

Excellence in Prevention – descriptions of the prevention programs and strategies with the greatest evidence of success

Name of Program/Strategy: All Stars

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1. Overview and description

All Stars is a multi-year school-based program for middle school students (11 to 14 years old) designed to prevent and delay the onset of high-risk behaviors such as drug use, violence, and premature sexual activity. The program focuses on five topics important to preventing high-risk behaviors: (1) developing positive ideals that do not fit with high-risk behavior; (2) creating a belief in conventional norms; (3) building strong personal commitments; (4) bonding with school, pro-social institutions, and family; and (5) increasing positive parental attentiveness. All Stars includes highly interactive group activities, games and art projects, small group discussions, one-on-one sessions, a parent component, and a celebration ceremony. The All Stars Core program consists of 13 45-minute class sessions delivered on a weekly basis by teachers, prevention specialists, or social workers. The All Stars Booster program is designed to be delivered 1 year after the core program and includes nine 45-minute sessions reinforcing lessons learned in the previous year.

2. Implementation considerations

Multiple program packages are available to support implementation by either regular teachers or prevention specialists.

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3. Descriptive Information

Areas of Interest	Mental Health Promotion Substance abuse prevention
Outcomes	Personal commitment not to use drugs Lifestyle incongruence School bonding Normative beliefs Cigarette use Alcohol use Inhalant use
Outcome Categories	Alcohol Drugs Education Quality of Life Tobacco Violence
Ages	6-12 (Childhood) 13-17 (Adolescent)
Genders	Male Female
Races/Ethnicities	Asian Black or African American Hispanic or Latino White
Settings	School
Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	Approximately 1,750 sites are currently implementing the All Stars program, according to the program developer. More than 1 million students received All Stars instruction in 2010.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: Yes Evaluated in comparative effectiveness research studies: Yes
Adaptations	A Spanish-language version of All Stars has been implemented in Puerto Rico, the U.S. Virgin Islands, and Mexico.

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Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the applicant.
IOM Prevention Categories	Universal Selective

4. Outcomes

Outcome 1: Personal commitment not to use drugs

Description of Measures	The personal commitment variable consisted of 12 survey items assessing private and public manifestations of commitments regarding substance use and other problem behaviors. Responses were on a 4-point Likert scale ranging from "strongly agree" to "strongly disagree." Items included, "I have made a decision to not get high by sniffing fumes."
Key Findings	All Stars participants' average scores for personal commitment increased from pre- to post-test, while scores decreased among recipients of an alternative program ($p < .0001$). This result was replicated in a second study in which All Stars was delivered by a classroom teacher ($p < .05$).
Studies Measuring Outcome	Study 1, Study 2
Study Designs	Experimental, Quasi-experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

Outcome 2: Lifestyle incongruence

Description of Measures	The lifestyle incongruence variable consisted of 9 survey items assessing students' beliefs that substance use, violence, and premature sexual activity were incongruent with their ideals and desired lifestyle. Responses were on a 4-point Likert scale ranging from "strongly agree" to "strongly disagree." Items included, "Getting high from sniffing glue would get in the way of what is important to me."
Key Findings	All Stars participants' average scores for lifestyle incongruence increased from pre- to posttest, while scores decreased among recipients of an alternative program ($p < .0001$). This result was replicated in a second study in which All Stars was delivered by a classroom teacher ($p < .05$).
Studies Measuring Outcome	Study 1, Study 2

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Study Designs	Experimental, Quasi-experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

Outcome 3: School bonding

Description of Measures	The school bonding variable consisted of 8 survey items assessing how students felt received at school, with responses on a 4-point Likert scale ranging from "strongly agree" to "strongly disagree." Items included, for example, "I like the teachers at this school" and "The teachers at this school like me."
Key Findings	All Stars participants' average scores for school bonding increased from pre- to posttest, while scores decreased among recipients of an alternative program ($p < .0001$).
Studies Measuring Outcome	Study 1, Study 2
Study Designs	Experimental, Quasi-experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

Outcome 4: Normative Beliefs

Description of Measures	The normative beliefs variable consisted of 11 survey items assessing student perceptions about the prevalence of high-risk behaviors (e.g., "How many people your age do you think use marijuana at least once a month"), with responses on a 5-point Likert scale ranging from "none" to "all," and acceptability of these behaviors to friends (e.g., "My friends think it is OK to get drunk every now and then"), with responses on a 4-point Likert scale ranging from "strongly agree" to "strongly disagree."
Key Findings	All Stars participants' average scores on the normative beliefs variable increased from pre- to posttest, while scores decreased among recipients of an alternative program ($p < .0002$).
Studies Measuring Outcome	Study 1, Study 2
Study Designs	Experimental, Quasi-experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

Outcome 5: Cigarette Use

Description of Measures	Lifetime use of cigarettes (yes or no), past 30-day use (yes or no), and frequency of use in the past 30 days (not at all, 1-2 times, 3-9 times, 10-19 times, 20 or more times) was assessed by 4 survey items.
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Key Findings	When the program was delivered by a teacher, All Stars participants reported lower average levels of cigarette use at posttest compared with students who did not receive the program ($p < .05$).
Studies Measuring Outcome	Study 2
Study Designs	Experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

Outcome 6: Alcohol Use

Description of Measures	Lifetime use of alcohol (yes or no), past 30-day use (yes or no), and frequency of use in the past 30-days (not at all, 1-2 times, 3-9 times, 10-19 times, 20 or more times) was assessed by 8 survey items.
Key Findings	When the program was delivered by a teacher, All Stars participants reported lower average levels of alcohol use at posttest compared with students who did not receive the program ($p < .05$).
Studies Measuring Outcome	Study 2
Study Designs	Experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

Outcome 7: Inhalant Use

Description of Measures	Lifetime use of inhalants (yes or no), past 30-day use (yes or no), and frequency of use in the past 30 days (not at all, 1-2 times, 3-9 times, 10-19 times, 20 or more times) was assessed by 4 survey items.
Key Findings	When the program was delivered by a teacher, All Stars participants reported lower average levels of inhalant use at posttest compared with students who did not receive the program ($p < .05$).
Studies Measuring Outcome	Study 2
Study Designs	Experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

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5. Cost effectiveness report (Washington State Institute of Public Policy – if available)

<p>Benefits minus cost, per participant</p> <p>Source:</p> <p>Return on Investment: Evidence-Based Options to Improve Statewide Outcomes - <i>July 2011 Update</i>. Washington State Institute for Public Policy, http://www.wsipp.wa.gov/rptfiles/11-07-1201.pdf.</p> <p>Benefits and Costs of Prevention and Early Intervention Programs for Youth – <i>2004 update</i>. Washington State Institute for Public Policy, http://www.wsipp.wa.gov/pub.asp?docid=04-07-3901.</p> <p>Costs and Benefits of Prevention and Early Intervention Programs for At-Risk Youth: Interim Report – <i>2003</i>. Washington State Institute for Public Policy, http://www.wsipp.wa.gov/pub.asp?docid=03-12-3901.</p>	<p>According to the Washington State Institute for Public Policy, the program/strategy returns</p> <p><u>\$800 per individual</u></p> <p>in savings that would otherwise be associated with education, substance abuse, teen pregnancy, child abuse and neglect, or criminal justice system.</p>
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6. Washington State results (from Performance Based Prevention System (PBPS) – if available)

Scale	Result	Direction	N	Instruments used for this program
Favorable Attitudes 1	significant	improvement	196	AM Favorable Attitudes [Y2]
Favorable Attitudes 2	significant	improvement	339	AM Favorable Attitudes [Y2]
Refusal Skills	significant	improvement	184	AM Refusal Skills [Y4]
Rewards for Antisocial Behavior	significant	improvement	125	Healthy Decisions Survey - Middle School [APMY01]
Peer Approval of Use	significant	improvement	298	PPG-Individual/Peer [PPG03]
Risk of Use	significant	improvement	613	Healthy Decisions Survey - Middle School [APMY01], PPG-Individual/Peer [PPG03], RM Individual/Peer [PPG03B]
Disapproval of Use (peer)	significant	improvement	489	PPG-Individual/Peer [PPG03], RM Individual/Peer [PPG03B]

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7. Where is this program/strategy being used (if available)?

Washington Counties	Oregon Counties
Ferry/Stevens, King	

8. Study Populations

The studies reviewed for this intervention included the following populations, as reported by the study authors.

Study	Age	Gender	Race/Ethnicity
Study 1	6-12 (Childhood) 13-17 (Adolescent)	37.5% Male 62.5% Female	46% White 42% Black or African American 8% Asian 4% Hispanic or Latino
Study 2	6-12 (Childhood) 13-17 (Adolescent)	45% Male 55% Female	69% White 25% Black or African American 6% Hispanic or Latino

9. Quality of Research

The documents below were reviewed for Quality of Research. Other materials may be available. For more information, contact the developer(s).

Study 1

Hansen, W. B. (1996). Pilot test results comparing the All Stars program with seventh grade D.A.R.E.: Program integrity and mediating variable analysis. *Substance Use and Misuse*, 31(10), 1359-1377.

Study 2

Harrington, N. G., Giles, S. M., Hoyle, R. H., Feeney, G. J., & Yungbluth, S. C. (2001). Evaluation of the All Stars character education and problem behavior prevention program: Effects on mediator and outcome variables for middle school students. *Health Education and Behavior*, 28(5), 533-546.

McNeal, R. B., Jr., Hansen, W. B., Harrington, N. G., & Giles, S. M. (2004). How All Stars works: An examination of program effects on mediating variables. *Health Education and Behavior*, 31(2), 165-178.

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Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see [Quality of Research](#).

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
Personal commitment not to use drugs	2.5	2.0	2.5	2.1	1.8	2.5	2.2
Lifestyle incongruence	2.5	2.0	2.5	2.1	1.8	2.5	2.2
School bonding	2.5	2.0	2.5	2.1	1.8	2.5	2.2
Normative beliefs	2.5	2.0	2.5	2.1	1.8	2.5	2.2
Cigarette use	2.3	1.8	2.5	2.5	1.8	2.5	2.2
Alcohol use	2.3	1.8	2.5	2.5	1.8	2.5	2.2
Inhalant use	2.3	1.8	2.5	2.5	1.8	2.5	2.2

Study Strengths

The program is based on a sound theoretical approach and uses measurement scales with high reported levels of internal consistency. One study examined the intervention's effects in a large sample using a longitudinal design. The authors also analyzed the effects of mediating variables that may have been responsible for the outcome variables.

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Study Weaknesses

Confounding variables existed in one study due to lack of rigor in the design. In addition, this study was conducted in one school, classes were not randomly assigned, and half of the subjects in the comparison group did not complete the posttest. Posttest evaluations were completed at inconsistent lengths of time after the intervention. In the second study, additional schools were added to the design after the matching process. Information concerning the effects of potential confounding variables was not provided, making it difficult to assess this criterion in the two studies.

10. Readiness for Dissemination

The documents below were reviewed for Readiness for Dissemination. Other materials may be available. For more information, contact the developer(s).

Dissemination Materials

All Stars Core Training booklet

All Stars Survey

Brochures:

- All Stars Certification of Mastery
- All Stars: Their Future, Your Vision, Our Mission
- Evaluation Lizard

Dusenbury, L., & Hansen, W. (2006). Prevention ABCs: A professional development series [DVD set]. Greensboro, NC: Tanglewood Research, Inc.

Handout on registering for the All Stars online community

Hansen, W. (2003). All Stars Booster: Version 2.0. United States edition. Greensboro, NC: Tanglewood Research, Inc.

Hansen, W., & Tanglewood Research, Inc. (2004). All Stars Core: Version 2.4. Greensboro, NC: Tanglewood Research, Inc.

Hansen, W., & Tanglewood Research, Inc. (2004). All Stars Plus: Version 2.4. Greensboro, NC: Tanglewood Research, Inc.

Program Web site, <http://www.allstarsprevention.com>

Tanglewood Research, Inc. (2006). Superior All Stars commitment videos [DVD].

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Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see [Readiness for Dissemination](#).

Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating
3.5	3.5	3.3	3.4

Dissemination Strengths

Detailed implementation manuals are available for all program components. A training program is offered for both the core and booster programs, and teacher certification is available to those interested becoming a program trainer. A supplemental DVD series is also available for professional development purposes. Outcome measures and teacher/administrator satisfaction interview guides are provided to support quality assurance.

Dissemination Weaknesses

It is unclear whether supplemental sessions are critical. No ongoing coaching or technical assistance is available for implementers or site administrators. While there is a quality assurance survey that implementers can complete after each session, it is generic and appears to be of limited value for ensuring fidelity.

11. Costs

The information below was provided by the developer and may have changed since the time of review. For detailed information on implementation costs (e.g., staffing, space, equipment, materials shipping and handling), contact the developer.

Item Description	Cost	Required by Program Developer
Core Facilitator Manual	\$125 each	Yes
Core student materials: Basic package (includes required worksheets only)	\$4 per student	Yes (one Core student materials package is required)

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Core student materials: Standard package (includes required worksheets, inserts, gift card, pre- and posttests, and fidelity surveys)	\$7 per student	Yes (one Core student materials package is required)
Core student materials: Complete package (includes required worksheets, inserts, gift card, pre- and posttests, fidelity surveys, parenting guides, and CDs)	\$10 per student	Yes (one Core student materials package is required)
Booster Facilitator Manual	\$75 each	Yes (one Booster student materials package is required to implement Booster curriculum)
Booster student materials: Basic package (includes required worksheets only)	\$1 per student	Yes (one Booster student materials package is required to implement Booster curriculum)
Booster student materials: Standard package (includes required worksheets, inserts, gift card, pre- and posttests, and fidelity surveys)	\$3 per student	Yes (one Booster student materials package is required to implement Booster curriculum)
Booster student materials: Complete package (includes required worksheets, inserts, gift card, pre- and posttests, fidelity surveys, parenting guides, and CDs)	\$6 per student	Yes (one Booster student materials package is required to implement Booster curriculum)
Plus Facilitator Manual	\$90 each	Yes (required to implement Plus curriculum)
Plus student materials: Basic package (includes required worksheets only)	\$2 per student	Yes (one Plus student materials package is required to implement Plus curriculum)
Plus student materials: Standard package (includes required worksheets, inserts, gift card, pre- and posttests, and fidelity surveys)	\$4 per student	Yes (one Plus student materials package is required to implement Plus curriculum)
Plus student materials: Complete package (includes required worksheets, inserts, gift card, pre- and posttests, fidelity surveys, parenting guides, and CDs)	\$7 per student	Yes (one Plus student materials package is required to implement Plus curriculum)

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1- to 2-day, on-site training	\$125 per person per day or \$3,000 per group (up to 20 people per group)	No
2- to 4-session live online training	\$75 per person per session	No
Telephone consultation for training participants	Free	No
Online support at http://onlinecommunity.tanglewood.net	Free	No
Student pre- and posttest surveys (targeted mediators and behaviors)	\$2 per student	No
Fidelity assessment forms	\$5 per class or group	No

Additional Information

Items can be purchased in various sets that include supplementary materials. Most materials are available in Spanish, and training is also available in Spanish. Current pricing is available on the program Web site.

12. Contacts

For information on implementation:

Kathleen Nelson-Simley
(800) 822-7148
kathleen@tanglewood.net

For information on research:

William B. Hansen, Ph.D.
(800) 826-4539 ext 101
billhansen@tanglewood.net

Learn More by Visiting: <http://www.allstarsprevention.com>