

Prevention Innovations: Linking Science of Prevention to Practice

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Explosion of New Concepts in Substance Use Prevention



- Term 'science of prevention' in literature in 1993 (Coie, J.D., Watt, N.F., West, S.G. et al.)
- Establishment of the U. S. and EU Society for Prevention Research in 1991 and 2010
- Standards for the Science of Prevention in 2011
- European Quality Standards for Prevention in 2010 (EMCDDA)
- International Standards on Drug Use Prevention in 2012 (UNODC)
- Universal Prevention Curriculum in 2013-2017 (APSI and U.S. Department of Defense)

Prevention Science

Defining Prevention Science (1/2)

- **Multi-disciplinary** field that examines both behaviors associated with positive and negative health outcomes
- The primary goals of prevention science are to:
 - improve public health by identifying malleable risk and protective factors,
 - assessing the efficacy and effectiveness of preventive interventions and
 - identifying optimal means for dissemination and diffusion.

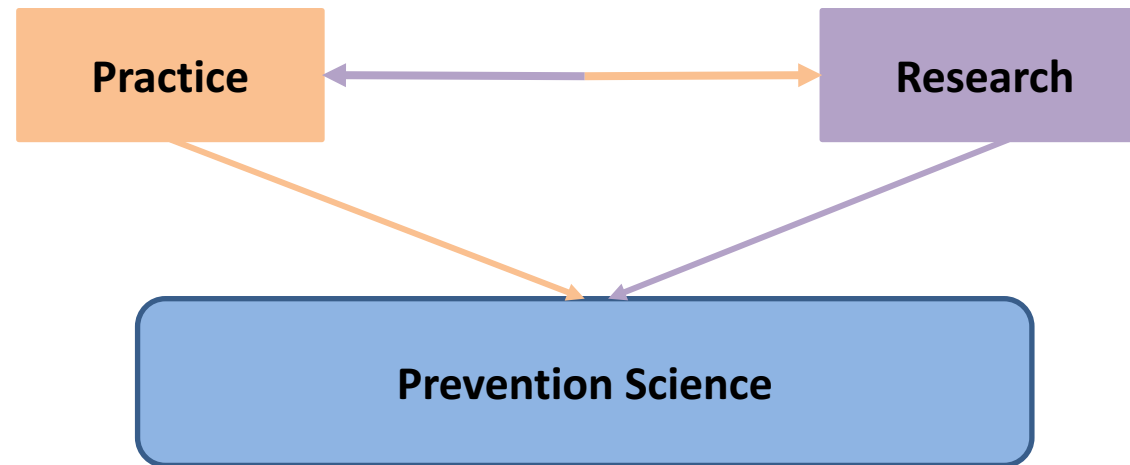
Source: Standards of Knowledge for the Science of Prevention, Society for Prevention Research, 2011.

Defining Prevention Science (2/2)

- The field involves the study of
 - human development
 - social ecology
 - identification of factors and processes that lead to positive and negative health behaviors and outcomes
- Prevention science is the foundation for health education and health promotion as well as preventive interventions.

Source: Standards of Knowledge for the Science of Prevention, Society for Prevention Research, 2011.

Prevention Science—Practice and Research



Major Components of Prevention Science

- **Epidemiology and Etiology**
 - defining the problem
 - conducting research to understand predictors of problem and positive developmental outcomes (etiologic research)
 - understanding the natural history of the problem
- **Intervention Development**
 - developing interventions to motivate changes in individuals and environment based on theories of human behavior and behavior change
 - theory-based: etiology theories, learning theories, theories of behavior change
- **Research Methodology**
 - testing the efficacy of preventive interventions
 - testing the effectiveness of these interventions in 'real world' delivery conditions

Prevention Science: Why Is It Important to Prevention Professionals?

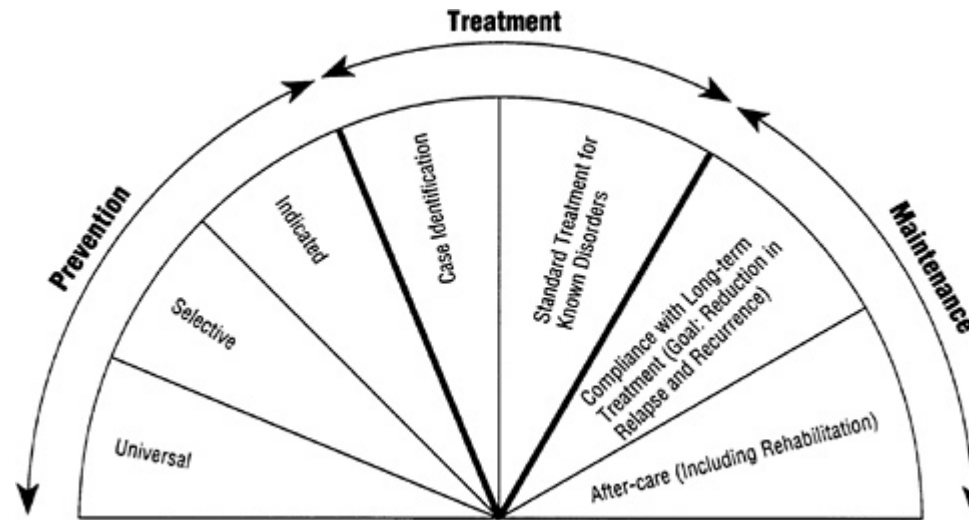
- Prevention science provides the knowledge regarding:
 - Who is affected by the behavior of interest and what are their characteristics (e.g., gender, age, geographic location)
 - Who is vulnerable and what makes them vulnerable?
 - What are the consequences of these behaviors over time?
 - How do you intervene effectively with the individual or the environment to reduce the risk of initiation or continuation of these behaviors?

Prevention of Psychoactive Substance Use

Substance Users Represent a Range of Use Patterns

- In any population at any point in time we will find:
 - Vulnerable non users
 - Initial users who discontinue use
 - Initial users with the potential to progress to abuse and substance use disorders
 - Those who are already using and may or not be experiencing the consequences of their use.
- Such a range in substance use patterns requires a range of interventions

Spectrum of Substance Use Services



(Source: National Research Council, 1994)

Classification of Prevention Interventions

- Universal---for those who represent a mixture of user groups, however most are non-users
- Selective—for those who are vulnerable or determined to be at risk
- Indicated---for those who may have already initiated substance use but do not need treatment

Human Development and Vulnerability

Human Development Phases

- Each stage of human development is associated with growth of intellectual and language development, cognitive, emotional and psychological functioning and social competency skills
- Disruption of this growth can make the individual more vulnerable to problems such as substance use
- ***Early intervention*** may prevent the onset of substance use and dependence



Vulnerability Within a Developmental Framework

- **Vulnerability**
 - Related to achievement of developmental benchmarks—culture-free?
 - Neurobiological
 - Implies a life-course perspective
- **But, we know that even the most vulnerable within a positive environment will have good life outcomes**



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Interaction between Personal Characteristics (Vulnerability) and Environment

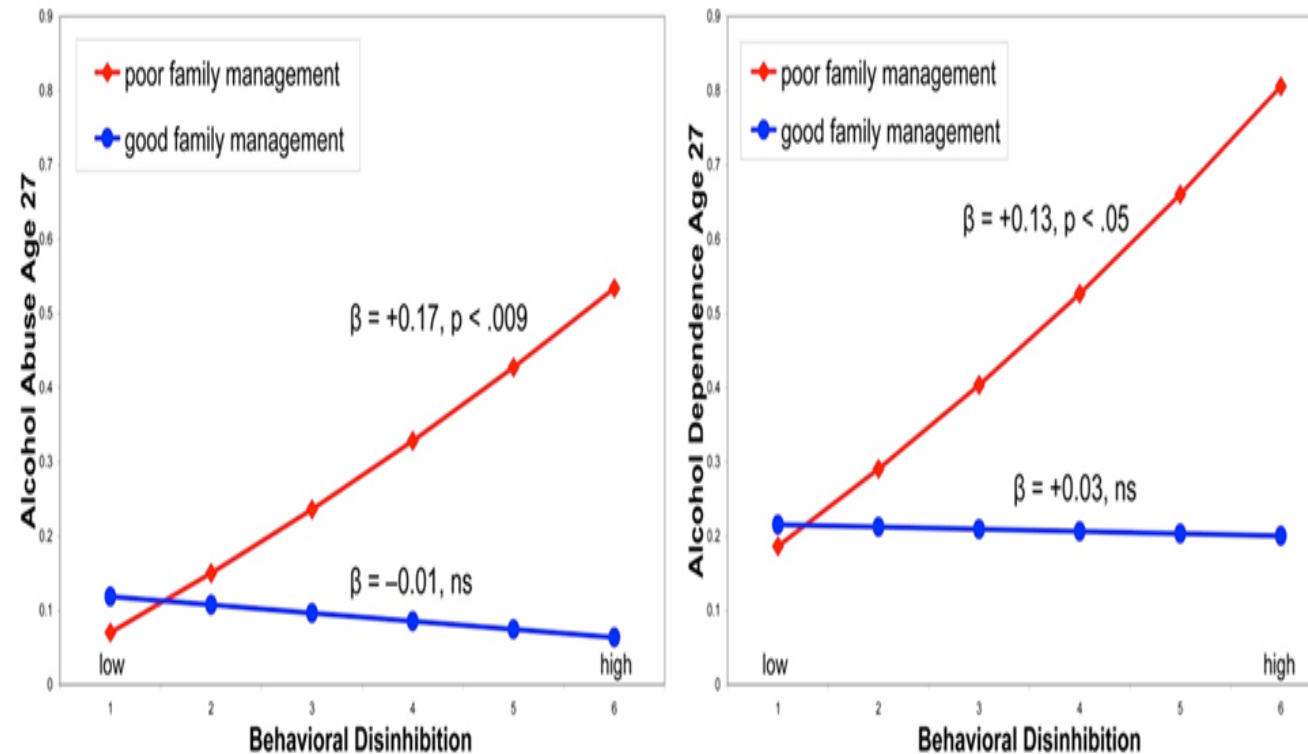


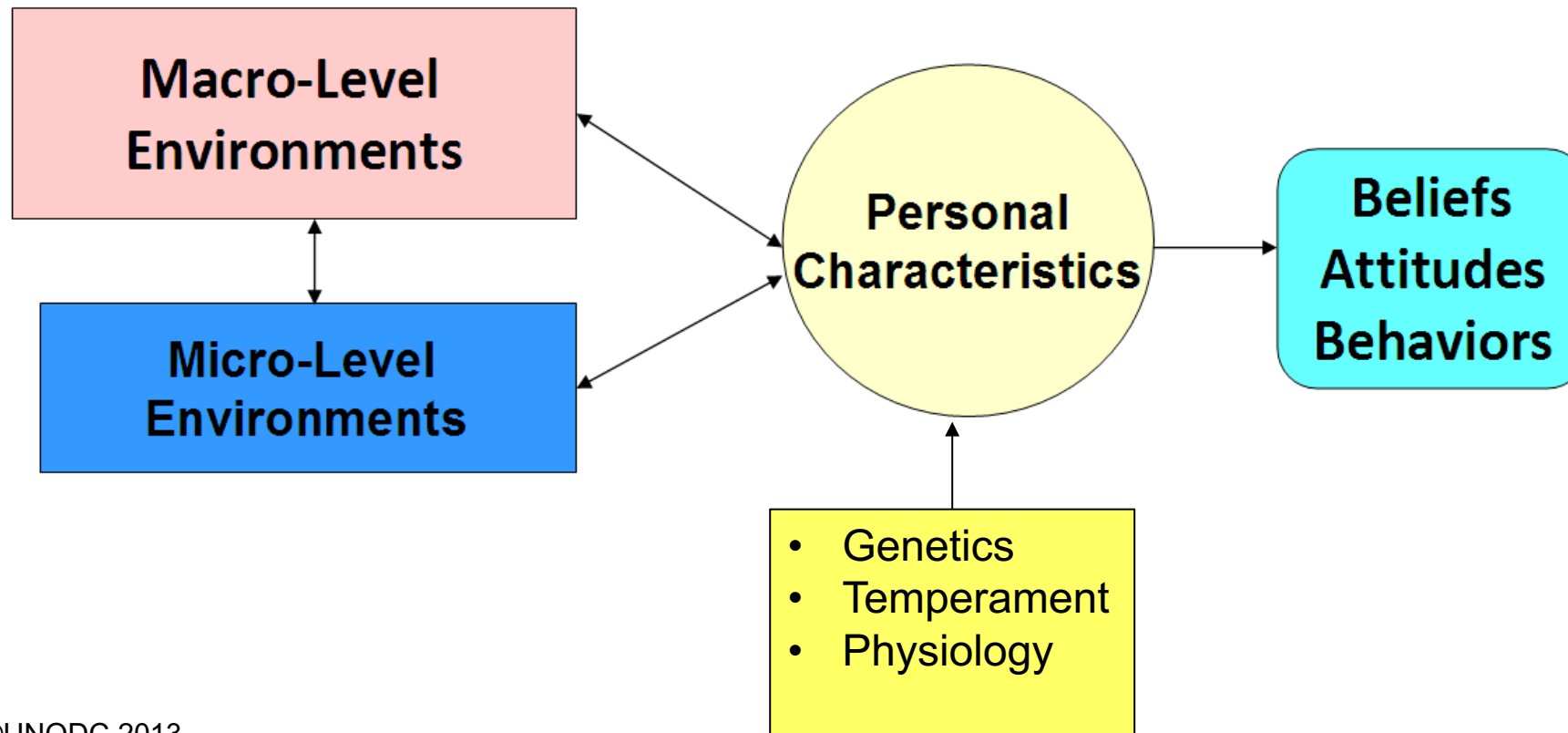
Figure 1.

Interactions between behavioral disinhibition and family management in adolescence predicting alcohol abuse (left panel) and dependence (right panel) criteria at age 27.

Nature-Environment

- **Proximal environments**
 - Parenting
 - Positive school climate
- **Distal environments**
 - Physical neighborhood of residence,
 - Social/normative community

Etiology Model: Interaction of Personal Characteristics and the Micro- and Macro-Level Environments



Environmental Influences

- **Micro-Level Environmental Factors**
 - Family
 - School
 - Peer
 - Workplace
- **Macro-Level Environmental Factors**
 - Social environment
 - Physical environment

Socialization – An Important Prevention Process

- Human infants are born without any culture.
- Socialization is a process of transferring culturally acceptable attitudes, norms, beliefs and behaviors and to respond to such cues in the appropriate manner.
- Since socialization is a lifelong process, the individual will be socialized by a large array of different socializing agents (e.g., parents, teachers, peer groups, religious, economic and political organization and virtual agents, such as mass media).

Socialization Teaches Norms and Behavior

- Socialization is the process for internalizing social norms and values that define or govern conduct and behavior particularly self-regulation through:
 - Behavioral interventions
 - Environmental interventions

Prevention is a Socialization Agent

Effective prevention behavioral interventions either:

- **train** socialization agents, such as parents and teachers to help them:
 - Improve their socialization skills (parenting, classroom management)



Or they:

- **directly engage** in the socialization process, thus becoming socialization agents themselves to help individuals:
 - Understand what is expected of them in different social and emotional contexts
 - To “try on” new behaviors
 - To weigh the potential outcomes for these behaviors within their own social and emotional context.

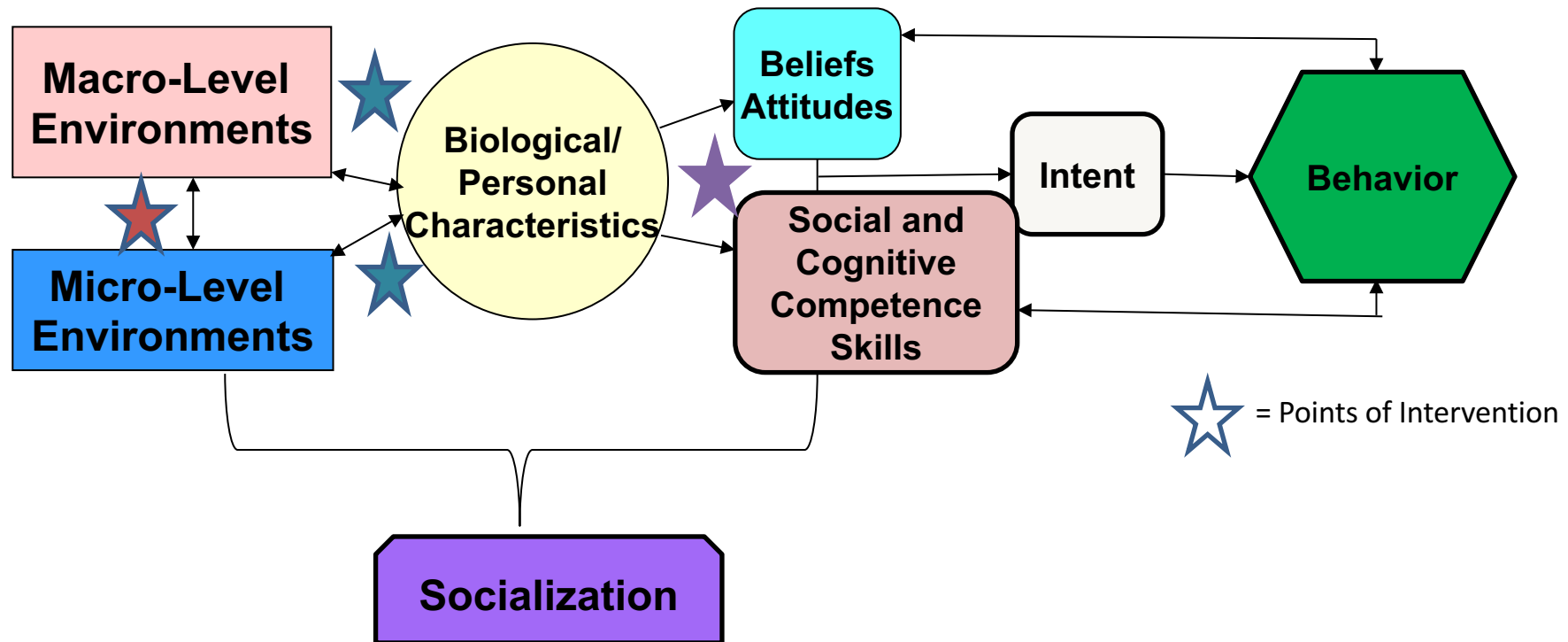


Through Effective Environmental Interventions Prevention Professionals:

- Create healthy environments that maximize the strengths of the community and minimize negative influences that might exist.
- Change the **context** in which people make decisions about behaviors
 - Physical environment—Limiting access to and availability of alcohol, tobacco and other substances
 - Social environment—Reinforcing non-use norms and attitudes

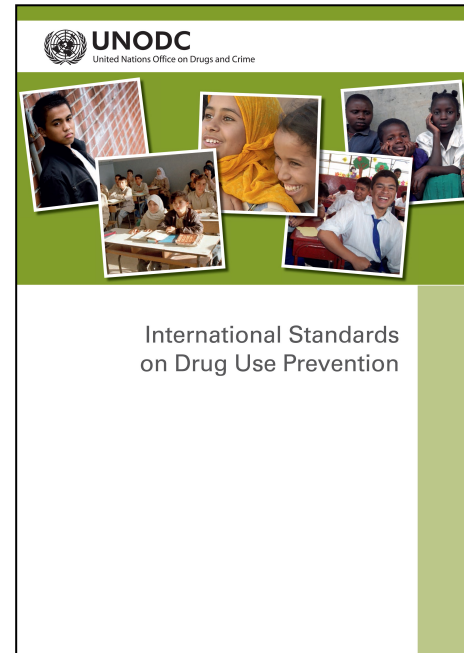


Points of Intervention



Substance Use Evidence Based Interventions and Policies

International Standards on Drug Use Prevention



Intent of the International Standards

- To summarize the currently available scientific evidence, describing effective interventions and policies and their characteristics.
- To identify the major components and features of an effective national substance use prevention system.
- Ultimately, to help policy makers worldwide to support programs, policies and systems that are a truly effective investment in the future of children, youth, families and communities.

What Do We Mean by “Evidence-based”?

“Evidence Based Practice (EBP) is the use of systematic decision-making processes or provision of services which have been shown, through available scientific evidence, to consistently improve measurable client outcomes. Instead of tradition, gut reaction or single observations as the basis of decision making, EBP relies on data collected through experimental research and accounts for individual client characteristics and clinician expertise.”

(Evidence Based Practice Institute, 2012; <http://depts.washington.edu/ebpi/>)



Summary Including an Indication of Efficacy

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	Prenatal & infancy	Early childhood	Middle childhood	Early adolescence	Adolescence	Adulthood
Family	Prenatal infancy & visitation ★★		Parenting skills ★★★★			
	Interventions for pregnant women with substance abuse disorders ★					
School		Early childhood education ★★★★	Personal & social skills ★★★	Personal & social skills & social influences education ★★★		
			Classroom management ★★★		Addressing individual vulnerabilities ★★	
			Policies to keep children in school ★★	School policies & culture ★★		
				Alcohol & tobacco policies ★★★★★		
Community		Community-based multi-component initiatives ★★★				
				Media campaigns ★		
				Mentoring ★		
				Entertainment venues ★★		
Workplace					Workplace prevention ★★★	
Health sector				Brief intervention ★★★★		

Prevention Professionals

Where are Our Substance Use Prevention Professionals?



- Personal and Social Skills
- School and Classroom Climate
- School Policies



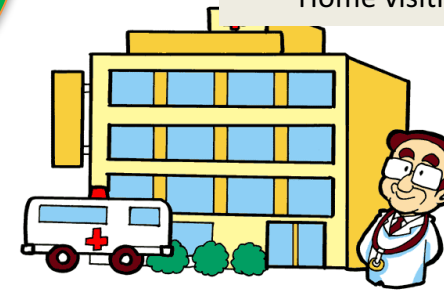
Local, State, National laws and regulations



Parenting Skills



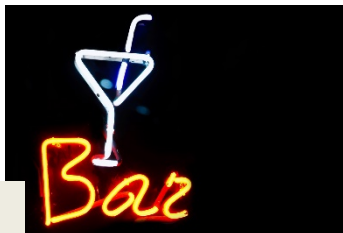
- Policies
- Climate
- Screening, Brief Intervention, and Referral to Treatment



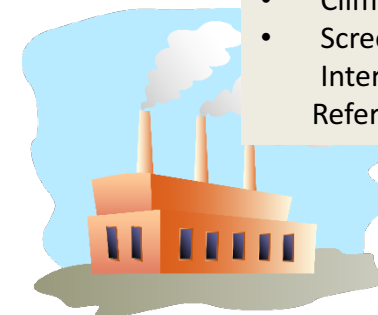
- Prenatal care
- Home visiting



Server training



Parenting Skills



- Policies
- Climate
- Screening, Brief Intervention, and Referral to Treatment

Prevention Interventions Are Often Invisible!

- **They may be called something else:** *e.g., parenting education, school policies on substance use, laws regarding age restrictions on access to tobacco or alcohol*
- **They may be called prevention but are ‘hidden’ within an organization:** *e.g., school-based substance use prevention curriculum, substance use as part of a workplace wellness program*

Substance Use Prevention Professionals

- May have other titles and other types of training such as education, social work, health education, nursing, law enforcement
- May not consider themselves prevention professionals

Four Groups of Prevention Professionals

- Prevention Professionals ‘on the ground’
 - Coordinators/decision makers/supervisors
 - Implementers
- Professionals from various disciplines who implement prevention programming but do not identify as prevention professionals
- New prevention professionals to the field
- Students

Professionals in Any Field Share:

Knowledge

Skills

Competencies

Integrity

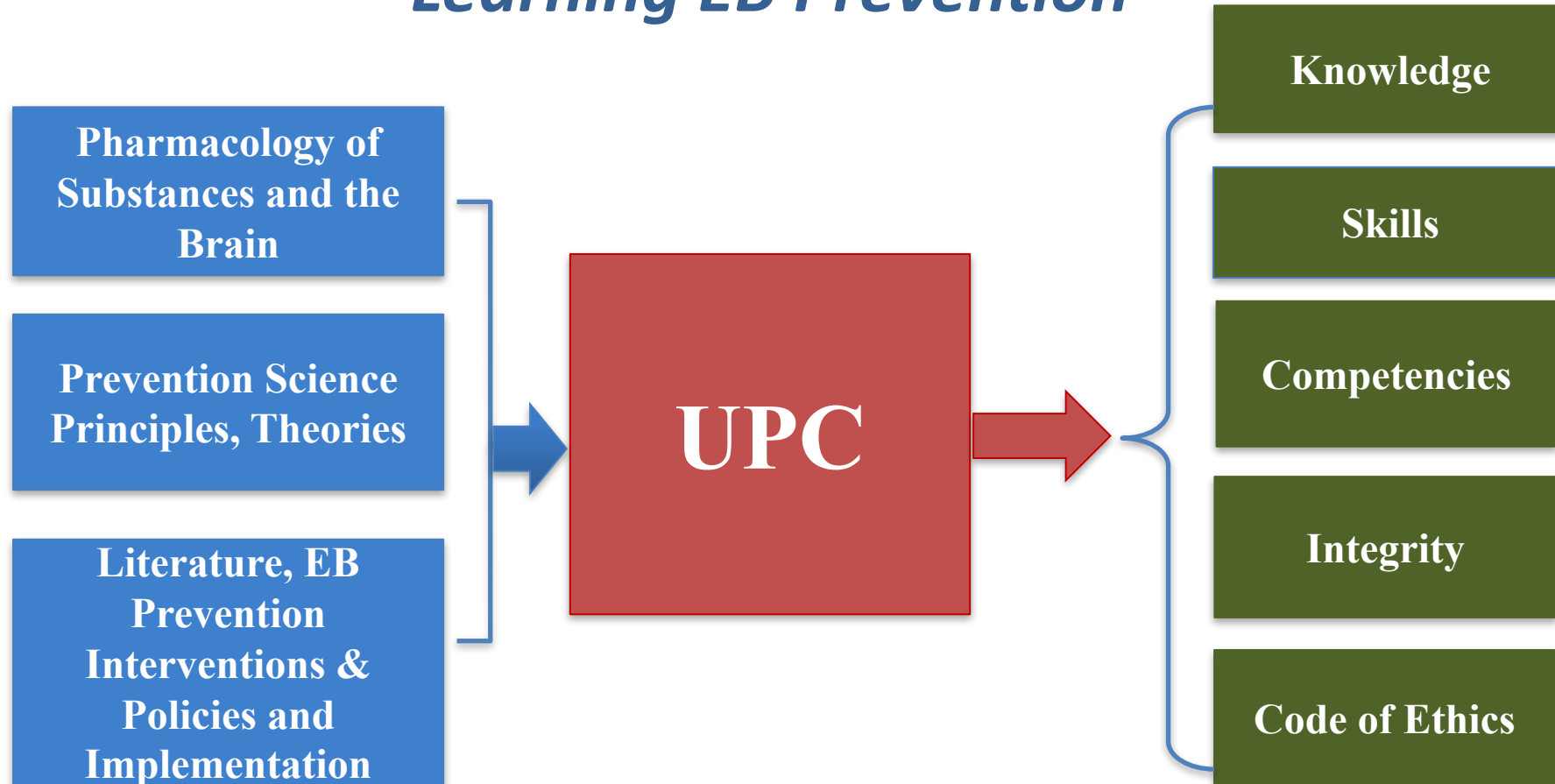
Ethics

The Universal Prevention Curriculum (UPC)

Purposes of Universal Prevention Curriculum (UPC)

- Meet the current demand for an evidence-based curriculum for substance use prevention professionals-researchers, practitioners, policy makers
- Provide a curriculum for those professionals who may not 'label' themselves substance use prevention professionals but who are providing substance use prevention services
- Ensure that regionally- and nationally-based prevention professionals obtain consistent science-based-information and skills training
- Building an international prevention capacity through training, professionalizing, and expanding the substance use prevention workforce

Adapting Science to Practice: Learning EB Prevention



UPC Series for the Coordinator and Implementer

There are two UPC Series:

- UPC Coordinator Series is designed for prevention coordinators and decision-makers
- UPC Implementer Series is designed for prevention professionals who provide/deliver the evidence-based prevention interventions and policies

Key Elements of the UPC-Series

- Introduction to prevention science and application to prevention interventions
- Physiology and pharmacology of psychoactive substance use
- Uniform definition of prevention—UNODC
- Evidence-based prevention and the International Standards on Drug Use Prevention
- Prevention science as the foundation for UPC
- Critical themes (review in later slide)
- Implementation Cycle (adapted from EMCDDA EDQSP)

UPC Coordinator and Implementer Series Courses (1/2)

- Introduction to Prevention Science
- Physiology and Pharmacology for Prevention Specialists
- Monitoring and Evaluation
- Family-Based Prevention Interventions
- School-Based Prevention Intervention
- Workplace-Based Prevention Intervention
- Environmental Prevention Interventions
- Media-Based Prevention Interventions
- Community-Based Implementation Systems

UPC Coordinator and Implementer Series Courses (2/2)

- Coordinator Series-4-5 days-Knowledge-Focused
- Implementer Series-6-15 days-Translation of Knowledge into Skills with Practica

UPC Helps Prevention Professionals to:

- Speak with one voice about evidence-based prevention interventions and policies
- Support comprehensive, integrated evidence-based prevention and policies that are **APPROPRIATE** for their communities, and,
- Plan, implement, monitor, and sustain these evidence-based prevention interventions and policies

Thank you
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