

NEW YORK STATE

OFFICE OF DRUG ABUSE SERVICES

ADMINISTRATIVE  
EVALUATION REPORT  
OF  
SPARK

NEW YORK CITY HIGH SCHOOL  
Drug Prevention And Education Program

Division of Cost Effectiveness and Research  
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## I. INTRODUCTION

This report is part of a series of evaluations of drug abuse prevention programs funded by the New York State Office of Drug Abuse Services (ODAS). The focus of this report, prepared by the Division of Cost Effectiveness and Research, is the SPARK (School Prevention of Addiction through Rehabilitation and Knowledge) program.

Established in 1971, the SPARK program is administered by the New York City Board of Education. SPARK currently operates programs in 88 city high schools. The SPARK budget for the 1977-78 fiscal year is \$2,464,590.

The principal mission of the SPARK program is to provide drug abuse intervention, prevention and educational services for high school students who have exhibited a variety of behavioral and academic problems. These focus on drug experimentation, but also include truancy and low academic achievement. The services of the SPARK program are provided by Drug Education Specialists (DES). A DES is assigned to each of the 88 participating high schools in New York City on a permanent basis. Students enter the SPARK program through a referral process. Referrals are typically made by deans, guidance counselors, teachers, parents or peers. Students may also refer themselves to SPARK.

In the spring of 1977, SPARK surveyed 3,893 students who participated in the program from September 1976 through January 1977 using a pre-post retrospective design.\* These data, subsequently verified by ODAS, have been utilized in the development of this report.

The SPARK program objectives, as stated by the Board of Education include:

- providing young people with intellectual, social, cultural, and recreational alternatives to drug abuse;
- helping students develop the necessary skills to make decisions, solve problems, and in the process, to grow;
- establishing a setting within each school where young people can go to learn to like themselves and cope with one another; and
- improving communication with the existing services within each school.

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\* A pre-post retrospective design is not optimal for evaluating the effects of a program, but was the best possible design given the limited time and resources available at the time of this study. Future studies will include prospective designs. The most serious limitation of the retrospective design of this study was the inability to collect data from about 35% of students who entered the SPARK program but then graduated, transferred or dropped out of school. These students may or may not have benefitted from participating, but it was not feasible to collect data from them.

A second serious limitation is the lack of a comparison or control group who did not receive the program services. It is generally found that urban high school students who have serious behavioral/academic problems do worse over a period of time. Thus, a study lacking a control group is likely to underestimate program effectiveness.

This report is presented in three major sections. The first section consists of survey findings based upon the original SPARK data for the study period September 1976 through January 1977. These data were then analyzed by the ODAS Division of Cost Effectiveness and Research.\*

The analyses include:

- characteristics of SPARK participants,
- drug use and prevalence patterns of SPARK participants, and
- behavioral changes among SPARK participants.

The second section presents qualitative data based upon the on-site observations of ODAS Division of Cost Effectiveness and Research personnel.

The final section summarizes the major findings of the report.

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\*A full description of the verification procedures and a more detailed statistical analysis will be presented in a technical report. The verification data independently collected by ODAS personnel showed behavioral changes of the same magnitude as data collected by SPARK personnel.

## II. SURVEY FINDINGS

The data presented and analyzed in this section were collected by the SPARK staff during the spring of 1977. The data were from 3,893 students enrolled in the SPARK program from September 1976 to January 1977. The study used a retrospective pre-post design to compare student drug use, attitudes and behavior patterns before and after participating in the SPARK program. The following variables were considered:

- Drug Use Patterns
- Self Image
- Family Relations
- Teacher Relations
- Peer Relations
- Grade Point Average
- Deans' Reports
- Attendance

The section of the report which follows is devoted to the presentation and analysis of the SPARK survey data and:

- describes characteristics of SPARK program participants;
- depicts drug prevalence patterns of SPARK participants; and
- evaluates changes in attitude and behavior of SPARK participants over the course of the program.

A. Demographic Profile

In order to describe the population served by the SPARK program, data were sought on the following characteristics:

- Sex of respondent
- Grade in school
- Borough of residence

These data were required in order to determine how representative SPARK participants were of the general high school population in New York City.

As Table 1 indicates, a majority of the SPARK students were female (55%), enrolled in the 10th and 11th grades (62%) and attended schools in Brooklyn or Queens (64%). In general, these figures are consistent with the percentage breakdowns of the New York City high school population for sex, grade and borough. However, the fact that 55 percent of the SPARK population were female is surprising when compared to national estimates of women in drug abuse treatment programs. Indeed, national data from the Client Oriented Data Acquisition Process (CODAP) reporting system show that only 25 percent of the treatment population in federally-funded drug programs are female.

Table 1

Demographic Profiles of the SPARK Population and the  
New York City High School Population.

<u>Sex *</u>	<u>Number</u>	<u>Percentage</u>	<u>Percentage in N.Y.C. High School Population**</u>
Male	1747	45%	50%
Female	2129	55	50
<u>Grade *</u>			
9th	785	20%	24%
10th	1295	33	32
11th	1111	29	25
12th	685	18	19
<u>Borough</u>			
Bronx	580	15%	19%
Manhattan	640	16	16
Staten Island	166	4	6
Brooklyn	1285	34	34
Queens	1222	31	25

\*Sex and grade were not recorded for 17 of the students surveyed.

\*\*Data supplied by the Board of Education. As of March 1977, population figures were 140,929 males and 139,500 females.

B. Prevalence of Drug Use

The SPARK staff administered a modified "Pennsylvania State University Drug Use Scale" to program participants. Data from the SPARK sample were then compared to data from two statewide surveys on the prevalence of drug use in the general student population (non-program). Table 2 presents prevalence rates of SPARK students and prevalence rates of New York City high school respondents in the two statewide surveys.

The prevalence rates remain consistent between the Periodic Assessment of Drug Abuse Among Youth (PADAY) and Statewide Epidemiological Audit of Substance Abuse (SEASA); the rates for the SPARK students are much higher.\* More than twice as many of the SPARK respondents have used marijuana, stimulants, depressants, hallucinogens, cocaine, and heroin as either the respondents of PADAY or SEASA. The findings in Table 2 show that an overwhelming majority of the students enrolled in SPARK have used marijuana and/or alcohol. In addition, at least 20 percent have been exposed to a variety of other mood-altering drugs, including hashish, stimulants, depressants, cocaine and hallucinogens. As much as 6 percent report having used heroin at some time prior to entrance into the SPARK program.

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\*In order to permit comparisons among the three sets of data, the following factors must be considered: PADAY data based on a school survey are provided for students in grades 9-12 in New York City, while the SEASA figures based on a household survey represent 14-19 year olds in New York City who indicated being students.

Table.2

Comparison of Ever Use Rates of Various Drugs Among  
SPARK Students and Among the General Student Population in New York City

	<u>SPARK</u>	<u>*PADAY</u>	<u>**SEASA</u>
Alcohol	89%	81%	(not asked)
Marijuana	81	40	40% (incl. hashish)
Hashish	45	(not asked)	(not asked)
Stimulants	26	8 (incl. cocaine)	(not asked)
Cocaine	25	(not asked)	2
Depressants	24	8	8 (incl. analgesics)
Hallucinogens	21	5	6
Heroin	6	3 (incl. other narcotics)	0.5

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\*Periodic Assessment of Drug Abuse Among Youth. This was a survey of substance use among junior and senior high school students in New York State. A sample of 1,883 students, representative of all students in grades 9-12 in New York City public schools, was used in the analysis. The survey was administered during the 1974/75 school term.

\*\*Statewide Epidemiology Audit of Substance Abuse. This was statewide household survey on non-medical drug use conducted by the New York State Office of Drug Abuse Services during winter, 1975-76. A total of 11,410 interviews were conducted across the state among residents 14 years of age and older.

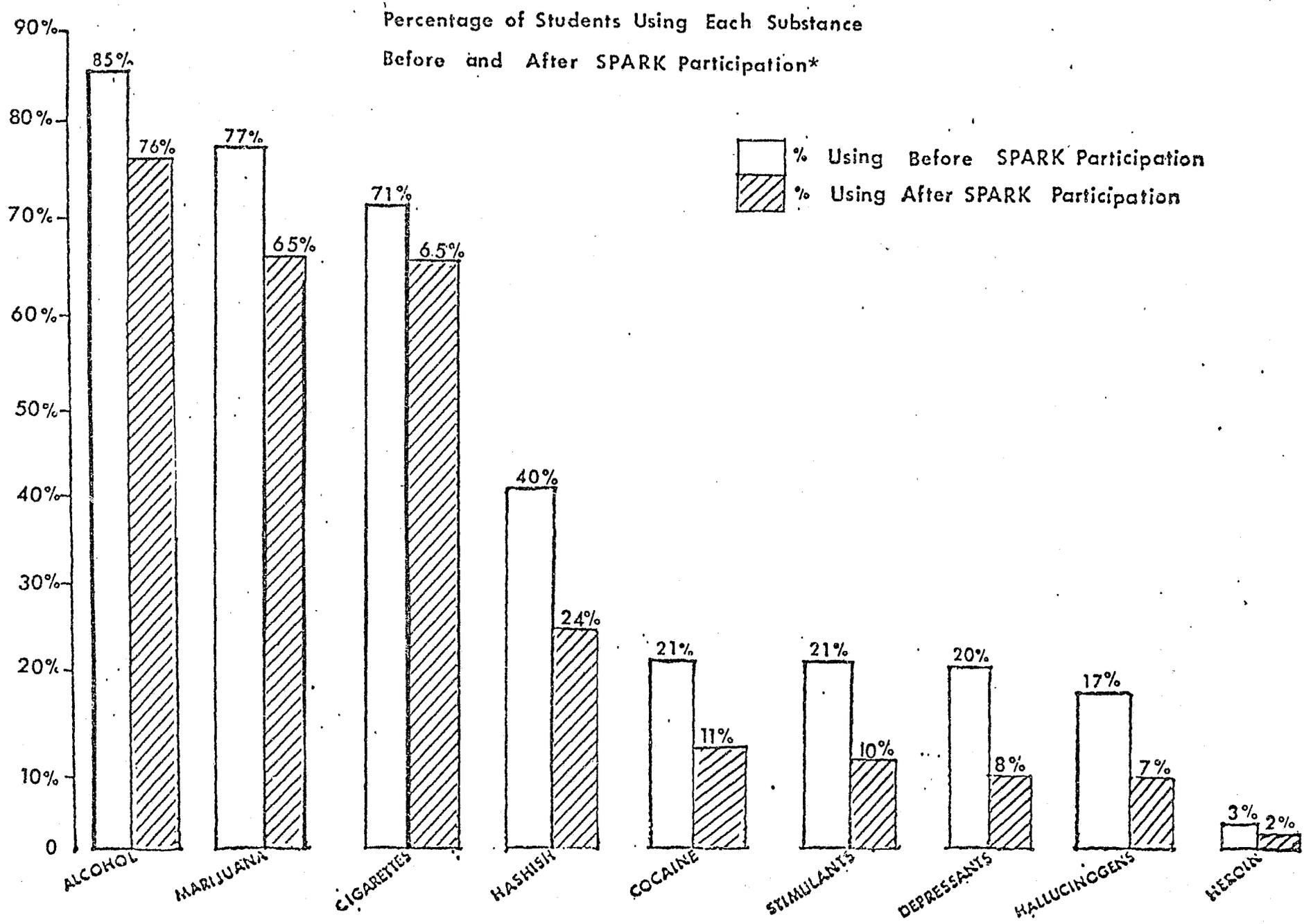
C. Rates and Frequency Patterns of Drug Use

In Figure 1, student substance use is presented graphically for pre and post SPARK participation periods. For all substances, a marked decrease in use was found among students after being in the SPARK program. Most notable is the fact that the use of hashish, cocaine, stimulants, depressants, hallucinogens and heroin declined by at least 40 percent. Thus, it seems that the SPARK program is effective in reducing the current use of the more dangerous drugs.

In addition to reducing the percentage of participants currently using the drugs noted above, there is the issue of whether the frequency of "current use" has also changed. Table 3 presents changes in frequency of drug use patterns by SPARK participants for each substance used.

It is quite apparent that students used drugs less frequently after participating in the SPARK program. Daily use of each substance (except cigarettes) has decreased by at least 50 percent. For example, while one-third of the students used marijuana daily before entering SPARK, only 15 percent reported a pattern of daily usage after participating in the program. Similarly, the use of alcohol, which was a weekly activity for one-third of the students prior to program entry, declined by nine percentage points after participation in the program. From the data presented in both Figure 1 and Table 3, it may be concluded that the students participating in SPARK showed a marked decrease in substance use.

Figure 1



\*These percentages for the use of each substance are derived from Table 3. The percentage for each point in time includes all students who admitted using the substance "1 or more times per year" or more frequently.

Table 3

Frequency of Substance Use Among SPARK Students (Percentages) \*

<u>Type of Substance</u>	<u>Never used</u>	<u>No longer use</u>	<u>1 or 2 times per year **</u>	<u>1 or 2 times per month</u>	<u>1 or 2 times per week</u>	<u>Daily</u>
<u>Cigarettes</u>						
September 1976	21%	8%	3%	3%	7%	58%
January 1977	20	15	3	2	7	53
<u>Alcohol</u>						
September 1976	11	4	13	26	33	13
January 1977	11	13	16	31	24	5
<u>Marijuana</u>						
September 1976	19	4	6	14	24	33
January 1977	18	17	9	19	22	15
<u>Hashish</u>						
September 1976	55	5	14	14	8	4
January 1977	55	21	11	9	3	1
<u>Hallucinogens</u>						
September 1976	79	4	8	6	2	1
January 1977	79	14	4	2	0.8	0.2
<u>Stimulants</u>						
September 1976	74	5	8	8	4	1
January 1977	74	16	5	3	1.5	0.5
<u>Depressants</u>						
September 1976	76	4	7	8	4	1
January 1977	76	16	4	3	0.7	0.3
<u>Heroin</u>						
September 1976	94	3	2	0.3	0.4	0.3
January 1977	94	4	1	0.8	0.1	0.1
<u>Cocaine</u>						
September 1976	75	4	10	7	3	1
January 1977	75	14	6	4	0.7	0.3

\*Each row adds to 100% (N=3,893 minus the non-responses).

\*\*Includes respondents who said that they "use now."

D. School Records Data

The school records of the SPARK participants were considered as one source for measuring behavior change. Three indicators of behavior were examined: grades, deans' reports and absences. These specific variables proved to be especially valuable to this evaluation effort because they provided an objective measure of change. Table 4 reflects the changes that occurred for the period September 1976 through January 1977.

In Table 4, marked improvement in these indicators of behavior can be seen. Whereas 24 percent of the students had grade point averages below 50 prior to entering SPARK, only 12 percent continued to have grade point averages below 50 after participating in SPARK - a 50 percent reduction. Similarly, 18 percent fewer students were reported to the dean for poor conduct and the percentage of students absent more than 20 times declined from 31 percent to 15 percent.

Thus, it can be seen from Table 4 that for the period September 1976 through January 1977, students who participated in the SPARK program showed academic improvement, indicated by grade point average, as well as improvement in conduct, indicated by a reduction in deans' reports and absenteeism.

Table 4

School Record Data Indicating Pre and Post Grade Point Average, Number of Deans' Reports and the Number of Absences Among SPARK Students

<u>Grade Point Average</u>	Spring Semester 1976 Pre (3,762)*	Fall Semester 1976 Post (3,778)*	<u>Difference</u>
Under 50	24%	12%	-12%
51 - 65	25	24	- 1%
66 - 80	41	49	+ 8%
Over 80	10	14	+ 4%
<u>Number of Deans' Reports</u>	Pre (3,596)*	Post (3,593)*	<u>Difference</u>
None	48%	66%	+18%
One	9	12	+ 3%
Two	11	9	- 2%
Three	9	4	- 5%
Four or over	23	10	-13%
<u>Number of Absences</u>	Pre (3,827)*	Post (3,850)*	<u>Difference</u>
None	4%	7%	+ 3%
1-10	38	53	+15%
11- 20	28	27	- 1%
Over 20	31	15	-16%

\*Cases where data were missing are not included in these distributions. Slightly more data was missing for the pre-SPARK instances, leading to a larger post-SPARK population for grade point averages and absences.

E. DES-Rated Changes In Behavior and Self-Image

Having noted significant changes in both school record data and student reported drug use activity, additional indicators of behavior were examined for further evidence of change. The SPARK Drug Education Specialists were asked to rate the participants on the following variables: family relationships, teacher relationships, and peer relationships. A scale of unsatisfactory-satisfactory-excellent was utilized, and the participant was rated for the time prior to and after SPARK participation. Table 5 reflects a pattern of positive change for the three DES-rated variables.

Student self-image was measured retrospectively before and after participation in SPARK. The instrument selected was a self administered attitudinal rating scale entitled, "As I See Myself." Responses were collapsed into categories ranging from "very good" to "very bad" for each time period. The data in Table 5 show a strong trend towards improved self-images among SPARK participants.

The DES-rated behavior changes and the changes in student self image are consistent with the improvements noted from the school records and student reported drug use. These disparate sets of data all show marked improvements in the students after participating in the SPARK program. Because the different types of data yield consistent results, more confidence can be placed in the data taken as a whole.

Table 5

Self Image and DES-Rated Behavior Changes\*

<u>Self Image</u>	<u>Pre N= 3,877</u>	<u>Post N= 3,876</u>	<u>Difference</u>
Very Good	10%	24%	+14%
Good	46	58	+12%
Neutral	34	15	-19%
Bad	9	2	- 7%
Very Bad	1	1	0%
<u>Family Relations</u>	<u>Pre N= 3,864</u>	<u>Post N= 3,865</u>	<u>Difference</u>
Excellent	.6%	12%	+ 6%
Satisfactory	48	63	+15%
Unsatisfactory	46	25	-21%
<u>Teacher Relations</u>	<u>Pre N= 3,864</u>	<u>Post N= 3,867</u>	<u>Difference</u>
Excellent	6%	14%	+ 8%
Satisfactory	54	72	+18%
Unsatisfactory	40	14	-26%
<u>Peer Relations</u>	<u>Pre N= 3,865</u>	<u>Post N= 3,867</u>	<u>Difference</u>
Excellent	10%	20%	+10%
Satisfactory	64	72	+ 8%
Unsatisfactory	26	8	-18%

\*The DES ratings were verified by independent interviews conducted by ODAS staff with a sample of SPARK participants. ODAS collected data generally showed a slightly higher percentage of positive changes than the ratings given by the DES's. The variations in "N" was due to non-responses to some questions. Percentage figures were rounded to the nearest whole number.

The rest of this section presents the survey data in terms of individual-level changes. For each variable the percentage of students whose pre versus post SPARK behavior improved, remained the same, or became less satisfactory is presented. This manner of presenting the data gives an indication of the many individual level changes that are partially obscured in the group level data presented earlier. For each of the three summary tables presented in this section, the percentages are computed on the base figures in the column entitled "Number of Subjects." the column marked "Excluded" represent those students who were specifically not included in the calculations because their performance was at an optimal level both before and after SPARK participation. These students could not improve and did not get worse.

F. Individual Level Changes in Behavior

Table 6 presents the individual level changes that occurred in student behavior for grades, attendance and deans' reports. It reveals a considerable degree of positive individual level change as measured by school records. A net improvement of 57 percent is noted as in the number of deans' reports. Net improvement for attendance was 40 percent and for grade point average, 31 percent.

Table 6

Individual Level Changes in Grades, Attendance and Deans' Reports

<u>School Record Variables</u>	<u>Number of Subjects*</u>	<u>% No Change</u>	<u>% Positive Change</u>	<u>% Negative Change</u>	<u>Net Improvement</u>	<u>Excluded**</u>
Grade Average (At least 5 pt. change)	3730	27%	52%	21%	+31%	163
Attendance	3747	6	67	27	+40%	146
Deans' Reports	2045	9	74	17	+57%	1848

\*This column presents the total number of subjects less those who both could not improve and did not get worse in each of these school record areas.

\*\*These figures include students for whom data were missing at either the before or the after measurement points.

G. Individual Level Changes in Substance Use

Table 7 indicates that SPARK students substantially decreased their use of all substances. (In this table, "Excluded" means those students who never used the substance either before or after participation in SPARK.) The most impressive net decreases were found for the categories of hallucinogens, stimulants and depressants. The net reduction in use of these substances exceeded 50 percent. Similarly, a 40 percent net decline was found in the use of marijuana, hashish and cocaine. Finally, SPARK students revealed an overall decrease of 30 percent in the use of alcohol and heroin.

Table 7  
Individual Level Changes in Substance Use

<u>Substance</u>	<u>Substance Users</u>	<u>% No Change</u>	<u>% Decreased Use</u>	<u>% Increased Use</u>	<u>Difference</u>	<u>Non-Substance Users Excluded*</u>
Cigarettes	3143	66%	25%	9%	-16%	750
Alcohol	3502	50	40	10	-30%	391
Marijuana	3207	35	54	11	-43%	686
Hashish	1832	34	57	9	-48%	2061
Hallucinogens	877	31	60	9	-51%	3016
Stimulants	1054	30	61	9	-52%	2839
Depressants	985	27	65	8	-57%	2908
Heroin	247	43	44	13	-31%	3646
Cocaine	1027	35	55	10	-45%	2866

\*These figures include students for whom data were missing at either the before or the after measurement points.

H. Individual Level Changes in Self-Image and DES- Rated Relationships

Table 8 demonstrates that SPARK students achieved major gains in self-image. Here SPARK students revealed a net improvement in self-image of 43 percent. Concomitantly, SPARK counselors noted a net improvement of 32 percent in the area of teacher relations and 27 percent in peer and family relations.

The analysis of individual level changes among students enrolled in the SPARK program from September 1976 through January 1977 clearly points to dramatic positive changes in virtually every variable under consideration, though clearly all participants do not improve in all areas.

Table 8

Individual Level Changes in Self Image and DES-Rated Behavior

	<u>No. of Subjects*</u>	<u>% No Change</u>	<u>% Positive Changes</u>	<u>% Negative Changes</u>	<u>Net Improvement</u>	<u>Excluded**</u>
Self-Image	3546	47%	48%	5%	+43%	347
Family Relations	3677	65	31	4	+27%	216
Teacher Relations	3673	60	36	4	+32%	220
Peer Relations	3524	67	30	3	+27%	359

\*This column presents the total number of subjects less those who both could not improve and did not get worse in each of these areas.

\*\*In addition to those noted in the footnote above, these figures include students for whom data were missing at either the before or the after measurement points.

In summary, the SPARK survey data reported in this section show:

- Significantly higher substance use among SPARK students, indicating a need for service.
- Significant improvements in attendance, grade point average and deans' reports, as indicated by school records.
- Significant decreases in substance use and improvements in self-image, as reported by the students.
- Significant improvements in relationships with peers, teachers and family, as rated by the Drug Education Specialists.

The following section of the report is devoted to the presentation of qualitative data, gathered by the staff of the ODAS Division of Cost Effectiveness and Research. It has been included to provide additional insights into the SPARK program.

### III. QUALITATIVE FINDINGS

Staff members of the Division of Cost Effectiveness and Research visited 12 randomly selected high schools having SPARK programs. These staff members interviewed randomly selected SPARK students and also observed group sessions led by Drug Education Specialists.

From these observations, it appeared that the SPARK counselors have succeeded in establishing a non-authoritarian, non-threatening environment in the high schools, one in which meaningful communication between adults and students occurred. This type of rapport between adolescent and adult is unusual in the traditional school classroom environment, especially for youths having behavior problems. Clearly, the quality of communication is a critical element in the success or failure of any program designed to change attitudes and/or behavior.

Observers found SPARK counselors to be concerned, knowledgeable and skilled in dealing with student problems. The interaction between counselor and student was characterized by warmth and trust. Observers found counselors to be actively developing meaningful relationships with students.

Another factor contributing to the success of the counselor-student relationship was that of accessibility. Students felt free to go to the SPARK office to talk to the counselor about personal as well as school-related problems. Students expressed great confidence in the SPARK program as "a place you could go, where you are accepted and understood, where you could get help if you needed it."

Perhaps the most critical factor contributing to the success of the SPARK program is the atmosphere of trust that existed between counselor and student. Students felt that they could be open with the counselor who was seen as an adult who cares and understands. In fact, one student stated that he trusts his counselor more than he does his parents.

The trusting relationships between SPARK students and the Drug Education Specialists contrasts with the relationships many of these students have with other school personnel. In the words of one student, "They don't understand us...they can't relate to us... they are hypocritical...they do things they don't want us to do, like smoke pot."

A. Interviews with students

The following selected quotations from SPARK students provide additional insights into the efforts of the SPARK program in influencing students to change their attitudes and behavior in a number of major problem areas. Also revealed is the critical function which the DES plays in attempting to close severe communication gaps between the student and other significant adults.

1. Relationships with family

"The DES helped me learn how to deal with my family. My mother and I had been getting along great. Then last year she remarried. After that, every time I came home there was a fight. If I spoke up I would be punished. I wasn't allowed to go out. I was an honors student up to then. My grades dropped from a 90 to a 50 average. I cut classes a lot, too. I got in trouble with the Dean and was put on probation. The DES helped me to adjust to my new family situation. He helped me understand what problems they were having and made me realize that I was only hurting myself when I acted this way. I learned to keep out of their way when they fight, and not to resent my stepfather so much. Now they discuss things with me, and I am more open with them. Also, I'm attending school again, and they're pleased about that. I'm getting my grades back up, too."

2. Relationships with teachers

a. "The DES told me how to deal with a teacher I was having a problem with. I was failing and the teacher often said things to humiliate me. I would sit in class and not work to get even. The DES told me to ignore the teacher's remarks. The DES said I was there to learn, not to like the teachers. This way I would pass and get out of the class."

b. "I was truant a lot. I was shy and lacked courage and self confidence to speak in class. I was afraid of teachers. There were a lot of smart aleck teachers in school. If they think you're an idiot, they say it. SPARK taught me how to relate to teachers. Now I can have a good conversation with teachers about subjects and things in general. I got motivated to achieve in school, and my truancy stopped."

c. "I failed English and didn't know why. I couldn't talk this over with my English teacher. The teacher wouldn't listen to me. The DES helped straighten out the situation by speaking with the teacher and getting her to agree to let me take two English courses. I did well, and got a passing grade."

3. Relationship with peers

"I was a bad truant and a follower. I followed the wrong kids who were truant themselves. I wanted to be accepted by kids in this new school. Because of what I learned in SPARK, I now do what I think is right for me. If I don't want to go along with what the other kids want, I come right out and say so, and I'm not afraid of losing their friendship."

4. Drug use

a. "I used to be into drugs. Then the DES asked me if I really wanted to be involved with drugs. Actually, I only did it because my friends did. The DES made me see that drugs were bad and would get me into trouble, and prevent me from getting into college."

b. "I used to get high a lot. I was once booked for possession of pot. Because of my experience at SPARK, I am more mature than before. I have more feeling for people and now understand and respect myself. Instead of going out and getting high, I play basketball."

B. Observations of group sessions

ODAS evaluators observed group sessions in twelve different randomly selected high schools. In these sessions the atmosphere was generally relaxed. Virtually all students appeared to be sincerely interested in group discussions, and most were active participants. A DES was present at all group sessions, and used a variety of role-playing and problem-solving techniques to engage students. From the quality of student participation in the sessions, it was evident that the DES had created an environment within which students felt free to reveal deeply personal information without fear of recrimination. There was much sharing of problems and feelings, and actively supportive behavior between the DES and the students, and among students themselves.

It was obvious to the ODAS observers that SPARK students held these group sessions in high regard. Indeed, participants often remained beyond session time. One student refused to formally join SPARK because he was not using drugs, and did not want to be labelled as a drug abuser. Nevertheless, he attended all the group sessions because he was able to talk openly with the DES and obtain help in solving his problems.

#### IV. SUMMARY AND CONCLUSIONS

The findings presented in this report provide strong evidence of the overall effectiveness of the SPARK program. The statistical analysis indicates that the SPARK program has had a positive impact on participants in the following areas:

- The amount and frequency of drug use by students decreased.
- Overall school performance, including grade point averages improved.
- Anti-social behavior in school and number of absences declined significantly.
- Self-image and interpersonal relationships improved.

Observations of the groups sessions and interviews with SPARK students further attest to the efficacy of the SPARK program. The observations and interviews strongly suggest that the SPARK program has been successful in intervening with many of the students who are using drugs and experiencing a wide variety of other problems. The activity of the Drug Education Specialist appears to be the strongest aspect of and is crucial to the success of the SPARK program. In addition, the strong central management of the program and the training given the Drug Education Specialists appear to contribute greatly to the favorable outcomes.

Critical factors contributing to the success of the SPARK program include:

- rapport between the DES and students based upon mutual trust;
- availability of the DES to students for open communication;
- commitment of the DES, and his or her belief that the students can change negative attitudes and behavior patterns; and,
- training and supervision provided by the central administrative staff.

Finally, the success of the SPARK program points to the critical need of the adolescent for positive interaction with a supportive and non-threatening adult figure. The SPARK program, through the DES, seems to perform the vital function of helping the student cope with the many problems of growing up.

**END**