Introduction

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In an era of managed care, downsizing of Government services and budgets, the advent of a science of drug abuse prevention, and confronted with increases in adolescent drug abuse, the practice of drug abuse prevention finds it necessary to address a number of interrelated critical questions in order to guide future program development and policy: What scientific evidence supports the efficacy and effectiveness of drug abuse prevention programs and policy currently in effect in schools, the workplace, and communities across the country? What are the costs associated with those programs and are those programs and policies beneficial to those receiving them? How can the practice of prevention be improved by the emerging science of drug abuse prevention? And, what prevention programs and services have demonstrated their cost-effectiveness or cost benefit and can be implemented in the evolving healthcare system under the pressures of managed care?

Agency administrators of drug abuse prevention programs are seeking science-based answers to these questions in order to plan and implement drug abuse prevention programs that reach the populations most at risk of drug abuse with high-quality, proven, and cost-efficient approaches to counter the increased pressures to use illicit drugs that youth, young adults, and adults are experiencing in our society. Health administrators for managed-care, fee-for-service, and public and private healthcare plans are exploring a wide array of health benefits to provide in their healthcare plans to include the introduction of drug abuse prevention services.

However, to make wise decisions concerning the use of limited resources, drug abuse prevention program administrators, healthcare providers, and insurers are asking tough questions concerning the efficacy, cost, and benefits to be derived for their clients by providing drug abuse prevention programs and services under the auspices of their agencies' healthcare programs and plans. While the adage that "an ounce of prevention is worth a pound of cure" still has currency in the current debate, empirical data gathered through rigorous scientific methods are being demanded by the field so that policy making can be improved by the adoption and implementation of

science-based drug abuse prevention programs that actually work in the real world.

In response, the emerging science of drug abuse prevention is beginning to provide practical answers for these types of questions. For example, over the past 5 years, the science of drug abuse prevention (Bukoski 1997; Mrazek and Haggerty 1994; Sloboda and David 1997) has yielded a number of important findings and emerging prevention principles that indicate adolescent drug abuse prevention can be prevented by theory-based approaches that focus on social skill development; drug resistance techniques; family monitoring and communication skills; strengthening antidrug abuse norms and perceptions of social disapproval; promoting increased awareness and salience of the perception of harmful effects resulting from drug use; creating positive social networks; promulgation of preventive health policies; and community mobilization for prevention. This research also suggests the importance of the variety of implementation actions that are essential to promote high fidelity and quality of program delivery leading to positive program outcomes. These implementation techniques include the employment of interactive teaching methods; staged learning through behavioral analysis to include coaching, role modeling, practice, reinforcement, and training for generalization; and use of multiple developmentally appropriate booster sessions.

However, hard data on the cost-effectiveness or cost-benefit of specific drug abuse prevention programs have proven to be elusive. Only a handful of studies have been conducted over the past 20 years, providing suggestive evidence that exposure to drug abuse prevention programs could be justified based on data derived from cost-effectiveness and cost-benefit studies. As a result of this desperate need for additional research to be focused on this topic, the National Institute on Drug Abuse (NIDA) convened a group of experts in the fields of drug abuse prevention research and economic evaluation studies (cost-effectiveness and cost-benefit) to assess the current scientific knowledge base of the efficacy of drug abuse prevention programs, to explore state-of-the-art economic evacuation methodologies and their application in the future to analysis of the cost-effectiveness and cost-benefit of drug abuse prevention, and to identify possible research directions for these types of studies that are needed by the field of drug abuse prevention. Scientific papers from this meeting were then reviewed, revised, and assembled to form this publication.

This NIDA monograph attempts to place in perspective a number of salient scientific and practical issues by providing a timely and

relevant review of scientific evidence that supports drug abuse prevention programs and policy, by discussing methodological and analytic developments in conducting cost-benefit and cost-effectiveness studies in the area of drug abuse prevention, and by assessing the implications of these research studies for the development in the future of evidence-based drug abuse prevention that would meet the highest scientific standards of excellence. This research could lead to high-quality, accessible, effective, and cost-efficient drug abuse prevention services offered in a variety of venues to include schools, communities, the workplace, and the healthcare system.

In the first chapter, Merrill and Fox discuss in detail the cost impact of drug abuse on Federal entitlement spending. This chapter provides a unique perspective on the multimillion-dollar drain annually on the Federal entitlement budget to pay for the health consequences of drug abuse in our society. These costs are hidden in the budgetary process, and this chapter provides interesting data concerning actual dollar savings that could be realized through more effective drug abuse prevention services. The next four chapters by Evans; Botvin and colleagues; Catalano and colleagues; and Pentz provide a solid review of the scientific literature concerning the efficacy of drug abuse prevention programs implemented in schools and for high-risk youth. Scientific evidence presented in these chapters suggests that drug abuse prevention programs that have been tested under rigorous controlled conditions have demonstrated impact in reducing the prevalence and incidence of adolescent drug abuse. Preliminary evidence provided in these chapters suggests that exploratory analysis of empirical data is beginning to yield rudimentary scientific evidence of the cost-effectiveness of drug abuse prevention programming.

In the remaining chapters, a technical discussion of the quality and applicability of cost evaluation methodologies for the analysis of drug abuse prevention is presented. For example, Woodward provides a definitional overview of the methods of cost-effectiveness, cost-benefit, and cost-offset methodologies. Zarkin and Hubbard provide an insightful and technically sound econometric cost evaluation methodology and framework for assessing the cost-effectiveness and cost-benefit of drug abuse prevention programs. In their chapter, Plotnick and colleagues report on applying cost-effectiveness and cost-benefit methods to the assessment of a family-focused drug abuse prevention and treatment program for high-risk youth and families involved in methadone maintenance therapy. Then, Lillie-Blanton and colleagues discuss salient issues for applying cost-evaluation techniques to drug abuse prevention programs, citing advantages of

various approaches and methodological barriers that still exist hindering program development and cost evaluations. Finally, DuPont provides a concluding chapter that begins to assess the implications of cost-effectiveness and cost-benefit analyses for drug abuse prevention policy.

Obviously, this NIDA monograph only begins the scientific conversation on the relevance, appropriateness, and practical value of conducting scientifically valid economic evaluations of drug abuse prevention programs that are implemented in schools, communities, places of work, and healthcare settings across the country. This monograph suggests that science has an important role in the discussion currently enjoined by drug prevention practitioners, policymakers, and health funding entities across the country and that the scientific community stands as a ready partner with prevention practitioners in the development of scientifically sound economic evaluation data to guide future drug abuse prevention programs and policy.

REFERENCES

Bukoski, W., ed. *Meta-analysis of Drug Abuse Prevention Programs*. National Institute on Drug Abuse Research Monograph 170. NIH Pub. No. 97-4146. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1997.

Mrazek, P., and Haggerty, R. *Reducing Risks for Mental Disorders.* Institute of Medicine. Washington, DC: National Academy Press, 1994.

Sloboda, Z., and David, S. *Preventing Drug Use Among Children and Adolescents: A Research-Based Guide.* NIH Pub. No. 97-4212. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1997.

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