POSITION PAPER ON ADOLESCENT DRUG POLICY





Adolescent Substance Abuse: A Public Health Priority

An evidence-based, comprehensive, and integrative approach

Physician Leadership on National Drug Policy

PLNDP National Project Office Center for Alcohol and Addiction Studies Brown University Box G-BH Providence, RI 02912

 phone
 401-444-1817

 fax
 401-444-1850

 email
 plndp@brown.edu

www.PLNDP.org

© August 2002 All Rights Reserved

PLNDP National Office Project Staff

David C. Lewis, MD, Project Director Kathryn L. Cates-Wessel, Associate Director Maureen Mooney, Administrative Coordinator Laura Sporcic, Research Assistant Kirsten Spalding, Student Research Assistant Angela Feraco, Student Research Assistant



Adolescent Substance Abuse: A Public Health Priority

An evidence-based, comprehensive, and integrative approach

TABLE OF CONTENTS

PAGE NO.



PLNDP: LEADERSHIP & HISTORY

1. INTRODUCTION OF THE PROBLEM

- 2. CONTINUUM OF CARE: PREVENTION
- 3. CONTINUUM OF CARE: SCREENING, ASSESSMENT, REFERRAL, AND TRAINING
- 4. CONTINUUM OF CARE: TREATMENT
- 5. FINANCING OF CARE
- 6. THE CO-OCCURRENCE OF MENTAL AND SUBSTANCE USE DISORDERS
- 7. THE INTERFACE OF YOUTH WITH JUVENILE JUSTICE
- 8. APPENDICES, REFERENCES, CHART LIST

The individuals whose work, presented at the November 29, 2001 meeting, provides the basis from which the report is written

Suzanne Colby, PhD Research Faculty Coordinator – November Meeting Assistant Professor Center for Alcohol and Addiction Studies, Brown University

Hoover Adger Jr., MD, MPh Pediatrician Johns Hopkins Hospital

Jean Callahan, JD, MSW Project Director Adolescent Portable Therapy, Vera Institute of Justice

Michael Dennis, PhD Senior Research Psychologist *Chestnut Health Systems* Michael French, PhD Associate Professor Department of Epidemiology and Public Health, University of Miami

J. David Hawkins, PhD Director Social Development Research Group, University of Washington

Peter Monti, PhD Director Center for Alcohol and Addiction Studies, Brown University

Laura Burney Nissen, PhD Co-Director Reclaiming Futures Harvey Skinner, PhD Chair Department of Public Health Sciences, University of Toronto

Eric Wagner, PhD Associate Professor College of Urban and Public Affairs, Florida International University

Ken Winters, PhD Senior Research Associate Department of Psychiatry, University of Minnesota

The individuals who graciously reviewed sections of the many versions of this report; their work and comments are greatly appreciated

Doreen Cavanaugh, PhD Senior Research Associate Schneider Institute for Health Policy, The Heller School, Brandeis University

Suzanne Colby, PhD Assistant Professor Center for Alcohol and Addiction Studies, Brown University

Michael Dennis, PhD Senior Research Psychologist *Chestnut Health Systems*

Gary De Carolis, MEd Public Health Advisor Performance Partnership Grant Program Branch, Center for Substance Abuse Treatment

Joan Dilonardo, PhD Social Science Analyst Office of Quality Improvement and Financing, Center for Substance Abuse Treatment Bob Downing Convenor National Coalition to Increase Access and Parity for Addiction Treatment

Shelly Gehshan Program Director National Conference of State Legislatures

Randolph Muck, MEd Team Leader/Public Health Advisor Center for Substance Abuse Treatment

Herman Diesenhaus, PhD Public Health Analyst Office of Evaluation, Scientific Analysis and Synthesis, Center for Substance Abuse Treatment The organizations whose material we relied heavily on in the preparation of this report

American Academy of Pediatrics

American Bar Association

Center for Substance Abuse Treatment

National Institute on Alcohol Abuse and Alcoholism

National Institute on Drug Abuse

National Mental Health Association

Office of Juvenile Justice and Delinquency Prevention



An Evidence-Based, Comprehensive and Integrative Approach to Adolescent Substance Abuse

Substance abuse is a major national public health problem that creates impaired health, harmful behaviors, and major economic and social burdens...but there are effective medical and public health approaches to the problem.

JUNE E. OSBORN, MD, CHAIR

Sixth President of the Josiah Macy, Jr. Foundation. Former Chair of the U.S. National Commission on AIDS. Former Dean, University of Michigan, School of Public Health. Professor Emerita, Pediatrics and Communicable Disease, and Epidemiology, University of Michigan.

GEORGE D. LUNDBERG, MD, VICE CHAIR

Editor-in-Chief Emeritus, *Medscape*. Special Healthcare Advisor to CEO and Chair, WEBMD. Former Editor, *Journal of American Medical Association*. Adjunct Professor of Health Policy, Harvard. Former Professor and Chair of Pathology at the University of California-Davis. Former President of the American Society of Clinical Pathologists.

ERROL R. ALDEN, MD

Deputy Executive Director of the American Academy of Pediatrics.

JEREMIAH A. BARONDESS, MD

President of the New York Academy of Medicine and Professor Emeritus of Clinical Medicine at the Cornell University Medical College.

FLOYD E. BLOOM, MD

Chair and Professor, Department of Neuropharmacology, The Scripps Research Institute, La Jolla, California. Former Editor, *Science*.

THOMAS F. BOAT, MD

Chair, Department of Pediatrics at the University of Cincinnati College of Medicine. Director of the Children's Hospital Research Foundation. Former Chair, American Board of Pediatrics.

EDWARD N. BRANDT, JR., MD, PhD

Director of the Center for Health Policy. Regents Professor of Internal Medicine and of Health Administration and Policy at the University of Oklahoma Health Sciences Center. Former Assistant Secretary for Health in the U.S. Dept. of Health and Human Services (Reagan Administration).

LONNIE R. BRISTOW, MD, MACP

Member, Board of Regents of the Uniformed Services University of Health Sciences and Former President of American Medical Association.

CHRISTINE CASSEL, MD

Dean, School of Medicine, Oregon Health & Science University. Former Chair of the American Board of Internal Medicine. Former President of the American College of Physicians.

LINDA HAWES CLEVER, MD

Chief of Occupational Health at California Pacific Medical Center, San Francisco. President, Renew! Former Editor, *Western Journal of Medicine*.

GEORGE D. COMERCI, MD

Clinical Professor of Pediatrics, University of Arizona College of Medicine. Former President of the American Academy of Pediatrics and the Ambulatory Pediatric Association.

RICHARD F. CORLIN, MD

President, American Medical Association. Former Speaker of the American Medical Association House of Delegates. Assistant Clinical Professor at the University of California - Los Angeles, School of Medicine. Former President of the California Medical Association.

JAMES E. DALEN, MD

Vice-President for Health Sciences and Dean, College of Medicine at the Arizona Health Sciences Center. Editor, *Archives of Internal Medicine*. Former President, American College of Chest Physicians.

CATHERINE D. DEANGELIS, MD, MPh

Editor, Journal of American Medical Association.

SPENCER FOREMAN, MD

President of Montefiore Medical Center and Former Chair of the Association of American Medical Colleges (AAMC).

WILLARD GAYLIN, MD

Clinical Professor of Psychiatry at Columbia College of Physicians and Surgeons. Co-founder of the Hastings Center. Former President and Chair of the Hastings Center and currently a member of the Board of Directors.

H. JACK GEIGER, MD

Arthur C. Logan Professor Emeritus and former Chair, Department of Community Health and Social Medicine, City University of New York Medical School. Founding member and Former President of Physicians for Human Rights and Physicians for Social Responsibility. Former Chair, Departments of Community Medicine, SUNY-Stonybrook and Tufts Medical School.

ALFRED GELLHORN, MD

Director, Aaron Diamond Foundation Post Doctoral Research Fellowships in AIDS and Drug Abuse. Former Director of Medical Affairs, NY State Department of Health. Founding Director Sophie Davis School of Biomedical Education, Vice President Health Affairs-City College of New York.

DAVID S. GREER, MD

Dean and Professor Emeritus of the Brown University School of Medicine and Founding Director of International Physicians for the Prevention of Nuclear War.

HOWARD H. HIATT, MD

Professor of Medicine at Harvard Medical School. Senior Physician at the Brigham and Women's Hospital. Founder and Former Director of Initiatives for Children Program of the American Academy of Arts and Sciences. Former Dean of the Harvard School of Public Health.

JEROME P. KASSIRER, MD

Former Editor, *New England Journal of Medicine*. Professor and Former Vice Chair, Department of Medicine at Tufts University School of Medicine. Former Chair, American Board of Internal Medicine. Distinguished Professor, Tufts University School of Medicine. Professor (Adjunct) of Medicine, Yale University School of Medicine.

DAVID A. KESSLER, MD

Dean, Yale Medical School. Former Commissioner, Food and Drug Administration (Bush and Clinton Administrations).

PHILIP R. LEE, MD

Senior Advisor, Institute for Health Policy Studies and Professor of Social Medicine (Emeritus), School of Medicine, University of California-San Francisco (UCSF). Consulting Professor, Program in Human Biology, Stanford University. Former Assistant Secretary for Health, U.S. Dept. of Health and Human Services (Clinton Administration). Former Director and Founder of the Institute for Health Policy Studies at UCSF. Former Chancellor, UCSF.

JOSEPH B. MARTIN, MD, PhD

Dean, Harvard Medical School. Former Chancellor, University of California - San Francisco.

ANTONIA COELLO NOVELLO, MD, MPH, DrPh

Health Commissioner, State of New York. Visiting Professor of Health Policy and Management at the Johns Hopkins University School of Hygiene and Public Health. 14th Surgeon General of the U.S. Public Health Service (Bush Administration).

CLAUDE H. ORGAN, JR., MD

Professor and Chair of the Department of Surgery, University of California, Davis-East Bay. Editor, *Archives of Surgery*. Former Director and Chair of the American Board of Surgery.

ROBERT G. PETERSDORF, MD

Distinguished Professor of Medicine and Senior Advisor to the Dean, University of Washington. Formerly Distinguished Physician, Veterans' Health Administration. Former President of the Association of American Medical Colleges, the Association of American Physicians, the Association of Professors of Medicine, and the American College of Physicians.

P. PRESTON REYNOLDS, MD, PhD

Associate Professor of Medicine, Vice Chair of the Department of Medicine and Chief of the Division of General Internal Medicine, Johns Hopkins University.

FREDERICK C. ROBBINS, MD

Former Director, Center for Adolescent Health of Case Western Reserve University. Dean Emeritus at Case Western Reserve School of Medicine and University Professor Emeritus. Nobel Laureate in Physiology and Medicine. Former President, Institute of Medicine.

ALLAN ROSENFIELD, MD

Dean of the Mailman School of Public Health, DeLamar Professor of Public Health and Professor of Obstetrics and Gynecology at Columbia University. Chair, NY State Department of Health AIDS Advisory Council. Former Acting Chair, Department of Obstetrics and Gynecology, Columbia University.

STEPHEN C. SCHEIBER, MD

Executive Vice President, American Board of Psychiatry and Neurology. Adjunct Professor of Psychiatry at Northwestern University Medical School, and the Medical College of Wisconsin.

SEYMOUR I. SCHWARTZ, MD

Distinguished Alumni Professor and Chair of the Department of Surgery at the University of Rochester School of Medicine and Dentistry. President-elect and Chair of the Board of Regents of the American College of Surgeons. Editor, *Journal of the American College of Surgeons*. Former President, Society for Clinical Surgery and the American Surgical Association. Member, American Philosophical Society.

HAROLD SOX, JR., MD, MACP

Editor, *Annals of Internal Medicine.* Formerly Joseph M. Huber Professor of Medicine and Former Chair of the Department of Medicine, Dartmouth Medical School. President Emeritus of the American College of Physicians-American Society of Internal Medicine. Chair of the Medicare Coverage Advisory Committee.

ROBERT D. SPARKS, MD

Former President and Chief Executive Officer, California Medical Association Foundation. President Emeritus and Senior Consultant for the W.K. Kellogg Foundation.

LOUIS W. SULLIVAN, MD

President, Morehouse School of Medicine. 17th Secretary, U.S. Department of Health and Human Services (George H. W. Bush Administration). Founding President, Association of Minority Health Professions Schools.

ALLAN TASMAN, MD

Professor and Chair, Department of Psychiatry and Behavioral Sciences at the University of Louisville School of Medicine. Former President, American Psychiatric Association. Former President, American Association of Chairs of Departments of Psychiatry. Associate Editor, *American Journal of Psychotherapy*.

DONALD D. TRUNKEY, MD

Professor Emeritus, Department of Surgery, Oregon Health Sciences University. Former Chief and Chairman of Surgery at San Francisco General Hospital.

The PLNDP project is supported by generous contributions from individuals and foundations, primarily The Robert Wood Johnson Foundation and The John D. and Catherine T. MacArthur Foundation.

PLNDP Leadership

Since this report is focused on youth, several PLNDP leaders have contributed statements and pictures of themselves with family members or involving activities with young people. This approach was taken to emphasize our mission to support the for prevention and treatment of our nation's most cherished resources—our children.



PLNDP LEADERS AS PICTURED ABOVE.

First Row Seated (left to right)

Linda Hawes-Clever, MD George Comerci, MD Catherine DeAngelis, MD Kenneth Shine, MD (invited facilitator) David C. Lewis, MD (PLNDP Project Director) June Osborne, MD (PLNDP Chair) Antonia Novello, MD Preston Reynolds, MD Jeremiah Barondess, MD

Second Row (left to right)

Richard Corlin, MD Christine Cassel, MD Thomas Boat, MD Robert Sparks, MD Robert Petersdorf, MD Louis Sullivan, MD David Greer, MD George Lundberg, MD (PLNDP Vice Chair) Allan Tasman, MD Hal Sox, MD Lonnie Bristow, MD

Third Row (left to right)

Edward Brandt, MD Frederick Robbins, MD Jack Geiger, MD Allan Rosenfield, MD Errol Alden, MD Alfred Gellhorn, MD Jorome P. Kassirer, MD Donald Trunkey, MD Stephen Scheiber, MD Seymour Schwartz, MD Howard Hiatt, MD Floyd Bloom, MD

PLNDP History

Physician Leadership on National Drug Policy (PLNDP) was started in July 1997 when 37 of the nation's distinguished physicians, representing virtually every medical specialty, met and agreed on a Consensus Statement. This statement, which stresses the need for a medical and public health approach to national drug policy, has served as the underlying framework for all of the project's activities. Because of their wide range of backgrounds, there is no particular ideological or political perspective that dominates the group. The PLNDP perspective is to use evidence-based studies to inform policy making.

Since initiating this project:

- About 6,000 physicians, 23 state medical societies, and the American Medical Association have endorsed the *PLNDP* Consensus Statement. (See *Appendix A* for the *PLNDP* Consensus Statement, and *Appendix B* for a list of supporting organizations);
- 250 medical students have endorsed *PLNDP's* Consensus Statement; the project also has been endorsed by the American Medical Student Association;
- Several *PLNDP* Outreach Partners have been established, including:
 - American Academy of Addiction Psychiatry (AAAP)
 - American Academy of Pediatrics (AAP)
 - American College of Obstetrics-Gynecology (ACOG)
 - American Medical Student Association (AMSA
 - American Society of Addiction Medicine (ASAM)
 - Join Together
 - National Council on Alcoholism and Drug Dependence, Inc. (NCADD)
 - Society of General Internal Medicine (SGIM)
 - Society of Teachers of Family Medicine (STFM)

PLNDP has also:

 Developed and distributed more than 6,000 copies of video reports to physicians, other healthcare professionals, judges, lawyers, professional organizations, policymakers, and the public. One video, entitled *Drug Addiction: The Promise of Treatment*, discusses the effectiveness and cost-effectiveness of treatment; another, *Trial, Treatment and Transformation*, examines alternatives to incarceration; and the third video, *From Hopelessness to Healing*, is a blend of the two above mentioned videos and was prepared for local cable television viewing. A fourth video on adolescent substance abuse, soon to be released, will focus on the issues covered by this report.

 Developed the following policy reports, all available on *PLNDP* website (www.PLNDP.org):

Best Practices Initiative: State-level Issues for Medicaid/ Welfare and Substance Abuse Treatment, May 2002

Effective Methadone Treatment of Heroin Addiction in Office-Based Practices with a Focus on Methadone Maintenance, November 2000

A Physician's Guide on How to Advocate for More Effective National and State Drug Policies, September 2000 (published with Join Together)

Physician Leadership on National Drug Policy Position Paper on Drug Policy, January 2000

Over the five-year life of *PLNDP* we have seen a growing majority of Americans support increased funding in the area of treatment and prevention (demand reduction) to more effectively address substance use problems. According to a 2000 poll conducted by Peter D. Hart Research Associates for Drug Strategies, three out of five adults said that drug abuse is "more of a public health problem better handled by prevention"



Lonnie Bristow, MD, PLNDP member "What PLNDP has managed to do is to marshal the facts—the scientific evidence, if you will—that this is the way to go. It doesn't do away with punishment and incarceration for those individuals who have broken the law. Of course they should receive punishment and incarceration. But coupled with that should be a broader perspective which realizes that there is a real illness here which is capable of being treated successfully and, if we treat that illness, or if we attempt to prevent it, in the long run society is going to benefit much more than they will from building larger and more prisons."

and treatment programs" than by the criminal justice system.¹ In addition, two surveys from the Harvard School of Public Health and the Robert Wood Johnson Foundation give an indication of a shift in public attitudes toward treatment. The first, covering the decade up to 1997,² found that increased funding for treatment was strongly favored by only 19 percent of those who responded, whereas another more recent survey (2000) from the same institutions found that 69 percent thought that illicit drug use can be treated successfully and supported increasing funding for treatment.³

While Americans' opinions about how to spend drug control funds are shifting toward treatment and prevention approaches, 80 percent of state and local spending is devoted to enforcement.⁴ At the federal level, as illustrated in *figure 1* below, the government also continues to spend considerably more of the \$19.2 billion drug control budget on supply reduction (67 percent) than on prevention and treatment (33 percent).⁵ It is the hope of the *PLNDP* that as public opinion shifts, so will the policy toward prevention and treatment.





President, Power Point Presentation. February, 2002. Slide #13. Available www.whitehousedrugpolicy.gov

figure 1





Adolescent substance abuse is a major national public health problem. Research indicates that, despite a recent leveling-off of substance use by adolescents, the current levels remain high. Studies suggest that the younger an individual is at the onset of substance use, the greater the likelihood that a substance use disorder will develop and continue into adulthood. In fact, more than 90 percent of adults with current substance use disorders started using before age 18; half of those began before age 15.¹

In the area of prevention, researchers have established a list of risk and protective factors that are critical to the development and implementation of effective prevention programs. These risk factors include: the availability of drugs in the community, a family history of substance abuse, learning disabilities and other academic problems, and associating with friends who engage in problem behaviors, among others. Identifying and addressing these factors early is a critical step in the prevention and intervention of substance use problems and delinguency.² Today, most youth who enter substance abuse treatment programs do so through the juvenile justice system. One study reports that up to 67 percent of youth involved in the juvenile justice system have a substance use problem.³ Many of these youth also have a mental disorder, which complicates the administration and efficacy of treatment. One national study found that 73 percent of youth in correctional facilities reported mental health problems during screening.⁴ If risk factors are discovered and treated early, adolescent substance use problems and delinquent behavior could be prevented.

Unfortunately, many youth are not identified as being involved with substance use until it progresses to abuse or dependence. In the 1990s, as rates of frequent use of alcohol, marijuana, and other drugs escalated, the number of adolescents entering the treatment system increased by more than 50 percent.⁵ Despite this increase, this figure only represents one in ten youths who needed treatment.⁵ While it is clear that treatment benefits this population, adolescents present a unique challenge to the treatment community. Compared to adults, adolescents have greater problems with marijuana and alcohol, higher rates of binge use, and greater complications as a result of the developmental changes they are undergoing.1 Impulsive and risk-taking behaviors are more pervasive in this population as well, which complicates

treatment. Treatment for adolescents must be tailored to these specific needs, as well as gender and race concerns.

The largest insurer of children and adolescents in this country is Medicaid, covering 16.4 million children under the age of 22.⁶ Substance abuse treatment coverage varies greatly by state. In many states, services are limited to acute care of substance use problems. This limitation in coverage is in contrast to evidence that substance use problems require a comprehensive continuum of care. For adolescents covered by private insurance, a lack of comprehensive substance abuse coverage is a major barrier to accessing treatment. In order to better address adolescent substance use problems, health insurance coverage must be equal to that of other chronic diseases.

The treatment sector is entering a "renaissance" of new research. "The number of studies evaluating formal substance abuse treatment programs for adolescents more than doubled from 1997 to 2001 and promises to double again within the next three years."⁷ This research has translated into advances in treatment methodology, with promising new approaches that are comprehensive and integrative and involve the families, schools, healthcare professionals, and communities. Unfortunately, the promise of

David. C. Lewis, MD Project Director

treatment is not always apparent to all healthcare professionals. This lack of knowledge is primarily due to the fact that physicians are not trained to recognize these problems in patients, as only eight percent of US medical schools offer a specific required substance abuse component of their curricula, and this could range from a lecture course to a single grand rounds.⁸

With these challenges in mind, *Physician Leadership on National Drug Policy* convened a meeting on November 29, 2001, "Adolescents and Substance Abuse: Risks, Treatment and the Juvenile Justice System," at the National Press Club in Washington, DC. The goal of this meeting was to identify and present the latest data on prevalence, prevention, treatment, and the juvenile justice system. While the *PLNDP*'s earlier activities focused on illicit drugs, this report on adolescents encompasses alcohol, tobacco and other drugs.

This report is structured as a public health strategy planning report similar to Healthy People 2000 and Healthy People 2010 and is an outgrowth of the November PLNDP-sponsored meeting. It is organized into initiatives, within which *PLNDP* has identified policy recommendations and priorities for further research.

etign L. Cato Were

Kathryn Cates-Wessel Associate Director

THE DATA ON ADOLESCENT SUBSTANCE USE PROBLEMS

AMERICANS VIEW DRUG ABUSE AS A MAJOR HEALTH PROBLEM

When polled about their personal views, 67 percent ranked drugs or drug abuse as among the top two or three problems facing American teenagers today, in addition to alcohol at 13 percent, smoking at 6 percent and mental health at 3 percent [table 1]. Eighty-two percent of respondents ranked drug abuse as among the top ten serious health problems, ranking it as a "very serious problem," in addition to drunk driving at 75 percent, smoking at 68 percent and alcohol abuse at 65 percent [table 2].

Americans' Views Of The

Seriousness Of Health Problems





Data Source: Adapted from Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data. The Monitoring the Future Study, an ongoing study of the behaviors, attitudes and values of adolescents and young adults in America reports trends in substance use and abuse. Some highlights of the latest data follow:

ALCOHOL

- 23 percent of 8th grade students reported having been drunk at least once in their lives in 2001.
- Over one-fifth (21.5 percent) of 8th grade students report current alcohol use; this percentage increases to 39 percent of 10th grade students and nearly 50 percent of 12th grade students.
- Among 12th grade students, 30 percent report consuming five or more drinks in a row in the two weeks prior to the survey.

TOBACCO

 Over one-fifth of 12th grade students report smoking tobacco cigarettes on a daily basis.¹

ILLICIT SUBSTANCES

- Over one-half (54 percent) of adolescents have tried an illicit substance by the time they have finished high school.
- 29 percent of 12th grade students tried an illicit substance other than marijuana in 2001.
- Among 8th, 10th and 12th grade students, Anglo-Americans reported substantially higher rates of use for both legal and illicit substances than their African American counterparts.
- Ecstasy (MDMA) was the primary drug showing an increase in use among students in all grade levels in 2001.

More recently, there has been a great deal of focus on the "leveling off" of the trends in adolescent substance abuse, but this focus ignores the fact that the rates of daily use among 12th graders in 2001 were substantially higher than those documented for 1992. (See figure 2)

Daily Use Percentages Among 12th Graders: 1992 vs. 2001



"Compared to the early '90s, high school students are practicing fewer unhealthy behaviors such as tobacco use, marijuana use, risky sexual behaviors, and other potentially dangerous behaviors that increase their risk for injury, illness, and death."

(Source: Centers for Disease Control and Prevention. 2001 Youth Risk Behavior Surveillance System (YRBSS). Fact Sheet. June 27, 2002. Available at www.cdc.gov.)

When approaching adolescent substance use, we must be careful not to label or pathologize a young person who has started to use drugs. An adolescent who begins using is typically not dependent; the development of a serious clinical substance use disorder usually takes place no sooner than a year or two from the commencement of use.² Many adolescents who drink, smoke, or take illicit drugs will never develop a physical dependency or have negative experiences as a result of using substances. However, heavier, longer-term, and more frequent use is likely to result in problems with health, school,



figure 3







work, and/or the law. This is consistent with our understanding of substance abuse patterns: increasing levels of use result in health consequences and impairment of social, psychological, and/or occupational functioning. The process of developing an addiction is influenced by many factors such as genetics; societal, familial, and peer influences; pre-existing mental health disorders; and the addictive properties of the specific substance.³

"Marijuana and alcohol are the leading substances mentioned in arrests, emergency room admissions, autopsies, and treatment admissions."⁴

Most adolescent substance use tends to be characterized by bingeing and opportunistic use.⁴ Substance use most commonly begins at the age of 12 or 13 years and use is rarely limited to alcohol. The general progression typically moves from use of legal substances (tobacco, alcohol) to use of illegal drugs, with marijuana as the usual initial illicit substance. Since research shows that alcohol and tobacco are most often the initial "drugs of choice" for many adolescents, it's important to note the high correlation between cigarette smoking and alcohol use with illicit drug use (figures 3 and 4).⁵ It also is important to note that few adolescent users escalate to abuse/dependence. Three to nine percent of adolescent drug use results in drug abuse, and five to eight percent of adolescent alcohol use results in alcohol abuse/dependence.⁴ However, even among youth who are not dependent, problems may arise that need intervention and/or treatment.

There are several "red flags" that indicate a propensity for problem drug use, including 1) initiation of drug use before age

12 or 13, 2) daily or weekly use of at least one drug, and 3) poly-drug use.² Age is a key determinant in the observed patterns of use (figure 5). From ages 12 to 20, the rates of past month use more than double for alcohol (20 percent to 75 percent), tobacco (18 percent to 40 percent), and marijuana (8 percent to 27 percent). Young adults (ages 18-25) are the group most likely to engage in heavy alcohol use, to smoke cigarettes, and to use illicit drugs. However, the upward trends reverse as individuals leave young adulthood. By age 30, alcohol use decreases by about 2 percent, and tobacco use decreases by 5 percent. However, the greatest decrease in use is that of marijuana, declining by 15 percent. This indicates that as an adolescent advances in age he/she is more likely to show a reduction in illicit drug use.⁴

Alcohol use, in addition to its relationship to illicit substance use, is often associated with behavioral problems. A study released by the Substance Abuse and Mental Health Services Administration,⁶ suggests that there is a correlation between adolescent alcohol use and many emotional and behavioral problems including depression, intentional self-harm, aggressive behaviors and delinquent behaviors such as fighting, stealing, and truancy.

COSTS TO SOCIETY

While not specific to adolescents, it is useful to review the enormous costs of substance abuse. The economic cost of substance abuse to the US economy, estimated at over \$414 billion each year, is staggering. Although specific cost estimates vary across studies due to differences in underlying assumptions and definitions, each study shows substantial economic costs, including those due to productivity losses, crime and destruction of property, and treatment. Alcohol abuse is the most costly form of substance abuse; the total cost to the nation is estimated at \$166.5 billion (latest available data, 1995 figure). The cost to society of all other drug abuse is estimated at \$109 billion. These costs are disproportionately attributable to people ages 15-44, reflecting the higher prevalence of substance abuse as well as the greater number of related deaths within this age group. By contrast, the costs for most other health conditions tend to be concentrated in older age groups. Healthcare costs of substance abuse accounted for over \$114 billion of the \$414 billion in total costs attributable to substance abuse in 1995.³

All segments of society are affected, as no population group is immune to substance abuse and its effects. Men and women, people of all ages, racial and ethnic groups and levels of education drink, smoke, and use illicit drugs.³

RESOURCES

Monitoring the Future — To access findings from this study, see www.monitoringthefuture.org.

The National Household Survey on Drug Abuse, conducted by the Substance Abuse and Mental Health Services Administration, is the primary source of information on the prevalence, patterns, and consequences of drug and alcohol use and abuse in the American public, ages 12 and older. To access findings from this ongoing study, see www.samhsa.gov/oas/nhsda.htm.

The **Robert Wood Johnson Foundation** is devoted to improving the health and healthcare of all Americans. For more information about the Robert Wood Johnson Foundation or to access Substance Abuse: The Nation's Number One Health Problem, see www.rwjf.org.





POLICY RECOMMENDATIONS

- Increase the proportion of the federal and state budgets allocated to prevention of substance use problems in adolescents. Provide additional resources for the dissemination of evidence-based information that identifies the most effective approaches to prevention of substance use problems and the disease of addiction.
- Coordinate efforts and increase communication among agencies/ organizations across disciplines in the prevention, intervention, and treatment of adolescent substance use problems. In addition to traditional mental health and substance abuse stakeholders, these efforts should include public assistance programs, child welfare, schools, community coalitions, law enforcement, juvenile justice, and medicine.
 Source: adapted from National Mental

Health Association.

- 3. Expand education efforts to include the latest data on risk and protective factors and measures that address and counter the vulnerability associated with transitional periods during youth (i.e. the move from elementary to middle school). Involve the family or caregiver, school, community, and healthcare provider in all aspects of care.
- 4. Increase support for experimental studies to evaluate adolescent prevention programs.

Note: In developing our policy recommendations we have relied on the experience of the PLNDP, the research presentations and publications of a number of national, governmental, and professional organizations. When our recommendations are consistent with others we have indicated them as a source.



CONTINUUM OF CARE: PREVENTION

BACKGROUND: Substance abuse presents a significant threat to the adolescent population, yet evidence-based prevention programs are underfunded and often inaccessible. Fortunately, our knowledge of the etiology of substance use disorders has vastly increased. We now know who is more susceptible to substance use problems and which variables are important to increasing resilience to these problems.

Studies over the last two decades have tried to determine the origins and pathways of drug abuse — how the problem starts and how it progresses. Several factors have been identified that differentiate those who use drugs from those who do not. Factors associated with greater potential for drug use are called "risk" factors, and those associated with reduced potential for such use are called "protective" factors.

The most useful document we have found to describe the importance of risk and protective factors is the National Institute on Drug Abuse Prevention Brochure, which is accessible on the NIDA web site, www.nida.nih.gov/prevention/RISKFACT.html.

Research has revealed that there are many risk factors for drug abuse, each representing a challenge to the psychological and social development of an individual and each having a different impact depending on the phase of development. Factors that affect early development in the family may be the most crucial, such as:

- Chaotic home environments, particularly in which parents abuse substances or suffer from mental illness;
- Ineffective parenting, especially with children having difficult temperaments and conduct disorders; and
- Lack of mutual attachments and nurturing.

AMERICANS SUPPORT INCREASED FUNDING FOR PREVENTION

When asked their opinion on spending more funds on educational campaigns aimed at preventing illegal drug use among young people, 67 percent supported more funding and 26 percent supported maintaining the current level of funding *[table 1]*. Additionally, 54 percent favor a tax increase to support this funding *[table 2]*.



Data Source: Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.

Other **risk factors** relate to children interacting with other socialization agents outside of the family, specifically the school, peers, and the community. Some of these factors are:

- Inappropriate shy and aggressive behavior in the classroom;
- Failure in school performance;
- Poor social coping skills;
- Affiliations with deviant peers or peers around deviant behaviors; and
- Perceptions of approval of drug-using behaviors in the school, peer, and community environments.

Additional factors—such as the availability of drugs, trafficking patterns, and beliefs that drug use is generally tolerated—also influence the number of young people who start to use drugs.

Certain **protective factors** have also been identified. These factors are not always the opposite of risk factors, and their impact varies along the developmental process. **The most salient protective factors include:**

- Strong bonds with the family;
- Experience of parental monitoring with clear rules of conduct within the family unit and involvement of parents in the lives of their children;
- Success in school performance;
- Strong bonds with prosocial institutions such as the family, school, and religious organizations; and
- Adoption of conventional norms about drug use.¹

Drs. Hawkins and Catalano, lead researchers in the area of risk and protective factors and prevention, note that "when people feel bonded to society, or to a social unit like the family or school, they want to live according to its standards or norms."² Furthermore, Hawkins reports that "strong norms, beliefs, or behavioral standards that oppose the use of illegal drugs or the use of alcohol by adolescents protect against drug use and abuse."³ The implications for prevention policy across a variety of domains are manifold. "What we know now from our own longitudinal studies is that if we create more opportunities for young people to be engaged in positive pro-social ways—in family, in school, in classroom, in neighborhood—if we ensure they have the skills they need developmentally to master those opportunities they have, and if we are consistent in reinforcing and recognizing them...for doing a good job, they become more committed and attached to school, more bonded to family, more committed and attached to the neighborhood. And once they've bonded, they're more likely to live according to healthy beliefs and clear standards."

David Hawkins, PhD (Researcher)



George Lundberg, MD, PLNDP Vice Chair "Continuity of a caring relationship, which can include the parent-child relationship, over many years, is a critical component of successful maturation and life."



June Osborn , MD, PLNDP Chair "I think people appreciate the centrality of family and of issues that substance abuse raises in adolescence. We can't afford to throw adolescents away if they get a little bit out of our perceived orderly process of growing up. We must intercede." The most compelling data demonstrate that the younger a person is at the onset of substance use, the more likely he or she is to develop a substance use disorder and to continue that disorder through adulthood. (See figure 8) More than 90 percent of adults with current substance use disorders started using before age 18, and half began using before age 15. Of the 2.1 million people meeting criteria for alcohol or drug dependence in 1999, 791,581 (22 percent) were adolescents and 771,256 (21 percent) were young adults.⁴

Using risk and protective factors to develop effective prevention programs

Research on factors and processes that increase the risk of using drugs or protect against the use of drugs has identified the following primary targets for preventive intervention: family relationships, peer relationships, the school environment, and the community environment. Each of these domains can be a setting for deterring the initiation of drug use through increasing social and selfcompetency skills, adoption of prosocial attitudes and behaviors, and awareness of the harmful health, social, and psychological consequences of drug abuse.

Educating children about the negative effects of drugs, especially the most immediate adverse effects in their lives, is an important element in any prevention program. In addition, helping children become more successful in school helps them form strong social bonds with their peers, the school, and the community."¹

However, our negative perceptions of adolescents are counterproductive to the formation of these necessary community bonds. Media depictions of youth fuel negative public perceptions. "TV reinforces the notion of today's teens as self-absorbed and interested only in trivial matters," reports Katharine Heinz-Knowles, noting that TV acts as a "cultural storyteller," actively translating and shaping attitudes and beliefs. The Heinz-Knowles' report found that:

• Adolescent characters (ages 13-21) are portrayed as not connected to a wider community, including even their own families.



- TV teens are seen as independent and isolated, living in an adolescent world whose problems are mainly social in nature.
- These TV teens give the impression that they do not require anyone's help beyond their small immediate peer groups, and their parents are often portrayed as ineffective and problematic.⁵

This depiction of the adolescent is inaccurate. For example, one research finding by Meg Bostrom (2000) concludes that when teens are asked who they most rely on for making important decisions or in facing problems, parents are the top choice (63 percent of teens responded that they rely on their parents a great deal).⁶

In approaching issues related to adolescents and making healthy choices, the American Academy of Pediatrics (AAP) has identified three key elements: **1**) *knowledge* (information, skills and beliefs), **2**) *resources* (equipment and supplies) and **3**) *access to healthcare and*



David Greer, MD, PLNDP member "Many lifetime attitudes and habits are established in childhood and adolescence. Habitual use of drugs for pleasure and escape is no exception. As in all medicine, prevention is more cost-effective than attempts to cure. The time to institute anti-drug measures is the age of my grandchildren in this picture."



figure 9

motivation (i.e. positive incentives, peer approval, and social sanctions). AAP emphasizes that these three components are needed to encourage adolescents to learn and practice healthy behaviors.⁷

The highest risk periods for drug use among youth

For most children, research has shown that the vulnerable periods are transitions from one developmental stage to another. When children advance from elementary school to middle school or junior high, they often face social challenges, such as learning to get along with a wider group of peers. It is at this stage, early adolescence, that children are likely to encounter drug use for the first time.

Upon entering high school, young people face social, psychological, and educational challenges as they prepare for the future. These challenges can lead to use and abuse of alcohol, tobacco, and other drugs. When young adults go on to college, get married, or enter the workforce, they again face new risks from alcohol and other drug abuse in their new adult environments.

Because risks appear at every transition from infancy through young adulthood, prevention planners need to develop programs that provide support at each developmental stage."¹

Importance of Perceived Risk

"Most Americans are aware of the risks associated with substance abuse, but the perception of risk rises with age. Each successive age group from age 12 to 17 to 35 and older reports increasingly greater risk associated with substance use."⁸

"The increases in substance use among youth between the early 1990s and 1996 were linked to decreases in the perception of potential harm from use of many substances, particularly marijuana. However, for many substances these decreases in the perception of potential harm have leveled off or reversed. As expected, as perception of risk has increased, use rates have begun to shift downward. Not all substances are perceived as being equally risky. Overall, more individuals report a greater risk of harm associated with regular use of cocaine or heroin than with regular use of marijuana."⁸

One of the initial steps in educating adolescents, families, and communities is understanding the different stages/levels of drug involvement. Not all substance use should be classified as high-risk. The American Academy of Pediatrics has described the six stages of adolescent drug involvement:

1) Abstinence

- Experimental use—minimal use, typically associated with recreational activities; often limited to alcohol use
- **3)** Early abuse—regular and frequent use, often involving more than one drug; greater frequency than experimental use; adverse personal consequences begin to emerge
- 4) Abuse—regular and frequent use over an extended period of time; several adverse consequences emerge
- 5) Dependence—continued regular use despite repeated severe consequences; signs of tolerance; adjustment of activities to accommodate drug seeking and drug use
- **6) Recovery**—return to abstinence; some youth may relapse and cycle through the stages again.⁹

It is important to note that most adolescents will not reach the level of abuse (stage four); adolescent substance involvement is most often opportunistic or bingeing in nature.

The National Institute on Drug Abuse (NIDA) has identified prevention principles that present a useful guide to strategic program development:

• Prevention programs should be designed to enhance "protective factors" and move toward reversing or reducing known "risk factors."



George Comerci, MD, PLNDP member "The fact is that now we can show that prevention really makes a difference in youth outcomes from a number of crossbenefit studies. If you invest in prevention now, you save juvenile and criminal justice system costs and you save all kinds of pain to families where substance abuse problems tear families apart and diminish opportunities for young people to become productive members of our society. Today, the policymakers can really invest in prevention with confidence that they're going to achieve the outcomes they want."



Jeremiah Barondess, MD, PLNDP member "The most effective thing we can do about drug use is to prevent it from happening or, failing that, prevent it from progressing, so that young people are protected from having their lives eroded and their ambitions dissolved. Prevention programs and early and effective treatment are the keys to doing our best for at-risk youth."

• Prevention programs should:

Target all forms of drug abuse, including the use of tobacco, alcohol, marijuana, and inhalants.

Include skills to resist drugs when offered, strengthen personal commitments against drug use, and increase social competency (e.g., in communications, peer relationships, self-efficacy, and assertiveness), in conjunction with reinforcement of attitudes against drug use.

Include interactive methods, such as peer discussion groups, rather than didactic teaching techniques alone.

Include parents' or caregivers' component that reinforces what the children are learning and that creates opportunities for family discussions about use of substances and family policies about their use.

Be long-term, over the school career with repeat interventions to reinforce the original prevention goals. For example, school-based efforts directed at elementary and middle school students should include booster sessions to help with critical transitions from middle to high school.

- Family-focused prevention efforts have a greater impact than strategies that focus on parents only or children only.
- Community programs that include media campaigns and policy changes, such as new regulations that restrict access to alcohol, tobacco, or other drugs, are more effective when they are accompanied by school and family interventions.
- Community programs need to strengthen norms against drug use in all drug abuse prevention settings, including the family, the school, and the community.
- Schools offer opportunities to reach all populations and also serve as important settings for specific subpopulations at risk for drug abuse, such as children with behavior problems or learning disabilities and those who are potential dropouts.
- **Prevention programming should be adapted** to address the specific nature of the drug abuse problem in the local community.

- The higher the level of risk of the target population, the more intensive the prevention effort must be and the earlier it must begin.
- **Prevention programs should be age-specific**, developmentally appropriate, and culturally sensitive.
- Effective prevention programs are cost-effective. For every dollar spent on drug use prevention, communities can save 4 to 5 dollars in costs for drug abuse treatment and counseling."¹

Noting the specific needs of adolescents and new research on risk and protective factors, researchers and clinicians are making strides toward integrating this knowledge into practice. Specifically, innovative interventions have been created to engage youth in communities, within families, on the Internet and in schools.

INNOVATIVE AND PROMISING INTERVENTIONS

New research in the prevention field makes a compelling case that those factors contributing to adolescent substance use problems can be addressed in early childhood, thereby avoiding future problems. Several promising programs are described below.

Strengthening Families Program

In May 2002, Dr. Richard Spoth and colleauges at Iowa State University released the results of a study in which 478 families were randomly assigned to either the Iowa Strengthening Families Program (ISFP) model of intervention or the Preparing for the Drug Free Years (PDFY) model of intervention. The results reveal significant public health and economic benefits of preventive intervention for drinking among adolescents. The findings show that one case of preventive intervention for alcohol problems would yield \$119,633 in avoided future costs to society. Specifically, for each dollar spent on the ISFP model of intervention the researchers estimate conservatively that \$9.60 could be saved in future costs and \$5.85 for the PDFY model.¹¹ (See figure 10)



figure 10

Data Source: National Institute on Drug Abuse. "Study Quantifies Cost-Benefit of Family Interventions Designed to Prevent Adolescent Alcohol Use." NIH News Release. Bethesda, MD: National Institutes of Health. May 1, 2002. Available www.drugabuse.gov

Communities that Care

This project, developed by Dr. David Hawkins and colleagues, helps communities plan preventive systems by creating tools that use risk and protective factors. One such tool is a survey administered to persons 12-18 years old which assesses risk and protective factors for each individual and indicates general risk factors within the community environment. The survey is supplemented by a guidebook that outlines various evidence-based research strategies that may be implemented to address any factors within the community that need to be changed. Pennsylvania's state legislature has allotted \$20 million to the implementation of such prevention programs with the goal of using Communities that Care throughout the state in 2002.¹⁰ "If you invest in prevention now, you save juvenile and criminal justice system costs. We've seen this from a number of crossbenefit studies, and you save all kinds of pain to families where substance abuse tears families apart."

David Hawkins, PhD (Researcher)

CyberIsle Youth Health Site at www.cyberisle.org

In today's society more and more youth are accessing the "information superhighway" or "surfing the net" to seek answers to questions. Dr. Harvey Skinner at the University of Toronto looks at the use of Internet technology as a promising approach for reaching adolescents about health-related topics. Because youth are using the Internet at astounding rates, it provides an excellent opportunity for researchers and clinicians to offer evidence-based information, with the intent that adolescents are capable of making healthy decisions when given the correct information. The Internet is unique in that it offers a non-confrontational format from which adolescents can be more easily engaged. The individual characteristics that act as barriers to intervention in the real world do not exist on the Internet. Youth are able to develop a sense of self-efficacy by engaging themselves in the intervention process. The CyberIsle site offers youth a forum to interact, to learn facts about pharmaceutical, herbal, and street drugs, racism, body image and self-esteem, and relationships. The site does not convey opinions or a specific point of view; it simply offers youth a place to find accurate information and interact with one other.¹²

Dr. Skinner's research has identified several key issues: (1) the need to determine how to engage adolescents in health promotion; (2) the Internet is a uniquely advantageous environment to engage youth, as recent data suggest that 65 percent of adolescents have access to the World Wide Web; (3) the Internet offers a unique forum for information dissemination; (4) content must be relevant to adolescent concerns and accessible to adolescents with different backgrounds and educational levels; (5) there is a need for research to determine the effectiveness of web-based interventions on health outcomes.¹²

The Role of Schools

Schools are the ideal environment to address issues of tobacco, alcohol, and other drug use and enhance access to needed prevention programs. The school environment provides the standard against which young people test behavior, and school personnel serve as highly influential role models.13 "Most schools offer limited, if any services for substance abuse, with many problems such as stigma, limited resources, and zero tolerance policies constraining the development of such services. However, within the national movement toward more comprehensive mental health in schools, there is increasing discussion, and some action toward the development of a full continuum of prevention, early intervention and treatment services to address multifaceted problems of youth substance involvement, including addiction, abuse, use, familial use, and psychosocial pressures to deal drugs. To advance this agenda there is tremendous need for mental health, substance abuse, and education communities to come together to develop advocacy and training agendas and to build infrastructures that promote the translation of scientific advances into practice."14

One initiative in the school setting is Student Assistance Programs (SAPs). SAPs are in use in over 1,500 school systems, modeled after Employee Assistance Programs (EAPs) and used as a mechanism for the early identification of substance use problems. Dr. Eric Wagner and colleagues at Florida International University are examining Student Assistance Programs and their effectiveness. Thus far, their research indicates that somewhere between one-half to two-thirds of teens who participate in SAPs demonstrate some improvement during the
course of their involvement with these programs. Drs. Wagner, Dinklage, Cudworth, and Vyse found in 1999 that 86% of high school students who participated in a Rhode Island-based SAP stopped or significantly decreased their substance use, and 73% rated their experience as positive. In addition, frequency of preintervention alcohol use did not predict the impact of the program or participants' ratings of the program. Given the importance of SAPs for treating adolescent substance abuse, empirical tests of their effectiveness are clearly needed, both in terms of their overall impact in reducing use as well as investigating the specific "active ingredients" that contribute to change (e.g., improved refusal skills, enhanced knowledge of the potential negative consequences of substance use, etc.). Moreover, in order to examine why some students respond to SAPs while others do not, future research also should assess the impact of different treatment variables (e.g., depression, alcohol expectancies, social support) in response to SAPs."15

Seattle Social Development Project

The Seattle Social Development Project (SSDP) is a school-based intervention for grades one through six aimed at reducing risks for delinquency and substance abuse by enhancing protective factors. This intervention trains elementary school teachers in classroom management, interactive teaching strategies, and cooperative learning techniques. Training in family management skills is provided to the parents of these children. These interventions focus on enhancing the child's prosocial involvement in both school and family settings, and strengthens the bonds between child, family, and school. Long-term results include reductions in anti-social behaviors, improved academic skills, a greater commitment to school, reduced levels of alienation, and fewer incidents of drug use.¹

Teen Drug Use Linked with Later Health Problems

A 22-year study of more than 600 youths funded by the National Institute on Drug Abuse has directly linked adolescent drug use with health problems later in life. This study, led by Dr. Judith S. Brook, indicates that individuals who had used drugs as teens reported more health problems during adulthood, underscoring the importance of early intervention to prevent adolescent drug abuse and its long-term health consequences. The findings of the study were published in the June 2002 issue of the *Journal of Adolescent Health*.

RESOURCES

Leadership to Keep Children Alcohol Free, a unique coalition of more than 30 Governors' spouses, federal agencies, and public and private organizations, seeks to prevent the use of alcohol by children ages 9 to 15. The initiative was founded by The National Institute on Alcohol Abuse and Alcoholism and The Robert Wood Johnson Foundation, and has been joined by additional federal sponsors. To learn more about this initiative, see www.alcoholfreechildren.org. NIAAA has also create the Task Force on College Drinking. The initiative, comprised of college presidents, researchers, and students is threefold. For more information about this initiative, see www.collegedrinkingprevention.gov. To learn more about NIAAA, see www.niaaa.nih.gov.

American Legacy Foundation is dedicated to reducing tobacco use in the U.S. with major initiatives directed to youth, women and priority populations, see www.americanlegacy.org.

Making the Grade is a report developed by **Drug Strategies** to be used for drug prevention programs in our nation's schools. The report focuses exclusively on alcohol and tobacco and compares the findings of 14 programs that have rigorous evaluation data and is available at www.drugstrategies.org. Join Together works with community coalitions. For more information, see www.jointogether.org

The National Institute on Drug Abuse recently held a conference, "Assessing the Impact of Childhood Interventions on Subsequent Drug Abuse," to facilitate research on interventions for substance abuse and to review the latest studies of the epidemiology and basic science of drug abuse. For more information about NIDA, see www.nida.nih.gov.

The Center for Substance Abuse Prevention, (CSAP) a division of the Substance Abuse and Mental Health Services Administration, is the federal agency responsible for improving the accessibility and quality of substance abuse prevention services. To learn more about CSAP, see www.samhsa.gov/centers/csap and www.modelprograms.samsha.gov.

For more information about the role of pediatricians in the prevention and management of substance abuse, see **American Academy of Pediatrics'** website **www.aap.org**.

American Academy of Child and Adolescent Psychiatry has a web page, "Facts for Families and Other Resources: Information for Families and Friends" outlining useful information on a range of issues affecting youth. To access "Facts for Families," see www.aacap.org/info_families/index.htm.

The Community Anti-Drug Coalitions of America (CADCA), established in 1992, supports its more than 5,000 community coalition members with technical assistance and training, media strategies and marketing programs, conferences and public policy efforts with the goal of building and strengthening drug-free communities. In these efforts, CADCA partners with many private and public organizations including the Office of National Drug Control Policy, the Substance Abuse and Mental Health Services Administration, the National Institute on Drug Abuse and the Ameican Bar Association. To learn more about CADCA, see www.cadca.org.



POLICY RECOMMENDATIONS

- 1. Train all healthcare professionals to be clinically competent in screening, diagnosis, referral, and treatment of substance use problems. Substance abuse education should be required in the accreditation standards for all healthcare professional schools. All health professionals should have the ability to communicate an appropriate level of concern and possess the requisite skills to offer information, support, follow-up, or referral to an appropriate level of care. Source: adapted from Project Mainstream/AMERSA, Health Resources and Services Administration, Center for Substance Abuse Treatment, Center for Substance Abuse Prevention.
- 2. Expand support for research examining the existing instruments used to assess the specific needs of ethnic and minority groups, very young adolescents, and transition youth (ages 18-21).
- **3.** Support research to develop and test intervention models that are gender and culturally sensitive.

Note: In developing our policy recommendations we have relied on the experience of the PLNDP, the research presentations and publications of a number of national, governmental, and professional organizations. When our recommendations are consistent with others we have indicated them as a source.



CONTINUUM OF CARE: SCREENING, ASSESSMENT, REFERRAL AND TRAINING

BACKGROUND: Determining the appropriate level of intervention for an adolescent is no small task. In addition to factors normally considered when intervening or treating an individual for a substance use problem, such as severity of substance use, cultural background, and presence of co-existing disorders, interventions must also examine variables such as age, level of maturity, gender, family and peer environment. Once these factors are assessed and the problems are identified, the appropriate intervention can be matched to the adolescent's needs.¹

Screening and assessment provide clinicians an opportunity to identify adolescents who may need further evaluation, intervention, or referral to treatment. Several wellresearched assessment instruments are available, ranging from brief screening tools which can be administered in as little as a few minutes to comprehensive instruments that can take up to three hours. They can involve questioning or interviewing the adolescent or their parent and/or urinalysis. Most methods rely on self-report, which is generally valid, but not perfect. Of key importance is the link that assessment provides "between problem identification and response."² It is important to note that, in existing instruments, norms and psychometrics are lacking for ethnic and racial minority groups, very young adolescents, and transition youth (ages 18-21 years old); thus, additional research is needed to address these limitations in existing instruments.² For more information on specific screening and assessment instruments, see the Resources Section (pages 29 and 30).

Adolescent screening instruments must be developmentally-appropriate, valid and reliable, and practical for use in busy medical offices. An instrument's practicality is also important; it must be easy to administer, score, and remember. Research-supported screening tools developed for use in adolescent populations include the Personal Experience Inventory (PEI), Drug Abuse Screening Test for Adolescents (DAST-A), and Adolescent Drug Involvement Scale (ADIS), among others. Another instrument, the CRAFFT, is particularly practical because of its short administration time. CRAFFT is a mnemonic device of key words in each of the test's six questions:

- **C** Have you ever ridden in a **car** driven by someone (including yourself) who was "high" or had been using alcohol or drugs?
- **R** Do you ever use alcohol or drugs to **relax**, feel better about yourself, or fit in?
- A Do you ever use alcohol or drugs while you are by yourself, **alone**?
- **E** Do you ever **forget** things you did while using alcohol or drugs?
- **E** Do your **family** or **friends** ever tell you that you should cut down on your drinking or drug use?
- I Have you ever gotten into **trouble** while you were using alcohol or drugs?



figure 11

A recent study in 2002 by adolescent pediatrician Dr. John Knight and colleagues suggests that the CRAFFT is reliable in identifying substance use disorders and related problems among adolescent medical patients, as CRAFFT scores were strongly correlated with substance use diagnoses. Designed to indicate when further assessment is needed, screening instruments like the CRAFFT are critical to the substance abuse screening and healthcare of adolescents. This is particularly true given findings that one fourth of adolescent medical patients may need at least a brief intervention and one sixth may need a referral to treatment. However, because current treatment resources are inadequate to meet this need, "new approaches, such as office-based interventions" are required.³

All healthcare professionals should have an interest in developing a fundamental knowledge of substance abuse and addiction. Along with adverse health effects associated with use, alcohol and other drugs can adversely affect prescribed medications and complicate a variety of other medical and mental conditions. To physicians who are inadequately trained, substance use can present as symptoms of other illnesses, or conceal symptoms of non-related diseases and illnesses. Without obtaining a complete history, including screening for drug and alcohol problems, physicians are incapable of making thorough clinical observations, which can lead to misdiagnosis or failure to diagnose other existing health problems. This could lead to a lack of intervention and increase the severity of a patient's health problems. Furthermore, there is a fundamental costinefficiency in failing to provide preventive care and early intervention. Therefore, both healthcare professionals and insurers have a vested interest in screening for every patient in all healthcare settings in order to identify substance abuse problems early, avoid misdiagnosis of other health problems, intervene effectively and reduce the associated costs that could otherwise been avoided.

Healthcare professionals can and should play an important role in screening, intervening, and referring their adolescent patients to substance abuse treatment. The American Medical Association has published *Guidelines for* Adolescent Preventive Services, recommending that all healthcare professionals ask adolescent patients about their use of alcohol and other drugs on an annual basis. Unfortunately, adherence to this guideline is low. In fact, less than one half of physicians report screening all adolescent patients for substance use.⁴

Inquiry into drug use by peers and family should be part of a routine history screening, as "it is estimated that 1 in 5 children grows up in a home in which there is someone who abuses alcohol or other drugs."⁵

As indicated in the American Academy of Family Physicians Policies on Health Issues, "to effectively participate with substance abuse and addiction treatment professionals in the prevention, early recognition, and treatment of substance abuse and addiction, physicians should: (a) recognize the gravity, extent and broad-based nature of substance abuse and addiction in our society, (b) include substance abuse prevention in patient education, (c) diagnose substance abuse and addiction in the earliest stage possible, and treat or refer for treatment, (d) be aware of the criteria for outpatient, intensive outpatient, partial hospitalization, and in-patient treatment and utilize the appropriate level of treatment for each patient, (e) recognize the effects of addiction on family members, especially children, and offer support and treatment for family members, as well as include them in treatment for the addicted member whenever possible, and (f) partner with community resources in prevention, education and treatment of substance abuse and addiction."6

Despite guidelines such as these, only five percent of all adolescent referrals come from healthcare providers.⁷ (See figure 11) Dr. Michael Fleming finds that physicians often fail to counsel or refer patients to substance abuse treatment programs because of their inability to recognize the problem.⁸ It is of major concern that many physicians do not feel competent to handle substance abuse issues. Often, physicians are treating the acute medical conditions resulting from drug abuse and addiction, rather than recognizing and managing the underlying problem: chemical dependency.



Donald Trunkey, MD, PLNDP member "Make substance abuse a disease rather than a criminal act, or something that is the fault of the person who has a substance abuse problem. This is a disease, and you have to treat it as such. I think also we have to change public attitudes: do not make substance abuse a stigma. Do not stigmatize the patient."



26 CONTINUUM OF CARE: SCREENING, ASSESSMENT, REFERRAL AND TRAINING

The American Academy of Pediatrics has identified the primary barriers to physician involvement in the screening, intervention, and referral process for substance use problems; they are:

- 1) Constraints caused by a high volume of patients in a restricted amount of time.
- 2) Overhead expense is a constant factor, and reimbursement usually is inadequate relative to the time and effort required to diagnose substance abuse disorders and confront and work with patients and their families.
- 3) Physicians fear alienating the patient and his/her family.
- **4)** Physicians are inadequately trained and educated in substance abuse and addiction.
- 5) Research on positive treatment outcomes has not been effectively disseminated to physicians.
- **6)** Research on the negative effects of failing to intervene early in substance abuse has not been effectively disseminated to physicians.
- 7) Information about how to access treatment and refer patients has not been effectively disseminated to physicians.⁹
- "Primary care physicians can have a critical role in addressing issues of substance abuse among adolescents. ...Most often, the primary care physician is the only healthcare professional who is in a position to recognize problems of drug abuse as they evolve and is the clinician most likely to be called to treat the acute consequences of drug use. The longitudinal relationship with the child or adolescent and the family is an asset not only in the referral process but also for offering support throughout the process of evaluation and treatment."

George Comerci, MD PLNDP Member

A physician's ability to recognize and treat substance abuse is severely compromised by a widespread lack of medical education in the area of substance abuse. Unfortunately, the promise of treatment is not always apparent to all healthcare professionals. This is primarily due to the fact that physicians are not trained to recognize these problems in patients. Only eight percent of medical schools in the United States offer a required substance abuse component to the curriculum.¹⁰ Furthermore, the Association of American Medical Colleges has found that just 80 percent of medical schools even offer electives in alcohol abuse or chemical dependency.¹¹

In February 1998, the *Physician Leadership on National Drug Policy* conducted a national survey to investigate medical student perceptions about drug treatment and policies related to drug problems. The majority of survey respondents (76 percent) reported receiving little or no training in substance abuse issues in medical school.¹² Even though students lacked training in substance abuse, 90 percent felt physicans should be involved. (See figure 12)

According to a survey by the National Center on Addiction and Substance Abuse at Columbia University (CASA), 94 percent of primary care physicians and 40 percent of pediatricians presented with a class description of an alcoholic or drug addict, respectively, failed to properly recognize the problem.¹³

Clearly, incorporating substance abuse training into medical education is critical to the prevention, early intervention, and treatment of adolescents with substance abuse problems. The concluding statement from the participants of a 1994 conference sponsored by the Josiah Macy, Jr. Foundation recommends: "Primary care specialties should require all residents to be trained to develop and to demonstrate those skills necessary to prevent, screen for, and diagnose alcohol and other drug problems; to provide initial therapeutic interventions for patients with these problems; to refer these patients for additional care when necessary; and to deliver follow-up care for these patients and their families."¹⁴



Dr. Louis Sullivan, MD, PLNDP Member "US drug policy has historically been influenced by elected officials and police, driven by sensational news stories of drug lords and predatory dealers. But beyond the headlines is the core problem of millions of ordinary people, with no connection to the crime world, who are caught up in abuse and addiction." "Pediatricians should incorporate substance abuse prevention into daily practice, acquire the skills necessary to identify young people at risk for substance abuse, and provide or obtain assessment, intervention, and treatment as necessary."⁵

The lack of training may be attributed to the fact that a great deal of what research has demonstrated about the effectiveness of treatment remains largely underutilized in the medical field and community treatment settings.¹⁵ This reinforces the misperception that treatment doesn't work. The Center for Substance Abuse Treatment has undertaken a number of efforts to close this gap between research and practice, including the publication of Treatment Improvement Protocols (TIPs) and the establishment of a network of regional Addiction Technology Transfer Centers.¹⁶ In its examination of this problem, the Institute of Medicine Committee on Community-Based Drug Treatment points out that researchers and clinicians need to communicate more fully with one another.¹⁷

Another obstacle to addressing the lack of screening, identification, referral and treatment of substance use problems in the medical community is associated with stigma. The stigma related to dealing with what is commonly thought of as a "difficult population" is a disincentive for health professionals and patients in taking the initiative in talking about drugs and alcohol.

INNOVATIVE AND PROMISING APPROACHES

Screening and Brief Intervention (SBI) developed by Drs. Babor¹⁹ and Higgins-Biddle has emerged as a research-supported interviewing technique through which healthcare professionals can determine whether a patient's substance use is risky, and counsel accordingly. SBI can utilize brief, evidence-based screening tools such as the Alcohol Use Disorders Identification Test (AUDIT). When the level of an individual's substance use is determined to be potentially hazardous, the healthcare professional conducts a focused counseling session, which

can range from three minutes to several sessions in length. SBI is adaptable to a variety of healthcare settings and research suggests that the technique is effective in reducing patients' substance abuse.

Project Mainstream is a collaborative effort of the Association for Medical Education and Research in Substance Abuse (AMERSA), the Health Resources and Services Administration (HRSA), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the Center for Substance Abuse Treatment (CSAT). This groundbreaking project was initiated to develop a strategic plan for incorporating substance abuse curricula into healthcare professional education and training. Project Mainstream is in the final stages of developing curricula for all healthcare professionals in the screening, diagnosis, referral, and treatment of substance use disorders. This material is expected to be released in fall 2002.¹⁹

Project Vital Sign, recognizing the need for a marked increase in clinical screening and intervention concerning substance abuse, the Physician Leadership on National Drug Policy has undertaken Project Vital Sign, to determine the basis for developing a national clinical demonstration. The goal of this demonstration is a major expansion in the screening, diagnosis, intervention and referral of individuals with alcohol, tobacco and other drug (ATOD) problems. A planning meeting, held April 5, 2002, involved leaders in policy, medicine, and public health. The purpose of the meeting was to discuss the findings of a key informant study, annotated literature reviews, and financing research, as well as to review potential challenges to implementing the demonstration. A taskforce of advisors representing business, insurance companies, health, policy, and medicine will meet to strategize the next steps.²⁰

RESOURCES

National Association for Children of Alcoholics "Helping Children and Adolescents in Families Affected by Substance Abuse: A Guide for HealthCare Professionals," 2002, see www.ncaoa.org

The **Center for Substance Abuse Treatment** publishes Treatment Improvement Protocols (TIPs). TIP 24, "Guide to Substance Abuse Services for Primary Care Physicians," and TIP 31, "Screening and Assessing Adolescents for Substance Use Disorders" are useful tools for healthcare professionals. To access these and other TIPs, see **www.health.org/govpubs.**

Drug Strategies is developing a handbook on substance abuse for adolescents, titled Treating Teens: A Guide to Adolescent Drug Programs. This guide provides information on screening and assessment. For more information about the handbook, contact Drug Strategies or visit their web site www.drugstrategies.org.

The Josiah Macy Jr. Foundation focuses its resources on improving the education of health professionals, including in the area of substance abuse. For more information about the Josiah Macy Jr. Foundation, see www.josiahmacyfoundation.org.

Bright Futures, an organization founded in 1990 to promote the well-being of youth, families and communities, has recently published the second edition of Guidelines for Health Supervision of Infants, Children, and Adolescents. Available on the Bright Futures web site, www.brightfutures.org. Also available on the web site is Bright Futures in Practice: Mental Health (2002), a two-volume set presenting information on early recognition and intervention for specific mental health problems, and providing a tool kit for use by health professionals and families. The tool kit includes an outline of "Stages of Substance Use and Suggested Interventions," available at www.brightfutures.org/mentalhealth/pdf/professionals/bridges/stages_substance.pdf.

The American Academy of Pediatrics (AAP) has recently released a 2002 version of Substance Abuse: A Guide for Health Professionals. For more information about AAP or to order the publication, see www.aap.org.

The **American Academy of Family Physicians** (AAFP) supports physician education in substance abuse and physician involvement in the prevention, intervention, diagnosis, and treatment of substance use problems. For more information about AAFP, see **www.aafp.org**. The **Robert Wood Johnson Foundation**, supports a variety of research projects and initiatives focused on the role of healthcare professionals in substance abuse prevention, intervention and treatment. For more information, see **www.rwjf.org**.

The Association of American Medical Colleges (AAMC) is a non-profit association whose purpose is the improvement of the nation's health through the advancement of medical schools and teaching hospitals. In this regard, AAMC supports medical education and training in substance abuse. For more information on AAMC, see www.aamc.org.

Drs. Dennis, White, and Titus have developed a comprehensive table that outlines screening and assessment tools for adolescents. The table, "Common Measures that Have Been Used for Both Clinical and Research Purposes with Adolescent Substance Abusers" is available at **www.chestnut.org/li/downloads.**

POLICY RECOMMENDATIONS

- Increase the proportion of the federal and state budgets allocated to the treatment of substance use problems in adolescents. Provide additional resources for the dissemination of evidence-based information that identifies the most effective approaches to treatment of substance use problems and the disease of addiction.
- 2. Increase support of treatment modalities that include a strong focus on recovery management and relapse prevention. Broaden treatment to a level at which multiple episodes of care and ongoing recovery management are the standard.
- 3. Coordinate efforts and increase communication among agencies/ organizations across disciplines in the prevention, intervention, and treatment of adolescent substance use problems. In addition to traditional mental health and substance abuse stakeholders, these efforts should include public assistance programs, child welfare, schools, community coalitions, law enforcement, juvenile justice, and medicine. Source: adapted from National Mental Health Association.

- 4. Establish commonly accepted standards of care with evidencebased guidelines tailored to the needs of adolescents.
 Source: adapted from American Academy of Pediatrics, American Society of Addiction Medicine, and Center for Substance Abuse Treatment.
- 5. Support the development and use of standardized methods to match patients to the appropriate treatment with the appropriate length of treatment (i.e. ASAM Patient Placement Criteria) and ensure that the individual's specific needs (medical, psychological, social, vocational, legal-not just their substance use) are addressed through treatment.
- 6. Increase support for research comparing treatment approaches specifically for adolescents. These approaches include a broad range of variables, i.e. client characteristics, healthcare networks that identify and refer youth to treatment, gender issues, parents' sensitivity to types of problem behaviors by young people, and treatment programs themselves-therapeutic approaches, treatment characteristics, attention to specialized problems, and definition of treatment response.

Note: In developing our policy recommendations we have relied on the experience of the PLNDP, the research presentations and publications of a number of national, governmental, and professional organizations. When our recommendations are consistent with others we have indicated them as a source.



CONTINUUM OF CARE: TREATMENT

BACKGROUND: "We are entering a renaissance of research on drug and alcohol abuse treatment for adolescents. ...The number of studies evaluating formal substance abuse treatment programs for adolescents doubled from 1997 to 2001 and promises to double again within the next three years. There are more adolescent treatment studies in the field now than there were completed in the field's history through 1997. We've seen major methodological advances in screening and assessment, placement, manual-guided approaches for targeted interventions and for more comprehensive program management that can be easily disseminated." –Michael Dennis, PhD, Researcher

Several efforts are underway to identify and document effective models of adolescent treatment in manuals so that they can be replicated in communities throughout the country. Within the next two years, we will see nearly two dozen new manual-guided therapies supported by research-based effectiveness, cost, and benefit-cost data."¹

Our knowledge of adolescent substance abuse and its treatment continues to broaden and deepen, and with this increased knowledge comes a clearer understanding of our shortcomings. While treatment capacity continues to grow, we currently reach only one in ten adolescents suffering from substance use disorders and, of those who do receive treatment, only 25% receive enough.² While it is imperative that we address the lack of treatment availability, we must also analyze the appropriateness of our methods in order to most effectively address adolescent substance use problems. To be effective, treatment must be broad-based and diverse, addressing the multifaceted needs and problems of each adolescent. Continuing care and recovery management (relapse prevention) are as integral to the treatment of substance abuse as is treatment for the acute episode. Detoxification or stabilizing an individual alone is not adequate treatment but only the initial step in a more comprehensive treatment intervention. Recovery management is particularly vital to the treatment of adolescents, as only one-third of adolescents are problem-free 12 months following initial treatment. Individuals generally undergo successful recovery after several interventions, demonstrating the crucial importance of continuing care. Thus, the overall treatment approach must undergo a paradigm shift from acute intervention to long-term monitoring and management: follow-up and aftercare are essential components of successful treatment.

In an attempt to design more effective treatment for adolescents with substance use problems, Drs. Dennis, Adams, Fishman, Fraser, Godley M., Godley S., and Muck have developed recommendations, based on their research and work in the field of adolescent substance abuse treatment that they feel are essential components for effective treatment. These include:

- Improve Outreach. Most adolescents presenting for assessment are mandated and do not yet recognize substance use as "their" problem. Staff in other institutions, such as schools and healthcare settings, are often reluctant to identify them because of potential damage from stigma, uncertainty about severity, and the lack of resources to help them. Care is often compartmentalized in separate systems rather than integrated.
- 2) Developing Progressive Assessment Systems. Most adolescents and young adults do not use drugs and, thus, primarily need assistance and support with specific refusal skills. As levels of use progress, so must the type of assessment used.
- 3) Availability of a Continuum of Care. Although the size of the adolescent treatment system has doubled in the past decade, there is still a great need for funding to increase treatment capacity across the continuum and in virtually all geographic areas. Some additional specific recommendations are listed below:

- Match adolescents and young adults to a continuum of care using placement principals such as those developed by the American Society of Addiction Medicine (ASAM).
- Treatment should be conducted in the least restrictive environment that can be provided for accessing clinically appropriate services.
- Evaluate the response to treatment and adjust level of care or services as appropriate.
- 4) Conducting recovery management check-ups to:
 - Check on the availability and appropriateness of the recovery environment and support.
 - Check on how old lapses were handled (and develop plans with new approaches).
 - Proactively encourage early re-intervention if necessary.
- 5) Providing Comprehensive Services. There is little evidence to support that any one modality of treatment or session format (e.g., group, individual, and family), is appropriate for all individuals. Flexibility, availability, and actively matching needs to services is, therefore, the most efficient approach. Some specific recommendations for such a comprehensive system are:
 - Targeted sessions (victimization, anger management, depression, gender, culture).
 - Psychiatric services (further assessment, psychiatrist, medication management).
 - Family programming (assessment, parent education, multi-family groups, family counseling, home visits).
 - Education services (on-site if residential).
 - Wrap-around services (transportation, case management, coordination of care).
 - Healthcare (contraception, sexually transmitted diseases, asthma/respiratory problems).
 - Recreational activity (room for gross motor activities) and exposure to non-using activities.

AMERICANS SUPPORT TREATMENT

Seventy-four percent of respondents reported that they believe people who frequently use illegal drugs can stop but need outside help to do so *[table 1]* and 69 percent believe that illegal drug abuse can be treated successfully *[table 2]*. When asked about their views on government spending on drug treatment, 46 percent of those polled favored more spending, in addition to 41 percent who support maintaining the current level of funding *[table 3]*.





MYTH — "I know someone who has been in and out of treatment a dozen times treatment just doesn't work."

FACT — "As with other chronic illnesses, relapses to drug use can occur during or after successful treatment episodes. Addicted individuals may require prolonged treatment and multiple episodes of treatment to achieve long-term abstinence and fully restored functioning. Participation in self-help support programs during and following treatment often is helpful in maintaining abstinence."

> "Individuals progress through drug addiction treatment at various speeds, so there is no predetermined length of treatment. Research has shown unequivocally that good outcomes are contingent on adequate lengths of treatment."⁴



- 6) Improving Engagement and Retention. No amount of treatment or degree of comprehensiveness is sufficient if adolescents are not engaged and retained in treatment. This is important because in some programs, as many as half of adolescents drop out in the assessment phase or during the first few treatment sessions. The median duration of adolescent treatment is only about 6 weeks (compared to the 3 months recommended by National Institute on Drug Abuse). Some specific recommendations to improve engagement and retention include:
 - Set up protocols for on-site screening, initial services, and smooth transfer of adolescents to specific service providers.
 - Motivational interviewing or feedback.
 - Building a good working/therapeutic alliance.
 - Use materials that are targeted to adolescents in terms of examples and developmental appropriateness.
 - Provide transportation assistance and other wrap-around services.
 - Work with family, school, and other institutions to provide support (and pressure).
- 7) Adapting Treatment for Adolescents. Adolescence is a period of overlapping developmental changes.
 - Biological changes occur in the body, brain, and hormonal systems into the mid- to late-20s.
 - Shift from concrete to abstract thinking.
 - Separation from a family-based identity and development of a peer-based identity on the road to an individual-based identity.
 - Increased focus on how one is perceived by peers.
 - Increasing rates of sensation-seeking/trying new things.
 - Development of impulse control and coping skills.
 - Concerns about avoiding emotional or physical violence.

- 8) Staff, Supervision, Protocol Quality Assurance and Other Systems Issues. At the systems level, it is important to recognize that adolescent treatment systems have specific staff requirements and organizational issues to overcome as well. Some specific staff and organizational recommendations include:
 - Diverse staff in terms of experience (substance abuse treatment, juvenile justice, psychology, social work), education level and personality (young, enthusiastic, mature, wise, love working with adolescents, good parent boundaries), recovery experience and demographics (gender, race, social economics).
 - Provide additional training in adolescent assessment, substance abuse treatment, mental health treatment, and adolescent management techniques/crisis intervention.
 - Weekly clinical supervision and team meetings (Intensive Outpatient: 1-2 per week; Residential: 3-5 per week).
 - Clinical back-up for emergencies and problemsolving.
 - Match strength of staff with job.
 - Few clients per staff (Outpatient: 20-25:1, Intensive Outpatient: 10-15:1, Residential 4-8:1).⁸

While the majority of treatment services are focused on a single episode of care, achieving long-term recovery requires, on average, 3 or 4 episodes of care.⁴ As stated by Dr. Ken Winters, "...high relapse rates are typical for adolescents with substance use disorders...Biological, psychological, psychiatric, and sociological factors interact to influence the risk of relapse for any individual...successful recovery involves the maintenance of new skills and lifestyle patterns that promote positive, independent patterns of behavior; the integration of these behaviors into regular day-to-day activities is the essence of effective relapse prevention...Adolescents as minors do not have the luxury to choose another home, community, or school in which to return after treatment. Thus, the adolescent's goal of continued recovery may be confronted with an environment that is far from ideal from a relapse prevention perspective."5

Matching Treatment To A Patient's Individual Needs

- No single treatment is appropriate for all individuals
- Effective treatment attends to multiple needs of the individual, not just his/her drug use
- Treatment must address medical, psychological, social, vocational, and legal problems

Duration of Treatment

- Depends on the patient's problems/needs
- More than 90 days is of greater effectiveness than shorter lengths of stay in residential/ outpatient settings
- Longer treatment is often indicated
- Successful outcomes may require more than one episode of treatment

See NIDA www.nida.nih.gov.



David C. Lewis, MD, PLNDP Project Director "The most underutilized and most effective approach to the crime and health problems from alcohol and drug abuse is accessible, affordable, and quality treatment."

THE EFFECTS OF DRUG TREATMENT LAST (One year after treatment)

- Illicit drug use decreased by 50 percent
- Illegal activity decreased by 60 percent
- Drug selling fell by nearly 80 percent
- Arrests down by more than 60 percent
- Trading sex for money or drugs down by nearly 60 percent
- Homelessness dropped by 43 percent and receipt of welfare by 11 percent
- Employment increased by 20 percent

Source: Office of National Drug Control Policy: "Drug Abuse In America." Washington, DC: Executive Office of The President, PowerPoint Slide #105. Available www.whitehousedrugpolicy.gov

THE EFFECTS OF DRUG TREATMENT LAST (Five years after treatment)

- Users of any illicit drugs reduced by 21 percent
 - Cocaine users by 45 percent
 - Marijuana users by 28 percent
 - Crack users by 17 percent
 - Heroin users by 14 percent
- Numbers engaging in illegal activity significantly reduced
 - 56 percent fewer stealing cars
 - 38 percent fewer breaking and entering
 - 30 percent fewer selling drugs
 - 23 percent fewer victimizing others
 - 38 percent fewer injecting drugs
 - 34 percent fewer homeless

Source: Office of National Drug Control Policy: "Drug Abuse In America." Washington, DC: Executive Office of The President, Power Point Slide #106. Available www.whitehousedrugpolicy.gov

figure 13

Although research on the effectiveness of adolescent substance abuse treatment is a relatively new field, there is significant evidence that substance abuse treatment is both medically effective and cost-effective. Studies indicate that treatment reduces both drug use and crime by 40 to 60 percent, and that drug treatment is as effective as treatment for diabetes, asthma, and hypertension. According to several conservative estimates, every \$1 invested in treatment yields a return of between \$4 and \$7 in reduced drug-related crime, criminal justice costs, and theft alone. When savings related to healthcare are included total savings can exceed costs by a ratio of 12:1. Even more important are the major savings to the individual and society that derive from significant drops in interpersonal conflicts, improvements in workplace productivity, reductions in crime, and reductions in drug-related accidents.⁶

While not specific to adolescents, the following data are informative concerning treatment outcomes. Figure 13 shows that the effects of drug treatment are manifold and last. Those who receive treatment show decreased drug use and criminal activity, an increase in employment, improved physical health and improved social and interpersonal skills. In particular, "drug use and criminal activity decrease for virtually all who enter treatment, with increasingly better results the longer their stay in treatment."⁷

"TREATMENT—this is both for adult and young people—is shrinking due to financial considerations. There is less treatment available, less time allowed for treatment, and the threshold to get into treatment has been raised so only the more severe cases...are getting entry into treatment. So a lot of young people are slipping through the cracks, aren't able to get some of the intensive treatment they may need."

- Ken Winters, PhD (Researcher)

In April 2002, Dr. Hser and colleagues published the results of the first large scale study of its kind. They found that providing adolescents with treatment designed specifically for their age group significantly reduces drug and alcohol abuse, and results in improved school and psychological outcomes. In addition to considerable reductions in the use of marijuana and alcohol one year after treatment, the adolescents reported less criminal activity, improved school attendance and grades, higher self-esteem, decreased hostility, and fewer suicidal thoughts. Furthermore, among adolescents who met or exceeded the recommended minimum lengths of treatment, better outcomes were observed than among those who did not meet the minimum.⁸

For the public and for health professionals alike, much of the reluctance to commit funds and energy to researching and treating substance abuse/addiction stems from a lack of clarity surrounding the role of volition in substance abuse and addiction. Research has shown that while initial use is clearly voluntary, addiction/dependence of a substance is a chronic, relapsing disease in which brain chemistry becomes altered. Thus, the voluntary user may become the involuntary addict. As users progress through the severity continuum, the role of volition, or voluntary involvement with drugs, drastically declines. This means that society, which is relatively tolerant in its attitude toward teen experimentation, tends to condemn an individual's drug involvement just at the stages when it is no longer a question of "knowing better." If anything, the role of judgment and volition are most heavily involved in the initial stages of use. The stereotype that motivation alone is required to change substance abusing behavior grossly oversimplifies the research that points to multiple determinants of abuse and addiction.

Addiction, as with many other chronic diseases, is a manageable condition and, very frequently, robust health can be achieved for individuals who receive adequate treatment.⁹ From an economic perspective, the management of addiction is generally less costly than the management of many other chronic diseases and relapse rates are comparable.¹⁰ (See figure 14, page 38)

Compliance And "Relapse" In Selected Medical Disorders





"The problem is that we oftentimes focus on the traditional stereotypes of the person who is labeled as an addict or an alcoholic. And those stereotypes are oftentimes individuals who we don't like. Those stereotypes might represent maybe 10 or 15 percent of people who really do fit into that diagnostic label. The 85 or 90 percent of individuals who make the same criteria, who make the same label, look like all of us."

- Dr. Hoover Adger, Adolescent Pediatrician

Stigma alone can often be the primary deterrent to individuals seeking and receiving needed treatment. Stigma may also play a role in the existence and funding of treatment programs, related insurance benefits, research, and staff training. Recently, some organizations have taken and launched an anti-discrimination campaign, saying that those who ignore the needs of individuals and families with addictive disease and mental illness are discriminating against them. This more activist stance is illustrated by the work of Join Together and the National Council on Alcoholism and Drug Dependence (NCADD), which in cooperation with several national organizations, have developed Join Together's most requested publication, entitled "Advocacy with Anonymity." This publication a clear patient's rights orientation (see has www.Jointogether.org or www.NCADD.org). In addition, The American Bar Association Standing Committee on Substance Abuse and Join Together have undertaken a major initiative to address stigma against individuals in treatment and recovery for addiction. Specifically, target areas include discrimination in employment, healthcare coverage, housing, education and criminal justice. The group is planning a series of public policy hearings beginning in August of 2002 to consider these and related issues. A report based on the hearings and recommendations for lawyers, law firms and community leaders will be issued at a national press conference in January 2003.

INNOVATIVE AND PROMISING APPROACHES

One type of treatment is not effective for every adolescent, so researchers have begun to explore the most effective ways of intervening and treating adolescents across a continuum of intensities and settings, based on the needs and circumstances of the individual adolescent. The following examples demonstrate various approaches to intervention.

Motivational Interviews for Teen Drinking and Driving

Dr. Peter Monti and colleagues at the Brown University Center for Alcohol and Addiction Studies have conducted a research study, "Motivational Interviews for Teen Drinking and Driving," which focuses on adolescents with substance use problems and how they can be reliably identified through screening in medical settings. This



Phil Lee, MD, PLNDP member

"I am delighted that the PLNDP will be issuing its Adolescent Policy report because adolescents are a very vulnerable group that are subject to many social pressures that can lead to very destructive behaviors that can last a lifetime. Behaviors that can seriously undermine the quality of their lives. We should not forget David Kessler's (PLNDP member) phrase 'nicotine addiction is a population disease.' Addiction of many kinds often have their origins in adolescence."

work suggests that interventions as brief as a single session can change behavior significantly for as long as a year following intervention. While not a substitute for more intensive forms of treatment, brief interventions can have a meaningful impact on adolescents who otherwise would be unlikely to get any treatment.

The study involves youth who enter the emergency department having been involved in a drunk driving accident or other alcohol-related incident. Dr. Monti and colleagues have developed a 45-minute intervention that is delivered in the context of a busy emergency room, and have demonstrated that it shows positive effects that are maintained for as long as 12 months. Results of the study show a reduction in alcohol-related injuries, fewer drunk driving incidents (validated by motor vehicle department reports) and a reduction in alcohol-related problems. Each adolescent was provided feedback regarding his/her level of drinking and driving and how it compared to their peers. All adolescents in the study assumed that their level of drinking was lower than that of their peers. Dr. Monti also found that when adolescents presented at the emergency department in a pre-contemplative stage (not interested in changing their behavior), they showed a greater benefit after receiving a brief intervention than those with a greater initial interest in changing their behavior.¹¹

Four Year Post-Treatment Outcomes

Recently, Dr. Sandra Brown and colleagues at the University of California-San Diego published the findings of a study on the post-treatment outcomes of adolescent substance abusers. The study used five series of data collection over a four-year period to examine outcomes for a group of youth who had received treatment for substance abuse problems. The results show that use of all substances except nicotine decreased during the four years after treatment. The researchers conclude that drug use patterns highlight developmental changes and diversity in substance use as youth transition from middle and late adolescence into young adulthood. These findings stress the importance of identifying transitional periods and also the need for alternative intervention strategies for youth during the transition into young adulthood.¹²

Cannabis Youth Treatment (CYT)

The Cannabis Youth Treatment (CYT) Randomized Field Experiment aims to assess the needs and characteristics of adolescents who abuse or are dependent on marijuana. CYT researchers Michael Dennis and colleagues are evaluating the effectiveness, cost, benefits, and cost-effectiveness of five outpatient interventions. Preliminary findings indicate that the interventions were successful and affordable in a wide range of settings; substance use and related problems were reduced by at least one third and up to 60 percent in some cases. In addition, the initial costs of treatment were quickly offset by reductions in other costs to society. The implications of these results are manifold: adapting manualguided therapies for adolescents improves the effectiveness of treatment. Furthermore, the CYT interventions provide replicable models to help the field maintain quality while expanding treatment capacity. While more effective than many earlier outpatient treatments, over two-thirds of the CYT adolescents still had problems 12 months later. This suggests that the CYT interventions were not an adequate dose of treatment for the majority of adolescents. "We need more sustained interventions...managing recovery over time, providing support afterwards," says Dennis. While there is still a need for residential treatment, "we gave up prematurely on outpatient treatment. There are relatively inexpensive brief interventions that can have an effect and can be more cost-effective as well."13

RESOURCES

Drug Strategies promotes more effective approaches to the nation's drug problems. They are in developing an adolescent drug treatment guide for parents, court officials, educators, guidance counselors, and physicians. This guide entitled "Treating Teens: A Guide to Adolescent Drug Programs" is expected to be released in fall 2002. For information about Drug Strategies, see www.drugstrategies.org.

The **Center for Substance Abuse Treatment** (CSAT) has undertaken the "National Treatment Plan Initiative," calling for improvements in the delivery of and access to drug treatment services. For more information about the outcomes of this initiative, see **www.NaTxPlan.org.** CSAT also publishes Treatment Improvement Protocols (TIPs). TIP 27 "Comprehensive Case Management for Substance Abuse Treatment" addresses factors for treatment program organizers to consider in implementing or modifying case management. For this and other TIPS, see **www.health.org/govpubs**.

The National Clearinghouse for Alcohol and Drug Information (NCADI) is the information service of the Substance Abuse and Mental Health Services Administration (SAMHSA). NCADI is the world's largest resource for current information and materials on substance abuse. To access NCADI, see www.health.org.

Join Together – For more information see www.jointogether.org.

National Council on Alcoholism and Drug Dependence – For more information, see www.NCADD.org.

The **Robert Wood Johnson Foundation** funds research for improved care and support for people with chronic health conditions and is concerned with reducing the personal, social and economic harms caused by substance abuse. For more information about the Robert Wood Johnson Foundation, see **www.rwjf.org**.



POLICY RECOMMENDATIONS

- Increase the proportion of health insurance plans providing coverage for substance abuse treatment on a par (parity) with services provided for other chronic diseases.
- 2. Streamline administrative processes within Medicaid to increase accessibility of funds earmarked for early and periodic screening, diagnosis, and treatment (EPSDT). Educate healthcare providers and Medicaid recipients about EPSDT and its availability for substance abuse treatment.
- Increase coverage of substance abuse treatment under Medicaid and the State Children's Health Insurance Program (SCHIP) to a uniform benefit structure that supports an evidence-based continuum of care of adolescents in every state. Increase the proportion of eligible adolescents who receive Medicaid and SCHIP.

- Require states within their Single State Authority for substance abuse to have a designated expert responsible for adolescent substance abuse treatment planning, delivery, and evaluation.
- 5. Increase support for research on the impact of financing mechanisms on access to substance abuse treatment and support its dissemination.

Note: In developing our policy recommendations we have relied on the experience of the PLNDP, the research presentations and publications of a number of national, governmental, and professional organizations. When our recommendations are consistent with others we have indicated them as a source.



FINANCING OF CARE Parity, Medicaid, SCHIP, Block Grant

BACKGROUND: Health insurance coverage is a strong predictor of whether or not an adolescent will receive needed healthcare services. However, having health insurance does not necessarily ensure that adequate substance abuse treatment services will be available to an adolescent. Even adolescents who have access to healthcare, either through private or public insurance, are not receiving adequate substance abuse treatment services. The Center for Substance Abuse Treatment estimates that 1 in 10 adolescents who need substance abuse treatment receive it, and of those who do receive treatment, only 25 percent receive enough.¹

Over the past decade, inadequate insurance coverage for substance abuse services, low rates of reimbursement, and managed care regulations have resulted in a decrease in substance abuse treatment access.² Furthermore, sources of funding are fragmented, complicated, and vary greatly by source of insurance coverage and geographic area. In the public sector, current trends toward increasing states' flexibility seem, to many, to be at odds with the need for eliminating geographic disparities in treatment access through national standards. From 1987 to 1997, private funding for substance abuse treatment (from private insurance, out of pocket, and charitable sources) was outpaced by inflation and grew much more slowly than for healthcare expenditures generally.³ In addition, the role of managed care in the U.S. healthcare system has expanded rapidly in the past decade and, as a result, there is increasing concern about its effect on substance abuse treatment.⁴ It is certain that failure to address the increasingly serious issue of financing substance abuse treatment for our nation's youth will result in long-term physical health, mental health, economic, and social consequences.



Parity of Health Insurance

Health plans and third-party payers typically provide less extensive coverage for substance abuse treatment than for general medical services. Some insurance companies provide no treatment benefits. Offering equitable medical coverage would accord substance abuse "parity" with other chronic conditions in the provision of healthcare, making access to treatment more feasible. Increasing private insurance coverage would also stimulate private sector developments of treatment programs, medications, and protocols, which are discouraged economically in the current system. The 1996 Mental Health Parity Act requires health plans to provide the same annual and lifetime benefits for mental health as are already guaranteed for other aspects of healthcare.⁵ However, to date, no equivalent federal bill has been passed for substance abuse benefits even though the cost of providing parity for substance abuse treatment is minimal in comparison to the cost of full parity for mental health. "Substance abuse costs are about 1/8 of mental health costs."⁶

A recent landmark initiative to provide mental health benefits to federal employees did include substance abuse coverage. On June 7, 1999, President Clinton directed the Office of Personnel Management to achieve parity for mental health and substance abuse coverage in the Federal Employees Health Benefits Program (FEHBP) by 2001. In addition, Clinton noted that the FEHBP's action could serve as a model for other employers and insurance providers.⁷ State action will also be important for achieving substance abuse parity, although to date only five states have passed comprehensive substance abuse parity laws. One of the primary arguments against providing parity for the treatment of substance-related disorders is the fear that the cost to third-party payers will be too high.⁸ Few seem to question the benefits of providing treatment for drug addiction, especially given extensive scientific evidence in its favor. However, many people doubt the practicality of requiring insurance providers to cover the costs of substance abuse treatment. Much of this reluctance has been addressed by studies that examine the costs of parity for substance abuse treatment. In fact, a government study published in 1998 showed that the costs of substance abuse parity are minimal and that the demonstrable benefits to individuals, employers, and society are significant.⁹

The study, conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA), found that offering full parity for substance abuse treatment would increase insurance premiums by only 0.2 percent.9 A recent study, by the RAND Corporation, concluded that adding substance abuse parity to a plan with no substance abuse benefits would increase costs by 0.3 percent, and providing unlimited benefits would increase costs by approximately \$5 per member per year (See figure 16). The report also showed "....no support for excluding substance abuse from parity efforts because of cost reasons because decoupling mental health and substance abuse care in terms of benefits cannot save any meaningful amount. However, decoupling is likely to create difficulties in coordinating treatment and lead to less efficient care. Since a high proportion of individuals have both mental health and substance abuse problems, poor coordination of care is a significant concern."6 A 1998 survey by the actuarial firm Milliman & Robertson, Inc. found the additional cost of including drug abuse treatment in healthcare coverage to be less than 1 percent of the annual premium.¹⁰

Researchers from the Substance Abuse and Mental Health Services Administration (SAMHSA) have analyzed a number of studies of states with parity laws and concluded:

- Most state parity laws are limited in scope or application and few address substance abuse treatment. Many exempt small employers from participation.
- State parity laws have had a small effect on premiums. Cost increases have been lowest in systems with tightly managed care and generous baseline benefits.
- Employers have not avoided parity laws by becoming self-insured, and they do not tend to pass on the costs of parity to employees. The low cost of adopting parity allows employers to keep employee healthcare contributions at the same pre-parity level.
- Costs have not shifted from the public to private sector. Most people who receive publicly-funded services are not privately insured.
- Based on the updated actuarial model, full parity for substance abuse services alone is estimated to increase premiums by 0.2 percent.⁹

A recently published study of the costs and benefits of publicly-funded outpatient treatment services in the city of Philadelphia found similar results. The average cost of treatment in an outpatient drug-free program was \$1,275 while the benefits gained by avoiding healthcare and crime costs were estimated at \$8,408 per person. Even greater cost benefits were found for the outpatient methadone maintenance program: treatment costs were slightly higher, \$1,873 per person, but saved over \$34,000 through reduced medical costs, increased rates of employment, and decreased crime rates.¹¹ In addition, several major political and professional organizations have published statements of support for parity legislation. The Office of National Drug Control Policy (ONDCP) cited four major reasons for its support of parity:

- 1) Parity will help to close the treatment gap.
- 2) Parity will correct discrimination.
- 3) Parity is affordable.
- Parity will reduce the overall burden of substance abuse to society.¹²

A recent report by the Center for the Advancement of Health, entitled *Health Behavior Change in Managed Care*, discusses the reasons why the implementation of substance abuse and other health behavior change benefits in managed care plans has been limited, despite a large body of efficacy data. The reasons cited include:

- Healthcare purchasers "do not believe they have any leverage or ability to negotiate" for such benefits,
- 2) They believe that preventive service benefits may already be incorporated in managed care and are reluctant to negotiate for them because they fear paying for them twice, and
- 3) Most purchasers and HMOs are unfamiliar with scientific data on the effectiveness and costeffectiveness of these services.¹³

A current initiative of *PLNDP*, Project Vital Sign, involves planning for a national clinical demonstration to increase rates of substance abuse screening and intervention in clinical care settings. One component of this has been reviewing financing barriers within insurance companies. Interestingly, many insurers believe that paying for substance abuse services would not be profitable to them because they believe that the benefits of substance abuse prevention would be reaped only years later, after beneficiaries have changed jobs and insurance plans.

While comprehensive parity coverage comes at a small economic price, the cost benefit produced by substance abuse treatment is significant. Healthcare utilization of individuals following treatment is observed to fall dramatically and eventually, in most cases, will nearly converge to the level of the general population. Only in cases where the physical damage done by drinking or drug use is permanent, or where the patient is no longer physically resilient, will significant convergence not be observed. Even in such cases, there may be attractive cost-offsets since medical problems are contained or at least brought under greater control. Currently, substance abusers are among the highest cost users of medical care in the United States, although only 5-10 percent of those costs are directly related to addiction treatment.14

Public Insurance Coverage

Because 1 in every 4 children is covered by public insurance in the United States, substance abuse in low-income adolescents cannot be ignored. Estimates of substance abuse prevalence among individuals on public assistance range from 6.6 to 37 percent,¹⁵ suggesting that substance abuse may be more common among those on public assistance than in the general population. Although prevalence data specific to low-income adolescent populations is lacking, results of the most recent National Household Survey on Drug Abuse indicate that the prevalence of past-month illicit drug abuse is higher among adolescents, ages 12 to 17, who are on public assistance than those who are not on public assistance. Interestingly, the proportion of youth ages 12 to 17 reporting pastmonth heavy alcohol use did not differ significantly by public assistance status.¹⁶



Edward N. BRANDT, MD, PhD, PLNDP member

"The future is tied up in our adolescents, and we must ensure that they are not harmed by drugs, alcohol or other threats to their health. Prevention is the key, and there is a role for all of us. Should they become addicted, effective treatments and other interventions are available and should be used. Work is needed to assure coverage is provided both by government and private programs."

Medicaid

Medicaid is the largest source of health insurance in the U.S., covering 16.4 million children under the age of 22.² Because Medicaid programs are operated at the state level, substance abuse treatment coverage varies greatly by state and depends largely on which optional services a state chooses to cover. All states are required to provide

certain generic mandatory services which may or may not be used for substance abuse treatment, although substance abuse is never specifically mentioned in the regulatory language. One optional service that, when covered, has the potential to provide a significant amount of adolescent substance abuse treatment, is that of "rehabilitative services." Despite some seemingly uniform possibilities for treatment coverage, however, it is important to note the extent to which substance abuse treatment benefits vary across the nation. In Mississippi, for example, inpatient detoxification is the sole substance abuse treatment service covered under Medicaid, while a full range of treatment options with extensive limits is provided in Massachusetts.¹⁷ Additionally, Medicaid's emphasis on acute care services is not consistent with the chronic nature of addiction and the need for ongoing recovery management.

Another concern is the lack of attention given to Medicaid policies and their impact on the availability of treatment for adolescents with substance use problems. For example, the Institutions of Mental Disease (IMD) blocks reimbursement for treatment within residential treatment facilities such as therapeutic communities.

Early and Periodic Screening, Diagnosis and Treatment (EPSDT)

Early and periodic screening, diagnosis and treatment (EPSDT) is a federally mandated Medicaid benefit that requires states to provide any medically necessary service to children and adolescents covered by Medicaid, whether or not that service is covered under the state's Medicaid program. In theory, EPSDT has the potential to significantly increase the access of Medicaid-eligible adolescents to substance abuse treatment; in practice, the benefit is underutilized. It is estimated that EPSDT services are received by one-third of all eligible children.¹⁸ Lack of awareness regarding EPSDT, how it works, and the fact that it can be used to fund treatment services has been cited as a key barrier to its utilization, among families and healthcare professionals alike. Increasing utilization of EPSDT will require that states address administrative barriers to obtaining reimbursement and the lack of physician awareness regarding the EPSDT benefit. One study, which targeted private physicians in rural North Carolina, demonstrates the impact of providing information to physicians: mailing an intervention packet designed to address barriers to EPSDT utilization by private physicians increased their participation in EPSDT screening by 67 percent. The cost of providing these materials averaged less than \$30 per physician.¹⁹

State Children's Health Insurance Program (SCHIP)

The State Children's Health Insurance Program, established by Congress in 1997, has markedly expanded health insurance coverage of children, now insuring over 4.6 million children.²⁰ Under SCHIP, states have the option to expand Medicaid, establish a new private program, or a combination of the two. By May 2002, 21 states had expanded Medicaid, 16 states had pursued a separate, private program, and 19 states had developed a combination plan.²¹ A great deal of discretion has been left to individual states, and coverage of substance abuse treatment, again, differs considerably by state. In states that chose to expand Medicaid, benefits are identical to those provided under Medicaid and include EPSDT. In states that chose to establish a separate program, or a combination of the two, SCHIP substance abuse treatment benefits often appear similar to those provided by private, employer-based health plans, and may or may not provide a level of coverage that is comparable to Medicaid. The degree to which treatment is available under SCHIP ranges from Pennsylvania, which provides no substance abuse treatment benefits, to Vermont, in which substance abuse treatment benefits are unlimited.²² In 1999, the Center for Substance Abuse Treatment reported that 28 states offered Medicaid benefits, 8 provided comprehensive substance abuse treatment benefits, 14 provided benefits limited to outpatient treatment or with low annual or lifetime limits, and one did not cover substance abuse treatment.²³

Block Grants

The Substance Abuse Prevention and Treatment Block Grant is another source of public funding. It is estimated that nearly eight percent of all treatment is funded by block grants to the states.³ The ways in which block grant funds are used to some extent depends on the specific substance abuse treatment services available under Medicaid and/or private insurance. In addition, persons who are not eligible for Medicaid but meet other criteria determined by states may be able to receive treatment funding through the block grant. Among the block grant funded population, co-occurring substance abuse and mental health problems are highly prevalent, yet integrated systems of care and financing are virtually nonexistent, particularly for Medicaid and other publicly-funded payers of treatment. Research indicates that mental disorders, including depression and anxiety disorders, are considerably more common in low-income populations than in the general population.¹⁶ Low socioeconomic status can be thought of as both a cause and a consequence of mental disorders, and studies support both theories.²⁴

"...reducing substance abuse today saves healthcare dollars today."²⁵

Cost-Effectiveness

Evidence does not support the notion that failure to pay for treatment services for all Medicaid recipients saves money. According to research by Kimberley Fox and colleagues, nearly \$8 billion (in 1994) and one in every five days of Medicaid-funded hospital care (in 1991) were spent on conditions related to substance abuse. Moreover, the study found that "about two thirds of the cost impact [of paying for substance abuse prevention] is short term.... Thus, reducing substance abuse today saves healthcare dollars today."25 Another study by Dr. Thomas Reutzel and colleagues evaluated the effect on total healthcare costs of adding coverage for substance abuse treatment in a Medicaid demonstration project. The authors concluded that paying for substance abuse treatment averted the use of more costly services and did not result in higher total expenditures.²⁶ Paying for treatment would, then, not only be cost-effective to Medicaid, but also to the managed care organization providing care; the costs of treatment services are offset quickly by preventing future costs due to conditions related to substance abuse. This is applicable to private insurance coverage of treatment as well.

INNOVATIVE AND PROMISING APPROACHES Parity Working Group

In February 2000, the Physician Leadership on National Drug Policy, American Society of Addiction Medicine, and Join Together initiated the Coalition for Treatment of Alcoholism and Other Drug Dependencies Parity Working *Group*. The purpose of the Coalition is to provide a forum for national organizations with state-based constituent groups to form collaborative efforts to increase access to addiction treatment and parity. Thirty-nine national and state organizations currently participate in the bipartisan Coalition. In addition to those mentioned above, key supporters include the Center for Substance Abuse Treatment; The Robert Wood Johnson Foundation, The Alliance Project, Capitol Decisions, The American Bar Association, National Conference of State Legislatures, and National Council on Alcoholism and Drug Dependence. The strength of the Coalition's approach is the membership of individuals from all professional, social, and political sectors of the community. (See Appendix C for a list of organizations represented)

Best Practices Initiative

A recent *PLNDP* meeting, entitled *Best Practices Initiative: State-Level Issues for Medicaid/Welfare and Substance Abuse Treatment*, addressed model programs, best practices, and policy barriers for treating substance abuse in lowincome populations. The meeting, held in December 2001, included researchers, practitioners, and policymakers, and resulted in a set of policy recommendations for improving the access of Medicaid and welfare recipients to substance abuse treatment. The report of the meeting is available at **www.PLNDP.org** or by contacting *PLNDP National Office*.

Several model programs and approaches were highlighted in this Best Practices Initiative. For example, the state of New Jersey implemented the Work First New Jersey (WFNJ) Substance Abuse Initiative (SAI) to help welfare recipients remove substance abuse as a barrier to employment. As one component of the SAI, "care coordinators" provide substance-abusing welfare clients with intensive and ongoing case management. The importance of this approach is demonstrated by the research findings of Dr. Jon Morgenstern and colleagues. Compared to a more limited triage and referral system, an intensive case management approach improved rates of outpatient treatment entry by 33 percent, and increased the average number of outpatient sessions attended five-fold.²⁷

Also highlighted by the *PLNDP* initiative was Oregon's approach to improving treatment access for Medicaid recipients. In 1995, the state of Oregon mandated that its entire Medicaid population (a) be placed in managed care (the Oregon Health Plan) and (b) receive a capitated chemical dependency benefit. Since that time, the percentage of Oregon Medicaid enrollees receiving substance abuse treatment has increased by approximately 40 percent. Thus, despite public concerns about the increasing placement of Medicaid recipients in managed care plans, research indicates that managed care can improve access to treatment when it is carefully implemented.²⁸

Working Solutions to Substance Abuse

The Washington Business Group on Health has developed an innovative program, *Working Solutions to Substance Abuse*, to assist employers in addressing the prevention and treatment of substance abuse. The initiative "offers employers practical tools and best practices to combat substance abuse" and "strategies for the design and administration of substance abuse benefits."²⁹

RESOURCES

Fighting for Parity in an Age of Incremental Health Reform: A Battle Against Discrimination in the Health Care Industry by Ken Libertoff, Executive Director of the Vermont Association for Mental Health, provides strategies for achieving parity. This report chronicles the successful effort to change insurance coverage inequity in Vermont, where an unprecedented Parity Coalition shepherded a comprehensive parity bill through the State Legislature during the 1997 session. The book is available by contacting the Vermont Association for Mental Health, P.O. Box 165, Montpelier, VT 05601, 802-223-6263, or by using the form on the Association's website, www.vamh.org/parity.html. The National Conference of State Legislatures (NCSL) provides information on critical state issues to the public and policymakers through publications and meetings. See www.ncsl.org for more information on NCSL or to access its publications, including reports relevant to substance abuse treatment policy and financing.

The National Center on Addiction and Substance Abuse at Columbia University (CASA) has done extensive work on the social and economic costs of substance abuse, as well as effective prevention, treatment, and law enforcement strategies. To access CASA's reports and publications, see www.casacolumbia.org.

The Legal Action Center works to fight discrimination against people with histories of addiction, AIDS, and criminal records and advocates for sound public policies in these areas. The organization has developed reports and recommendations relevant to substance abuse in welfare policy. See www.lac.org for more information.

The **Robert Wood Johnson Foundation** supports ensuring that all American have access to basic healthcare at a reasonable cost. The Foundation's Substance Abuse Policy Research Program has funded a significant number of studies on substance abuse and welfare reform. For more information, see www.saprp.org. For more information about the Robert Wood Johnson Foundation, see www.rwjf.org.

The American Public Human Services Association (APHSA) is a nonprofit, bipartisan organization that educates members of Congress, the media, and the broader public on what is happening in the states around welfare, child welfare, health-care reform, and other issues involving families and the eld-erly. For more information on APHSA, see www.aphsa.org.

The Annie E. Casey Foundation seeks to foster public policy, improved human services, and community supports that effectively meet the needs of vulnerable children and families. KIDS COUNT, a project of the Foundation, is a national and state-by-state effort to track the well-being of children in the U.S. For more information on the Foundation and KIDS COUNT, see www.aecf.org.



POLICY RECOMMENDATIONS

- Institute a major expansion of appropriate, integrated treatment to all youth with co-occurring mental health and substance use disorders. Source: adapted from National Mental Health Association.
- 2. Provide screening for co-occurring mental and substance use disorders in all settings of care for adolescents with substance use and mental health problems. Standardized screening procedures should use evidence-based assessment instruments. *Source:* adapted from National Mental Health Association.
- 3. Support experimental studies on the co-occurrence of mental health and substance use disorders, including prevalence, risk factors, prevention and treatment.
- 4. Support research to develop and validate screening instruments and diagnostic tools that reliably identify and diagnose adolescents co-occurring substance use and mental health disorders.

Note: In developing our policy recommendations we have relied on the experience of the PLNDP, the research presentations and publications of a number of national, governmental, and professional organizations. When our recommendations are consistent with others we have indicated them as a source.


THE CO-OCCURRENCE OF MENTAL HEALTH AND SUBSTANCE USE DISORDERS

BACKGROUND: Among adolescents with substance abuse problems, co-occurring mental disorders are common and serious. In general, research has shown that individuals with co-occurring disorders (also called dual diagnosis) have more severe psychiatric symptoms, are more difficult to treat, incur greater costs, and have worse overall outcomes than persons with only one disorder.

However, very few studies have focused on co-occurring disorders in adolescents.¹ Thus, prevalence rates have not been clearly established and estimates of co-occurring psychiatric disorders and substance abuse problems among youth in the general population range from 22 to 82 percent. It is thought that these conflicting estimates are due to inconsistent assessment of both substance use and mental disorders.² As many as 50 to 71 percent of adolescents in clinical psychiatric populations have co-occurring substance use disorders³ and, among clinical samples of adolescents with alcohol dependence, it is estimated that 89 percent have a co-occurring mental disorder.⁴

Research indicates that the onset of mental illness often precedes that of substance abuse. In one study of persons with a dual diagnosis, the mental disorder preceded the addictive disorder in 83.5 percent of cases.² It is believed that many adolescents begin abusing substances to "selfmedicate" the symptoms of mental illness.² Another theory posits that youth may abuse substances to fit in with peers "in response to subjective feelings of isolation associated with...emotional problems."¹

Data from the 1999 National Household Survey on Drug Abuse provides further evidence of the association between mental and substance use disorders. The survey



figure 16

found that the likelihood of adolescent substance use and dependence is strongly associated with the severity of emotional and behavioral problems. This is true across age and gender groups. Furthermore, emotional and behavioral problems represent significant risk factors for substance abuse among adolescents.²

Disruptive behavior disorders, particularly conduct disorder, co-occur most often with substance abuse, co-existing more often than not.⁵ It is thought that this may largely explain the high prevalence of substance abuse problems in juvenile justice populations. In one residential treatment program for substance-dependent delinquent male youth, the prevalence of co-occurring conduct disorder was nearly 100 percent.⁶

Depression, attention deficit/hyperactivity disorder (ADHD), anxiety disorders, mania, post-traumatic stress disorder (PTSD), and other mental disorders also appear to be common among adolescents with substance use problems. According to research by Drs. Rohde, Lewinsohn, and Seeley, disruptive behavior disorders are 10 times more prevalent among adolescents with alcohol abuse/dependence than among non-drinkers. The same study found that mood disorders are three times more common and anxiety disorders are twice as common.⁷ It also is important to note that an individual may have multiple diagnoses.⁸ Moreover, co-occurring disorders are associated with a higher risk of relapse during treatment, violence, and suicide.¹ One example of the prevalence of co-occurring disorders among substance-abusing adolescents is provided by results of the Cannabis Youth Treatment (CYT) study. (See figure 18)

Clearly, standardized diagnostic assessments that identify adolescents with substance use *and* mental disorders are needed; effective treatment plans cannot be developed without proper diagnosis. The Practical Adolescent Dual

Severity Is Related To Other Problems



Source: Dennis, M, Godley, SH, Diamond, GS, Tims, FM, Babor, T, Donaldson, J, Liddle, H, Titus, JC, Kaminer, Y, Webb, C, Hamilton, N. "Main Findings of the Cannabis Youth Treatment (CYT) Randomized Field Experiment." Presentation in Symposium 64, "State of the Art Adolescent Substance Abuse Prevention and Treatment" at the American Psychiatric Association Annual Conference, Philadelphia, PA. May 18-23, 2002.

figure 17

THE CO-OCCURRENCE OF MENTAL AND SUBSTANCE USE DISORDERS 51



Stephen Scheiber, MD, PLNDP member "Addressing the issues of co-morbidity of substance abuse problems with other mental health problems such as affective disorders (e.g., depression), anxiety disorders, and thinking disorders (e.g. schizophrenia), is critical for both prevention and treatment of these disorders." Diagnosis Interview (PADDI), developed by Drs. Todd Estroff and Norman Hoffmann to address this need, is one example of such assessments.⁸

Although research on the treatment of co-occurring disorders among adolescents is lacking, existing evidence indicates that treatment is effective. One study of adolescents in a residential substance abuse treatment program found that 72.4 percent of those with a co-occurring psychiatric disorder successfully completed treatment.⁹ Research on treatment effectiveness among persons who have a dual diagnosis in the general population has suggested that "treatment improves a variety of outcomes." Despite such efficacy data, however, the vast majority of individuals with co-occurring disorders have not received mental health or substance abuse treatment in the last year, and only eight percent of patients with a dual diagnosis in a national survey had received both mental healthcare and substance abuse treatment.¹⁰

Numerous sources cite the need for integrated treatment systems designed to concurrently address both the mental disorder and the substance abuse problem. Integrated treatment models are slowly being introduced around the nation and have been successful in improving outcomes for persons with co-occurring disorders. It is believed that the poorer outcomes associated with dual diagnosis may be attributed, at least in part, to inappropriate and ill-equipped treatment systems. It must be recognized, however, that very little research has focused specifically on the treatment needs and outcomes of adolescents who have a dual diagnosis; two recent literature reviews on adolescent substance abuse treatment offered only six randomized, controlled treatment studies in which adolescents with co-occurring disorders were recruited and provided with integrated treatment for both substance abuse and co-occurring conditions.¹¹ Clearly, further research on adolescents with co-occurring disorders will be necessary to the development of medically effective and cost-effective treatment strategies for this population.

An emerging approach to dealing with youth who have cooccurring substance use and mental health disorders in their home communities is through organized systems of care. Key provisions of systems of care are to: individualize services and supports to meet the unique needs of each youth; ensure that families and all relevant youth-serving agencies work together; and provide services that are culturally competent, strength-based, and evidence-based. Individualizing services, sometimes referred to as the wraparound approach, assures that all the clinical and other life domains of the youth are examined and supported through an Individualized Service Plan. Often, youth with co-occurring substance use and mental disorders will require services from more than one agency; thus, strong collaboration among the various youth-serving agencies is critical. In the new paradigm of organized systems of care, the whole community takes responsibility for all youth and their families. In the earlier paradigm, a child was labeled as a "substance abuse child" or a "mental health child;" in organized systems of care, that youth would be seen as the responsibility of all stakeholders and referred to as "our child."12

Adolescents with substance abuse problems also tend to have poorer physical health than adolescents in the general population. It is thought that the association between adolescent substance abuse and risk-taking behavior may explain, at least in part, the diminished health status of youth who abuse substances. Risky sexual behavior is one pathway through which this association is played out. The health consequences are serious; adolescents with substance abuse problems are at increased risk for contracting HIV and other sexually transmitted diseases. Furthermore, tuberculosis is highly associated with HIV, increasing the risk of tuberculosis among substance-abusing adolescents as well. Finally, the likelihood of physical trauma, including that due to motor vehicle accidents and interpersonal violence, increases with drug and alcohol use.¹³ Clearly, substance abuse has negative physical and mental health consequences for adolescents.

INNOVATIVE AND PROMISING APPROACHES Center for School Mental Health Assistance

Given the high prevalence of mental disorders among youth with substance use problems and the amount of time adolescents spend at school each day, school-based approaches to mental health and substance abuse problems are critical. The Center for School Mental Health Assistance (CSMHA) provides leadership and technical assistance to advance effective interdisciplinary schoolbased mental health programs. CSMHA offers a forum for training, the exchange of ideas, and the promotion of coordinated systems of care that provide a full continuum of services (i.e. prevention, assessment, treatment, and case management) to enhance mental health, development, and learning in youth.14 The effective integration of mental health and substance abuse services in schools will be of critical importance in building a system of comprehensive care for youth. For more information on CSMHA, see csmha.umaryland.edu.

RESOURCES

The **National Mental Health Association** (NMHA) is a national, state, and local advocate for policy and program development that provides comprehensive systems of care for all children and adolescents at risk for mental health, substance use, and co-occurring disorders. A variety of NMHA initiatives address children's mental health and co-occurring disorders; they include the Linkages Project, Childhood Depression Awareness Day, Justice for Juveniles Project, Invisible Children Project, and the Children's Mental Health Matters Campaign. For more information on NMHA and these initiatives, see **www.nmha.org**.

The American Academy of Child and Adolescent Psychiatry (AACAP) a national professional medical association dedicated to treating and improving the quality of life for children, adolescents and families affected by mental, behavioral and developmental disorders. For more information, see www.aacap.org.

The John D. and Catherine T. MacArthur Foundation is dedicated to helping groups and individuals foster lasting improvement in the human condition. In this way, the Foundation has supported a variety of initiatives related to mental health. For more information, see www.macfdn.org. The **Robert Wood Johnson Foundation** supports improved care and support for people with chronic conditions, including mental illness. For more information on the Robert Wood Johnson Foundation, see **www.rwjf.org**.

The Substance Abuse and Mental Health Services Administration (SAMHSA) is the federal agency charged with improving the quality and availability of prevention, treatment, and rehabilitative services in order to reduce illness, death, disability, and cost to society resulting from substance abuse and mental illnesses. For more information about SAMHSA, see www.samhsa.gov.

The **Center for Substance Abuse Treatment** (CSAT) publishes Treatment Improvement Protocols (TIPs). One relevant Treatment Improvement Protocol is TIP 09 "Assessment and Treatment of Patients With Coexisting Mental Illness and Alcohol and Other Drug Abuse." For this and other TIPs, see www.**health.org/govpubs.**



POLICY RECOMMENDATIONS

- Increase support from all levels of government for evidence-based prevention and treatment programs at the interface between the criminal justice and healthcare systems.
 Sources: adapted from National Mental Health Services Administration.
- Expand the availability of treatment services for adolescents involved in the juvenile justice system.
 Source: adapted from American Bar Association, Office of Juvenile Justice and Delinquency Prevention and Center for Substance Abuse Treatment.
- 3. Increase communication and coordination of services among and within all agencies that provide intervention and treatment of adolescents with substance use and mental health problems within the juvenile justice system.
- 4. Establish standardized screening and assessment of all adolescents for substance use and mental health problems upon intake and throughout their involvement in the juvenile justice system. *Source:* adapted from GAINS.

- 5. Provide youth with transitional and aftercare services following treatment for substance use disorders throughout their involvement with the juvenile justice system and as they transition back to the community.
- Provide treatment to youth identified with substance abuse and/or mental health disorders in all juvenile correctional facilities.
- 7. Increase support to evaluate the effectiveness of criminal justice procedures and programs in reducing drug abuse and crime.
 Data source: National Institute of Justice.

Note: In developing our policy recommendations we have relied on the experience of the PLNDP, the research presentations and publications of a number of national, governmental, and professional organizations. When our recommendations are consistent with others we have indicated them as a source.

Love me But not so hoperessi Love me But not so deeping sig Love me Be me But not so not hoperession we Be me so not hoperession we be me so hoperession we be hoperession we upgezzny Tower nor so of the me ... Janua os Jour and and and a start of the second an all how of the and and how of the and How and and the solution of th

THE INTERFACE OF YOUTH WITH JUVENILE JUSTICE

BACKGROUND: America's juvenile justice system has multiple responsibilities in holding youth accountable for delinquent behavior, treating and rehabilitating these youth, and protecting the community. In response to growing media coverage of a few serious crimes committed by juveniles, public opinion and policy are focused toward a harsher, more punitive approach to juvenile justice than in previous years.

The juvenile justice system is also overtaxed by a variety of challenges which must be addressed. They include:

- High rates of substance abuse and mental health problems among the population it serves,
- Lack of communication and collaboration among agencies involved in the processing of cases,
- Lack of uniformity and jurisdictional standards, procedures and practices among the more than 2,000 US jurisdictions,
- Lack of standardized, consistent screening for substance abuse and mental disorders, and
- Lack of both quantity and quality of treatment options for youth.

Although the medical and public health systems and the juvenile justice system may seem entirely different, they are not necessarily separate entities. There are many opportunities for collaboration as substance abuse treatment and public health practices should be incorporated into the juvenile justice setting. Multi-disciplinary collaboration and communication across agencies is critical in order to better meet the needs of youth with substance use and mental health problems who are involved in the juvenile justice system. In an attempt to address this need, Physician Leadership on National Drug Policy is collaborating with members of the American Bar Association's Subcommittee on Substance Abuse in developing educational materials for medical and law students. PLNDP is also collaborating with the American Academy of Arts and Sciences and Harvard University in conducting a cross-sectional study of substance abuse and mental health issues among youth in the Massachusetts juvenile justice system. In November 1998, PLNDP convened a meeting on the research findings related to alternatives to incarceration, from which a report and video were developed and released.

(See www.PLNDP.org for more information about this report and video.)



56 THE INTERFACE OF YOUTH WITH JUVENILE JUSTICE

"I'm not soft on crime. People who commit crimes need to understand what they've done, particularly children, at a time when they can make a change in their life. But you can't just give them that message and then give them no opportunity to change. Substance abuse is a terrible thing and it's not easy to walk away from. Kids need help. Putting them in a system that just keeps them there is not the help that they need. These kids sometimes want that help. Where is it? Are we just going to turn our backs to that and say, yes, we want you to straighten up, but do it on your own." *– Robert Gonzalez, JD, American Bar Association*

For youth in the juvenile justice system with substance abuse problems, effective treatment and the prevention of recidivism will depend on the extent to which their treatment needs are comprehensively addressed as indicated for all youth in treatment.

Adolescents involved in the juvenile justice system are considerably more likely to have substance abuse problems than adolescents in the general population. Nationally, substance abuse is one of the most common disorders in the juvenile justice system, with prevalence estimates as high as 67 percent.¹ The Northwestern Juvenile Project, headed by Dr. Linda Teplin, recently released data which suggest that each year more than 670,000 youth involved with the juvenile justice system meet diagnostic criteria for one or more alcohol, drug, or mental disorders requiring treatment.²

Furthermore, an increasing number of adolescents are presenting with drug-related problems and offenses as a result of new laws on substances and stricter enforcement of laws. Although delinquency is down overall, there has been a 144 percent increase in juvenile drug abuse violations and a 183 percent increase in juvenile drug-related cases formally processed in the last few years.³ According to a study by Beatty and colleagues, "In 1986, nearly at the height of the drug war, 31 out of every 100,000 youth were admitted to state prisons for drug offenses;" by 1996, that figure had jumped to 122 per 100,000 youth, representing a 291 percent increase in one decade.⁴

Very high rates of mental disorders among these juveniles present additional challenges. "Based on data obtained from site visits to a nationally representative sample of 95 public and private juvenile facilities, researchers found that 73 percent of the children in these facilities reported mental health problems during screening. In addition, 57 percent of youth reported that they have previously received treatment for mental health problems."5 In another sample, researchers found that 63 percent of juvenile offenders had two or more mental disorders, with an additional 22 percent meeting criteria for one mental disorder.⁶ In particular, conduct disorder is strongly associated with both delinquency and substance abuse. According to Dr. Otto and colleagues, "at least one-fifth and possibly as much as 60 percent of youth in the juvenile justice system can be diagnosed as having a conduct disorder."7

The first step in effective intervention and treatment is identification. Currently, there is no requirement for screening for substance abuse or mental disorders in the juvenile justice system. Recent research, by the National GAINS Center for People with Co-occurring Disorders in the Justice System, demonstrates that many communities lack specific screening mechanisms for identifying substance abuse among juvenile justice youth; this is a major barrier to addressing their treatment needs.⁸ The juvenile justice system must standardize early identification in order to intervene with youth who have substance abuse and mental disorders. Numerous sources consistently emphasize the need for a standardized and comprehensive screening process to identify substance abuse problems as early as possible and throughout the youth's involvement with the system. The Center for Substance Abuse Treatment calls for evaluating "the youth's risks, needs, strengths, and motivations, and matching the youth to appropriate treatment based on the assessment."9



Allan Rosenfield, MD, PLNDP member "As we attempt to increase attention to preventive education and treatment, instead of the current, continued focus on law enforcement, a coalition of physicians, judges, and law enforcement personnel can be most compelling in getting the most effective messages to policy makers and the public."

Many youth who become involved in the juvenile justice system have a history of risk factors including mental health disorders, trauma, substance use problems, truancy, and learning disabilities. Early identification of these problems is critical to early intervention by families, schools, communities, and healthcare providers. In order to address these barriers to providing care to these youth, leadership in all relevant agencies must focus on developing an integrated network of communication and collaboration. Goals should include bridging gaps in organizational structures and creating a better mechanism for the dissemination of information. Though each agency has its own responsibilities and goals, the widespread lack of integrated care for youth involved in the juvenile justice system is a problem that must be addressed. The coordination and cooperation of all agencies, departments and individuals will be critical in effectively addressing this issue.

These collaborative efforts could include police departments, schools, judges, families, probation, corrections, mental health treatment, medicine, communities, substance abuse treatment, welfare, and child welfare agencies. Effective integration of services is difficult when contact between agencies is very limited, if existent at all. The absence of consistency in practices between jurisdictions also makes it difficult to share information, cooperate, and provide an appropriate continuum of care to youth. Therefore, of critical importance is "developing interagency collaboration that involves the community, creating partnerships between the juvenile justice and treatment communities, and building coalitions with diverse constituencies to ensure early interventions with the youth and effective transitions back to the community." Case management "across systems and over time" is also necessary to the goal of an integrated system of care.9

Special populations in the juvenile justice system present unique challenges to treatment and rehabilitation. Minority youth are disproportionately represented at all stages of the juvenile justice system including arrests, cases involving detention, and delinquency cases resulting in residential placement.³ Between 1986 and 1996, the rate at which black youth were incarcerated for drug violations increased by 539 percent in comparison to a 90 percent increase for white youth.⁴

The National Institute on Drug Abuse has highlighted data demonstrating that, contrary to stereotypes, overall rates of drug abuse among racial and ethnic minorities both inside and outside of the juvenile justice system are similar to the general population, although some aspects differ. For example, the initiation and progression of drug use appear to differ among racial/ethnic groups.¹⁰ White youth begin using substances at a younger age than minority youth, while African American youth who begin using drugs may be more likely to continue use than whites. Minority youth also have lower overall prevalence of use, particularly for alcohol and tobacco. In this context, NIDA has recommended the following:

- Improve our understanding of the incidence and causes of drug abuse and addiction in racial and ethnic populations,
- Strengthen and expand the community and institutional infrastructure for conducting research within racial and ethnic populations,
- Provide the scientific foundation for improved prevention and treatment for racial and ethnic groups at highest risk for addiction and medical consequences of drug abuse and addiction, and
- Widely disseminate the information that identifies the best approaches to prevention and treatment of drug abuse and the disease of addiction in racial and ethnic communities.¹⁰

Adolescent girls often present with complex physical and mental health problems stemming from trauma, physical abuse, risky sexual behavior, and sexual abuse. Specifically, girls enter the justice system with higher rates of depression, anxiety disorders, and mood disorders than their male counterparts. According to one study by Dr. Cauffman and colleagues, nearly 50 percent of adolescent girls involved in the juvenile justice system have post-traumatic stress disorder.¹¹ Another study by Dr. Prescott and colleagues, reports that 60 to 87 percent of female offenders need substance abuse treatment.¹²

"We still know very little about the mental health needs of youth who are involved in the juvenile justice system. There are no good national studies on the number of such youth who come in contact with the juvenile justice system. Systematic information on how services are organized and delivered across the country, or on how the mental health and juvenile justice system coordinate their efforts, does not exist. Moreover, we have no adequate information on what services are provided, their quality and whether or not they make a difference."

- J. Cocozza, PhD (Researcher)



Howard Hiatt, MD, PLNDP Member "If we are to leave no child behind, that means no exceptions."

A 1997 report by the Substance Abuse and Mental Health Services Administration revealed that only 36 percent of juvenile correctional facilities offer any type of substance abuse treatment.¹³ The results of another study indicate that juvenile probation departments cite substance abuse treatment as one of their top four program expansion needs.¹⁴

While the body of research on treatment in juvenile justice populations is limited and further research on this population is clearly needed, there is evidence that treating substance abuse among juvenile offenders is effective. One study reported a 74 percent rate of abstinence from substance use among juvenile offenders who completed treatment.¹⁵ In a review of the literature on the efficacy of substance abuse treatment among juvenile offenders, Dr. Rutherford and colleague Caleb Banta-Green report, "although results regarding aftercare are inconsistent, the most promising treatment approaches for substance abuse treatment of juvenile offenders include a continuum of care for 12 months."¹⁵ In their review, however, Rutherford and Banta-Green also note that further research is needed to refine methodological issues related to treatment outcome studies for youth involved in the juvenile justice system. Specifically, (1) no distinction is made between use, abuse and dependency, (2) most studies lack control groups or randomization, (3) the majority of studies lack measures to assess treatment compliance, (4) there is no consensus on which instruments are the most appropriate for evaluating treatment placement decisions, (6) most research studies assess only one or two risk factors despite the general consensus that there are multiple risk factors for substance abuse and delinquency, and (7) the majority of studies do not exist.

"There is currently no good system for handling adolescents in the juvenile justice system who are dependent on alcohol or other drugs. This population has special needs that are getting lost in the current system." - Dr. Hoover Adger, Adolescent Pediatrician

For youth in the juvenile justice system, treatment duration is often based on one's length of stay in detention rather than his/her individual needs, compromising the potential for success. There also is a fundamental lack of transitional and aftercare services, which research has suggested are essential components of relapse prevention. Despite these limitations, however, effective treatment can reduce recidivism up to 80 percent.¹⁶

It is important to note that the juvenile justice population is not a homogeneous group; therefore, no single form of treatment is effective for the population as a whole. Adolescents present challenges to the treatment system because of the physical, psychological, and developmental changes associated with the age group, in addition to the factors associated with delinquency. According to the National Mental Health Association, successful treatment programs for juvenile justice populations have several key characteristics, including: "effective treatment programs are structured, intensive, and focus on changing specific behaviors...community-based treatment programs are superior to institution-based programs...it is extremely important for justice authorities to involve family members in the treatment and rehabilitation of their children...[and] integrated, multi-modal treatment approaches are essential."¹⁷

INNOVATIVE AND PROMISING APPROACHES Adolescent Portable Therapy

To address problems associated with providing treatment to this highly transient population, Jean Callahan, JD, MSW at the Vera Institute of Justice, and the New York City Department of Juvenile Justice have developed *Adolescent Portable Therapy* (APT). APT identifies youth with substance use problems early and provides a system for bringing treatment to the youth as they are processed through the justice system. Combining the latest knowledge about cognitive-behavioral and family-focused approaches, the goal is to avoid the multitude of problems associated with providing comprehensive, uninterrupted substance abuse treatment to this population. To learn more about the Vera Institute or Adolescent Portable Therapy, see **www.vera.org**.

Reclaiming Futures

An innovative approach to enhancing community solutions to substance abuse and delinquency is the *Reclaiming Futures* project, headed by Dr. Laura Nissen. *Reclaiming Futures* is a five-year initiative funded by the Robert Wood Johnson Foundation, to promote leadership in the prevention of substance abuse and delinquency in the community. The goal is to expand and improve substance abuse treatment by promoting better standards of care for youth involved in the juvenile justice system and increasing leadership by community and judicial leaders. *Reclaiming Futures* funds comprehensive care programs in eleven communities across the United States. For more information about this project, see www.reclaimingfutures.org.

Drug Courts

Another progressive initiative is the drug court, in which juvenile offenders with substance abuse problems are offered the option of participating in treatment rather than traditional case processing.¹⁸ The success of drug courts¹⁹ has served as a catalyst for many programs involving substance abuse and addiction. As stated by Dr. Kimbrough, "the benefits of applying the drug court model to juvenile populations lie in the ability of the court to intervene early with youth, provide treatment and other services, and monitor progress during treatment."¹⁸

Balanced and Restorative Justice

"The Balanced and Restorative Justice model provides an effective framework for developing responsive juvenile justice systems. Restorative justice, as a guiding philosophical paradigm, promotes maximum involvement of the victim, offender, and the community in the justice process. The Balanced Approach, as a concrete mission, allows juvenile justice systems and agencies to improve their capacity to ensure community protection and accountability of the offender and the system. It also enables the offender to become a more competent and productive citizen."20 "Adolescents entering substance abuse treatment are likely to have multiple problems, requiring assessment and intervention beyond the limited focus of their use of illicit substances. Restorative justice approaches view adolescents as a whole within the context of their family and community. The principles of restorative justice lead to connecting the adolescent with his or her community and provide promising examples of how to involve the family and community in the habilitation of the adolescent. ...Rather than the treatment program trying to follow up with the adolescent for a period of several months after the treatment phase has ended, and often not being reimbursed for this effort, development of community involvement may be a costeffective means for treatment programs to position the adolescent for continued growth."21

"Youth substance abuse treatment is also posed to provide restorative justice with techniques that have been designed to address the unique cultural, gender, and developmental perspectives of its participants. ...Working together might forge a better way of balancing the characteristics of the community as a whole and the uniqueness of the individual."²¹

Unified Family Courts

Unified family courts provide one model of approaching substance abuse in a comprehensive manner. Such courts are based on the belief that a family's social and legal needs are best served when that family is assigned to one judge and one social services team who remain with the family during their entire relationship with the court. A unified family court system combines the essential elements of traditional family and juvenile courts. Administrative, medical, legal, counseling, and enforcement services are available in or near the court so that a family's interrelated needs can be served easily and quickly. Social and mental health counseling are also an integral part of the unified family court system.

RESOURCES

For more information about the latest research and issues related to juvenile justice, see the Office of Juvenile Justice and Delinquency Prevention, online at www.ojjdp.ncjrs.org.

For information on substance abuse and mental health disorders among youth involved in the juvenile justice system, see the **National Mental Health Association** online at www.nmha.org.

The **Robert Wood Johnson Foundation** has recently awarded over \$2.5 million in grants to the Reclaiming Futures program, helping communities across the nation improve substance abuse treatment and other services for youth involved with the juvenile justice system. For more information on this program and others, see the Robert Wood Johnson Foundation online at www.rwjf.org. For more information on research grants related to youth see the William T. Grant Foundation online at www.wtgrantfoundation.org.

The **Center for Substance Abuse Treatment** funds Criminal/ Juvenile Justice Treatment Networks, designed to increase access to substance abuse treatment by focusing on systems integration and information-sharing across agencies. For more information about this project, see Criminal/Juvenile Justice Treatment Networks online at **www.cjnetwork.org**. CSAT also publishes Treatment Improvement Protocols (TIPs). TIP 21 "Combining Alcohol and Other Drug Abuse Treatment With Diversion for Juveniles in the Justice System" offers a strategy for diverting youth with substance abuse problems from further involvement with the juvenile justice system by placing them in treatment For this and other TIPs, see **www.health.org/govpubs**.

See the Drug Court Clearinghouse and Technical Assistance Program, Justice Programs Office, American University at www.american.edu/justice.

See the National Council of Juvenile and Family Court Judges, University of Nebraska at www.ncjfcj.unr.edu.



ENDICES, REFERENCES, CHART LIS



APPENDICES

Appendix A

PLNDP Consensus Statement July 1997

Addiction to illegal drugs is a major national problem that creates impaired health, harmful behaviors, and major economic and social burdens. Addiction to illegal drugs is a chronic illness. Addiction treatment requires continuity of care, including acute and follow-up care strategies, management of any relapses, and satisfactory outcome measurements.

We are impressed by the growing body of evidence that demonstrates that enhanced medical and public health approaches are the most effective method of reducing harmful use of illegal drugs. These approaches offer great opportunities to decrease the burden on individuals and communities, particularly when they are integrated into multidisciplinary and collaborative approaches. The current emphasis—on use of the criminal justice system and interdiction to reduce illegal drug use and the harmful effects of illegal drugs—is not adequate to address these problems.

The abuse of alcohol and tobacco is also a critically important national problem. Alcohol abuse and alcoholism cause a substantial burden of disease and antisocial behavior which require vigorous, widely accessible treatment and prevention programs. We strongly support efforts to reduce tobacco use, including changes in the regulatory environment and tax policy. Drug addiction encompasses dependency on alcohol, nicotine, as well as illegal drugs. Despite the gravity of problems caused by all forms of drug addiction, we are focusing our attention on illicit drugs because of the need for a fundamental shift in policy. As physicians, we believe that:

- It is time for a new emphasis in our national drug policy by substantially refocusing our investment in the prevention and treatment of harmful drug use. This requires reallocating resources toward drug treatment and prevention, utilizing criminal justice procedures which are shown to be effective in reducing supply and demand, and reducing the disabling regulation of addiction treatment programs.
- Concerted efforts to eliminate the stigma associated with the diagnosis and treatment of drug problems are essential. Substance abuse should be accorded parity with other chronic, relapsing conditions insofar as access to care, treatment benefits, and clinical outcomes are concerned.
- Physicians and all other health professionals have a major responsibility to train themselves and their students to be clinically competent in this area.
- Community-based health partnerships are essential to solve these problems.
- New research opportunities produced by advances in the understanding of the biological and behavioral aspects of drugs and addiction, as well as research on the outcomes of prevention and treatment programs, should be exploited by expanding investments in research and training.

Physician Leadership on National Drug Policy will review the evidence to identify and recommend medical and public health approaches that are likely to be more cost-effective, in both human and economic terms. We shall also encourage our respective professional organizations to endorse and implement these policies.

Appendix B

PLNDP Consensus Statement Endorsements As of June 2002

Professional Organizations

American Academy of Addiction Psychiatry (AAAP) American Academy of Pediatrics (AAP) American Association of Community Psychiatrists (AACP) American College of Obstetricians and Gynecologists (ACOG) American College of Surgeons (ACS) American Medical Association (AMA) American Medical Student Association (AMSA) American Psychiatric Association (APA) American Society of Addiction Medicine (ASAM) Society of General Internal Medicine (SGIM) Society of Teachers of Family Medicine (STFM)

State Medical Associations

Arizona — Arizona Medical Association California—California Medical Association Connecticut — Connecticut State Medical Society Colorado — Colorado Medical Society DC — Medical Society of the District of Columbia Georgia — Medical Association of Georgia Iowa — Iowa Medical Society Kentucky — Kentucky Medical Association Maine — Maine Medical Association Maryland — MedChi, The Maryland State Medical Society Minnesota — Minnesota Medical Association Nebraska — Nebraska Medical Association New Hampshire — New Hampshire Medical Society New Jersey — Medical Society of New Jersey North Carolina — North Carolina Medical Society Ohio — Ohio State Medical Association Oklahoma — Oklahoma State Medical Association Oregon — Oregon Medical Association Rhode Island — Rhode Island Medical Society South Dakota — South Dakota State Medical Association Tennessee — Tennessee Medical Association Wisconsin — State Medical Society of Wisconsin

County Medical Societies

Pima County Medical Society, AZ Sacramento — El Dorado Medical Society, CA

Appendix C

Coalition for Treatment of Alcoholism and Other Drug Dependencies Parity Working Group

Organizations Represented

American Academy of Addiction Psychiatry American Bar Association, Standing Committee on Substance Abuse American Managed Behavioral Healthcare Association American Society of Addiction Medicine Association for Medical Education in Research and Substance Abuse California Society of Addiction Medicine Capitol Decisions, Inc. Carnevale Associates, LLC Center for Substance Abuse Treatment Drug and Alcohol Service Providers of Pennsylvania Harvard University Medical School Indiana Criminal Justice Institute Join Together Kaiser Permanente Chemical Dependence Recovery Program Legal Action Center Loma Linda Univ. Behavioral Medicine Ctr. National Alliance for Model State Drug Laws National Association of Addiction Treatment Providers National Association on Alcohol, Drugs and Disability National Association of Alcoholism and Drug Abuse Counselors National Association of State Alcohol and Drug Abuse Directors National Council on Alcoholism and Drug Dependence National Council on Alcoholism and Drug Dependence - Maryland National Council on Alcoholism and Drug Dependence - New Jersey National Conference of State Legislatures National Mental Health Association New Futures of New Hampshire New York Association of Alcoholism and Substance Abuse Providers, Inc. Office of Alcohol and Other Drug Abuse Office of National Drug Control Policy Physician Leadership on National Drug Policy Robert Wood Johnson Foundation St. Louis National Council on Alcohol and Drug Abuse Substance Abuse Services Center United States Senate United States House of Representatives United States Conference of Mayors University of Texas, Health Sciences Center Vermont Association for Mental Health Westside Medical Group

REFERENCES

PLNDP LEADERSHIP AND HISTORY

- 1 Peter D. Hart Research Associates. "Making Drug Policy at the State Level: Peter D. Hart Research Associates Poll Conducted for Drug Strategies." May, 2000. Available www.drugstrategies.org/criticalchoices/CC_Ch07.html.
- 2 Blendon R and Young J. "The Public and the War on Illicit Drugs." JAMA. 279(11). 1998. Pages 827-32.
- 3 Blendon R, Harvard School of Public Health and the Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.
- 4 Kleiman MAR. "Drugs and Drug Policy: The Case for a Slow Fix." Issues in Science and Technology. 15(1). Fall, 1998. Page 45. Available www.sppsr.ucla.edu/faculty/kleiman/Case_for_a_Slow_Fix.pdf.
- 5 Office of National Drug Control Policy. "Drug Abuse in America." *PowerPoint Presentation, Slide #13.* Washington, DC: Executive Office of the President. February, 2002. Available www.whitehousedrugpolicy.gov.

1. INTRODUCTION OF THE PROBLEM

Letter from the Directors

- 1 Dennis ML. "Treatment Research on Adolescents Drug and Alcohol Abuse: Despite Progress, Many Challenges Remain (Invited Commentary)." *Connection.* Washington, DC: Academy for Health Services Research and Health Policy. May, 2002. Available www.academyhealth.org/publications/connection/index.htm.
- 2 Arthur MW, Hawkins JD, Pollard JA, Catalano RF and Baglioni AJ. "Measuring Risk and Protective Factors for Substance Use, Delinquency, and Other Adolescent Problem Behaviors: The Communities That Care Youth Survey." *Evaluation Review.* In press.
- 3 Dembo R, Williams L and Schmeidler J. Addressing the Problems of Substance Abuse in Juvenile Corrections. In Inciardi JA (ed.). *Drug Treatment in Criminal Justice Settings*. Newbury Park, CA: Sage. 1993.
- 4 Abt Associates, Inc. "Conditions of Confinement: Juvenile Detention and Corrections Facilities." Washington, DC: Office of Juvenile Justice and Delinquency Prevention. 1994.
- 5 Center for Substance Abuse Treatment. "Treatment Episode Data Set (TEDS)." (And) National Institute on Drug Abuse. "Monitoring the Future (MTF)." Available www.icpsr.umich.edu/SAMHDA/das.html.
- 6 American Academy of Pediatrics. "Improving Substance Abuse Prevention, Assessment, and Treatment Financing for Children and Adolescents." *Pediatrics.* 108. October, 2001. Pages 1025-29. Available www.aap.org.
- 7 Fleming M, Barry K, Davis A, Kropp S, Kahn R and Rivo M. "Medical Education About Substance Abuse: Changes in Curriculum and Faculty Between 1976 and 1992." *Academic Medicine*. 69. 1994. Page 366.
- 8 Fleming M. "Competencies for Substance Abuse Training." *Training About Alcohol and Substance Abuse for All Primary Care Physicians*. New York, NY: Josiah Macy. Jr. Foundation. 1994. Page 213.

The Data on Adolescent Substance Abuse Problems

- All data from Johnston LD, O'Malley PM and Bachman JG. "Monitoring the Future National Results on Adolescent Drug Use: Overview of Key Findings, 2001." *NIH Publication No. 02-5105.* Bethesda, MD: National Institute on Drug Abuse. 2002. Available www.monitoringthefuture.org.
- 2 Winters K. "Adolescents and Substance Abuse: Risks, Treatment and the Juvenile Justice System." *Adapted from transcripts*. Meeting sponsored by Physician Leadership on National Drug Policy. Washington, DC: National Press Club. November 29, 2001.
- 3 Robert Wood Johnson Foundation. Substance Abuse: The Nation's Number One Health Problem. *Key Indicators for Policy*. Update. February, 2001. Available www.rwjf.org.
- 4 Adapted from Dennis ML, Dawud-Noursi S, Muck R and McDermeit M. The Need for Developing and Evaluating Adolescent Treatment Models. In Stevens SJ and Morral AR (eds.). Adolescent Substance Abuse Treatment in the United States: Exemplary Models from a National Evaluation Study. Binghamton, NY: Haworth Press. 2002.
- 5 Substance Abuse and Mental Health Services Administration. National Household Survey on Drug Abuse 1998. Available **www.samhsa.gov/oas/nhsda.htm**.
- 6 Greenblatt JC. "Patterns of Alcohol Use Among Adolescents and Associations with Emotional and Behavioral Problems." OAS Working Paper. Rockville, MD: Office of Applied Studies, SAMHSA. March 2000. Available www.health.org/govstudy/adolemotion/.

2. CONTINUUM OF CARE – PREVENTION

- 1 National Institute on Drug Abuse. "Prevention Brochure." Available www.nida.nih.gov/prevention/PREVOPEN.html.
- 2 Hawkins JD, Catalano RF and Associates. Communities that Care: Action for Drug Abuse Prevention. San Francisco, CA: Jossey-Boss Publishers. 1992.
- 3 Hawkins JD. Risk and Protective Factors and Their Implications for Preventive Interventions for the Health Care Professional. Chapter 1 in Schydlower M (ed.). Substance Abuse: A Guide for Health Professionals. American Academy of Pediatrics. Second Edition. 2002.
- 4 Dennis ML, Dawud-Noursi S, Muck R and McDermeit M. The Need for Developing and Evaluating Adolescent Treatment Models. In Stevens SJ and Morral AR (eds.). *Adolescent Substance Abuse Treatment in the United States: Exemplary Models from a National Evaluation Study.* Binghamton, NY: Haworth Press. 2002.
- 5 Heinz-Knowles K. Images of Youth: A Content Analysis of Adolescents in Prime Time Entertainment Programming. In Bales S (ed.). *Reframing Youth Issues*. Washington, DC: Working Papers, Frameworks Institute and Center for Communications and Community, UCLA. April, 2000.
- 6 Bostrom M. Teenhood: Understanding Attitudes Toward Those Transitioning from Childhood to Adulthood. In Bales S (ed.). *Reframing Youth Issues*. Washington, DC: Working Papers, Frameworks Institute and Center for Communications and Community, UCLA. April, 2000.

- 7 American Academy of Pediatrics. "Practicing Adolescent Medicine, Priority Health Behaviors in Adolescents: Health Promotion in the Clinical Setting." *Adolescent Health Update*. 3(2). 1991. Available www.aap.org.
- 8 Robert Wood Johnson Foundation. Substance Abuse: The Nation's Number One Health Problem. *Key Indicators for Policy. Update.* February, 2001. Available **www.rwif.org.**
- 9 American Academy of Pediatrics. The Classification of Child and Adolescent Mental Diagnoses in Primary Care: Diagnostic and Statistical Manual for Primary Care (DSM-PC) Child and Adolescent Version. Elk Grove Village, IL: AAP. 1996. Available www.aap.org.
- 10 Hawkins JD. "Adolescents and Substance Abuse: Risks, Treatment and the Juvenile Justice System." *Quote from transcripts*. Meeting sponsored by Physician Leadership on National Drug Policy. Washington, DC: National Press Club. November 29, 2001.
- 11 National Institute on Drug Abuse. "Study Quantifies Cost-Benefit of Family Interventions Designed to Prevent Adolescent Alcohol Use." *NIH News Release.* Bethesda, MD: National Institutes of Health. May 1, 2002. Available www.drugabuse.gov.
- 12 Skinner H. "Adolescents and Substance Abuse: Risks, Treatment and the Juvenile Justice System." Adapted from transcripts and presentation, Using the Internet for Engaging Youth in Substance Abuse Prevention. Meeting sponsored by Physician Leadership on National Drug Policy. Washington, DC: National Press Club. November 29, 2001.
- 13 American Academy of Pediatrics. "The Role of Schools in Combatting Substance Abuse." Policy Statement RE9522. *Pediatrics.* 95(5). May, 1995. Pages 784-5. Available www.aap.org.
- 14 Center for School Mental Health Assistance. The Interface Between Expanded School Mental Health and Substance-Related Services for Youth. Baltimore, MD: CSMHA. 2002.
- 15 Wagner EF, Dinklage S, Cudworth C and Vyse J. "A Preliminary Evaluation of the Effectiveness of a Standardized Student Assistance Program." Substance Use & Misuse. 34. 1999. Pages 1571-84.

3. CONTINUUM OF CARE – SCREENING, ASSESSMENT, REFERRAL AND TRAINING

- Winters KC. "Screening and Assessing Adolescents For Substance Use Disorders. Treatment Improvement Protocol (TIP) Series 31." Rockville, MD: Substance Abuse and Mental Health Services Administration. 1999. Available www.health.org/govpubs/BKD306/31c.htm.
- 2 Winters K. "Adolescents and Substance Abuse: Risks, Treatment and the Juvenile Justice System." Adapted from transcripts and presentation, Assessment of Adolescent Substance Abuse. Meeting sponsored by Physician Leadership on National Drug Policy. Washington, DC: National Press Club. November 29, 2001.
- 3 Knight JR, Sherritt L, Shrier LA, Harris SK, and Chang G. "Validity of the CRAFFT Substance Abuse Screening Test Among Adolescent Clinic Patients." *Archives of Pediatric and Adolescent Medicine*. 156. June, 2002. Pages 607-14.
- 4 American Academy of Pediatrics. *Practices and Attitudes Toward Adolescent Drug Screening.* Elk Grove Village, IL: Division of Children Health Research, AAP. Periodic Survey of Fellows No. 31. 1997.
- 5 American Academy of Pediatrics. "Tobacco, Alcohol, and Other Drugs: The Role of the Pediatrician in Prevention and Management of Substance Abuse." *Pediatrics.* 101(1). January, 1998. Pages 125-8. Available www.aap.org.
- 6 American Academy of Family Physicians. "Substance Abuse and Addiction." AAFP Policies on Health Issues. Available www.aafp.org/policy/x1865.xml.

- 7 Dennis ML, Dawud-Noursi S, Muck R and McDermeit M. The Need for Developing and Evaluating Adolescent Treatment Models. In Stevens SJ and Morral AR (eds.). Adolescent Substance Abuse Treatment in the United States: Exemplary Models from a National Evaluation Study. Binghamton, NY: Haworth Press. 2002.
- 8 Fleming M. "Competencies for Substance Abuse Training." *Training, About Alcohol and Substance Abuse for All Primary Care Physicians.* New York, NY: Josiah Macy, Jr. Foundation. 1994. Page 213.
- 9 Adapted from Comerci GD. The Role of the Primary Care Physician. In: Schydlower M, ed. Substance Abuse: A Guide for Health Professionals. 2nd ed. Elk Grove Village, IL: American Academy of Pediatrics. 2002. Pages 21-39.
- 10 Fleming M, Barry K, Davis A, Kropp S, Kahn R, Rivo M. "Medical Education About Substance Abuse: Changes in Curriculum and Faculty Between 1976 and 1992." Academic Medicine. 69. 1994. Page 366.
- 11 Association of American Medical Colleges. *Curriculum Directory* 1993-1994. Washington, DC: AAMC. 1993.
- 12 Hoffman NG, Chang AJ and Lewis DC. "Medical Student Attitudes Toward Drug Addiction Policy." *Journal of Addictive Diseases*. 19(3). 2000.
- 13 National Center on Addiction and Substance Abuse at Columbia University. "Missed Opportunity: National Survey of Primary Care Physicians and Patients on Substance Abuse." May 9, 2000. Available www.casacolumbia.org/publications1456/publications.htm.
- 14 Concluding Statement of the Participants. *Training About Alcohol and Substance Abuse for All Primary Care Physicians*. New York, NY: Josiah Macy, Jr. Foundation. 1994. Page 101.
- 15 McLellan A and McKay J. The Treatment of Addiction: What Can Research Offer Practice? In Lamb S, Greenlick MR, McCarty D (eds.) (Institute of Medicine). Bridging the Gap Between Practice and Research: Forging Partnerships with Community-Based Drug and Alcohol Treatment. Washington, DC: National Academy Press. 1998. Pages 147-85. Available books.nap.edu.
- 16 For more information about CSAT or the Addiction Technology Transfer center, see www.samhsa.gov/csat/csat.htm or www.nattc.org/.
- 17 Lamb S, Greenlick MR, McCarty D (eds.) (Institute of Medicine). Bridging the Gap Between Practice and Research: Forging Partnerships with Community-Based Drug and Alcohol Treatment. Washington, DC: National Academy Press. 1998. Available books.nap.edu.
- 18 Babor TF and Higgins-Biddle JC. "Alcohol Screening and Brief Intervention: Dissemination Strategies for Medical Practice and Public Health." Addiction. 95(5). May 2000. Pages 677-86.
- 19 Association for Medical Education and Research in Substance Abuse. Project Mainstream, Executive Summary. *Personal Communication*. June, 2002.
- 20 Physician Leadership on National Drug Policy. "Project Vital Sign Summary Report." Project Vital Sign Planning Meeting. Providence, RI: Providence Biltmore Hotel. April 5, 2002. May, 2002.

4. CONTINUUM OF CARE – TREATMENT

- 1 Dennis ML. "Treatment Research on Adolescents Drug and Alcohol Abuse: Despite Progress, Many Challenges Remain (Invited Commentary)." *Connection*. Washington, DC: Academy for Health Services Research and Health Policy. Available www.academyhealth.org/publications/connection/index.htm. May, 2002.
- 2 Center for Substance Abuse Treatment. "Treatment Episode Data Set (TEDS)." (And) National Institute on Drug Abuse. "Monitoring the Future (MTF)." Available www.icpsr.umich.edu/SAMHDA/das.html.
- 3 Dennis ML, Adams L, Fishman M, Fraser J, Godley M, Godley S and Muck R (Chestnut Health Systems). *Personal Communication*. April 30, 2002.

- 4 Dennis ML, Dawud-Noursi S, Muck R and McDermeit M. The Need for Developing and Evaluating Adolescent Treatment Models. In Stevens SJ and Morral AR (eds.). Adolescent Substance Abuse Treatment in the United States: Exemplary Models from a National Evaluation Study. Binghamton, NY: Haworth Press. 2002.
- 5 Winters K. "Treating Adolescents with Substance Use Disorders: An Overview of Practice Issues and Treatment Outcomes." Substance Abuse. 20(4). 1999.
- 6 National Institute on Drug Abuse. "Principles of Drug Addiction Treatment: A Research-Based Guide." *NIH Publication No. 99-4180.* 1999.
- 7 Office of National Drug Control Policy. "Drug Abuse in America." *PowerPoint Presentation, Slide #107.* Washington, DC: Executive Office of the President. February, 2002. Available www.whitehousedrugpolicy.gov.
- 8 Hser YI, Grella CE, Hubbard RL et al. "An Evaluation of Drug Treatment for Adolescents in Four US Cities." *Archives of General Psychiatry.* 58(7). 2001. Pages 689-95.
- 9 McLellan AT, Lewis DC, O'Brien CP and Kleber HD. "Drug Dependence, a Chronic Medical Illness: Implications for Treatment, Insurance, and Outcomes Evaluation." JAMA. 284(13). October 4, 2000. Pages 1689-95.
- 10 O'Brien CP and McLellan AT. "Myths About the Treatment of Addiction." *Lancet.* 347(8996). 1996. Pages 237-40.
- 11 Monti P. "Adolescents and Substance Abuse: Risks, Treatment and the Juvenile Justice System." Adapted from transcripts and presentation, Identifying Risk and Brief Intervention with Adolescent Alcohol Problems in ED Settings. Meeting sponsored by Physician Leadership on National Drug Policy. Washington, DC: National Press Club. November 29, 2001.
- 12 Brown SA, DiAmico EJ, McCarthy DM and Tapert SF. "Four Year Outcomes from Adolescent Alcohol and Drug Treatment." *Journal of Studies on Alcohol.* 62(3). May, 2001. Pages 381-89.
- 13 Dennis M, Godley SH, Diamond GS, Tims FM, Babor T, Donaldson J, Liddle H. Titus JC, Kaminer Y, Webb C and Hamilton N. "Main Findings of the Cannabis Youth Treatment (CYT) Randomized Field Experiment." Presentation in Symposium 64, "State-of-the-Art Adolescent Substance Abuse Prevention and Treatment." Philadelphia, PA: American Psychiatric Association, Annual Conference. May 18-23, 2002. Available www.chestnut.org/Ll/cyt/findings/.
- 11 Monti P. "Adolescents and Substance Abuse: Risks, Treatment and the Juvenile Justice System." Adapted from transcripts and presentation, Identifying Risk and Brief Intervention with Adolescent Alcohol Problems in ED Settings. Meeting sponsored by Physician Leadership on National Drug Policy. Washington, DC: National Press Club. November 29, 2001.

5. FINANCING OF CARE -PARITY, MEDICAID, SCHIP, BLOCK GRANT

- Center for Substance Abuse Treatment. "Treatment Episode Data Set (TEDS)." (And) National Institute on Drug Abuse. "Monitoring the Future (MTF)." Available www.icpsr.umich.edu/SAMHDA/das.html.
- 2 American Academy of Pediatrics. "Improving Substance Abuse Prevention, Assessment, and Treatment Financing for Children and Adolescents." *Pediatrics.* 108. October, 2001. Pages 1025-29. Available www.aap.org.
- 3 Coffey R, Mark T, King E, Harwood H, McKusick D, Genuaridi J, Dilonardo J, and Chalk M. "National Estimates of Expenditures for Substance Abuse Treatment, 1997." SAMHSA Publication No: SMA-01-3511. Rockville, MD: Center for Substance Abuse Treatment and Center for Mental Health Services. February, 2001.
- 4 Substance Abuse and Mental Health Services Administration. "Growth of Managed Care in Substance Abuse Treatment." *The DASIS Report.* Rockville, MD: Office of Applied Studies, SAMHSA. October 19, 2001. Available www.samhsa.gov/oas/facts/managedcare.htm.

- 5 President Clinton signed the Mental Health Parity Act of 1996 (P.L. 104-204) into law on September 26, 1997. The law took effect on January 1, 1998.
- 6 Sturm R. "The Costs of Covering Mental Health and Substance Abuse Care at the Same Level as Medical Care in Private Insurance Plans." *Presented to the Health Insurance Committee, National Conference of Insurance Legislators.* RAND. July, 2001. Available http://www.rand.org/publications/CT/CT180/.
- 7 United States Office of Personnel Management. "White House Directs OPM to Achieve Mental Health and Substance Abuse Health Coverage Parity." OPM News Release. Washington, DC: OPM. June 7, 1999. Available www.opm.gov/pressrel/1999/health.htm.
- 8 Frank R. "Some Economic Aspects of Parity Legislation for Substance Abuse Coverage in Private Insurance." *Insights on Managing Care.* 2(2). 1999. Pages 1-4. (And) Goldin D. "The Effect of the Mental Health Parity Act on Behavioral Health Carve-Out Contacts in Fortune 500 Firms." *Insights on Managing Care.* 2(2). 1999. Pages 5-6.
- 9 Substance Abuse and Mental Health Services Administration. *The Costs and Effects of Parity for Substance Abuse Insurance Benefits*. Rockville, MD: SAMH-SA. 1998.
- 10 Milliman & Robertson, Inc. (National Center for Policy Analysis). "Estimated Additional Costs for Certain Benefits." March 18, 1997.
- 11 French M, Salome HJJ, Sindelar J, and McLellan AT. "Benefit-Cost Analysis of Ancillary Social Services in Publicly Supported Addiction Treatment." In Submission to Archives of General Psychiatry, summarized in CSAT By Fax. 4(7). August 11, 1999.
- 12 Executive Office of the President. "Statement on Parity for Substance Abuse Treatment." Washington, DC: Office of National Drug Control Policy. January 22, 1999.
- 13 Center for the Advancement of Health. Purchasers' Report. In *Health Behavior Change in Managed Care: A Status Report.* Washington, DC: CFAH. 2000. Available www.cfah.org/publications.cfm.
- 14 Center of Alcohol Studies (Rutgers University). "Socioeconomic Evaluations of Addictions Treatment." *Prepared for the President's Commission on Model State Drug Laws.* Washington, DC: United States Government Printing Office. December, 1993.
- 15 Jayakody R, Danziger S, and Pollack H. "Welfare Reform, Substance Abuse, and Mental Health." *Journal of Health Politics, Policy and Law.* 25(4). August, 2000. Pages 623-51.
- 16 Substance Abuse and Mental Health Services Administration. "Substance Use Among Persons in Families Receiving Government Assistance." *The NHSDA Report.* Rockville, MD: Office of Applied Studies, SAMHSA. April 19, 2002. Available www.samhsa.gov/oas/2k2/GovAid/GovAid.cfm.
- 17 Johnson P. Substance Abuse Treatment Coverage in State Medicaid Programs. Washington, DC: National Conference of State Legislatures. March, 1999.
- 18 Riportella-Muller R, Selby-Harrington ML, Richardson LA, Donat PLN, Luchok KJ, and Quade D. "Barriers to the Use of Preventive Health Care Services for Children." *Public Health Reports.* 111. January/February, 1996. Pages 71-7.
- 19 Selby ML, Riportella-Muller R, Sorenson JR, Quade D, and Luchok KJ. "Increasing Participation by Private Physicians in the EPSDT Program in Rural North Carolina." *Public Health Reports*. 107(5). September/October, 1992. Pages 561-8.
- 20 Centers for Medicare & Medicaid Services. "The State Children's Health Insurance Program Annual Enrollment Report for Fiscal Year 2001." 2002. Available www.hcfa.gov/init/children.htm.
- 21 Centers for Medicare & Medicaid Services. "State Child Health Insurance Program Plan Activity Map." May 16, 2002. Available cms.hhs.gov/schip/chip-map.asp.
- 22 Gehshan S. Substance Abuse Treatment in State Children's Health Insurance Programs. Washington, DC: National Conference of State Legislatures. May, 2000.

- 23 Gehshan S. Substance Abuse Benefits in State Children's Health Insurance Programs. In: *TIE Communique: A Memo to the Field from CSAT's Treatment Improvement Exchange.* Rockville, MD: Division of State and Community Assistance, CSAT. 1999.
- 24 Miech RA, Caspi A, Moffitt TE, Entner Wright BR, and Silva PA. "Low Socioeconomic Status and Mental Disorders: A Longitudinal Study of Selection and Causation During Young Adulthood." *American Journal of Sociology.* 104(4). January, 1999. Pages 1096-131.
- 25 Fox K, Merrill J, Chang H, and Califano J. "Estimating the Costs of Substance Abuse to the Medicaid Hospital Care Program." *American Journal* of *Public Health.* 85(1). January, 1995. Pages 48-54.
- 26 Reutzel TJ, Becker FW, and Sanders BK. "Expenditure Effects of Changes in Medicaid Benefit Coverage: An Alcohol and Substance Abuse Example." *American Journal of Public Health.* 77(4). April, 1987. Pages 503-4.
- 27 Morgenstern J, Riordan A, McCrady BS, McVeigh KH, Blanchard KA, and Irwin TW. "Research Notes: Intensive Case Management Improves Welfare Clients' Rates of Entry and Retention in Substance Abuse Treatment." January, 2001.
- 28 Deck DD, McFarland BH, Titus JM, Laws KE, and Gabriel RM. "Access to Substance Abuse Treatment Services Under the Oregon Health Plan." JAMA. 284(16). October 25, 2000. Pages 2093-9.
- 29 Washington Business Group on Health. "Working Solutions to Substance Abuse." Available **www.wbgh.org/substanceabuse.**

6.THE CO-OCCURRENCE OF MENTAL HEALTH AND SUBSTANCE USE DISORDERS

- National Mental Health Association. "Alcohol and Drug Abuse, Addiction and Co-Occurring Disorders." Advocate Information. May 30, 2002. Available www.nmha.org/substance/advocate.cfm.
- 2 Substance Abuse and Mental Health Services Administration. The Relationship Between Mental Health and Substance Abuse Among Adolescents. Rockville, MD: Office of Applied Studies, SAMHSA. Available www.samhsa.gov/oas/nhsda/A-9/TOC.htm.
- 3 King RD, Gaines LS, Lambert EW, Summerfelt WT, and Bickman L. "The Co-Occurrence of Psychiatric and Substance Use Diagnoses in Adolescents in Different Service Systems: Frequency, Recognition, Cost, and Outcomes." *Journal of Behavioral Health Services & Research.* 27(4). November, 2000. Pages 417-30.
- 4 Clark DC, Pollock N, Bukstein OG, Mezzich AC, Bromberger JT, and Donovan JE. "Gender and Comorbid Psychopathology in Adolescents with Alcohol Dependence." *Journal of the American Academy of Child and Adolescent Psychiatry.* 36. 1997. Pages 1195-203.
- 5 Crowley TJ and Riggs PD. Adolescent Substance Use Disorder with Conduct Disorder and Comorbid Conditions. In: *Adolescent Drug Abuse: Clinical Assessment and Therapeutic Interventions*. NIDA Research Monograph, Number 156. Bethesda, MD: National Institute on Drug Abuse. 1999.
- 6 Friedman AS and Glickman NW. "Effects of Psychiatric Symptomatology on Treatment Outcome for Adolescent Male Drug Abusers." *Journal of Nervous and Mental Disease*. 175(7). 1987. Pages 425-30.
- 7 Rohde P, Lewinsohn PM, and Seeley JR. "Psychiatric Comorbidity with Problematic Alcohol Use in High School Students." *Journal of the American Academy of Child and Adolescent Psychiatry*. 35. 1996. Pages 101-9.
- 8 Hoffmann NG, Estroff TW, and Wallace SD. "Co-Occurring Disorders Among Adolescent Treatment Populations." *Dual Diagnosis Recovery Network*. Summer, 2001.
- 9 Wise BK, Cuffe SP, and Fischer T. "Dual Diagnosis and Successful Participation of Adolescents in Substance Abuse Treatment." *Journal of Substance Abuse Treatment*. 21. 2001. Pages 161-5.

- 10 Watkins KE, Burnam A, Kung F, and Paddock S. "A National Survey of Care for Persons With Co-occurring Mental and Substance Use Disorders." *Psychiatric Services.* 52(8). August, 2001. Pages 1062-8.
- 11 Deas D and Thomas SE. "An Overview of Controlled Studies of Adolescent Substance Abuse Treatment." *The American Journal on Addictions*. 10. 2001. Pages 178-89. (And) Williams RJ and Chang SY. "A Comprehensive and Comparative Review of Adolescent Substance Abuse Treatment Outcome." *Clinical Psychology: Science and Practice*. 7. 2000. Pages 138-66.
- 12 Adapted from De Carolis GJ. State-Level Supports for Community-Based Services. In Robert RN and Magrab PR. Where Children Live: Solutions for Serving Young Children and Their Families. Stamford, CT: Ablex Publishing. 1999.
- 13 Kokotailo P. Physical Health Problems Associated With Adolescent Substance Abuse. In Adolescent Drug Abuse: Clinical Assessment and Therapeutic Interventions. NIDA Research Monograph No. 156. Bethesda, MD: National Institute on Drug Abuse. 1999.
- 14 Center for School Mental Health Assistance. "Our Mission." Available csmha.umaryland.edu.

7. THE INTERFACE OF YOUTH WITH JUVENILE JUSTICE

- Dembo R, Williams L and Schmeidler J. Addressing the Problems of Substance Abuse in Juvenile Corrections. In Inciardi JA (ed.). Drug Treatment in Criminal Justice Settings. Newbury Park, CA: Sage. 1993.
- 2 Teplin LA. "Assessing Alcohol, Drug and Mental Disorders in Juvenile Detainees." *OJJDP Fact Sheet #02*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention. January, 2001. Available www.ncjrs.org/pdffiles1/ojjdp/fs200102.pdf.
- 3 Snyder H and Sickmund M. "Juvenile Offenders and Victims: 1999 National Report." Washington, DC: Office of Juvenile Justice and Delinquency Prevention. September, 1999. Page 89. Available www.ncjrs.org/html/ojjdp/nationalreport99/toc.htm.
- 4 Beatty P, Holman B and Schiraldi V. "Poor Prescription: The Cost of Imprisoning Drug Offenders in the United States." Washington, DC: Justice Policy Institute. 2000. Available www.cjcj.org/drug/capr.html.
- 5 Abt Associates, Inc. "Conditions of Confinement: Juvenile Detention and Corrections Facilities." Washington, DC: Office of Juvenile Justice and Delinquency Prevention. 1994.
- 6 Ulzen T and Hamilton H. "The nature and characteristics of psychiatric comorbidity in incarcerated adolescents." *Canadian Journal of Psychiatry.* 43(1). 1998. Pages 57-63.
- 7 Otto R, Greenstein J, Johnson M and Friedman R. Prevalence of Mental Disorders Among Youth in the Juvenile Justice System. Chapter 2 in Cocozza J (ed.). *Responding to the Mental Health Needs of Youth in the Juvenile Justice System*. Delmar, NY: National Coalition for the Mentally III in the Criminal Justice System. November, 1992.
- 8 Faenza M, Siegfried C, and Wood J. "Community Perspectives on the Mental Health and Substance Abuse Treatment Needs of Youth Involved in the Juvenile Justice System: Commentary and Call to Action." Washington, DC: Office of Juvenile Justice and Delinquency Prevention. Available www.nmha.org.
- 9 Center for Substance Abuse Treatment. "Strategies for Integrating Substance Abuse Treatment and the Juvenile Justice System: A Practice Guide." *DHHS Publication No. (SMA) 00-3369.* Washington, DC: CSAT. June, 1999.
- 10 Leshner Al. "Meeting the Challenge of Reducing Health Disparities." Director's Column. NIDA Notes. 16(1). March, 2001.
- 11 Cauffman E, Feldman SS, Waterman J and Steiner H. "Posttraumatic Stress Disorder Among Female Juvenile Offenders." *Journal of the American Academy* of Child and Adolescent Psychiatry. 37(11). November, 1998.

- 12 Prescott, L. "Improving Policy and Practice for Adolescent Girls with Co-Occurring Disorders in the Juvenile Justice System." Delmar, NY: The GAINS Center. June, 1998.
- 13 Substance Abuse and Mental Health Services Administration. "Substance Abuse Treatment in Adult and Juvenile Correctional Facilities: Findings from the Uniform Facility Data Set 1997 Survey of Correctional Facilities." Washington, DC: Office of Applied Studies, SAMSHA. Available www.samhsa.gov/oas/ufds/correctionalfacilities97/correctionalfacilities97.pdf.
- 14 Torbet PM. "Holding Juvenile Offenders Accountable: Programming Needs of Juvenile Probation Departments." #NCJ 180810. Washington, DC: Office of Juvenile Justice and Delinquency Prevention. 1999.
- 15 Rutherford B and Banta-Green C. "Effectiveness Standards for the Treatment of Chemical Dependency in Juvenile Offenders: A Review of the Literature." *ADAI Technical Report 98-01.* Seattle, WA: Alcohol and Drug Abuse Institute, University of Washington. January, 1998. Available depts.washingtong.edu/adai/pubs/tr/9801/title.htm.
- 16 Gendreau, P. The principles of effective intervention with offenders. In Harland A (ed.). *Choosing Correctional Options That Work*. Thousand Oaks, CA: Sage Publications. 1996.
- 17 National Mental Health Association. "Treatment Works for Youth in the Juvenile Justice System." Fact Sheet. Alexandria, VA: NMHA. Available www.nmha.org.
- 18 Kimbrough RJ. "Treating Juvenile Substance Abuse: The Promise of Juvenile Drug Courts." *OJJDP Juvenile Justice Journal*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention. December, 1998. Available www.ncjrs.org/pdffiles/173425.pdf.
- 19 Rajkimar A and French M. "Drug Abuse Crime Costs and the Economic Benefit of Treatment." *Journal of Quantitative Criminology.* 13(3). 1997. Pages 291-323.
- 20 Center for Restorative Justice and Peacemaking. "The Balanced and Restorative Justice Project." St. Paul, MN: School of Social Work, University of Minnesota. Available ssw.che.umn.edu/rjp/BARJ.htm.
- 21 Kraft MK, Muck R and Bazemore G. "Common Ground: Opportunities and Possibilities." *Youth & Society.* 33(2). December, 2001. Page 335.

CHARTS AND GRAPHS

page v

Fiscal Year 2003 President's Request, By Area

Source: Office of National Drug Control Policy: "Drug Abuse in America." Washington, DC: Executive Office of the President, Power Point Presentation. February, 2002. Slide #13. Available www.whitehousedrugpolicy.gov

page 4

Americans' Views Of The 2 Or 3 Most Important Problems Facing Teenagers Today

Data Source: Adapted from Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.

Americans' Views Of The Seriousness Of Health Problems (Top ten of thirty-six problems)

Data Source: Adapted from Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.

page 5

Daily Use Percentages Among 12th Graders: 1992 vs. 2001

Data Source: Monitoring the Future

page 6

Past Month Illicit Drug Use By Intensity Of Alcohol Use Data Source: National Household Survey on Drug Abuse, 1998

Past Month Illicit Drug Use By Whether Or Not They Smoke Cigarettes

Data Source: National Household Survey on Drug Abuse, 1998

page 7

Change In Past Month Use Of Substances By Age

Source: Dennis, ML. "Treatment Research on Adolescents Drug and Alcohol Abuse: Despite Progress, Many Challenges Remain (Invited Commentary)." *Connection*. Washington, DC: Academy for Health Services Research and Health Policy. May, 2002.

page 9

Economic Costs Of Substance Abuse Are High, 1995

Source: Robert Wood Johnson Foundation. Substance Abuse: The Nation's Number One Health Problem. *Key Indicators for Policy. Update.* February, 2001. Available www.rwjf.org

Healthcare Costs Of Substance Abuse Top \$114 Billion, 1995

Source: Robert Wood Johnson Foundation. Substance Abuse: The Nation's Number One Health Problem. *Key Indicators for Policy. Update*. February, 2001. Available www.rwjf.org

page 12

Public's View Of Spending More On Education Campaigns Aimed At Preventing Illegal Drug Use Among Young People

Data Source: Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.

Public's View On A Tax Increase To Pay For More Spending On Education Campaigns Aimed At Preventing Illegal Drug Use Among Young People

Data Source: Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.

page 15

Significance Of Age Of First Use

Data Source: National Household Survey on Drug Abuse, 1998. Available www.samsha.gov/oas/nhsda.htm

page 16

Youth Perception Of Risk Varies By Substance

Data Source: Robert Wood Johnson Foundation. Substance Abuse: The Nation's Number One Health Problem. *Key Indicators for Policy. Update.* February, 2001. Available www.rwjf.org

page 19

Iowa Strengthening Families Program vs. Preparing For the Drug Free Years

Data Source: National Institute on Drug Abuse. "Study Quantifies Cost-Benefit of Family Interventions Designed to Prevent Adolescent Alcohol Use." NIH News Release. Bethesda, MD: National Institutes of Health. May 1, 2002. Available www.drugabuse.gov

page 24

Sources Of Adolescent Substance Abuse Treatment Referrals

Source: Dennis, ML, Dawud-Noursi, S, Muck, R, and McDermeit, M. The Need for Developing and Evaluating Adolescent Treatment Models. In Stevens, SJ and Morral, AR (eds.) *Adolescent Substance Abuse Treatment in the United States: Exemplary Models from a National Evaluation Study.* Binghampton, NY: Haworth Press. 2002.

page 26

Medical Student Support For Physician Involvement In Drug Policy Making vs. Actual Student Training Received

Data Source: Adapted from Hoffman, NG, Chang, AL, and Lewis, DC. "Medical Students Attitudes Toward Drug Addiction Policy." *Journal of Addictive Diseases*. 19(3). 2000.

page 33

Americans' Views Of Whether Most People Who Frequently Use Illegal Drugs Need Outside Help To Stop

Data Source: Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.

Americans' Views About Whether Illegal Drug Use Can Be Treated Successfully

Data Source: Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.

Americans' Views On Government Spending On Drug Treatment

Data Source: Blendon, R., Harvard School of Public Health and The Robert Wood Johnson Foundation. "Report on Public Attitudes Toward Illegal Drug Use and Drug Treatment." September, 2000. Unpublished data.

page 36

The Effects Of Drug Treatment Last (One year after treatment)

Source: Office of National Drug Control Policy: "Drug Abuse In America." Washington, DC: Executive Office of The President, PowerPoint Slide #105. Available www.whitehousedrugpolicy.gov

The Effects of Drug Treatment Last (Five years after treatment)

Source: Office of National Drug Control Policy: "Drug Abuse In America." Washington, DC: Executive Office of The President, Power Point Slide #106. Available www.whitehousedrugpolicy.gov

page 38

Compliance And "Relapse" In Selected Medical Disorders

Source: O'Brien, CP, McLellan, AT. "Myths About the Treatment of Addiction." *Lancet*. 1996. 347(8996): 237-240

page 42

Cost Of Full Parity For Substance Abuse Treatment

Source: Substance Abuse and Mental Health Services Administration, *The Cost and Effects of Parity for Substance Abuse Insurance Benefits* (Washington DC: SAMHSA, U.S. Department of Health and Human Services, 1998); Sturm, R, Zhang, W, and Schoenbaum, M, "How Expensive are Unlimited Substance Abuse Benefits Under Managed Care?" *The Journal of Behavioral Health Services & Research*. 1999. 26(2): 203-210

page 50

Lifetime Prevalence of Substance Abuse and Mental Disorders in General Population

Source: Adapted from Substance Abuse and Mental Health Services Administration. "The Economic Costs of Alcohol and Drug Abuse in the United States, 1992." Washington, DC: U.S. Department of Health and Human Services. Available www.health.org/govstudy/bkd265/chapter4c.htm

page 51

Severity Is Related To Other Problems

Source: Dennis, M, Godley, SH, Diamond, GS, Tims, FM, Babor, T, Donaldson, J, Liddle, H, Titus, JC, Kaminer, Y, Webb, C, Hamilton, N. "Main Findings of the Cannabis Youth Treatment (CYT) Randomized Field Experiment." Presentation in Symposium 64, "State of the Art Adolescent Substance Abuse Prevention and Treatment" at the American Psychiatric Association Annual Conference, Philadelphia, PA. May 18-23, 2002.

page 56

Drug Treatment Is Cheaper Than The Alternatives

Source: Institute of Medicine. *Pathways of Addiction*— *Opportunities in Drug Abuse Research*. Washington, DC: National Academy Press, 1996.



Physician Leadership on National Drug Policy PLNDP National Project Office Center for Alcohol and Addiction Studies

Brown University Box G-BH Providence, RI 02912
 phone
 401-444-1817

 fax
 401-444-1850

 email
 plndp@brown.edu

www.PLNDP.org