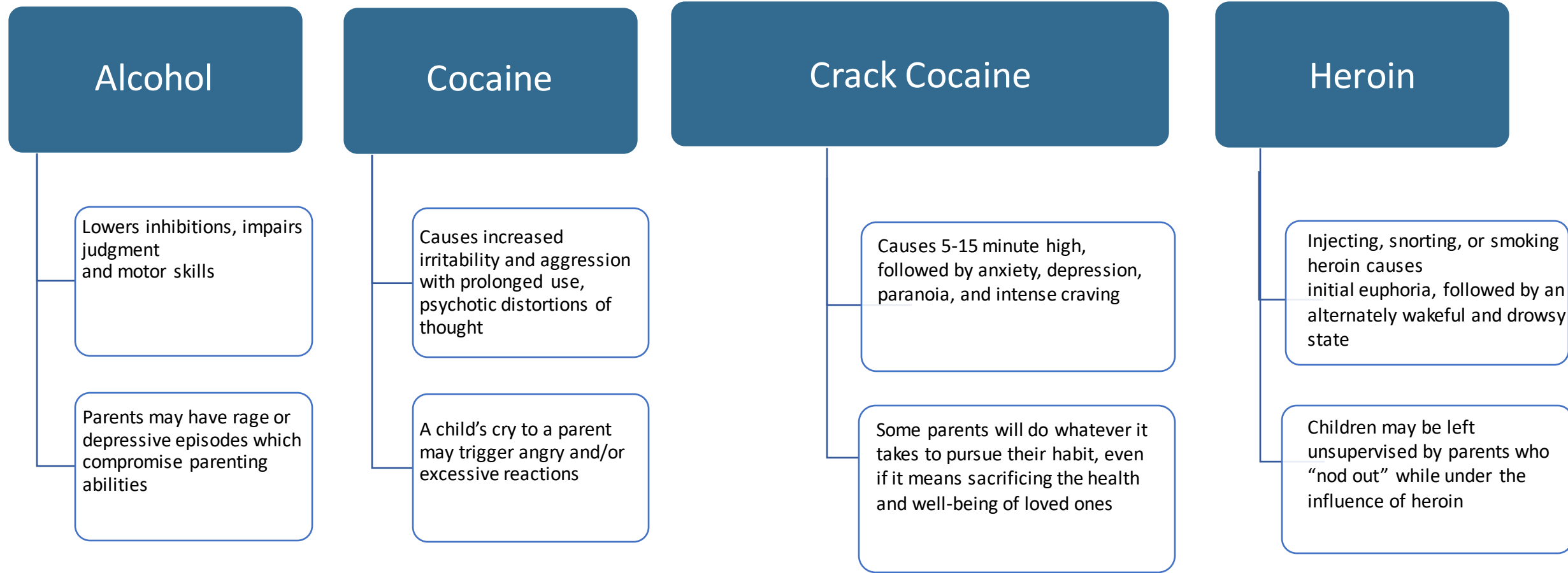
- Gastritis (inflammation of the lining of the stomach) and peptic ulcers can develop due to poor food habits as well as due to the effect of the drugs abused.
- Acute and chronic pancreatitis.
- The incidence of cancer all along the gastro intestinal tract from the mouth to the anus is higher among alcoholics.



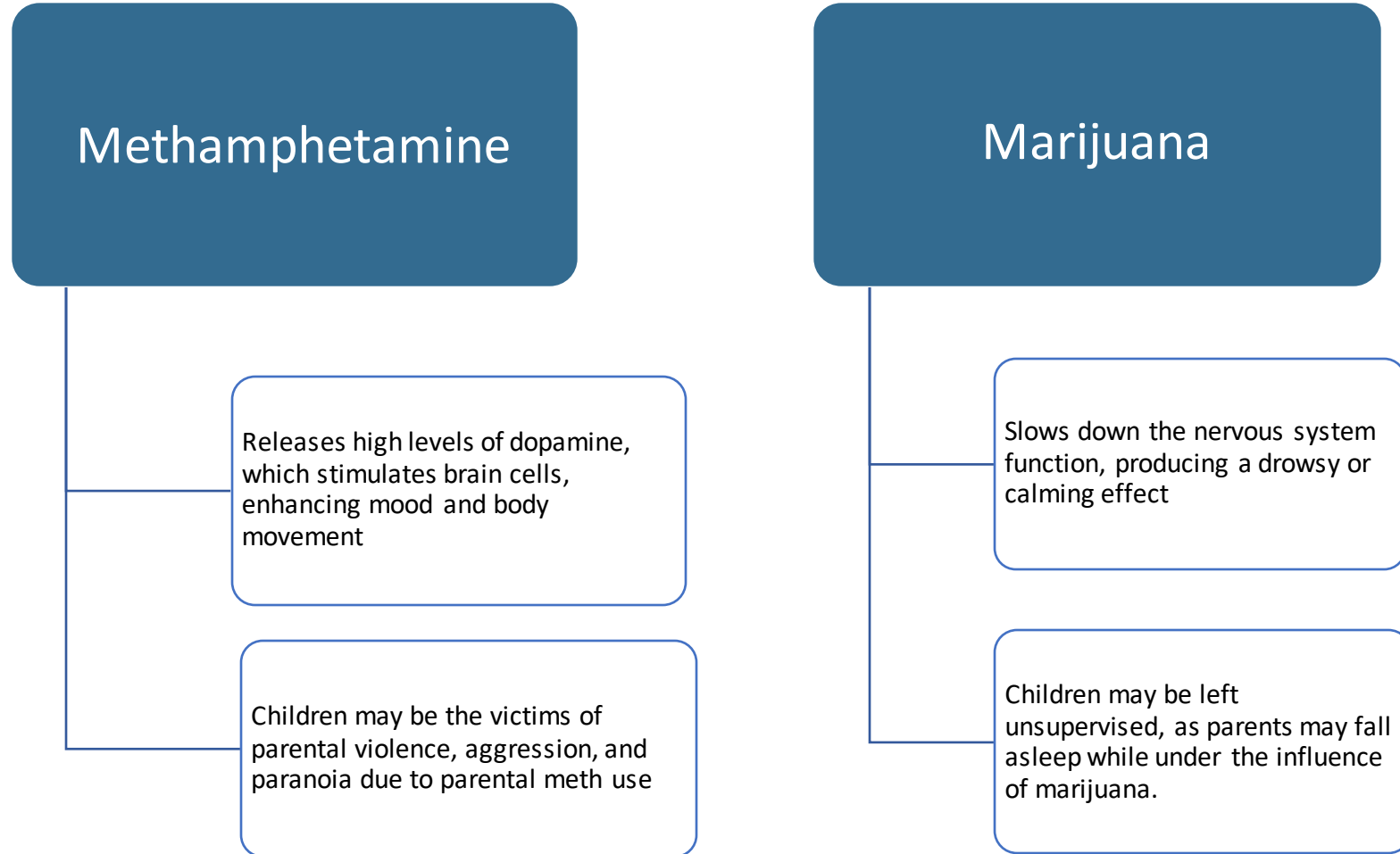
## Cancer-

- As most drug and alcohol abusers also abuse tobacco products, the risk of cancer is high.

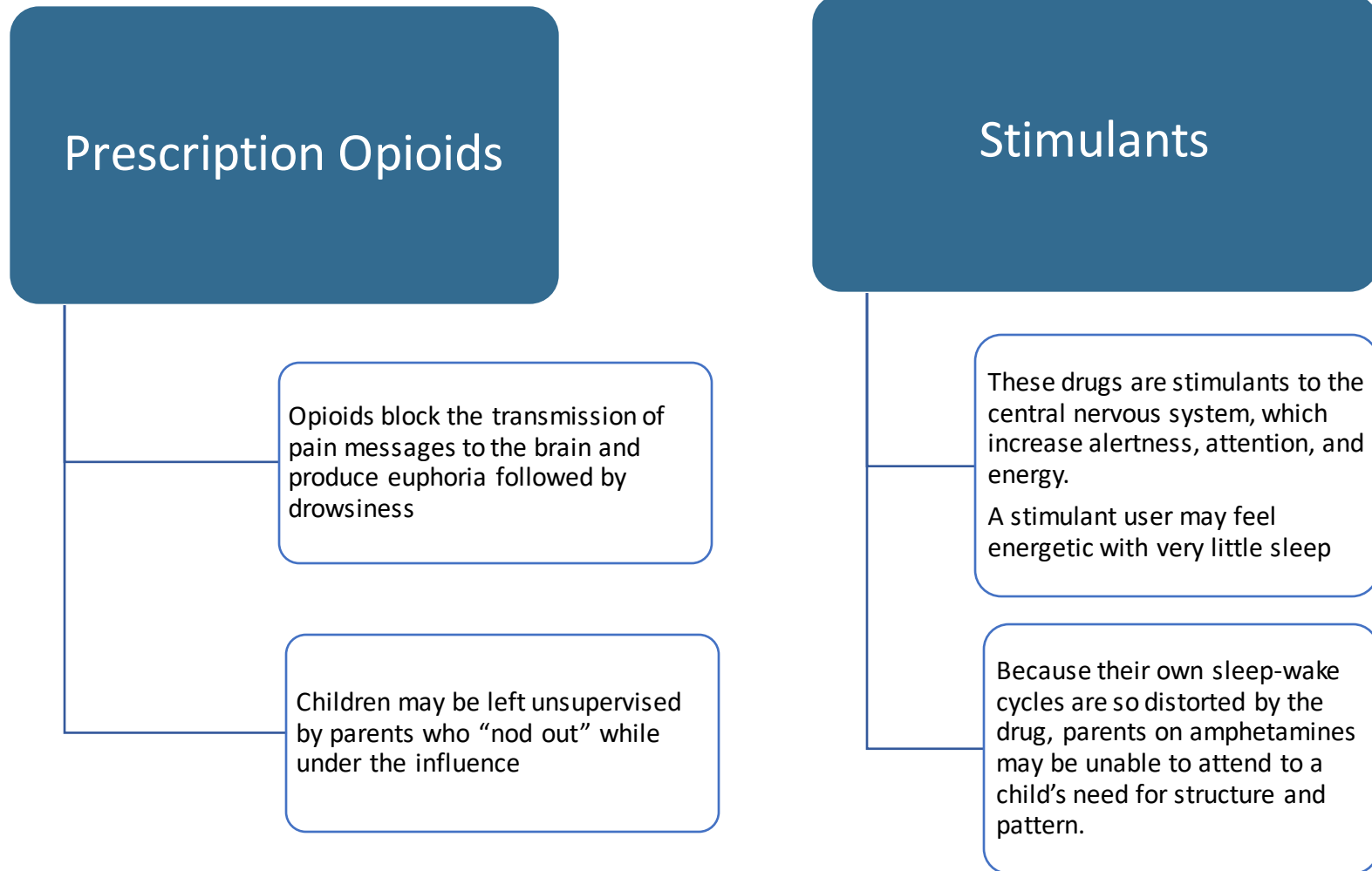
# The Risks of Parental Substance Use Disorders on Children: Alcohol and Illegal Drugs



# The Risks of Parental Substance Use Disorders on Children: Alcohol and Illegal Drugs



# The Risks of Parental Substance Use Disorders on Children: Prescription Drugs and Pain Medications



(Breshears, 2009; National Institute on Drug Abuse, 2018a)

# Diagnosing Substance Use Disorders: DSM-5 Criteria

Severe  
6+ Criteria

Moderate  
4-5 Criteria

Mild  
2-3 Criteria



## 1. Impaired Control

- Larger amounts or over a longer time than originally intended
- Persistent desire to cut down
- A great deal of time spent obtaining the substance
- Intense craving

## 2. Social Impairment

- Failure to fulfill work or school obligations
- Recurrent social or interpersonal problems
- Withdraw from social or recreational activities

## 3. Risky Use

- Recurrent use in situations physically hazardous
- Continued use despite persistent physical or psychological problem that is likely to have been caused or exacerbated by use

## 4. Pharmacological Criteria

- Tolerance: Need for markedly increased dose to achieve the desired effect
- Withdrawal: Syndrome that occurs when blood or tissue concentrations of a substance decline in an individual who had maintained prolonged heavy use

# Overview of the Treatment Process



**Early Identification, Screening,  
and Brief Intervention**

Done at earliest point possible



**Comprehensive  
Assessment**

Determine extent and severity  
of disease



**Stabilization**

Via medically supervised detoxification,  
when necessary



**Timely and Appropriate  
Substance Use Disorder Treatment**

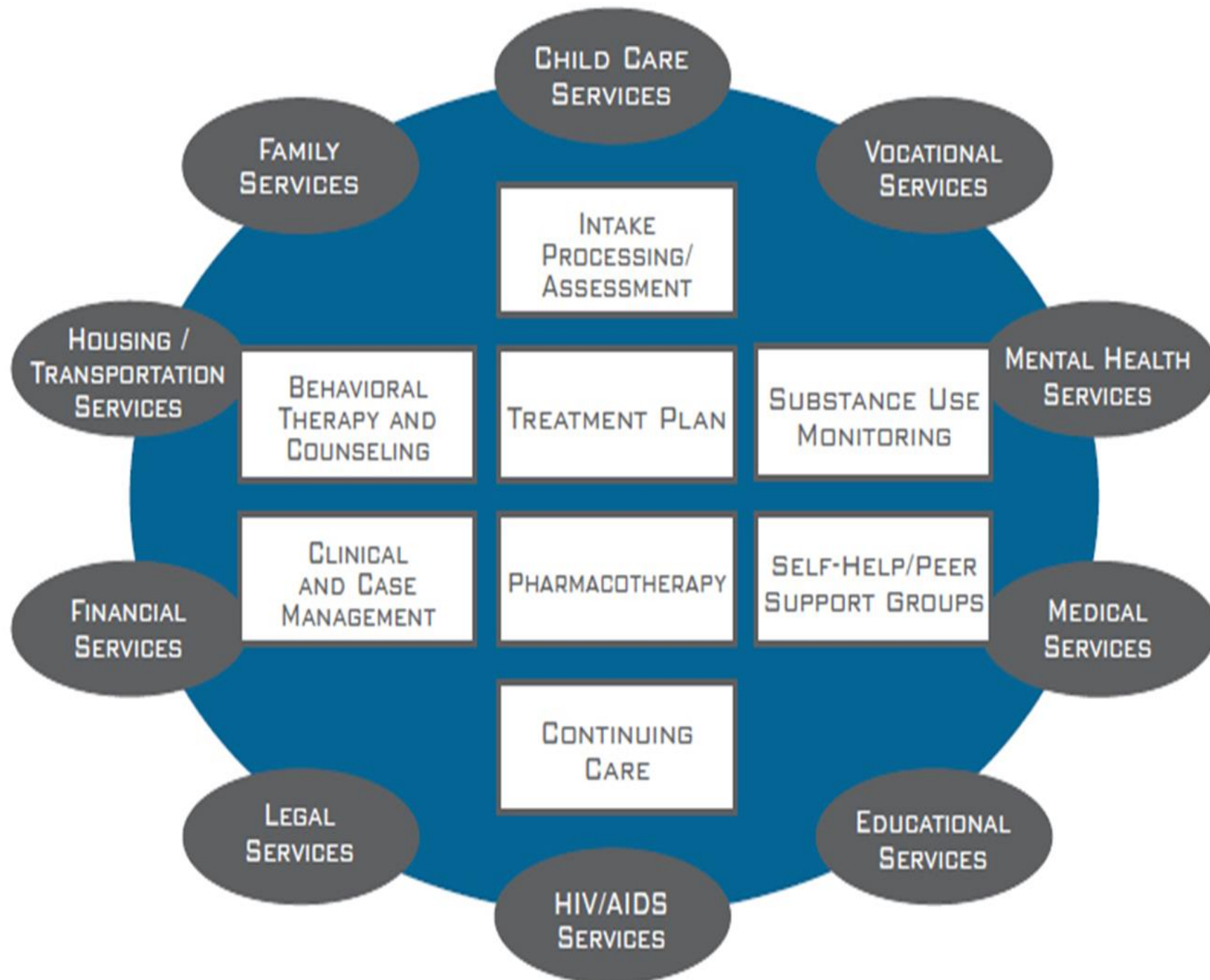
Address substance use disorder and co-  
occurring issues



**Continuing Care  
and Recovery Support**

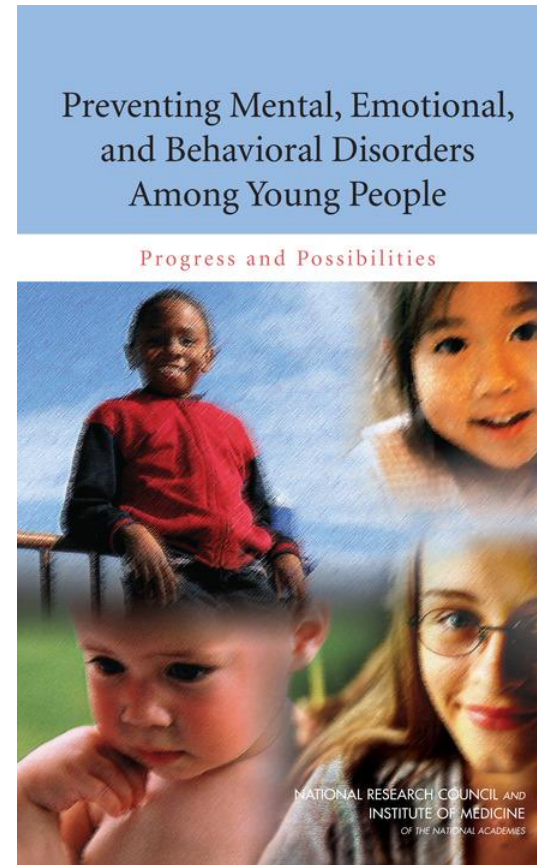
Help parents sustain recovery, maintain  
family safety and stability

(American Society of Addiction Medicine, 2014)



# Mental Health Problems (1/2)

- Mental Health Disorders are strongly linked to drug use and dependence.
- Internalizing Disorders (PTSD, Depression, Anxiety disorders, Bipolar disorder)
  - Brain responses are heightened in response to stress.
  - Tendency to self-medicate the anxiety & depression this process causes.





# Mental Health Problems (2/2)

- Externalizing Disorders (Conduct Disorder, Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorder, Antisocial Personality Disorder)
  - Low level of arousal in these disorders is related to an insensitivity to consequences and a need for more stimulation.
  - Heightens risk for continued drug use to relieve symptoms
  - Tend to be resistant to substance abuse treatment
  - Exacerbates stress reactivity problems

# Personality & Temperament

- A difficult temperament and certain personality characteristics are consistently related to heightened risk for drug use.
  - Impulsivity
  - Aggressiveness
  - Sensation or novelty-seeking
  - Negative affect
  - Impaired judgment
- High activity level
- Risk taking tendencies
- Lack of regard for negative consequences
- Lack of pain avoidance responses
- Abnormal levels of arousal in response to stress.



# Importance of Personality in Adolescence

- Normal adolescence is characterized by greater reward anticipation, sensitivity, and sensation seeking—particularly social rewards (e.g., peer regard, gains in social status).
  - It follows that adolescence is the period during which drug use onset is most common.
  - And, therefore, that adolescents with especially high levels of any combination of these traits are at heightened risk.
- Preventive Implications: These traits can be redirected through psychosocial means to decrease risk for drug use. Prevention programs must be designed to specifically redirect this developmental track.

# SAMHSA'S Strategic Prevention Framework

**Assessment**-collect data to determine the population needs, resources, and gaps.

**Capacity**-mobilize and/or build up resources to meet goals.

**Planning**-development of a comprehensive plan.

**Implementation**-carrying out of the plan, using evidence-based prevention programs.

**Evaluation**-monitoring the implementation, measuring impact, and determining needed improvements.

*Always be mindful of:*

**Sustainability**-process of integrating prevention into ongoing operations.

**Cultural Competence**-interacting with audiences from diverse backgrounds.



# Prevention

WHO has recommended the prevention of substance abuse as primary prevention, early intervention, treatment, care, recovery, rehabilitation and social reintegration measures, along with measures aimed at minimizing the adverse public health and social consequences of drug abuse.

Successful prevention of substance use and risk reduction is thus an essential approach to achieve better public health outcomes in following disorders:

The prevention of substance-induced mental disorders and reductions in injuries and violence (traffic and domestic injuries, child abuse, and gender-based, sexual and other violence), reduction in communicable diseases such as HIV, viral hepatitis and tuberculosis, sexual and reproductive health problems (sexually transmitted infections, unplanned pregnancies and complicated pregnancies) and reduction in noncommunicable diseases (such as cancer, cardiovascular diseases and liver diseases).

## **Prevention of drug abuse can be achieved by-**

i) To take effective and practical primary prevention measures that protect people, in particular children and youth, from drug use initiation:

- by providing them with accurate information about the risks of drug abuse,
- by developing supportive parenting and healthy social environments and
- by promoting skills and opportunities to choose healthy lifestyles and
- by ensuring equal access to education and vocational training;

**The family** is the strongest factor in protecting children from drug use and other risky behaviour. Families that are happy communicate openly and provide a healthy environment and a positive future for their children.

**Schools** can cultivate sound values in their students in relation to health and drug use through the development of knowledge and providing them with coping skills to face situations which can lead to drug abuse. It is also necessary to target those who are not in school. Therefore, outreach efforts on the streets are often helpful.

**Workplace:** Employers can promote the health of employees by preventing substance abuse and assisting those with a drug dependence problem.



- ii) To take effective measures to prevent progression to severe drug use disorders through targeted interventions for people at risk for such progression.
- iii) Raising awareness of drug-driving and its impact on road safety including deaths, injuries, property damage and harm to other road users among the general public. Policy-makers can reduce drug-driving by enforcing drug driving laws. It is important not only to enforce drug driving laws but also to counsel and, when appropriate, treat drivers found to be impaired by drugs; especially those who are repeat offenders or those with drug-use disorders.

iv) Mass media can play an important role in substance abuse prevention. They can be used to raise awareness concerning not only the dangers of drug abuse but also the dangers of specific practices such as injecting drugs.

## **National Programmes related to prevention of substance abuse:**

Ministry of Health and Family Welfare (MoHFW) and Ministry of Social Justice and Empowerment (MSJE), Government of India are involved with alcohol and drug demand reduction policies and drug de-addiction programme (DDAP) in the country. Under the DDAP de-addiction centres have been established in association with various District Hospitals and psychiatry departments of Medical Colleges. The centre at All India Institute of Medical Sciences, Delhi (AIIMS) has been designated as the “National Drug Dependence Treatment Centre” (NDDTC) and functions as a resource centre for the DDAP of MoHFW, GoI.

Various E- Health web based programmes related to prevention of substance abuse such as alcohol e-Help ([alcoholwebindia.in/intervention](http://alcoholwebindia.in/intervention)) operated by NDDTC, AIIMS, Delhi ([alcoholwebindia.in/](http://alcoholwebindia.in/)) and m-Cessation programme ([nhp.gov.in/quit-tobacco](http://nhp.gov.in/quit-tobacco)) for tobacco cessation have been initiated by MoHFW, GoI.

National AIDS Control Programme (NACP), MoHFW, GoI has implemented various targeted interventions programme for IDUs such as Needle syringe programme, Opioid substitution therapy.

The MSJE, GoI, has formulated the central sector scheme of assistance for prevention of alcoholism and substance (drugs) abuse and social defence services which has been updated in 2015.

The Department of Revenue, Central government acts as administrator of the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985 and the Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988;

The Narcotics Control Bureau, Ministry of Home Affairs, Govt functions as an enforcement agency for NDPS Act.

Tips for prevention of substance abuse: youth

Don't be afraid to say no.

Connect with your friends and avoid negative peer pressure.

Make connections with your parents or other adults.  
Get educated about alcohol and drugs.