Priority Actions to Improve the Care of Persons with Co-occurring Substance Abuse and Other Mental Disorders: A Call to Action

C o-occurring diagnoses of substance abuse and mental disorders (e.g., schizophrenia, depression, or bipolar, anxiety, personality, conduct, or attention-deficit/hyperactivity disorders) are highly prevalent, often begin in youth, and place an immense burden on individuals, families, and society. Unchecked, co-occurring mental and substance use disorders represent a formula for troubled, unproductive, and foreshortened lives. Co-occurring mental and substance use disorders are associated with underachievement or failure at work and school, poor health, human immunodeficiency virus infection, hepatitis, difficulty fulfilling family responsibilities, abuse, violence, failed treatment attempts, incarceration, poverty, and homelessness (Drake and Wallach 2000; Drake et al 2001; Gonzalez and Rosenheck 2002; Mertens et al 2003). The risk of suicide is very high for persons with co-occurring mental and substance use disorders, especially for individuals with bipolar disorder (Dalton et al 2003; Kelly et al 2002) and those who are lesbian, gay, transgender, or bisexual (Botnick et al 2002; Lebson 2002; Wichstrom and Hegna 2003).

Though co-occurring mental and substance use disorders are common in general medical settings (Jones et al 2003; Mertens et al 2003) and community samples (Grant et al 2004; Kessler et al 1996; Regier et al 1990), they are endemic in specialty behavioral health care settings, the criminal justice system, and among the homeless (Gonzalez and Rosenheck 2002; Havassy et al 2004; Jordan et al 2002; North et al 2004; Reardon et al 2003; Swartz and Lurigio 1999; Whitbeck et al 2004). For example, in one study, 89% of adult male detainees with a lifetime history of serious mental illness (e.g., schizophrenia, bipolar disorder, major depression) or antisocial personality disorder had co-occurring substance use disorders, and 63% of those with a history of substance use disorder also had a serious mental illness (Swartz and Lurigio 1999). Co-occurring serious mental illness and substance use disorders also are highly prevalent among the homeless, with comorbidity rates of 43% reported in one large study (Gonzalez and Rosenheck 2002). Rates of co-occurring disorders among homeless and runaway teens are approximately six times that of the general adolescent population (Whitbeck et al 2004). Persons with co-occurring mental and substance use disorders, as a group, have a more persistent and severe illness course and are more refractive to treatment than those with only a single disorder. Stable remission of co-occurring mental and substance use disorders does indeed occur, but there are few data to guide therapy.

The rates and patterns of treatment for co-occurring mental and substance use disorders are far from ideal. Practice models featuring simultaneous, coordinated (i.e., integrated) treatment are promising (Drake et al 2004b), but the availability of integrated treatment programs is not widespread. In the early 1980s, 29% of adults with co-occurring mental and substance use disorders received some treatment in the health care sector, and an additional 8% received assistance from self-help organizations (Narrow et al 1993; Regier et al 1993). One decade later, the National Comorbidity Survey (NCS) found that approximately 40% of persons with co-occurring mental and substance use disorders were receiving some form of treatment (Kessler et al 1996). The NCS-Replication (NCS-R) (Kessler et al 2003), completed in 2002, 1 decade after the baseline NCS, asked explicitly about treatment focus. Preliminary NCS-R results suggest that of those being treated, approximately 25% were treated only for their mental disorder, and 25% received some form of treatment for both mental illness and substance abuse. Very few persons with co-occurring mental and substance use disorders are treated only for substance abuse (personal communication, R.C. Kessler, Ph.D., May 8, 2004). Thus, though treatment rates seem to be increasing, integrated treatment for both the mental disorder and the substance use disorder is not the norm.

Co-occurring mental and substance use disorders represent a legitimate public health crisis. Funding for both mental health and substance abuse care is shrinking and along with it, the availability of appropriately trained peer and professional personnel (McLellan and Meyers 2004; Renner 2004). Few in the health care system, including health care educators, state and federal governments, the pharmaceutical industry, and clinicians, have taken responsibility for research, training, insurance coverage, and integration of addiction care into medical/psychiatric services. The system truly is in chaos. Persons with co-occurring mental and substance use disorders are as deserving of accessible, effective, and fully insured care as those with other chronic illnesses, such as diabetes and hypertension. Immediate action is required to meet the needs of persons with co-occurring mental and substance use disorders and to intervene in those at greatest risk of developing mental illness and later substance abuse.

Process

The Depression and Bipolar Support Alliance (DBSA) is the nation’s largest, illness-specific organization run by and for people living with depression or bipolar disorder. In November 2003, the DBSA convened a conference to address the unmet needs of substance use disorders in persons with depression or bipolar disorder. The prevalence and severity of substance use disorders that are comorbid with other mental illnesses was acknowledged; however, the DBSA conference focused on comorbid mood and substance use disorders. Unless otherwise specified, the term “substance use disorders” is used in this statement to include the full spectrum of abuse and dependence on alcohol, nicotine, and illegal and prescription drugs. Participants included 43 experts in psychiatry, psychology, addiction treatment, health care policy, primary care, adolescent health, epidemiology, and advocacy (Appendix 1). Presentations and deliberations from the conference and articles published in this special issue of Biological Psychiatry are reflected herein. Participants listened to presentations, debated workgroup reports, and provided input to interim versions of this statement. All authors approved the final version. The objectives of this statement are to assess available data, describe unmet needs, and outline priority clinical actions and research directions that are needed to improve treatment, access to care, and professional training. Recommendations for priority actions are evidence-based, when pos-
sible; however, there is a remarkable lack of empirical data in this area. When data are available, they are often gleaned from heterogeneous populations that include patients with psychiatric diagnoses other than mood disorders. Thus, by necessity, the remaining priority action recommendations are based on the opinions and clinical experiences of the experts who participated in this conference. This statement reflects input from all participants.

Epidemiology

 Alone, the prevalence of either mood disorders or substance use disorders is staggering. Major depressive and bipolar spectrum disorders occur during the lifetimes of 16.2% and 6.4% of Americans, respectively (Judd and Akiskal 2003; Kessler et al. 2003). In 2002, substance dependence or abuse was estimated to occur in 22 million Americans (i.e., 9.4% of the U.S. population), including drug and alcohol dependence/abuse in 3.2 million (1.4%), drug dependence/abuse in 3.9 million (1.7%), and alcohol dependence/abuse in 14.9 million (6.4%). These data are similar to the findings of the National Epidemiologic Survey on Alcohol and Related Conditions (Grant et al. 2004), which found 12-month prevalence rates of 2.0% for drug use disorders and 8.5% for alcohol use disorders. In addition, approximately 30 million Americans are addicted to nicotine (SAMHSA 2003).

 Mental and substance use disorders are inherently intertwined, with comorbidity being the rule rather than the exception. As many as 7–10 million persons have co-occurring mental and substance use disorders, and up to 66% of addicts have one or more psychiatric diagnoses during their lifetimes (Kessler et al. 1996). Substance use disorders are especially prevalent in persons with antisocial personality disorder, bipolar I disorder, and schizophrenia, of whom 84%, 61%, and 47%, respectively, either abuse or are dependent on substances (Regier et al. 1990). One in four persons with major depression is a substance abuser (Kessler et al. 2003). Compared with persons without mood disorders, bipolar I disorder (odds ratio [OR] 7.9), bipolar II disorder (OR 4.7), and major depression (OR 1.9) are associated with a greatly increased risk of substance abuse (Regier et al. 1990). Women might be particularly vulnerable. When compared with the general population, women with bipolar disorder are seven times more likely to be alcoholics (OR 7.4) (Frye et al. 2003).

 Large-scale epidemiologic studies have assessed the nature of comorbidity between mental and substance use disorders (Armstrong and Costello 2002; Kendell et al. 2001; Kessler et al. 1997; Merikangas et al. 1998). With regard to mood disorders, the risk relationship is reciprocal, with mood disorders predicting increased risk of later substance abuse and vice versa. Although major depression and anxiety disorders moderately predict substance abuse, the predictive strength of bipolar, antisocial personality, conduct, and oppositional defiant disorders and attention-deficit/hyperactivity disorder is particularly strong. Multiple comorbidities are especially strong predictors, and persons with three or more psychiatric disorders are 14 times more likely to be drug dependent than persons without these diagnoses. Substance abuse also predicts the development of mental disorders, with drug dependence more strongly predicting first-onset mental illness than drug abuse. In addition, illegal drug abuse more strongly predicts first-onset mental disorders than abuse/dependence of legal substances (e.g., alcohol, narcotic analogues). Drug or alcohol use/abuse tends to occur before the onset of mood disorders; however, bipolar, anxiety, and conduct disorders often predate alcohol or drug use disorders (Merikangas et al. 1998; Kessler 2004).

 There is a strong relationship between depression and nicotine use that is complex, possibly bidirectional, and not fully understood (Farrell et al. 2001; Fergusson et al. 2003). Smokers with a history of depression experience more severe withdrawal symptoms (Covey et al. 1990) and have lower rates of smoking cessation (Glassman et al. 1990; Smith et al. 2003). A history of smoking increases the risk of major depression, but the risk seems to be the same for abstinent and nonabstinent persons (Kessler 2004). Abstinent smokers are at greater risk of recurrent depression than nonabstinent smokers (Glassman et al. 2001). Current depression predisposes to the onset of daily smoking, as well as to the transition to nicotine dependence (Breslau et al. 2004), which has implications for smoking prevention.

 The clinical utility of psychiatric epidemiologic research lies in its potential to identify and evaluate causal factors that can be modified to facilitate primary and secondary preventive efforts (Kessler 2004). Most complex mental illnesses are characterized by an interaction between biological vulnerabilities and environmental factors. Longitudinal and cross-sectional epidemiologic evidence is emerging to suggest a significant interaction between environmental stressors and the neurobiology of mood and substance use disorders at the level of genetic mediators, neurochemical mechanisms, and neurocircuitry (Volkow 2004). Isolated studies demonstrate genetic variance in neurocircuitry and neurotransmitter systems that mediate vulnerability to depression and suicide (Caspis et al. 2003), anxiety (Enoch et al. 2003; Hariri et al. 2002), antisocial personality (Caspis et al. 2002), and stress response (Zubieta et al. 2003), all of which are also associated with substance abuse.

 Research Priorities

 Participants summarized topics for psychiatric epidemiologic research in co-occurring mental and substance use disorders and outlined priority items for ongoing and future studies, as follows:

 - Study shared susceptibility genes and behavioral phenotypes to document environmental potentiation of genetic vulnerability
   - Include mental health/substance abuse measures and blood sample collection in ongoing epidemiologic studies
   - Conduct longitudinal studies of childhood disorders and genetically relevant populations (e.g., twins, siblings)
   - Conduct post hoc genomic/proteomic analysis of samples from existing databanks
   - Define the molecular, cellular, and neurocircuitry mechanisms underlying genetic vulnerability to co-occurring mental and substance use disorders

 - Identify developmental risk factors to better understand temporal development of comorbidity and to define vulnerability and resilience
   - Focus on understudied populations—children/adolescents; ethnic, sexual, and gender minorities; college students; elderly, homeless, incarcerated, and rural populations; persons with bipolar disorder, suicidal behavior
   - Study long-term effects of fetal drug/alcohol exposure on risk for later development of mood disorders

 Treatment

 Data from randomized, controlled studies that inform pharmacologic and psychotherapeutic treatment of co-occurring mood and substance use disorders are relatively scarce because this population is generally excluded from treatment studies (Drake et al. 2004b; Weiss et al. 2000); however, a literature on
treatment that is specifically designed for persons with co-occurring mood and substance use disorders is beginning to emerge (Carroll 2004; Nunes et al 2004).

Major Depression

With the exception of co-occurring depression and nicotine dependence, treatment of persons with co-occurring disorders is currently based on clinical consensus and studies in patients with either mood disorder or substance use disorder but not both. There is strong evidence for the efficacy of bupropion (Hughes et al 2004; Richmond and Zwar 2003) and nortriptyline (Hall et al 1998), but not the selective serotonin reuptake inhibitors (SSRIs) (Covey et al 2002; Hughes et al 2004), in the treatment of nicotine dependence in nondepressed and depressed persons. Cognitive behavioral therapy also is an effective and durable intervention for smokers with depression and alcohol dependence (Patten et al 1998).

The SSRIs, TCAs, and nefazodone have been studied in the treatment of co-occurring depression and alcoholism (Cornellius et al 1997; Hernandez-Avila 2004; Mason et al 1996; McGrath et al 1996; Moak et al 2003; Nunes et al 1993; Pettinati et al 2001; Roy 1998; Roy-Byrne et al 2000). There is moderate evidence of improvement in depressive symptoms, but a less consistent effect on drinking outcomes (Pettinati 2004). One controlled trial of older adults found no advantage of adding naltrexone to sertraline, and psychosocial support (Oslin 2004). Another study demonstrated that cognitive behavioral therapy alone improved mood and prolonged abstinence in depressed alcoholics (Brown et al 1997).

Evidence for the effect of antidepressants and behavioral therapies on affect in opiate dependence comes from studies of methadone-maintained opiate addicts, only some of which enrolled patients with a diagnosis of depression (Nunes et al 2004). Mood improvement has been demonstrated by some (Nunes et al 1998; Titievsky et al 1982; Woody et al 1975) but not all TCA studies (Batki et al 1987; Kleber et al 1983; Woody et al 1982). Adverse effects associated with the TCAs might limit acceptance of this form of treatment. Most SSRI studies have failed to show improvement in depressive symptoms (Carpenter et al 2004; Dean et al 2002; Gonzalez et al 2003; Petrakis et al 1998); however, a recently reported study showed that the combination of citalopram and cognitive behavioral therapy in intravenous drug users who adhered to treatment resulted in improved rates of remission (Stein et al 2004). Modest improvement in short-term drug use, but not long-term abstinence, was observed in one imipramine (Nunes et al 1998) and one sertraline trial (Carpenter et al 2004), the latter of which showed that support systems and absence of aversive circumstances were related to therapeutic response. This finding suggests the need for concurrent behavioral therapy for both depressive symptoms and abstinence outcomes.

The SSRIs and TCAs have been studied in depressed cocaine abusers (Rounsaville 2004), with moderate evidence for a positive effect on mood from some (Carroll et al 1995; Nunes et al 1995, 2000; Oliveto et al 2003) but not all (Schmitz et al 2001) studies. Post hoc subgroup analyses suggest a more robust antidepressant effect is achieved by persons with higher baseline depression scores (Carroll et al 1995; Nunes et al 1995). Although antidepressants might have a modest effect on cocaine abuse (Nunes et al 1995; Oliveto et al 2003), cognitive behavioral therapy (Carroll et al 1995) and modified motivational therapy (Daley et al 1998) have been shown to improve addiction outcome compared with standard care (Kosten et al 2003).
port strategies (Fricks 2004; Sabin and Daniels 2003), and 12-step programs, into treatment plans
● Develop integrated treatment plans that consolidate remis-

sion, prevent relapse, and facilitate full return to function
● Take responsibility for ongoing care of substance-abusing

patients
  ○ Seek out qualified referrals and maintain effective fol-

low-up
  ○ Take a long-term view, where symptom improvement is

just the beginning. Stable remission and a return to

functionality are the goals of treatment.

Research Priorities
● Design and test simple screening tools for complex co-

occurring disorders
● Develop practice models to facilitate treatment initiation, ap-

propriate referral, and effective follow-up for patients who

screen positive for mood disorders and substance abuse
● Collect data to inform treatment decisions
  ○ Gain consensus on randomized, controlled trial design

(e.g., simple combination trials; stepped-care; sequential

randomization)
  ○ Include patients with co-occurring mood and substance

use disorders, including understudied populations, in

treatment studies funded by the National Institutes of

Health (NIH) and the pharmaceutical industry
  ○ Focus on medication, psychosocial, and self-help modal-

ities with proven efficacy in primary disorders
  ○ Identify biomarkers for treatment response and nonrespon-

se

Access to Care

Access to care for persons with co-occurring mental and

substance use disorders is limited at best, especially for adoles-

cents and young adults at high risk for incident illness. Barriers to
care are significant and multidimensional (Hayes et al 2003).

Logistic issues that hinder access to care include a diminishing

number of substance abuse clinics serving a growing population

and a segregated system in which patients must negotiate access
to separate substance abuse and mental health services (Grella

and Gilmore 2002; McLellan and Meyers 2004). Funding mecha-
nisms are not sufficiently flexible to allow for shared resources
between the two health care sectors, which often compete for
the same scarce funds. Treatment of co-occurring mental and

substance use disorders, when available, is costly and con-
strained by rigid managed care review requirements and limited

or nonexistent insurance coverage. Language and other cultural
barriers often make obtaining and continuing in treatment diffi-
cult. Stigma regarding mental and substance use disorders, which
contributes to embarrassment, denial, fear of discrimination, and

distrust of medications or counseling, also blocks access to care
(McLellan and Meyers 2004; SAMHSA 2002).

The addiction treatment sector is shrinking and in disarray. A
recent survey of 175 government-owned or privately owned
for-profit or nonprofit alcohol/drug abuse programs found that
within a 16-month period, 15% had closed, and an additional
29% were reorganized under a different agency. Ongoing prob-
lems faced by substance abuse treatment facilities include sub-
stantial staffing turnover, shortage of full-time health care pro-
fessionals, few treatment options other than group counseling,
lack of standardized admission assessment tools, and archaic
information technology, all of which undermine the ability of the
system to treat serious, complex illnesses (McLellan et al 2003).
The growing scarcity of addiction services results in patients
being shuttled to other marginally effective and costly avenues of
care, such as emergency departments, shelters, or jails.

There was consensus among the experts at the conference
that integrated treatment for co-occurring mental and substance
use disorders should be the standard of care, particularly for
nonresponding or severely ill patients. Though effectiveness and
economic viability of integrated services has been demonstrated
(Drake et al 1998, 2004a, 2004b; Gonzales and Insel 2004; Grella
and Gilmore 2002; Judd et al 2003; Katz 1999; Minkoff and
Regner 1999; Tobin et al 2001; Weiss et al 2000, 2001), widespread implementation is in its infancy (Drake and
Wallach 2000). A four-quadrant continuity-of-care model has
been proposed that provides a framework for conceptualizing
consultation, collaboration, and integration of services
(NASMHPD/NASADAD 1999). According to this model, persons
with serious mental illness and addiction should receive fully
integrated treatment in specialty mental health care settings.
Minor depression in the context of addiction might be best
treated in the substance abuse sector. Persons with episodic
substance use in the context of serious and persistent psychiatric
illness would be best served by the mental health sector;
however, a working system for referral and collaboration be-
tween point-of-contact (e.g., emergency departments, primary
care) and substance abuse and mental health specialists must be
in place for integrated treatment to function properly. When
resources are available, inclusion of mental health personnel on
the staff of substance abuse treatment programs is an excellent
means of achieving integration.

There are distinct disincentives to providing integrated care.
Insurance regulations encourage overdiagnosis of psychiatric
illness and minimize diagnosis of substance use disorders. Addi-
tionally, the stigma of substance abuse even within the mental
health care sector and the desire for secrecy among patients (or
among parents of young patients) might lead to reluctance about
entering treatment. These problems can be expected to worsen if
state systems adopt parity legislation for mental health but not
substance use. Additionally, the gap in quality and availability of
care between advantaged and disadvantaged persons is large
and seems to be widening.

Priority Actions to Improve Access to Care
● Take responsibility for persons with co-occurring mental

and substance use disorders. Health care professionals must
routinely screen for mental illness and substance abuse,
refer to appropriately trained medical/mental health specialists
when necessary, and monitor patients to ensure that
they receive and adhere to treatment
● Integrate addiction services into psychiatric and general

medical treatment settings
● Seek out and consult health care providers and self-help

programs with experience and success in addressing co-
occurring mental and substance use disorders (Appendix 2)
● Focus on stable remission (i.e., full recovery) rather than

symptom reduction as the primary treatment goal. Recovery-
based care includes returning to work, achieving a mean-
ingful life in the community, and personal satisfaction with
treatment outcome
● Adopt successful elements of trained peer-support practice

models with proven reimbursement strategies (Fricks 2004;
Sabin and Daniels 2003)
● Enhance the desirability of treatment programs to increase
retention rates in prisons and other settings. Explore novel
methods to attract and retain patients (e.g., harm-reduction models) and funding opportunities to reward providers for promoting a recovery system that meets the needs of those served

- Ensure aftercare treatment for persons with co-occurring mental and substance use disorders upon release from prison or jail
- Advocate for increased funding and insurance parity for integrated treatment programs
- Maintain personal privacy with regard to diagnoses

**Research Priorities**

- Document economic burden of co-occurring mental and substance use disorders, including rates of health care resource use, criminalization, and suicide
- Conduct outcome studies of integrated clinical practice models and “best practice” models
- Develop treatment programs that increase retention rates in prisons and other settings (e.g., harm-reduction and abstinence models)
- Evaluate effectiveness and viability of trained peer-support programs

**Training for Health Care Professionals**

There is a severe shortage of psychiatrists, psychologists, nurses, social workers, and others with training in addiction treatment, and even fewer have expertise in co-occurring mental and substance use disorders (Brems et al. 2002; Renner 2004; SAMHSA 2002). The historical divide between addiction treatment and the fields of medicine and psychiatry (Drake et al. 2001) contributes to this situation. Medical school and residency curricula are weak, owing to the combined lack of faculty who are addiction specialists and high-quality clinical rotations. Most physicians, including psychiatrists, know very little about addiction treatment. The field of medicine has failed to properly train residents in substance abuse diagnosis, prevention, and treatment (Renner 2004). Training typically focuses on acute management rather than long-term outcome. Economic factors also contribute to the shortage of trained personnel. Lack of parity has translated into inadequate reimbursement for treating patients with co-occurring mental and substance use disorders. Treatment programs with low and inconsistent levels of funding preclude adequate salary and compensation packages for staff, which when coupled with the escalating burden of educational debt and liability insurance, is a significant disincentive for entering the field of addiction treatment.

**Priority Actions to Increase Professional Training**

- Expand training programs
  - Develop long-term co-occurring mental and substance use disorders treatment and training units in outpatient and inpatient settings staffed by trained clinicians with teaching credentials
  - Integrate suicide prevention, basic science of addiction, and addiction treatment into medical school and residency curricula and other health care training programs
  - Create partnerships among government, industry, foundations, advocacy groups, and health care organizations to support training and establish basic levels of competency for health care professionals who provide integrated services
- Develop programs to train educators

- Advocate for government incentive programs to train specialists who will supervise students in treating patients with co-occurring mental and substance use disorders
- Increase funding to support faculty and infrastructure in addiction psychiatry and addiction treatment programs
- Use existing NIH grant mechanisms (e.g., K awards, R25 education grants) to help young investigators launch their careers
- Design tools to facilitate training of health care providers
- Establish monitoring systems to evaluate training outcomes and update programs
- Develop databases of didactic training systems, best practices, and health care courses
- Design modular training workshops, available on the Internet
- Provide real incentives to enter the fields of addiction treatment and addiction psychiatry
- Fund awards, fellowships, and NIH grants for medical students/residents and other health care professionals
- Facilitate loan forgiveness programs for health care professionals in training who commit several years to treating co-occurring mental and substance use disorders in the public sector
- Improve salaries and working conditions of substance abuse treatment staff

**Conclusions**

The needs of persons with co-occurring mental and substance use disorders must be addressed immediately, and long-range planning should be undertaken to improve treatment, access to care, parity, and professional training. There was overwhelming consensus among the experts at the conference that integrated treatment for co-occurring mental and substance use disorders must be recognized as the standard of care, particularly for non-responding or severely ill patients. This was perhaps the strongest statement made by the participants as a group. In addition, participants agreed on the following:

- Co-occurring mental and substance use disorders are highly prevalent
- The precise burden of co-occurring mental and substance use disorders is not known
- Persons with co-occurring mental and substance use disorders are as deserving of accessible, effective, simultaneous care as are those with other disabling, chronic illnesses
- Medication, psychosocial, and self-help modalities are available that show promise of effectiveness, but data to inform treatment are relatively scarce
- There is a severe shortage of trained clinicians and services

The different elements of the health care system, including legislative bodies, governmental agencies, health care educators, pharmaceutical industry, and health care professionals, have not taken adequate responsibility for the care of patients with co-occurring mental and substance use disorders. The following organizations need to address and correct the many barriers to treatment and rehabilitation:

- Congress should:
  - Pass parity legislation mandating full coverage for co-occurring mental and substance use disorders treatment
  - Increase research funding that is commensurate with the economic and societal burden of co-occurring mental and substance use disorders

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Governmental agencies (e.g., SAMHSA) should:
- Expand community block grants to develop and sustain integrated treatment programs
- Conduct effective and broad-reaching public education campaigns that reach teens, elders, and others

The National Institute of Mental Health, National Institute on Alcohol Abuse and Alcoholism, and the National Institute on Drug Abuse should:
- Increase interinstitute collaboration on research projects
- Create infrastructures that facilitate basic and clinical research
- Integrate networks to optimize clinical trials

Health care educators, including medical schools, residency, and continuing education programs, must bolster the quality and quantity of education about co-occurring mental and substance use disorders to increase the number of qualified professionals

Pharmaceutical manufacturers should increase efforts to bring antiaddiction therapies to market and include persons with co-occurring mental and substance use disorders in ongoing and future studies

Professional societies, such as the American Academy of Addiction Psychiatry, American Medical Association, American Psychiatric Association, American Psychological Association, American Society of Addiction Medicine, American College of Physicians, American Academy of Family Physicians, International Association of Psychosocial Rehabilitation Services, National Association of Social Workers, and others, should increase efforts to educate physicians and other professionals and promote prevention, treatment, and access to care for persons with co-occurring mental and substance use disorders

Advocacy organizations should join with the DBSA and others in addressing the needs of persons with co-occurring mental and substance use disorders.

The following authors acknowledged financial disclosure information:

Charles P. O’Brien, M.D., Ph.D.: Consultant: Alkermes Inc, Forest Laboratories, Inc; grant/research support: Pfizer Inc.

Dennis S. Charney, M.D.: Funding sources: Abbott Laboratories, Pfizer Inc, Ostuka Pharmaceuticals, AstraZeneca Pharmaceuticals, Cyberonics Inc.

Lydia Lewis does not personally receive any financial support nor have any financial arrangement with any company for her work on behalf of patients with depressive disorders. The DBSA, however, does receive financial support in the form of program grants, honoraria, consulting fees, and occasional in-kind donations or other support from Abbott Laboratories, AstraZeneca Pharmaceuticals, Bristol-Myers Squibb Company, Cyberonics Inc, Elan Pharmaceuticals, Forest Laboratories, Inc, GlaxoSmithKline, Janssen Pharmaceutical Products, Lilly and Company, Merck & Co, Inc, Organon Inc, Pfizer Inc, Solvay Pharmaceuticals, and Wyeth Pharmaceuticals. Other companies may provide support from time to time.

James W.Cornish, M.D.: Funding source: National Institute on Drug Abuse RO1 grants.


George E. Woody, M.D.: Consultant: Purdue Pharma, Ortho-McNeil Pharmaceutical Inc.

Charles L. Bowden, M.D.: Funding sources: Abbott Laboratories, AstraZeneca Pharmaceuticals, Bristol-Myers Squibb Company, Elan Pharmaceuticals, GlaxoSmithKline, Janssen Pharmaceutical Products, Lilly Research, National Institute of Mental Health, Parke Davis, Pfizer Inc, R.W. Johnson Pharmaceutical Institute, Sanofi Synthélabo, SmithKline Beecham, Stanley Medical Research Foundation, UCB Pharma, Inc.


Robert E. Drake, M.D.: Grant/research support: Johnson & Johnson.

Alexander H. Glassman, M.D.: Consultant: Pfizer Inc, GlaxoSmithKline, Eli Lilly and Company, AstraZeneca Pharmaceuticals, Ono Pharma; speakers’ bureau: Pfizer Inc, GlaxoSmithKline, AstraZeneca Pharmaceuticals; grant/research support: Pfizer Inc.


Sally K. Laden: Support for science writing/editorial services: GlaxoSmithKline.

Frances R. Levin, M.D.: Grant/research support: Eli Lilly and Company, Ortho-McNeil Pharmaceutical Inc, UCB Pharma; consultant: Eli Lilly and Company, Shire Pharmaceuticals Group, UCB Pharma.

David W. Oslin, M.D.: Grant/research support: Forest Laboratories, Inc, Pfizer Inc.


The following authors had no significant financial affiliation or other conflict of interest to disclose: James C. Anthony, Ph.D.; Jack D. Blaine, M.D.; Kathleen Carroll, Ph.D.; Anna Rose Childress, Ph.D.; Mark A. Davis, M.A.; Robert DeMartino, M.D.; Michael F. Fleming, M.D., M.P.H.; Larry Fricks; Robert L. Johnson, M.D.; Clarence Jordan, M.B.A.; Thomas Kosten, M.D.; Edward V. Nunes, M.D.; Darrel A. Regier, M.D., M.P.H.; Bruce Rounsaville, M.D.; Thomas Schlar-Blake, Constance Weisner, Dr.P.H., M.S.W.

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Appendix 1. Conference Participants

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Speakers:

Workgroups:

Workgroup 1 (Epidemiology and Description of the Problem): Jon-Kar Zubiena, M.D., Ph.D. (workgroup leader); James C. Anthony, Ph.D.; Anna Rose Childress, Ph.D.; Wilson M. Compton, M.D., M.P.E.§; Ronald C. Kessler, Ph.D.; Darrel A. Regier, M.D., M.P.H.; Richard K. Ries, M.D.; Thomas Sklar-Blake

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Workgroup 3 (Treatment of Bipolar Disorder and Substance Abuse): Robert M. Post, M.D. (workgroup leader); Charles L. Bowden, M.D.; Joseph R. Calabrese, M.D.; Larry Fricks; Frances R. Levin, M.D.; Betty Tai, Ph.D.†

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Appendix 2. Resources for Patients and Health Care Providers

Dual Diagnosis Resources
Dual Diagnosis Recovery Network (www.dualdiagnosis.org)
Double Trouble in Recovery (www.doubletroubleinrecovery.org)

Mental Health Resources
American Academy of Child and Adolescent Psychiatry (www.aacap.org)
American Association for Geriatric Psychiatry (www.aagp.org)
American Psychiatric Association (www.psych.org)
American Psychological Association (www.apa.org)
CONTAC – Consumer Organization and Networking Technical Assistance Center (www.contac.org)
Depression and Bipolar Support Alliance (www.dbsalliance.org)
National Alliance for the Mentally Ill (www.nami.org)
National Institute on Mental Health (www.nimh.nih.gov)
National Mental Health Information Center (www.mentalhealth.org)
President’s New Freedom Commission on Mental Health (www.mentalhealthcommission.gov)

Alcohol, Drug, and Tobacco Abuse Resources
Alcoholics Anonymous (www.alcoholics-anonymous.org)
Al-Anon Family Group Headquarters (www.al-anon-alateen.org)
American Academy of Addiction Psychiatry (www.aaap.org)
American Cancer Society (for smoking cessation; www.cancer.org)
American Heart Association (for smoking cessation; www.americanheart.org)
American Society of Addiction Medicine (www.asam.org)
Association for Medical Education and Research in Substance Abuse (www.amersa.org)
Cocaine Anonymous (www.ca.org)
Drug Addiction Treatment (www.drug-addiction.com)
Narcotics Anonymous (www.na.org)
National Institute on Drug Abuse (www.nida.nih.gov)
National Institute on Alcohol Abuse and Alcoholism (www.niaaa.nih.gov)
Parents – The Anti-Drug (www.theantidrug.com)
Substance Abuse and Mental Health Services Administration (www.samhsa.gov)