

**Increasing Students' Awareness of HIV/AIDS: An Evaluation of
the Get Healthy, Get Smart Project**



Prepared by Elaine M. Walker, PhD

SAMETRIC RESEARCH

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EXECUTIVE SUMMARY

This final evaluation report highlights the major accomplishments in YEAR2 of the Elton John HIV/ AIDS Awareness grant, which was awarded to the National Urban Technology Center by the Elton John Foundation. The purpose of the grant was to promote HIV/AIDS awareness among New York City middle school students. The report is schematically organized into the following sections: 1) Overview of the conceptual framework that guides the evaluation; 2) description of program components, services and implementation; 3) brief description of the YLA modules used in the project; 4) overview of the evaluation design; 5) presentation of the findings, and 6) conclusion and recommendations. The evaluation is based on a pretest/ posttest design in which baseline and follow-up data were collected from approximately 380 students who were all in the *GHGS* Project during the 2008-2009 school year.

There were three major components to the *GHGS* initiative during the 2009 academic year. These were: (1) A robust professional development experience for 41 teachers from 32 participating schools in Manhattan and Brooklyn, New York; (2) the creation of informal behavioral milestones toward which students strove and (3) the integration of the YLA STD/HIV and health modules in the science, advisory and or health classes of participating teachers.

The following are highlights of the major findings:

General Finding

- Overall, the findings presented in the report indicate that the Elton John Foundation grant, which was used to support the Get Healthy, Get Smart Initiative had a significant influence on student knowledge about HIV/AIDS in particular, and the importance of proper nutrition and health in general.

Specific Findings

Peer Pressure

- There was a sharp increase in the percentage of students who felt confident in their ability to say NO to activities that they think are wrong. On the baseline roughly 69.8% of the students indicated that they can say No to wrong activities; compared to 80% in the follow-up study.
- Fewer students in the follow-up study as compared to the baseline reported that they are likely to take more risks when they are with their friends than when they are alone. This positive change was found to be statistically significant.
- Students became more socially and emotionally competent by the end of the project with respect to withstanding the effects of peer pressure. By the end of the project year, they were less likely to engage in risky behaviors as a function of peer influence than they were at the beginning of the year.

Diet and Nutrition

- Attitudes about nutrition improved appreciably. Almost two thirds of students strongly agreed that what they currently eat impacts their health in the future. This represents a 10% increase over the number of students who held a similarly strong opinion at the beginning of the year. Moreover, there were significant behavioral changes as well. Students reported eating fewer times at fast food chains, incorporating more fruits and vegetables in their daily diets and exercising more frequently.

HIV/AIDS and other STDs

- At the baseline, 83% of the students failed to answer at least half of the questions related to their knowledge of HIV/AIDS and other STDs correctly. On the posttest that number was reduced to 49%. This improvement was found to be statistically significant.
- The average number of questions that were answered correctly on the posttest (at follow-up) was much greater (46.41) than the average at baseline (35.35). Hence, it is reasonable to infer that the GHGS project was instrumental in bringing awareness and providing students with accurate information on STDs to include HIV/AIDS.
- Students who are most knowledgeable about sexually transmitted diseases are those who understand the importance of diet, exercise and their relationship to one's health, students who have a measure of self confidence and students who are more resistant to peer pressure.
- Both Hispanic and non-Hispanic students tended to have poor knowledge about HIV, AIDS and other sexually transmitted diseases; however, Hispanic students in particular, had the least amount of accurate information about STDs both at the baseline and at the follow-up when compared to non-Hispanic students
- Young girls were more likely to believe that condoms have very little protective value than young boys.

Family Relationships

- When they were resurveyed, more students reported improved relationships between themselves and their parents than was evident in the baseline.

Conclusions

The results summarized above are encouraging given the alarming statistics on the disproportionate high numbers of Hispanic and African-American youths who are infected with a preventable sexually transmitted disease. This study, like others, underscored the lack of information and misinformation that are prevalent among school-aged youth; and the role of projects such as Get Healthy, Get Smart in educating students about their health. While there are several key lessons that this two-year project has taught, perhaps the most salient is the need for programs such as *GHGS* to adopt a comprehensive strategy in bringing HIV/AIDS awareness to young people. A multi-prong approach that tackles such issues as peer pressure, appreciating one's body

by attending to diet and nutrition, building social emotional competencies and encouraging healthy family relationships is more likely to produce favorable outcomes than an approach that is narrowly tailored to focus exclusively on HIV/AIDS awareness. Moreover, there is credible evidence from the data in this study, that subgroups of students are particularly vulnerable, for example girls and Hispanics; and hence there is a need to develop strategies specifically directed at targeting these groups.

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Introduction and Overview

This final report highlights the major accomplishments in YEAR 2 of the Elton John HIV/AIDS Awareness grant, which was awarded to the National Urban Technology Center by the Elton John Foundation. The grant was used to promote HIV/AIDS awareness among New York City's middle school students. As stated in the YEAR 1 report, and has been subsequently evidenced by the plethora of current articles published both in the press and in the academic literature, there has been an alarming increase in the incidence of HIV infection among minority youth; with almost seven out of every 10 newly infected youth between the ages of 13 and 19 being of African-American background.

The National Urban Technology Center is a non-profit 501(c) corporation that develops web-based e-learning curricula that help urban youth make positive, life-affirming choices, as well as develop constructive attitudes and behaviors with respect to their health, in general, and HIV/AIDS and other STDs, in particular. The curriculum called the Youth Leadership Academy (YLA) consists of several self-contained, developmentally sequenced modules, which employ a carefully designed mix of group activities, games and structured exercises. Urban Tech school-based programs have been implemented in several states including New Jersey, New York, Pennsylvania and the District of Columbia. Evaluation data have shown that students who have participated in these initiatives have made greater academic and socio-emotional gains than students who have not (Walker & Finkelstein, 2007)¹.

During Year 1 of the current grant, project activities focused on: (1) providing a robust professional development experience for 22 teachers from 11 participating schools ; (2) establishing behavioral milestones toward which students strove and (3) implementation of YLA health promotion modules in a number of science classes.

¹ Findings from an evaluation study conducted by Walker and Finkelstein on the impact of YLA on student learning and social development revealed that students in YLA classes were more likely to receive a grade of "B" or higher than students in control classrooms. YLA students were less likely to be absent from school and more likely to be rated by their classroom teachers as improving in the pro-social and pro-cognitive domains than students in control settings. See Elaine M. Walker & Martin Finkelstein (2007) "Youth Leadership Academy (Project Grad) Final Report". Sametric Research, Allentown, NJ.

Results from the evaluation studies conducted at the end of the first year revealed a number of positive outcomes for both students and teachers. For example, teachers identified how the project resulted in real changes in their classroom pedagogies and contributed to lifestyle changes in their students. These improvements in students' attitudes and behaviors were thought to be encouraging given the well-established link between health and learning. The first year project activities thus formed a critical scaffold for the second year, laying the preparatory grounds for helping students to explore more sensitive topics around sexuality, gender issues, safe sex and the prevention of drug and alcohol abuse. It should be noted, parenthetically, that in Year 1, in classrooms where teachers initiated discussions on STDS, students tackled the subject in ways that were serious, mature and open.

This second and final year of the grant represented a scaling up of the project to 32 schools. The evaluation findings reported in this study focuses singularly on how the Get Healthy, Get Smart Project has impacted students' self esteem, personal development, awareness and knowledge about HIV/AIDS, the role of proper nutrition, and the importance of daily exercise. There is also a secondary but equally important interest in examining how the effects of exposure to the YLA curriculum might have impacted family relations; and in particular the lines of communication between child and parent.

The report is schematically organized into the following sections: 1) Overview of the conceptual framework that guides the evaluation; 2) description of program components, services and implementation; 3) discussion of the YLA modules used in the project; 4) synopsis of the evaluation design; 5) presentation of the findings, and 6)

implications of the results framed in terms of concluding comments and recommendations.

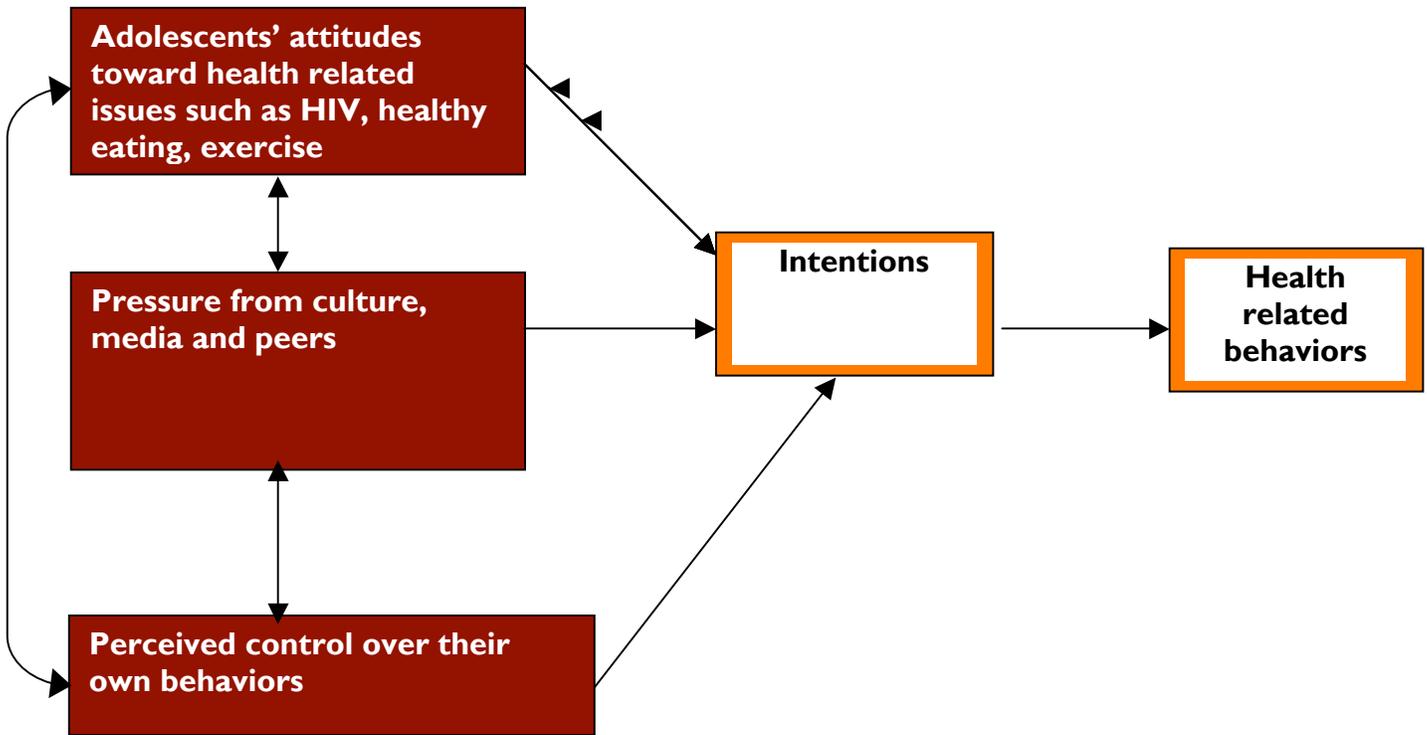
Youth Leadership Academy's Approach towards HIV/AIDS Awareness and the Formation of Healthy Habits among Adolescents

As we discussed in our first report, the project drew on Ajzen's *Theory of Planned Behavior* as the basic theoretical orientation for changing adolescents' health related behaviors. This theory has been used extensively in the health and social science fields to guide interventions, and to assess the extent to which such interventions have been successful.² In the case of the Elton John HIV/Aids awareness grant, the assumptions are that adolescents' behaviors are influenced by: (1) their attitudes; (2) pressure from peers, culture and the media; and (3) the degree to which they feel they have control over the choices they make. Given these assumptions, the project's emphasis has been on changing attitudes, helping students to become cognizant of the influence of culture, the media and peers in their lives and assisting students in their development of positive self esteem (what psychologists increasingly label a "sense of self-efficacy"). There were two premises on which the implementation of project was founded: First, that students needed to be provided with information that would result in their acquiring an expansive and broad understanding of their health; and that this knowledge ought to be presented in stages from a discussion of basic health concepts such as eating healthily and exercising to more sensitive and complex topics such as sexually transmitted diseases, generally, HIV and AIDS prevention, in particular. The second premise

² The Theory of Planned Behavior was developed by I. Ajzen. The theory has been used to study adolescents' behaviors in a number of areas: such as sexual activity; smoking and drug use; eating healthily and exercising. It has also been used to understand how individuals in organizational settings, particularly in the health field, change their behaviors.

recognized the importance of motivators/incentives in encouraging adolescents to change their behaviors.

Figure 1: YLA Approach to Changing Adolescents' Health Related Behaviors

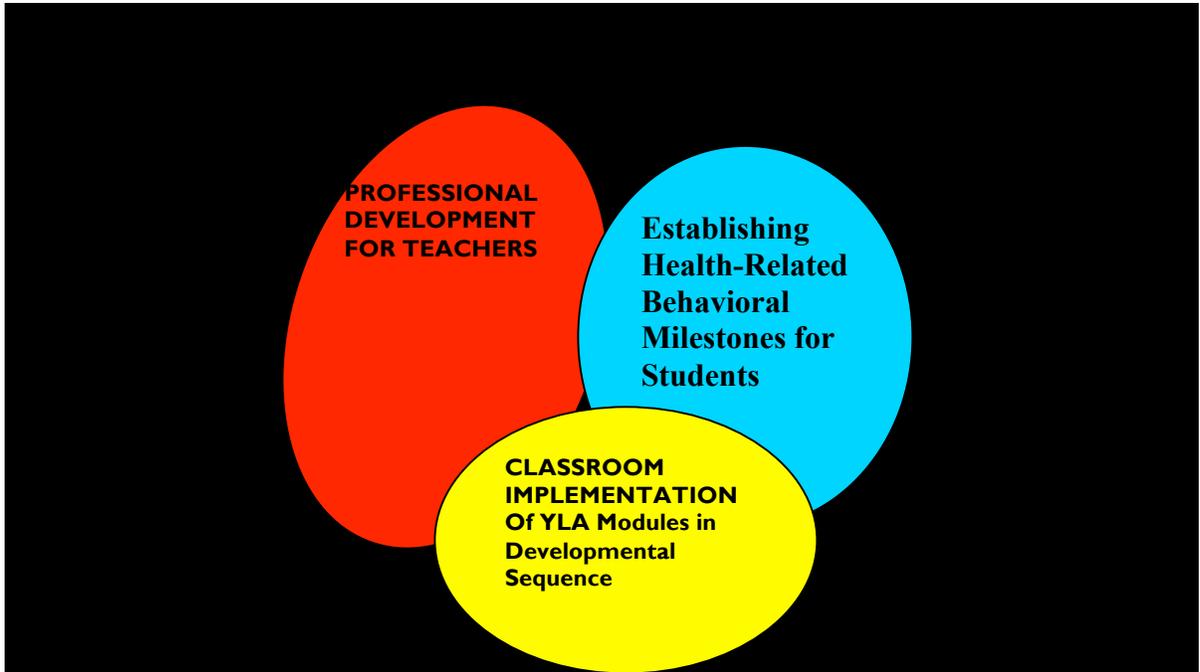


Program Components, Services and Implementation

There were three major components to the *GHGS* initiative during the 2009 academic year. These were: (1) A robust professional development experience for 41 teachers from 32 participating schools; (2) the creation of informal behavioral milestones toward which students strove for recognition and reward in the program, and (3) the implementation of YLA STD/HIV and health modules in science and health classes and in advisory periods. All three components were inextricably linked with each other and are diagrammed in Figure 2. As intimated previously, YLA formed the

cornerstone of the initiative. The YLA modules were used to impart knowledge and re-shape attitudes in order to reinforce students' healthy habits

FIGURE 2: GET HEALTHY, GET SMART PROGRAM COMPONENTS



Professional Development Activities

In November of 2007, Urban Technology contracted with Bank Street College to provide professional development services to teachers in the project for both years. These services included professional development delivered to groups of teachers in off-site workshops. These workshops served two essential purposes: First, to introduce and ground teachers into the content of the YLA modules; and secondly to offer various pedagogical strategies for in-classroom delivery of the content, particularly with respect to effective integration of YLA with other content subjects.

As discussed in the Year 1 report, the need for ongoing and in-depth professional development was important to the project for a number of reasons. First, it was essential that the participating teachers obtained a thorough understanding of the YLA curriculum since they were expected to teach the curriculum in their respective classrooms. Second, the project called for an integration of the modules within most of the science classes, a pedagogical approach that teachers needed to be comfortable with. It was also equally important for teachers to be given a repertoire of strategies that could be drawn upon to aid successful integration of the modules with the science and health curriculum. Third, YLA is a multi-media based curriculum, thus ensuring that teachers acquired the skills in navigating the modules and the various technology platforms of the curriculum was deemed important.

The off-site professional development component occurred monthly beginning in October 2008 at Bank Street College either on the first or third Friday for teachers from 32 schools in Districts 3, 4 and 5 in Manhattan, and District 32 in Bushwick, Brooklyn. Each training session lasted for approximately three hours, and was co-facilitated by two members of Bank Street College's staff. All participating schools sent at least one teacher representative to each professional development session; although most schools were represented by two staff members. Teachers were drawn from the fifth through eighth grades, as well as from the lower grade levels and high schools. The fifth and eighth grade teachers began the project in Year 1, with teachers in the lower grades and from the high schools joining the project in January 2009.

In addition to the monthly professional development sessions, all participating teachers received a site visit from either a Bank Street staff or from a staff member

affiliated with the National Urban Technology Center. The site visits were influenced by a teacher's availability and lasted between one to three hours depending on the number of classroom instructional observations and individual meetings that were scheduled. Most of the one-on-one meetings occurred during the teacher's "prep" period. This allowed for uninterrupted conversations, trouble-shooting, updates and goal-setting. The classroom visits were viewed as necessary platforms, enabling project staff to see how teachers and students utilized the curriculum materials, and the level of participation in enrichment/extension activities. At times, the Urban Tech or Bank Street support person led the instruction. Bank Street staff also provided support to the lead teachers in their efforts to "turn-key" the training to additional teaching staff within the same grade or school.

Feedback provided by teachers in both project years reveals that teachers valued the professional development experiences that occurred in the project. Teachers felt that their knowledge on health topics increased appreciably as a function of their participation in the *GHGS* project. Moreover, for teachers who served as advisors, their responses indicate that involvement in the project was instrumental in furthering their understanding of adolescents' development, and prepared them to more effectively handle with their students, topics dealing with sensitive issues such as dating and sexually transmitted diseases.

In addition to the regular in day-school implementation of the *GHGS* Project, four schools offered the YLA curriculum in their after school enrichment clubs. After careful observation and lengthy conversations with school administrators and teachers, the project was expanded beyond the school day into the homes of the students.

Information provided by the National Urban Technology staff suggests that the curriculum and topics were well received by parents. Parent Associations embraced the project and during AIDS Week a parent coordinator from one of the participating schools invited to her school a guest speaker from an AIDS organization. The talk was delivered to all students during a school-wide assembly program arranged by the principal.

To further enhance parental participation and with the collaboration of the Superintendent and Office of Family Initiatives in District 5, a Parents' Get Healthy Pilot Program was implemented. The program consisted of 90 minute interactive workshops with parents, which was open to parents in any of the schools in District 5. The workshops were held in the District 5 Technology Center. Each month, the workshop themes mirrored what was being taught to the teachers during their monthly PD Session at Bank Street. Hence, parents received the same information as their child on HIV, proper health and nutrition.

To help motivate and celebrate learning discoveries in the *GHGS* project, - an informal "contest" was created each semester. The teachers and students expressed a strong interest in being able to have milestones and goals to achieve. To meet this need - the *GHGS* program included a special series of Enrichment/Extension activities. A custom-designed set of hands-on activities for each module that allowed teachers and students to go further into their research, learning, outreach and "habit-changing" efforts were created. The extension activities ranged from academic links (supporting literacy and vocabulary)... to math, science, geography and history. Additional enrichment occurred with connections to visual arts, theater arts, physical fitness, community

activism, music and dance. Celebration and Showcase Events for all participating schools were also held. The first event was held on January 30 and the final event on June 12.

In sum, Urban Tech's HIV/AIDS awareness and prevention initiative, which is the subject of this evaluation report, sought to increase HIV/AIDS awareness and prevention by implementing Youth Leadership Academy (YLA) in 32 New York City middle schools. The specific activities undertaken by Urban Tech included the following:

- Integration of existing YLA modules in the areas of nutrition, exercise, substance abuse, personal relationships, and sexually-transmitted diseases (including HIV/AIDS awareness/prevention) into the NYCDOE core science curriculum;
- Professional development workshops, co-teaching and mentoring of teachers over the 2-year time frame to support and enhance health and HIV/AIDS awareness instruction in the science and physical health classrooms and a broadening of the scope of the project to include parents;
- Development of distance learning tools, including curricular guides, for middle school teacher professional development in order to increase the scope of dissemination and promote sustainability after funding ends.

YLA Modules

A central focus of Urban Technology's internal work at the beginning of the grant was the development of integrated curriculum guides that would facilitate the integration of YLA into NYCDOE's curriculum. Three guides were created and used by teachers in the implementation of YLA during the first project year; and in the second project year an additional guide supporting HIV/Health awareness was developed. The first year curriculum guides were linked to the Personal Appearance, Healthy Habits Live, and Self Discovery modules of the YLA curriculum. All three modules supported the broader HIV Awareness initiative by helping students to develop a number of social and emotional competencies that were deemed necessary for changing poor health-related

attitudes and behaviors, all of which contribute to chronic disease in low-income communities. These competencies included: Self-awareness, goal setting, acquiring self-control and self-management, making healthy decisions, becoming aware of outside influences, understanding how one reacts to peer pressure and the media, learning how to assert oneself and resolve conflict, learning how to set short and long term goals and understanding the consequences of one's actions.

Healthy Habits which was the most widely implemented module, and laid the necessary foundation for students to identify the benefits of a healthy lifestyle and the consequences of an unhealthy one, to identify toxic substances and avoid their use to prevent long-term health risks, to formulate lifestyle goals, and to get involved in activities that promote and sustain healthier lifestyles. In this module, students were also taught about the deceptive product advertising that influences their eating habits and use of tobacco. They learned how to become intelligent and discerning consumers of media information through understanding how the fast food industries become profitable at the consumer's expense. Students were also provided with the facts on the health risks associated with fast food and smoking (Appendix B list the goals and Objectives of the *Healthy Habits* Module). The *Personal Appearance* module built on lessons learned from *Healthy Habits*, specifically, by helping students to understand: (i) how good hygiene affects personal appearance; (ii) being aware of one's own body language and the message that it sends forth; (iii) the importance of choosing dress to fit the occasion; (iv) the impact of personal appearance on self-esteem and self-confidence.

The *Healthy Habits* module along with the other two modules was seen as necessary precursors to the HIV/STD Prom Night module that was implemented in

the fall of 2008. The STD & AIDS Awareness module introduced students to healthy and positive choices to prevent contracting STDs, to identify the different types of STDs and their treatment options, to discuss the difference between HIV and AIDS, to emphasize the necessity to get tested for people who are or have been sexually active or an IV drug user, to understand how the fears, misconceptions, and stigma associated with STDs & AIDS are a barrier to prevention and treatment, and to learn about each person's responsibility in controlling the spread of STDs & AIDS.

Evaluation Design

The present evaluation is based on a pretest/ posttest design in which baseline and follow-up data were collected from approximately 380 students who were all in the *GHGS* Project during the 2008-2009 school year.

Instrument

The primary data collection tool was a questionnaire that consisted of six subsections. These were: Basic demographics, peer pressure, eating and exercise habits, knowledge about sexually transmitted diseases to include HIV and AIDS, families and communication patterns between child and parents, and students' future plans.

Data Collection and Data Analysis

The questionnaire was administered in the fall of 2008 and the winter of 2009. At the follow-up, approximately 148 students, slightly less than 40% of the total number of students who participated in the baseline survey responded to the follow-up questionnaire. Students who completed the follow-up survey were different on two demographic variables. First, more males are included in the follow-up 53.7% than were originally in the baseline 48.3% ; and second proportionately more non-Hispanic students 58.5% are represented in

the follow-up when compared to the baseline (50.1%). Therefore, for the follow-up sample, both gender and race were weighted based on their original distribution in the baseline data. The primary analytical strategy draws on descriptive statistics, although where appropriate, significance testing is done using either a related sample t-test or an Analysis of Variance model.

Evaluation Findings

Peer Pressure: Changing Student's Susceptibility to Negative Peer Pressure

Adolescents are strongly influenced in their behaviors by their peers and the prevailing cultural milieu in which they find themselves; consequently helping them to develop positive self image and the emotional competency to deal with external pressures is paramount. The YLA modules provide students with the tools to become more aware of who they are, the importance of making correct individual decisions and choices, and the saliency of discriminative thinking, particularly when pressure from their friends may lead to adverse consequences.

Our survey of students allowed us to determine the extent to which students' self concepts and in particular their abilities to resist peer pressure were positively impacted by their involvement in the project. Almost five out of every 10 students in the baseline survey admitted that they feel some pressure from their friends to personally do something that they might get in trouble for. Interestingly, about two out of every 10 students stated that they just did not know when they were being pressured to do something wrong by their peers; suggesting by implication that there is a segment of students at baseline, who lacked the ability to critically discern when their peers might be having an unduly negative influence on them. On the follow-up the number of students who state that they feel some pressure to engage in wrong behaviors drop from about 50% to 37.6%. Whether this is primarily a function of

students choosing their friends more wisely is unclear. However, there is some evidence from the follow-up data that more students have become selective in choice of friends. Eighty percent of students responding to the follow-survey stated that they have learnt how to stay away from people who may get them into trouble compared to 79% of students in the baseline. While this represents a one percent increase, it should be pointed out that the proportion of students who said they were able to avoid peers who might get them into trouble” *only some of the time*” or “*almost never*” decreased from the baseline (18.3%) to the follow-up (13.8%). What is further striking is the sharp increase in the percentage of students who feel confident in their ability to say NO to activities that they think are wrong. On the baseline roughly 69.8% of the students indicated that they can say No to wrong activities; on the follow-up that percentage is 79.5% or almost 80%.

Table I reports from a slightly different perspective, students feelings about themselves particularly with respect to fitting in. One general observation is that for the most part, the students in the study have fairly robust concepts about who they are. In both the baseline and follow-up surveys, 91% of the students believe that it is more important to be who they are, than to fit in with the crowd. There are three noteworthy findings in the Table that relate to changes in students’ self beliefs from baseline to follow-up. First, fewer students in the follow-up stated that they would go along with their friends just to make them happy; and second, fewer students in the follow-up noted that they are likely to take more risks when they are with their friends than when they are alone (This was found to be statistically significant. Chi Square value = 53.316, df=138, $p \leq .000$). Students who at baseline reported that they were apt to engage in risky behaviors when with their friends were more likely when resurveyed to state that they no longer engage in these behaviors. Third, there are some inconsistencies in how students responded to the questions (see questions #1 and #2 in Table I). These

inconsistencies are not totally surprising, given the developmental stages (pre-adolescents/beginning adolescent) of students at the time of the project.

Table 1: Students' Self- Evaluation of their Ability to Withstand Peer Pressure

Statement	Percentage Agreeing	
	Baseline	Follow-Up
I think it's more important to be who I am than to fit in with the crowd	91.1	90.6
I would do something that I know is wrong just to stay on my friends' good side	13.8	15.5
I go along with my friends just to keep them happy	24.6	21.6
It's pretty hard for my friends to get me to change my mind	75.9	71.9
I will say my true opinion in front of my friends, even if I know they will make fun of me because of it	75.9	77.5
I take more risks when I am with my friends than I do when I am alone	42.7	37.3
Total	369	149

The implications that one take away from the preceding findings are that students became more socially and emotionally competent by the end of the project with respect to withstanding the effects of peer pressure. By the end of the year, they were less likely to engage in risky behavior as a function of peer influence than they were at the beginning of the academic year.

Diet and Nutrition: Helping Students to Understand the Benefits of Nutrition, Exercise, and a Healthy Lifestyle

In Year 1 of the GHGS project, students through the YLA module on *Healthy Habits* and the Healthy Steps to Albany Project were taught the benefits of proper nutrition and regular exercise. This early module was used to help students to begin to think constructively about their bodies and the importance of taking care of them. *Healthy Habits* which was the most

widely implemented module during Year 1, laid the necessary foundation for students to identify the benefits of a healthy lifestyle and the consequences of an unhealthy one, to identify toxic substances and avoid their use to prevent long-term health risks, to formulate lifestyle goals, and to get involved in activities that promote and sustain healthier lifestyles. In this module, students were also taught about the deceptive product advertising that influences their eating habits and use of tobacco. They learned how to become intelligent and discerning consumers of media information through understanding how the fast food industries become profitable at the consumer's expense. Students were also provided with the facts on the health risks associated with fast food and smoking. To begin to reshape attitudes and influence behaviors through addressing less sensitive topics than sexually transmitted diseases was viewed as an important scaffold that could be used to support discussions on HIV/AIDS. To that end, in both the baseline and follow-up studies, students were asked about the importance of nutrition and their daily behaviors with respect to eating and exercising. The results are captured in Tables 2 and 3.

As is evident in Table 2, attitudes about nutrition improved appreciably. Almost two thirds of students strongly agreed that what they currently eat impacts their health in the future. This represents a 10% increase over the number of students who held a similarly strong opinion at the beginning of the year. Moreover, students showed a much clearer understanding of the link between nutrition and health, with 71% of students strongly agreeing to the statement that what someone eats can make a big difference in their chances of getting diabetes and heart-related illnesses. All of these positive changes in nutrition related attitudes were found to be statistically significant.

Table 2: Students' Self- Reporting of their Attitudes and Behaviors with respect to Diet and Exercise

Statement	Percentage Strongly Agreeing		Chi Square Values
	Baseline	Follow-Up	
What I eat now is important to my health in the future	54.6	65.8	34.923*
What someone eats can make a big difference in their chances of getting diseases like diabetes or heart disease	62.1	70.5	49.66*
Smoking a couple of cigarettes a day isn't really a problem because you can always quit later	5.4	4.1	20.00*

Note: *Statistically Significant. N=144

Table 3: Students' Self- Reporting of their Attitudes and Behaviors with respect to Diet and Exercise

Health- related Behaviors		Responses		Chi Square Values
		Baseline	Follow-Up	
Servings of Fruits and Vegetables consumed daily	None	6.3	4.7	52.390*
	One	17.2	19.5	
	Two or More	76.5	75.8	
Number of servings of milk daily	None	12.3	4.7	64.870*
	One	15.3	11.6	
	Two or More	76.5	85.7	
Number of times in the past week students ate at a fast food chain	None	31.0	33.1	58.022*
	One	29.9	38.5	
	Two or More	40.1	28.4	

Note: *Statistically Significant. N=144

Did these improved attitudes translate into concrete behaviors? Table 3 reveals that students behaviors changed after being part of the project; and these changes were statistically significant. For example, fewer students reported when they were resurveyed that they ate no

vegetables daily than at the baseline. Similarly, fewer students indicated that they ate two or more times a week at a fast food chain on the follow-up 28.4; as compared to the baseline (40.1%). Not only were students attending more carefully to what they eat; but the number of students engaging in a weekly routine of exercise increased significantly.

When asked at follow-up about how frequently they exercised each week, there was a significant change in the percentage of students who reported that they exercised at least 30 minutes two or more times each week. At baseline, roughly 62% of students stated that they exercised two or more times a week, with 29.3% stating that they exercised for 30 minutes four times or more each week. At follow-up 73% of students indicated that they exercised for 30 minutes at least twice a week with 34.9% noting that they exercised for 30 minutes four or more times per week. Most students (seven out of every 10 students) believed both when they were first surveyed and when they were resurveyed that they would exercise more frequently if their parents exercised with them.

The vast majority of students in the project do not smoke (95%). With respect to drinking, about two in every 10 students report drinking an alcoholic beverage. Seventy-two percent of these students stated that they only drank for a few times. These percentages remained fairly stable from baseline to follow-up.

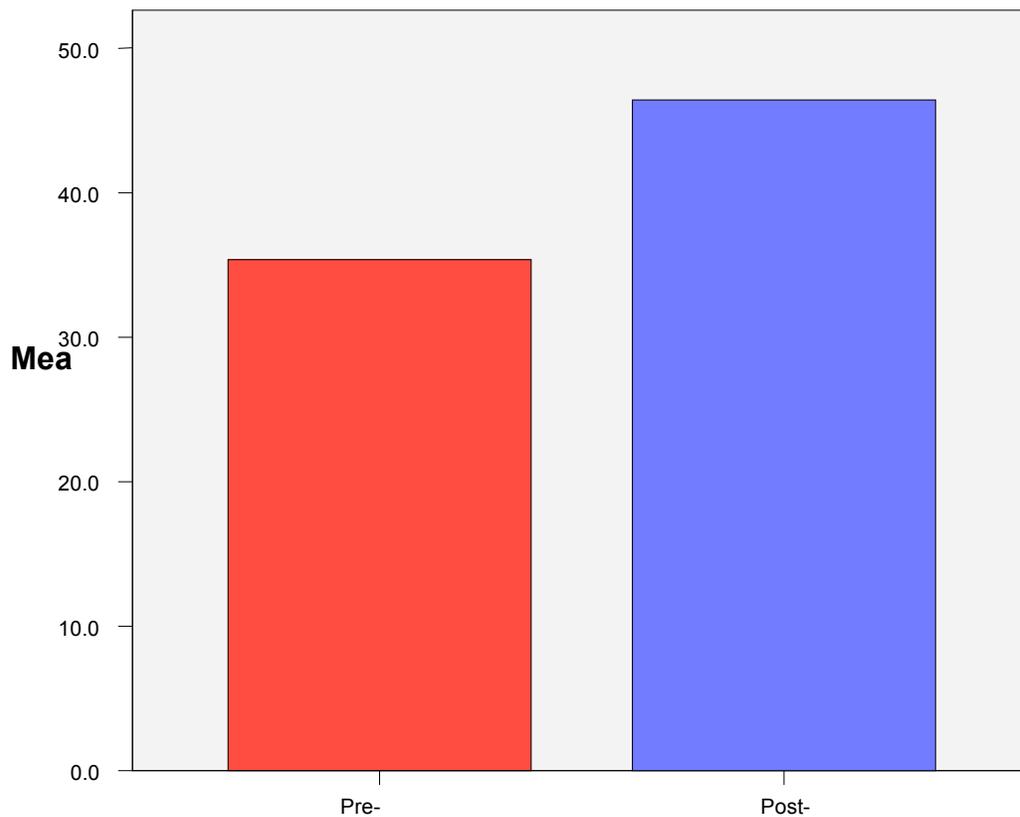
Influence of Peers on Students' Attitudes toward Nutrition and Exercise

Students were asked to describe the behaviors of their five closest friends with respect to their eating, drinking smoking and exercise habits. These behaviors were correlated to the respondents' own behaviors and attitudes. Our findings suggest that peers have a slight to moderate, albeit significant impact on students' own attitudes and behaviors. For example, the greater the number of friends who eat healthily the more vegetables and fruits a student reported eating ($r=.317^*$). Similarly, the greater the number of friends who exercise at least once a week, the greater the reported frequency of personal exercise ($r=.371^*$).

HIV and Other Sexually Transmitted Diseases: What Students Know and Understand

As discussed earlier in the report, the STD & AIDS Awareness module sought to provide students with information about sexually transmitted diseases in terms of both prevention and treatment. At the baseline, students were asked a series of questions testing their general and specific knowledge of STDs. Questions included for example, what the terms HIV and AIDS stood for, how frequently to get tested if one is at risk for a sexually transmitted disease, how many teenagers are annually at risk of contacting a sexually transmitted disease and the role of protection in preventing the spread of a STD. In all there were 13 questions. At the baseline, 83% of the students failed to answer at least half of the questions correctly. On the posttest that number was reduced to 49%. A paired t-test revealed that there was a significant improvement in students' knowledge ($T= 6.394$, $df=117$, $p\leq .000$) from the start of the project to its conclusion. As can be seen in Figure 3, the average number of questions that were answered correctly on the posttest (at follow-up) was much greater (46.41) than the average at baseline (35.35). Hence, it is reasonable to infer that the GHGS project was instrumental in bringing awareness and providing students with accurate information on STDs to include HIV/AIDS.

Figure 3: Average Number of Questions Answered Correctly at Baseline and Follow-up



Response patterns to each of the 13 items on the baseline administration of the questionnaire, indicate that students not only lacked the correct information and so held false beliefs; but a remarkable number simply did not have any information at all before being involved in the

project. For example, at baseline 49% of students in the project stated that they did not know what AIDS stood for; seven out of every 10 said they did not know that HPV was the most widespread sexually transmitted disease; and 45% stated that they did not know if one's chances of contracting a sexually transmitted disease increased if one already had a STD. These numbers dramatically declined by the end of their involvement in the project. When resurveyed, only 21% of students said did not know what the acronym AIDS meant; and 50% now understood that one's chances of contracting a STD increases if one already has an infection. While as we discussed in the preceding paragraph, students became more knowledgeable as a function of being in the project, there is still an urgent need to provide them with accurate information in order to dispel erroneous beliefs. Both on the baseline and at follow-up, students continued to believe that condoms are not effective in helping to prevent the transmission of STDs. There were stark differences between males and females with regard to this belief. Eighty-seven percent of young girls believed that condoms have very little protective value, compared to 62% of young boys. These differences persisted at both baseline and follow-up. Some authors have written on the differences in beliefs around condom usage between boys and girls. Allen (et al, 2000), for one note that girls who believe that they are in love are more likely to engage in unprotected sex. About a third of the students in the study at follow-up also did not know that HIV cannot be contracted by sitting on toilets. Although this represented a much lower percent than what was found in the baseline (57%); the fact that a third still hold on to this belief suggests that more educational programs are needed.

Although we found no gender differences in students' overall knowledge and awareness, there were clear differences related to Hispanic status. Both Hispanic and non-Hispanic students tended to have poor knowledge about HIV, AIDS and other sexually transmitted diseases; however, Hispanic students in particular, had the least amount of accurate information about STDs both at the baseline and at the follow-up when compared to non-

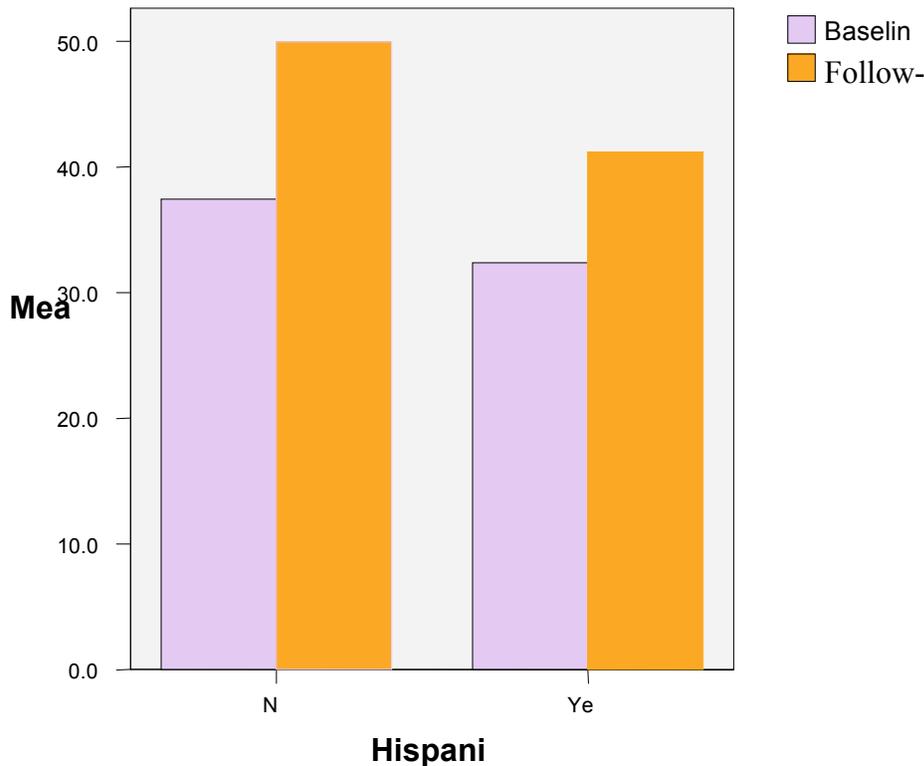
Hispanic students (See Figure 4). At the baseline, Hispanic students answered 29% of the questions correctly, compared to 36% for non-Hispanic students. When resurveyed, Hispanic students answered about 42% of the items correctly (an improvement of about 13%), which was statistically significant. In spite of a strong improvement among these students, their knowledge and awareness still lagged behind their non-Hispanic counterparts who answered almost 50% of the items correctly. In addition, there were four questions for which the differences between non-Hispanic and Hispanic students were quite large- these were: Knowing what HIV and AIDS stood for; believing that if one has a sexually transmitted disease one will definitely know and condom usage. On all four items Hispanic students were more apt to fail to answer the question correctly. Whether or not language barriers might have influenced the two questions related to HIV and AIDS we are not sure; but what these findings suggest is the need for the schools and broader health-related communities to work closely with Hispanic youths in order to further their awareness and knowledge about sexually transmitted diseases and their deleterious impact on teens.

The sequencing of the modules in the *GHGS* project rested on the assumption that in pre/adolescents and adolescents helping students to understand and appreciate their bodies and the importance of a healthy self esteem was a necessary precursor to teaching them about sexually transmitted diseases. As we intimated earlier, the first year focused on the benefits of nutrition and exercise, withstanding external pressures from their peers and the media, and helping the young adolescent to become socially and emotionally competent. To that end, we were interested in seeing whether there was any association between improvements in attitudes and behaviors with respect to health and nutrition in general, and becoming more informed about STDs. Our analyses yielded some interesting findings. First, we found a statistically significant relationship between students' belief that what they eat is important to their health and their knowledge and understanding of STDs. ($r=.243$, $p\leq .005$). We also

observed significant relationships between: (i) Attitudes toward exercise and knowledge of STDs ($r=.216$, $p<.013$); (ii) cognizance of the link between nutrition and diseases and knowledge of STDs ($r=.286$, $p<=.001$) (iii) self confidence and knowledge of STDs ($r=.309$, $p<=.001$) and peer pressure and knowledge of STDs ($r=.20$, $p<=.003$). What do these findings imply?

These results suggest that the students who are most knowledgeable about sexually transmitted diseases are those who understand the importance of diet, exercise and their relationship to one's health; students who have a measure of self confidence and students who are more resistant to peer pressure. While these findings may not be totally surprising, they do suggest that intervention programs that are aimed at educating youths about sexually transmitted diseases cannot narrowly focus on imparting information only on STDs. They must broadly think of the whole child and tailor programs accordingly, as feelings about self, nutrition, exercise, and sex form a constellation of attitudes that are inextricably associated. A youth who respects his or her body by attending to diet and exercise, who is imbued with a healthy sense of self is probably less likely to engage in risky behaviors than a youth for whom the opposite is true.

Figure 4: Differences in Hispanic and Non-Hispanic Students' Knowledge about STDs at Baseline and Follow-Up



Family Relationships, Communication and Support: Their Impact on Risky Behaviors

The importance of family in the young adolescent's life cannot be underscored. Research has shown that both among the youth and older adults, feelings of lack of social support, isolation and poor family relationships are factors that contribute to the engagement in risky behaviors. During Year 2 of the grant, workshops were held with parents around some of the topics that their children were being taught in the project. We sought to understand as part of the evaluation, the bond between students and their parents, the degree of communication between both, and their relationship if any, to susceptibility to risky behaviors. We asked these questions at both the baseline and at the follow-up, in order to see if any changes had occurred by the end of the project. While we cannot attribute any observed shifts solely to students'

involvement in the project, we can hypothesize given the content of YLA, that some of these improvements can be partially attributed to participation in the GHGS Project.

Baseline Findings on Family Relationships

At baseline, 97% of the students stated that they had a mother or someone who is like a mother to them; and 90% a father or someone who is like a father to them. Asked how close they felt to their mother at baseline, 71.8% of students said very close, 16.5% pretty close, 8.1% a little close and 3.6% not very close. When students were asked the same question of their father figure, 44.5% said very close, 29.5% close, 11.7% a little close and 14.3% not very close. How easy is the communication between parent and child? Approximately 51% of students state that it is mostly true that they can discuss things that happen in school with their mothers; and about the same percentage 50.2%, that they can talk with their mothers about their lives. The percentage of students with a similar ease of communication with their fathers was much lower for fathers as opposed to mothers at baseline. On average, only about one-third of students in the project can easily discuss what is happening in school and in their lives with their fathers.

Table 4 : Students’ Self- Reporting of their Relationship between themselves and their Mothers and Fathers

Statement	Baseline	Follow-UP
Closeness to mother	Not very Close: 3.6% A Little Close: 8.1% Pretty Close: 16.5% Very Close: 71.8%	Not very Close: 6.0% A Little Close: 5.3% Pretty Close: 15.8% Very Close: 73.0%
Closeness to father	Not very Close: 14.3% A Little Close: 11.7% Pretty Close: 29.5% Very Close: 44.5%	Not very Close: 12.9% A Little Close: 10.5% Pretty Close: 27.4% Very Close: 49.2%

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Statement	Baseline	Follow-UP
Easy to discuss with mother about things that happen in school	Mostly true 50.9% Sometimes true 38.7% Hardly ever true 10.4%	Mostly true 60.0% Sometimes true 32.8% Hardly ever true 7.2%
Easy to discuss with mother about things that happen in life	Mostly true 50.2% Sometimes true 32.8% Hardly ever true 17.0%	Mostly true 56.7% Sometimes true 30.8% Hardly ever true 12.5%
Easy to discuss with father things that happen in school	Mostly true 36.1% Sometimes true 38.4% Hardly ever true 25.6%	Mostly true 47.1% Sometimes true 28.9% Hardly ever true 23.9%
Easy to discuss with father things that happen in life	Mostly true 33.4% Sometimes true 33.1% Hardly ever true 33.4%	Mostly true 46.7% Sometimes true 31.1% Hardly ever true 22.1%

N=144

Follow-up Findings on Family Relationships

When they were resurveyed, more students reported improved relationships between themselves and their parents than was evident in the baseline. The most obvious improvement from the findings in Table 4, were between child and father. The percentages of students feeling very close to their fathers went from 44.5% in the baseline to 49.5% in the follow-up; and the percentage of students who felt comfortable discussing with their fathers things that were happening both in school and in their lives increased from about a third in the baseline to 47% in the follow-up. These overall improvements were not only statistically meaningful but substantively important as well.

The substantive importance of these findings is brought into sharp relief when we examine the penchant for risky behaviors among students in the project and their relationship to one or both parents. We found significant associations between students who state that they are more likely to engage in risky behaviors when they are with their friends and their feelings regarding the openness of communication between themselves and their mothers and fathers

For example, 60% of students who report risk-taking behaviors with their friends do not find it easy to communicate with their mothers about their lives (Chi Square= 13.171, df=6, $p \leq .040$); and 76% of students with similar behavioral tendencies cannot easily talk with their fathers (Chi Square =14.646, df=6 $p \leq .023$). To the extent that communication between students and their parents improved at the end of the program augurs well for the potential of programs such as the Get Healthy Get Smart Initiative to reduce the incidence of risky behaviors among young adolescents.

Conclusion and Recommendations

The findings discussed in this report indicate that the Elton John Foundation grant, which was used to support the Get Healthy, Get Smart Initiative had a significant influence on student knowledge about HIV/AIDS in particular, and the importance of proper nutrition and health in general. These results are very encouraging given the alarming statistics on the disproportionate high numbers of Hispanic and African-American youths who are infected with a preventable sexually transmitted disease. This study, like others, underscored the lack of information and misinformation that are prevalent among school-aged youth; and the role of projects such as Get Healthy Get Smart in re-educating students about their health. While there are several key lessons that this two-year project has taught us, perhaps the most salient is the need for programs such as GHGS to adopt a comprehensive strategy in bringing HIV/AIDS awareness to young people. A multi-prong approach that tackles such issues as peer pressure, appreciating one's body by attending to diet and nutrition, building social emotional competencies and encouraging healthy family relationships is more likely to produce favorable outcomes than an approach that is narrowly tailored to focus exclusively on HIV/AIDS awareness. Moreover, there is credible evidence from the data in this study, that subgroups of students are particularly vulnerable, for example girls and Hispanics; and hence there is a need to develop strategies that target these groups.