



# Hmong American Partnership 2HTN

**F E B R U A R Y 2 0 0 0**

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## II. PROJECT ABSTRACT

In 1995, the Hmong American Partnership, a community-based organization in St. Paul, Minnesota, began a 5-year program, Hmong Youth Pride (Hluas Hmoob Tsim Nuj - 2HTN) to increase academic achievement, school commitment, cultural pride, parental effectiveness and ATOD awareness, family relationships, future aspirations and disapproval of ATOD use among a group of 211 Hmong youth age 9-12 years attending three Minneapolis and St. Paul elementary schools. The intervention used to achieve these goals included (1) small-group tutoring sessions twice a week after school led by Hmong program managers, (2) bi-weekly after school structured group activities, including Hmong language and cultural lessons, ATOD education and recreational activities, (3) activities involving parents of participating youth such as home visits, cultural gatherings, and parent training workshops, and (4) cultural in-service training in Hmong culture for staff and administrators of participating schools.

The evaluation of the 2HTN primary prevention program was a quasi-experimental design with repeated measures at baseline, post-program, and one-year follow-up comparing program participants with comparison group cohorts that did not receive the intervention. Comparison groups were recruited as convenience samples. For the comparison groups, baseline and post-test measures were administered at the same time periods as the intervention group. Measures included academic achievement, attitudes towards school, cultural pride, ATOD attitudes, parental involvement at school, parenting skills, parental awareness of ATOD risks, tangible support in schools for Hmong, and parents feelings of support in school for Hmong.

Over the five years, 211 students enrolled in 2HTN at the three program sites included in this evaluation; 52 of them (25%) stopped participating prior to completion. The program drop-outs were similar to participants on most demographic, academic and risk measures.

Process research indicated that participants in the program had generally positive opinions about the content, implementation and impact of the program, though all groups had some criticisms and suggestions for change, including the need for better coordination and communication between program staff and teachers, more consistent discipline for students but a more flexible and evolving curriculum to encourage sustained interest, greater parent involvement in the program and better staff/parent communication.

Outcomes analysis demonstrates that students participating in 2HTN often showed large improvements in age-adjusted academic performance and these improvements were significantly greater than those seen among comparison youth who do not receive treatment. The intervention also had a demonstrable impact on parental reports of involvement in school activities, and parental concern about how their children were treated as Hmong. Less clear-cut were results with regard to youth's school attitudes and cultural pride: some cohorts showed significant positive change relative to their comparison group, but not all. Results with regard to future and family risk, youth and parent ATOD attitudes, and effective parenting were weaker and inconsistent over time.

### III. OVERVIEW OF THE INTERVENTION

#### A. Statement of the Problem

Subsistence farmers uprooted by war and transplanted into a technologically-advanced society, the Hmong in St. Paul, Minnesota, one of the largest Hmong settlements in the United States, are undergoing acute cultural transition. Hmong youth are especially susceptible to the pressures from peers and older teens engaged in gangs, drugs, and crime.

Despite steady improvements over the past 15 years, more than two-thirds of Hmong families are on welfare and/or in poverty. Half of the Hmong adults speak little or no English. The St. Paul Schools, with few Hmong teachers, report a high truancy rate for Hmong students beginning in seventh grade. By ninth grade, Hmong students score the lowest of all ethnic groups on the city-wide benchmark exams.

In needs assessment discussion groups conducted by Hmong American Partnership, moreover, Hmong youth identified “worrying about the future” as their top concern, while parents were deeply concerned about losing control of their children and about a lack of cultural understanding in the schools.

According to research literature, low academic achievement, family conflict and inconsistent parental discipline are key risk factors for ATOD abuse (Catalano et al, 1992; Hawkins, 1985, Spivack, 1983; Rutter et al, 1979). Like other non-majority students, Hmong youth face the added stress of living in two cultures (Schinke et al, 1988). Increased parental involvement in the schools, however, is linked to school success for children at risk of low academic achievement (Alves-Zervos and Shafer, eds, 1993).

From staff experience with the Hmong Youth Pride program (an earlier version of this program without a school component that was improved based on evaluation results), discussion groups with Hmong youth and their parents, information from the public schools, and the research literature, it is apparent that Hmong youth face many challenges. Included among these are: **individual risk factors** (poor academic performance and school behavior, lack of commitment to school, lack of cultural pride, negative future outlook, and conflict with their parents), **family risk factors** (lack of parental involvement in school due to a cultural gap, child-rearing and discipline problems, and lack of ATOD knowledge and awareness), and **school risk factors** (lack of resources to aid children in school work, lack of support for Hmong culture, and language barriers).

#### B. Theoretical underpinnings linking intervention to desired outcomes

Hmong American Partnership is a community organization and mutual assistance association which assists Hmong individuals and families in bridging the two cultures

The 2HTN primary prevention strategy stems from community input (youth and parents), staff experience, and the research literature, including the well-established association between low academic achievement and substance use (Spivack, 1983; Rutter et al, 1979), lessons from demonstration findings produced by previous CSAP grantees in *Signs of Effectiveness* (1994) and the risk-focused prevention work of Hawkins and Catalano (1985).

The 2HTN prevention program was based on the premise that risk factors for ATOD use and abuse exist in multiple domains – in the individual, the family, and the school -- and, to be effective, programs must reduce and counter multiple risk factors with multiple strategies across the domains in ways that strengthen protective factors.

The program’s logic model for risk reduction appears in Table 1.

<b>Table 1 2HTN Program Logic Model</b>		
<b>Identified Problems or Risk Factors</b>	<b>Interventions</b>	<b>Desired Outcomes</b>
<b><i>Individual</i></b>		
Poor academic performance and school behavior; lack of commitment to school	Individual plans to tutor/support students with trained bicultural staff/mentors	Well-behaved in school, likes school and tries hard, academic achievement is average or above
Lack of cultural pride; lack of future goals; conflict with parents	Bi-weekly after-school structured group activities, including Hmong ATOD curriculum and monthly family activities.	Cultural pride, plans for future; positive family relationships; disapproval of ATOD use.
<b><i>Family</i></b>		
Lack of parental involvement in school due to cultural gap; child-rearing and discipline problems; lack of ATOD knowledge and awareness	Quarterly parenting class and activities (including ATOD awareness); Hmong phone-line in schools	Parental involvement in schools; effective child-rearing practices; ATOD awareness; perceived support for parents
<b><i>School</i></b>		
Lack of resources to aid children in school work; not supportive of Hmong culture; language barriers and culture gap.	In-service training for teachers on Hmong culture	Cultural competence of schools and teachers, supportive of Hmong students and parents

### **C. Brief description of the intervention**

The intervention consisted of: *for youth*, individualized educational plans, tutoring and mentoring, bi-weekly after-school structured group activities, including ATOD curriculum, and recreational activities; *for parents*, semi-annual family activities, quarterly parenting classes and activities, including ATOD awareness, a phone help-line in the schools for Hmong parents, and recreational and cultural activities; and, *for schools*, in-service training for teachers on Hmong culture.

#### **Youth**

Two hundred eleven Hmong youths (80-85 youths per year for 5 years with participation for up to 3 years) age 9 to 12 (grades 4, 5, 6) participated in:

- individualized tutoring sessions in small groups twice a week after school led by a program manager with one assistant and several volunteer college-age mentors. This tutoring was based on educational plans developed for each youth by program staff in consultation with the youth's teacher and parents. This intervention activity, expected to amount to 64 hours per year, was intended to increase school performance and commitment to school.
- bi-weekly after school structured group activities, including Hmong language and cultural lessons, Hmong ATOD education and goal-setting, and occasional recreational activities. These activities took place in groups of 4 to 6 students led by a peer-helper, the tutor-mentors, and other teachers and adult volunteers. These youth enrichment activities, expected to amount to 64 hours per year, were intended to increase youth's cultural pride, academic aspirations (future outlook), positive family relationships (reduce conflict), and disapproval of ATOD use. To increase youth interest and participation in the program, the recreational activities were increased from occasional to 32 hours at the start of Year 3.

#### **Parents**

Two hundred eleven Hmong parents of the enrolled youth received 2 or 3 home visits from a program manager; participated twice per year in special family gatherings; and attended quarterly parent training workshops on ATOD awareness, discipline techniques, setting limits and rules, and other topics. These activities for parents and for parents with their children, expected to amount to 17 hours per year, were intended to improve ATOD awareness, family management practices (e.g., parental involvement in children's education) and parenting skills of participants. (Expectations of monthly participation in Hmong PTO meetings were dropped during Year 2.)

#### **Schools**

Participating schools received four hours of cultural in-service training on Hmong culture. These workshops were intended to improve the cultural competence of targeted schools and teachers regarding Hmong families and Hmong culture and to increase youths' and parents' feelings of support for their culture in the schools.

#### **D. Hypotheses relating intervention activities to measured change**

1. Hmong youth who participate in the tutor/support activities based on individualized educational plans (the treatment group) will show significant increases from pretest to posttest relative to the comparison group on reading and math scores as measured by the Woodcock-Johnson Tests of Achievement and on positive school attitudes as measured by the revised Hmong Youth Survey, resulting in higher academic achievement and higher school commitment.
2. Hmong youth who participate in the bi-weekly after school structured group activities on Hmong ATOD education and goal-setting will show significant increases from pretest to posttest relative to the comparison group on academic aspirations as measured by the Future Goals Scale and on disapproval of ATOD use as measured by the revised Hmong Youth Survey, resulting in higher aspirations for the future and higher disapproval of ATOD use.
3. Hmong youth who participate in the bi-weekly after school structured group activities on Hmong ATOD education and Hmong language and culture will show significant increases from pretest to posttest relative to the comparison group on positive family relationships as measured by the Family Relationships Scale in the revised Hmong Youth Survey and on cultural pride as measured in the same survey, resulting in better family relationships and higher cultural pride.
4. Parents who participate in the home visits and the quarterly parenting workshops will show significant increases from pretest to posttest relative to a comparison group for effective family management practices and ATOD awareness as measured by the revised Hmong Parent Survey, resulting in more parental participation in child's school, more effective disciplinary methods, and greater ATOD awareness.
5. Parents whose children attend schools receiving 4 hours of cultural in-service trainings on Hmong culture will show significant increases from pretest to posttest relative to a comparison group on feelings of support for their culture in the schools as measured by the revised Hmong Parent Survey, resulting in higher school support for Hmong students and parents.

### **IV. IMPLEMENTATION SUMMARY**

#### **A. Evaluation Modules**

The 2HTN after-school program, implemented at 3 sites, has three evaluation modules expected to total 128 hours of dosage during year 2 and 160 hours per year thereafter for youth and about 17 hours per year for parents. *(Changes made over the course of implementation are mentioned in italicized text in parentheses).*

1. Two hundred eleven Hmong youths (25 to 30 per site at 3 sites per year ) age 9 to 12 (grades 4, 5, 6) participated in individualized tutoring sessions in small groups twice a week after school. The sessions were led by a program manager along with a B.A.-level assistant with youth worker experience and several volunteer college-age mentors. The mentors were recruited from local colleges by the agency's Volunteer Coordinator and generally committed to one semester. The sessions were guided by Individualized Learning

Plans developed for each youth by his/her teacher, the school's teacher coordinator for this program, and the program's Cultural Academic Specialist. *(In Year 3, the Cultural Academic Specialist position was dropped, and the program managers at each site assumed responsibility for this function.)* The individualized plans, updated quarterly, identified specific assignments to be completed as well as academic areas that needed attention so that the youth could get help in those subjects after completing daily homework assignments. This activity, expected to amount to 64 hours per year, was intended to increase school performance and commitment to school.

2. Two hundred eleven Hmong youth age 9 to 12 (grades 4, 5, 6) participated in bi-weekly after-school structured group activities, including Hmong language and cultural lessons, Hmong ATOD education and goal-setting, and recreational activities. *(Beginning in Year 3, in response to youth requests for more recreational time, the program added a half-hour of recreation to the bi-weekly programming, increasing this module by 32 hours.)* These activities took place in a classroom atmosphere. The site managers taught the Hmong ATOD curriculum with the mentors assisting, and the Cultural Academic Specialist taught the Hmong language and culture lessons. *(In Year 3, the Cultural Academic Specialist position was dropped, and the program managers at each site assumed responsibility for this function.)* Each child had his/her own workbook developed especially for this program. These youth enrichment activities, expected to amount to 64 hours per year, plus 32 hours per year of recreation, were intended to increase youth cultural pride, academic aspirations (future outlook), positive family relationships (reduce conflict), and disapproval of ATOD use.
3. Two hundred eleven Hmong parents of the enrolled youth received 2 or 3 home visits from a program manager and were invited to participate twice per year in special family gatherings and to attend quarterly parent training workshops on ATOD awareness, discipline techniques, setting limits and rules, how to be involved in the schools and with your child's education, and other topics. These evening parent discussion groups were usually potluck events with the program delivered by 2HTN staff or a guest speaker. There was no formal curriculum, but the program often used handouts from the Hmong MELD parenting curriculum. Child-care was provided. The program attempted to maintain parents' interest via the potlucks, surveying parents about topics that interest them, and inviting parents on field trips and free family events. These activities for parents and for parents with their children, expected to amount to 17 hours per year, were intended to improve ATOD awareness, family management practices (e.g., parental involvement in children's education) and parenting skills of participants. Attendance was monitored so that parent attendance could be linked with youth outcomes. *(The expectation that parents attend monthly Hmong PTO meetings - 18 hours per year - was dropped at the end of year 2.)*
4. Participating schools received four hours of cultural in-service training on Hmong culture. These workshops were intended to improve the cultural competence of targeted schools and teachers regarding Hmong families and Hmong culture and to increase youths' and parents' feelings of support for their culture in the schools. The 2HTN Cultural Academic Specialist gave a formal presentation, followed by questions and answers as a group and individual questions in private. *(Beginning in Year 2, the 2 two-hour workshops were part of required teacher in-service trainings provided at each school. In Year 3, the Cultural Academic Specialist position was dropped, and the program managers at each site assumed responsibility for this function. Also beginning in Year 3, the staff trainings were no longer required, and the cultural trainings took place during teacher staff meetings in 15 minute increments.)*

## **B. Dosage of Intervention Received**

The three program sites followed the planned program structure and started programming during Years 2, 3 and 4 on about the same date in early October and ended in late May to early June. In Year 2, the program met for 51 days at Frost Lake, 61 days at Mississippi, and 45 days at Webster out of a scheduled 64 days. In Year 3, the program met for 52 days at Frost Lake, 52 days at Mississippi, and 57 days at Webster. Scheduled activities were canceled several days due to extremely cold weather. In Year 4, the program met for 51 days at Frost Lake, 54 days at Mississippi, and 47 days at Webster. In Year 5, the program met for 58 days at Frost Lake, 55 days at Mississippi, and 51 days at Webster.

Cohort 1 program graduates received, on average, 195 hours of the intervention dosage, including, on average 76 hours of homework and individualized tutoring, 36 hours of ATOD education and goal-setting activities, 35 hours of Hmong language and culture, and 48 hours of recreation. The amount of intervention dosage per child varied considerably.

Youth in treatment cohort 2 received, on average, 244 hours of the intervention dosage, including, on average 86 hours of homework and individualized tutoring, 46 hours of ATOD education and goal-setting activities, 41 hours of Hmong language and culture, and 71 hours of recreation. The amount of intervention dosage per child varied considerably.

Youth in treatment cohort 3 received, on average, 235 hours of the intervention dosage, including, on average 81 hours of homework and individualized tutoring, 39 hours of ATOD education and goal-setting activities, 44 hours of Hmong language and culture, and 71 hours of recreation. The amount of intervention dosage per child varied considerably.

Youth in treatment cohort 4 received, on average, 112 hours of the intervention dosage, including, on average 41 hours of homework and individualized tutoring, 14 hours of ATOD education and goal-setting activities, 24 hours of Hmong language and culture, and 33 hours of recreation. The amount of intervention dosage per child varied considerably.

Parents of enrolled youth, on average, received 2 home visits per year. Few parents, however, participated in family gatherings or parent training workshops.

Teachers of enrolled youth received the full dosage of 4 hours of cultural workshops per year.



<b>Table 2a 2HTN Intervention Dosage: Average Number of Activities (Hours)* Cohort 1 Program Graduates</b>					
<b>Types of Activities</b>	<b>Number of Activities Planned</b>	<b>Average Number of Activities Provided</b>	<b>Standard Deviation: Activities Provided</b>	<b>Average Number of Activities Attended</b>	<b>Standard Deviation: Activities Attended</b>
<i><b>Youth – Individual</b></i>					
Tutoring/homework based on Individualized Learning Plan	192	151	1.4	76	21.9
Hmong language & culture lessons	96	67	14.9	35	12.2
ATOD education/goal-setting	96	77	9.9	36	9.2
Recreation/Arts & Crafts	64+**	102	24.8	48	17.3
Total Individual (N=14)	448+**	397		195	

Activities were grouped into categories.

Source of Data: 2HTN Activity Logs from Frost Lake and Webster Open School program sites only.

\* Each program activity was generally an hour long.

\*\* To increase youth interest, recreation/arts & crafts was increased after Year 2 from occasional to 32 hours per year.

<b>Table 2b 2HTN Intervention Dosage: Average Number of Activities (Hours)* Cohort 2</b>					
<b>Types of Activities</b>	<b>Number of Activities Planned</b>	<b>Average Number of Activities Provided</b>	<b>Standard Deviation: Activities Provided</b>	<b>Average Number of Activities Attended</b>	<b>Standard Deviation: Activities Attended</b>
<i><b>Youth – Individual</b></i>					
Tutoring/homework based on Individualized Learning Plan	128	105	4.2	86	12.9
Hmong language & culture lessons	64	47	12.0	41	9.6
ATOD education/goal-setting	64	53	12.0	46	9.3
Recreation/Arts & Crafts	64**	81	29.7	71	18.5
Total Individual (N=14)	320**	286		244	

Activities were grouped into categories.

Source of Data: 2HTN Activity Logs from Frost Lake and Webster Open School program sites only.

\* Each program activity was generally an hour long.

\*\* To increase youth interest, recreation/arts & crafts was increased after Year 2 from occasional to 32 hours.

<b>Table 2c 2HTN Intervention Dosage: Average Number of Activities (Hours)* Cohort 3</b>					
<b>Types of Activities</b>	<b>Number of Activities Planned</b>	<b>Average Number of Activities Provided</b>	<b>Standard Deviation: Activities Provided</b>	<b>Average Number of Activities Attended</b>	<b>Standard Deviation: Activities Attended</b>
<i><b>Youth – Individual</b></i>					
Tutoring/homework based on Individualized Learning Plan	128	103	8.7	81	21
Hmong language & culture lessons	64	53	7.6	44	12.4
ATOD education/goal-setting	64	48	15.0	39	14.3
Recreation/Arts & Crafts	96	87	27.1	71	25.4
Total Individual (N=16)	352	291		235	

Activities were grouped into categories.

Source of Data: 2HTN Activity Log

\* Each program activity was generally an hour long.

<b>Table 2d 2HTN Intervention Dosage: Average Number of Activities (Hours)* Cohort 4</b>					
<b>Types of Activities</b>	<b>Number of Activities Planned</b>	<b>Average Number of Activities Provided</b>	<b>Standard Deviation: Activities Provided</b>	<b>Average Number of Activities Attended</b>	<b>Standard Deviation: Activities Attended</b>
<i><b>Youth – Individual</b></i>					
Tutoring/homework based on Individualized Learning Plan	64	53	7.6	41	12.1
Hmong language & culture lessons	32	30	2.5	24	6.9
ATOD education/goal-setting	32	19	6.8	14	7.2
Recreation/Arts & Crafts	32	43	16.3	33	14.1
Total Individual (N=17)	160	145		112	

Activities were grouped into categories.

Source of Data: 2HTN Activity Log

\* Each program activity was generally an hour long.

## **V. METHODOLOGY**

### **A. Process Research Design**

#### 1. Design/assessment procedures

Near the end of each program year, evaluation staff led structured group discussions with youth at all three sites, with teachers at all three sites, with parents, and with program staff. The youth discussion groups took place during a regularly-scheduled after-school program session and were held without program staff to encourage candid feedback. Discussions with teachers were held at the end of the school day; all teachers of students participating in 2HTN were invited to attend. Discussions with program staff were held at their office after the end of the school year. Parent discussions were held during general cultural gatherings hosted by HAP and tended to be small.

#### 2. Timetable for assessments

All discussions were held near or after the end of each program year.

#### 3. Description of assessment tools

Protocols for discussion with youth, teachers, staff and parents were all intended to elicit input regarding the strengths and weaknesses of the program so that all suggestions for modification to program design could be gathered and considered. Appendix C contains outlines of the questions used for the discussions.

### **B. Outcome Research Design**

#### 1. Research Design

The evaluation of the 2HTN primary prevention program has a quasi-experimental design with repeated measures at baseline, at the end of each program year, and post-program, comparing participants with three comparison group cohorts that will not receive the intervention. Cohort 1 also had a one-year follow-up after participants had completed the program.

Data were collected when students and parents first entered the program (baseline) and at the end of each school year (post-program). Fourth and fifth graders who re-enrolled were not re-tested until post-program data collection.

For the comparison groups, baseline and post-test measures were administered at the same time periods as the intervention group.

Data collection methods were identical at baseline and post-program. All surveys and interviews were administered using the same procedures at each time, each site, and every year. All surveys and tests were administered using case identification numbers and names were detached from all results in order to maintain confidentiality. In discussion groups, no names were attached to the comments of participants. The data collection procedures are described in detail in Section III. C. below.

The intervention group consisted of, each year for five years, approximately 80-85 high risk Hmong youth ages 9-12 identified by school staff as lacking good grades, appropriate classroom behavior, commitment to school, and/or

adequate parental school involvement. Over the five years, the four cohorts of the intervention group totaled 211 youth. Each received at least one full dose of intervention, 114 received two years of intervention, and 60 received three years of intervention.

The intervention group also includes these youths' parents and teachers.

The evaluation compares individual, family, and school outcomes for the intervention group with the outcomes for a non-intervention comparison group with characteristics similar to the intervention group. The first comparison group cohort is made up of 45 Hmong youth enrolled in a similar program that was canceled before the activities began due to budget cuts. The second comparison group cohort consisted of 30 Hmong students with similar characteristics to the intervention group attending schools without the intervention. A third cohort of 30 youths was added in 1997. No comparison group was included in the fourth cohort.

## 2. Sampling design/approach

The primary sampling unit for this evaluation was the individual youth and his or her parent. All individuals who enroll in 2HTN were included in the evaluation. Enrollment in 2HTN was by self-selection or convenience and can continue for up to 3 years.

The intervention group includes 80 to 85 per year (totaling 211 over 5 years) Hmong 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> grade boys and girls who enroll in the program each year as well as these youths' parents. These youth participants attend Mississippi and Frost Lake Elementary schools in St. Paul and Webster Elementary in Minneapolis, each of which has substantial Hmong populations (200 or more youth per school in these 3 grades). The after-school 2HTN program was initially designed to serve 25 to 30 youths per school per year. In year 3, the program was asked by the national cross-site evaluation team to increase its treatment group; consequently, the treatment group included 114 youths, including 66 in cohort 1 and 48 in cohort 2.

All three comparison groups were recruited as convenience samples.

The first comparison group cohort includes all 45 youths (and their parents) from two schools in St. Paul who were initially enrolled in a similar program that had to be canceled due to budget cuts. These youth have characteristics (age, gender, birthplace, academic achievement scores, level of risk for future goals and family relationships) similar to the intervention group.

A second "uncontaminated" comparison group cohort of 30 Hmong youths was recruited from Jackson and Como Elementary Schools in St. Paul, where there were well over 300 Hmong students but no current after-school programming for Hmong students and no plans for future programming. We invited parents and youth to participate in the study, with an incentive offer of \$10 per completed survey. Those who accepted the invitation make up the comparison group. The surveys and tests were conducted one-on-one at school at the end of the school day. This comparison group cohort also has family characteristics and risk factors similar to the intervention group, on age, birthplace, academic achievement scores, and level of risk for future goals and family relationships. The comparison group for cohort 2 has a higher proportion of females (53%) than the treatment group (25%).

A third "uncontaminated" comparison group cohort of 30 Hmong youths was recruited also from Jackson and Como Elementary Schools in St. Paul, where there were well over 300 Hmong students but no current after-

school programming for Hmong students and no plans for future programming. We invited parents to participate in the study, with an incentive offer of \$10 per completed survey. Those who accepted the invitation make up the comparison group. The surveys and tests were conducted one-on-one at school at the end of the school day. The treatment and comparison groups for cohort 3 were similar with respect to level of risk for future goals and family relationships, but dissimilar with regard to age, gender mix, birthplace and academic achievement scores. The comparison group was younger, more female, less U.S.-born, and more academically successful.

#### Cohort Definition and Data Collection Schedule

The 2HTN program and this evaluation includes four cohorts. Because the first year of implementation for 2HTN was a partial year, having begun in the Spring of 1995, those youth initially tested at that time were folded into the same cohort as those youth enrolling and initially tested in the Fall of 1995 to comprise cohort 1. Consequently, Time 1 (baseline) data for cohort 1 were gathered in the Spring and Fall of 1995. Time 2 data for cohort 1 were gathered in the Spring of 1996, Time 3 data were gathered in the Spring of 1997, and Time 4 data in Spring 1998. In this report, data were analyzed only for cohort 1 program students who “graduated” from 2HTN at Time 3.

Time 1 (baseline) data for cohort 2 were gathered in the Spring and Fall of 1996, with those youth enrolling in the program late in the first full program year (the Spring of 1996) being carried over into the second cohort. Time 2 data for cohort 2 were gathered in the Spring of 1997, and Time 3 data in Spring 1998. Time 4 data for cohort 2 were gathered in Spring 1999; because cohort 2 was very small at time 4, however, cohort 2 data were analyzed only from time 1 to time 3.

Time 1 (baseline) data for cohort 3 were gathered in the Spring and Fall of 1997, with those youth enrolling in the program late in the previous program year being carried over into the third cohort. Time 2 data for cohort 3 were gathered in the Spring of 1998, and Time 3 data were gathered in Spring 1999.

Time 1 (baseline) data for cohort 4 were gathered in the Spring and Fall of 1998, with youth enrolling late in the previous program year being carried over into this fourth cohort. Time 2 data were gathered in Spring 1999.

The same data collection instruments were used at all times.

<b>Table 3 2HTN Evaluation Design and Sample Sizes</b>			
	<b>Pretest (Baseline)</b>	<b>6-Month Post-test</b>	<b>18-Month Post-test</b>
<b>Treatment Cohorts</b>			
1	85 (April/Oct 1995)	66	66
2	51 (October 1996)	48	32
3	33 (October, 1997)	28	16
4	25 (October, 1998)	17	
<b>Comparison Cohorts</b>			
1	45 (October, 1995)	42	42
2	30 (October, 1996)	30	25
3	30 (October, 1997)	24	22

### 3. Properties and characteristics of operationalized dependent measures (Table 4)

School performance outcomes were measured using well-established standardized measures, the Woodcock-Johnson Tests of Reading and Mathematics Achievement, which provide continuous-year norms appropriate for the target population.. For interpretation, raw scores were changed into w-scores which in turn were changed into standard scores and percentile ranks. A w-score was used to measure a student's development. The benefit of a w-score is that the intervals between scores are equal. Thus, it can be changed to a metric such as an age equivalent score.

A standard score and percentile rank both interpret a student's performance in comparison to other students the same age. The standard score norm distribution for the Woodcock-Johnson exam is based on a mean of 100 and a standard deviation of 15. In most cases, percentile ranks are easier to understand since the scale goes from 1 to 99.9. Coefficient Alphas range from .80 to .95.

The 8 item interactive instrument, What I Think Of School (Reid and Landesman, 1988), provides reliable (coefficient Alpha of .81) reports for children age 4-12 of their own perceptions of their school experiences.<sup>1</sup>

Youth enrichment outcomes were measured using a revised Hmong Youth Survey, developed by WRC for the Hmong Youth Pride Evaluation. The Survey includes items on ATOD approval and disapproval, on attitudes towards school, and on cultural pride.

The Survey also contains the 11 item Future Goals Scale that represents planning for and thinking about future plans, goals, and expectations (coefficient Alpha of .81) and the 10 item Family Relationships Scale that represents how well youth get along with their parents and the presence of parent-child conflict (coefficient Alpha of .86). Both the Future Goals Scale and the Family Relationship Scale come from the Personal Experience Inventory, a psychometric instrument developed and tested by Winters and Henly.<sup>2</sup>

The Youth Survey also includes items for a Youth ATOD Disapproval scale, a 5 item summative scale, with student scores dichotomized on the basis of whether or not they provide positive responses to all 5 items. Since the target population is age 9-12, the evaluation examined what measurable changes occurred as a result of the HAP program regarding the percentages of Hmong youth ages 9-12 active in the program, compared with comparison groups of youth not in the program at all, who disapprove of the use of tobacco products, alcoholic beverages, and other drug use as measured by youth and parental self-reported attitudes and staff observations. Changes in prevalence (total number of users), the amount of use, or perceptions of harm associated with ATOD use were not included in this evaluation because of the target population age.

Perceptions regarding parental involvement were discussed at the end of each school year during structured group discussions with teachers, parents, students, and program staff.

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<sup>1</sup> "What I Think of School," Reid and Landesman, 1988.

<sup>2</sup> Personal Experience Inventory, Winters, K.C., and Henly, G.A., The Personal Experience Inventory Manual and Test. Los Angeles, CA. Western Psychological Services (1989).

Other family and parenting outcomes were measured using a revised Hmong Parent Survey, developed by WRC for the Hmong Youth Pride Evaluation. The survey includes items on school involvement, ATOD awareness, and signs of possible drug or alcohol abuse, based on the MELD Hmong Curriculum (MELD, 1994) as well as items on discipline strategies, parent-child relationships, and school and neighborhood environments.

Included in the Parent Survey were two multi-item scales: 1) Effective Parenting is a 4 item summative scale, with parent scores dichotomized on the basis of whether or not they provide positive responses to all items; and 2) High Awareness of ATOD dangers is an 11 item summative scale, with parent scores dichotomized on the basis of whether or not they provide positive responses to all items.

Perceptions regarding outcomes related to youth enrichment were also discussed at the end of each school year during structured group discussions with teachers, parents, students, and program staff.

Cultural competence of schools and teachers regarding Hmong families were measured with observational data. The evaluation team records evidence of tangible and structural institutional supports that encourage Hmong cultural pride, including posters, signs, pictures, literature, stories, school programs, and celebrations. The team rates the school on a scale from 1 to 4 (with 1 being no tangible support and 4 being ample support). Each school's score is a mean of the team member's individual ratings.

In addition, perceptions and attitudes regarding school and teacher sensitivity and support for Hmong culture were assessed in Youth and Parent Surveys and discussed at the end of each school year during structured group discussions with teachers, parents, students, and program staff.



<b>Domain</b>	<b>Instrument</b>	<b>Qnt/Qual</b>	<b>Measure</b>	<b>Reliability</b>	<b>Std for Population</b>
Profile	Intake Form	Quant	Age (mean) Gender: Female Male Born in US	NA	Yes
Academic Achievement	Woodcock-Johnson Psycho - Educational Battery	Quant	Letter-word Identification Passage Comprehension Calculation Applied Problems	.80 to .95	Yes
School Adjustment	What I Think of School  Youth Survey  Parent Survey	Quant	Likes school a lot Tries hard  Says skipping school is bad  Doing satisfactory overall	.81 .81  NA  NA	Yes Yes  No  No
Cultural Pride	Youth Survey	Quant	How proud do you feel...?	NA	no
Future Goals	Goals Scale	Quant	Level of risk (some, moderate, or high)	.81	Yes
Family Relationships	Family Scale	Quant	Level of risk (some, moderate, or high)	.86	Yes
Youth ATOD Disapproval	Youth Survey	Quant	Perceived to be bad and harmful (summative, 5 items)	NA	No
Parental Involvement	Parent Survey	Quant	- Attend parent-teacher conference - Contacted school about child - Attended PTO - Other involvement	NA	No
Parenting	Parent Survey	Quant	Effective parenting (summative, 4 items)	NA	No
Parental ATOD Awareness	Parent Survey	Quant	High Awareness of ATOD dangers (summative, 11 items)	NA	No
Tangible Support in School for Hmong	Observation by evaluation staff	Quant	Average rating (none (1) to ample (4))	NA	No
Feelings of Support in School for Hmong	Parent Survey and Discussion	Quant and Qual	- Believes teachers respect Hmong culture - Believes teachers understand Hmong culture - Concerned that child is treated poorly by other students because of cultural differences	NA	No

#### 4. Methods/Procedures

Standardized measures of academic achievement, future goals, family relationships, and school attachment collected via tests and surveys were supplemented and complemented by self-reported perceptions and attitudes via confidential surveys, evaluation staff observational data, and group discussions with core participants (parents, youth, teachers, and program staff) administered by an outside evaluation team from Wilder Research Center, including bi-lingual, bi-cultural interviewers and a bi-lingual, bi-cultural data collection assistant. Program staff do not have access to test and survey data. Evaluation staff from Wilder Research Center assigned ID numbers. All confidential data are stored at Wilder Research Center. Only evaluation staff have access to lists connecting names to evaluation data. All evaluation staff received training on confidentiality and are bound by professional rules protecting privacy of research subjects.

The Youth Survey, “What I Think Of School”, and Woodcock-Johnson Achievement tests were administered orally one-on-one at the program sites by trained WRC evaluation staff including bi-lingual staff if needed.

The Parent Survey instrument was translated into Hmong and was administered orally, one-on-one over the phone by a trained WRC bi-lingual interviewer.

At the end of each program year, WRC staff led structured group discussions with teachers, parents, students, and program staff. Separate discussions were held with each group. The parent discussions were conducted in Hmong.

All dosage data were recorded by program staff on forms designed for this evaluation.

## VI. RESULTS

### A. Process Research Design

#### 1. Analytic methods

In order to determine the fidelity of program implementation and program functioning, dosage data for youth were supplemented with information from the program director regarding implementation. These discussions highlighted program areas that were anticipated to be a part of the original design, and either were not implemented or were implemented at levels higher or lower than anticipated.

In addition, this program implementation and participation information was supplemented with information from focus group discussions with youth, parents, teachers, and program staff. Group discussants were asked to reflect on the processes and impacts related to program components. This approach highlights those program areas that were functioning as expected and those areas that could be improved.

The discussion group comments were summarized by topic and reported as text. There was no coding involved.

#### 2. Findings

For the most part, youth had very positive opinions about 2HTN. Predictably, recreation (including field trips, outdoor play and snacks) was their favorite activity, but youth commonly expressed appreciation for help they received with homework, their exposure to Hmong language and culture, and the opportunity to make friends through 2HTN. Few youth expressed strong opinions about the ATOD lessons. The most common complaints from youth involved having to write too much, taking too many tests and being disciplined by staff for misbehaving. Almost all students said they would like to return to 2HTN the following year, if possible.

Efforts to gather parent feedback were minimally successful, with only 19 parents giving feedback in discussion groups in two successive years. In the first year's feedback, only one parent felt schools made a significant effort to involve them, and most parents knew very little about the 2HTN program. The following year, parents said schools had made some effort to involve them and they also were much more knowledgeable about 2HTN itself. In both years, parents said their children enjoyed 2HTN, that the program helped their children's academic performance and behavior, and also encouraged their own school involvement.

In feedback sessions held after the first years of the program, teachers said they had little understanding of how children were selected for the 2HTN program. This confusion was reduced over time as both staff and teachers gained experience. Teachers remained concerned, however, that space in the program was too limited. Throughout the years, teachers expressed concern that communication with program staff was poor. To some degree, scheduling conflicts made communication difficult; lack of staff continuity over the years also made it difficult to build relationships between teachers and 2HTN staff. Nonetheless, teachers had generally positive opinions about 2HTN, saying that while it was difficult to know the extent of its contribution, they sensed that 2HTN helped their students socially, culturally, and, to some degree, academically. Generally speaking, teachers did not feel it had contributed to greater parent involvement at school, however.

Staff felt that the selection process improved over the years, as teachers better understood the program. The same was generally true for communication with teachers, although staff tended to have a more positive sense of

communication and coordination with teachers than did teachers. Staff felt that the curriculum was good but that it needed continual revision so that students would not grow bored from year to year. Staff pointed to the lack of mentors, inadequate space at school, poor parental involvement as barriers to program success. Despite their various criticisms of 2HTN, staff tended to believe it had a positive impact on student's lives, improving their cultural pride, school attitudes, academic skills and social confidence.

## **B. Outcome Research Design**

### **1. Analysis of Initial Comparability of Treatment and Comparison Groups**

Baseline data analysis has been completed for cohorts 1, 2, and 3 of the treatment group and comparison group, there was no comparison group for cohort 4, only a treatment group. Again, this analysis includes only those cohort 1 students who graduated from 2HTN at time 3.

Table 5 presents the key dependent measures at baseline for cohort 1 graduates, showing the treatment and comparison groups for cohort 1 are similar with respect to gender, birthplace, academic achievement scores, and level of risk for future goals and family relationships. The comparison group was somewhat older than the treatment group.

Table 6 presents the key dependent measures at baseline for cohort 2, showing the treatment and comparison groups for cohort 2 were similar with respect to academic achievement scores, and level of risk for future goals and family relationships. The comparison group for cohort 2 has a higher proportion of females than the treatment group, was older, and has a higher proportion of U.S.-born. Several measures of parental school involvement were higher for the comparison group, as well.

Table 7 presents the key dependent measures at baseline for cohort 3, showing the treatment and comparison groups for cohort 3 were similar with respect to level of risk for future goals and family relationships, but dissimilar with regard to age, gender mix, and academic achievement scores. The comparison group was younger, more female, and more academically successful than the treatment group. Because the age and academic test score differences were large and the sample sizes relatively small, weighting the data to create statistically comparable groups was not done, and the outcomes analysis in section VI.B.3 uses actual (not weighted) data.

<b>Domain</b>	<b>Tool</b>	<b>Qnt/Qual</b>	<b>Measure</b>	<b>Treatment N=22</b>	<b>Comparison N=31</b>	<b>Statistic</b>
Profile	Intake Form	Quant	Age (mean)	9.9	10.4	t=-2.090*
			Gender: Female	32%	42%	X <sup>2</sup> =.561
			Male	68%	58%	
			Born in US	32%	42%	X <sup>2</sup> =.561
Academic Achievement	Woodcock-Johnson Psycho-Educational Battery	Quant	Letter-word Identification	41% Avg +	45% Avg +	X <sup>2</sup> =.095
			Passage Comprehension	46% Avg +	39% Avg +	X <sup>2</sup> =.241
			Calculation	91% Avg +	77% Avg +	X <sup>2</sup> =1.661
			Applied Problems	82% Avg +	74% Avg +	X <sup>2</sup> =.427
School Adjustment	What I Think of School	Quant	Likes school a lot	78%	71%	X <sup>2</sup> =.366
			Tries hard	96%	90%	X <sup>2</sup> =.547
	Youth Survey		Says skipping school is bad	77%	87%	X <sup>2</sup> =.881
	Parent Survey		Doing satisfactory overall	81% (n=21)	73% (n=30)	X <sup>2</sup> =.399
Cultural Pride	Youth Survey	Quant	How proud do you feel...?	73% very very	90% very very	X <sup>2</sup> =2.826
Future Goals	Goals Scale	Quant	Level of risk (some, moderate, or high)	73% at risk	50% at risk	X <sup>2</sup> =2.723
Family Relationships	Family Scale	Quant	Level of risk (some, moderate, or high)	82% at risk	80% at risk	X <sup>2</sup> =.027
ATOD Disapproval	Youth Survey	Quant	Perceived to be bad and harmful (summative, 5 items)	96%	90%	X <sup>2</sup> =.486

\* Significant at .05

\*\* Significant at .01

\*\*\* Significant at .001

**Table 5 2HTN Comparability of Treatment and Comparison Groups Matrix Cohort 1 Graduates (Continued)**

Domain	Tool	Qnt/Qual	Measure	Treatment N=21	Comparison N=30	Statistic
Parental Involvement	Parent Survey	Quant	Attend parent-teacher conference	71%	77%	$X^2=.178$
			Contacted school about child	71%	87%	$X^2=1.820$
			Attended PTO	52%	33%	$X^2=1.850$
			Other involvement	52%	13%	$X^2=9.072^{**}$
Parenting	Parent Survey	Quant	Effective parenting (summative, 4 items)	67%	87%	$X^2=2.921$
Feelings of Support	Parent Survey and Discussion	Quant and Qual	Believes teachers respect Hmong culture	91%	87%	$X^2=.173$
			Believes teachers understand Hmong culture	91%	90%	$X^2=.003$
			Concerned that child is treated poorly by other students because of cultural differences	81%	50%	$X^2=5.063^*$
ATOD Awareness	Parent Survey	Quant	High Awareness of ATOD dangers (summative, 11 items)	95%	77%	$X^2=3.221$
Tangible Support in School for Hmong	Observation by evaluation staff	Quant	Average rating (none (1) to ample (4))	2.6 (Between limited and adequate)	na	na

\* Significant at .05

\*\* Significant at .01

\*\*\* Significant at .001

<b>Domain</b>	<b>Tool</b>	<b>Qnt/Qual</b>	<b>Measure</b>	<b>Treatment N=27</b>	<b>Comparison N=25</b>	<b>Statistic</b>
Profile	Intake Form	Quant	Age (mean)	9.6	10.3	t=-3.772***
			Gender: Female	30%	60%	X <sup>2</sup> =4.854*
			Male	70%	40%	
			Born in US	4%	24%	X <sup>2</sup> =4.590*
				<b>Treatment N=26</b>	<b>Comparison N=25</b>	
Academic Achievement	Woodcock- Johnson Psycho- Educational Battery	Quant	Letter-word Identification	31% Avg +	52% Avg +	X <sup>2</sup> =2.372
			Passage Comprehension	46% Avg +	68% Avg +	X <sup>2</sup> =2.480
			Calculation	54% Avg +	68% Avg +	X <sup>2</sup> =1.071
			Applied Problems	73% Avg +	72% Avg +	X <sup>2</sup> =.007
School Adjustment	What I Think of School	Quant	Likes school a lot	82%	68%	X <sup>2</sup> =1.258
			Tries hard	93%	96%	X <sup>2</sup> =.277
	Youth Survey		Says skipping school is bad	48% (n=27)	50% (n=24)	X <sup>2</sup> =.017
			Parent Survey	Doing satisfactory overall	85% (n=26)	100% (n=22)
Cultural Pride	Youth Survey	Quant		How proud do you feel...?	70% very very	84% very very
Future Goals	Goals Scale	Quant	Level of risk (some, moderate, or high)	78% at risk	68% at risk	X <sup>2</sup> =.631
Family Relationships	Family Scale	Quant	Level of risk (some, moderate, or high)	74% at risk	84% at risk	X <sup>2</sup> =.767
ATOD Disapproval	Youth Survey	Quant	Perceived to be bad and harmful (summative, 5 items)	78%	92%	X <sup>2</sup> =2.017

\* Significant at .05

\*\* Significant at .01

\*\*\* Significant at .001

**Table 6 2HTN Comparability of Treatment and Comparison Groups Matrix Cohort 2 (Continued)**

Domain	Tool	Qnt/Qual	Measure	Treatment N=26	Comparison N=21	Statistic
Parental Involvement	Parent Survey	Quant	Attend parent-teacher conference	42%	95%	$X^2=14.495^{***}$
			Contacted school about child	62%	95%	$X^2=7.359^{**}$
			Attended PTO	42%	71%	$X^2=3.986^*$
			Other involvement	39%	46%	$X^2=.240$
				<b>Treatment N=26</b>	<b>Comparison N=22</b>	
Parenting	Parent Survey	Quant	Effective parenting (summative, 4 items)	85%	77%	$X^2=.422$
Feelings of Support	Parent Survey and Discussion	Quant and Qual	Believes teachers respect Hmong culture	89%	91%	$X^2=.077$
			Believes teachers understand Hmong culture	89%	86%	$X^2=.048$
			Concerned that child is treated poorly by other students because of cultural differences	85%	86%	$X^2=.029$
ATOD Awareness	Parent Survey	Quant	High Awareness of ATOD dangers (summative, 11 items)	89%	91%	$X^2=.077$
Tangible Support in School for Hmong	Observation by evaluation staff	Quant	Average rating (none (1) to ample (4))	2.7 (Between limited and adequate)	na	Na

\* Significant at .05

\*\* Significant at .01

\*\*\* Significant at .001



<b>Domain</b>	<b>Tool</b>	<b>Qnt/Qual</b>	<b>Measure</b>	<b>Treatment N=16</b>	<b>Comparison N=22</b>	<b>Statistic</b>
Profile	Intake Form	Quant	Age (mean)	9.6	9.2	t=2.438*
			Gender: Female	44%	86%	X <sup>2</sup> =7.785*
			Male	56%	14%	
			Born in US	73%	na	na
Academic Achievement	Woodcock- Johnson Psycho- Educational Battery	Quant	Letter-word Identification	25% Avg +	91% Avg +	X <sup>2</sup> =17.293***
			Passage Comprehension	19% Avg +	95% Avg +	X <sup>2</sup> =23.422***
			Calculation	37% Avg +	91% Avg +	X <sup>2</sup> =12.229***
			Applied Problems	50% Avg +	86% Avg +	X <sup>2</sup> =5.955*
School Adjustment	What I Think of School	Quant	Likes school a lot	31%	62%	X <sup>2</sup> =3.416
			Tries hard	81%	95%	X <sup>2</sup> =.678
	Youth Survey		Says skipping school is bad	56%	55%	X <sup>2</sup> =.011
			Parent Survey	Doing satisfactory overall	88%	76% (n=21)
Cultural Pride	Youth Survey	Quant		How proud do you feel...?	44% very very	77% very very
Future Goals	Goals Scale	Quant	Level of risk (some, moderate, or high)	69% at risk	59% at risk	X <sup>2</sup> =.371
Family Relationships	Family Scale	Quant	Level of risk (some, moderate, or high)	86% at risk	76% at risk	X <sup>2</sup> =.067
ATOD Disapproval	Youth Survey	Quant	Perceived to be bad and harmful (summative, 5 items)	94%	77%	X <sup>2</sup> =.855

\* Significant at .05

\*\* Significant at .01

\*\*\* Significant at .001

**Table 7 2HTN Comparability of Treatment and Comparison Groups Matrix Cohort 3 (Continued)**

Domain	Tool	Qnt/Qual	Measure	Treatment N=16	Comparison N=21	Statistic
Parental Involvement	Parent Survey	Quant	Attend parent-teacher conference.	75%	95%	$X^2=1.686$
			Contacted school about child.	81%	86%	$X^2=.007$
			Attended PTO.	63%	38%	$X^2=2.165$
			Other involvement.	50%	43%	$X^2=.187$
Parenting	Parent Survey	Quant	Effective parenting (summative, 4 items)	94%	71%	$X^2=1.674$
Feelings of Support	Parent Survey and Discussion	Quant and Qual	Believes teachers respect Hmong culture.	94%	71%	$X^2=1.674$
			Believes teachers understand Hmong culture.	94%	57%	$X^2=4.454^*$
			Concerned that child is treated poorly by other students because of cultural differences.	56%	81%	$X^2=1.602$
ATOD Awareness	Parent Survey	Quant	High Awareness of ATOD dangers (summative, 11 items)	63%	76%	$X^2=.291$
Tangible Support in School for Hmong	Observation by evaluation staff	Quant	Average rating (none (1) to ample (4))	2.3 (Between limited and adequate)	na	Na

\* Significant at .05

\*\* Significant at .01

\*\*\* Significant at .001

## 2. Information on Attrition/Attrition Analysis

During the 5 full program years, 52 enrolled youth (25 percent) stopped participating in the 2HTN Program prior to completion. According to program staff, these youth often had poor attendance and/or had moved out of the service area. They had received an average of 100 hours of 2HTN dosage, with an average of 18 hours of combined ATOD activities, 39 hours of homework, 19 hours of Hmong language and culture, and 24 hours of recreation/arts & crafts. (The dosage data reflect only two sites, since data from the third was found unreliable in year 2 of the program.)

Youth who left 2HTN prior to completion were slightly younger at baseline than those remaining in the program and more likely to have been born in the U.S. Boys and girls were equally as likely to leave 2HTN early. Analysis of their achievement test scores and risk factors found no statistically significant

differences between the two groups of youth on academic achievement, aversion to ATOD use, risk for poor future outlook or risk for poor family relations.

### **3. Statistical/analytic Results for All Key Dependent Measures**

Tables 8, 9 and 10 present the baseline and most recent data for cohort 1 graduates, cohort 2 students, cohort 3 students, cohort 4 program students, and for their parents. The primary results are discussed below, cohort-by-cohort, with a paragraph of summary and several bulleted findings. Because there was no comparison group for cohort 4, results are described only for program youth. When the text refers to a “significant” difference between program (“treatment”) and comparison youth, this means a statistically significant difference at a .05 or greater level as measured by an F-test in a two-way analysis of variance between groups. Other differences or changes are not referred to as “significant” because they do not reach a .05 or greater level of statistical significance.

#### **Program Outcomes for Cohort 1 Graduates and Parents (Table 8)**

Cohort 1 program graduates showed improvement in many measures, both academic and attitudinal, from baseline to time 3, but a number of those gains tended to diminish or disappear by time 4, after students had been out of the program for 12 months. However, several measures of cultural pride grew substantially for program youth from baseline to time 3 and stayed high at time 4, a trend not seen in comparison youth. The percent saying they feel very, very proud of their culture increased significantly more for program students than for comparison students. The other significant difference in this cohort: the percent of parents concerned that their children were mistreated because they were Hmong increased significantly more among comparison youth parents than among program youth parents.

- Both treatment and comparison students showed improvement in Letter-word Identification and Passage Comprehension. Fewer treatment students scored average or above at time 4 than at time 1 in both Calculation and Applied Problems, while comparison students showed minor improvement in Applied Problems and no change in Calculation. There were no significant treatment/ comparison differences in percentage changes over time.
- Over three-quarters of treatment students said they liked school a lot at time 1, slightly more than the percent of comparison students who felt similarly. By time 4, only 52 percent of treatment students and 68 percent of comparison students felt this way. The difference in percentage changes between groups was not significant.
- Most students at all times (90 to 96%) say they try hard at school. For both program and comparison youth, fewer students say that skipping school is bad at time 4 than at time 1.
- The percentage of program youth saying they feel very very proud of their cultural heritage increased 37 percent from time 1 to time 4, while the percent of comparison youth saying they felt this way declined by 3 percent over the same time period. The difference in percentage change was statistically significant at a .05 level.

- Fewer program youth were at some, moderate or high risk at time 4 than at time 1 as measured both by the future goals scale and the family relationships scale. The percent of comparison youth at risk of family estrangement decreased over time while the percent at risk of negative future outlook increased slightly. The differences in change between groups were not significant.
- ATOD disapproval decreased from 96 percent to 86 percent among program youth and increased from 90 percent to 97 percent among comparison youth, a non-significant difference between the groups.
- The parents of program youth showed modest improvements over time in percentages attending parent-teacher conferences and contacting schools about their child (both 14% changes), while comparison youth parents showed minor changes. Both sets of parents showed substantial improvement in the percentages attending Hmong PTOs, comparison parents more than program parents (73% vs. 29%). Comparison parents also showed a much higher improvement in percent who had other school involvement at time 4 than at time 1 (from 13% to 43%) relative to program parents (from 52% to 48%).
- The percent of program youth parents showing effective parenting increased 21 percent over time, while the percent of comparison youth showing effective parenting decreased 8 percent.
- Both groups showed declines in the number of parents believing that their children's teachers respect and understand Hmong culture. Neither group changed substantially in the proportion with high awareness of ATOD dangers.
- The percent of program parents who were concerned that their child was being mistreated because of cultural differences increased 12 percent from time 1 to time 4 (81% to 91%), but increased 86 percent among comparison parents (from 50% to 93%), a significant percent change difference at the .05 level.

### **Program Outcomes for Cohort 2 Youth and Parents (Table 9)**

Program students in cohort 2 began with poorer academic test score distributions than comparison students, but tended to show more improvement over time than comparison youth. Improvements in Passage Comprehension scores for program youth were significantly different from score changes for comparison youth. Improvements for program youth were also seen by time 3 in several attitudinal measures, including attitudes towards school, cultural pride, future outlook and family relationship scales. Program students' parents showed significantly greater changes in levels of school involvement (as measured by stated Hmong PTO attendance and parent-teacher conference attendance) and also significantly more improvement in perception that their children are doing satisfactorily overall.

- From time 1 to time 3, program youth showed substantial improvement in Letter-word Identification, from 31 percent to 54 percent at Average or above (+74%) while comparison youth increased slightly from 52 percent to 56 percent (+8%).
- Program youth showed improvement on Passage Comprehension as well, from 46 percent to 62 percent at Average or above (+35%) while comparison youth declined from 68 percent to 52 percent at Average or above (-24%). This difference in percent changes was significant at the .05 level.
- Program youth also showed improvement in Calculation, increasing from 54 percent at time 1 to 85 percent at time 3, while comparison youth improved from 68 percent to 72 percent. Changes in Applied Problem scores were minor for both groups.
- The percent of students saying they liked school decreased for both program and comparison youth, but there was little change in the percent saying they try hard. The percent saying that skipping school is bad increased 46 percent among program youth (from 48% to 70%) and increased 60 percent among comparison youth (from 50% to 80%).
- The percent of program student saying they are very very proud of their cultural heritage increased from 70 percent to 89 percent (+27%) but for comparison youth this percentage declined from 84 percent to 76 percent (-10%).
- The number of youth at risk for negative future outlook declined for both groups over time, but more substantially for program youth. At time 1, 78 percent of program youth were at risk according to the future goals scale; at time 3, 52 percent were at risk (-33%). For comparison youth, the decline was from 68 percent at risk to 64 percent.
- The number of youth at risk for family estrangement also declined for both groups over time, but again, the decline was more substantial for program youth. At time 1, 74 percent of program youth were at risk of family estrangement; at time 3, 58 percent were at risk (-22%). For comparison youth, the decline was from 84 percent at risk to 82 percent.
- From time 1 to time 3, the percentage of program students perceiving ATOD use to be bad and harmful increased 19 percent (from 78% to 93%) while the percent of comparison students with this perception decreased 9 percent (from 92% to 84%).
- The percent of program parents attending parent-teacher conferences and attending Hmong PTO meetings increased from time 1 to time 3 (+138% and +24%, respectively) while the percent of comparison parents attending these events declined (-9% and -49%). Both percent change differences are statistically significant (at the .001 level and the .05 level, respectively). A higher percentage of program parents contacted the school about their child at time 3 than at time 1, while the percent of comparison parents doing so remained stable and high at about 95 percent.

- The percent of parents of program youth engaged in effective parenting increased slightly over time from 85 percent to 89 percent, while the percent of comparison parents increased more substantially, from 77 percent to 91 percent.
- Changes from time 1 to time 3 were small in both program and comparison parents in ATOD awareness, belief that teachers respect Hmong culture and belief that teachers understand Hmong culture.
- The percent of program parents concerned that their child is being mistreated by other students because of cultural differences remained at 85 percent, while the percent of comparison students feeling this way declined from 86 percent at time 1 to 64 percent by time 3.

### **Program Outcomes for Cohort 3 Youth and Parents (Table 10)**

Cohort 3 students began 2HTN with lower academic test scores and more negative school and cultural attitudes than did cohort 1 graduates and cohort 2 youth. (It is interesting to note that cohort 3 also indicated more exposure to drugs and tobacco at baseline than did the other cohorts). Program students in this cohort also began with much lower academic test scores than their cohort comparison students and somewhat worse attitudes overall.

By time 3, cohort 3 program youth showed substantial improvements in several measures, including Passage Comprehension and Calculation scores (similar to cohort 2 program youth) and the percent saying they like school a lot. These improvements were significantly different from the changes seen over time in the comparison group. On the other hand, program students increased in their level of family relationship risk, while comparison youth decreased their family relationship risk, a statistically significant difference, and parents of program students showed significantly greater change in levels of concern that their children were being mistreated because of cultural differences.

- The percent of program youth scoring Average or above on Letter-word Identification, on Passage Comprehension, Calculation, and on Applied Problems increased from time 1 to time 3 by 52 percent, 132 percent, 51 percent, and 38 percent, respectively. The percent of comparison youth scoring Average or above on Letter-word Identification did not change from time 1 to time 3; on Passage Comprehension and Calculation scores declined by 4 percent and 10 percent, respectively, while increasing 6 percent on Applied Problems. The percent change difference between program and comparison youth was significant at the .05 level for Passage Comprehension and Calculation scores.
- The percent of program youth saying they like school a lot increased from 31 percent to 63 percent (+103%), while the percent of comparison youth saying this decreased from 62 percent to 52 percent (-16%), a difference significant at the .05 level.
- The percent of program youth saying they try hard decreased slightly over time, from 81 percent to 75 percent of program youth. The percent of comparison youth saying this increased slightly, from 95 percent to 100 percent.

- The percent saying that skipping school is always bad remained at 56 percent for program youth and increased from 55 percent to 82 percent (+49%) for comparison youth.
- The percent of program parents saying their children are doing satisfactorily decreased slightly over time, from 88 percent to 81 percent. The percent of comparison parents saying this increased, from 76 percent to 86 percent.
- Program youth showed a greater increase than comparison youth in the percent saying they feel very, very proud of their culture (+27% vs. +12%).
- The percent of program students at risk of negative future outlook increased from 69 percent to 75 percent (+9%) while the percent of comparison students at risk decreased from 59% to 50% (-15%). The percent of program students at risk of family estrangement increased from 86 percent to 94 percent (+9%) while the percent of comparison students at risk declined from 76 percent to 55 percent (-28%); this latter difference was significant at the .05 level.
- Program youth showed a 20 percent decline in the percentage perceiving ATOD use as harmful (from 94% to 75%), while comparison youth showed a 18 percent increase (from 77% to 91%).
- Parents of program youth showed increased attendance at parent-teacher conferences (+25%); comparison youth parents remained at 95 percent. Program youth parents showed a 16 percent increase in contacting the school about the child, the increase for comparison youth parents was smaller (6%). Parents of program children showed a 30 percent decrease in the percentage attending Hmong PTO meetings, while parents of comparison children showed an increase in attendance, from 38 percent to 52 percent. Parents of both program and comparison youth showed increases in other sorts of school involvement, both rising to about two-thirds of parents.
- Parents of program youth showed decreased effective parenting (-14%) while parents of comparison parents showed an increase (+21%). Parents of both groups showed large increases in high awareness of ATOD dangers (+59% program, +32% comparison).
- Parents of program youth showed no change in the percent (94%) believing teachers respect Hmong culture, while comparison parents showed a 28 percent increase (from 71% to 91%).
- Parents of both program and comparison youth showed increased belief that teachers understand Hmong culture, but the increase was much larger for comparison parents (+51% vs. +6%).
- Parents of program youth showed a 68 percent increase in the percent concerned that their child is mistreated due to cultural differences while comparison parents showed a 12 percent decrease, a difference significant at the .01 level.

**Program Outcomes for Cohort 4 Youth and Parents (Table 11)**

Cohort 4 students began 2HTN with slightly higher academic test scores, better school adjustment, and similar risk and ATOD awareness scores, compared to Cohort 3 students. By time 2, cohort 4 students had substantially improved their academic scores, but had not changed significantly in school attitudes or ATOD disapproval (nearly universal). Future goals risk levels were slightly higher and family relationships risk levels were slightly lower at time 2. Parental involvement in school improved, as did parental belief that teachers respect and understand Hmong culture. Because there was no cohort 4 comparison group, this analysis does not compare treatment and comparison groups.

- Treatment students improved from time 1 to time 2 on all four Woodcock-Johnson tests, by 20 percent in Applied Problems, 34 percent in Passage Comprehension, 51 percent in Letter-word Identification and 86 percent in Calculation.
- Treatment students school attitudes showed little change from time 1 to time 2: 65 percent said they like school a lot at time 1 declining 9 percent to 59 percent by time 2. Ninety-four percent said at time 1 that they tried hard in school, declining 6 percent to 88 percent at time 2. On the other hand, the percent saying that skipping school is bad declined 19 percent, from 88 percent at time 1 to 71 percent at time 2. All parents believed that their children were doing satisfactorily overall at school at both time 1 and time 2.
- Eighty-eight percent of cohort 4 program youth said they were very very proud of their culture at time 1, declining 7 percent to 82 percent at time 2.
- At time 1, 59 percent of cohort 4 program youth were at some, moderate or high risk on the Future Goals scale, rising 10 percent to 65 percent by time 2. Eighty-eight percent of youth were at risk on the Family Relationships scale at time 1, declining 13 percent to 77 percent at time 2.
- There was no change from time 1 to time 2 in the percent of cohort 4 program youth who perceived ATOD use to be bad and harmful (94%).
- At time 2, nearly all parents said they attended parent-teacher conferences and contacted school about their child at time 2, an increase of about 7 percent from baseline. The percent of parents saying they'd attended a PTO meeting increased from 40 percent to 73 percent and the percent mentioning some other form of school involvement increased from 47 percent to 73 percent. Parental ATOD awareness rose 9 percent from 80 percent at baseline to 87 percent at time 2.
- Nonetheless, there was a slight decline in effective parenting, from 100 percent of parents at time 1 to 93 percent at time 2.
- At time 2, all parents said they believed that their child's teachers respect and understand Hmong culture, an increase from 80 percent and 73 percent, respectively, at baseline. The percent concerned that their child is treated poorly by other students because of cultural differences declined 9 percent from 80 percent to 73 percent.



Domain	Tool	Qnt/Qual	Measure	Treatment			Comparison			F-test Statistic <sup>1</sup>
				Time 1 (N=22)	Time 4 (N=22)		Time 1 (N=31)	Time 4 (N=31)		
Profile	Intake Form	Quant	Age (mean)	9.9	13.1		10.4	13.1		
			Gender: Female	32%	32%		42%	42%		
			Male	68%	68%		58%	58%		
			Born in US	32%	32%		42%	42%		
				Time 1 (N=22)	Time 4 (N=22)	Percent Change	Time 1 (N=31)	Time 4 (N=31)	Percent Change	F-test
Academic Achievement	Woodcock-Johnson Psycho-Educational Battery	Quant	Letter-word Identification	41% Avg +	46% Avg +	+12%	45% Avg +	52% Avg +	+16%	.027
			Passage Comprehension	46% Avg +	50% Avg +	+9%	39% Avg +	52% Avg +	+33%	.317
			Calculation	91% Avg +	86% Avg +	-5%	77% Avg +	77% Avg +	0%	.151
			Applied Problems	82% Avg +	77% Avg +	-6%	74% Avg +	77% Avg +	+4%	.669
				Time 1 (N=23)	Time 4 (N=23)	Percent Change	Time 1 (N=31)	Time 4 (N=31)	Percent Change	F-test
School Adjustment	What I Think Of School	Quant	Likes school a lot	78%	52%	-33%	71%	68%	-4%	3.147
			Tries hard	96%	91%	-5%	90%	94%	+4%	.669
	Youth Survey		Says skipping school is bad	77% (n=22)	64% (n=22)	-17%	87%	58%	-33%	1.039
			Parent Survey	Doing satisfactory overall	81% (n=21)	86% (n=21)	+6%	73% (n=30)	73% (n=30)	0%
Cultural Pride	Youth Survey	Quant	How proud do you feel...?	73% very	100% very	+37%	90% very	87% very	-3%	6.542*
				Time 1 (N=22)	Time 4 (N=22)	Percent Change	Time 1 (N=30)	Time 4 (N=30)	Percent Change	F-test
Future Goals	Goals Scale	Quant	Level of risk (some, moderate, or high)	73% at risk	59% at risk	-19%	50% at risk	53% at risk	+6%	1.041
Family Relationships	Family Scale	Quant	Level of risk (some, moderate, or high)	82% at risk	73% at risk	-11%	80% at risk	63% at risk	-21%	.203
				Time 1 (N=22)	Time 4 (N=22)	Percent Change	Time 1 (N=31)	Time 4 (N=31)	Percent Change	F-test
Youth ATOD Disapproval	Youth Survey	Quant	Perceived to be bad and harmful (summative, 5 items)	96%	86%	-10%	90%	97%	+8%	2.062

1. Analysis of Variance: two-way interaction between Treatment and Comparison Groups from Time 1 to Time 4.

\* Significant at .05

\*\* Significant at .01

Domain	Tool	Qnt/Qual	Measure	Treatment			Comparison			F-test Statistic <sup>1</sup>
				Time 1 (N=21)	Time 4 (N=21)	Percent Change	Time 1 (N=30)	Time 4 (N=30)	Percent Change	F-test
Parental Involvement	Parent Survey	Quant	Attend parent-teacher conference	71%	81%	+14%	77%	80%	+4%	.264
			Contacted school about child	71%	81%	+14%	87%	80%	-8%	1.012
			Attended PTO	52%	67%	+29%	33%	57%	+73%	.226
			Other involvement	52%	48%	-8%	13%	43%	231%	3.799
Parenting	Parent Survey	Quant	Effective parenting (summative, 4 items)	67%	81%	+21%	87%	80%	-8%	1.840
Parental ATOD Awareness	Parent Survey	Quant	High Awareness of ATOD dangers (summative, 11 items)	95%	95%	0%	77%	83%	+8%	.342
Tangible Support in School for Hmong	Observation by evaluation staff	Quant	Average rating (none (1) to ample (4))	2.6 (between limited and adequate)	2.9 (between limited and adequate)	+12%	n/a	n/a	n/a	n/a
Feelings of Support in school for Hmong	Parent Survey and Discussion	Quant and Qual	Believes teachers respect Hmong culture	91%	81%	-11%	87%	67%	-23%	.527
			Believes teachers understand Hmong culture	91%	81%	-11%	90%	70%	-22%	.455
			Concerned that child is treated poorly by other students because of cultural differences	81%	91%	+12%	50%	93%	+86%	4.559*

1. Analysis of Variance: two-way interaction between Treatment and Comparison Groups from Time 1 to Time 4.

\* Significant at .05

\*\* Significant at .01

**Table 9 2HTN Outcomes Matrix Cohort 2**

Domain	Tool	Qnt/Qual	Measure	Treatment			Comparison			F-test Statistic <sup>1</sup>
				Time 1 (N=27)	Time 3 (N=27)		Time 1 (N=25)	Time 3 (N=25)		
Profile	Intake Form	Quant	Age (mean)	9.6	11.2		10.3	11.8		
			Gender: Female	30%	30%		60%	60%		
			Male	70%	70%		40%	40%		
			Born in US	4%	4%		24%	24%		
				Time 1 (N=26)	Time 3 (N=26)	Percent Change	Time 1 (N=25)	Time 3 (N=25)	Percent Change	F-test
Academic Achievement	Woodcock-Johnson Psycho-Educational Battery	Quant	Letter-word Identification	31% Avg +	54% Avg +	+74%	52% Avg +	56% Avg +	+8%	3.042
			Passage Comprehension	46% Avg +	62% Avg +	+35%	68% Avg +	52% Avg +	-24%	4.172*
			Calculation	54% Avg +	85% Avg +	+57%	68% Avg +	72% Avg +	+6%	3.087
			Applied Problems	73% Avg +	69% Avg +	-5%	72% Avg +	76% Avg +	+6%	.322
				Time 1 (N=27)	Time 3 (N=27)	Percent Change	Time 1 (N=25)	Time 3 (N=25)	Percent Change	F-test
School Adjustment	What I Think Of School	Quant	Likes school a lot	82%	59%	-28%	68%	56%	-18%	.600
			Tries hard	93%	93%	0%	96%	88%	-8%	.218
	Youth Survey		Says skipping school is bad	48%	70%	+46%	50%	80%	+60%	.229
	Parent Survey		Doing satisfactory overall	85%	100%	+18%	100%	91%	-9%	6.312*
Cultural Pride	Youth Survey	Quant	How proud do you feel...?	70% very	89% very	+27%	84% very	76% very	-10%	3.280
				Time 1 (N=27)	Time 3 (N=27)	Percent Change	Time 1 (N=25)	Time 3 (N=25)	Percent Change	F-test
Future Goals	Goals Scale	Quant	Level of risk (some, moderate, or high)	78% at risk	52% at risk	-33%	68% at risk	64% at risk	-6%	1.409
Family Relationships	Family Scale	Quant	Level of risk (some, moderate, or high)	74% at risk	58% at risk	-22%	84% at risk	82% at risk	-2%	.746
				Time 1 (N=27)	Time 3 (N=27)	Percent Change	Time 1 (N=25)	Time 3 (N=25)	Percent Change	F-test
Youth ATOD Disapproval	Youth Survey	Quant	Perceived to be bad and harmful (summative, 5 items)	78%	93%	+19%	92%	84%	-9%	3.004

1. Analysis of Variance: two-way interaction between Treatment and Comparison Groups from Time 1 to Time 3.

\* Significant at .05

\*\* Significant at .01

\*\*\* Significant at .001

Domain	Tool	Qnt/Qual	Measure	Treatment			Comparison			F-test Statistic <sup>1</sup>
				Time 1 (N=26)	Time 3 (N=26)	Percent Change	Time 1 (N=22)	Time 3 (N=22)	Percent Change	F-test
Parental Involvement	Parent Survey	Quant	Attend parent-teacher conference	42%	100%	+138%	95%	86%	-9%	21.929***
			Contacted school about child	62%	89%	+44%	95%	96%	+1%	2.127
			Attended PTO	42%	52%	+24%	71%	36%	-49%	6.860*
			Other involvement	39%	31%	-21%	46%	50%	+9%	.555
Parenting	Parent Survey	Quant	Effective parenting (summative, 4 items)	85%	89%	+5%	77%	91%	+18%	.550
Parental ATOD Awareness	Parent Survey	Quant	High Awareness of ATOD dangers (summative, 11 items)	89%	89%	0%	91%	96%	+5%	.163
Tangible Support in School for Hmong	Observation by evaluation staff	Quant	Average rating (none (1) to ample (4))	2.7 (between limited and adequate)	2.9 (between limited and adequate)	7%	n/a	n/a	n/a	n/a
Feelings of Support in school for Hmong	Parent Survey and Discussion	Quant and Qual	Believes teachers respect Hmong culture	89%	89%	0%	91%	86%	-5%	.163
			Believes teachers understand Hmong culture	89%	92%	+3%	86%	91%	+6%	.003
			Concerned that child is treated poorly by other students because of cultural differences	85%	85%	0%	86%	64%	-26%	2.871

1. Analysis of Variance: two-way interaction between Treatment and Comparison Groups from Time 1 to Time 3.

\* Significant at .05

\*\* Significant at .01

\*\*\* Significant at .001

Domain	Tool	Qnt/Qual	Measure	Treatment			Comparison			F-test Statistic <sup>1</sup>
				Time 1 (N=16)	Time 3 (N=16)		Time 1 (N=22)	Time 3 (N=22)		
Profile	Intake Form	Quant	Age (mean)	9.6	10.9		9.2	10.9		
			Gender: Female	44%	44%		86%	86%		
			Male	56%	56%		14%	14%		
			Born in US	73%	73%		na	na		
				Time 1 (N=16)	Time 3 (N=16)	Percent Change	Time 1 (N=22)	Time 3 (N=22)	Percent Change	F-test
Academic Achievement	Woodcock-Johnson Psycho-Educational Battery	Quant	Letter-word Identification	25% Avg +	38% Avg +	+52%	91% Avg +	91% Avg +	0%	1.389
			Passage Comprehension	19% Avg +	44% Avg +	+132%	95% Avg +	91% Avg +	-4%	4.889*
			Calculation	37% Avg +	56% Avg +	+51%	91% Avg +	82% Avg +	-10%	4.132*
			Applied Problems	50% Avg +	69% Avg +	+38%	86% Avg +	91% Avg +	+6%	1.248
				Time 1 (N=16)	Time 3 (N=16)	Percent Change	Time 1 (N=22)	Time 3 (N=22)	Percent Change	F-test
School Adjustment	What I Think Of School	Quant	Likes school a lot	31%	63%	+103%	62%	52%	-16%	5.714*
	Youth Survey		Tries hard	81%	75%	-7%	95%	100%	+5%	.991
	Parent Survey		Says skipping school is bad	56%	56%	0%	55%	82%	+49%	2.393
			Doing satisfactory overall	88%	81%	-8%	76% (n=21)	86% (n=21)	+13%	.620
Cultural Pride	Youth Survey	Quant	How proud do you feel...?	44% very	56% very	+27%	77% very	86%	+12%	.029
				Time 1 (N=16)	Time 3 (N=16)	Percent Change	Time 1 (N=22)	Time 3 (N=22)	Percent Change	F-test
Future Goals	Goals Scale	Quant	Level of risk (some, moderate, or high)	69% at risk	75% at risk	+9%	59% at risk	50% at risk	-15%	.468
Family Relationships	Family Scale	Quant	Level of risk (some, moderate, or high)	86% at risk	94% at risk	+9%	76% at risk	55% at risk	-28%	7.283*
				Time 1 (N=16)	Time 3 (N=16)	Percent Change	Time 1 (N=22)	Time 3 (N=22)	Percent Change	F-test
Youth ATOD Disapproval	Youth Survey	Quant	Perceived to be bad and harmful (summative, 5 items)	94%	75%	-20%	77%	91%	+18%	3.874

1. Analysis of Variance: two-way interaction between Treatment and Comparison Groups from Time 1 to Time 3.

\* Significant at .05 \*\* Significant at .01

Domain	Tool	Qnt/Qual	Measure	Treatment			Comparison			F-test Statistic <sup>1</sup>
				Time 1 (N=16)	Time 3 (N=16)	Percent Change	Time 1 (N=21)	Time 3 (N=21)	Percent Change	F-test
Parental Involvement	Parent Survey	Quant	Attend parent-teacher conference	75%	94%	+25%	95%	95%	0%	1.736
			Contacted school about child	81%	94%	+16%	86%	91%	+6%	.405
			Attended PTO	63%	44%	-30%	38%	52%	+37%	2.666
			Other involvement	50%	63%	+26%	43%	62%	+44%	.091
Parenting	Parent Survey	Quant	Effective parenting (summative, 4 items)	94%	81%	-14%	71%	86%	+21%	3.607
Parental ATOD Awareness	Parent Survey	Quant	High Awareness of ATOD dangers (summative, 11 items)	63%	100%	+59%	76%	100%	+32%	.788
Tangible Support in School for Hmong	Observation by evaluation staff	Quant	Average rating (none (1) to ample (4))	2.3 (between limited and adequate)	2.9 (between limited and adequate)	+26%	n/a	n/a	n/a	n/a
Feelings of Support in school for Hmong	Parent Survey and Discussion	Quant and Qual	Believes teachers respect Hmong culture	94%	94%	0%	71%	91%	+28%	2.201
			Believes teachers understand Hmong culture	94%	100%	+6%	57%	86%	+51%	3.032
			Concerned that child is treated poorly by other students because of cultural differences	56%	94%	+68%	81%	71%	-12%	7.352**

1. Analysis of Variance: two-way interaction between Treatment and Comparison Groups from Time 1 to Time 3.

\* Significant at .05

\*\* Significant at .01

<b>Table 11 2HTN Outcomes Matrix Cohort 4</b>						
<b>Domain</b>	<b>Tool</b>	<b>Qnt/Qual</b>	<b>Measure</b>	<b>Treatment</b>		
				<b>Time 1 (N=17)</b>	<b>Time 2 (N=17)</b>	
Profile	Intake Form	Quant	Age (mean) Gender: Female Male Born in US	9.9 yrs. 59% 41% 100%	10.3 yrs 59% 41% 100%	
				<b>Time 1 (N=17)</b>	<b>Time 2 (N=17)</b>	<b>Percent Change</b>
Academic Achievement	Woodcock- Johnson Psycho- Educational Battery	Quant	Letter-word Identification Passage Comprehension Calculation Applied Problems	35% Avg + 53% Avg + 44% Avg + 59% Avg +	53% Avg + 71% Avg + 82% Avg + 71% Avg +	51% 34% 86% 20%
				<b>Time 1 (N=17)</b>	<b>Time 2 (N=17)</b>	<b>Percent Change</b>
School Adjustment	What I Think of School  Youth Survey Parent Survey	Quant	Likes school a lot Tries hard Says skipping school is bad Doing satisfactory overall	65% 94% 88% 100%	59% 88% 71% 100%	-9% -6% -19% 0%
Cultural Pride	Youth Survey	Quant	How proud do you feel...?	88% very	82% very	-7%
				<b>Time 1 (N=17)</b>	<b>Time 2 (N=17)</b>	<b>Percent Change</b>
Future Goals	Goals Scale	Quant	Level of risk (some, moderate, or high)	59% at risk	65% at risk	+10%
Family Relationships	Family Scale	Quant	Level of risk (some, moderate, or high)	88% at risk	77% at risk	-13%
				<b>Time 1 (N=17)</b>	<b>Time 2 (N=17)</b>	<b>Percent Change</b>
Youth ATOD Disapproval	Youth Survey	Quant	Perceived to be bad and harmful (summative, 5 items)	94%	94%	0%

<b>Table 11 2HTN Outcomes Matrix Cohort 4 (Continued)</b>						
<b>Domain</b>	<b>Tool</b>	<b>Qnt/Qual</b>	<b>Measure</b>	<b>Treatment</b>		
				<b>Time 1 (N=15)</b>	<b>Time 2 (N=15)</b>	<b>Percent Change</b>
Parental Involvement	Parent Survey	Quant	Attend parent-teacher conference	93%	100%	+8%
			Contacted school about child	87%	93%	+7%
			Attended PTO	40%	73%	+83%
			Other involvement	47%	73%	+55%
Parenting	Parent Survey	Quant	Effective parenting (summative, 4 items)	100%	93%	-7%
Parental ATOD Awareness	Parent Survey	Quant	High Awareness of ATOD dangers (summative, 11 items)	80%	87%	+9%
Tangible Support in School for Hmong	Observation by evaluation staff	Quant	Average rating (none (1) to ample (4))	2.9 (between limited and adequate)	2.9 (between limited and adequate)	0%
Feelings of Support in school for Hmong	Parent Survey and Discussion	Quant and Qual	Believes teachers respect Hmong culture	80%	100%	+25%
			Believes teachers understand Hmong culture	73%	100%	+37%
			Concerned that child is treated poorly by other students because of cultural differences	80%	73%	-9%



## **VII. COST-BENEFIT DATA AND ANALYSIS**

No information at this time.

## **VIII. CONCLUSIONS/RECOMMENDATIONS**

The 2HTN program sought to influence a wide range of beliefs and behaviors of the youth, parents and schools who participate in it, including youth's school attitudes, discipline and academic achievement, cultural pride, future goal-setting, family attachment and ATOD disapproval, parental involvement in schools and awareness of ATOD, and school support for Hmong culture. It appears to have been quite successful on a few fronts, moderately helpful on others, and largely ineffective on still others.

2HTN's clearest success was in improving student academic achievement. As measured by performance on Woodcock-Johnson academic achievement tests, youth who participated in 2HTN often showed large improvements in age-adjusted performance, and these improvements appear to be significantly greater than those seen among comparison youth who did not receive the program's support.

The 2HTN also had a demonstrable impact on parental reports of involvement in their children's school activities compared to parents of youth who have not been involved in the program. While feedback from program staff and teachers did not strongly corroborate these reports of greater parental involvement, the parent reports did indicate, at a minimum, greater parent awareness that school involvement is a worthwhile goal.

At the same time, parental concern that their children were treated poorly because of their culture increased significantly for program parents relative to comparison parents in two cohorts, perhaps reflecting heightened awareness among program parents of cultural issues affecting their children.

Results with regard to school attitudes were less consistent. 2HTN students in one cohort showed large improvement in school attitudes, significantly different from comparison youth. In another cohort, parental perception that their children were doing better also improved significantly for program youth relative to comparison youth. For other cohorts and other attitudinal measures, results were inconclusive.

Cultural pride improved for program youth in all cohorts, but this improvement was significantly different than comparison youth only for cohort 1.

Results with regard to future and family risk, youth and parent ATOD attitudes, and effective parenting were inconsistent over time and seldom showed statistical significance.

In sum, then, it appears that 2HTN program did have a statistically significant impact on several of the risk factors believed to influence ATOD use, particularly academic performance, parental involvement in schools, and student attitudes towards school. These did not result in a demonstrable change in ATOD attitudes among parents or youth, however, probably because ATOD aversion was very high at baseline among almost all youth, parental awareness of ATOD dangers was also very high, and most youth were too young to actually be using.

The moderate positive effects on the academic achievement and cultural/school/family attitudes were strongest, relative to their respective comparison groups, at time 3, after students had spent 2 full years in the program. After being out of 2HTN for a full year, however, graduates showed little if any advantage over comparison youth, suggesting that the impact of the program, if not sustained, is transitory. It also implies that improved outcomes might be sustained through periodic interventions with students after their graduation from the 2HTN program.

At least two reservations regarding these conclusions should be mentioned. The 11-item Future Goals Scale and the 10-item Family Relationships Scale are both derived from the Personal Experience Inventory, a psychometric instrument developed in reference to youth and families with quite different cultural norms than those participating in 2HTN. The validity of these scales in measuring risk among Hmong youth and families is therefore open to question. The same criticism applies to the measures used to gauge effective parenting; efforts are underway to develop more culturally-appropriate tools to measure effective parenting in Hmong families.

Second, the lack of comparability of the cohort 3 program and comparison youth, particularly with regard to their academic scores, weakens the conclusion of significant programmatic impact for treatment youth. Comparison youth were already at extremely high levels of academic achievement and could not be expected to demonstrate great positive change. Nonetheless, the improvements among treatment youth were substantial and the results for cohort 3 are consistent with those for cohorts 1, 2 and 4.

A number of steps were taken to improve 2HTN during its five years of operation, including the introduction of a new culturally-specific ATOD curriculum to enhance youth interest, modification of the individual lesson plan form, transferring responsibilities for lesson plan coordination to site managers, and hiring a new program manager. As HAP continues its work with Hmong youth and families, it may wish to consider additional suggestions to strengthen program effectiveness:

- For school-based programs, better communication and collaboration between teachers and program staff may enhance understanding of individual student needs and development of means to address those needs. Both staff and teachers acknowledged that 2HTN suffered for lack of interaction and understanding between school and program personnel. Evaluation status reports gave specific suggestions for increasing collaboration.
- Participation in youth programs could also be improved through greater involvement of high school mentors and tutors; these supplemental staff played an important role in 2HTN by providing individual attention to students, serving as role models, and helping with discipline.

- Youth participation in programs could be improved by varying the curriculum for students participating more than one year, and by developing and enforcing disciplinary policies so that disruptive students don't undermine the program for other students.
- Involving parents and extended family members in program activities could enhance youth participation and cultural pride, and also parental understanding of the program and school activities.

## **IX. APPENDICES**

- A. Curricula and Materials Used for the Interventions
- B. Description of Program Administration and Description of Job Responsibilities
- C. Copies of Instruments and Assessment Protocols/Materials

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