



## Health Care Mitigation Grants Program Final Report

<b>Grant Recipient:</b>	<b>BREATHE California of Los Angeles County</b>
<b>Contract Number:</b>	<b>HD-7778</b>
<b>Award Amount:</b>	<b>\$355,874</b>
<b>Date Submitted:</b>	August 30 <sup>th</sup> , 2014

<b>Total POLB Expenditures:</b>	<b>\$326,218</b>
<b>Total Number Beneficiaries Served:</b>	18,575
<b>Please describe how you determined the number of beneficiaries served.</b>	

<b>Program Year</b>	<b>O<sub>2</sub>4u<sup>TM</sup> Participants</b>
2011-2012	8,705
2012-2013	6,305
2013-2014	680
<b>TOTAL</b>	<b>15,690</b>

The total number of participants is based on class enrollment in partnering sites. According to OBJECTIVE 1:1.1 to *Educate 9,000 children to identify if a member of the family may have asthma and promote follow up*, we surpassed that goal by **74%**, the organization spent over \$422,000 conducting the POLB effort on a grant budget of \$355,874 which was calculated for 9,000 students. The low participation in year three was due to lack of support from the WRAP sites due to the repetition of the program. Stipends were offered as an incentive but refused by the WRAP sites. To avoid this in a future program, we suggest implementing our O<sub>2</sub>4u<sup>TM</sup> lessons as supplements to classroom curriculum or as an assembly during school hours. With a target audience of fourth graders, the program would be consistent and new for each incoming class. In addition, BREATHE LA is working with consultants to evaluate our O<sub>2</sub>4u<sup>TM</sup> lessons as it relates to S.T.E.M. standards in California.

Although the partnering organizations taught O<sub>2</sub>4u<sup>TM</sup> lessons directly to the children in the after-school programs, BREATHE LA staff conducted site visits to teach select O<sub>2</sub>4u<sup>TM</sup> lessons. While our participant number exceeded the 9,000 goal for the grant, research shows that last year roughly 129,000 (52%) children with asthma missed some school or day care due to symptoms, causing approximately **1.2 million absences** that resulted in missed learning opportunities and reduced school funding.<sup>1</sup> We believe this program sponsored by the Port of Long Beach should be extended in order to reach more children and measure specific health impacts as a result of our O<sub>2</sub>4u<sup>TM</sup> program.

A 5-question population asthma screener throughout the target zones was given in an effort to enable adults to better identify family members with asthma and better manage the disease. While the numbers of screenings were below our goal, 38% of the screenings completed indicated that there is asthma in their family.

BREATHE LA held several events at five different schools outside of the regular after-school program including “Environmental Education Week” and “Spirit of Green.”

**Provide a narrative description of the project.**

The O<sub>2</sub>4u program provides for qualitative feedback and measurable results to ensure that we are meeting our educational objectives and achieving our outcomes. The Train-the-trainer model allows BREATHE LA to expand to several school districts throughout Los Angeles County conducting the O<sub>2</sub>4u™ Environmental Education program in multiple communities. In addition to educating the children that participate in the O<sub>2</sub>4u™ program, when utilizing the train-the-trainer model, it also trains many college students to become environmental education facilitators and role models for youth in communities most impacted by the negative health effects of air pollution.

Children ages 6-14, or from first through eighth grade, participate in the O<sub>2</sub>4u™ program. The curriculum, which has been aligned to meet grade standards and state environmental education principles, includes topics such as air pollution and environmental changes, health effects of air pollution, toxic indoor environments and the use of alternative fuels and renewable energy. Each topic includes fun activities that educate and empower children to make changes for clean air. The program provides the knowledge and background for the students to become advocates for clean air within their homes, schools and communities.

**Provide a narrative discussion of the actual project results (outputs and outcomes) based on the metrics defined in your workplan. Please describe the methodology used for any quantitative results. Outcomes and outputs may include, but are not limited to:**

- Number of filters installed;
- Number of people served;
- Number of educational sessions held;
- Decrease in missed school/work days;
- Decrease in hospitalizations;
- Improvements in quality of life;
- Other

**Use additional sheets if necessary.**

## ***Outcome Measurement Goals:***

### Environmental Education

- 75% of respondents will identify at least 3 actions harmful to the environment
- 80% of respondents will identify at least 3 processes that can reduce and/or reverse these harmful actions
- 75% of respondents will report implementing at least 2 individual behaviors (i.e., recycling soda cans and paper)
- 90% of respondents will report talking to parents/family, friends and/or teachers about recycling

During 2013-2014 Fiscal Year, BREATHE LA continued serving the children in the Long Beach harbor area. BLA health educators revised the curriculum before the new school year to keep O<sub>2</sub>4u™ fresh and up to date, gathered qualitative and quantitative data through pre and post-tests to assess knowledge and behavioral changes, and conducted community outreach activities.

### ***Actual Outcome:***

Pre- and post tests were administered to all students that participated consistently in the entire O<sub>2</sub>4u™ program. During the first session, a pre-test was given to assess the student's baseline knowledge before participating in the O<sub>2</sub>4u™ program, and a post-test was given during the last sessions of the program. The final evaluation instrument was comprised of a 12-item multiple choice sections used to measure changes in knowledge about environmental harms and ways to reduce /reverse these harmful actions, and a 7-item short answer section that assessed self-reported behavior changes. The results of the pre and post testing allowed us to assess increases in knowledge, changes in attitude and awareness, and changes in behavior. BREATHE LA analyzed the results taken from a convenience sample of after school students that participated in the O<sub>2</sub>4u™ program.

The results below are taken from the 2013-2014 school year, and are representative of the results from previous years. Overall, post-test results seem to indicate that the O<sub>2</sub>4u program is helping its young participants become more conscious of environmental issues and assimilate that knowledge into their own daily lives through their actions and personal choices. The O<sub>2</sub>4u program had four key areas that were measured to assess changes in knowledge and self-reported behavior change. The grant objectives two and three state: **Increase youth knowledge about airborne toxic emissions causes, effects and reduction plans; Change youth attitude and behavior to promote action that achieve sustainability and greater lung health**

**Outcome 1:** (Knowledge acquisition) Goal of 75% of participants will have significant improvements in their ability to identify individual behaviors that contribute to the release of greenhouse gases and an increased carbon footprint.

**Results:** **72% of participants** were able to identify at least three actions that are harmful to the environment. There were three questions that measured knowledge acquisition as it pertains to the release of greenhouse gases. In this outcome, the group indicated a 28% increase in correct response rates from pre-to post assessment ✓ **Objective achieved.**

**Outcome 2:** (Knowledge acquisition) Goal of 80% of participants will identify three processes that will reduce and/or reverse harmful effects to the environment.

Results: Through short answer questions, **76% of all respondents** were able to identify three processes that would reduce and/or reverse harmful effects to the environment upon completion of the program. ✓ **Objective achieved.**

**Outcome 3:** (Behavior change) Goal of 90% of participants will report talking to parents/family, friends and/or teachers about recycling.

Results: At post assessment, **62% of respondents** reported talking to family and friends about recycling. While this was under our stated goal, this was an improvement from the pre-test score. This result would improve with increased follow up and increased number of workshops for parents and families.

**Outcome 4:** (Behavior change) Goal of 75% of the respondents will report performing at least three behaviors that will reduce/reverse harmful effects on the environment.

Results: At post assessment, there were four questions that measured self-reported behavior changes that aimed to reduce harmful effects on the environment. The post assessment revealed that **88% of the respondents** reported they perform three behaviors that will help reduce/reverse the harmful effects of the environment (i.e. recycle, bicycle, pick-up trash). ✓ **Objective achieved.**

**Outcome 5:** (Behavior change) Goal of 30% of the participants will engage in a civic or community action related to improving the environment.

Results: **56% of respondents** participated in civic actions to improve the environment. ✓ **Objective achieved.**

While the results of knowledge and behaviors did increase, BREATHE LA believes that The Port of Long Beach should continue this program for three more years and increase the measurement of success on **direct health impact** as it relates to number of symptoms, hospital visits, missed days of school, or parents missed days of work as a result of asthma episodes.

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<sup>i</sup> California Department of Public Health, "Asthma in California: A Surveillance Report," May 2013, [https://www.ehib.org/papers/Asthma\\_in\\_California2013.pdf](https://www.ehib.org/papers/Asthma_in_California2013.pdf), accessed July 2013.