PUBLIC HEALTH APPROACH TO ADDICTIONS

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LEARNING OBJECTIVES

- UNGAS Report 2016.
- World Drug Report 2023 & US Surgeon General Report 2016
- Public health approach & Social Determinant of Harms & benefits.
- Societies approach.
- The Concept of Continuum of care.
- The importance workforce capacity building.
- Recommendations for the future.

UNGAS 2016

- United Nations General Assembly Special Session on Drugs (UNGAS) 2016, recognized drug addiction as a (complex multifocal health disorders characterized by chronic and relapsing nature) that is preventable, treatable and not the result of moral failure or a chronic behavior.
- Substance use is a global public health concern, historically most nations addiction strategy centered on punishment, which requires a shift in emphasis to public health approach.*1
- Canadian Public health Association publish a discussing paper on managing illegal NPS show a growing evidence, awareness, and acceptance that prohibition and criminalization are not achieving their intended objectives of reducing drug use and associated harms.*2

WORLD DRUG REPORT 2023

- Drug use continues to be high worldwide, in 2021: the estimated number of users grew from 240 million in 2011 to 296 million in 2021. **(5.8 % of the global population aged 15–64).**
- One in every 17 people may use substances in the past 12 months. (23 % increase).
- An estimated 13.2 million people were injecting drugs in 2021, in compare with 11.2 million people in 2020. (18% increase).
- Cannabis continues to be the most used drug, with an estimated 219 million users (4.3 % of the global adult population) in 2021.
- There is an increase in the number of NPS identified over the last 15 years from 1,165 substances in 2021 to 1,184 substances in 2022.

WORLD DRUG REPORT 2023

- The report show that there is a growing use of the internet and other digital means of communication, including darknet marketplaces catering to the illegal trade in drugs, social media platforms.
- From the treatment point of view, only 1 in 5 people with SUD received evidence-based treatment.
- WHO SDGs, and specifically the goal of universal health coverage, it is imperative to increase treatment coverage for substance use disorders and to support the development of comprehensive, integrated health and social services for substance use and substance use disorders.*

*Regional framework for action to strengthen the public health response to substance use

US SURGEON GENERAL'S REPORT 2016

- A public health crisis requires a public health solution, marshalling all the resources needed to address substance misuse and substance use disorders in our communities which lead to consistent and important reductions in health, social problems and costs.
- Scientifically derived prevention policies and programs can effectively reduce substance misuse and related harm, so Prevention works, treatment is effective, and recovery is possible for everyone.
- NAIDA Research show that evidence-based interventions can save society money in medical costs anywhere from very little to $65 per every dollar invested in prevention.*Nora Volkow.

US SURGEON GENERAL'S REPORT 2016

- Applied evidence-based behavioral and pharmacological treatments can be effective in reducing substance use and improving other outcomes like criminal justice involvement and, the spread of infectious diseases associated with drug use.
- Integrating programs (prevention, treatment, and recovery services) into the larger healthcare system would increase access to care, improve the quality of services, and produce improved outcomes.
- Access to recovery support services can help former substance users achieve and sustain long-term wellness.

Public health Approach

- There is no definition for the public health approach to addiction, but its the result of a combination of history, political ideology, culture, religion, economics, health, social considerations, and the pharmacological category of substance being managed.

- It provides an organized, comprehensive, and multi-sectoral effort directed at maintaining and improving the health of populations.*6

- Aims for promote the health and wellness of all members of a population and reduce inequities within the population.*

- Public health approach should be based on the principles of social justice, attention to human rights and equity, evidence-informed policy and practice, and addressing the underlying determinants of health.

Public health Approach

- The approach must include the following strategies: health promotion / health protection / prevention and harm-reduction / population health assessment/disease, injury and disability surveillance / evidence-based services to help people who are at risk of developing or develop problems with substances. *7

- WHO PH approach is a framework is organized across five domains: governance; health sector response; promotion and prevention; monitoring and surveillance; and international cooperation.

Facilitators & Risk

- Facilitators & Barriers to PH approach : values and principles / economics/ infrastructure/ lows and regulations / programs and projects / international conventions / leadership / evaluation and research. *2

- Risk to PH Approach: Commercial interest could identify an opportunity that may result in pressure to establish an economic orientation.

- Maintaining a public health approach for these substances will require continued vigilance concerning this risk and comprehensive regulation to avoid profit-driven production, marketing and sales of psychoactive substances.*2

- Taxation may become an attractive feature of moving away from prohibition, to additional revenue to governments.

- Decriminalization policies will encourage substance use, particularly among youth.

Determinant of Harms & benefits

- Social determinants of health such as poverty, homelessness, unemployment, and lack of social support play key roles in determining health consequences of substance use.*5
- Substance use is mediated by complex interactions among supply, demand, availability, accessibility, context, social norms, and laws that govern these activities, and the interaction of these factors determine the consumption and use patterns which result in harms and benefits.

- Problematic substance use, and dependency is strongly associated with a history of early physical or psychological trauma such as mental or physical distress, peer influence and dependency, physical and/or sexual abuse, abandonment, and co-morbidity involving mental illness and substance dependence.*6

- Scientific understanding of the determinants of problematic substance use and associated harms points consistently to the interaction of genetic, psychological, and social factors.*4

Societies Approach

- Societies around the world have employed a variety of approaches to manage psychoactive substances. Most have relied on legislation and other regulatory tools, rather than public health approaches.

- The Paradox of Prohibition fig 1 show that the health and social harms associated with substances are at their maximum when their management is dominated by the extremes of regulation – either criminal prohibition or commercialization.

- Minimal health and social harms occur at the point where public health measures have been implemented.

Societies Approach

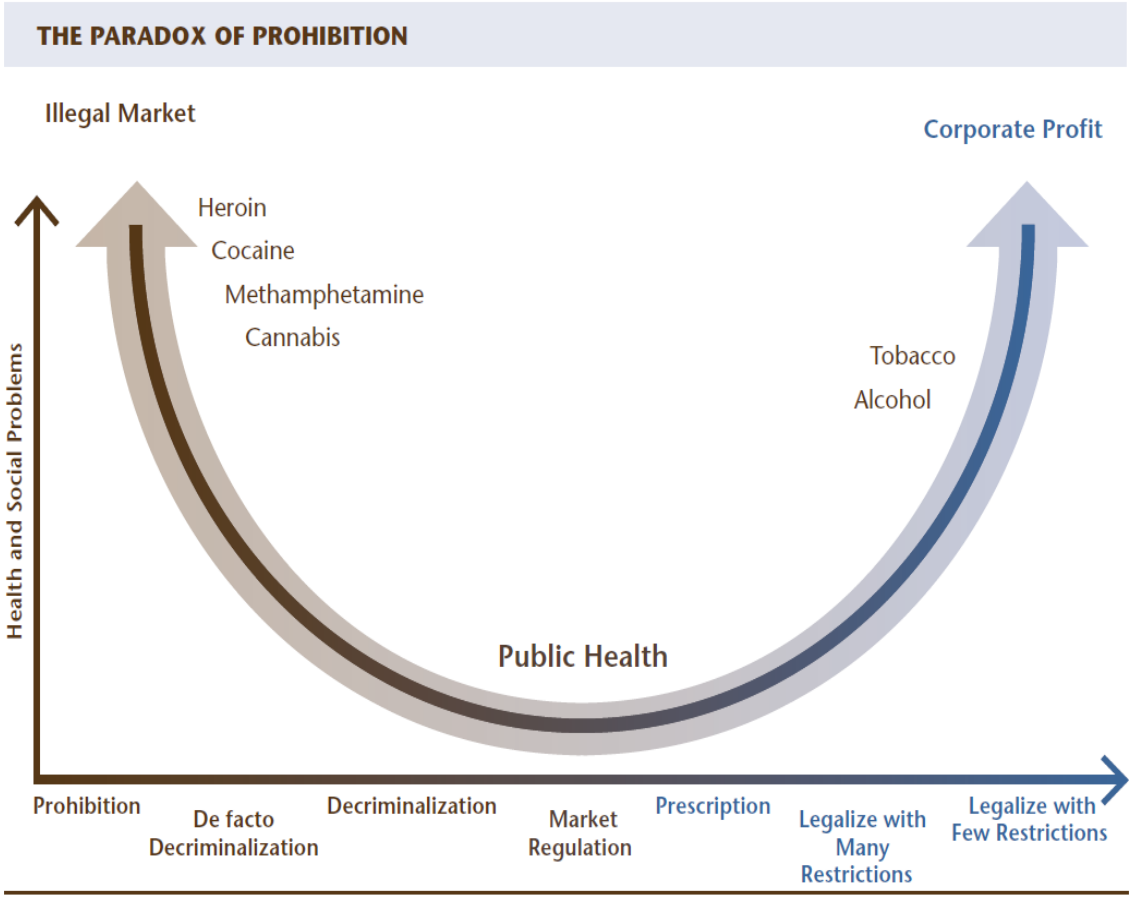


Figure 3. Adapted from Marks,[41] reproduced by permission from the Canadian Drug Policy Coalition.

Prohibition or Commercialization

- Prohibition approach : Aims to deter or prevent all substance use through formal and informal sanctions, including drug criminalization and incarceration.*4
- This approach has led to fuels the growth of illegal markets, organized crime, violent injuries, and the deaths of users, dealers, and police. *2
- Commercialization approach : is less-restrictive leading to free market availability of psychoactive substances.
- Non of these approaches is effective in preventing substance-use-related morbidity and mortality, and both lead to potential to worsen population health and social outcomes.*3

PUBLIC HEALTH, THE PUBLIC GOOD, AND DRUG POLICY *8 ROBIN ROOM

- Important Aspects for discussion:

  1- Economical impact of addiction.

  2- Policy is fundamental to the public health approach.

  3- Cannabis challenges of legalization and decriminalization.

  4- The internet, clear web, deep web, dark web.

  5- SUD & Comorbidity.

  6- Barrier to Treatment.

1- ECONOMICAL IMPACT OF ADDICTION

- Drug abuse cost 2-4 % of the GDP. *1
- The Cost of illegal market internationally reach 100 billion to 1 trillion US dollars.*3
- A study about the global burden of disease done in 195 countries (1999-2016) shows that considerable geographical variation exists about the magnitude and relative contribution of alcohol and drug use to disease burden and its strongly associated with socioeconomic development, and its composition varied across Socio-demographic Index (SDI) quintiles. *9
- Drug-attributable burden was higher in countries with higher SDI than those with a lower SDI, and most of this burden was attributable to drug use disorder, rather than other consequences of drug use such as HIV/AIDS, acute hepatitis, liver cancer, cirrhosis and other liver disease due to hepatitis, or self harm.*

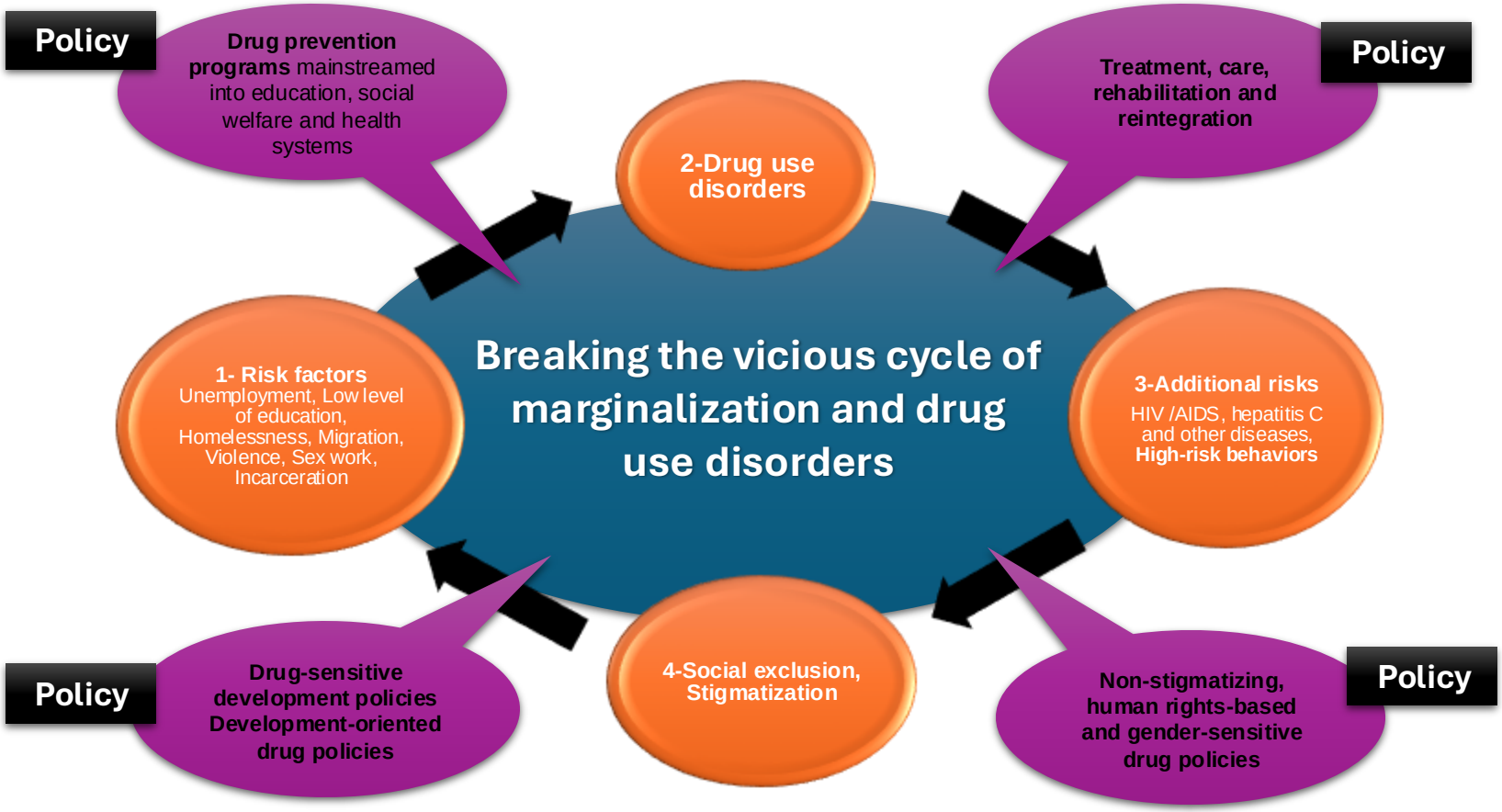
2- ECONOMICAL IMPACT OF ADDICTION

- Contrasting patterns were observed for the association between total alcohol and drug-attributable burden and SDI: alcohol-attributable burden was highest in countries with a low SDI and middle high middle SDI, whereas the burden due to drugs increased with higher SDI level.

- In US Substance misuse and substance use disorders cost more than $442 billion annually in lost productivity, health care expenses, law enforcement, and other criminal justice costs crime. *2

- These costs are almost twice as high as the costs associated with diabetes, which is estimated to cost the United States $245 billion each year.

2- POLICY INTERACTIONS



*NAIDA

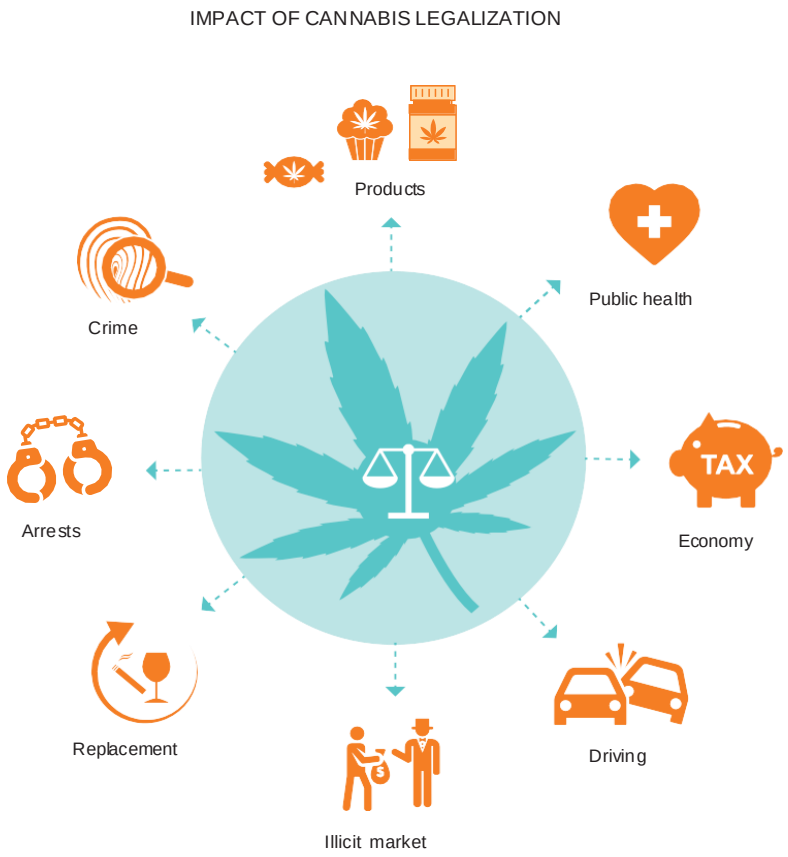
3- LEGALIZATION & DECRIMINALIZATION: POSITIVE

- Countries that have ended the criminalization of drug use and possession have generally been better able to cope with injection drug–related HIV/AIDS.
- Decriminalizing drug possession and investing in treatment and harm reduction services can provide several major benefits for public health, including:
  - Reducing the number of people incarcerated, Increasing uptake into drug treatment, Reducing criminal justice costs, Redirecting resources from criminal justice to health systems, Redirecting law enforcement resources to prevent serious and violent crime, Addressing racial disparities in drug law enforcement, incarceration, and related health.*11

*11 Hughes CE, Stevens A. What can we learn from the Portuguese decriminalization of illicit drugs? Br J Criminol. 2010;50(6):999–102

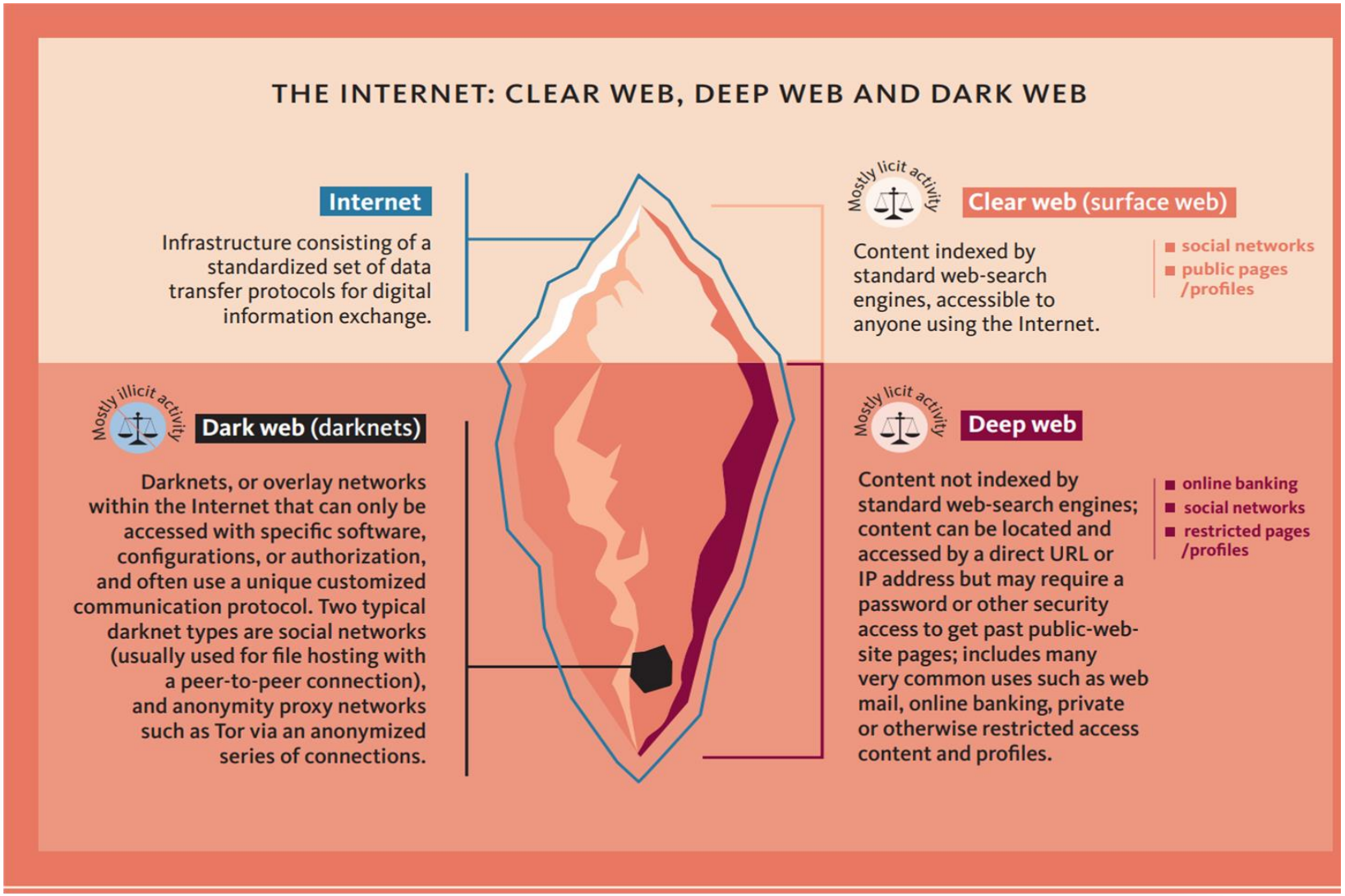
3- LEGALIZATION & DECRIMINALIZATION: NEGATIVE

- Cannabis legalization in North America appears to have increased daily cannabis use, especially potent cannabis products and particularly among young adults.
- Associated increases in people with psychiatric disorders, suicides and hospitalizations have also been reported.
- Key findings include that the carbon footprint of indoor cannabis is between 16 and 100 times more than outdoor cannabis.
- On the other hand; Legalization has also increased tax revenues and generally reduced arrest rates for cannabis possession.



World International Day Against Substance Use and Illicit Trafficking. Tarek Gawad

4- THE INTERNET: WEB



5- SUD & COMORBIDITY

- Data show high rates of comorbid SUD with anxiety disorder (generalized anxiety disorder, panic disorder, and post-traumatic stress disorder).
- SUD also co-occurs at high prevalence with mental disorders, such as depression, bipolar disorder, attention-deficit hyperactivity disorder (ADHD), psychotic illness, borderline personality disorder, and antisocial personality disorder.
- Patients with schizophrenia have higher rates of alcohol, tobacco, and drug use disorders than the general population.

*11 Santucci K. Psychiatric disease and drug abuse. Curr Opin Pediatr. 2012;24(2):233-237. doi:10.1097/MOP.0b013e3283504fb
NIDA. 2022, September 27. Part 1: The Connection Between Substance Use Disorders and Mental Illness. Retrieved from https://nida.nih.gov/pub. lications/research-reports/common-comorbidities-substance-use-disorders/part-1-connection-between-substance-use-disorders-mental-illness on 2023, September 22.
*12 Han, ed al.Prevalence, treatment and Unmet treatment needs of US adult with Mental and substance uae disorders, 2007

WHO IS AFFECTED?

7.7 MILLION

Adults have co-occuring mental and substance use disorders. This doesn't mean that one caused the other and it can be difficult to determine which came first.

Of the 20.3 million adults with **substance use disorders,**

37.9%

also had **mental illnesses.**

Among the 42.1 million adults with **mental illness,**

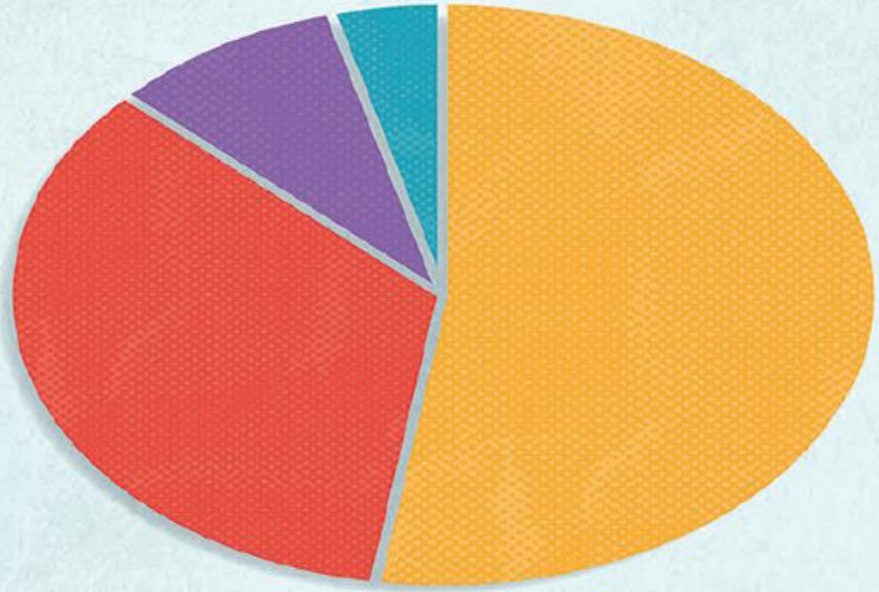
18.2%

also had **substance use disorders.**

WHO GETS TREATMENT?

There are many effective treatments for both mental and substance use disorders. A comprehensive treatment Approach will address both disorders at the same time.

Not everyone with co-occurring conditions Gets the treatment they need.



52.5% received neither mental health care nor substance use treatment

34.5% received mental health care only

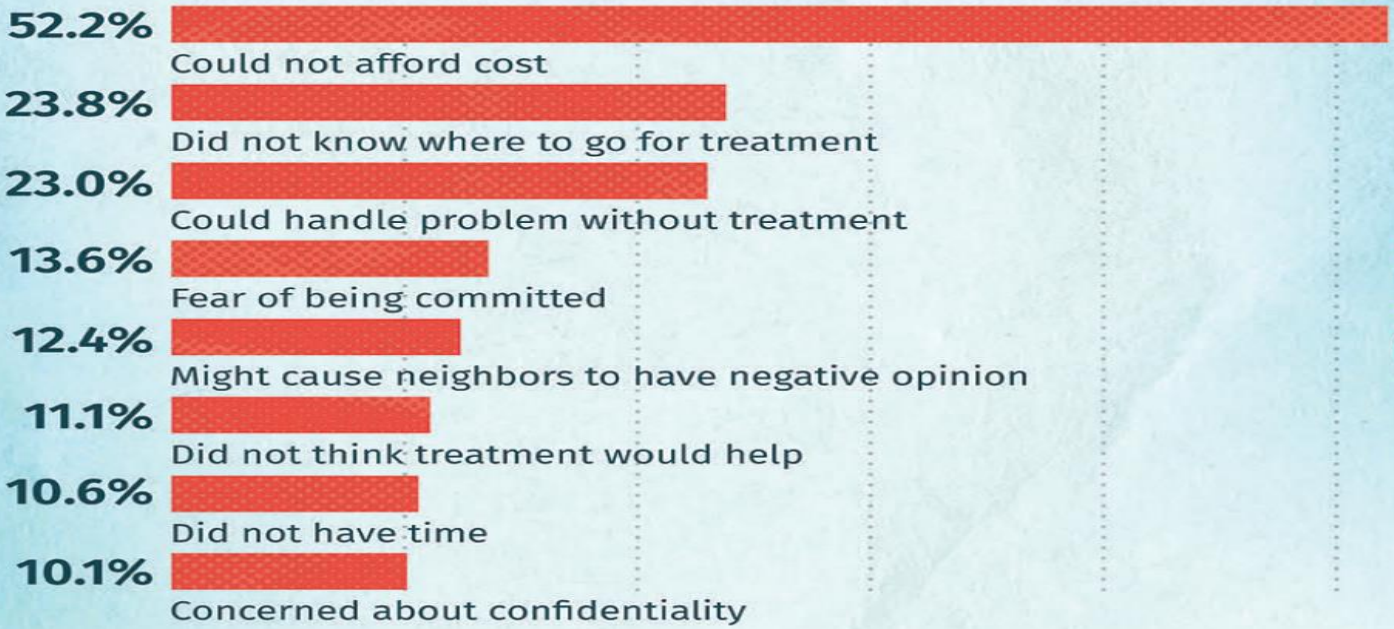
9.1% received both mental health care and substance use treatment

3.9% received substance use treatment only

WHAT ARE THE BARRIERS TO GETTING TREATMENT?

Even among people who want to find Help, barriers exist to receive it.

Among adults with co-occurring disorders who did not receive mental health care, their reasons for not receiving it were:



Annual average weighted percentage

A- SURVEILLANCE

- Surveillance is the ongoing, systematic collection, analysis, and interpretation of health-related data essential to planning, implementation, and evaluation of public health practice.*14

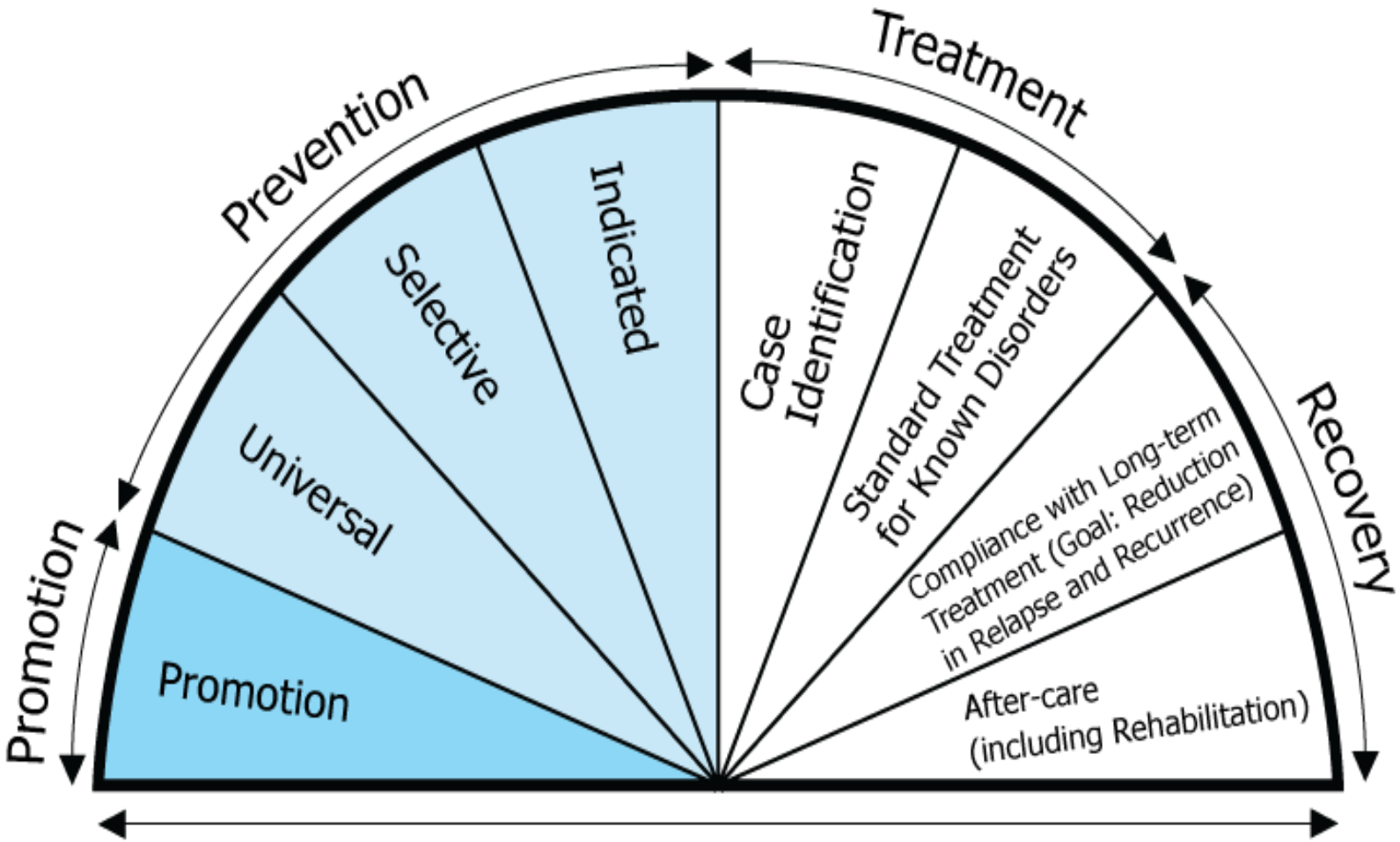
- Surveillance can serve as an early warning system for impending public health emergencies, document the impact of an intervention, or track progress towards specified goals, monitor and clarify the epidemiology of health problems, to allow priorities to be set and to inform public health policy and strategies.

*14 (http://www.who.int/topics/public_health_surveillance/en/)
*15 Adapted from: Thacker SB, Birkhead GS. Surveillance. In: Gregg, MB, ed. Field epidemiology. Oxford, England: Oxford University Press; 2008

Types of Public Health Surveillance

Passive Surveillance	Active Surveillance
• Diseases are reported by health care providers • Simple and inexpensive • Limited by incompleteness of reporting and variability of quality	• Health agencies contact health providers seeking reports • Ensures more complete reporting of conditions • Used in conjunction with specific epidemiologic investigation

B- CONTINUUM OF CARE *(NAIDA)



CONTINUUM OF CARE (NAIDA)

- B.1 Promotion: strategies designed to create an environment and condition to support behavioral health and the ability of individuals to withstand challenges.
    - Mental Health Promotion & Addictions Prevention: A Health Promotion Strategy*15
    - Prevention of Substance Abuse and Mental Illness

CONTINUUM OF CARE (NAIDA)

- B.2 Prevention programs :
  - The Concept of Pre- addiction. *Nora Volkow's.
  - The work to boost protective factors and eliminate or reduce risk factors for drug use, the programs are designed for various ages and can be used in individual or group settings, such as the school and home.
  - Aim to reduce risk factors and enhance protective factors, help people avoid or delay the onset of drug use, top substance use from progressing into higher risk substance use, or a substance use disorder, reduce harms related to substance use and misuse, such as injuries or infections.

CONTINUUM OF CARE

- There are three types of prevention programs:
  - Universal programs address risk and protective factors common to all children in each setting, such as a school or community.
  - Selective programs are for groups of children and teens who have specific factors that put them at increased risk of drug use.
  - Indicated programs are designed for youth who have already started using drugs.*17

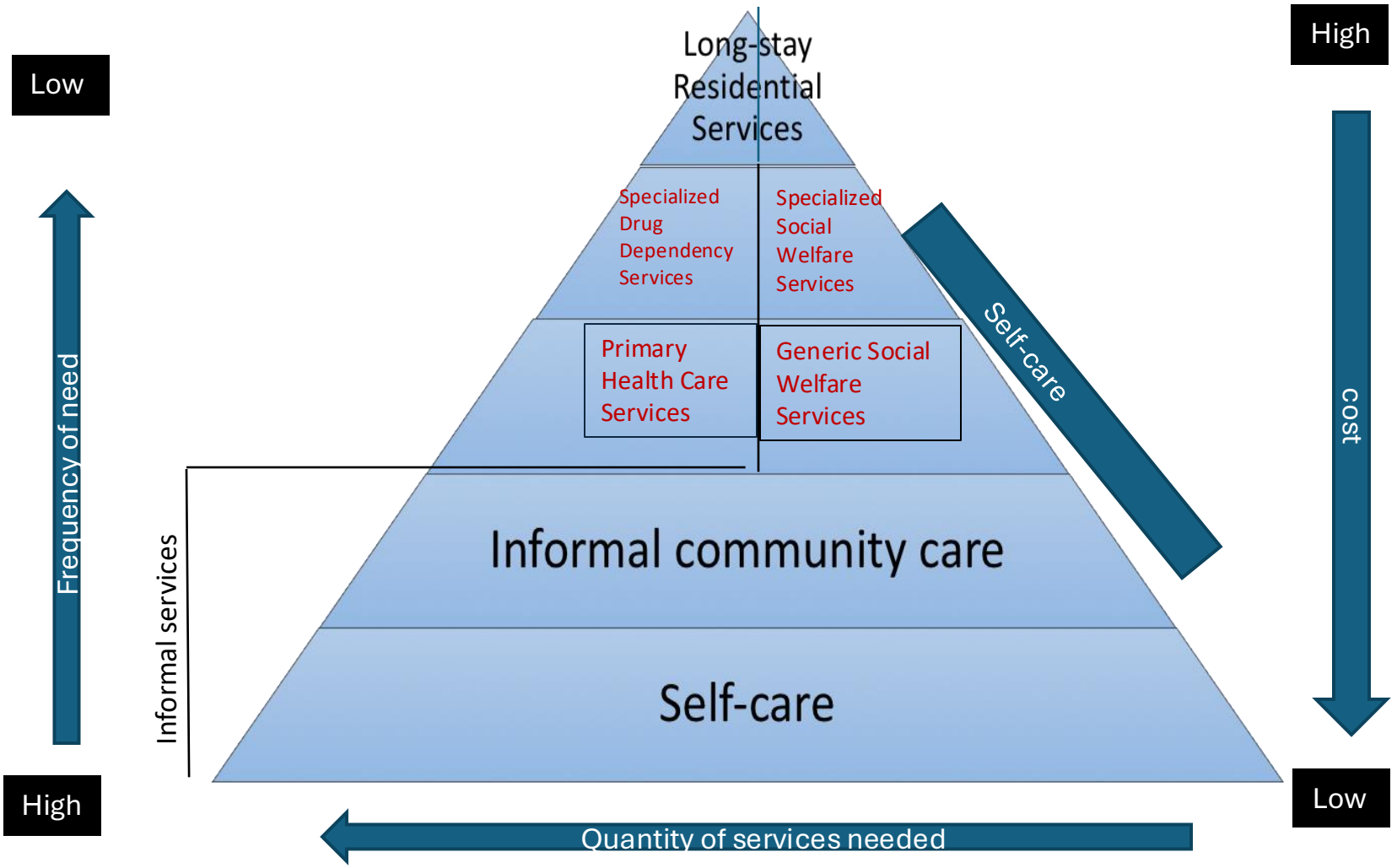
* 17 NIDA. 2014, March 31. Prevention. Retrieved from https://nida.nih.gov/research-topics/prevention on 2023, September 20

C.TREATMENT SYSTEM

- C. Treatment services should be of quality, evidence based, affordable, accessible, and respectful of human rights (WHO/UNODC, 2020; WHO, 2024).
- **Component of a proper treatment system:**
  - Leadership and Governance.
  - Proper financing system and proper trained workforce.
  - Access to essential medication, Information systems and Service delivery.
- Social, health services and a variety of benefits (food stamps, employment and housing assistance), particularly needed for certain vulnerable subpopulations with SUD, are often denied to them due to stigma associated with substance use disorders, discriminatory practices and limited resources available for these purposes.*18

*18 WHO (2007), Gehring and Saeed (2017)

PYRAMID FOR SUD TREATMENT & CARE AT DIFFERENT LEVELS (UNODC/WHO, 2017)



Questions need to ask?

- Should substance abuse services be organized and delivered exclusively from a "stand alone" specialty treatment system?

- Are there benefits to integrating substance abuse services into other health and service systems?

- If yes, which systems and what approaches should be used to integrate these services?

Segregated System of Care

Primary Care and Public Health System:

- Hospitals.
- Clinics.
- MD offices.
- Family practice.
- Internal medicine.
- Other medical specialists.
- Nursing.
- Medical support staff.

Mental Health Treatment Services:

- Hospitals, Clinics, special centers.
- Partitioner offices.
- Psychiatrists.
- Psychologists.
- Social workers.
- Marriage and family therapists.

Substance Abuse Service System:

- Therapeutic communities.
- Hospital based care.
- Methadone / Buprenorphine "OAT" programs.
- Outpatient clinics: Modest number of MDs and PhDs.
- Many paraprofessional workers.

Social Service System:

- Criminal Justice System "CJS" facilities.
- Self Help Groups.
- Agencies to provide support for food, housing, child welfare and other services.
- Social workers & paraprofessionals.

CLINICAL MODEL OF CARE

A model for evidence-based clinical decisions
(Haynes et al, 1996)

TREATMENT 1

- **Treating withdrawal**: When patients first stop using drugs, they can experience various physical and emotional symptoms, including restlessness or sleeplessness, as well as depression, anxiety, and other mental health conditions. Certain treatment medications and devices reduce these symptoms, which makes it easier to stop the drug use.
- **Staying in treatment**: Some treatment medications and mobile applications are used to help the brain adapt gradually to the absence of the drug. These treatments act slowly to help prevent drug cravings and have a calming effect on body systems. They can help patients focus on counseling and other psychotherapies related to their drug treatment.
- **Preventing relapse**: Science has taught us that stress cues linked to the drug use (such as people, places, things, and moods), and contact with drugs are the most common triggers for relapse. Scientists have been developing therapies to interfere with these triggers to help patients stay in recover .

* Nora Volkow

TREATMENT 2

- **Behavioral therapies**: The programs help patients in drug addiction treatment to modify their attitudes and behaviors related to drug use, which helping them in handling stressful situations and various triggers that might cause another relapse.
- **Cognitive-behavioral therapy**: Help patients recognize, avoid, and cope with the situations in which they're most likely to use drugs.
- **Contingency management**: uses positive reinforcement such as providing rewards or privileges for remaining drugfree, for attending and participating in counseling sessions, or for taking treatment medications as prescribed.

TREATMENT 3

- **Motivational enhancement therapy** uses strategies to make the most of people's readiness to change their behavior and enter treatment.
- **Family therapy:** helps people (especially young people) with drug use problems, as well as their families, address influences on drug use patterns and improve overall family functioning.
- **Twelve-step Program**: is an individual therapy typically delivered in 12 weekly session to prepare people to become engaged in 12-step mutual support programs. 12- step.
- **AI in Addiction Care:** using predictive data from smartphone use / Facebook/ and wearable devices to develop an early prediction of treatment involvement and relapse which help in an early personalized interventions. *Brenda Curtis, NAIDA

D. RECOVERY

- **Recovery** is a process of change through which people improve their health and wellness, live self-directed lives, and strive to reach their full potential Services are provided to individuals to help them to be abstinent in the community.
- Types of Recovery Programs:
  - **Recovery-oriented systems of care**: These programs embrace a chronic care management model for severe substance use disorders, which includes longer-term, outpatient care; recovery housing; and recovery coaching and management checkups.
  - **Recovery support services: a** collection of community services that can provide emotional and practical support for continued remission. It includes mutual aid groups, recovery coaching, recovery housing, recovery management (checkups and telephone case monitoring), recovery community centers, and recovery-based education (high schools and colleges).
  - **Recovery Management Programs**: focus on long-term recovery/ maintenance e.g. (Hazelden- Betty Ford) Studies support that recovery management, in some form, significantly reduces relapse rates among those in recovery.

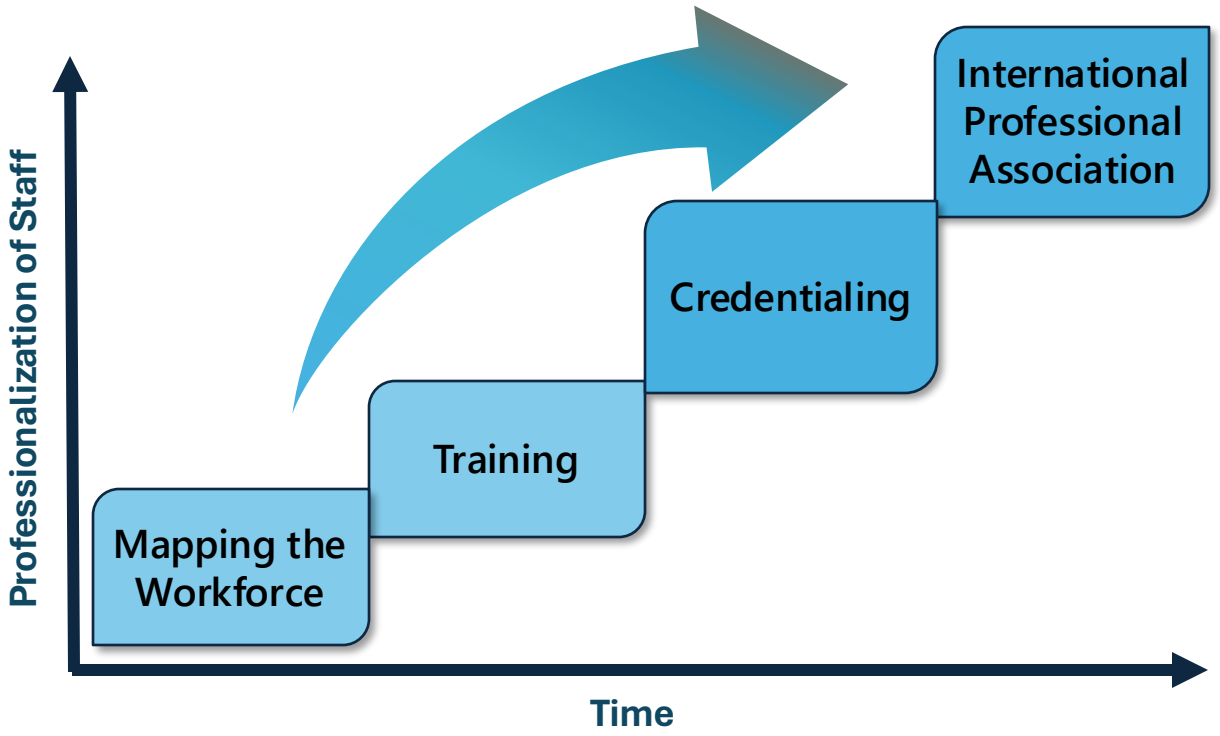
CAPACITY BUILDING

- A full registry or database of all the available treatment services must be identified.
- Gap analysis assessment for the staff working in this field and training needs analysis must be produced, including their qualifications of professionals, skills and competencies, credentialing, accreditation and Licensing, and upgrade plan for training.
- The potential of health services to prevent and reduce the health and social burden caused by substance use depend largely on the roles and competencies of health professionals in development and delivery of effective prevention and treatment strategies and interventions.*

*WHO Chapter IV. Conclusions: towards attainment of SDG health target 3.5

THREE LEVEL MODEL OF TRAINING

DEVELOPING A GLOBAL NETWORK OF TREATMENT PROFESSIONALS



AVAILABLE TRAINING RESOURCES AND CURRICULA

- There are so many well-accredited professional training programs being produced by UN agencies like MhGap, ASSIST, Treat Net, and GCCC Curricula.
- WHO Guidance on competency-based education in mental, neurological, and substance use disorders.
- INL's Global Drug Demand Reduction Program, Colombo plan

W o r k f o r c e

Prevention

Family: parents, psychologists, counselors, religious leaders, et al

School: Counselors, teachers, admins, et al

Workplace: HR officers, executives, managers, association et al

Community: Local govt, civic organizations, business leaders, et al

Environmental: policy advocates, policymakers, all of the above

Treatment

Generalists

-Primary care physician
-Psychologist
-Psychiatrist
-Anesthesiolog
-Nurses
- First responders
- law enforcement
- corrections officers
- et al

Specialists

-treatment center staff
- counselors
-psychologist
-psychiatrist
-social worker
-nurses
-et al

Recovery

-counselor
-people in recovery
-recovery support professional
-family and friends
-community volunteer
-faith-based leaders and congregations
-et al

Non-drug users | Drug users | Persons with Substance Use Disorders

UTC and UPC Curricula

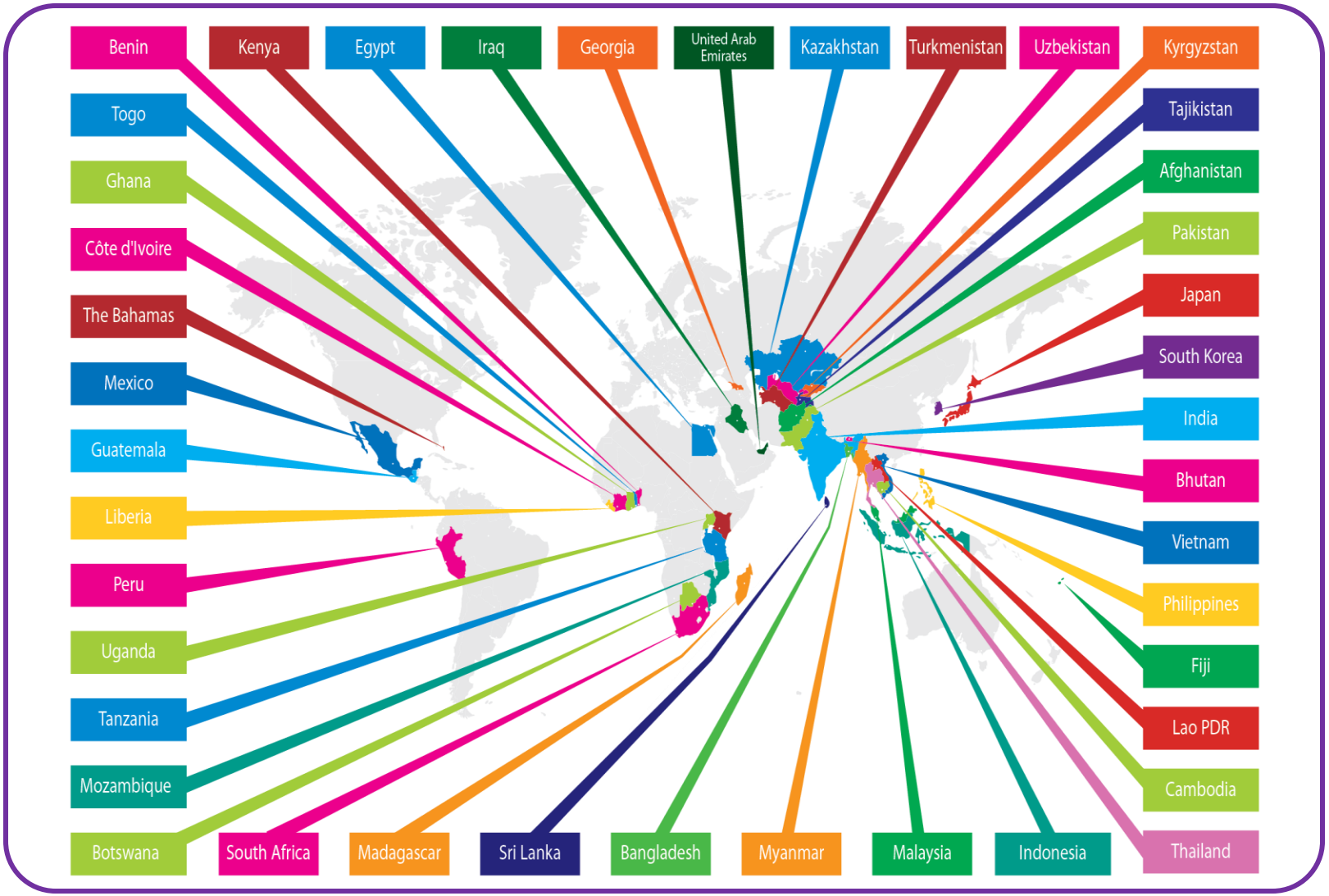
Universal Treatment Curricula

Universal Prevention Curricula

Adaptation and Translation of Manuals

Afghanistan | Pakistan | Central Asia | Sri Lanka | Korea | Indonesia | Malaysia | Liberia | The Bahamas

Training Program



KEY RECOMMENDATIONS

- The harms due to substance use depend primarily on levels and patterns of substance use and prevalence of substance use disorders (SUD) in populations, but also are influenced significantly by the broader societal factors including socio-economic development, regulatory frameworks, cultural norms, alcohol and drug policies, criminal justice system responses to substance use as well as availability, accessibility and quality of prevention, treatment and harm reduction interventions.*
- Revising policies, plans, and legislations conforming to international standards and conventions.
- Allocating a specific budget within the health and welfare sector to address substance use disorders.
- Routine data collection and reporting on resources, service availability, and coverage for substance use disorders, and developing systems for monitoring drug-related deaths and communicable diseases prevalence associated with substance use.

KEY RECOMMENDATIONS

- Building up the capacity of the workforce in the health and social welfare sectors to provide evidence-informed care for substance use disorders.
- Increased efforts on prevention including different approaches to pain management, prescription monitoring, and school-based interventions.
- Integration of screening and brief interventions for substance use problems (SBIRT) in primary health care intervention packages.
- Ensuring availability of essential medications for the management of substance use disorders while strengthening regulatory systems to minimize misuse of prescription medicines by monitoring prescriptions.
- Increasing the availability of overdose-reversing drugs.
- Enhancing capacities to carry out research to inform policy and service development.

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*WDR 2023 burden of Disease Study 2016

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THANK YOU