

HealthRICH: Health Risks, Information, and Choices

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Audience(s): young teens and their families; teachers of grades 5-8; and museum and science center educators, youth organization leaders, and others interested in informal education

Subjects Addressed: environmental health science and making informed personal choices to reduce environmental health risks

Project Description—The goals of this Phase II project are

- Disseminate HealthRICH materials to the Phase I partnership network and SEPA community. Materials are being promoted nationally and utilized in graduate-credit courses for teachers. More than 200 teachers have participated in year 1 courses and an additional 600 were reached through non-credit workshops.
- Establish Strive to Thrive! science/health activity clubs in middle schools throughout the United States. Eighteen clubs with a total of 500 student members have been formed and are carrying out HealthRICH activities and outreach. Clubs are located in Los Angeles, CA; Chicago, IL; Council Bluffs, IA, and other cities across the U.S.
- Conduct a research study on the impact of Phase II efforts. The impacts of classroom participation on student learning and of club participation on health perceptions and behavior are being studied.
- Adapt Phase I materials to support new dissemination efforts. Course materials, family handouts, ethics scenarios, and a how-to guide for creative outreach are in development.
- Expand awareness of the HealthRICH materials. Awareness of HealthRICH is being accomplished through interactions with Terrific Science and SEPA networks, Terrific Science e-News and terrificscience.org, journal publications, and presentations.

Resources for Sharing—Both student and teacher/informal educator publications are being nationally disseminated in this Phase II project.

- Strive to Thrive! Series of Student Handbooks—Designed for use in a variety of club and informal learning settings, this series focuses on relevant personal and social issues for teens. Winner of Learning Magazine's 2008 Teachers' Choice Award for the Family, the series includes the following titles:
 - *Breathing Room! Indoor Pollution Activity Handbook*: Teens learn about the most common pollutants found indoors, their sources, and measures of control.
 - *Lather Up! Hand Washing Activity Handbook*: Teens are challenged to discover the relationship between disease prevention and hand washing.
 - *More Than Skin Deep! Skin Health Activity Handbook*: Teens learn how people damage their skin, social/biological aspects of skin color, and how to keep skin healthy.
 - *Safe Not Sorry! Chemical Safety Activity Handbook*: Readers learn about protecting their health while handling household chemicals and the importance of reading labels.
 - *Wet Your Whistle! Drinking Water Activity Handbook*: Teens become critical consumers of drinking water, discovering where their water comes from and what's in it.

- *HealthRICH Leader Guide for Informal Science Experiences*: Teens and families are engaged in hands-on activities on disease control, healthy air, healthy skin, and water purification. Camper pages include material lists, procedures, data tables, and questions. Leader pages offer background, procedure notes and tips, and answers to questions.
- *e-Book Presentation Guides*—These downloadable guides, designed for museum or after-school settings, include *Hands Up*, *Bottled Up*, *Sun Safe*, and *Breathe In*.

Dissemination Strategies

- *Disseminating Materials*: Phase I graduates were offered a free copy of *Lather Up!* and discounts on other titles. Project partners have been offered at-cost versions of materials.
- *Innovative Promotions*: Awards and reviews get the word out to the general public. The Strive to Thrive series has received a Teachers Choice Award, Best Book Award from USA Book News, NSTA Recommends honors, and positive reviews from Midwest Book Review and Consumers Guide to Afterschool Science Resources.
- *Project Websites*: The HealthRICH (www.terrificscience.org/healthrich/) and Strive to Thrive! (www.terrificscience.org/thrive) websites provide web-based support and activities for young teens and their families, teachers and club sponsors, and outreach to the general public. The sites receive 2,000 hits per month.
- *Presentations by Project Staff*: Ten HealthRICH-based presentations have reached more than 350 teachers, administrators, informal educators, scientists, and health professionals.
- *Extending the Impact*: HealthRICH activities and materials were shared with participants in our Celebrating DNA Day academy. Our SEPA project served as leverage for obtaining this DNA Day grant from NIH National Human Genome Research Institute.

Project Evaluation

- Evaluation is directed by Ohio's Evaluation and Assessment Center for Mathematics and Science Education (Jane Butler Kahle, director).
- Evaluator served as active planning partner in proposal stage and developed a robust and diverse matrix which guides project oversight and evaluation. Frequent contact and feedback from evaluator continues as project is implemented.
- A mix of qualitative and quantitative methods is being used to evaluate the extent to which the project meets its overall goals.

Evaluation methods:

- Dissemination of materials (Aim 1) is evaluated by materials distribution data, survey on efficacy of materials and courses, review of materials, and teacher interviews.
- The Strive to Thrive! club activities (Aim 2) are evaluated by pre- and post-questionnaires on each topic for club members, annual reports of club activities, data on outreach activities, and review of outreach artifacts.
- The research study (Aim 3) includes administration and analysis of pre- and post-content tests of random HealthRICH and non-HealthRICH classroom students and pre- and post-content and attitude surveys of Strive to Thrive! club members. A staggered research design is being used with the clubs.
- Adaptation of HealthRICH materials (Aim 4) is evaluated via expert review of materials, user testing with target audiences, and data collection on materials developed.
- Expanding awareness of HealthRICH programs and materials (Aim 5) is evaluated by tracking materials distribution, publicity efforts, and website hits; as well as data collection on articles and presentations.