

# Drug Policy and the Public Good

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The Society for the Study of Addiction (UK)

*Other SSA books:*

*Alcohol Policy and the Public Good (1994)*

*Alcohol: No Ordinary Commodity (2003)*

# The Drugs and Public Policy Group

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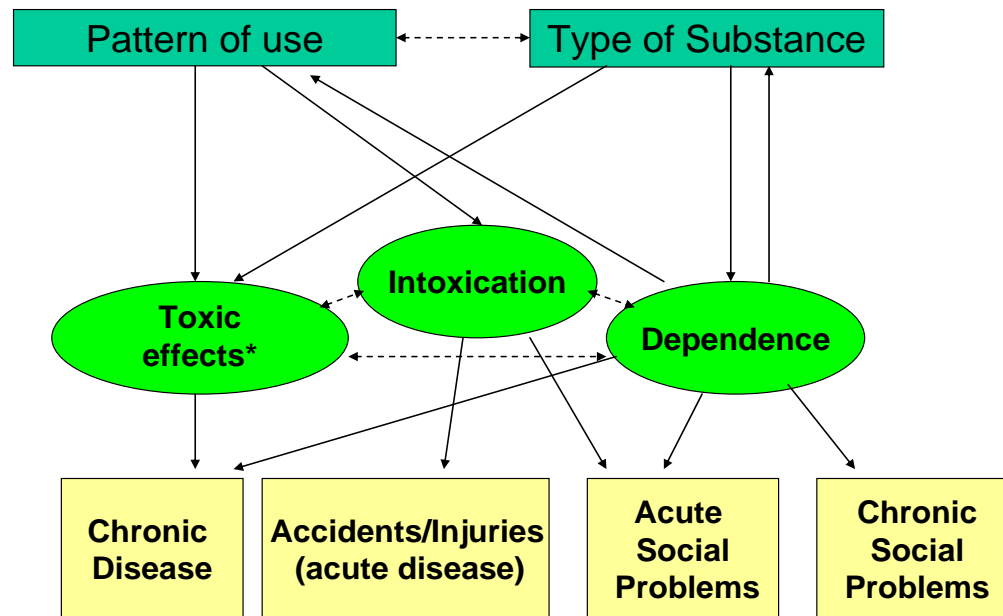
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# Scientific Evidence

## SETTING THE POLICY AGENDA

- Drug policies have been implemented throughout history to minimize the effects of psychoactive substances on the health and safety of the population.
- The purpose of *Drug Policy and the Public Good* is to describe recent advances in research that have direct relevance to drug policy on the local, national, and international levels.

## Relations among drug use, mediating variables and consequences



## Obstacles to international communication on drug policy

- changing definitions of key terms
- inconsistencies in their use
- problems of translation
- proliferation of ill-defined new terms

## On Terminology

“‘Drug abuser,’ what a disgusting term.  
The term is ‘dope fiend.’”  
- Dick Tracey

# The Global Burden of Illicit Drug Use

Leading 12 selected risk factors as causes of disease burden

■ = alcohol, drugs, tobacco

## Developing countries

## Developed countries

### High Mortality

### Low Mortality

1	Underweight	<u>Alcohol</u>	<u>Tobacco</u>
2	Unsafe sex	Blood pressure	Blood pressure
3	Unsafe water	<u>Tobacco</u>	<u>Alcohol</u>
4	Indoor smoke	Underweight _____	<u>Cholesterol</u>
5	Zinc deficiency	Body mass index	Body mass index
6	Iron deficiency	Cholesterol	Low fruit & veg. intake
7	Vitamin A deficiency	Low fruit & veg intake	Physical inactivity
8	Blood pressure	Indoor smoke - solid fuels	<u>Illicit drugs</u>
9	<u>Tobacco</u>	Iron deficiency	Unsafe sex
10	Cholesterol	Unsafe water	Iron deficiency
11	<u>Alcohol</u>	Unsafe sex	Lead exposure
12	Low fruit & veg intake	Lead exposure	Childhood sexual abuse



**Table IIb1. Annual prevalence of drug use per 1000 inhabitants aged 15-64 by region and drug. Data from Global Illicit Drug Trends 2003**

	Cannabis	Opiates	-of which heroin	Amphetamines (ATS)	Cocaine
Africa	86.0	2.0	2.0	5.0	2.0
Americas	61.0	3.0	3.0	9.3	15.0
North America	75.3	4.8	4.8	8.2	20.3
South America	45.6	1.2	1.2	10.4	9.4
Asia	21.7	2.9	1.4	8.9	0.1
Europe	52.0	7.0	5.0	5.1	5.7
West Europe	71.6	4.2	3.5	5.0	10.6
East Europe	32.9	10.8	6.0	5.0	0.9
Oceania	168.9	6.3	6.3	27.8	10.3
Global	38.8	3.5	2.2	8.1	3.3

**Table IIb2. Prevalence of problem drug use (rate per 1000 aged 15-64) estimated by various methods and time periods in 21 European countries \***

Country, year(s) for which problem drug use rates are estimated and method(s) applied for estimation	Range of estimates
Austria 1994-2002 CR	3.2 – 5.8
Czech Rep 1999-2003 MT	4.6-5.2
Denmark 1996-2001 CR	4.0-7.2
Finland 1997-1999 CR	3.4 – 4.0
France 1995-1999 MT, MP, MV, OM	3.8 – 4.7
Germany 1996-2000 MT, MP, MV	2.1 – 3.1
Greece 2001-2002 CR	2.5 – 3.6
Ireland 1995-2001 CR	4.3 – 5.7
Italy 1996-2002 MT, MP, CR, MV, OM	4.4 – 8.2
Luxembourg 1996-2000 MT, MP, CR, OM	6.5 – 8.7
Netherlands 1996-2001 MT MP MV	2.6 – 5.1
Norway 1997 OM	4.2
Poland 2002	1.9
Portugal 1999-2000 MT, MP	6.5 – 7.8
Slovenia 2000-2001 CR	5.3-5.4
Spain 1998-2000 MT, OM	4.3-7.3
Sweden 1992-1998 CR	3.3 – 4.5
UK 1996-2001 MT, MV, OM	5.6-7.3
Scotland 2000 CR, OM	7.3-16.7
Northern Ireland 2000-01 CR	0.8
England 2001 MV, OM	2.9-8.9

\*Summary of EMCDDA report 2002

**Table IIb3. Life time drug use among 15-16 year olds in 35 European countries and the USA.**

	Cannabis, % used	Cannabis, mean times per student	Cannabis mean times per user	Any other illicit drug %	Inhalants, %	Tranquilizers, without prescription %
Austria	21	3.4	16.2	8	14	2
Belgium	32	5.5	17.2	8	7	9
Bulgaria	21	2.7	12.9	4	3	2
Croatia	22	3.4	15.5	6	14	6
Cyprus	4	0.6	15	3	18	1
Czech Republic	44	7.3	16.6	11	9	11
Denmark	23	2.6	11.3	6	8	4
Estonia	23	2.9	12.6	10	8	9
Faroe Islands	9	0.9	10.0	2	11	5
Finland	11	0.7	6.4	3	8	7
France	38	7.3	19.2	7	11	13
Germany	27	4.4	16.3	10	11	2
Greece	6	0.7	11.7	2	15	4
Greenland	27	2.7	10	4	22	3
Hungary	16	1.4	8.8	5	5	10
Iceland	13	1.7	13.1	6	12	9
Ireland	39	5.9	15.1	9	18	2
Isle of Man	39	7.3	18.7	10	19	5
Italy	27	4.9	18.1	8	6	6
Latvia	16	1.3	8.1	5	7	3
Lithuania	13	1.0	7.7	7	5	14
Malta	10	1.2	12.0	4	16	3
Netherlands	28	5.0	17.9	6	6	8
Norway	9	0.9	10.0	3	5	3
Poland	18	2.2	12.2	7	9	17
Portugal	15	2.4	16.0	7	8	5
Romania	3	0.0	0.3	2	1	5
Russia	22	2.1	9.5	4	7	3
Slovak Republic	27	3.0	11.1	6	9	4
Slovenia	28	4.5	16.1	5	15	5
Spain	36	-		9	8	6
Sweden	7	0.2	2.9	3	8	6
Switzerland	40	8.4	21.0	6	7	6
Turkey	4	0.6	15.0	3	4	3
Ukraine	21	2.1	10.0	2	6	2
United Kingdom	38	7.6	20.0	9	12	2
USA	36	7.5	20.8	-	13	8

## THE GLOBAL BURDEN OF DRUG PROBLEMS

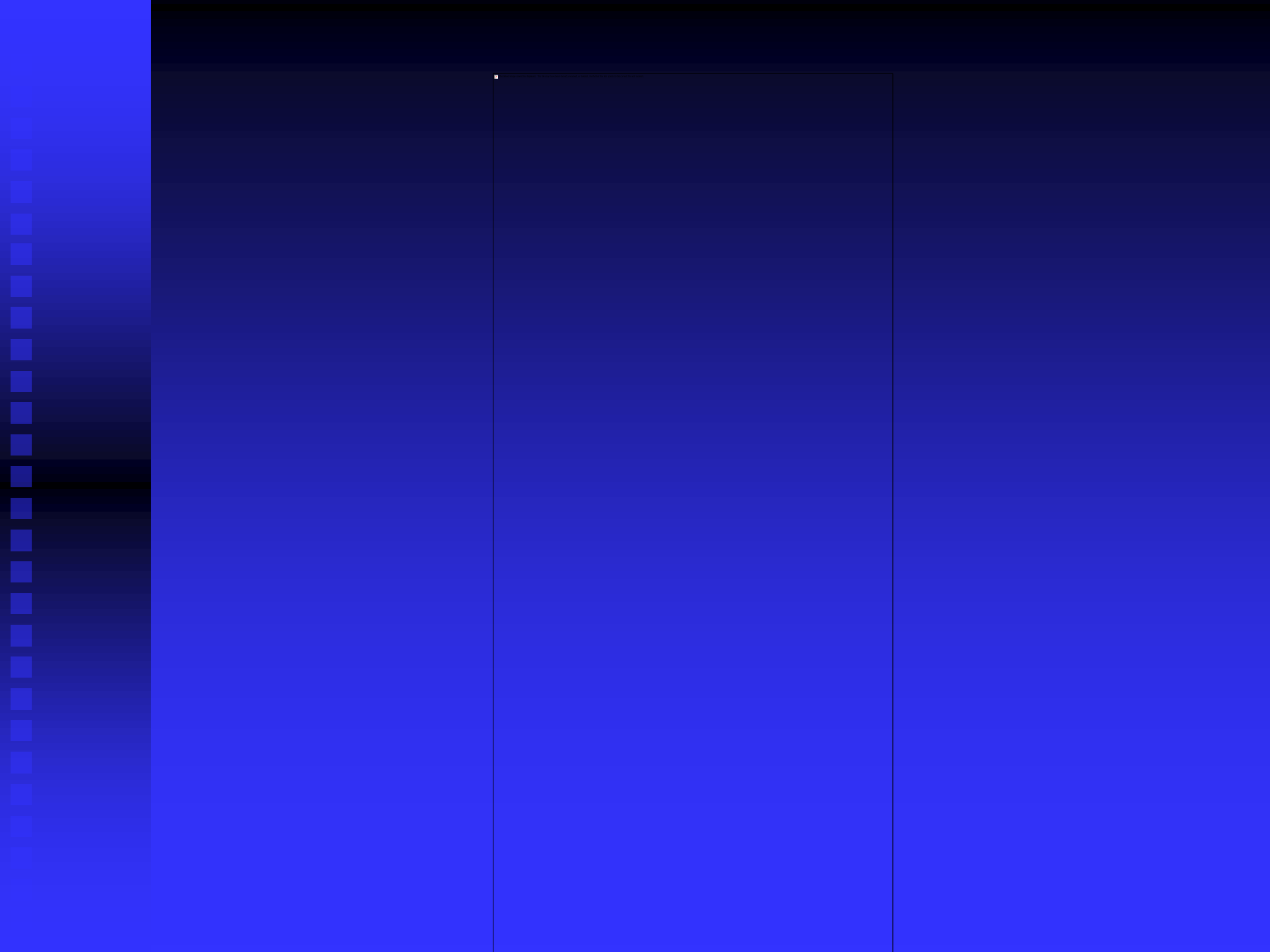
- Drug-related death and disability accounted for 1.0% of the global burden of disease in developed countries, quantified according to the impact of premature deaths and disability in a population.
- Drugs were ranked as the eighth most detrimental risk factor of 26 examined; drugs accounted for about the same amount of disease as physical inactivity and unsafe sex.
- Overall, overdose deaths and injuries accounted for the largest portion of drug-attributable disease burden.  
(Ezzati et al., 2002).

# Prevention Strategies Reviewed and Evaluated

- Primary Prevention: Education and Persuasion
- Supply Control
- Regulatory Regimes
- Helping drug users change their behavior: Programs and services
- Helping drug users change their behavior: System issues

# Types of Evidence

- Randomized clinical trials
- Descriptive epidemiology
- Quasi-experimental/correlational studies
- Natural experiments
- Qualitative research
- Health services research
- Historical research



## Ratings of Policy-relevant Strategies and Interventions

- 1) Evidence of Effectiveness – the quality of scientific information
- 2) Breadth of Research Support – quantity and consistency of the evidence
- 3) Tested Across Cultures, e.,g. countries, regions, subgroups
- 4) Cost to Implement and Sustain – monetary and other costs

<sup>a</sup>Rating Scale: 0, +, ++, +++, (?)

<sup>b</sup>Rating Scale: Low, Moderate, High



# Comparison of Skills vs Usual Curricula: Cannabis

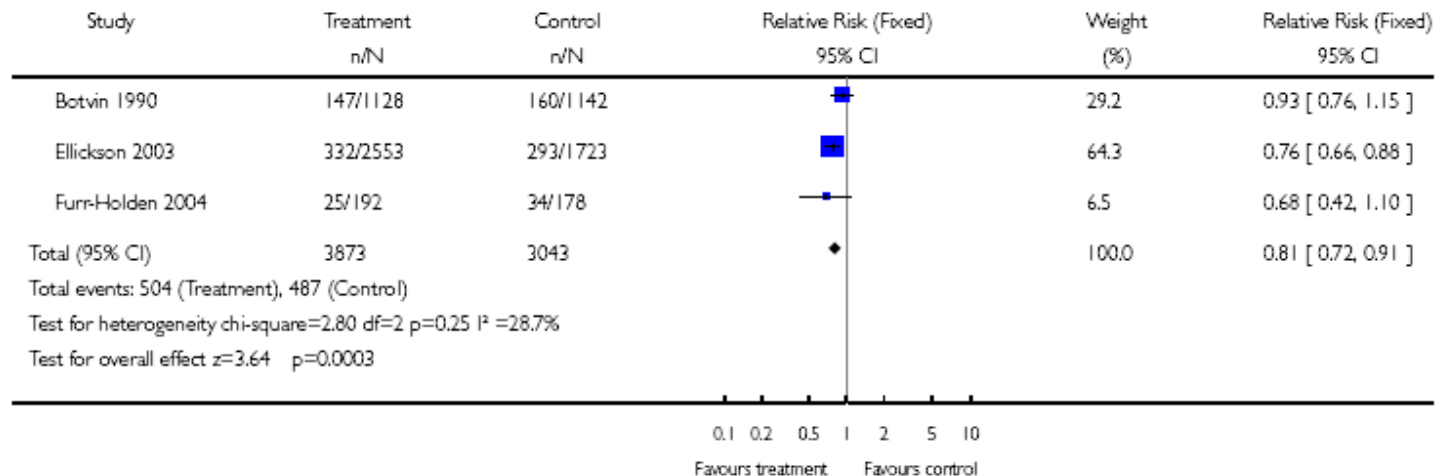
**Fig. 14. Comparison 02. skills versus usual curricula**

**02.09 marijuana use (only A-B quality class studies)**

Review: School-based prevention for illicit drugs' use

Comparison: 02 skills versus usual curricula

Outcome: 09 marijuana use (only A-B quality class studies)



# Comparison of Skills vs Usual Curricula: Hard Drug Use

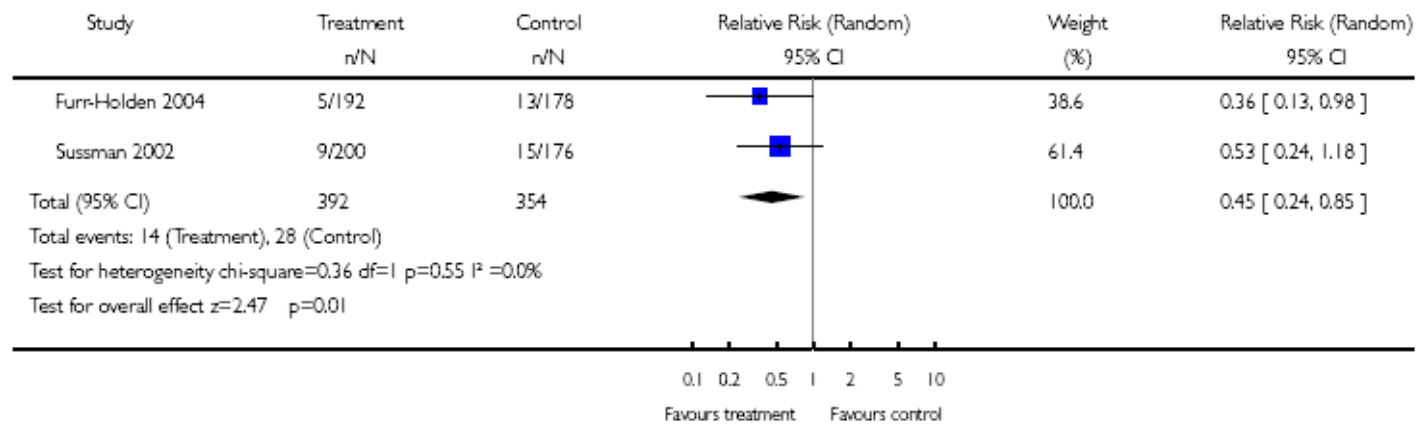
**Fig. 18. Comparison 02. skills versus usual curricula**

**02.13 hard drugs use**

Review: School-based prevention for illicit drugs' use

Comparison: 02 skills versus usual curricula

Outcome: 13 hard drugs use



# Qualitative ratings of evidence

Strategy or Intervention	Effectiveness <sup>a</sup>	Breadth of Research Support <sup>b</sup>	Cross-Cultural Testing <sup>c</sup>	Low Cost to Implement <sup>d</sup>	Target Group <sup>e</sup> (TG) and Comments
Family / Parenting	++	++	++	++	Primarily based on evaluation studies in the USA of the 10-14 year-old version of the universal Strengthening Families Programme (SFP10-14), including longer-term follow-ups and cost-effectiveness analysis. Other family / parenting programmes have not been evaluated as positively as SFP10-14.
Motivational Interviewing (MI)	+	++	++	+++	MI is used as a selective prevention approach after identification / screening for risk factors. Typically used in primary care or college student populations, evaluation follow-ups have only been short-term
Social or Life Skills	0 / +	+++	++	+++	Commonly delivered in schools as a universal intervention, most evaluations have not reported evidence for intervention effectiveness. A small number of social or life skills evaluations have shown positive intervention effects, though these effect sizes are smaller than those seen in family-based programmes and are of dubious policy relevance
Multi-component community	0 / +	+++	++	++	Effect sizes tend to be small or negligible, though there have only been a few small studies and these have typically combined school and non-school approaches
Affective Education	0	+++	++	+++	Several school-based studies have shown no evidence of effectiveness for affective approaches.
Information / Knowledge Only	0	++	++	+++	A few school-based studies have shown no evidence of effectiveness for affective approaches
Mass media	0	++	++	?	There have been few high quality scientific evaluations but the overall picture is of the ineffectiveness of mass media approaches
Social Marketing / Norms	?	?	?	++	More popular in alcohol prevention, there is insufficient evidence for social marketing and norm-based prevention of illicit drug use

TABLE 7.2 Gaps in Knowledge about Prevention Effectiveness

Modality	Target Population	Outcomes Affected	Content	Characteristics of Deliverer	Duration	Timing
Mass Media Campaigns	X	X	X	X	X	X
Community Organizing/Coalitions	X	X	X	X	X	X
Family Training, Counseling, or Case Management	X	X	X	X	X	X
Instruction	X	X	X	X	X	X
Behavior Modification and Cognitive/Behavioral Strategies	X	X	X	X	X	X
Other Counseling, Social Work, Psychological, or Therapeutic Strategies	X	X	X	X	X	X
Tutoring, Mentoring, and other Individual-Attention Strategies	X	X	X	X	X	X
Recreational, Enrichment, and Leisure Activities	X	X	X	X	X	X
School/Discipline Management		X				X
Establishment of Norms for Behavior	X	X	X	X	X	X
Classroom Management		X				X
Regrouping Students	X	X			X	X
Exclusion of Intruders and Contraband		X				X
Manipulation of School Composition	X	X			X	X

Note – “X” indicates areas in which additional research is needed.

**Table 3. Potential production of opium in countries with significant poppy cultivation, 1995-2004 (metric tons)**

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Afghanistan	2,335	2,248	2,804	2,693	4,565	3,276	185	3,400	3,600	4,200
Pakistan	112	24	24	26	9	8	5	5	52	40
Lao PDR	128	140	147	124	124	167	134	112	120	43
Myanmar	1,664	1,760	1,676	1,303	895	1,087	1,097	828	810	370
Colombia	71	67	90	100	88	88	80	76	76	73
Mexico	53	54	46	60	43	21	71	47	84	-

Source: UNODC (2005)

Table IIIc.x Ratings of strategies and interventions designed to control the supply of illicit psychoactive substances

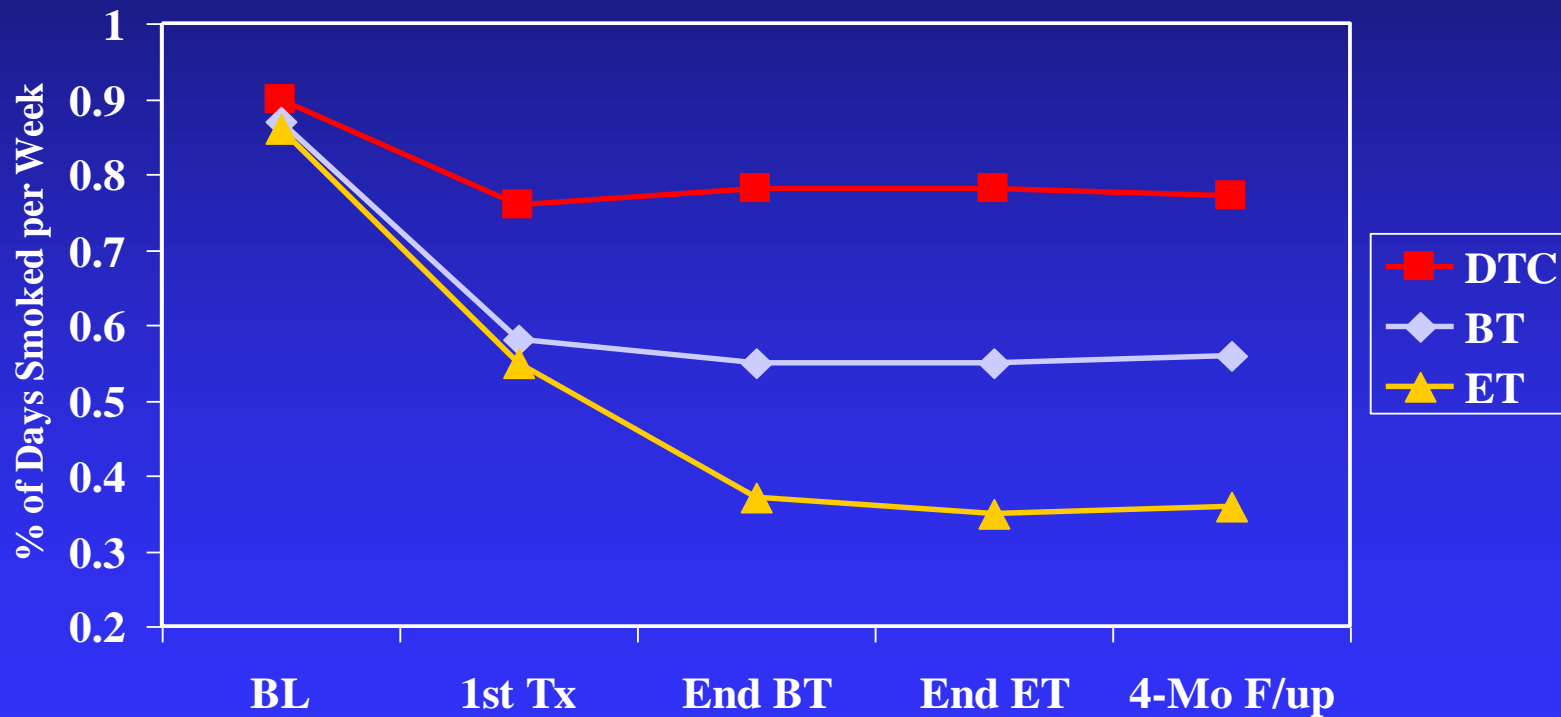
Strategy or Intervention	Effectiveness	Strength of Research Support	Cross-Cultural Testing	Low Cost to Implement	Comments
Alternative development	0	+	++	0	No known instance of even a correlation with reduced drug use, which is consistent with any realistic logic models of expected effects
Crop eradication	+	+	++	+	Apparently can sometimes, but not often, create a noticeable but temporary market disruption and availability of other growing regions suggests that is all one can expect
Precursor chemical control	+ - ++	++	++	++	“”
Interdiction	+	++	+	0	Price markups over relevant market layers suggest important benefits of modest investments but limited evidence of a dose-response effect
Investigation	+	+	0	0	“”
Street-level enforcement	+	++	+	0	Stronger evidence of ability to modify markets and market-harms than of ability to reduce use
Imprisonment	+	++	+	0	There may be diminishing returns to expansion of imprisonment beyond certain levels

# Marihuana Treatment Project: Study Design



# MTP Results: First 4 Months

(Baseline, Week 1, Week 5, Week 12, Week 16),  
% of Days Smoked Marijuana (N=398)





## Treatment of Drug Problems: Medical, psychopharmacological and harm reduction

Strategy or Intervention	Effectiveness	Research Support	X-Cultural Testing	Cost	NOTES
<b>Methadone Maintenance</b>	+++	+++	++	High	
<b>Buprenorphine</b>	+++	++	++	High	
<b>Heroin substitution</b>	+	++	++	High	
<b>Opiate antagonists</b>	0	++	++	High	
<b>Cocaine pharmacotherapies</b>	0	++	0	High	
<b>Needle exchange</b>	+	++	++	Medium	
<b>Naloxone</b>	+	+	+	Low	

## Treatment of Drug Problems: Psychosocial Interventions

Strategy or Intervention	Effectiveness	Research Support	X-Cultural Testing	Cost	NOTES
Cognitive-behavioral	+++	+++	++	Medium	
Matrix model	++	++	+	Medium	
Contingency management	+++	++	++	Medium	
Prison treatment	+	+	+	Medium	
Peer-led self-help groups	?	<b>0</b>	<b>0</b>	Low	
Therapeutic Communities	+	++	++	<b>Medium</b>	

## Common Problems in Organization of Health and Social Services

- Inadequate Services/Systems
- Inaccessible Services
- Unaffordable Services
- Underutilized Services
- Fragmented Services
- Discontinuous Services

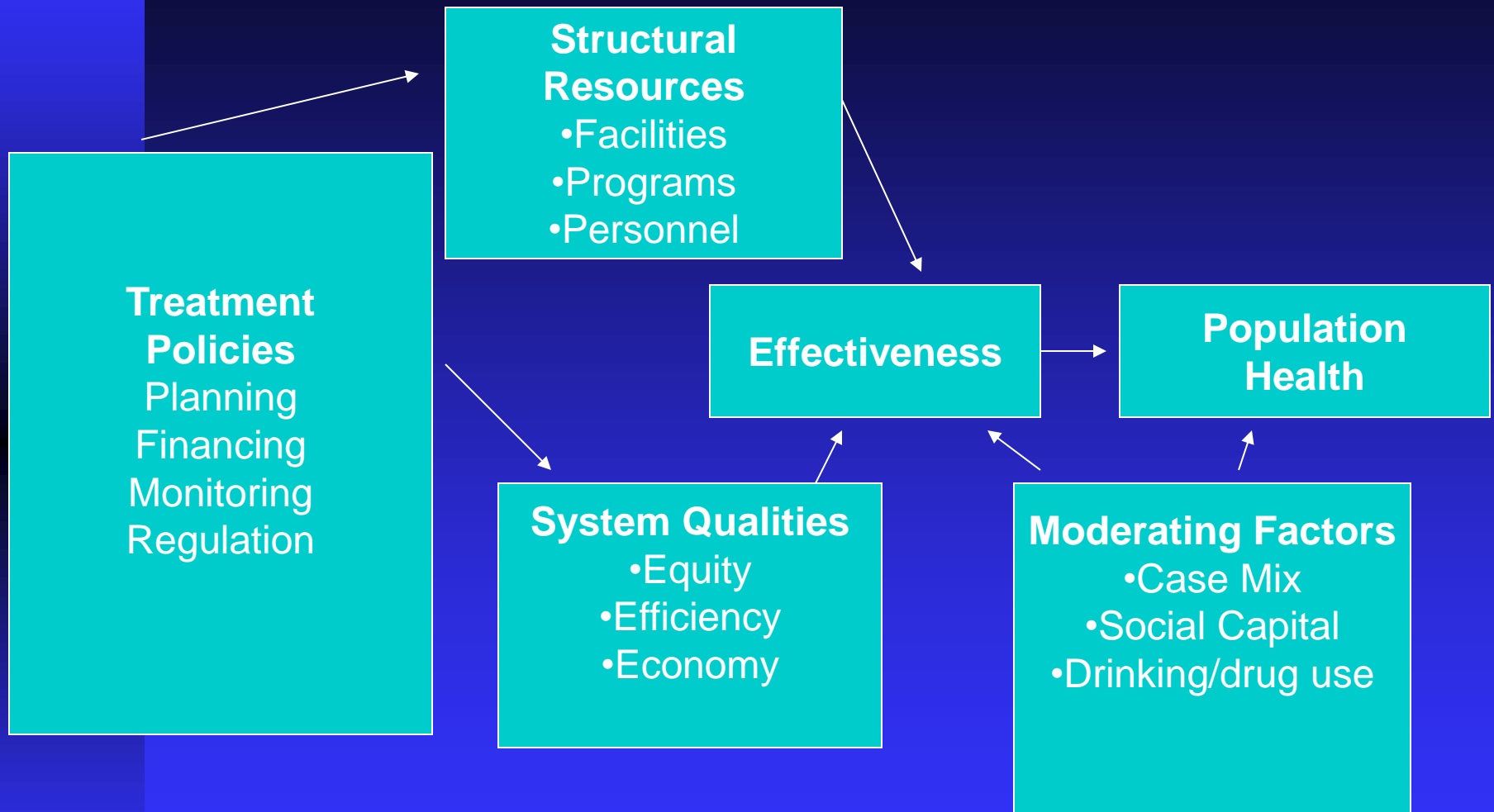
# Treatment Service System

- ◆ A coherent and organized entity
- ◆ An arrangement of facilities, programs, personnel designed to function in a coordinated way
- ◆ A collection of resources (facilities, programs, personnel), tasks (care, cure, control) and linking elements that make it possible to coordinate resources to accomplish key tasks
- ◆ Includes linkages between specialized care and other types of services, such as mental health, general medicine, social welfare, criminal justice and mutual help organizations

# Service System Qualities

- ◆ **Equity** – acceptability, appropriateness, accessibility to population subgroups
- ◆ **Efficiency** – integration of services to meet population needs: referral, diagnosis, detox, rehab, after-care
- ◆ **Economy** – organization of available services to minimize cost and maximize effectiveness

# Conceptual Model of Population Impact of Treatment Systems



Policies → System Characteristics → Effectiveness → Population Impact

## What are the boundaries of “Treatment System”?

- Shall it include all psychoactive substances?
- Shall it include alcohol and illicit drug policy framework?
- Shall it include health care sectors beyond mental health and substance abuse treatment services?
- Shall it include other sectors beyond health care?

# Conceptual Model of Alcohol/Drug Treatment System and Its Connections With Other Sectors





# FROM EFFECTIVENESS TO POPULATION EFFECTS

- Most treatment research is designed to investigate efficacy and effectiveness
- Treatment can: a) reduce alcohol and drug use, b) improve psychiatric, medical and employment outcomes, c) reduce risk of overdose, crime, HIV infection.
- Treatment of drug abuse may have supply side effects (e.g., NTORS, DATOS)
- Treatment of heavy drinkers may affect the social ecology of drinking subcultures

## Population impact measures

- Mortality, underlying cause of death, and multiple causes for alcohol and drugs
- Hospitalizations for alcohol- and drug-related conditions
- Alcohol and drug-related criminality
- Survey data on alcohol- and drug-related problems

## Benefits of a systems approach

- Systems concepts and research may help to improve access, efficiency, economy, effectiveness, continuity of care, thereby improving the population impact of treatment services.
- Focus attention on components having greatest impact on morbidity and mortality
- Cost implications and resource allocation
- Making the system fit the needs of the community, rather than the professional group

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- Hospitalizations for alcohol- and drug-related conditions
- Alcohol and drug-related criminality
- Survey data on alcohol- and drug-related problems

# North/South Issues

# TENTATIVE CONCLUSIONS

- There are multiple cases where drug policies have made a positive difference
- There is no one “drug problem” within or across countries, nor is there one “silver bullet” that will solve “the” drug problem
- Many drug policies have unintended consequences, and therefore should be viewed with a sense of caution and experimentation
- Drug use is an international problem supported by an international market
- Efforts to control drug supplies in poor countries have not achieved their intended aims
- Approaches based on incarceration of drug users are unlikely to achieve their intended aims

# TENTATIVE CONCLUSIONS

- The current mix of drug-specific policies does not follow rationally from the damage caused by different substances
- Expansion of evidence-based programs to treat drug users is a cost-effective way to reduce drug-related harm
- Government programs have negligible effects on whether young people initiate and continue drug use
- Legal and illegal drug markets should be considered together in the formulation of drug policy
- Research capabilities and data needs, while improving worldwide, are currently inadequate for the development of a science base for rational drug policy