National Institute on Drug Abuse

Community Monitoring Systems:

Tracking and Improving the Well-Being of America's Children and Adolescents

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ACKNOWLEDGMENTS

CONTENTS

FOREWORD

The National Institute on Drug Abuse (NIDA) is pleased to support the dissemination of this document created by the Society for Prevention Research (SPR), with funding from the National Institutes of Health, Robert Wood Johnson Foundation, and National Science Foundation. Prevention is an area of primary scientific emphasis for NIDA. The information in this document will help States, regions, and communities to ascertain the nature and extent of problems and resources that affect the well-being of youth. NIDA's aim is to select of the best science-based approaches for addressing particular prevention needs. As Gilbert Botvin, Ph.D., past president of SPR, stated in the Foreword of the original document, "This monograph documents the growing practices of monitoring the well-being of children and adolescents. Monitoring systems are an integral part of efforts to prevent child and adolescent problems and ensure successful development. It was written based on input from numerous organizations that are developing and using monitoring systems. It is hoped that the monograph will assist prevention scientists and practitioners in furthering the practice of monitoring child and adolescent well-being. Its recommendations define the next steps that must be taken if the full promise of this practice is to come to fruition." NIDA echoes these views and is pleased to make this document available to you.

Nora D. Volkow, M.D.
Director
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EXECUTIVE SUMMARY

Monitoring the well-being of children and adolescents is a critical component of efforts to prevent psychological, behavioral, and health problems and to promote their successful development. Research during the past 40 years has helped identify aspects of child and adolescent functioning that are important to monitor. These aspects, which encompass family, peer, school, and neighborhood influences, have been shown to be associated with both positive and negative outcomes for youth. As systems for monitoring well-being become more available, communities will become better able to support prevention efforts and select prevention practices that meet community-specific needs.

There is evidence that supports the importance of certain factors for young people to function successfully including academic success and participation in volunteer activities. Research also has identified biological, psychological, and social factors that are associated with negative outcomes in youth; these include substance use, antisocial behavior, risky sexual practices, and academic failure. From a public health perspective, the problems most important to monitor can be chosen based on their prevalence and consequences to youth, their families, and communities.

Communities can choose which factors to monitor based on the prevalence and consequences of these factors in their community. This monograph describes Federal, State, and local monitoring systems that provide estimates of problem prevalence; risk and protective factors; and profiles regarding mobility, economic status, and public safety indicators. Data for these systems come from surveys of adolescents and archival records.

By focusing attention on measurable outcomes, Community Monitoring Systems (CMSs) can help bring about critical improvements in the lives of children and adolescents and affect positive changes at the community level. To the extent that these systems can be made available to communities, they will foster support for prevention efforts and guide selection of increasingly effective prevention and treatment practices.

As communities become skilled at implementing and operating CMSs, they can use data to guide them in choosing programs, policies, and practices (PPPs) that address malleable risk and protective factors in order to prevent young people from engaging in risk behaviors, which in turn can help bolster the well-being of the entire community.

Recommendations at the Federal Government Level

At the Federal level, the following guidelines are considered necessary for creating and implementing effective and widespread CMSs:

- Support research to help improve CMSs. Research can improve the validity of data collection systems, identify efficient methods for widespread implementation, evaluate the effects of such systems on outcomes for young people, and assess their cost-effectiveness for promoting effective prevention.

- Play a leadership role to help states and communities define the aspects of youth functioning, environments, and risk and protective factors most in need of monitoring.

- Provide funding to enable states and local communities to develop the infrastructures required for collecting, organizing, and making data available on child and adolescent well-being.

- Develop and encourage use of policies calling for assessments of child and adolescent well-being, which can influence the adoption of CMSs.

- Develop a unified approach in support of the development of monitoring systems. Development of systems for monitoring the broad range of child and adolescent indicators is hampered by the fact that responsibility for various aspects of functioning is spread across multiple Federal agencies.

Recommendations at the State Government Level

The State government also plays a critical role in the success of CMSs and should consider the following actions:

- Develop a clear set of policies that makes child health assessment systems a priority.
- Pursue a consensus among state agencies and local communities about which aspects of child and adolescent functioning to monitor.
- Create coordinated, comprehensive systems that assess child and adolescent well-being and assist communities in collecting and organizing the data.
- Compile collected data from Federal, state, and local agencies into public archives and make these data available to the communities.
- Provide training and technical assistance to communities on how to use data on risk, protection, and youth outcomes in planning drug abuse and violence prevention activities, social services, youth development programs, and educational policies and programs.

Recommendations at the Local Government Level

Local governments can help foster successful CMSs if they consider the following guidelines:

- Develop a community consensus regarding which behaviors—and influences on those behaviors—require monitoring.
- Develop a coordinated strategy among local agencies to collect, share, organize, and make use of available data. To the extent that the use of such data becomes a standard practice in the community, a greater number of effective preventive practices will be shaped over time.
- Encourage local news media to responsibly and judiciously report the results of assessments and to describe the efforts that community leaders are making to respond to the findings.
- Use data to guide prevention and treatment practices in the community. When programs and practices demonstrate success in reducing a problem (i.e., heavy episodic drinking), such programs should receive recognition and increased community support.

The collection, organization, and use of community monitoring data may seem remote from the personal and compelling details of the lives of our youth. However, as communities become skilled at implementing and operating CMSs, they can use data to guide them in choosing PPPs that can prevent major negative outcomes and provide faster improvements in the lives of youth, their families, and communities. By focusing attention on measurable outcomes, CMSs can help bring about genuine and critical improvements in the lives of children and adolescents and affect positive changes at the community level. Federal and state efforts in providing data, infrastructure, funding, and guiding policies enable localities to make population- and problem-specific prevention plans.

Community Monitoring Systems (CMSs) and the Well-Being of Youth

Communities can create environments in which children and adolescents develop the skills, interests, and habits they need to live healthy, happy, and productive lives and engage in caring relationships with other people. The accumulating research on factors that influence successful and problematic development, and on interventions that prevent diverse problems and promote positive development, demonstrates our potential to achieve these outcomes.

Studies evaluating preventive interventions have shown that we have the potential to shape communities where fewer young people develop problems with alcohol, tobacco, and other drugs; crime is less prevalent; unwanted pregnancies and sexually transmitted diseases are rare; and incidence of depression and anxiety are decreased (Biglan, Brennan, Foster, & Holder, 2004). How-ever, translating this research into community practices remains the challenge, and before communities can implement effective PPPs, they need to know what is happening with the young people in their communities. For this reason, an increasing number of communities are establishing CMSs that monitor the well-being of children and adolescents and the factors that influence their development.

A Public Health Perspective: The Foundation for CMSs

A public health perspective is concerned with the well-being of the total population. It goes beyond attention to individual well-being and asks about the incidence and prevalence of health indicators in defined populations.

A comprehensive approach to the public health of young people is concerned with the entire range of problems that threaten healthy development. We know that each of the following problems is common among adolescents and is costly to them, those around them, and the health and wealth of the Nation: tobacco, alcohol, and other drug use; antisocial behavior; depression; sexual behavior that presents risks for pregnancy or disease; and drunken driving (Biglan, Brennan, Foster, & Holder, 2004). The public health approach recognizes that these problems are interrelated; moreover, the same young people tend to engage in multiple problem behaviors. A CMS can concentrate on affecting the risk and protective factors influencing the involvement with multiple problems.

BOX A: AN IDEAL COMMUNITY MONITORING SYSTEM

1. Provides the community with accurate estimates of well-being for the entire population of children and adolescents

2. Encourages widespread participation of community members in the design, maintenance, and use of the system

3. Identifies and assesses key predictors of well-being that research shows are important. This includes measures of youth functioning and of the factors influencing development

4. Uses all available data, including both survey and archival

5. Generates information for decisionmakers and community members that is easily understandable and readily usable to answer specific questions

6. Provides timely data about trends in well-being and in risk and protective factors that predict youth outcomes

7. Guides priority setting and decisionmaking regarding choice of programs, policies, and practices to improve youth well-being

Community organizations concerned with children and youth often concentrate their work on individuals. An individual-based approach can be problematic when segments of the at-risk population do not receive the services they need. Thus, a major challenge for communities is to focus on the well-being of all youth at risk by monitoring the prevalence of the entire range of problems in the youth population. By doing so, the community is most likely to select and implement PPPs that affect all at-risk young people in the population.

Key Features of an Ideal CMS

In this section, we present seven key features of CMSs. We illustrate how these systems contribute to reducing the incidence and prevalence of problems among children and adolescents and to increasing the proportion of young people who develop into successfully functioning adults.

1. Provides accurate estimates of well-being

To have the greatest impact on the well-being of youth, a CMS must monitor biological, psychological, social, and behavioral aspects of young people's functioning. Community monitoring should also include indicators of both positive and negative youth outcomes, such as school attainment and academic achievement test scores. A balance of positive and negative indicators provides a more accurate view of the community situation and avoids the stigmatization of youth that can occur when problems are the only focus. Many indicator estimates can be obtained through a variety of Federal and State data systems, most of which provide guidance for their optimal use.

Communities that promote health and educational success and prevent and reduce problems have the potential to improve youth outcomes. *Table 1* lists some key outcomes in four domains: physical, mental, and behavioral health and education. Biglan, Brennan, Foster,

TABLE 1: DOMAINS OF FUNCTIONING OF CHILDREN AND ADOLESCENTS

Physical health	Prematurity
	Birth weight
	Immunizations
	Nutrition
		Physical activity
		Death rates:
		  Suicide
		  Homicide
		  Unintentional injuries

Mental health	Depression Anxiety disorders Eating disorders	

Behavioral health	Tobacco use
	Alcohol use, especially binge drinking
	Use of other drugs
		Sexual behavior:
		  Multiple partners
		  Sex without condoms
		Antisocial behavior:
		  Violent behavior
		  Property crimes
		  Drug sales

Education	Academic achievement Truancy Graduation rates	

& Holder (2004) present a discussion of the evidence for the importance of these outcomes.

By providing accurate estimates of the well-being of the entire population of young people in a community, a CMS guides the community to focus on improving the lives of all its youth. Taking this type of population-based perspective fosters an emphasis on prevention. Once a community adopts the goal of reducing the proportion of young people with any given problem—in addition to treating those who are manifesting problems at levels that warrant treatment interventions—the community becomes more invested in doing everything it can to minimize the proportion of youth affected. That investment inevitably brings preventive interventions into play.

Accurate information about the risks young people encounter, the strengths they have, and the strengths they need help a community focus on the aspects of youth functioning that need attention. Valid, reliable indicators arm advocates for young people with information that can motivate others in the community to devote resources to help those young people.

To the extent that this type of information system is built into a community's decision-making processes, the system supports an infrastructure of people and organizations working to prevent youth problems and advocating for community-focused efforts toward youth well-being. Thus, the monitoring system can help ensure that the well-being of young people is an ongoing priority.

Annual estimates of the functioning of young people also provide a basis for evaluating the success of prevention efforts. Declining levels of problems suggest that community efforts are well targeted and valuable. Increases in problem behaviors can indicate the need for added efforts or changes in current programs.

Oregon Healthy Teens (http://ori.org/oht/), for example, provides annual reports to surveyed communities about the prevalence of adolescent problem behaviors and about the levels of risk and protective factors. Communities can make prevention policy decisions using these data. (See *Box B* for details about the program.)

BOX B: OREGON HEALTHY TEENS

Collaborators
- Oregon Department of Human Resources
- Oregon Department of Education
- Oregon Research Institute

Assessment Tool
- Addresses information needs of State agencies concerned with adolescents
- Provides estimates to 80 communities on the prevalence among students of 23 problem behaviors (e.g., tobacco, alcohol, and other drug use; high-risk sexual behavior; inadequate exercise; antisocial behavior; drinking and driving; suboptimal nutrition) and 7 positive social behaviors (e.g., volunteering, doing chores or homework, exercising, participating in religious activities)

Process: A randomly selected third of Oregon middle and high schools receive the survey. Each 8th and 11th grader receives—by random assignment—three of six survey modules. Schools access system data to check youth status on the most common and costly adolescent problems.

Funding/Future: Received NCI funding to support the study of factors influencing adolescent tobacco use for three years and state agencies then begin to fund it. A large, growing number of state and local leaders in education, treatment, and substance-use prevention supports this system. Researchers are developing a web-based system to make the data more accessible to ease the decisionmaking processes.

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2. Encourages community participation

An ideal CMS fosters participation of community members in their efforts to improve the well-being of children and adolescents. Good models exist for involving community members in decisions on which factors to monitor and on finding ways to make data available to the community (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Fawcett, Paine, Francisco, & Vliet, 1993; Fawcett, Schultz, Carson, Renault, & Francisco, 2002; Hawkins, Catalano, & Arthur, 2002, Hawkins & Catalano, 1996). At a minimum, each agency must make a review of the available data a routine part of their governance. For instance, as a requirement for the school district, a school board might establish an annual review of all data on youth functioning. A consortium of agencies concerned with young people might convene an annual meeting to review the data and to develop a strategic plan to improve outcomes for young people. For example, in communities that use the Communities That Care (CTC) system, an ongoing community board representing wide-ranging constituencies is responsible for ongoing monitoring of community levels of risk and protection and youth outcomes. That board also has the responsibility for planning changes in policies and programs based on the monitoring data.

The involvement of community members in these decisions can reinforce their commitment to the use of data systems and can motivate them to implement the improvements indicated by the data (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Roussos & Fawcett, 2000).

A community can weave a CMS into its decisionmaking procedures. If school boards; city councils; business, civic, and neighborhood organizations; and human service agencies offer input on what to monitor, procedures for monitoring, and uses of data, both commitment to the CMS and use of data in the governance processes are likely to increase. During data reviews, community members should set goals and modify practices based on feedback provided by the CMS. Over time, the CMS can become a fundamental component of decisionmaking—one that keeps issues of youth well-being at the forefront of community concerns. Alternatively, a community may institutionalize a collaborative planning board or body to continuously plan, implement, and monitor the results of policy and program improvements using community monitoring results (Hawkins, Catalano, & Arthur, 2002).

Oswego County, New York, uses a Family Services Task Force to foster community involvement in promoting the well-being of its citizens. (See *Box C*.) Another example is the Connect Kansas Web site (http://www.connectks.org/beta/index.php), through which residents can access county-level data on youth well-being. By making such extensive information readily available, the system empowers multiple individuals and groups to become interested and involved in improving the community. The Web site provides assistance in planning activities to improve specific aspects of the county's functioning. Through Connect Kansas, communities in Kansas have been introduced to and implemented a CMS based on the CTC model (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Hawkins & Catalano, 1992) and other tools (e.g., needs assessment and staff development).

3. Assesses key predictors of youth well-being (risk and protective factors)

Communities that want to promote health and success and prevent youth problems must monitor not only youth outcomes, but also the risk and protective factors that influence those outcomes. It is important to understand that preventing something before it happens requires understanding and addressing its causes. Risk and protective factors are conditions in the environment or individual that affect the likelihood of a certain outcome, whether healthy behavior or health-compromising behavior. It is noteworthy that a shared set of risk factors predicts a wide range of youth outcomes, and certain protective factors inhibit development of a range of problems.

There is evidence that both risk and protective factors contribute to youth outcomes

(Pollard, Hawkins, & Arthur, 1999; Sameroff, Gutman, & Peck, 2003), so focusing solely on reducing risk or solely on promoting strengths or protection is not likely to be as effective as addressing both risk and protective factors simultaneously in community planning. Thus, reducing the most prevalent risk factors and strengthening the most depressed protective factors in a community can affect the prevalence of many adolescent health and behavior outcomes. Therefore, it is important to know which risk factors are most elevated and which protective factors are most depressed among a community's young people in order to design education, youth development, and preventive systems that can have the strongest effects in promoting healthy child development.

The population of young people will benefit most when communities concentrate first on the most common and costly problems that affect them. For instance, a community with monitoring data showing high rates of teen drug use and widespread attitudes favorable toward drug use might choose to adopt and implement a tested drug abuse-prevention curriculum. *Figure 1* lists risk and protective factors for drug abuse, delinquency, teen pregnancy, school dropout, and violence, validated in longitudinal and epidemiological studies. (For a more comprehensive discussion of risk and protective factors see the National Institute on Drug Abuse (2003) guide: *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders*).

BOX C: FAMILY SERVICES TASK FORCE, OSWEGO COUNTY, NEW YORK

- Members: 60 partners from 27 human service agencies and organizations
- Goal: To improve the physical and mental well-being of Oswego's youth and families
- First assessment in 2000; updated in 2002
- Communities That Care model (Hawkins et al., 2002; Hawkins and Catalano, 1992)
- Measured archival risk indicators
- Helped create database on
  – Risk and protective factors
  – Resource assessment data on county assets and services
- Undertook comprehensive, countywide planning
- Use the data to decide, through consensus, what to prioritize for action
- Improves ability to respond to new funding opportunities
- Community leaders and agencies use the data on a regular basis
- Collaborative grant-writing forum has grown out of the monitoring process
- Task Force members
  – Interpret and use the data
  – Expand understanding of research-based best practices
- Forge collaborative relationships to reduce risks; increase protective factors
- Participate in county planning forums
- Offer input to address community needs
- Use these data to inform local planning and resource-allocation processes

The Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention provided funding to the New York State Office of Alcoholism and Substance Abuse for a substance abuse prevention improvement initiative, which helped develop this system.

FIGURE 1: RISK FACTORS FOR ADOLESCENT PROBLEM BEHAVIORS (Hawkins, Catalano, & Arthur, 2002)

Risk Factors	Substance Abuse	Delinquency	Teen Pregnancy	School Drop-Out	Violence	Depression & Anxiety
Community						
Availability of drugs	●				●	
Availability of firearms		●			●	
Community laws/norms favorable toward drug use, firearms, crime	●	●			●	
Media portrayals of violence					●	
Transitions and mobility	●	●		●		●
Low neighborhood attachment and community disorganization	●	●			●	
Extreme economic deprivation	●	●	●	●		
Family						
Family history of the problem behavior	●	●	●	●	●	●
Family management problems	●	●	●	●	●	●
Family conflict	●	●	●	●	●	●
Favorable parental attitudes and involvement in a problem behavior	●	●			●	
School						
Academic failure beginning in late elementary school	●	●	●	●	●	●
Lack of commitment to school	●	●	●	●	●	
Individual/Peer						
Early and persistent antisocial behavior	●	●	●	●	●	●
Alienation and rebelliousness	●	●		●		
Friends who engage in the problem behavior	●	●	●	●	●	
Favorable attitudes toward the problem behavior	●	●	●	●		
Early initiation of the problem behavior	●	●	●	●	●	
Constitutional factors	●				●	●

4. Utilizes all available data

Communities typically collect data about youth well-being from a variety of Federal, State, and local sources. These sources include survey data about both problem and healthy behavior; data on academic achievement; archival records on crime, teenage pregnancy, and vandalism; and data on the economic functioning of neighborhoods and the community. The Northeast Ohio Community and Neighborhood Data for Organizing (NEO CANDO) offers an example of what is possible with data when multiple sources of data are combined. NEO CANDO (http://neocando.case.edu/cando/index.jsp) incorporates Federal, State, and local data into a data warehouse. From the combined data, it is possible to create neighborhood profiles, including geographical maps of data. More than 1,000 users, including individual citizens and policymakers, use the system for a variety of data types, such as rates, counts, and indexes.

Table 2 shows 2001 statistics for three Cleveland neighborhoods, plus Cleveland as a whole, for total violent crime and crime affecting victims by age groups 0–24. It took less than 5 minutes to generate the statistics. With such quick and easy access to information, a neighborhood group can pinpoint aspects of well-being that need the most attention and then use the evidence to advocate for support of efforts to address their concerns. The optimal CMS makes use of all this information. By using multiple sources of data, a community can derive a comprehensive picture of how its young people are doing and can address the concerns of diverse groups in the community. However, practicality may necessitate starting with a limited data set and adding to it as the capacity to identify, collect, and summarize data expands.

Most currently operating CMSs do not incorporate information from all types of available data, but a number of systems do provide comprehensive information about communities. For example, NEO CANDO gathers data on adult well-being as well as that of children and adolescents. NEO CANDO provides profiles in the form of 8 data tables on 41 indicators. The data tables include population composition, vital statistics (births), residential mobility, economic status, educational attainment, housing stock, housing investment, and public safety.

Another system, Connect Kansas, provides information about every county in Kansas in terms of nine characteristics of a "caring community:"

- Families, youth, and citizens are part of community planning, decisionmaking, and evaluation.
- Families and individuals live in a safe and supportive community.
- Pregnant women and newborns thrive.
- Infants and children thrive.
- Children live in stable and supported families.
- Children enter school ready to learn.
- Children succeed in school.
- Youth choose healthy behaviors.
- Youth successfully transition to adulthood.

Sources of data that describe these nine characteristics range from student surveys to records of public health, economic, and criminal justice systems. The CTC survey (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Hawkins, Catalano, & Arthur, 2002), administered throughout Kansas, provides data on youth well-being and on risk and protective factors.

TABLE 2: VIOLENT CRIME RATES IN CLEVELAND

Neighborhood	Total violent crime count	Age of victim			
		0–9	10–14	15–19	20–24
Cudell	157	5	5	24	17
Detroit-Shoreway	330	4	14	48	53
Downtown	245	2	2	19	32
TOTAL	732	11	21	91	102
Cleveland City	6,390	143	298	930	979

Source: Center on Urban Poverty and Social Change, Mandel School of Applied Social Sciences, Case Western Reserve University

5. Generates useful information for decisionmakers

Information about risk and protective factors can pinpoint targets for intervention. A well-organized CMS that uses data from multiple sources can guide the decisionmaking of community leaders and prevention practitioners. Evidence indicating trends in adolescent behavior can highlight problems of specific subgroups that call for additional prevention or treatment efforts. For example, results from a CMS might help a community identify a grade cohort with high levels of alcohol use and norms that are supportive of such use. This information might then prompt a concerted effort by program administrators to target interventions directly at the problem cohort rather than at all cohorts. Such a targeted strategy may be far more efficient than directing interventions designed to prevent problems among all young people in the community.

Likewise, trend information showing favorable results from a particular evidence-based intervention may help guide the decision to implement similar programs in other areas or continue funding the program responsible for positive outcomes.

6. Provides current data on trends

Communities with a CMS will have access to current information about whether the well-being of young people is improving or not. Some of this information will be available annually; other information will be available more or less frequently. For example, since 2000, Oregon Healthy Teens has provided annual data to communities about problems and positive behaviors among youth.

Health Information Tennessee (HIT) provides a wealth of accessible information about the health and well-being of Tennessee's population as a whole, as well as in its counties and cities. *Figure 2A* compares state data with county data from the Department of Education. *Figure 2B* demonstrates the output from a HIT query on Healthy People 2010 objectives for adolescent pregnancy rates, charted for two Tennessee counties and the state, indicating progress toward meeting the objective over a 2-year period. Community leaders use these data to either change strategies or to continue with current programs. A CMS must provide clear, relevant, and accessible data that will motivate community members to work to prevent youth

FIGURE 2A: SCHOOL DROPOUT COHORT RATE (SHELBY COUNTY & TENNESSEE)
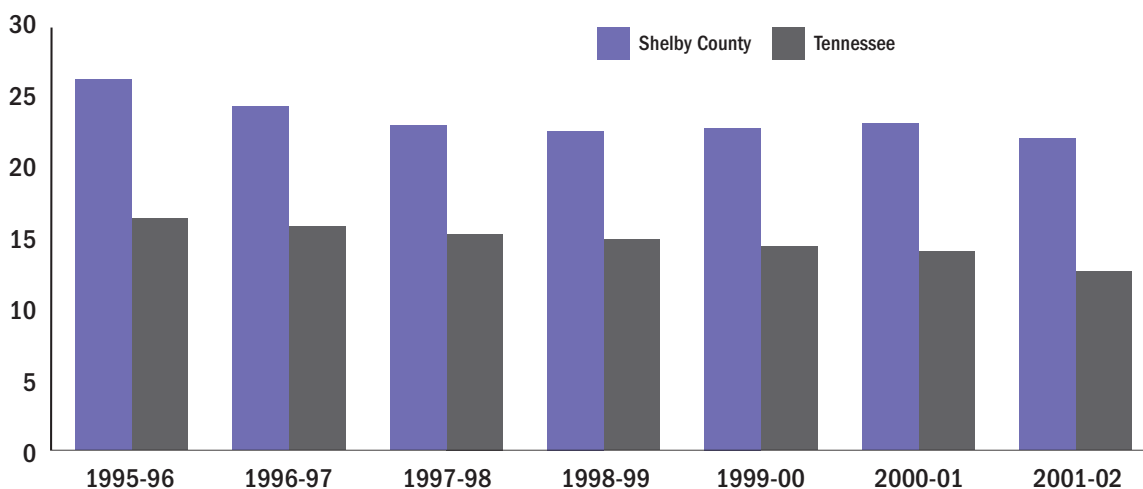
Source: Annual Statistical Reports, Tennessee Department of Education

FIGURE 2B: ADOLESCENT PREGNANCY RATE

HP2010 Objective 9.7: Adolescent Pregnancy Rate (per 1,000 Females Ages 15-17), Target: 43. Madison and Shelby, 2000 to 2002

Source: Healthy People 2010, Tennessee Department of Health

problems. HIT can be accessed on the Web at http://hit.state.tn.us/.

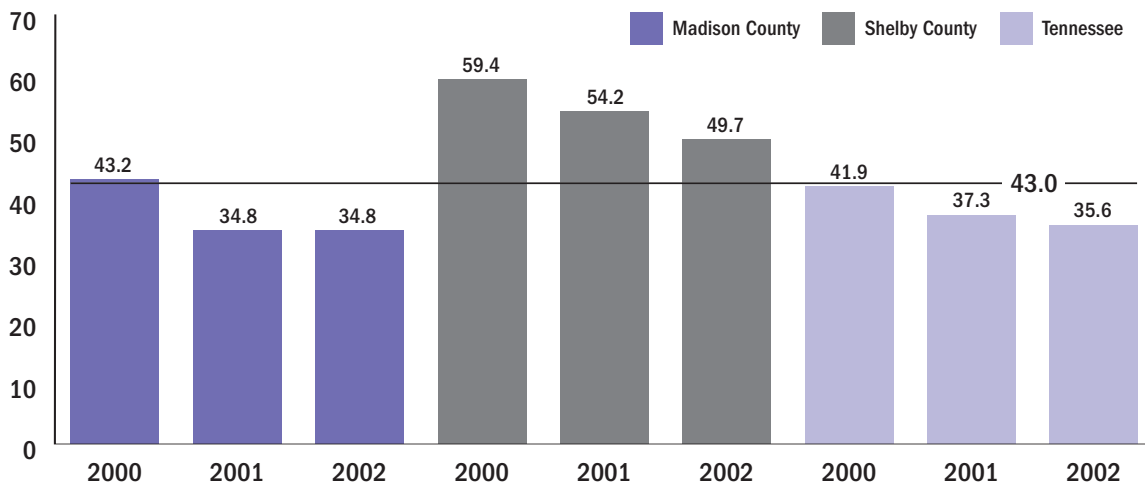Decisionmakers plan their intervention strategies based on the data and or trend information collected. Although it may be unrealistic to expect data on all youth behaviors or on exposure to risk or protective factors to be collected more than once a year, data on problems—such as school discipline referrals, vandalism, or youth participation in community programs—can be obtained with some frequency. These types of data can guide efforts to address associated concerns. For example, communities can obtain ongoing data about crime and vandalism and use them to guide resource allocation and crime control efforts (Kelling & Coles, 1996).

An ideal CMS provides profiles of young people's functioning as well as risk and protective factors for the community. Many CMSs are Web-based and user friendly. For example, the Seattle Public School System posts profiles of risk and protective factors and behavior outcomes for all secondary students in the school district on its Web site. Data are

compiled from the CTC Youth Survey (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002). Web site users can search for information that is relevant to their interests (i.e., the proportion of young people who smoke, by gender, ethnicity, or neighborhood). See the Seattle Public School System Web site at http://www.seattleschools.org/area/ctc/survey/survey.htm. Web-based information means greater public access, which increases the likelihood that the data will be used.

7. Guides choice of programs, policies, and practices (PPPs)

CMSs can guide communities in setting appropriate priorities for themselves and in choosing programs and policies that are likely to have the greatest positive impact on young people. By indicating the prevalence of various problems—and strengths—among children and adolescents, a CMS can help the community identify and select those aspects of youth functioning most in need of attention. Information about the levels of specific risk and protective factors may indicate which

factors most need to be improved. If the monitoring system also provides information about PPPs that have been effective in changing risk and protective factors in other settings, the system can help decisionmakers choose the PPPs most likely to positively affect the aspects of youth functioning of greatest concern.

To illustrate, Nova High School, an alternative school located in central Seattle serving grades 9 through 12, has been monitoring levels of risk and protective factors and youth outcomes through the CTC process. *Figure 3* shows levels of some youth outcomes monitored by Nova. Note the relatively high prevalence of alcohol, cigarette, marijuana, and hallucinogen use in this school compared with reporting from the Monitoring the Future national samples of 10th grade students in 2002. More than 50 percent of Nova students also reported that they had been drunk or high at school in the

past month. Through the CTC process, the Nova school team identified "favorable attitude toward drug use" as the most elevated risk factor reported by students on the CTC Youth Survey. Risk level represents the percentage of surveyed students whose attitudes are favorable toward drug use. (See *Figure 4*.)

The team also noted (*Figure 5*) that social skills, including drug refusal skills, ranked among the lowest of the protective factors measured on the survey. Based on these data, Nova selected Project Toward No Drug Abuse (PTND) as the program to use to change these prioritized risk and protective factors. PTND is an interactive program designed to change substance use norms and to increase coping and self-control skills. It has been tested and shown to be effective in alternative high schools. Nova's Implementation Plan, shown in *Figure 6*, documents the use of monitoring data to design

FIGURE 3: NOVA HIGH SCHOOL SUBSTANCE USE & ANTISOCIAL BEHAVIOR, 10TH GRADE: 2002

Survey Participation Rate 2002: 79.9%
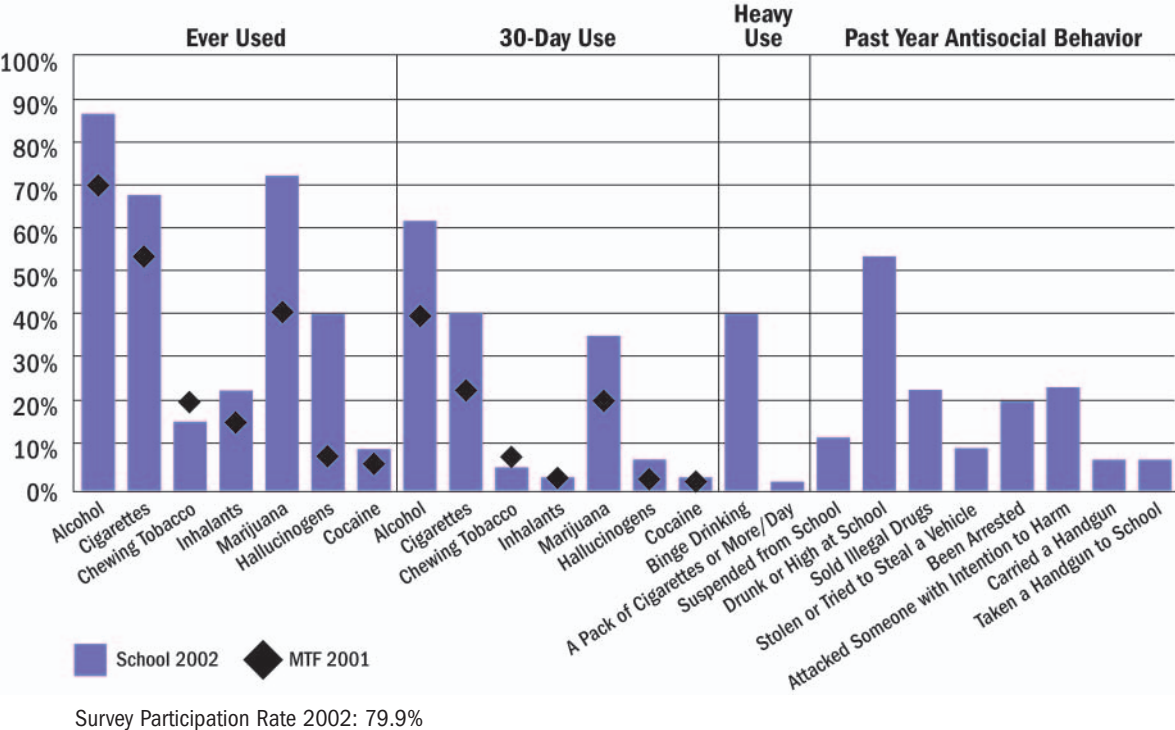
a change aimed at improving youth outcomes by addressing an elevated risk and a low protective factor among Nova students.

A CMS should provide ongoing feedback about the effects of implemented programs and policies. Empirically tested interventions can positively affect targeted problems, but some of these programs may not always be effective when they are widely implemented among diverse populations (Biglan, Mrazek, Carnine, & Flay, 2003). Studies of programs conducted under field conditions may shed light on probable effectiveness (Flay, 1986; Lamb, Greenlick, McCarty, & Institute of Medicine, 1998). However, for specific communities, a key to effective planning and programming is continued monitoring of risk and protective

factors. This practice ensures that selected interventions are having the desired effects.

The Washington State Incentive Grant (SIG) illustrates a change in practices resulting from monitoring outcomes associated with new programs. Eighteen communities from across the state were selected to participate for 3 years. As part of the SIG, communities received risk and protective factor profiles and youth behavior outcome reports specific to their geographic area. They also received detailed instructions and extensive training on the interpretation of these data to help them select the most appropriate prevention strategies for reducing risk factors and enhancing protective factors.

FIGURE 4: NOVA HIGH SCHOOL RISK PROFILE, 10TH GRADE: 2002
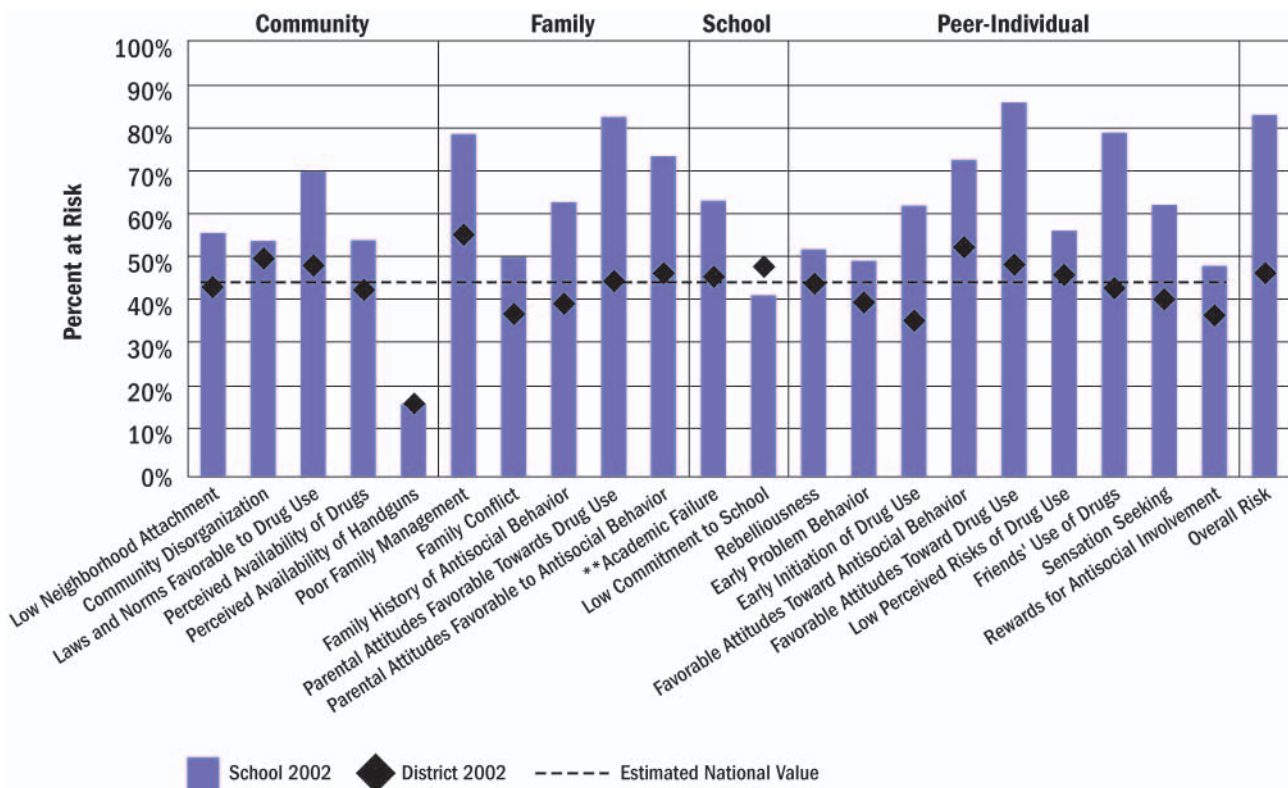
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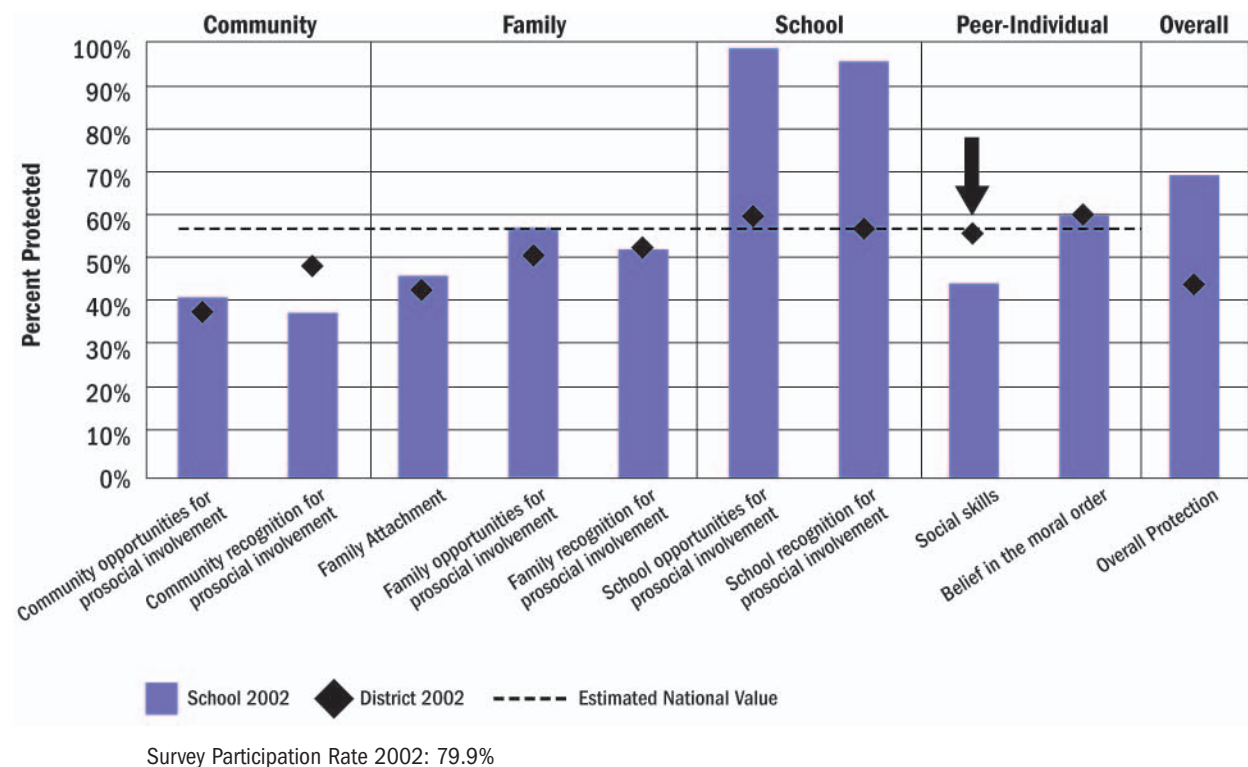
The communities used a Web-based management information system (Everest Prevention Outcomes Evaluation Management System) designed so the communities could self-manage their program outcomes. This system provided the communities with pre- and post-questionnaires, valid scales, and immediate reports on outcomes for both pre- and post-tests.

Throughout the SIG grant implementation, several communities in the project dropped unproven prevention programs they had initially adopted in favor of tested, effective preventive interventions. They made these changes after the initial programs did not produce the desired changes in targeted risk and protective factors or outcomes in participants. Moreover, other communities replaced tested, effective prevention interventions that were not producing the results they wanted with other tested, effective prevention interventions.

Overall, 3 of the 18 communities implemented only tested, effective prevention programs. An unexpected finding from the Washington SIG was the decision by 12 of the remaining 15 communities to provide nonevidence-based prevention programs as an infrastructure for implementing an evidence-based program. For example, one community decided that it would provide an after-school homework club as the "infrastructure" for implementing an evidence-based tutoring program. In another community, after-school recreation programs served as the "infrastructure" for a skill-building and resistance curricula.

Eighty-three percent of the prevention programs continued to be implemented after the SIG project ended; 73 percent of the continuing programs are evidence-based or provide the infrastructure for the evidence-based prevention programs (Stark & LaFazia, 2002).

FIGURE 6: NOVA IMPLEMENTATION PLAN

SEATTLE PUBLIC SCHOOLS
Communities That Care®
Nova High School
FINAL Implementation Plan

1. **School vision:**
   Nova is a democratically governed learning community. We strive to be creative, independent and critical thinkers who work collaboratively and demonstrate a high degree of individual and social responsibility.

2. **Identified priority risk factor (and protective factor):**
   Risk Factor: Favorable attitude toward drug use (peer-individual domain)
   Protective Factor: Social skills (peer-individual domain)
   Substance Use: alcohol, tobacco, marijuana

3. **What is the rationale for selecting these priorities?**
   Based on the CTC student survey, substance use was prevalent in areas of alcohol and marijuana use. The 1999 Teen Health Survey results also shared a high level of substance use among the students at NOVA. There seems to be an increase of substance abuse reported at the 12th grade in comparison to the 10th grade.

4. **Desired outcomes:**
   a. Healthy youth development/problem behavior outcomes:
   - To decrease 30-day alcohol use, as measured by survey from baseline of 61% of 10th graders and 64% of 12th graders to 45% of 10th graders and 50% of 12th graders by 2004.
   - To decrease 30-day use of marijuana for 10th graders from 35% to 25%. To decrease 30-day use of marijuana for 12th graders from 54% to 43%.

   b. Risk factor outcomes:
   To decrease peer-individual favorable attitudes toward drug use, as measured by survey from baseline of 85% of 10th graders and 82% of 12th graders to 70% of 10th graders and 70% of 12th graders by 2004.

   c. Protective factor outcomes:
   To increase peer-individual social skills as measured by survey from baseline of 44% of 10th graders and 51% of 12th graders to 54% of 10th graders and 58% of 12th graders by 2004.

5. **Tested, effective program/strategy to achieve outcomes:**
   Project Toward No Drug Abuse (PTND)

6. **What is the rationale for selecting this program/strategy?**
   PTND is a curriculum that provides students with information about the social and health consequences of drug use and addresses topics including instruction in active listening, effective communication, stress management, tobacco cessation, and self control. The curriculum is designed for older teens and tested effective for alternative high school students.

Action Agenda to Develop CMSs

Widespread, effective use of CMSs requires strategic actions at the Federal, state, and local levels. In this section, we describe the requirements at each level to make effective CMSs widely available.

Role of the Federal Government

The Federal government should foster the development of CMSs by:

- Supporting research to improve the systems;
- Identifying what data needs to be monitored;
- Supporting state and local infrastructures for CMSs;
- Developing policies that encourage the use of such systems; and
- Developing a unified Federal infrastructure to support CMSs.

Research

Federal funding for research is crucial in the development of effective CMSs. This research should be conducted along four broad categories: methodology, system implementation, outcome evaluation, and cost-effectiveness.

Methodological research will refine methods of obtaining accurate, timely, and relevant data for CMSs. For example, developing optimal procedures for sampling young people can ultimately result in reducing the cost of and increasing the accuracy of assessments. Given the many aspects of youth functioning that requiring assessment, researchers must create valid and reliable scales with as few items as possible. They must also find ways to reduce the cost of collecting and organizing the data. Standardization of survey instruments and data collection and organization is one avenue that researchers should consider for reaching these goals.

Standardization can reduce costly duplication of effort across communities and make data readily available to the public, and provide the potential for comparisons over time and across communities.

Research on the *implementation* of monitoring systems can identify strategies that enable effective and efficient community decision-making. Publishing their results through a Federal platform will allow agencies to provide community leaders with evidence on the most efficient way of selecting and implementing their local programs. This information, which also includes testing strategies and details on the development of monitoring systems, can be used to embed the use of CMSs into the decisionmaking processes of the school, criminal justice, mental health, and public health systems in each community. Eventually, providing data through a Federal platform maximizes the potential for standardization across localities.

Federal research also is necessary to *evaluate* the impact of programs on child and adolescent well-being. This research will investigate whether or not the implementation of monitoring systems affects risk and protective factors and the incidence and prevalence of problems among young people.

Finally, assessments should be conducted on the *cost-effectiveness* of programs to determine if the funds expended actually promote effective preventive outcomes in the community.

Identification of data to monitor

In recent years, Federal agencies began identifying PPPs likely to be effective in preventing youth problems. Although various agencies have used different criteria to determine what makes a program worthy of dissemination (Biglan, Brennan, Foster, & Holder, 2004), the efforts generally have encouraged communities to adopt practices for which there is empirical evidence.

Similar efforts should identify those aspects of outcomes and risk and protective factors

in most need of monitoring. Epidemiological evidence specifies behaviors and the most common and costly social and psychological problems. Aspects of successful development, such as academic achievement and high school completion, must also be included as major objects of public policy and expenditure. Similarly, evidence abounds about specific risk and protective factors that contribute to problematic versus successful development.

Good strategies are crucial for combining these data in ways that provide clear information to communities. The many Federal agencies that fund the implementation of PPPs in states and communities have agency-specific program goals, data specifications, and PPP selection, implementation, and evaluation guidelines. Communities look to Federal sources for guidance in what data to maintain and on how to use those data in decisionmaking. To facilitate community efforts, Federal agencies need to provide easy access to data and practical tools for appropriate PPP selection, implementation, and ongoing evaluation.

Support for state and local infrastructure

Reflecting recent advances in prevention science, Federal funding agencies focus increasingly on developing the state and local infrastructures for effective prevention of multiple problems in childhood and adolescence. Essential features of these infrastructures are systems that measure risk and protective factors and outcomes for children and adolescents in states and communities.

Historically, Federal agencies have not funded the development of local or state measurement infrastructures to support ongoing data collection. One exception is the Center for Substance Abuse Prevention (CSAP), which played a vital role in fostering the development of monitoring systems during the 1990s through its State Needs Assessment Grants. Under this initiative, many states began monitoring risk and protective factors and youth outcomes on a state and regional basis. Several states used settlement money from a tobacco lawsuit or general funds to conduct surveys of secondary school students and to create local community profiles of youth. Under that initiative, a number of states that received State Needs Assessment Grants used the public domain CTC Youth Survey (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Hawkins, Catalano & Arthur, 2002) to monitor levels of risk, protection, and youth outcomes during the period of grant funding. Many of these states continue to survey representative samples of youth ages 12 to 18 to create state, regional, and local profiles using the CTC Youth Survey Instrument. These include Arizona, Arkansas, Colorado, Florida, Illinois, Kansas, Louisiana, Maine, Montana, New Jersey, New York, Oklahoma, Oregon, Pennsylvania, Utah, Washington, and Wyoming.

Policies

Federal policies also can affect the development of monitoring systems. For example, the Synar Amendment (1996) requires each state to assess systematically the level of illegal sales of tobacco to young people. Other legislation has been less successful and could benefit from more requirements. For example, the Safe Schools Act of 1994 envisioned that, by the year 2000, every school in America would be free of drugs and violence and would provide a disciplined environment that fosters learning. The Safe and Drug-Free Schools and Communities Act of 1994 provides Federal assistance to support programs that help achieve that goal. These programs, which coordinate Federal, state, and community resources, coupled with parental involvement, were expected to help prevent school violence and strengthen programs to prevent the illegal use of alcohol, tobacco, and drugs. The impact of these programs would be enhanced if Federally funded grant recipients were required to collect standardized data on the outcomes they seek to affect.

Federal infrastructure

The current structure and practices of Federal agencies that support research and practice related to young people's well-being are not ideal for the development of CMSs. Typically, agencies focus on one problem (e.g., tobacco use) or on a small set of problems. Thus, no single agency is responsible for assessment of the entire range of youth problems or on all the risk and protective factors. Nevertheless, one agency—the Federal Interagency Forum on Child and Family Statistics—is undertaking the organization of all data available on child and adolescent well-being. The Forum (www.ChildStats.gov) has participants from 20 Federal agencies and partners in private research organizations. It cultivates coordination, collaboration, and integration of Federal efforts to collect and report data on conditions and trends for children and families. The latest report (*America's Children in Brief: Key National Indicators of Well-Being, 2007*) is the 10th in the annual series.

Role of States

More states, working within Federal guidelines and infrastructures, should create policies that support coordinated, comprehensive systems for assessing child and adolescent well-being. These systems can collect data on the predictors and indicators of well-being, compile and analyze those data, and make them available to the communities in which they have been collected. Several states have begun to develop these systems; archival indicators supplied by the Washington Department of Social and Health Services and by biennial survey data of 6th through 12th grades (supplied by the Superintendent of Public Instruction) fuel the Washington State county-by-county reporting system. This is also the case with examples referred to earlier in this text, including Connect Kansas and Oregon Healthy Teens. One way to promote the development of monitoring systems is to develop consensus among state agencies and local communities

about the aspects of child and adolescent functioning to monitor. Forging consensus will allow the development of a standardized system of monitoring and of cost-effective data collection. The system would not prevent individual communities from obtaining additional data, but a consensus is an important prelude to fostering agreement among diverse state and local agencies.

States also must create or adopt a system to collect and organize data (both current and archival) and to provide the data to communities. Again, supplemented by Federal assistance, states can support communities that are implementing systems to monitor predictors and indicators of youth well-being by conducting youth surveys for the community and by feeding the survey data back to the public in useful formats. States should also provide training and technical assistance to communities on how to use data on risk and protective factors and on youth outcomes in planning drug abuse and violence prevention activities, social services, youth development programs, and educational policies and programs.

Finally, like the Federal government, states should develop policies and funding mechanisms that promote the initiation and improvement of monitoring systems. For example, policies should require communities or schools to provide data about the well-being of their young people in order to obtain or renew funding; this approach fosters the development of monitoring systems. Maine, Oregon, Pennsylvania, and Washington are a few of the states that have adopted this approach.

Role of Local Communities

Communities wishing to institute effective monitoring systems for their young people must take at least the first two of four recommended steps. First, they must develop community consensus about which behaviors—and predictors of those behaviors—require monitoring. As noted above, the Federal government should take the lead in articulating the findings of

epidemiological research on those aspects of, and influences on, child and adolescent development that are most important to monitor. In addition, states must develop consensus about targets for monitoring. Community members must then come to consensus, working from the list of targets developed by Federal and state agencies and basing their decisions on trend data for their own communities.

The second step involves the coordinated efforts by local agencies to ensure the successful development of young people. Unless agencies that have responsibility for young people adopt the monitoring system as an integral part of their decisionmaking, the CMS will have little benefit for children and adolescents. At a minimum, each agency must make a review of the available data a routine part of their governance. For example, school districts should be required to review data on youth functioning on a regular basis and report results to a central database. Similarly, a consortium of agencies involved with the CMS should convene an annual meeting to review the data and to develop a strategic plan to improve outcomes for young people. For example, in communities that use the CTC system, an ongoing community board representing wide-ranging constituencies is responsible for ongoing monitoring of community levels of risk and protection and youth outcomes. That board also has the responsibility of planning changes in policies and programs based on the monitoring data. While this management approach may not work for all localities, a successful CMS will need to agree on how to collect, organize, and share the data.

Once an effective CMS is established, local news media should be contacted and encouraged to report the results of assessments and to describe the efforts that community leaders are making to respond to the findings. High visibility will foster increased commitment to the CMS by other community members.

Over time, communities can learn from CMS data about how well children and adolescents are functioning. This information can then be used to select interventions that target community-specific problems. When an emerging problem becomes evident, the data can help prompt relevant organizations to take action. When evidence of progress in reducing a problem emerges—such as heavy episodic drinking by large numbers of teens or high rates of school dropout—the programs and policies previously implemented to achieve this positive outcome will receive increased support.

Conclusion

The collection, organization, and use of community monitoring data may seem remote from the personal and compelling details of the lives of our young people. However, as communities become skilled at implementing and operating CMSs, they can use the data to guide them in choosing programs and policies in important ways. They can prevent young people from dying in alcohol-related car crashes, from becoming depressed and committing suicide, from taking up smoking and developing chronic respiratory diseases at an early age, from becoming pregnant as a teenager, from dropping out of school, or from entering a life of crime. By focusing attention on measurable outcomes, community monitoring systems can help bring about genuine and critical improvements in the lives of children and adolescents in every community.

Resources

This list of resources describes selected neighborhood, community, and State monitoring systems; sources for state and national data; and decisionmaking tools. The National Institute on Drug Abuse and the Society for Prevention Research do not necessarily endorse the resources listed. Many of the systems described retrieve archival data and gather their own data, provide computer links among local agencies, and post real-time data on the Internet regarding the status of the young people in their local areas for use by decisionmakers and the public.

Federally Sponsored

Communities That Care (CTC), Community Planning System

This five-phase planning system, operating under the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Prevention, helps a community organize at all levels to ensure involvement, ownership, and use of its monitoring system. The system helps the community install a monitoring system and trains community members to monitor, analyze, and interpret data on risk, protection, and outcomes. The system trains community boards to conduct resource assessments of existing policies, programs, and activities in the community; trains them to choose tested, effective prevention programs targeting their ranked risk and protective factors; and helps them develop, implement, and monitor an action plan for youth development and prevention of problem behaviors. The system uses archival indicators of risk factors and outcomes and data from the CTC Youth Survey. The system is unique in its focus on indicators of risk and protective factors and on youth outcomes, including drug use, violent behavior, delinquency, and school suspensions. The system has been widely implemented in the United States and internationally, and products and materials can be accessed through the following link: http://ncadi.samhsa.gov/features/ctc/resources.aspx.

Federal Interagency Forum on Child and Family Statistics

Founded in 1994 and established by presidential executive order in 1997, the Forum fosters coordination and collaboration in collecting and reporting Federal data on children and families. Its specific mandates are to: (1) develop priorities for collecting enhanced data on children and youth; (2) improve reporting and disseminating information on the status of children to the policy community and the general public; and (3) produce complete data on children at state and local levels. *America's Children in Brief: Key National Indicators of Well-Being, 2006* is the 10th annual report on the condition of the Nation's children. Eight contextual measures describe the changing population and family context in which children are living, and 24 indicators depict the well-being of children in the areas of economic security; health, behavior, and social environment; and education. The Forum's current membership includes 20 Federal agencies plus partners from private research organizations. See http://www.childstats.gov.

Monitoring the Future (MTF)

Monitoring the Future is a National Institute on Drug Abuse-funded annual survey conducted at the Survey Research Center in the Institute for Social Research at the University of Michigan. Each year, MTF surveys the behaviors, attitudes, and values of approximately 50,000 8th, 10th, and 12th grade students. Additionally, researchers mail annual followup surveys to a sample of each graduating class for several years after their initial participation. See http://www.monitoringthefuture.org.

SAMHSA's Prevention Platform (CSAP)

This system (originally known as the Prevention Decision Support System) was created by CSAP to help local communities and states make informed decisions for assessing youth well-being and to plan, implement, and evaluate prevention programs. As it continues to evolve, this online management tool, based on a logic model, is in the public domain and is free of charge. Its goals are to identify available, relevant data sources; retrieve Internet-based data at the national, state, and county levels; collect original community data; compare findings to existing state and national data; and use this information to establish baseline indicators. All the data

can be used in the selection of modifiable risk and protective factors, and those factors can be targeted for intervention. See http://prevtech.samhsa.gov.

Youth Risk Behavior Surveillance System (YRBSS)

YRBSS, developed by the Centers for Disease Control and Prevention (CDC), includes a biannual survey on most adolescent problem behaviors. The CDC conducts the national survey, which provides data representative of public and private high school students in the United States. The departments of health and education in each state conduct the state and local surveys. See http://www.cdc.gov/nccdphp/dash/yrbs/.

State Sponsored

Community Tool Box, Kansas

The Community Tool Box was created by the Work Group on Health Promotion and Community Development at the University of Kansas in Lawrence, Kansas. It provides comprehensive information to community members about how they can improve the well-being of children and adolescents, including the implementation of systems for monitoring youth well-being and community efforts to improve well-being. See http://ctb.ku.edu/.

Health Information Tennessee (HIT)

This best practices Web-based data dissemination system was developed by the Community Health Research Group at the University of Tennessee in Knoxville in 1997. Currently sponsored by the Tennessee Department of Health, HIT disseminates comprehensive, population-based public health data for Tennessee communities and counties and for the entire state. The Web site (http://hitspot.state.tn.us/Home.aspx) offers the public the ability to access, profile, tabulate, display, and map comprehensive data from different data sets. One of these data sets is called TNKIDS and features 18 health, social, economic, and education indicators similar to Kids Count. TNKIDS is accessed at http://www.state.tn.us/youth/federal/tnkids/index.htm.

Massachusetts Community Health Information

The Massachusetts Department of Public Health supports the online Massachusetts Community Health Information Profile (MassCHIP), which provides access to 36 sources of data on vital statistics; communicable disease; sociodemographic indicators; public health program usage; and other health, education, and social service indicators across the lifespan. It provides reports on adolescent health and the health of children with special needs. See MassCHIP at http://masschip.state.ma.us.

Northeast Ohio Community and Neighborhood Data for Organizing (NEO CANDO)

NEO CANDO is a free and publicly accessible social and economic data system of the Center on Urban Poverty and Community Development, a research institute housed at Case Western Reserve University's Mandel School of Applied Social Sciences. NEO CANDO allows users to access data for the entire 17-county Northeast Ohio region or for specific neighborhoods within Cleveland. NEO CANDO compiles data from many different sources and links to data provided by public agencies, in order to have the most recent data available. Data sources include: census, crime data from the Cleveland Police Department, vital statistics from the Ohio Department of Health, property characteristics and sales information from the Cuyahoga County Auditor and Recorder, public assistance data from Cuyahoga County Employment and Family Services, juvenile delinquency data from the Cuyahoga County Juvenile Court, child maltreatment data from the Cuyahoga County Department of Children and Family Services, mortgage lending data (Home Mortgage Disclosure Act) from the Federal Financial Institutions Examination Council, and enrollment and attendance from the Cleveland Municipal School District. See http://neocando.case.edu/cando/index.jsp.

Oregon Healthy Teens, Eugene, Oregon

Oregon Healthy Teens (OHT), a 4-year NIH-funded study, measures positive and negative behaviors in seven key areas among 8th and 11th grade students in one-third of Oregon middle schools and high schools. OHT is a collaborative effort among the Oregon Research Institute, Oregon Departments of Education and Health and Human Services, and Oregon's Commission on Children and Families. See http://ori.org/oht.

Private Nonprofits

All Kids Count, Decatur, Georgia

Supported by the Robert Wood Johnson Foundation, this National Technical Assistance Center fosters development of integrated child health information systems. Historically, separate information systems have been developed to meet public health needs and the needs of clinical practitioners. All Kids Count is developing a database of integrated child health information systems in the United States. Theoretically, data from many systems could be integrated, but barriers, such as concerns about confidentiality, must be addressed. The Web site provides information regarding where child health information systems are being integrated and the tools available to integrate child health programs and information systems. See http://www.allkidscount.org.

Chapin Hall Center for Children, Chicago, Illinois

With help from states over the past few years, the Center has recently developed a series of cross-state matrices on measures of well-being used in different states. These matrices capture (1) youth health and safety, (2) self sufficiency, (3) youth social and emotional well-being, (4) youth educational achievement, (5) family context in which youth live, and (6) the community context in which youth live. See http://www.chapinhall.org/.

Child Trends, Washington, DC

Since its establishment in 1979, this nonprofit, nonpartisan research organization has tracked trends on the well-being of children and their families. In June 2002, Child Trends launched its "Child Trends DataBank," a continuously updated online resource. The DataBank provides national and subgroup data on more than 80 indicators of child and youth well-being. It analyzes data gathered by others and is now gathering its own data. Many communities use this resource to help understand which indicators can be measured. See http://www.childtrends.org or http://www.childtrendsdatabank.org.

Kids Count

This project of the Annie E. Casey Foundation is a national and state-by-state effort to track the status of U.S. children. It provides an interactive online database, using multiple sources of data (e.g., the 2000 U.S. Census) to profile benchmarks of child well-being in each state. *The Kids Count Data Book*, available online and in hard copy, summarizes 10 key indicators for all 50 states. Community planners can contact a Kids Count state organization/agency for ways to start developing local indicator systems. *The 2006 Kids Count Fact Book for Baltimore* is an example of how to present community data to generate discussion and put children's issues on the political agenda. See http://www.aecf.org/kidscount.

Multi-National Project for Monitoring and Measuring Children's Well-Being

This ongoing effort is coordinated at Chapin Hall Center for Children (University of Chicago) to improve the ability to measure and monitor the status of children worldwide. Its underlying philosophy incorporates assumptions that children are entitled to basic human rights and that there is a need to focus on child well-being beyond survival. The unit of observation is the child, the focus is on positive dimensions of children's lives and situations, and the goal is to inform and evaluate programs and policies (Ben-Arieh, Kaufman, Andrews, Goerge, Lee, & Aber, 2000). More than 80 experts from a variety of disciplines and organizations in 28 countries collaborated and identified 5 domains (safety and physical status, personal life, civic life, children's economic resources and contributions, and children's activities) and 60 indicators of children's well-being. Project staff are now developing a database of measures and are building a collaborative, multinational network of partners who will use this protocol to study children's well-being. See http://multinational-indicators.chapinhall.org/.

National Neighborhood Indicators Partnership (NNIP)

NNIP is a collaborative effort of the Urban Institute of Washington, DC (established in 1968 as a nonprofit, nonpartisan research institute) to develop and use neighborhood information systems. NNIP currently has 21 partner cities across the United States. Each city built an advanced information system with integrated and recurrently updated information on neighborhood conditions. See http://www.urban.org/nnip/partners.html.

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