

Dyson investigates air quality Sydney

Length of study
2 days

Participant
Leah Williams

Instagram
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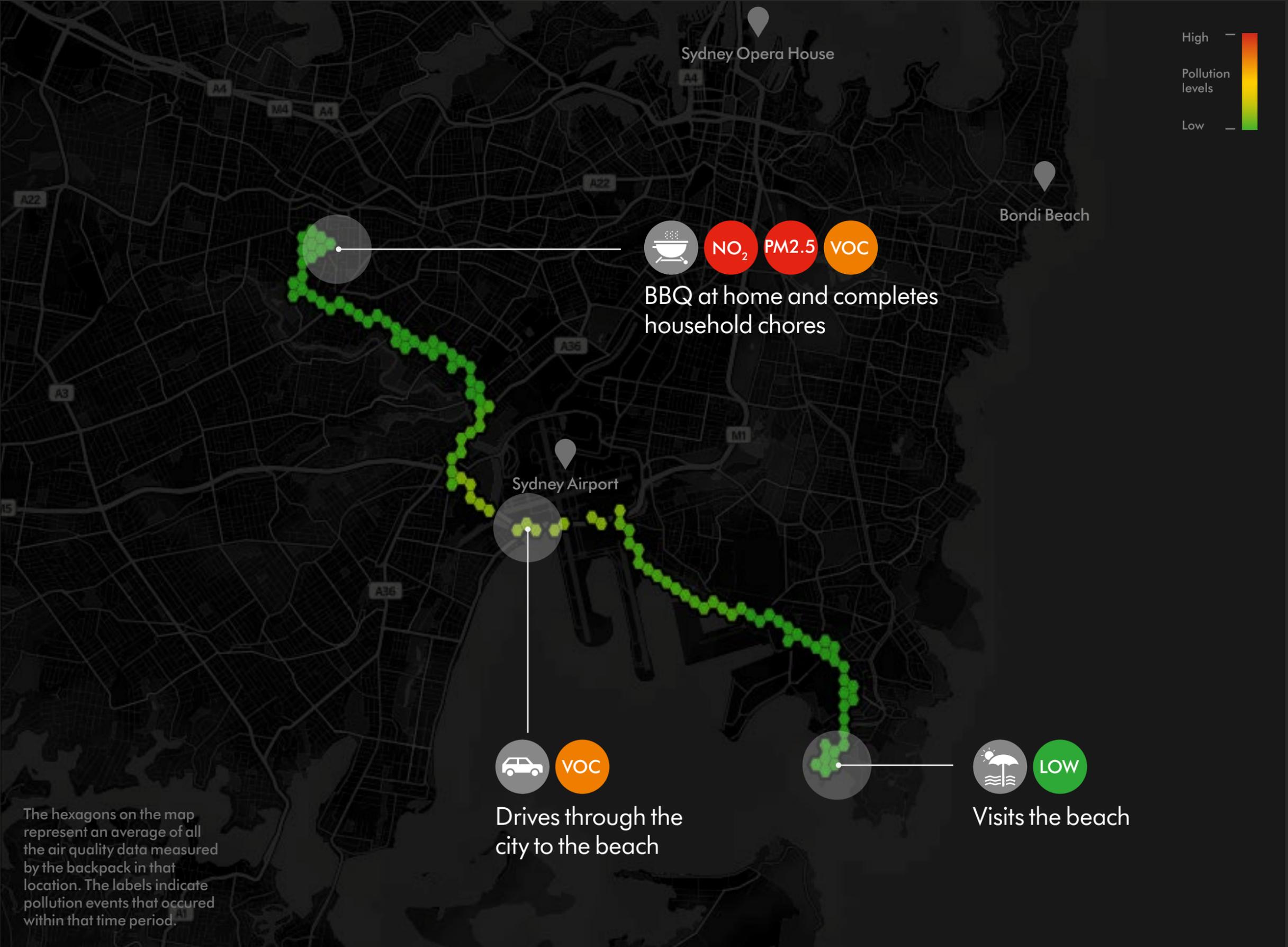
Throughout Leah's two days wearing the Dyson air quality backpack, she encountered different pollutants and levels of air pollution, which affected her personal exposure.

Pollutants identified

PM2.5
Microscopic particles smaller than 2.5 microns including smoke, bacteria and allergens.

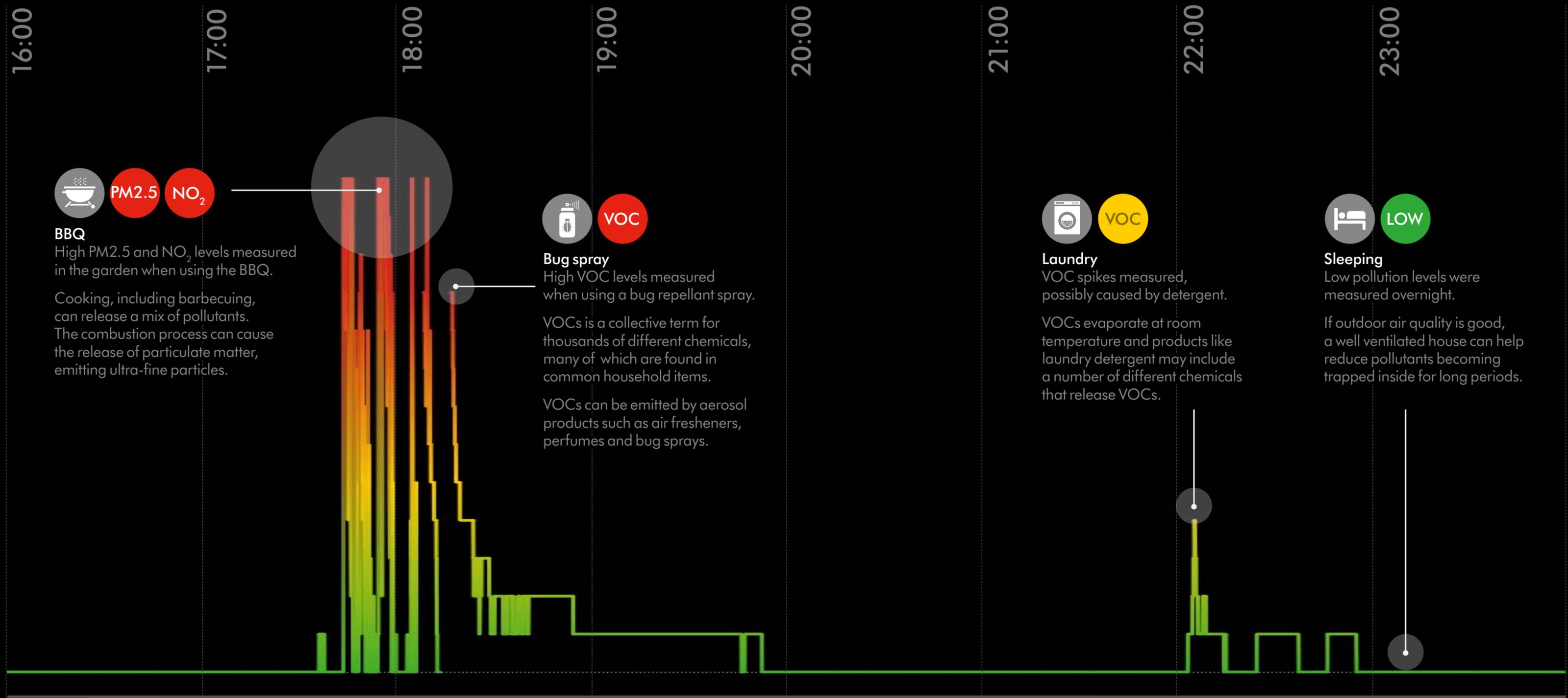
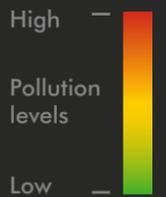
Nitrogen dioxide (NO₂)
Potentially harmful gases, released by combustion. Includes cigarette smoke, candles and gas stoves.

Volatile Organic Compounds (VOCs)
Gases released from a wide range of sources such as aerosol sprays and air fresheners. They include formaldehyde and benzene, household fumes and odours.



An evening at home

Air quality results



BBQ
High PM2.5 and NO₂ levels measured in the garden when using the BBQ.
Cooking, including barbecuing, can release a mix of pollutants. The combustion process can cause the release of particulate matter, emitting ultra-fine particles.



Bug spray
High VOC levels measured when using a bug repellent spray.
VOCs is a collective term for thousands of different chemicals, many of which are found in common household items.
VOCs can be emitted by aerosol products such as air fresheners, perfumes and bug sprays.



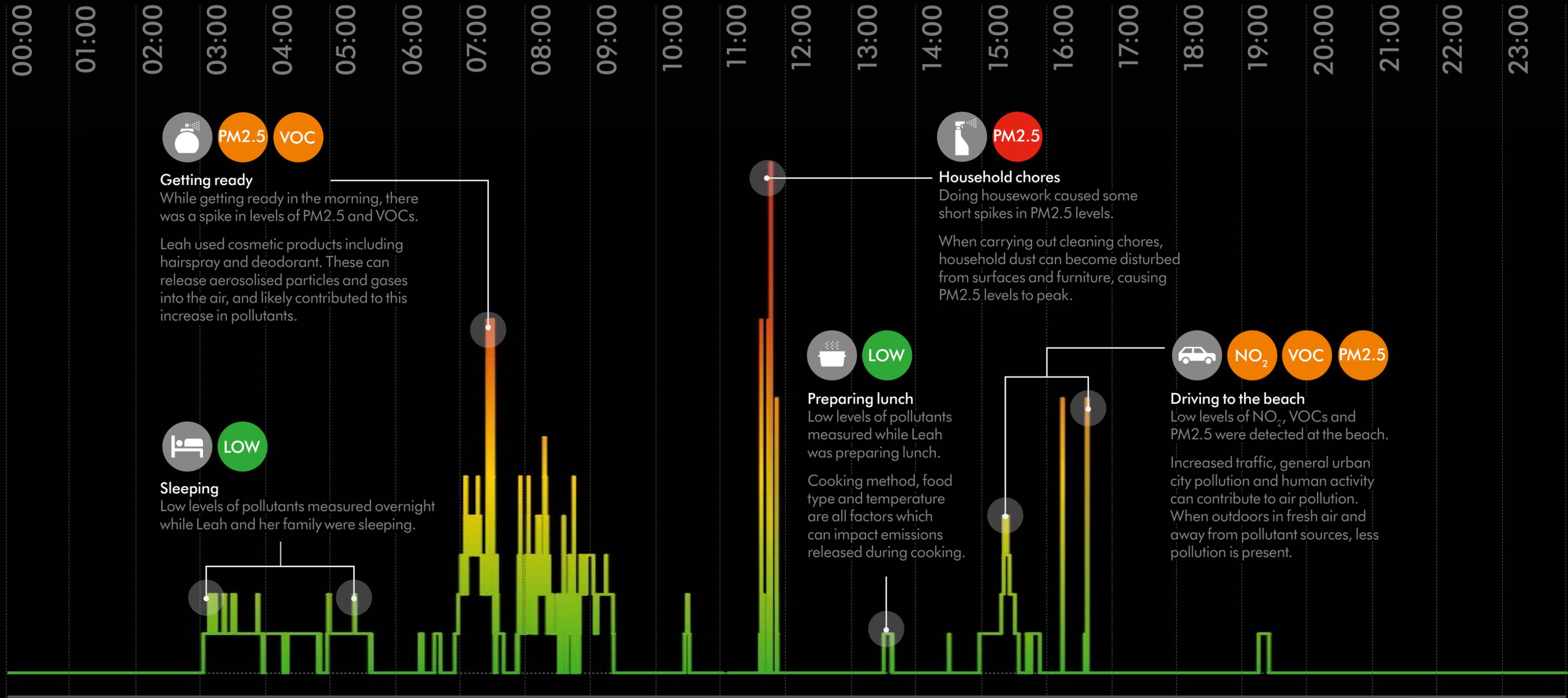
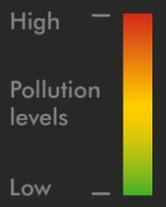
Laundry
VOC spikes measured, possibly caused by detergent.
VOCs evaporate at room temperature and products like laundry detergent may include a number of different chemicals that release VOCs.



Sleeping
Low pollution levels were measured overnight.
If outdoor air quality is good, a well ventilated house can help reduce pollutants becoming trapped inside for long periods.

A morning at home and a trip to the beach

Air quality results



Top tips

What can you do?

While you can't directly control air pollution outside, there are some simple actions that you can take to help reduce your exposure both indoors and outdoors.

Getting ready



Keep your house ventilated to help reduce concentration levels of pollutants that have become airborne. Consider choosing unscented personal care products.

If using aerosol products, open windows if the outside air is clean or spray them outdoors so the air clears more quickly and personal exposure is reduced.

Travelling



When travelling, consider the routes you are taking and transport method.

Try to avoid congested routes with high traffic flow and opt for quieter roads where possible.

Spending time outdoors



To reduce your exposure, check local air quality indexes online, which provide guidance on outdoor pollution levels.

Choose outdoor spaces away from pollution sources. Air circulation helps remove pollutants more quickly if a pollution incident occurs.

Cooking



When cooking indoors, open windows to increase airflow. Make sure appliances (fireplaces, stoves and ovens) are fully vented to the outdoors and are installed, used and maintained correctly.

Method, length of time and what you're cooking can all affect the build up of pollutants, so be mindful of this when trying to reduce personal exposure.

Cleaning and laundry



Use doormats and swap carpets for hard floors to help reduce the amount of dust in your home. Frequent use of a vacuum cleaner with good filtration is also an effective way to minimise dust.

Where possible, consider swapping cleaning products for warm water and natural soap. This can help reduce your exposure to certain pollutants.

Sleeping



Keep the house ventilated and if the outdoor air is clean, open windows to aid airflow.

Using a purifier indoors also helps to capture pollutants and project clean air around the room.