NEW FELLOWS ADDRESS
Chair: *Harriet de Wit*, University of Chicago, Chicago, IL.

WHEN DOES DRUG INVOLVEMENT BEGIN? STUDIES OF VERY EARLY ONSET OF RISK. Robert A. Zucker, Michigan State University, East Lansing, MI.

Although genetically mediated diatheses are present at birth, it is commonplace to view the onset of drug involvement as occurring at some point later on in childhood or adolescence, when first drug use and subsequent moves into problematic drug involvement take place. From a developmental perspective such a view of onset phenomena is restrictive, because it truncates causal process and does not sufficiently decompose the drug taking behavior into its precursive etiologic components. Within the framework of a prospective study of the development of alcoholism and other drug involvement, utilizing a high risk design and a broad array of measures that focus upon both drug specific as well as more general regulatory and psychopathological phenomena, our group has begun to address the issue of early process, and map differences in risk structure that occur in families with varying degrees of risk burden.

The presentation provides an overview of work accomplished to date. The longitudinal data base being tracked involves three population based samples of families, who vary in degree of parental alcoholism visibility and severity among the parents; all have sons (and most have daughters) initially in the 3-5 year age range. Results focus on three areas: (a) the detection of early differences in the presence of cognitive schemas about drugs; (b) the detection of early adaptational and symptomatic differences among the children which suggest different developmental trajectories are already in place; (c) the detection of major differences in parent functioning and symptomatology, which indicate that the familial context of child risk varies widely, and may serve to drive the initial child differences already observed.

Within the purview of a probabilistic developmental framework, a conceptualization of risk burden nested in risk context is proposed to account for the evolution of different patterns of alcohol and other drug involvement. Existing data also support at least a two path model for the unfolding of these processes over time.

SYMPOSIUM
Illicit Drugs and the Public Health.
Chairs: *Warren K. Bickel* and *Richard J. DeGrandpre*, Department of Psychiatry, University of Vermont.
Discussant: *Charles R. Schuster*, Addiction Research Center, NIDA, Baltimore, MD.

HARM-REDUCTION AS A BASIS FOR DRUG CONTROL POLICY. Robert S. Gable, The Claremont Graduate School, Claremont, CA.

The federal budget for control of abusable substances has more than tripled in the past decade to approximately $10 billion per year. While this reflects a strong and legitimate public concern, it also indicates a need to examine how drug-control dollars are best spent. Profound differences exist among psychoactive substances with respect to their acute lethality and dependence potential. A cost-effective policy would aim at harm reduction by prioritizing such risks, and then directing treatment and law enforcement efforts against the most harmful substances.

PUBLIC HEALTH ISSUES IN TREATING DRUG ABUSERS WITH COMORBID DISEASES. James L. Sorensen, Julie A. London, Robert L. Okin and Steven Batki, University of California, San Francisco, San Francisco, CA.

Psychologist working in substance abuse treatment programs need to cope with the emerging epidemics of Acquired Immundeficiency Syndrome (AIDS) and tuberculosis. This presentation reviews new research in the public health benefits of treating patients with comorbid diseases in a drug treatment program.

San Francisco General Hospital's Substance Abuse Services has developed specialized services for people with AIDS, tuberculosis, and mental illness. Through preferential admission policies the patient population has shifted so that over 60% of methadone maintenance patients have symptomatic HIV disease, and most others have medical problems. Although medical treatment is vital, it is just as important to address psycho social issues. In several areas research is underway with public health implications.

Case management has been widely adopted as a strategy for treating groups who have not benefitted from customary care. Drug abusers with HIV disease may under-utilize outpatient programs and over-use more expensive emergency and inpatient care. With support from NIDA a study is examining the impact of providing intensive case management to substance abusers with HIV disease when they appear in the emergency service. Pilot study results of a random-assignment study indicate that patients use expensive services, and they are unlikely to link with drug abuse treatment on their own.

Nonadherence to medication regimens has been significant. In the methadone maintenance program the average patient is prescribed six medications. Based on a CDC project aimed at preventing the spread of tuberculosis, an intervention was developed and piloted to increase adherence to AZT among drug abusers with AIDS. This random assignment study has revealed significant improvement in patients' adherence to the thrice-daily medication regimen, as measured by biological, behavioral, and self-report measures. A treatment manual is available. Drug treatment programs are outstanding sites for improving substance abuser's adherence to medications for psychological problems, AIDS, and tuberculosis. Drug abuse treatment of patients with comorbid diseases may be especially cost-effective in a managed care environment.

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REGULATING THE REINFORCING VALUE OF DRUGS. Murray E. Jarvik, University of California Los Angeles, Los Angeles, CA.

Habitual self-administration of a drug is *prima faciae* evidence of its reinforcing property. For drugs such as cocaine, heroin, and nicotine, brain reward mechanisms have been identified or postulated to produce reinforcement, and constitutional factors have also been invoked. However, environmental influences may strongly affect reinforcing potency. Government drug policy relies heavily on interdiction and punishment to deter and reduce drug use in the USA but does

not explicitly rely on behavioral science to validate this aim. Unfortunately, the prevalence of drug use in the country has declined very little. The long-term efficacy of different treatment programs for illicit drugs is also debatable but smoking cessation efforts have been quite successful both on a national level and in individual programs. This paper will consider what psychologists and other behavioral investigators might contribute to the drug policy debate.

SUPPLY REDUCTION, DEMAND REDUCTION, AND HARM REDUCTION: POLICY RESPONSES. Dr. Robert MacCoun, Graduate School of Public Policy, University of California at Berkeley, Berkeley, CA.

While the supply reduction emphasis of the Reagan-Bush years has left many of our most serious drug problems intact, it is difficult to frame a "slam-dunk" argument that a shift in emphasis to demand reduction will dramatically change the picture—prevention and treatment effects are significant and probably cost-effective, but modest in size. Thus, many have concluded that we should be debating legalization vs. prohibition. After spending several years examining the content of this debate (via a content analysis of 20 years of op-ed essays) and the relevant empirical data (the criminological literature on deterrence, historical data, and cross-national data on European experiences), I believe that there is simply no compelling basis for predicting whether potential increases in use would be small enough to be compensated for by the reduction in drug-related crime. Moreover, public reaction to the Surgeon General's recent comments underscores the political resistance to legalization in mainstream America. However, the legalization debate is not the only alternative to the supply demand debate. A more profitable debate might incorporate the harm reduction perspective that is rapidly evolving in Western Europe and Australia. I will contrast this approach to traditional American supply and demand reduction, and offer an integrative framework that shows the conditions under which European-style harm reduction complements or conflicts with American-style use reduction.

SYMPOSIUM

Assessment and Medications for Treating Attention Deficit Disorders and Comorbidities.

Chair: *Thomas E. Brown*, Department of Psychology, Yale University, New Haven, CT.

ASSESSMENT OF ADDs: DSM IV AND BEYOND. Thomas E. Brown, Department of Psychology, Yale University, New Haven, CT.

Revised diagnostic criteria for ADDs have just been published in DSM IV. These criteria, intended to apply to children, adolescents and adults, recognize ADDs with and without hyperactivity and incorporate some symptoms not previously included in ADD diagnoses. Recent research has proposed an expanded model of core symptoms in ADDs and has documented high levels of comorbidity between ADDs and other disorders of learning, language, mood, anxiety and substance abuse (Biederman, et al., 1991, 1993, Brown & Gammon, 1993).

Although many of the diagnostic instruments available for assessment of ADDs were designed primarily to measure disruptive behavior disorders in hyperactive children, some measures useful for assessment of cognitive and behavioral impairments in ADDs have been developed. This presentation will review assessment tools and techniques for ADD symptoms in children, adolescents and adults; it will also address problems of differential diagnosis and measurement of effects of medications.

MEDICATIONS FOR UNCOMPLICATED ADDs IN CHILDREN, ADOLESCENTS & ADULTS. Walid Shekim, Department of Psychiatry, UCLA Neuropsychiatric Hospital, Los Angeles, CA.

Medications for children with ADDs have been extensively studied; there has been less research on pharmacological treatments of ADDs in adolescents and adults. Available research offers some guidelines for use of psychostimulants as first-line interventions for ADDs at all age levels, but there appears to be wide variation among patients as to what dose and timing of doses is most effective. Published mg/kg guidelines seem to overmedicate some patients while undermedicating others; many specialists now use absolute dose methods to titrate maximally effective doses. This presentation will discuss choice of stimulants and effective dosing strategies for patients of all ages whose ADDs are not complicated by comorbid disorders.

About 20–25% of ADD patients do not respond fully to stimulant treatment; some get no response, some get only partial response, and others experience intolerable side effects. For these patients alternative medications, e.g. tricyclic antidepressants or selective serotonin reuptake inhibitors, may be helpful in alleviating behavioral symptoms and associated mood problems, but these tend to be less effective for sharpening focus and improving concentration or other cognitive ADD symptoms. Recent research has demonstrated that some ADD patients who do not respond fully to stimulants or these antidepressants sometimes benefit from using stimulants and an antidepressant in combination. This presentation will review research on these alternative and combined medication treatments for uncomplicated ADDs.

MEDICATIONS FOR ADDs WITH COMORBID AGGRESSION. Robert D. Hunt, Department of Psychiatry, Vanderbilt University, Nashville, TN.

Epidemiologic studies indicate that at least 50% of children diagnosed with ADHD also have comorbid oppositional defiant disorder and/or conduct disorder, both of which include significant problems with aggression. High rates of conduct disorder are also reported in longitudinal studies of ADHD adolescents (40%) while anti-social personality disorder is reported (40%) in some studies of ADHD adults. Clinical studies indicate that children with ADHD and comorbid aggression often have very poor outcome.

Stimulant medications have been reported effective for ADHD patients with aggression, though the "roller coaster" effects resultant from the relatively short half-life of stimulants may cause other problems. Tricyclic antidepressants have been used successfully with some aggressive ADHD patients. Selective serotonin reuptake inhibitors (SSRIs) have been found useful for some with this comorbid combination, but clinical reports suggest that some very aggressive ADHD patients initially respond well to SSRIs and then