Bridging the Gap: Research Informing Practice and Policy for Healthy Youth
An RWJF national program

SUMMARY

After years of decline, youth substance use began to increase again in the 1990s. Policy-makers introduced strategies to reverse this trend, but too often those strategies were not backed by evidence that they worked.

*Bridging the Gap: Research Informing Practice for Healthy Youth* is a multisite, multidisciplinary research program of the Robert Wood Johnson Foundation (RWJF). It is dedicated to improving health outcomes by increasing knowledge of how laws, policies, practices, programs and other environmental influences at the state, community and school levels affect youth behaviors.

From 1997 to 2004, research conducted under Bridging the Gap studied adolescent smoking, drinking and illicit drug use. Since 2004, it has shifted to youth diet, physical activity, obesity and tobacco use. This report primarily covers Bridging the Gap's work on substance use, including tobacco.

*Bridging the Gap* builds on the federally funded Monitoring the Future survey of school students and includes two components:

- **YES! (Youth, Education, & Society)**, focused on students and schools
- **ImpacTeen**, focused on communities and states

**Key Results**

- *Bridging the Gap* produced comprehensive databases of tobacco, alcohol and illicit drug policies in all 50 states. Other databases included policies and characteristics of 1,000 communities and analyses of survey responses from thousands of school principals.

- Analyses of databases created by *Bridging the Gap*, individually and in combination, have been used to learn more about how policies and programs affect decisions by adolescents to smoke, drink or use drugs. For example, researchers have explored:
  - How students get tobacco products and how easy they are to get
— The effects of home, school, community and state restrictions on youth smoking
— Variations in how retail stores market alcohol
— Whether testing students for drugs influences their drug use
— How zero-tolerance underage drinking and driving laws affect youth drinking and driving

- Advocates have used Bridging the Gap findings to influence state and local laws. According to Daniel McGoldrick, vice president at the Campaign for Tobacco Free Kids, the research findings have “contributed immensely to 47 states and the District of Columbia having passed more than 108 separate tobacco excise tax increases since the beginning of 2000.”

- Bridging the Gap’s infrastructure, innovative analytic methods and the styles of its directors became models for other substantive research efforts. Although RWJF reduced its focus on substance abuse, it continued Bridging the Gap, applying its structure and retaining its leaders to address childhood obesity.

- Bridging the Gap staff and partners produced more than 150 articles, reports and issue briefs about substance use as of June 2010. They also made more than 300 presentations at conferences and meetings. (See the Bibliography for further details.)

**Key Findings**

Researchers reported the following key findings in an overview published in the American Journal of Preventive Medicine (available online) and in reports to RWJF:

- Multiple analyses demonstrated that higher cigarette prices and strong smoke-free air policies reduce smoking by youth.
- Student smoking tends to be higher in schools that permit staff smoking on school grounds.
- Exposure to anti-smoking advertising sponsored by tobacco companies is associated with increases in youth smoking.
- Zero-tolerance laws targeting underage drinking and driving reduce that combination of behaviors, but they do not reduce youth drinking.
- Drug testing in schools does not reduce drug use among students.
- Marijuana prices are associated with youth marijuana use.

**Program Management**

Frank J. Chaloupka, Ph.D., director of the Health Policy Center at the University of Illinois at Chicago, and Lloyd D. Johnston, Ph.D., director of the Youth and Social Issues
Program at the Survey Research Center, Institute for Social Research at the University of Michigan, co-direct **Bridging the Gap.** Chaloupka also directs the national program office, called the Coordinating Center. See Grantee Profiles of Chaloupka and Johnston for more information on their careers.

**Funding**

The RWJF Board of Trustees originally authorized the program in October 1997. Total funding through September 2013 is $58,524,056. Funding runs through January 2015.

**CONTEXT**

Smoking, excessive drinking and drug abuse have enormous human and economic consequences. “There are more deaths, illnesses and disabilities from substance abuse than from any other preventable health condition,” according to a 2001 report from the Institute for Health Policy at Brandeis University entitled *Substance Abuse, The Nation’s Number One Health Problem: Key Indicators for Policy.* Most cigarette smoking and drinking begin in adolescence.

According to *Monitoring the Future,* an ongoing survey of American students and young adults conducted by the University of Michigan Institute for Social Research:

- Cigarette smoking among 8th graders rose from 14.3 percent in 1991 to 21 percent in 1996.

- Any illicit drug use among 8th graders rose from 11.3 percent in 1991 to 23.6 percent in 1996.

- Although it remained more stable in the 1990s—with binge drinking among 8th graders rising from 10.9 percent in 1991 to 13.3 percent in 1996—youth alcohol use was unacceptably high. Some 30 percent of 12th graders reporting binge drinking in 1996. Binge drinking means drinking five or more drinks in a row at least once in the two weeks prior to the survey.

During this period, youth perception of the risk of regular substance use was falling, as was disapproval of its use. At the same time, perceived availability of drugs was rising.

Concerns about increased substance use, and especially the growing lack of awareness of the harms caused by its use among youth, prompted public officials to introduce strategies to reverse the trend. Too often, however, these strategies were not backed by evidence and little was known about whether they worked.

**RWJF Interest: Tackling Tobacco, Alcohol and Drug Abuse**

When Stephen Schroeder, M.D., became RWJF’s president in 1990, he brought a commitment to reducing the health, social and economic harms caused by substance
abuse. Schroeder worked with the board of directors to secure approval for a long-term investment and assembled a strong group of internal and external leaders who shared his commitment.

Bridging the Gap: Research Informing Practice for Healthy Youth was one of many significant investments RWJF made in substance abuse research, policy and programs during the 1990s. RWJF’s programs also included:

- **Fighting Back**: Community Initiatives to Reduce Demand for Illegal Drugs and Alcohol (1988 to 2003). Fighting Back assisted communities of 100,000 to 250,000 people to implement anti-drug strategies. Fighting Back addressed drug problems through a community-wide approach, involving business, health care, the public school system, local government and its agencies, the police, community groups, local media and the clergy.

- The **Tobacco Policy Research and Evaluation Program** (1992 to 1996). Researchers analyzed strategies for reducing tobacco use in order to provide evidence that policymakers could use in designing interventions.

- **SmokeLess States**: National Tobacco Control Policy Initiative (1993 to 2004) made grants to 48 statewide coalitions working in partnership with community groups to develop and implement comprehensive tobacco-control programs, in later years focusing on policy change around comprehensive clean indoor air laws, tobacco tax increases and expanded Medicaid coverage for tobacco dependence treatment.

- The **Substance Abuse Policy Research Program** (1994 to 2009). The program funded investigator-initiated projects that identified and assessed policies to reduce the harm caused by substance abuse. Also see Program Results.

- **Reducing Underage Drinking Through Coalitions** (1995 to 2005). Twelve coalitions in 10 states educated the public and policy-makers about the dangers of underage drinking and promoted policy changes to reduce the harm it causes.

- **A Matter of Degree: Reducing High-Risk Drinking Among College Students** (1995 to 2008). Ten universities established coalitions designed to change the environmental factors that influence college students to drink excessively.

- **Addressing Tobacco in Managed Care** and **Addressing Tobacco in Health Care** (1996 to 2008) focused on health care systems changes to spread the delivery of evidence-based tobacco dependence treatments.

- The **Tobacco Etiology Research Network** (1996 to 2006). Researchers formed transdisciplinary collaborative “networks without walls” to develop new and integrative ways of thinking about the causes of tobacco use and dependence. The

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1 Links are to websites when available or to Program Results on the programs. If there is an active website and Program Results, both links are provided.
networks developed new research methods and trained a cadre of future tobacco researchers committed to the collaborative ethos.

- The research network led to *Partners With Tobacco Use Research Centers: Advancing Transdisciplinary Science and Policy Studies* (1999 to 2007) that helped translate the research findings of the Transdisciplinary Tobacco Use Research Centers (TTURCs) into policy and practice. TTURCs were established in 1998 by the National Cancer Institute (NCI) and the National Institute on Drug Abuse (NIDA), both part of the National Institutes of Health (NIH), to integrate scientific studies of tobacco use, prevention and treatment across disciplines.

- *Innovators Combating Substance Abuse* and its companion program *Developing Leadership in Reducing Substance Abuse* (2000 to 2003). Some 20 recognized leaders received Innovators Awards for projects to enhance the fields of substance abuse prevention, treatment and policy. Forty emerging leaders received Developing Leaders fellowships to design and execute their projects in the same fields.

- *Paths to Recovery: Changing the Process of Care for Substance Abuse* (2002 to 2008). This program was designed to increase access to substance abuse treatment by improving the quality and efficiency of the system at the provider level. (This program was followed by *Advancing Recovery: State/Provider Partnerships for Quality Addiction Care* [2005 to 2010] to improve the use of proven treatments by supporting partnerships between treatment provider organizations that deliver care and states that pay for it.)

Two of these programs—The *Tobacco Policy Research and Evaluation Program* and the *Substance Abuse Policy Research Program*—were created specifically to advance evidence-based public policies.

During the 1990s, RWJF also provided significant core support to new institutions established to prevent and reduce substance abuse. These include:

- **Join Together**, located at Boston University (1991 to 2010), provided technical assistance and resources for addiction prevention and treatment efforts in substance abuse in communities around the country.

- **The National Center on Addiction and Substance Abuse** (CASA) at Columbia University (1992 to 2005) conducts research, policy analyses, demonstration programs and surveys to prevent and reduce substance abuse. See Program Results.

- **Campaign for Tobacco Free Kids** (1996 to 2011) campaigns to reduce youth tobacco use through the establishment of a center that develops a national strategy, serves as a media center, provides technical assistance and broadens organizational support to reduce youth tobacco use. See Program Results.
**Bridging the Gap Is Born**

RWJF wanted to explore the environmental factors that influence adolescent use of tobacco, alcohol and illicit drugs and sought answers to questions such as these: Do laws banning smoking in restaurants reduce smoking? Do marketing practices of retail stores affect whether adolescents smoke or drink? Do higher cigarette or alcohol taxes reduce the chance that adolescents will buy these products? Does testing students for drugs affect their use?

C. Tracy Orleans, Ph.D., RWJF distinguished fellow and senior scientist who serves as the program officer for the program, said, “When we started *Bridging the Gap*, we had data showing how drug use among kids was changing. But no one was monitoring the drivers of changes, the policies that might have prompted those changes. So, we put together a strategy to monitor the drivers.

“Kids can tell us which factors affect their decisions to smoke, drink or use drugs, but until now, we haven't been rigorous about collecting this information on a broad scale so we can link it to substance abuse prevention efforts.”

James R. Knickman, Ph.D., RWJF’s vice president for research and evaluation when *Bridging the Gap* was launched, said that RWJF “wanted to put something in place that would let us see how we were doing over time. The idea was that we would create a system of indicators.”

Orleans; Knickman; Dianne Barker, M.P.A., a research and evaluation program officer; and Nancy J. Kaufman, R.N., M.S., program vice president, systematically sought guidance from experts to help them shape RWJF’s strategy. They commissioned researchers at the University of California at Berkeley to analyze existing mechanisms for tracking youth tobacco and alcohol use, identify gaps and suggest strategies for gathering the information required to assess programs and policies.

Building on the ideas set forth in a 1996 report by the Berkeley researchers, RWJF convened two meetings with representatives from government, academia and activist groups. *Bridging the Gap* evolved from those meetings.

This report covers the period from October 1997 through mid-2004, when *Bridging the Gap* focused mostly on substance abuse. Since 2004, it has shifted its focus to youth diet, physical activity, obesity and tobacco use to respond to RWJF’s interests. See Program Evolution and The Program’s Future for more information about *Bridging the Gap*’s strategy to address childhood obesity.
PROGRAM DESIGN

*Bridging the Gap* emerged as a multidisciplinary, multisite endeavor intended to generate knowledge and promote change by:

- Providing a systematic understanding of the use of tobacco, alcohol and illegal drugs among youth over time and across three levels of social organization—schools, communities and states
- Illuminating the interaction among those dimensions to understand how changes in one affect changes in the others

*Bridging the Gap* held promise for uncovering patterns of student substance use in the context of the schools they attend, the communities in which the schools are located and the state laws that govern them. By tracking these interactions over time, researchers could link changes in laws, policies, practices and programs to changes in student behavior.

*Bridging the Gap* integrated two parallel and complementary components, each with several projects:

- **YES! (Youth, Education, & Society),** the student and school component. YES! includes findings from *Monitoring the Future*, an extensive National Institute on Drug Abuse–funded annual series of national surveys of 8th-, 10th- and 12th-grade students, and the development of a follow-up survey of the administrators of the schools they attend.
- **ImpacTeen,** the community and state component. ImpacTeen includes the qualitative and quantitative surveys of the communities surrounding Monitoring the Future schools and three state-specific databases, one each for tobacco, alcohol and illicit drugs, for all 50 states.

Management

Early decisions regarding *Bridging the Gap’s* management, leadership and structure proved critical as the program grew and evolved.

RWJF made parallel grants to support the work of Lloyd D. Johnston, Ph.D., at the University of Michigan Institute for Social Research and Frank J. Chaloupka, Ph.D., at the Health Policy Center at the University of Illinois at Chicago to direct the two components of the project, which were conducted separately but had to be integrated to be successful. RWJF, Chaloupka and Johnston designed a management structure to facilitate that integration. *Bridging the Gap* relied heavily on the strength of the relationship between Johnston and Chaloupka.
Lloyd D. Johnston, Ph.D., and Monitoring the Future

Johnston, distinguished research scientist and research professor at the University of Michigan Institute for Social Research, is one of the nation's most experienced and well-respected substance abuse researchers. He directs the highly regarded and widely utilized Monitoring the Future survey, which has been capturing extensive information from thousands of students about their smoking, drinking and illicit drug use since 1975. The National Institute on Drug Abuse (NIDA) has funded the survey since its inception. (See Grantee Profile: Lloyd Johnston.)

The annual survey collects data from 50,000 students who attend a nationally representative sample of approximately 400 public and private secondary schools. Each school participates for two years, with half cycling out every year. Researchers also survey a randomly selected sample from each senior class for many years after high school, beginning with two-year follow-ups and then five-year follow-ups.

RWJF and Johnston agreed that Monitoring the Future, which had amassed data over many years, offered RWJF an optimal platform on which to build further studies of schools, communities and states. Johnston had to be certain that NIDA was willing to let him use the survey for additional purposes, but once that approval was secured, he agreed to become director of YES!

Frank J. Chaloupka, Ph.D.

By 1997, Chaloupka, an associate professor at the University of Illinois at Chicago, was establishing himself as one of the country's most promising substance use researchers. His work demonstrating the connection between cigarette taxes and youth uptake of smoking (funded by RWJF’s Tobacco Policy Research and Evaluation Program, see Program Results) provided a compelling example of how public policies affect behavior. He also had a reputation for being a good leader and collaborator. (See Grantee Profile: Frank Chaloupka.)

Although Chaloupka was early in his career, Orleans saw him as a natural choice for helping to design Bridging the Gap and to co-direct it with Johnston. Chaloupka became director of ImpacTeen, established the Bridging the Gap Coordinating Center at the Health Policy Research Center and assumed responsibility for a variety of administrative tasks.

The Coordinating Center

Chaloupka directed the Coordinating Center, and Sandra Slater, Ph.D., served as deputy director from the program’s inception until 2005. Leah Rimkus, M.P.H., became deputy director in 2005.
Chaloupka and Slater oversaw an array of administrative tasks at the Coordinating Center, including managing multiple subcontracts; convening regular conference calls; providing reports to RWJF; and organizing project meetings and annual meetings with Bridging the Gap staff, partners and RWJF. According to Slater, “This was one of the largest grants our department ever received and it involved a lot of other people and organizations.”

**The Coordinating Committee**

RWJF established the Bridging the Gap Coordinating Committee to provide national leadership for the program and to support Chaloupka and Johnston in integrating its components. The committee also served as the link between Bridging the Gap and RWJF and between Bridging the Gap and other RWJF programs.

See Appendix 1 for a list of members.

RWJF also provided two grants\(^2\) to Denis Prager, Ph.D., who had overseen several productive research networks in his previous role as vice president of the McArthur Foundation, as an independent health consultant and as a facilitator, to chair the Coordinating Committee. Prager had served as a consultant on the Tobacco Etiology Research program and was well respected by RWJF and as they came to know him, by Chaloupka and Johnston as well. His solid understanding of health issues, experience working with RWJF and facilitating skills proved essential in getting the program up and running.

Prager describes the Coordinating Committee’s overarching responsibility as follows: “Since Bridging the Gap was a collaborative effort, our meetings became the vehicle for making decisions. I made sure the communications were working, and if something came up, I made sure we dealt with it. I was old enough and had been in the field long enough that the group let me have this role. I was also not part of anyone’s individual grant.

“Ours was a research group, focused on issues like design, methodology, statistical power and publications. But we devoted part of every meeting to ‘What can this group do to advance the field?’ So, we never forgot that our goal was to change lives.”

Johnston notes Prager’s contribution: “Denis played a very important role. He is no longer involved because we can do it on our own now, but he got us through our early days. He was a good arbiter of our various expectations.”

\(^2\) Grant ID#s 032772 and 034404.
PROGRAM ACTIVITIES

From 1997 to 2004, Chaloupka and Johnston established and directed teams of researchers who collected and analyzed student, school, community and state data about:

- Patterns of student smoking, drinking and drug use, via annual Monitoring the Future surveys
- Substance abuse policies and programs at the schools attended by those students, via surveys of their school administrators
- Characteristics of neighborhoods surrounding those schools, via Census Bureau and other data, on-site observations in stores and personal interviews, resulting in a comprehensive database of community policies, norms and characteristics
- Laws governing smoking, drinking and drug use, via examination of ordinances and regulations resulting in three comprehensive databases of relevant policies in all 50 states

The researchers represented a broad range of disciplines, including economics, social and developmental psychology, sociology, public health, political science, epidemiology, law, public policy and community health.

The YES! Component: Students and Schools

In addition to administering the annual Monitoring the Future survey to students, with continuing funding from NIDA, Lloyd Johnston and his colleagues at the University of Michigan:

- Annually surveyed school administrators, primarily principals
- Directed “rapid response” studies in which researchers identified and evaluated adolescent substance abuse programs and policies as they unfolded to avoid the usual delays in research startup and to exploit the cost efficiencies of having data already available from a national comparison group
- Analyzed Monitoring the Future data collected over the prior 22 years and made that data available to other researchers for analysis (an initiative called Mining the Past)

School Administrator Surveys

In collaboration with ImpacTeen, Johnston and his colleagues created the Youth, Education, & Society (YES!) School Policies and Programs Questionnaire and mailed it to about 210 school administrators each year, beginning in school year 1997–1998. The individual completing the survey, usually the principal, received a $250 honorarium.
The lengthy questionnaire asks for detailed information about:

- Each school’s alcohol-, tobacco- and illicit drug-related policies
- Types of prevention and cessation programs and curricula available in the school district
- General characteristics of the school, staff and students
- Resources available to students in school and the community

Response rates to the surveys have consistently exceeded 80 percent.

At RWJF’s request, Johnston added questions about school nutrition and physical activity policies in 2003. In 2004, he more fully revised the School Policies and Programs Questionnaire to reflect RWJF’s growing emphasis on childhood obesity.

**Rapid Response Evaluations**

In the early stages of Bridging the Gap, the research team decided to try to evaluate some substance use interventions in schools as they were being launched. The Bridging the Gap collaborators jointly developed criteria for selecting “rapid response” evaluation opportunities: “We had to get in the school before a program started, the intervention had to be large enough and of sufficient policy importance to warrant using RWJF funds to study it and it had to be feasible to evaluate,” said Johnston. “Only a few made it through the screening as it turned out.”

And only one ended up being conducted.

One evaluation was launched in Washington state to evaluate the allocation of substantial funds from the tobacco settlement to the prevention of youth smoking. The logic was that, if such an allocation could be shown to be effective, then other states might decide to focus their settlement funds on prevention of youth smoking. But after a representative sample of schools was drawn and recruiting of schools had begun, the legislature reversed itself, making its allocation of settlement funds no different than a number of other states. As a result, that evaluation effort was terminated.

In Minnesota, the Parent Teacher Association would not approve the study of a hotline that allowed people to report the serving or selling of alcohol to underage youth, after it had been selected for an evaluation—and even after the principal had approved it.

The YES! team’s one full-scale evaluation examined the Botvin Life Skills Training, a substance abuse prevention program in the schools designed to give adolescents the confidence and skills they need to make good decisions. The literature on the effectiveness of drug abuse prevention programs was not encouraging up to that point,
and the hope was that the Botvin program would prove effective. That study bumped up against the messy realities of implementation and took longer than expected.  

As of September 2013, the analyses have been run and are awaiting publication. “Unfortunately, once again,” writes Johnston for an update of this report, “the results are not encouraging for the effectiveness of in-school prevention programs—even though early studies had shown it to be effective when implemented by its creators. It is a common fate of intervention programs that they lose efficacy when they are disseminated more widely.”

**Mining the Past**

Whereas Monitoring the Future's findings are analyzed each year, Johnston knew that more could be learned if prior surveys, which date back to 1975, were thoroughly examined for trends and patterns in youth substance use over time.

Johnston and his colleagues analyzed prior Monitoring the Future surveys to understand:

- The variance in student smoking, drinking or drug use that occurs between the schools compared to the variance among students within each school.
- The extent to which school characteristics (public, private, size, number of grades, region) account for the variance, compared to student characteristics (socioeconomic status, race or ethnicity, perceptions of drug use and its consequences).
- The extent to which other factors explain the variance. Other factors might include tobacco and alcohol prices, presence or absence of school substance use programs, drug testing of students by the school, or neighborhood characteristics.

**The ImpacTeen Component: Communities and States**

Collaborators not located at the University of Illinois – Chicago (as noted below), led the creation of three comprehensive new databases at the state level—the state tobacco policy database, the state alcohol policy database, and the state illicit drug policy database. Chaloupka and his University of Illinois – Chicago colleagues led the creation of one additional data base—the community policy database.

**State Policy Databases**

When *Bridging the Gap* began, information about state tobacco, alcohol and other drug policies was limited and inconsistent. With such inadequate information, policy-makers and program administrators could not determine what intervention strategies would work and under what conditions, nor could they benefit from the experiences of other states.

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3 The sharp turn to the childhood obesity emphasis for the program’s staff created a time crunch.
Creating databases of substance abuse policies in all of the states was a key activity of ImpacTeen, and it involved extensive cooperation among researchers. In addition to policies, each of the databases included a number of other factors—the tobacco database, for example, included a legislative database, a health consequences database, a tobacco-use database and an attitudes/opinions database.

Jim Knickman and Tracy Orleans had made an early decision that *Bridging the Gap* should prominently involve senior researchers with expertise in each of the three substances of concern. RWJF allocated funds for the work of the research teams, whose members included:

- Michael Cummings, Ph.D., and Andrew Hyland, Ph.D., at the Roswell Park Cancer Institute in Buffalo, N.Y., directed the tobacco team. Gary Giovino, Ph.D. later joined this team as the co-director.
- Alexander Wagenaar, Ph.D., and Eileen Harwood, Ph.D., at the University of Minnesota originally directed the alcohol team. When the University of Minnesota decided not to renew its involvement, Chaloupka became director of the team.
- Duane McBride, Ph.D., at Andrews University in Berrien Springs, Mich., and Rosalie Pacula, Ph.D., at the RAND Corporation in Santa Monica, Calif., directed the illicit drug team, taking over from Lana Harrison, Ph.D., at the University of Delaware.

Creating comparable databases for the three substances was difficult because even baseline information varied widely. Chaloupka and the team directors established a Policy Collaborative Group to ensure that the databases would be as analogous as possible so that they could be merged with one another and with data from YES!

**The Community Database**

Gathering sound, scientific data about communities is difficult and getting information that allows “apples to apples” comparisons from community to community is nearly impossible. There is no standard definition of “community,” with some data collected by zip code, some by census tract and some by legal jurisdiction; no systematic approach for gathering data; and no central repository for data.

Chaloupka and the Policy Collaborative Group undertook the task of creating a reliable comprehensive portrait of community policies, norms and characteristics regarding tobacco, alcohol and illicit drugs. The group defined “community” as the neighborhoods surrounding Monitoring the Future schools.

By using neighborhoods where students and schools were already participating in the Monitoring the Future and YES! surveys, ImpacTeen researchers could draw links among students, schools and communities.
Chaloupka contracted with the Center for Public Health Research and Evaluation, a Baltimore-based division of Battelle, an international consulting organization based in Dublin, Ohio, to conduct the on-site observations and interviews. For five years (1999 to 2003), Battelle trained field staff and collected data in more than 1,000 neighborhoods surrounding Monitoring the Future schools.

The researchers gathered data from a variety of sources by:

- Visiting retail outlets selling alcohol and tobacco to collect information on pricing, product placement and marketing. They also assessed the neighborhoods to observe outdoor alcohol and tobacco advertising, counter advertising and other aspects of the environment.
- Collecting archival data, including information about relevant local ordinances, census data and public health data.
- Interviewing key informants, including staff at health departments, police departments, substance abuse treatment providers and others.

**Merging the Yes! and ImpacTeen Data**

Chaloupka and Johnston built Bridging the Gap to generate solid data, but they wanted to do more. By creating datasets that researchers could mix and match in a variety of ways, they hoped to realize their broader vision of improving the quality of substance use programs and policies, and ultimately to help prevent youth smoking, drinking and illicit drug use.

During the program's first year, the Coordinating Committee developed protocols for merging the datasets, which included Monitoring the Future; YES! school policies and practices; state-level tobacco policies, alcohol policies and illicit drug policies; and community policies and environments.

The resulting Data Sharing Agreement guides the relationships among partners and sets ground rules for making decisions by:

- Establishing principles for authoring journal articles
- Documenting guidelines for sharing data
- Setting out a detailed process by which researchers proposed and analyzed merged data
- Defining a process for researchers seeking external funds using Bridging the Gap data

According to Chaloupka, “Developing this structure early was critical to Bridging the Gap's successful, productive and innovative efforts.”
Assessing the Program

In 2001, as RWJF program staff was considering whether to renew Bridging the Gap, RWJF commissioned the Lewin Group, a Falls Church, Va.–based health consulting firm, to determine the program's value to RWJF and others, identify ways to enhance its value and offer recommendations for strengthening it.

Staff at Lewin reviewed RWJF and Bridging the Gap documents and interviewed RWJF and Bridging the Gap staff and other key stakeholders.

Lewin staff concluded that Bridging the Gap “has an impressive list of accomplishments to show for the first 4+ years. At this time it is in possession of a large, rich and unique data trove…. This impressive collaborative of institutions has designed and implemented a path-breaking data collection system, published some noteworthy products and is poised to generate a rapidly increasing number of significant policy analyses in the near and foreseeable future.”

The review noted that the program provided the “first ever linkage of Monitoring the Future data on youth substance use attitudes, knowledge and behaviors with data on policies and program implementation at the state, community and school levels.”

Recommendations

Evaluators offered some recommendations for RWJF and the program going forward, including:

- **Develop a better balance between effort expended in collecting data and effort devoted to analyzing it.** Collecting data absorbed more resources than anticipated, and researchers should ensure that they have resources in place to analyze and report findings.

- **Develop and articulate policies for use of Bridging the Gap data by researchers not involved in the program.** Partners had developed protocols for rights to access and analyze data for researchers within Bridging the Gap, but they had not created equivalent protocols for other researchers.

- **Make more communication resources available to Bridging the Gap researchers.** Resources should include access to communications experts who would handle some communications functions and who could develop nontechnical versions of products.

RWJF reauthorized Bridging the Gap in 2003.

Program Evolution

Beginning in 2003, changes at RWJF led to changes in Bridging the Gap’s focus and direction.
First, RWJF shifted its substance abuse efforts away from substance abuse prevention and toward improving access to and the quality of tobacco, alcohol and drug treatment programs. In response, Chaloupka and the state database team directors modified the databases, reducing their emphasis on prevention policies and incorporating more information about treatment policies.

Second, when Risa Lavizzo-Mourey, M.D., M.B.A., became RWJF president in January 2003, RWJF began to change its funding priorities, adding a new emphasis on reversing the epidemic of childhood obesity (among others). RWJF did not renew several substance abuse programs when their authorizations ended, but it took a different approach with *Bridging the Gap*, retaining its structure and leadership, but asking Chaloupka and Johnston to refocus their efforts in line with the new priority. “*Bridging the Gap* created a robust and sustainable way of tracking and analyzing changes in policies,” said Tracy Orleans, explaining why RWJF decided to use that established approach for a new issue. Fortuitously, Monitoring the Future had added highly relevant questions to its survey questionnaires beginning in 1986, asking about levels of exercise, certain healthy eating habits, time spent on passive activities such as television viewing and, critically, height and weight. Therefore, some of the key outcome and intervening variables relevant to childhood obesity already existed.

By 2005, *Bridging the Gap* had substantially shifted its data collection and analyses to emphasize obesity, although Johnston continued to collect some substance use data for Monitoring the Future, and ImpacTeen continued to collect state tobacco policy data through 2011. See *The Program’s Future* for more about *Bridging the Gap*’s strategy to address childhood obesity.

Third, worsening economic conditions prompted RWJF to tighten its grantmaking across the board. It reallocated some funds that had been authorized but not yet spent, including funds for *Bridging the Gap*. Partly as a result of these cuts and partly as a result of RWJF’s changing priorities, ImpacTeen stopped collecting community policy and environmental information after 2001 and ended the state alcohol and illicit drug policy databases in 2003.

**PROGRAM RESULTS**

**Overall Program Results**

- Researchers have used the databases created by *Bridging the Gap*, individually and in various combinations, to improve understanding of how policies influence adolescent substance use. An article written by Chaloupka and Johnston and published in 2007 in the *American Journal of Preventive Medicine* provides an overview of *Bridging the Gap*’s history, structure and significant results. The authors
report that analyses from Monitoring the Future, the school administrators survey and the state and community policy databases offer insights about:

— How students get tobacco products and how easy they are to get
— How well adolescents recall anti-smoking advertisements and what they think of those ads
— The role of smoking history and intention to smoke in predicting future smoking
— The effects of home, school, community or state restrictions on youth smoking and smoking prevalence
— The impact of funding for comprehensive state tobacco-control programs on overall smoking and youth smoking
— The influence of televised anti-smoking advertising on youth smoking behavior, attitudes and beliefs
— Variations in how retail outlet stores market alcohol and how such variations relate to community characteristics
— Whether drug testing has a significant impact on student drug use
— The effects of state zero-tolerance laws for underage drinking and driving on the prevalence of that combination of risky behaviors
— The relationship between non-classroom-based substance use prevention strategies and adolescent smoking, drinking and illicit drug use
— The relationship between youth marijuana and cigarette smoking and young adults' use of marijuana and alcohol

“Bridging the Gap wasn't the first to draw conclusions about tobacco pricing, smoke-free air laws, etc., but [it] did it with the best data, the most credible information, the most complete story,” says Prager, chair of the Coordinating Committee.

- **Advocates and activists used findings from Bridging the Gap to change state and local policies.** Matthew Myers, Esq., president of the [Campaign for Tobacco Free Kids](http://www.campaignfortobacco.org) (CTFK), highlighted the importance of the link between advocacy and Bridging the Gap's rigorous science:

  “We used their data to help us ensure that the policies we were advocating were evidence based,” said Myers, emphasizing two key areas. “First was Bridging the Gap's work on the power of price and therefore the power of tobacco tax policies. We used Frank’s data to create an online program that can tell anyone in any state the impact of adjusting tobacco prices on human lives, Medicaid costs and other aspects.

  “Second, Bridging the Gap did the very best work in documenting what was going on in retail stores—no one else was collecting that information. [These] data allowed us
to identify which retail advertising practices to target for our work. We were able to link the advertising practice and youth smoking.”

Over time, advocates worked more directly with *Bridging the Gap* researchers to highlight links between data and the policy debate. “We translated their data into fact sheets and background papers that we used with media, legislators, etc.,” said Myers. “As we all got used to working together, we would collaborate with them when they were releasing findings to maximize media attention and the messaging of the report.”

Daniel McGoldrick, vice president for research at the campaign, confirmed the concrete results of *Bridging the Gap’s* research: “Frank’s work has contributed immensely to 47 states and the District of Columbia having passed more than 108 separate tobacco excise tax increases since the beginning of 2000.”

- **Bridging the Gap** caught the attention of officials at federal agencies and nonprofit organizations, many of whom requested special analyses using merged data and provided funding for that work. For example, funds were provided by the following:
  
  — Centers for Disease Control and Prevention (CDC), to analyze factors that influence tobacco prices
  
  — National Cancer Institute, to analyze the relationship between anti-smoking advertisements and newspaper coverage of tobacco issues
  
  — National Institute on Drug Abuse, to determine whether marijuana use imposes costs on the users or people around them
  
  — National Institute of Justice, to analyze the effect of select state methamphetamine laws on lab seizures and child endangerment
  
  — National Institute on Alcohol Abuse and Alcoholism, to determine the effect of alcohol outlet density and marketing on homicide rates among minorities and to adopt, update and disseminate the alcohol policy database developed by Bridging the Gap to continue research on the policies affecting alcohol consumption and harms among U.S. youth and adults
  
  — American Legacy Foundation, to test the feasibility of tracking state tobacco-control expenditures
  
  — American Cancer Society, to analyze the effect of media advocacy on tobacco attitudes and use

See Appendix 2 for a more complete list of other funders and their use of the data as of January 2008.
• **RWJF's Substance Abuse Policy Research Program funded several researchers to analyze data collected as part of *Bridging the Gap*.** These studies are included in the list in Appendix 2.

• *Bridging the Gap’s* infrastructure offered a model for research across substantive areas. According to RWJF's Orleans, “There is no other program I know of that can link individual behavior to broader influences such as school policies, community policies and state and federal policies. No program, anywhere.”

  Former RWJF vice president Knickman said, “*Bridging the Gap* created synergy across the substance abuse field, but it also had implications for other fields. The underlying theme is that behavioral choices have health impacts, and that is true across subject matters.”

• *Bridging the Gap* has nurtured the careers of junior researchers, thereby creating a cadre of talented people interested in using evidence to influence policies and, ultimately, health outcomes. Chaloupka says, “When RWJF launched *Bridging the Gap*, it also set out to mentor new researchers. We were deliberate about that. We identified researchers and made sure they had access to the data and we helped them analyze it.”

  Chaloupka and Johnston encouraged young researchers to mine YES! and ImpacTeen data, to mix and match datasets and to take the lead in conducting analyses. “One of the most important by-products is the group of people this program generated, who now have important careers,” said Orleans. “It would be interesting to look at a genealogy of all the people who have passed through *Bridging the Gap.*”

**YES!**

Johnston reported the following results in reports to RWJF:

• **YES! enhanced the Monitoring the Future survey—effectively establishing it as a powerful basis for understanding how public policies affect adolescent health.** Monitoring the Future had been in place for 23 years before *Bridging the Gap* began. Johnston:

  — Implemented mechanisms for responding to requests for access to survey data
  — Provided intensive assistance to researchers using Monitoring the Future data
  — Provided intensive assistance to researchers merging Monitoring the Future data with other data collected via *Bridging the Gap*

  Because this component of the program worked so well, RWJF asked Johnston to use Monitoring the Future when it revised *Bridging the Gap* to focus on student nutrition and physical activity.
More than 1,000 school administrators, mostly principals, participated in the annual School Policies and Programs Questionnaire and received a summary report of key findings from the survey. Response rates over the years average about 83 percent and this survey is ongoing.

ImpacTeen Results

Chaloupka reported the following overall results in a report to RWJF and in “Bridging the Gap: Research Informing Practice and Policy for Healthy Youth,” published in 2007 in the American Journal of Preventive Medicine:

- The ImpacTeen Tobacco Control Policy and Prevalence Database provides information about tobacco policies for all states and the District of Columbia from 1991 to 2008. The database, created by the tobacco team at Roswell Park Cancer Institute, includes state-specific information about prices, taxes and funding; laws regarding youth access to tobacco; and smoke-free air laws and laws that pre-empt localities from passing smoke-free laws that differ from those of the state.

  The database also includes a Codebook of Definitions that explains terms and concepts used in the database and Cigarette Smoking Prevalence and Policies in the 50 States: An Era of Change, a chartbook with easy-to-follow graphs and text about policies in each state.

  ImpacTeen staff maintains this database and updates it regularly. The 2009 chartbook of the tobacco-control policy database received 130,000 “hits” within the first six months.

- The ImpacTeen state alcohol policy database provides information on alcoholic beverage excise taxes, drinking and driving policies and laws limiting youth access to alcohol. This database, created by the alcohol team at the University of Minnesota was integrated into and is updated and maintained by the Alcohol Policy Information System at the National Institute on Alcohol Abuse and Alcoholism.

- The ImpacTeen Illicit Drug Legislative Database provides information on laws governing illicit substances in each state from 1999 to 2001. The database, created by the illicit drug team at Andrews University and the RAND Corporation, provides data on laws regarding the government's classification of controlled substances into schedules (or groups), penalties for sale or possession of selected substances and medical marijuana laws. Data available on the first two topics include laws in effect from 1999 to 2001; data on marijuana covers laws in effect from 1999 to 2008.


- The community policy database provides information about laws and characteristics of 1,000 neighborhoods from 1999 to 2003. Creating this database
was a rigorous effort that significantly advanced knowledge of how to measure the complex tangible and intangible interactions that occur in communities.

ImpacTeen stopped collecting these data after 2001 as RWJF was shifting its emphasis to childhood obesity. In 2009, it resumed collecting these data with a focus on community food/built environment and related policies, and ImpacTeen and YES! researchers continue to use these community profiles in their current analyses of food and nutrition policies.

- ImpacTeen staff helped the Berkeley, Calif.–based organization Americans for Nonsmokers’ Rights (ANR) Foundation become a premier repository of information about local tobacco-related laws in the United States. The Americans for Nonsmokers' Rights Foundation is the education component of Americans for Nonsmokers' Rights. The database is available online.

ANR now is able to identify, collect, monitor and analyze data about newly enacted local tobacco-control laws as a result of a four-year collaborative effort among ImpacTeen, the Americans for Nonsmokers' Rights, the CDC, the National Association of County and City Health Officials (NACCHO) and the National Association of Local Boards of Health (NALBOH).

After ensuring that the data were reliable and correctly recorded, ImpacTeen delivered quarterly reports from the database to the CDC for use in tracking and analyzing state tobacco policies.

**FINDINGS**

The findings summarized here are from studies conducted by Bridging the Gap staff or partners and represent only a small portion of all findings from the program.

Bridging the Gap also generated data that were used by many other researchers to conduct their own studies; they in turn published findings in a variety of peer-reviewed journals. RWJF funded some of these studies as part of its Substance Abuse Policy Research Program and also with grants outside the program. Researchers also sought and received federal or other funds for their work. This report does not include findings from those spin-off studies, but links to an extensive array of publications are available on the Research Products section of the ImpacTeen website and the Publications section of the YES! website.

Chaloupka and Johnston reported the following overarching findings in an article entitled “Bridging the Gap: Research Informing Practice and Policy for Healthy Youth,” published in 2007 in the American Journal of Preventive Medicine. Some of the data also are drawn from other journal articles and reports to RWJF:
Tobacco-Related Findings

- Multiple analyses demonstrated that higher cigarette prices and strong smoke-free air policies reduce smoking by youth.

- Cigarette companies increased their marketing efforts in retail outlets immediately after the tobacco Master Settlement Agreement eliminated billboard advertising. These point-of-sale marketing efforts were associated with greater smoking prevalence and increased smoking uptake among adolescents.

- Exposure to anti-smoking advertising sponsored by tobacco companies is associated with increases in the prevalence of youth smoking—in contrast to the reduction in youth prevalence produced by science-based youth anti-smoking media campaigns such as the Legacy Foundation's “truth” campaign.

- Comprehensive tobacco-control programs and their related anti-smoking advertisements were effective in reducing youth tobacco use.

- Policies that limited youth purchase, possession and/or use of tobacco products generally had limited effectiveness, at best, in lowering youth tobacco use.

- Student smoking tends to be higher in schools that permit staff smoking on school grounds.

Alcohol-Related Findings

- Higher alcohol prices reduce the likelihood that young adults will move from abstention to moderate drinking and from moderate to heavy drinking. For example, a $1 increase in the price of a drink (at an average base cost of $2.17) reduces the odds of moving from abstainer to drinker or from moderate drinker to heavy drinker by 33 percent, according to 2002 research.

- Zero-tolerance laws targeting underage drinking and driving reduce youth drinking and driving but not youth drinking. Frequency of driving after any drinking declined 19 percent and frequency of driving after five or more drinks declined by 23 percent after new laws were enacted, according to research published in 2001.

Illicit Drug–Related Findings

The findings in this section come from an article by Chaloupka and Johnston, “Bridging the Gap: Research Informing Practice and Policy for Healthy Youth,” published in the American Journal of Preventive Medicine4, and from a September 2013 update by Johnston.

● **Drug testing in schools does not reduce drug use among students.** Subsequent work on this subject by *Bridging the Gap* investigators suggests, writes Johnston, that “drug testing may reduce marijuana use modestly, but it also appears to increase student use of the other illicit drugs—which is hardly a favorable tradeoff.”

● **There was considerable variation in state and local policies regarding illicit drugs and drug treatment.** Researchers found variation in scheduling (grouping), manufacturing, sale and distribution of drugs and in the level of enforcement of policies. There also was considerable variation in state regulation of outpatient treatment programs.

● **Diversion of drug users from the criminal justice system into treatment was fairly widespread at local levels.**

● **Marijuana prices were associated with youth marijuana use.**

● **Strong local enforcement efforts aimed at deterring drug use were associated with lower prevalence of youth marijuana use.**

● **A significant number of local public health departments advocated for policies that promoted diversion to treatment and/or needle exchanges.**

● **Greater availability of supervised after-school programs was associated with lower drug rates among youth.**

**School Policies and Programs Survey Findings**

The following findings illustrate the kind of data generated by the School Policies and Programs Survey and are based on survey responses from 160 school administrators (131 public schools and 29 private schools) in 2003:

● **Private schools and middle schools reported fewer tobacco, alcohol and illicit drug problems than did public schools or high schools.**

● **Schools with higher proportions of Black students reported fewer tobacco, alcohol and illicit drug problems.**

● **Fewer schools than in prior years had substance use prevention programs in their curricula, although most still taught prevention.**

● **Principals rated prevention programs taught in classes focused on life skills or that targeted substance abusers more highly than programs taught in regular classes, such as physical education or health.**

● **Schools that reported a higher percentage of staff who smoked also reported greater tobacco use problems among students.**
Communications

Communications produced as part of the *Bridging the Gap* initiative addressed two general audiences—researchers and policy-makers/practitioners.

Print Publications

*Bridging the Gap* staff and partners generated more than 150 journal articles, chartbooks, book chapters and other written products through July 2010.


Other papers and reports include:

- **ImpacTeen Research Papers**, a series based on data collected or compiled by ImpacTeen
- **ImpacTeen/YES! Research Papers**, based on analyses of merged *Bridging the Gap* and Monitoring the Future data
- **Chartbooks and Monographs** of the state policy databases covering tobacco, alcohol and illicit drug use
- **YES! Reports and Occasional Papers** of key findings from surveys of school administrators and other YES! reports

Websites

ImpacTeen and YES! established independent websites:

- [www.ImpacTeen.org](http://www.ImpacTeen.org) provides short descriptions of the ImpacTeen teams and links to biographies of team leaders. It also includes a list of Research Products, including research papers, chartbooks and monographs, journal articles, research briefs, presentations and data.
- [www.yesresearch.org](http://www.yesresearch.org) provides background information about YES! and links to biographies of YES! senior staff. It also has a section targeted to school administrators and a link to Publications, including journal articles, reports, presented papers and testimony.
- Since evolving to focus on nutrition and physical activity, *Bridging the Gap* has established its own website: [www.bridgingthegapresearch.org](http://www.bridgingthegapresearch.org). This site has links to ImpacTeen and YES! sites.
Presentations and Testimony

Chaloupka, Johnston and Bridging the Gap team leaders made more than 300 presentations at meetings and conferences in the United States and other countries, many of which are described on the websites.

Johnston received formal written invitations and testified before three congressional committees:

- The Subcommittee for Criminal Justice, Drug Policy and Human Resources of the Committee on Government Reform of the U.S. House of Representatives, June 25, 2002
- The Subcommittee on Treasury, Postal Service and General Government of the House Appropriations Committee of the U.S. House of Representatives, June 20, 2001
- The Treasury and General Government Subcommittee on Appropriations of the U.S. Senate Appropriations Committee, June 19, 2002

Chaloupka conducted briefings for federal and state officials, including:

- A briefing for the director of the White House Office of National Drug Control Policy regarding Bridging the Gap’s research on prices and youth marijuana use, January 2002
- An address before a joint meeting of the Rhode Island Senate and House Finance Committees regarding tobacco tax increases and smoking, April 2001
- A briefing to members of the Interagency Committee on Smoking and Health to discuss the U.S. position on tobacco advertising, smuggling and health warning labels, October 2000

Communications Support from RWJF

Burness Communications, a Bethesda, Md.–based public relations firm, coordinated Bridging the Gap’s dissemination strategy. Burness convened monthly conference calls with staff from Bridging the Gap, RWJF and other RWJF programs, including SmokeLess States, and coordinated the distribution of Bridging the Gap findings to other RWJF programs, advocacy organizations and national media outlets. Burness staff also organized video news releases, highlighting key research findings.

Some findings generated intense media interest. For example, Johnston’s analyses showing that random drug testing did not significantly affect drug use in schools received press coverage in the New York Times, on radio and television networks and in many other outlets.
SIGNIFICANCE TO THE FIELD

Bridging the Gap had significance to the substance abuse field and to RWJF.

Significance to the Substance Abuse Field

Federal and state officials, the donor community and advocates paid attention to the findings and conclusions of Bridging the Gap. Johnston noted, “The undertaking was very ambitious in its multidisciplinary, multi-institution, multi-investigator, multilevel and multi-subject nature. The fields of social science and health research are replete with recommendations to build research projects that have at least some of these characteristics. Few are launched, however, and even fewer have all of these features in the same project.”

RWJF's Orleans said, “Our work on the tobacco policy database influenced the Centers for Disease Control and Prevention and the National Cancer Institute to increase their funding for tobacco.”

Bridging the Gap’s analyses also provided state officials evidence to call for, and in many cases impose, higher taxes on cigarettes and to restrict cigarette and alcohol advertising campaigns, particularly those targeting young people.

Although patterns of teen smoking, drinking and illicit drug use cannot be attributed to any single policy or program, the 2008 Monitoring the Future survey findings are encouraging:

- Some 7 percent of 8th graders reported smoking within the prior 30 days in 2008 (compared to 21% in 1996).
- Some 8 percent of 8th graders reported binge drinking in 2008 (compared to 16% in 1996).
- Illicit drug use by 8th graders in 2008 showed a modest, but not significant drop, compared to 1996 data (15% versus 24%).

George Grob, who was commissioned by RWJF to do a retrospective on the impact of its tobacco funding, wrote the following about Bridging the Gap in his main report:

Bridging the Gap can be used to illustrate how policy research yields action plans to counter tobacco use. This program drew on other comprehensive databases about patterns in tobacco use among youth, state and local laws and tobacco-control capacities and school- and community-level actions. Through its analyses it has been able to link the policies to reductions in youth use of tobacco. In turn, these results have contributed to enactment of
new laws, regulations, and tobacco-control functions at the state and local levels.

**Significance to RWJF**

Orleans observed that *Bridging the Gap* influenced RWJF’s approach to understanding the dynamics of childhood obesity. “By the time we got to the issue of obesity, the payoff of investing in understanding how policies affect outcomes was so clear that we will never go back to focusing solely on individual circumstances. That understanding came from *Bridging the Gap*.”

In addition, the RWJF-funded Youth Tobacco Cessation Collaborative, National Tobacco Cessation Collaborative and the Consumer Demand Roundtable all built on findings from *Bridging the Gap* about policy that would advance tobacco cessation and build consumer demand for treatment, as did the Partnership to Promote Smoke-Free Pregnancy, which grew out of *Smoke Free Families: Innovations to Stop Smoking During and Beyond Pregnancy*.

**CHALLENGES & LESSONS LEARNED**

**Establishing and Sustaining a Collaborative**

Establishing and sustaining an effective collaborative across many institutions proved the biggest challenge for *Bridging the Gap*.

Johnston recalls the early days of the program: “We were trying to integrate in a lot of ways. We had a lot of disciplines represented in our group—economics, sociology, epidemiology and others. Then, we were integrating across three classes of drugs that had traditionally been studied separately, including by the federal government. And, we were integrating across levels of social organization—individual, school, community and state.

“It was hard at first because every one of us was a senior person. We weren’t used to making compromises as part of a group process.”

There also were challenges inherent in having the three state policy teams funded through ImpacTeen rather than directly by RWJF. This structure, in which the teams were accountable to another grantee organization and not directly to RWJF, caused tensions at times. “The fact that three of the groups were subordinate to one of the grantees was not ideal,” said Johnston. Agreed Orleans, “It became clear after several years that that part of the program was not as well designed or successful as it might have been.”

Despite these challenges, *Bridging the Gap’s* infrastructure has worked effectively for more than 15 years, enhanced the careers of those involved in it and generated groundbreaking insights into adolescent decisions to smoke, drink or use illicit drugs and
how policy and environmental factors affect them. Early experience suggests it now is generating insights into factors that influence adolescent eating and physical activity habits.

Several lessons emerged from this experience:

1. **Invest time upfront in getting to know your colleagues.** Chaloupka and Johnston had not met before RWJF approached them independently about Bridging the Gap, and neither had met Denis Prager, who chaired the program's Coordinating Committee.

   Chaloupka, Johnston and Prager met in person early and often, both in Michigan and in Illinois, and concluded that they could work together and would not feel unduly restricted by RWJF or funding requirements. (Coordinating Committee Chair Prager, Director Chaloupka, Director Johnston)

2. **Develop written guidelines and standards early in the program.** In the program’s first year, the Data Sharing Agreement established by the Coordinating Committee provided the ground rules for sharing data, authoring journal articles and other potentially thorny issues.

   Addressing these issues early averted confusion or disagreement once the projects were underway. Chaloupka, Johnston and Prager all noted that after the guidelines were established, the complex program ran smoothly. (Coordinating Committee Chair Prager, Director Chaloupka, Director Johnston, Deputy Director Slater)

3. **Use the services of a skilled facilitator.** RWJF’s decision to engage Denis Prager to chair the Coordinating Committee was useful for ensuring that the senior researchers worked effectively together. “Denis was a natural,” Orleans said. “We recruited him to help build a relationship among all of us.”

   Prager also performed an important role in acting as the liaison between RWJF and Bridging the Gap. He could alert RWJF to potential problems before they escalated. At the same time, his credibility within RWJF allowed him to represent the real-world pressures faced by program directors trying to juggle multiple demands on their time and resources. (Director Chaloupka, Director Johnston, Coordinating Committee Chair Prager, RWJF Senior Scientist Orleans)

**Research Barriers and Opportunities**

4. **Evaluating “natural experiments” as they occur is a lot more challenging than it at first appears to be.** Although everyone involved in Bridging the Gap had thought that the rapid response evaluations were a good idea, they proved almost impossible to conduct. The single evaluation that did occur was delayed by the unpredictable developments in program implementation that occurred with a natural experiment. Other planned evaluations were set aside due to the effect of outside influences on the programs that were to be evaluated—and other issues. “The rapid responses didn't
work,” said Orleans. “By the time, we identified something to study, it was too late.”
(Director Johnston, Deputy Director Slater, RWJF Senior Scientist Orleans)

5. **Develop the right balance between collecting data and analyzing it.** Designing and implementing data collection for *Bridging the Gap* took longer and cost more than anticipated, leaving limited time and resources for analysis. It is important to plan for these delays so that once data are collected, they can be analyzed and their findings can be disseminated. (Director Chaloupka)

6. **Develop a process for establishing priorities.** “It took work to pull together and decide what to focus on,” said Orleans. “We were collecting so much data, such rich data, that we needed to decide, ‘What are the critical, cutting-edge, cross-cutting issues? What is happening within each field?’” The leaders met frequently and scheduled regular phone calls to explore these questions. (RWJF Senior Scientist Orleans, Director Chaloupka)

7. **When data collection methods work, apply them to other subject matters.** The structure of *Bridging the Gap* enabled the partners to design and implement a range of data collection efforts at the student, school, community and state levels.

When RWJF shifted its emphasis to preventing childhood obesity, Chaloupka and Johnston were able to adapt their data collection methods to that issue, even though neither had any background in it.

Orleans said, “If you have something that is working this well, why go somewhere else? Nothing succeeds like success. Lloyd had been getting unparalleled 85 percent response rates in Monitoring the Future. And Frank and Lloyd and their *Bridging the Gap* colleagues had perfected collaborative methods, learning about policy effects at multiple levels—school, community, state and national—and about socio-demographic disparities in substance abuse–related policies and their impacts. Using these same approaches, they are now leading the field in understanding how multilevel policies affect childhood obesity and its disparities.” (Director Chaloupka, RWJF Senior Scientist Orleans)

**THE PROGRAM’S FUTURE**

As of 2013, the NIH, the CDC, and the American Legacy Foundation have provided funding for the tobacco research that *Bridging the Gap* investigators have continued to undertake. Work supported by NIH has focused on improving understanding of the impact of tax and price policies on retail prices for and marketing of tobacco products, purchasing behavior (including tax avoidance), and tobacco use, while funding from CDC and Legacy has supported efforts to collect and analyze data on state funding for comprehensive tobacco control programs and the various activities funded by these programs.
These efforts to secure funding for some of Bridging the Gap’s tobacco research took time and benefited from the strong collaborations that were developed by the program with various funders during the years that RWJF supported the program's tobacco work.

Bridging the Gap’s work on state alcohol policy has been picked up by the National Institute for Alcohol Abuse and Alcoholism (NIAAA) through its Alcohol Policy Information System (APIS). According to Alexander Wagenaar, PhD, a professor at the University of Florida College of Medicine, and a member of the external advisory board for APIS, “The APIS system (based on our RWJF-funded design and start-up while I was at the University of Minnesota a decade and half ago) is really going strong. NIAAA has put many millions of dollars into updating it and maintaining it over the years. NIAAA has also, for the past few years, issued a Request for Applications (RFA) for proposals specifically using the APIS data in studies. I know of several major grants that have been issued under that solicitation, [So] that policy surveillance initiative [started under Bridging the Gap] has taken off and led to many studies and major investments by the NIH.

“The seed on alcohol policy has also led to the Law Atlas: the Policy Surveillance Portal of the Public Health Law Research Program (see http://lawatlas.org/welcome), which is broadening policy surveillance to the entire field of public health—across all topics.”

**RWJF's Commitment to Childhood Obesity**

In April 2007, RWJF made a commitment to provide at least $500 million over five years to reach the goal of reversing the epidemic of childhood obesity by 2015. Its grantmaking focuses on changing public policies and environments in ways that promote increased physical activity and improved nutrition for children. See the Childhood Obesity section of RWJF's website for more information about RWJF's strategy, funding priorities and publications in this area.

Bridging the Gap continues to build the evidence base for effective interventions to stimulate healthy eating and physical activity.

**The Role of Monitoring the Future and YES!**

Since 1991, when the lower grades were added to the annual surveys, Monitoring the Future surveys have asked students in all three grades (8, 10 and 12) about a variety of health factors, including their height and weight, diet and physical activity. In 2003, as RWJF began to focus on childhood obesity, Johnston revised the YES! School Policies and Practices Questionnaire, initially adding several questions about school food and beverage policies, commercial contracts, and school wellness policies; and subsequently adding many more. The instrumentation was developed in a collaborative way so that
many measures of secondary schools were also being asked of primary school administrators.

RWJF made three grants\(^5\) to Johnston and his colleague Patrick M. O’Malley, Ph.D., to support YES!’s work in childhood obesity through December 2013.

**The Role of ImpacTeen**

ImpacTeen’s years of data collection in communities surrounding Monitoring the Future schools included observations about neighborhood and community factors related to physical activity, such as parks, walking paths, bike lanes, street lighting and after-school programs.

Chaloupka and his team are creating a database of state policies that affect youth physical activity, healthy eating and obesity, generally analogous to the state policy databases he created for substance use. They also are analyzing archival records, including locations of fast-food and physical activity–related businesses, prices for healthy and unhealthy food, television advertisements for food products and community population characteristics.

RWJF made three grants\(^6\) to Chaloupka to support ImpacTeen through January 2013.

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\(^{5}\) ID#s 55731 ($2,368,350; November 1, 2005 to October 31, 2008); 57661 ($616,525; December 1, 2006 to November 30, 2009); and 64703 ($7,323,007; November 15, 2008 to December 31, 2013).

\(^{6}\) ID#s 52913 ($2,641,836; November 1, 2005 to October 31, 2008); 64702 ($15,959,747; December 1, 2008 to August 31, 2013); and 70157 ($4,400,000; September 1, 2012 to January 31, 2014).
APPENDIX 1

Bridging the Gap Coordinating Committee

(Current as of the time of the grant; provided by the grantee organization; not verified by RWJF.)

Membership on the Coordinating Committee rotated as different researchers led the various state database teams. All of those who participated at some point are included here.

Denis J. Prager, Ph.D., Chair
President
Strategic Consulting Services
Clyde Park, Mont.

David Altman, Ph.D.
Executive Vice President
Center for Creative Leadership
Greensboro, N.C.

Frank J. Chaloupka, Ph.D.
Distinguished Professor, Economics Department
Director, Health Policy Center
University of Illinois at Chicago
Chicago, Ill.

Michael K. Cummings, Ph.D.
Chair, Department of Health Behavior
Division of Cancer Prevention and Population Sciences
Roswell Park Cancer Institute
Buffalo, N.Y.

Gary A. Giovino, Ph.D.
Professor and Chair
Department of Community Health and Health Behavior
University of Buffalo, The State University of New York
Buffalo, N.Y.

Lana D. Harrison, Ph.D.
Professor, Department of Sociology and Criminal Justice
Scientist, Center for Drug and Alcohol Studies
University of Delaware
Newark, Del.

Andrew Hyland, Ph.D.
Director, Survey Research and Data Acquisition Resource
Department of Health Behavior
Roswell Park Cancer Institute
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Lloyd D. Johnston, Ph.D.
Distinguished Research Scientist, Research Professor
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Herbert Kleber, M.D.
Professor of Psychiatry
Director, Division on Substance Abuse
Columbia Psychiatric Institute
Columbia University
New York, N.Y.

Duane McBride, Ph.D.
Chair, Behavioral Sciences
Director, Institute for Prevention of Addictions
Andrews University
Berrien Springs, Mich.

Rosalie Pacula, Ph.D.
Acting Director
RAND Health Economics, Finance and Organization Program
RAND Corporation
Santa Monica, Calif.

Alexander C. Wagenaar, Ph.D.
Professor
Department of Epidemiology and Health Policy Research
University of Florida
Gainesville, Fla.


APPENDIX 2

Funding Additional Data Analyses

(Current as of the time of the grant; provided by the grantee organization; not verified by RWJF.)

Several researchers received funding through RWJF’s Substance Abuse Policy Research Program and other RWJF programs to analyze data collected by Bridging the Gap. In addition, other foundations and government agencies funded Bridging the Gap staff and partners to conduct special analyses of their data. The following are among the uses of the data:

Robert Wood Johnson Foundation

- To identify aspects of laws that “de-penalize” marijuana use, including laws enacted in other countries (Substance Abuse Policy Research Program)
- To examine the relationship between college and state drinking policies and binge drinking and drunk driving among college students (Substance Abuse Policy Research Program)
- To examine the effects of peer influences on smoking (Substance Abuse Policy Research Program)
- To examine state Medicaid laws governing substance abuse treatment programs to determine whether they facilitate or inhibit access for Blacks (Substance Abuse Policy Research Program)
- To examine the effect of televised anti-drug advertising on adolescent use of illicit drugs, attitudes and beliefs (Substance Abuse Policy Research Program)
- To collect data for use in evaluating RWJF’s SmokeLess States program
- To evaluate the effect of Empowerment and Enterprise Zone funding on employment, alcohol outlet density and homicide in selected California cities

Other Foundations

- The American Legacy Foundation
  — To test the feasibility of tracking state tobacco-control expenditures
— To track state tobacco control program spending according to the CDC’s Best Practices categories

- **The American Cancer Society**
  — To analyze the effect of media advocacy on tobacco attitudes and use

**Federal Agencies**

- **The Centers for Disease Control and Prevention**
  — To strengthen the Americans for Nonsmokers’ Rights Foundation database
  — To analyze factors that influence tobacco prices and the impact of tobacco prices on youth

- **The National Cancer Institute**
  — To assess the relationship between anti-smoking advertisements and newspaper coverage of tobacco issues
  — To test a model that predicts levels of tobacco sales by examining the environments in which retail stores operate (advertising, laws etc.)
  — To evaluate the impact of televised anti-smoking advertising on youth, young adults and adults

- **The National Institute on Drug Abuse**
  — To determine whether marijuana use imposes costs on the users or people around them

- **The National Institute of Justice**
  — To analyze the effect of laws regulating the component parts of methamphetamines on reductions in lab seizures and drug-endangered children and to understand the practical realities of enforcing these laws

- **The National Institute on Alcohol Abuse and Alcoholism**
  — To compare the effect of alcohol outlet density and alcohol marketing on homicide rates of minorities in 10 inner-city neighborhoods

**State Agencies**

- **The Illinois Department of Public Health**
  — To survey current and former Illinois smokers about the impact of a 40-cent increase in state taxes on cigarettes
**International Agencies**

- **The National Cancer Institute of Canada**

  - To develop tools and methods for assessing tobacco pricing and marketing in a variety of countries

**BIBLIOGRAPHY**

*(Current as of date of the report; as provided by the grantee organization; not verified by RWJF; items not available from RWJF.)*

**Book Chapters**


**Articles**

Carpenter CS, Kloska DD, O’Malley PM and Johnston LD. “Alcohol Control Policies and Youth Alcohol Consumption: Evidence from 28 Years of Monitoring the Future.”


Ciecierski C, Chatterji P, Chaloupka FJ and Wechsler H. “Do State Expenditures on Tobacco Control Programs Decrease Use of Tobacco Products Among College


O'Malley PM, Yamaguchi R and Johnston LD. “Effects of School-Based Tobacco Cessation Services on Tobacco Use by Students: Results from a National Study.” Unpublished.


**Presentations: Testimony**

The following testimony was formally invited in writing:


Lloyd D. Johnston. Written and oral testimony presented at hearings on the National Youth Anti-Drug Media Campaign, held by the Treasury and General Government Subcommittee on appropriations of the U.S. Senate Appropriations Committee, June 19, 2002.

**Reports**


**Reports: Chartbooks and Monographs**


**Alcohol Policies in the United States: Highlights from the 50 States.** Minneapolis: University of Minnesota, 2000. Available online.

**Reports: Research Papers**

The following papers are available online via the ImpactTeen website.

- **Do State Expenditures on Tobacco Control Programs Decrease Use of Tobacco Products Among College Students?**, Ciecierski CC, Chatterji P, Chaloupka FJ, Wechsler H, August 2006.


Habit and Heterogeneity in College Students' Demand for Alcohol, Williams J, January 2002.


● Differential Effects of Cigarette Price on Youth Smoking Intensity, Liang L, Chaloupka FJ, February 2001


**Grantee Websites**

[www.impacteen.org](http://www.impacteen.org). Website created to provide access to journal articles, research papers, monographs, datasets and chart books. It also includes bios of key staff and links to related sites. Chicago: Institute for Health Research and Policy at the University of Illinois at Chicago.

[www.yesresearch.org](http://www.yesresearch.org). Website created to provide access to articles, feedback to school administrators, bios of senior staff and links to related sites. Ann Arbor, MI: Institute for Social Research at the University of Michigan.

[www.bridgingthegapresearch.org](http://www.bridgingthegapresearch.org). Website created to provide access to both ImpacTeen and YES! websites. The site provides access to *Bridging the Gap* reports and information regarding nutrition and physical activity. Chicago: Institute for Health Research and Policy at the University of Illinois at Chicago.

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