Choosing National Drug Policies

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Motivating question

- How should a nation go about choosing its drug policy?
- Usual approach is to assess programs, taking account for example of
  - Strong evidence base for opiate substitution effectiveness
  - Some evidence for modest effectiveness of other treatments
  - Little evidence that supply reduction programs can reduce availability or raise price
- Policy recommendations reflect program evaluation
  - Favors drug treatment over supply reduction
- However not all nations with a serious drug problem have a major problem with drug use or abuse

The variety of national drug policies

- Composition of drug problems highly variable across nations
- Drug policies differ among nations in both substance and form.
- This variation reflects differences in
  - the nature of national drug problems
  - attitudes toward drug use itself
  - Attitudes toward individual rights
  - Relationship to the international drug trade
  - the broader political structure of a country
- Consequently, a single 'best policy' for all nations does not exist

Outline

- How drug problems and policies vary across nations
  - Institutional arrangements matter
- An analytic framework for characterizing problems and choosing policies
- Finding new sources of data

Problems in making cross-country comparisons

- Even rich countries have weak data
  - E.g., No official US estimate of prevalence of heroin dependence post 2010
- Misreporting of data from developing countries
  - E.g., *WDR* labels Nigeria lifetime as past year rates
- Inconsistent definitions
  - Prevalence age range 15-59 for Germany, 12+ for US
- No consensus on how to characterize policy
  - What is right measure of toughness?
- Little documentation of policy making process

Variation across seven nations in estimated extent of drug use and related problems

	Occasional drug use	Problematic drug use	Trafficking	Violence	Crime	HIV

Variation across seven nations in estimated extent of drug use and related problems

	Occasional drug use	Problematic drug use	Trafficking	Violence	Crime	HIV
China						
Nigeria						
Sweden						
United Kingdom						
United States						
Mexico						

Variation across seven nations in estimated extent of drug use and related problems

	Occasional drug use	Problematic drug use	Trafficking	Violence	Crime	HIV
China	Low	Medium	Medium	low	?	High
Nigeria	Low	Low	High	Modest		?
Sweden	Medium	Medium	Low	Low	Medium	Low
United Kingdom	High	High	Low	Low?	High	Low
United States	High	Very high	Low	High	Very high	Very high
Mexico	Low	Low	Very high	Very high		Low

Source: Babor et al. *Drug Policy and the Public Good*

Nations differ in policy orientation

- Each programmatic domain associated with different agency
  - Prevention either education or health
  - Treatment in health
  - Enforcement police and/or military
- Decision about lead agency important signal about nature of problem
- Also important whether problem primarily domestic or international

National drug policy orientation: Nigeria

- Nigeria must deal with perception of **Nigerians** being involved in trafficking
  - Much trafficking is in diaspora, not based in Nigeria
  - Nation frequently placed on U.S. State Department list (INCSR) of decertified countries
- Effect is to diminish Nigeria's international reputation
- Ministry of Foreign Affairs plays leading role in drug policy

National drug policy orientation: Sweden

- National support for prohibitionist stance
- Low level of occasional drug use
- Surprisingly high level of drug abuse and mortality
  - 40 deaths annually per 1,000 problematic drug users
- Slow adoption of methadone and harm reduction programs
- Social and health policy lead

Variation across seven nations in drug policies

	Enforcement intensity	Treatment availability	Political salience	Policy domain

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Mexico	Low	Low	Very High	National security

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Variation across seven nations in drug policies

	Enforcement intensity	Treatment availability	Political salience	Policy domain
Mexico	Low	Low	Very High	National security
China	High	Medium	Low	Criminal justice
Nigeria	Modest	Low	High	Foreign relations
Sweden	Medium	High	Moderate	Social policy
United Kingdom	High	High	high	Home Office/Health
United States	Very high	Medium	Very high	Criminal justice

Source: Babor et al. *Drug Policy and the Public Good*

Arrest, conviction, and incarceration rates per 100,000 for seven countries

Country	Arrests	Arrests for trafficking	Convic-tions	Convictions for trafficking	Sentenced to Prison	Average sentence length (months)

Arrest, conviction, and incarceration rates per 100,000 for seven countries

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France						
Germany						
Netherlands						
Sweden						
Switzerland						
United Kingdom						
United States						

Arrest, conviction, and incarceration rates per 100,000 for seven countries

Country	Arrests	Arrests for trafficking	Convic-tions	Convictions for trafficking	Sentenced to Prison	Average sentence length (months)
France	166	22	40	13	14	15
Germany	226	11	66	7	11	
Netherlands						
Sweden						
Switzerland						
United Kingdom						
United States						

Source: *European Sourcebook on Crime and Criminal Justice* (2003)

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France	166	22	40	13	14	15
Germany	226	11	66	7	11	
Netherlands	73		44		20	13
Sweden	113	19	81		16	15
Switzerland	612	110	111	71	42	11
United Kingdom	202	27	93	22	17	29
United States	590	120	125	85	65	30

Note: United Kingdom is for England and Wales only. Although the specific number is not available, most arrests in the Netherlands may be safely assumed to be for trafficking because Dutch police do not make arrests for simple possession of marijuana.
Source: *European Sourcebook on Crime and Criminal Justice* (2003) and *Uniform Crime Reports* (Federal Bureau of Investigation 1999)

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The Drug Problem has many elements

- Adolescents dropping out

- Gateway to other problems

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- Strains on foreign policy

Classifying the Elements

Domain	Problems
Initiation	Adolescents dropping out Gateway to other problems
Dependence	High mortality among users Crime by users
Distribution	Creation of large criminal incomes Violence in distribution
Production	Distortion of source country societies Strains on. foreign policy

Matching Problem Elements and Programs

Problems	Domain	Program
Adolescents dropping out Gateway to other problems	Initiation	Prevention
High mortality among users Crime by users	Dependence	Treatment
Creation of large criminal incomes Violence in distribution	Distribution	Enforcement
Damage to supplier nations Strains on foreign policy	Production	Source/transit Nation control

No single program solves all elements

- Prevention, most fundamental, has very long time horizon
- Each program contributes to some targets
- The balance must reflect the specific problems of your country

Program interactions can be perverse

- More effective interdiction may increase source country problems
  - Lowers consumption by raising price
  - Increases kilograms exported per kilogram consumed
  - Second effect probably larger than first
- Treatment success might increase initiation
  - "Susceptibles" inoculated by untreated addicts

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Assessing your nation's drug problem

- Creating specific drug indicators expensive and challenging
  - Good quality national prevalence survey or overdose monitoring systems cost $ millions
- EU, US indicator systems have major weaknesses
  - Poor measures of drug-related deaths, number of injecting drug users, prevalence of heroin abuse
- Decades of concern have not generated good quality systems
  - Suggests difficulty of mobilizing adequate support

Supplementary measures can use cheaper, more accessible data

- Social media analyses:
    - Already used in public health surveillance
- Waste water analysis
    - Estimates of quantity consumed at city level
- Price data from dark net markets

Social media important data source

- Epidemics of flu, cholera tracked by queries on Google
- Potential to examine patterns of Google queries:
  - Specific drugs (cocaine, Spice, meow-meow etc.)
  - Drug treatment availability
  - Dealing with child's drug problem
- Growing number of social media and growing penetration of population
  - Will become increasingly valuable

Haitian tracking of cholera

During infectious disease outbreaks, data collected through health institutions and official reporting structures may not be available for weeks, hindering early epidemiologic assessment. By contrast, data from informal media are typically available in near real-time and could provide earlier estimates of epidemic dynamics. We assessed correlation of volume of cholera-related HealthMap news media reports, Twitter postings, and government cholera cases reported in the first 100 days of the 2010 Haitian cholera outbreak. Trends in volume of informal sources significantly correlated in time with official case data and was available up to 2 weeks earlier.

Waste Water analysis adds new insights

- Pioneered in Western Europe by EMCDDA
  - http://www.emcdda.europa.eu/topics/pods/waste-water-analysis
  - 60 cities now contribute data
- Allows estimation of total quantity consumed in a region serviced by a waste water treatment plant
  - Time of day, day of week, seasonal patterns
  - High geographical resolution
  - Can be targeted in time
- Difficult to convert to prevalence estimate but can generate per capita consumption estimate

Sample Waste Water analysis findings

- "More than three-quarters of cities show higher loads of (cocaine metabolite) and MDMA in wastewater during the weekend (Friday to Monday) than during weekdays. In contrast, amphetamine and methamphetamine use were found to be distributed more evenly over the whole week."

- "prevalence data from surveys and wastewater analysis both present a picture of a geographically divergent stimulant market in Europe, where cocaine is more prevalent in the south and west, while amphetamines are more common in central and northern countries."

Price data may be available through on-line markets

- Some analyses of transactions on Silk Road, a "dark web" market (e.g. Aldridge and DeCary-Hetu, 2014)
  - Can identify national location of buyers and sellers
- Not yet many retail observations
  - Expansion of the market should provide that

Concluding comments

- Drug problems vary a great deal across countries and over time

- National policies must reflect the specific nature of the nation's problem and politics

- Traditional drug problem indicators can be supplemented with new, cheaper sources of relevant data