

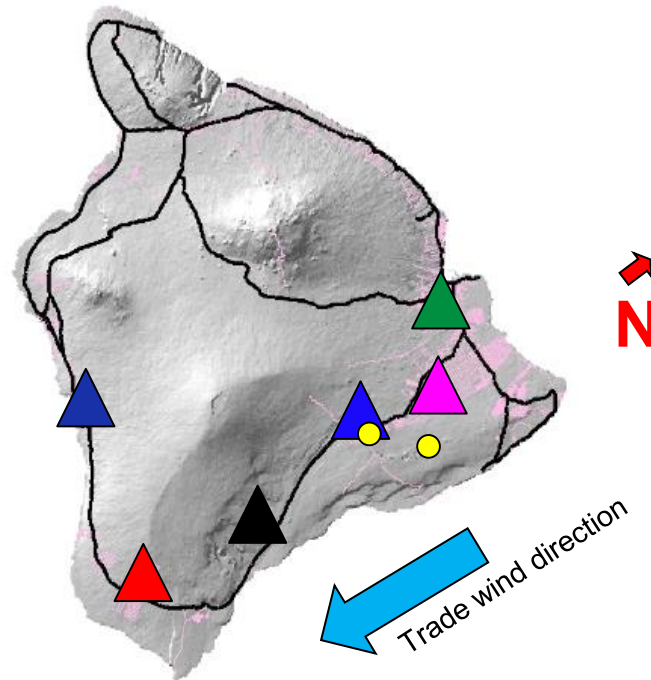
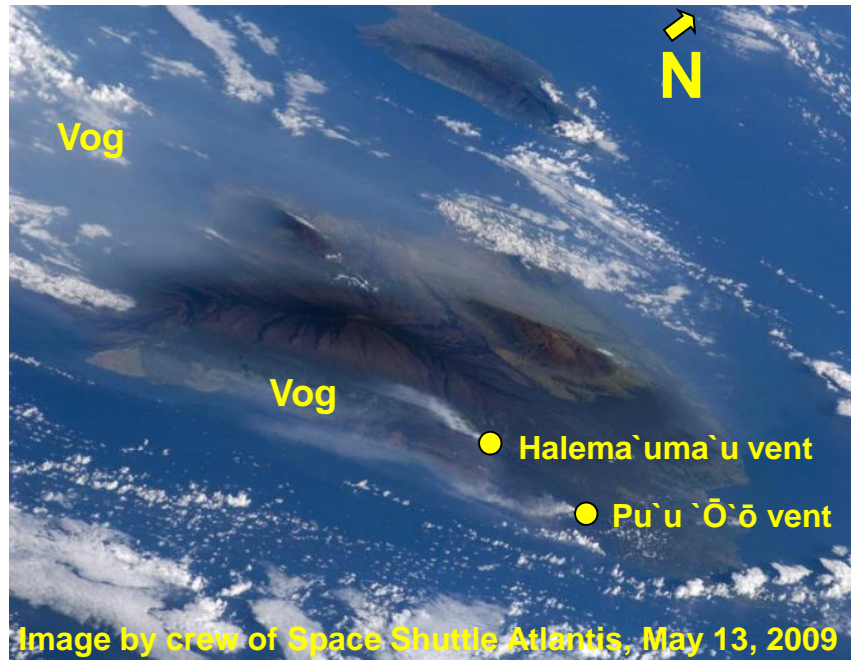
Prof. Claire J. Horwell¹ claire.horwell@durham.ac.uk
and Tamar Elias²

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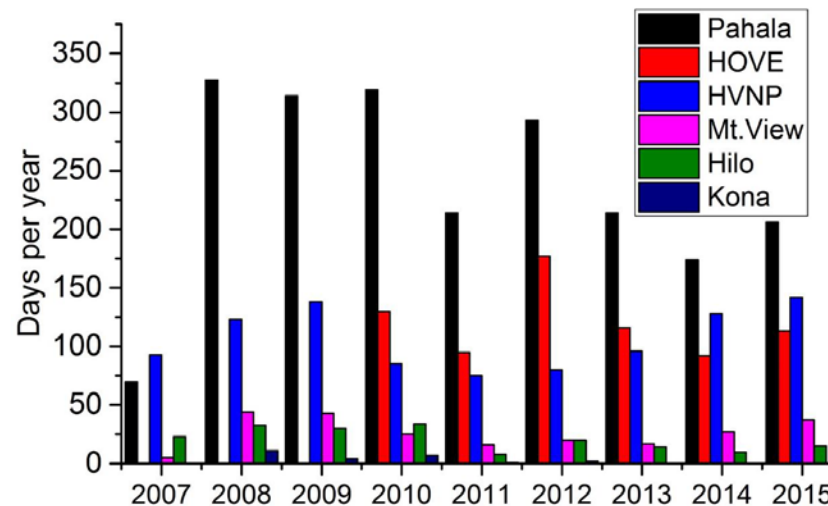
**‘This advice is absurd’
Issues with providing generic advice on
community protection from chronic
volcanic degassing**

Kilauea volcano, Hawaii emitted voluminous amounts of gas, known as 'vog' between 2008-2018



Halema'uma'u summit vent

Communities downwind were exposed to potentially harmful SO₂ gas and sulfate aerosol

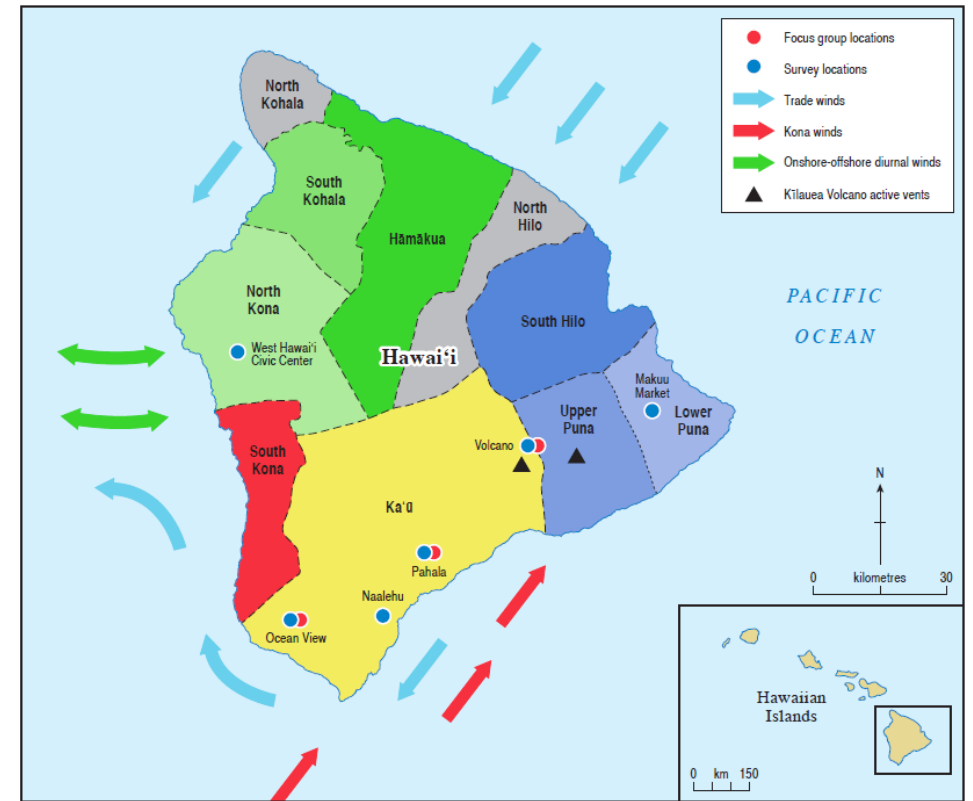


Days with SO₂ greater than health standard

Data courtesy of Hawaii State Department of Health and NPS. Chart colours match location symbols on map, above.

Why do a study about vog protection?

- It's a part of life in Hawai'i island
 - Several agencies offer advice ... not all the same ...
- ... but what do people actually do to protect themselves?
- Are people aware of existing advice? What do they think of it?
 - How would people like to be kept informed?



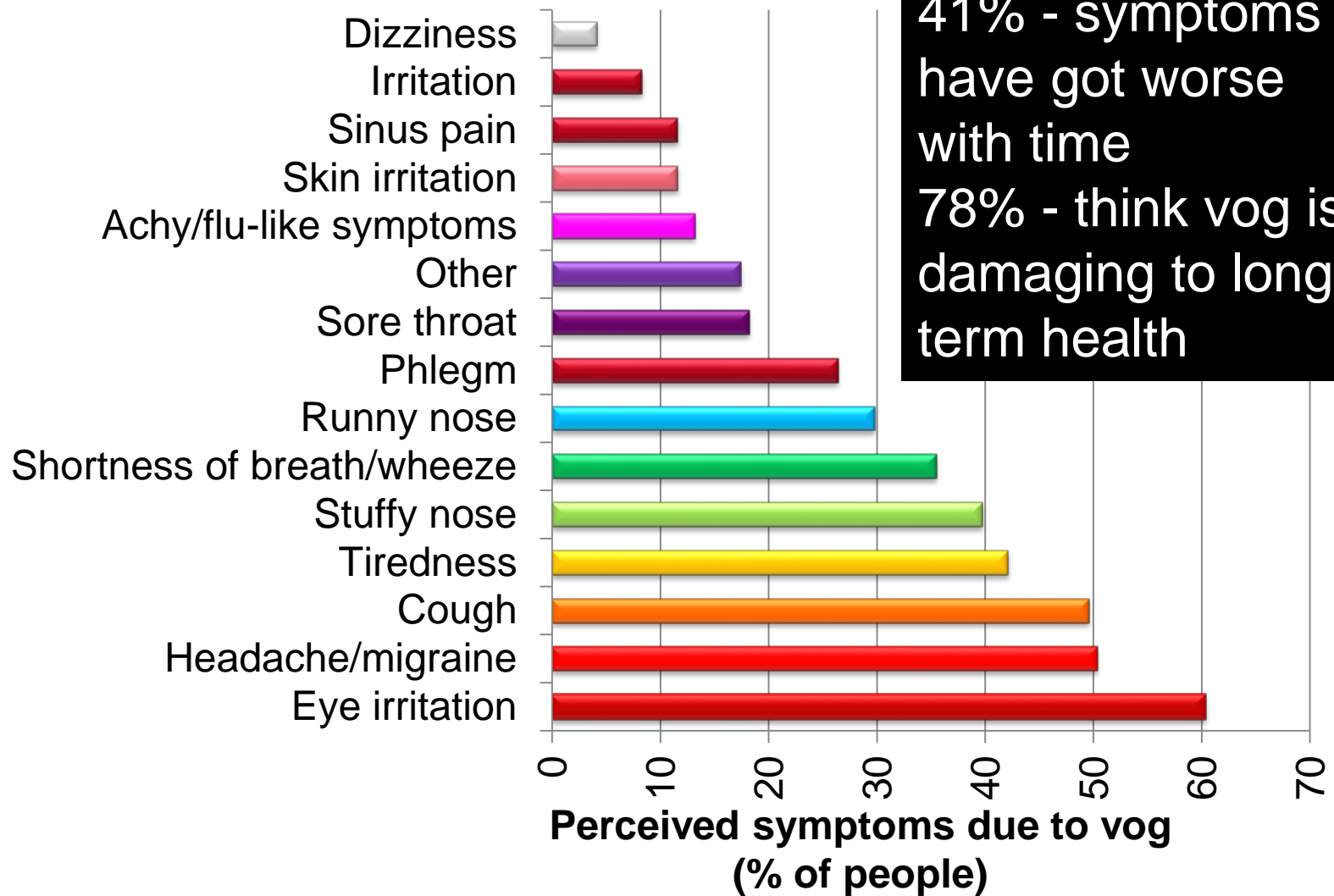
Survey locations



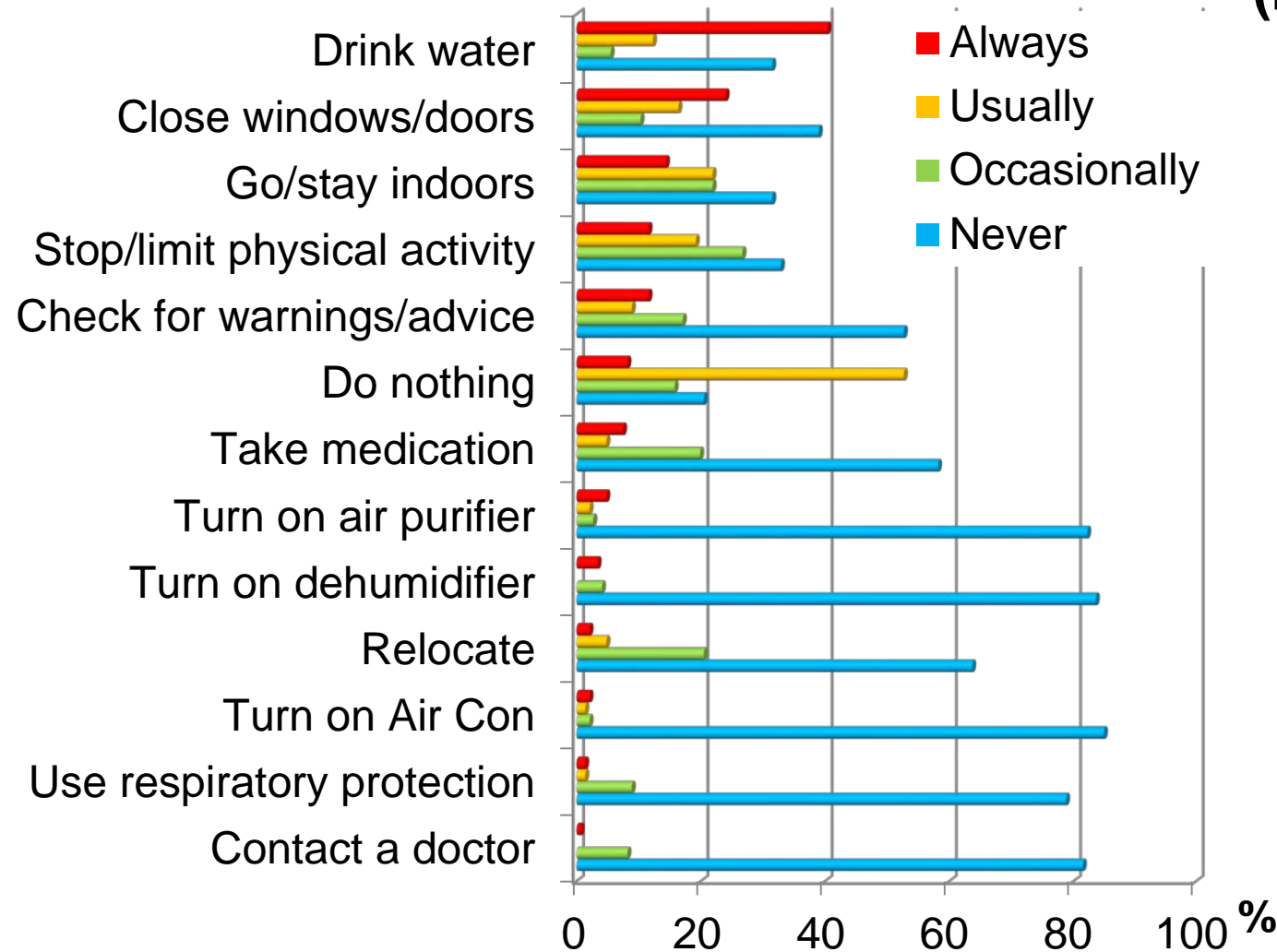
- **3** community focus groups
- **1** agency focus group
- **146** questionnaire surveys

Experiencing vog

82% believe they have health symptoms due to the vog
(96% in the 40-59 age category)!



Actions when it is voggy (as recommended by official advice)



53% do not take any action when it is voggy

Other things that people do when it is voggy (not part of official advice)



Hot drinks
relieve phlegm



Skin washing
stops stinging



Relaxing
exercise



Examples of products
used to reduce vog
symptoms
(no product endorsement!)

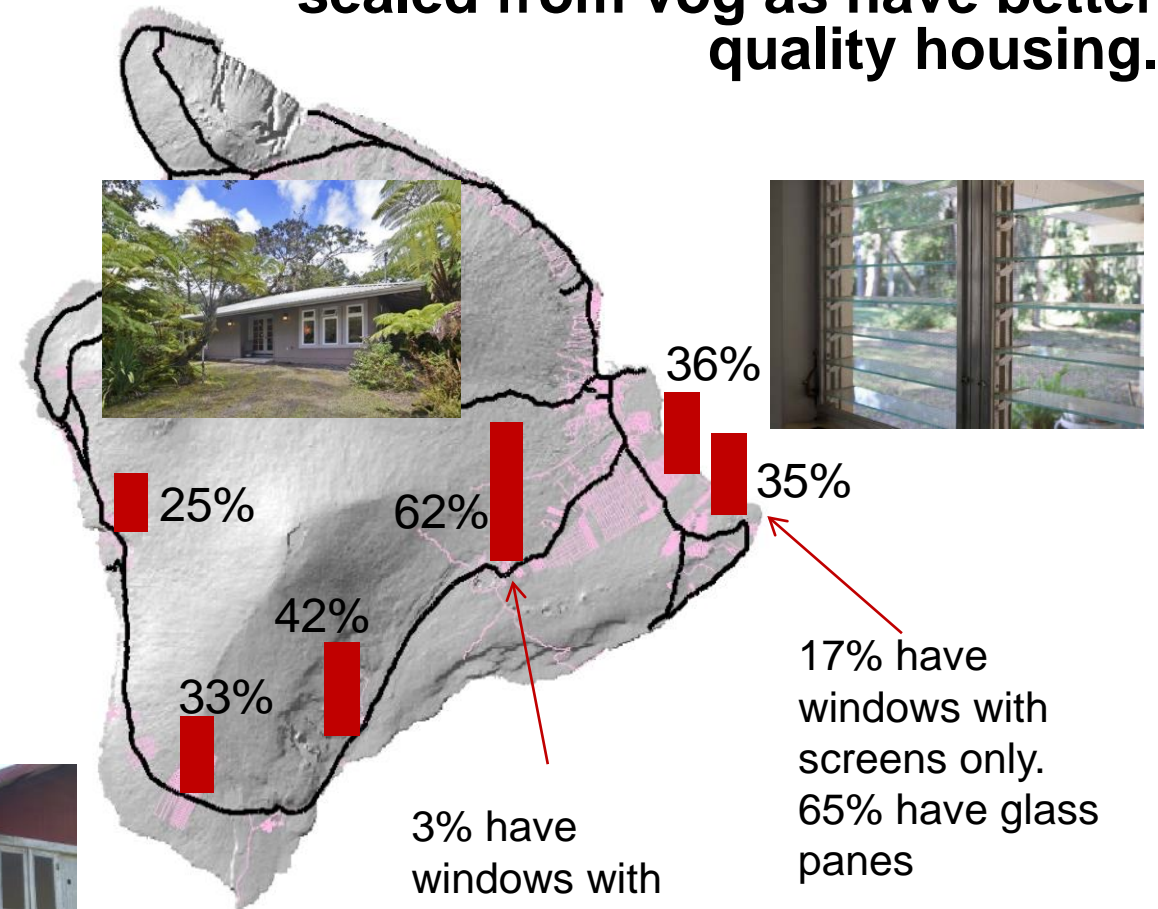


Vegetation may
absorb vog so
being in forested
areas may help

Why don't people take action?

- the vog does not affect them
- the recommended actions are irrelevant due to type of home or lifestyle ... 'the advice is absurd'
- unaware of appropriate protective actions

People at higher elevation are more likely to think that their home can be sealed from vog as have better quality housing.



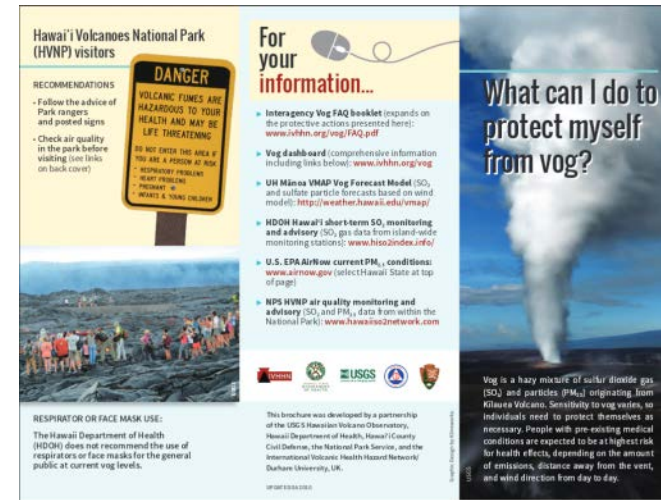
<http://www.realtor.com>

3% have windows with screens only.
94% have glass panes

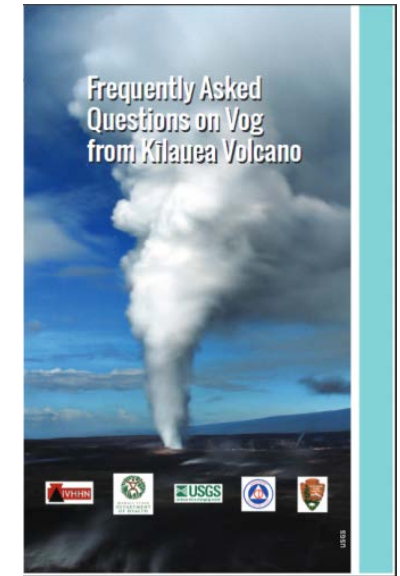
17% have windows with screens only.
65% have glass panes

Study outcomes:

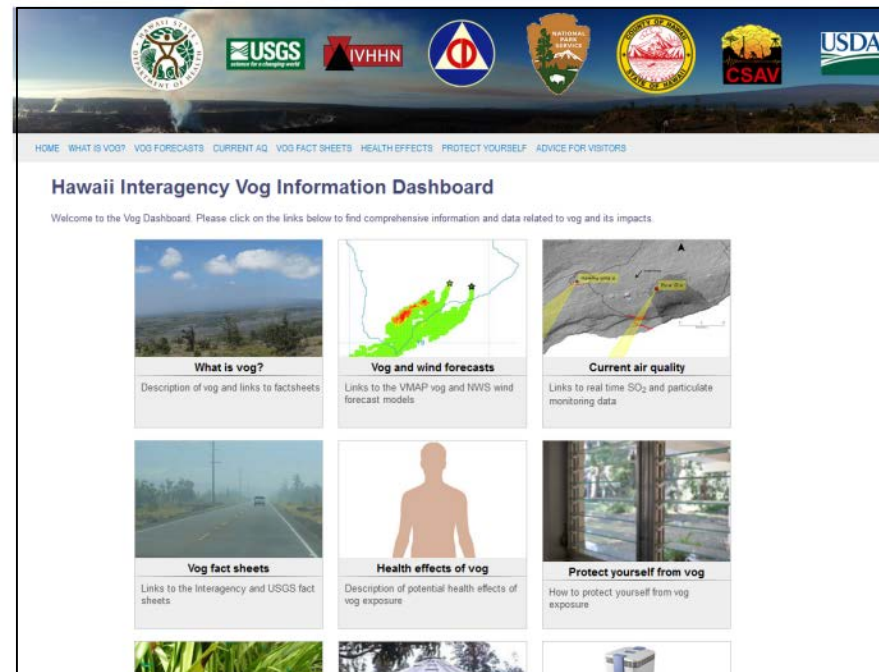
- New interagency group formed and rewrote all guidance.
- Same advice now used across all agencies.
- Advice made into printable products with varying levels of information. (click on images to go to products)
- New interagency 'Vog Dashboard' portal – one-stop shop for all vog info. Used extensively by public & media during the 2018 eruption crisis – 50,000 visits per day at peak.



Rack Brochure



Booklet Poster



Interagency Vog dashboard: vog.ivhhn.org

