

## Taking care of K-12 students during Kilauea's Eruption

### Resources for Teachers, Coaches, School Staff

As a teacher, coach, or other school staff you are on the frontline to meet the needs of your students. Below are resources that will assist you with the challenges brought on by a volcanic eruption. Recent volcanic activity at Kīlauea has resulted in lava flows, earthquakes, ashfall events, and higher amounts of vog (sulfur dioxide gas and/or fine particulates (PM<sub>2.5</sub>) depending on your location on Hawai'i Island). These impacts have displaced many students and their families, and the associated challenges can be stressful for your students, families, colleagues and you. We hope this information can be helpful.

- **Comprehensive Website to Access Vog Information:** The Hawaii Interagency Vog Dashboard: <https://vog.ivhhn.org/>. A few key sites among many options/topics on this website include:
  - In the *Vog and Wind Forecast* block: VMAP - UH Mānoa Vog Forecast Model: Provides animated maps for both sulfur dioxide gas and fine particulates (called 'sulfate aerosols') showing a forecast of where winds will take the vog over the next two days, as well as the forecasted magnitude of concentrations in air using a color-coded index. Use this resource to help anticipate when vog will impact your school.
  - *Air Quality Data* block: Provides multiple sites presenting near real time air quality data for both sulfur dioxide and/or fine particulates (PM<sub>2.5</sub>), depending on location. Get to know data site(s) located at your school or as close as possible to your school to be able you to check as necessary for the current air quality conditions. The Department of Health air monitoring site network is typically relied on, however if other air monitoring network data are available for the school or school area, that can also be checked.
  - *Schools Information* block: This is a section where information most pertinent to schools and volcanic emission impacts will be posted as available.
- **School Action Plans for Sulfur Dioxide, Particulates (PM<sub>2.5</sub>) & Ashfall Events:**
  - For copies of these Action Plans, see links on the "Schools Information" section of the Vog Dashboard (<https://vog.ivhhn.org/>) or the DOE website (<http://bitly.com/HIDOE-Kilauea>). School Action Plans are color-coded to match the Dept. of Health short-term health advisory for sulfur dioxide (SO<sub>2</sub>) or the USEPA fine Particulate Matter (PM<sub>2.5</sub>) health advisory for different concentration levels in air.

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- Teachers, coaches and school staff should be familiar with the locations of and protective measures used in designated 'sensitive room(s)'.
- **Actions:**
  - Check the daily air quality in your area for vog:
    - See the VMAP Forecast Model and the Air Quality Data blocks on the Interagency Vog Dashboard site noted above.
  - Sign up for the County of Hawai'i Civil Defense 'Blackboard' messaging service for your computer or cell phone: <https://countyofhawaii.bbcportal.com/> as the County may communicate elevations in vog levels and associated actions using this service.
  - Contact School Health Assistants (SHA) if students are experiencing irritation or other health effects.
  - Request a check of vog levels when you suspect elevated levels may be causing ill health effects. Request a hand-held monitoring device (e.g. SO<sub>2</sub> monitor) if your school has one available.
  - Work with your school's Safety Officer or Administrator on any air quality issues or concerns for your classroom.
  - Plan alternate indoor activities if unable to have outdoor recess.
  - Promote overall wellness and stress management for your students and school.
- **Asthma Management:** Students spend most of their days at school or in after-school sports and activities. Many of these students may suffer from asthma. For example, approximately 1 child out of a team of 15 student athletes will have asthma. There are several things that schools, teachers and coaches can do to ensure the health and safety of students with asthma:
  - Identify students with asthma in your classroom.
  - Recommend to parents/legal guardians of students with asthma that they develop a written Asthma Action Plan with the student's doctor, then coordinate on this plan with the School Health Assistant or health designee.

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- Remind parents/legal guardians that they should contact the athletic director/athletic trainer for proper storage of any emergency medication and medical response plans for students participating in athletic programs at schools.
- Look for early signs/symptoms of an asthma attack and get students care. Make sure you can identify the signs and symptoms of an asthma attack or worsening asthma. Common symptoms of an asthma attack are Coughing • Chest Pain or Tightness • Shortness of Breath • Wheezing • Flushed, Pale, Ashen or Blush Looking Skin • Speaking in Clipped or Short Bursts of Speech.
- Stop outside activity if a student with asthma experiences breathing difficulty to have them rest/recover.

*Would you like to learn more about asthma?*

- The American Lung Association's [Asthma Basics course](#) is a free one-hour interactive online learning module designed to help people learn more about asthma.
- Check out the [Asthma Clipboard Program](#). The program is a 30-minute online education program that focuses on: 1) how to identify students experiencing worsening asthma or an asthma attack; 2) what medications are used and when to use them; 3) Ways to prevent exercise-induced asthma; and 4) steps to take when athletes are experiencing worsening asthma or asthma attacks.
- In Hawai'i, under State law [HRS 302A-1164](#), children with asthma are allowed to self-carry their asthma medication and/or keep their asthma medication with the school nurse or school health assistant.
  - If medication is stored at a DOE school an SH 36 form will need to be completed and the public health nurse (PHN) will need to do a consultation with the parent(s)/legal guardians.
  - If the student self carries the medication a self-administration of medication form will need to be filled out.
  - If the student is enrolled in a non-DOE school, please contact the school administrator or health designee.
- If a parent/legal guardian requests an Emergency Action Plan or an Individualized Emergency Action Plan for asthma, the SHA/health designee will make a referral to the PHN. For East Hawai'i PHN call 974-6025 and West Hawai'i PHN call 322-1500.
- For health questions contact your school's Health Consultant, the [Public Health Nurse](#), and/or your school's SHA.