

Clearing the Air:

Air Quality Health Index

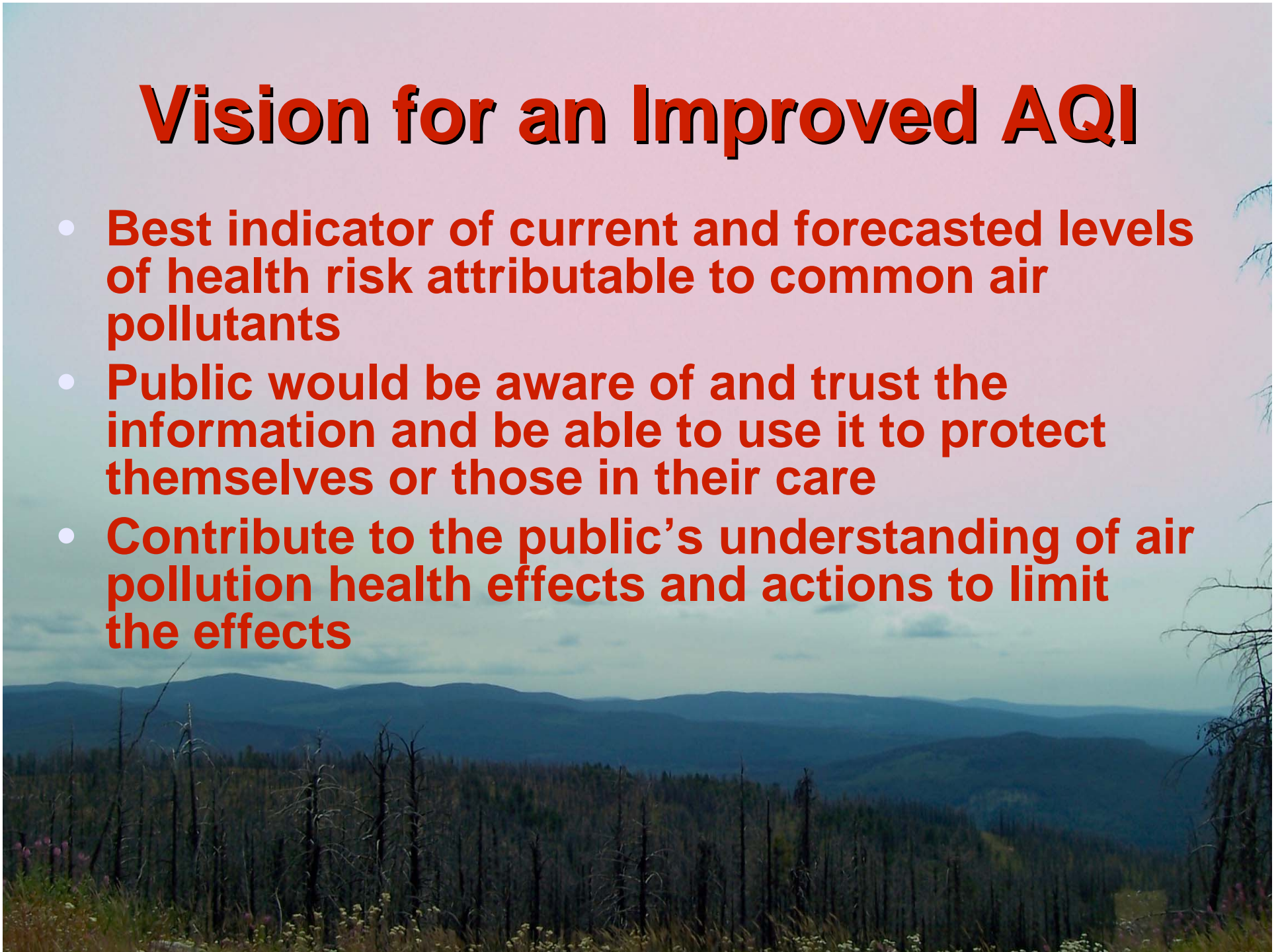
A new tool for communicating human health risk

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AQHI Management Committee

Vision for an Improved AQI

- **Best indicator of current and forecasted levels of health risk attributable to common air pollutants**
- **Public would be aware of and trust the information and be able to use it to protect themselves or those in their care**
- **Contribute to the public's understanding of air pollution health effects and actions to limit the effects**



The AQI not a national index

- Currently under the AQI formulation

PM at various jurisdictional values.

Quebec 35 ug/m³ PM_{2.5} (3hr. av.) = 50

Ontario 45 ug/m³ PM_{2.5} (3hr. av.) = 50

Alberta 80 ug/m³ PM_{2.5} (1hr. av.) = 50

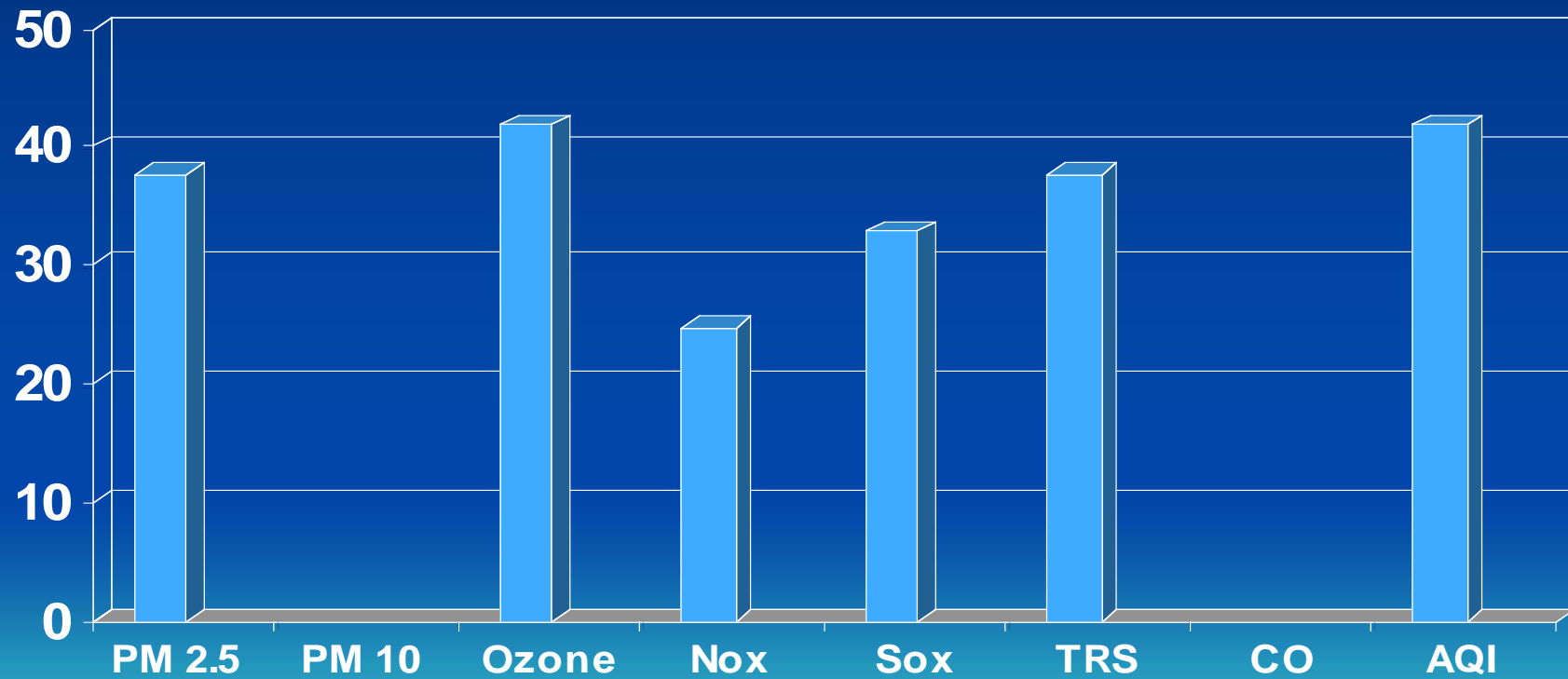
British Columbia 50 ug/m³ PM₁₀ (24hr. av.) = 50

Several provinces have not yet included PM in AQI



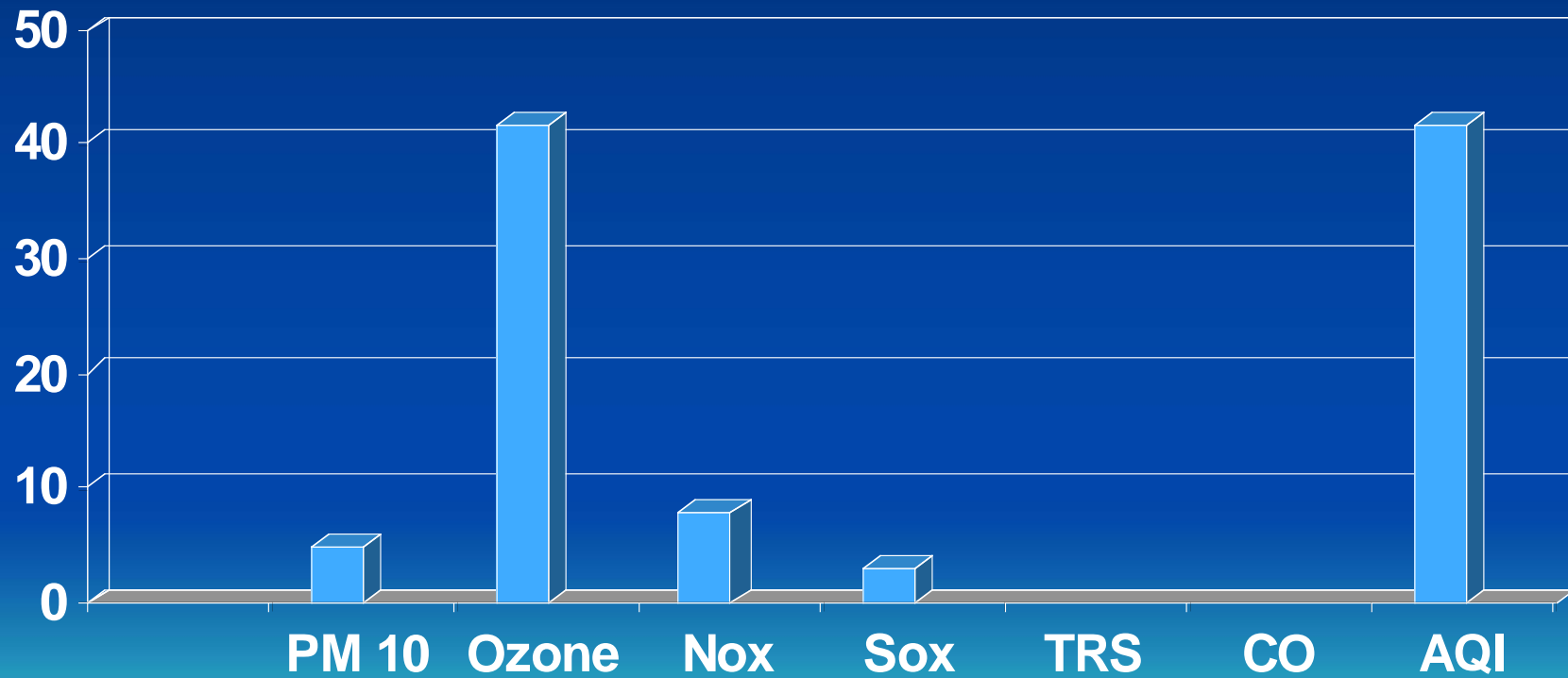
Example 1

Dirttown



Example 2

Cleantown

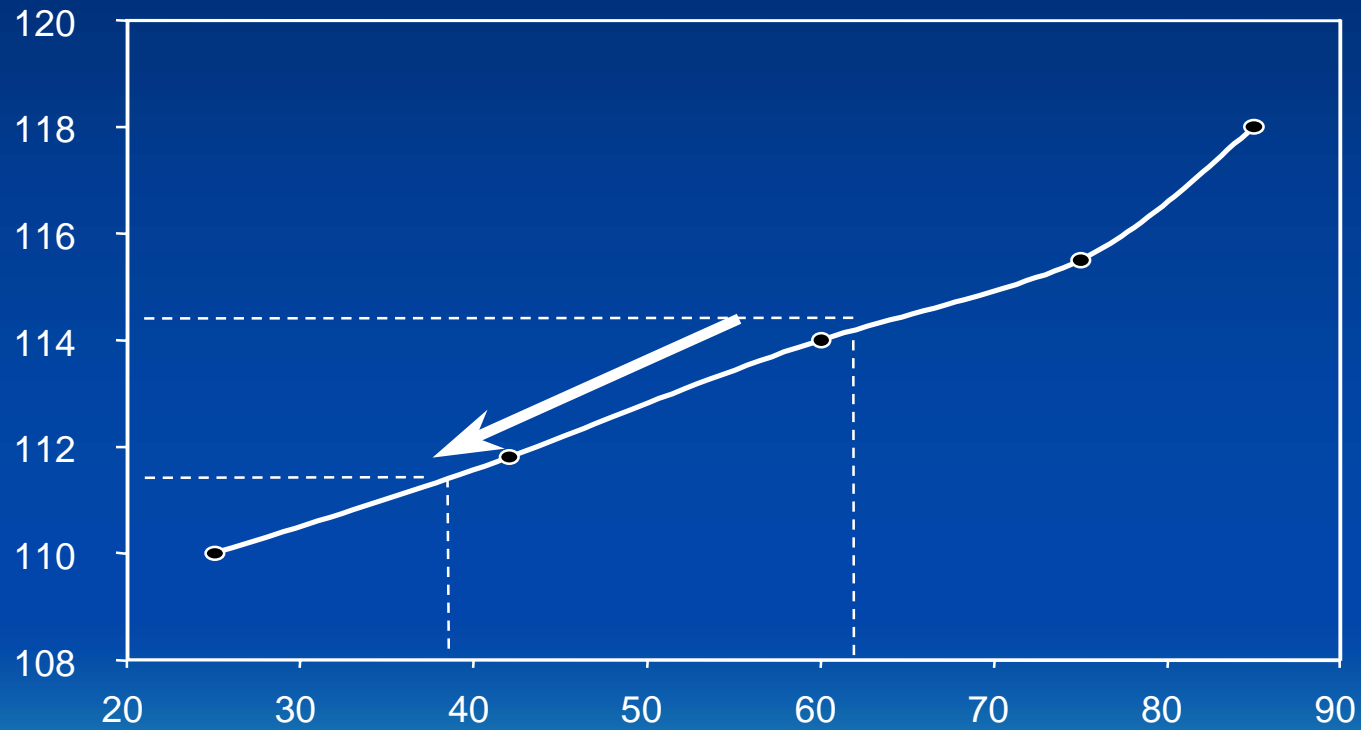


Basic Principles

- There is no safe level of contaminants in the air.
- There is a linear relationship between poorer air quality and poorer health outcomes
- Irrespective of the perceived quality of our air, we should try to make it better

Relationship between air quality and mortality as a health outcome.

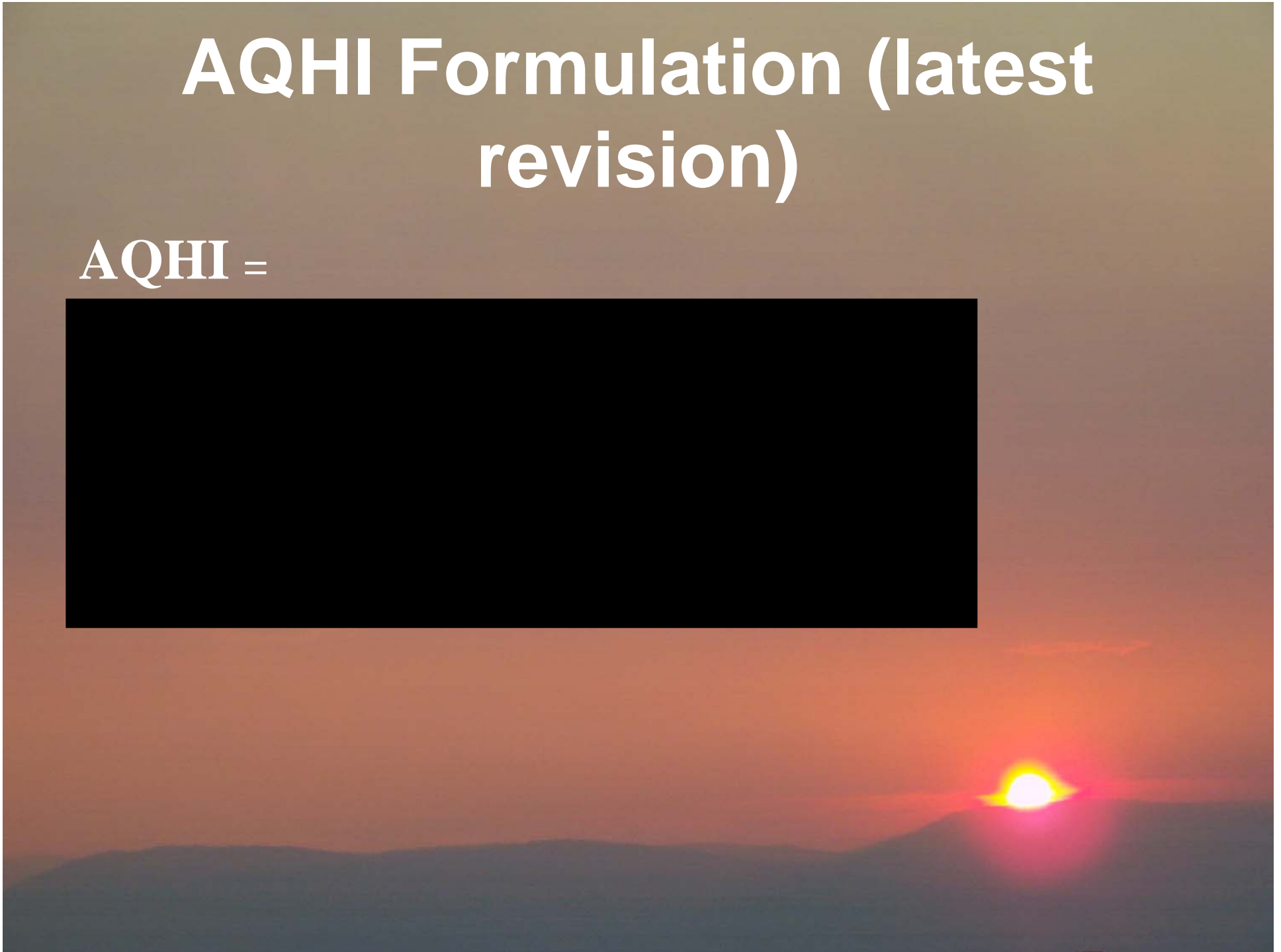
Mortality (% relative to background)



Air quality units

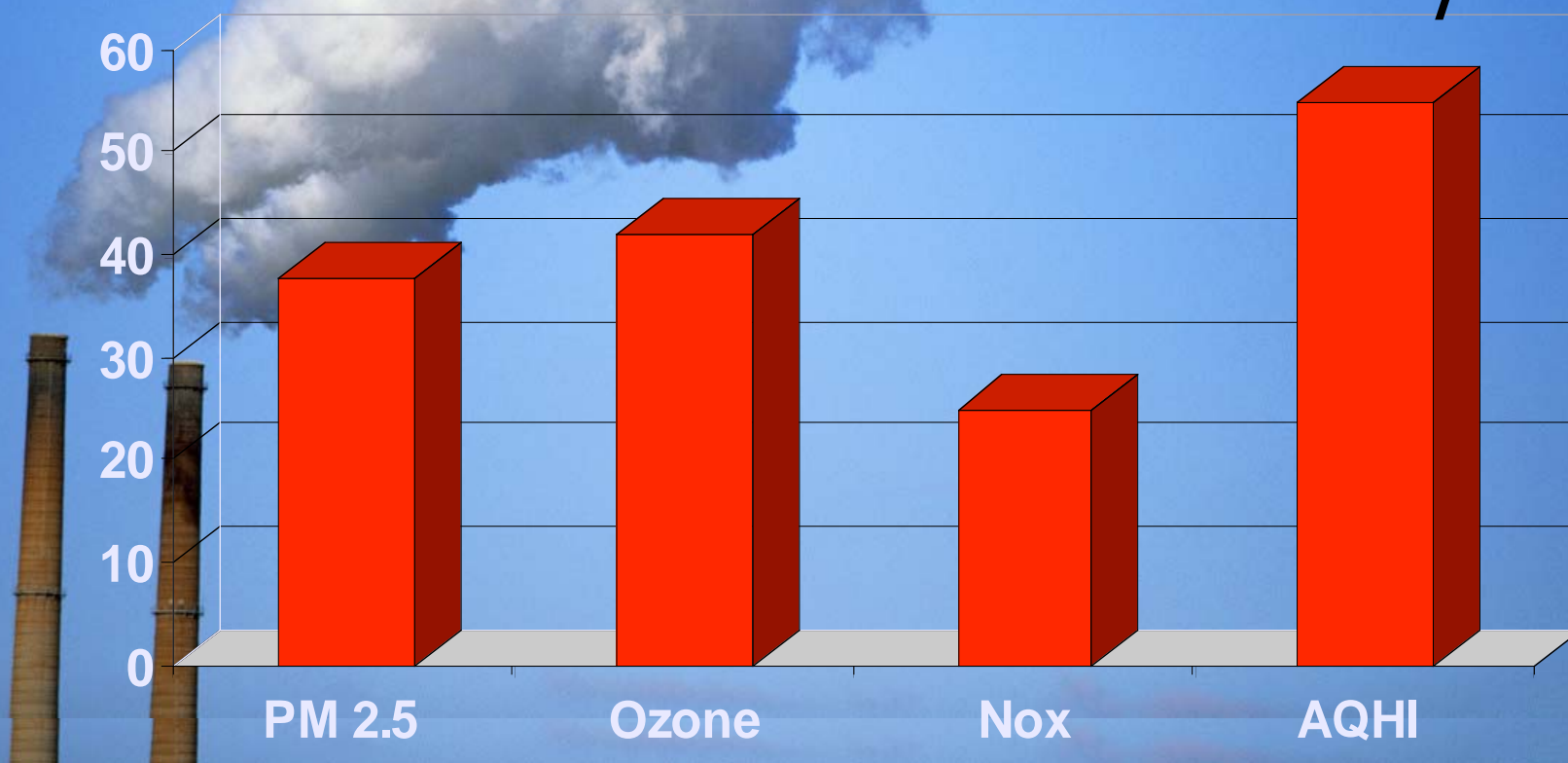
AQHI Formulation (latest revision)

AQHI =



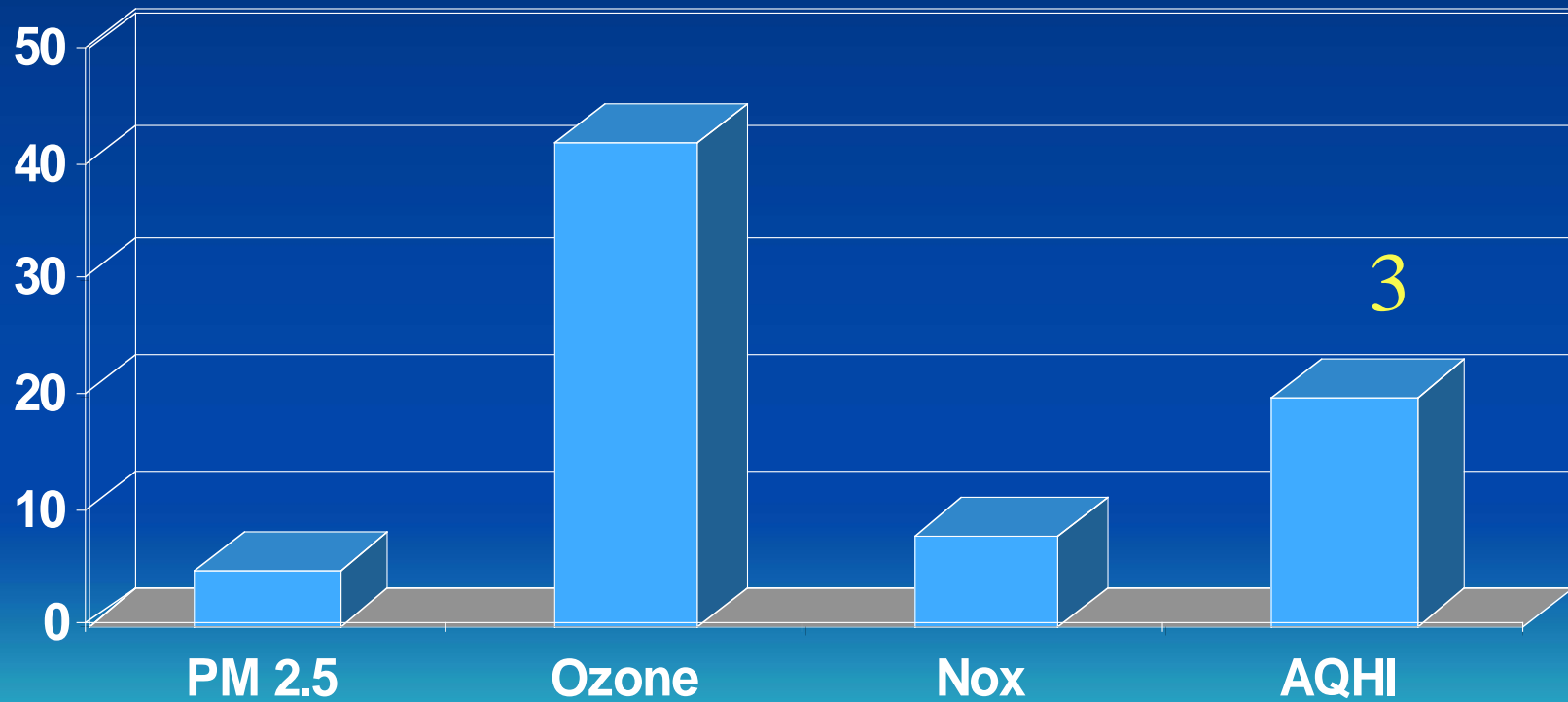
Example 1

Dirttown



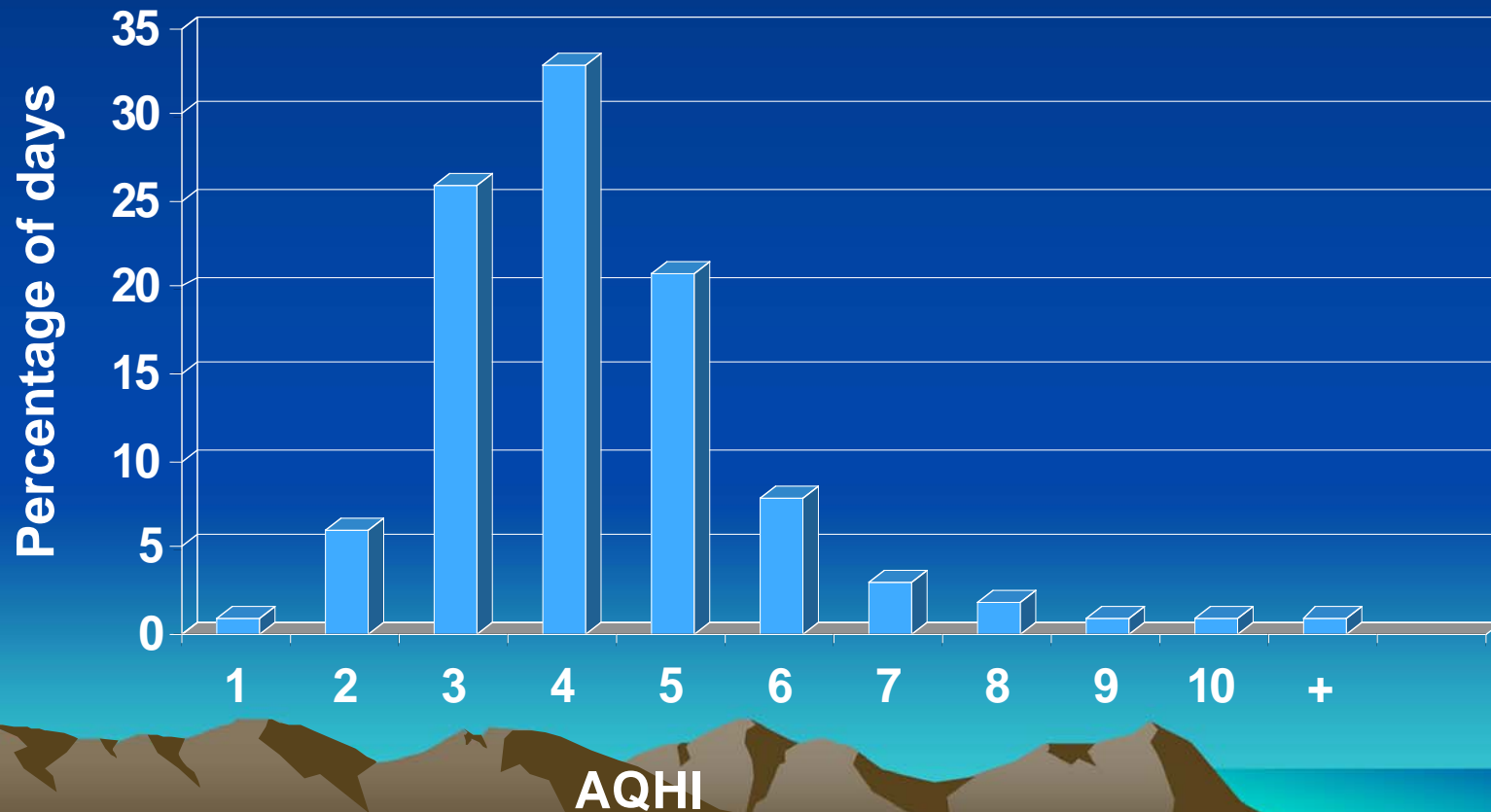
Example 2

Cleantown



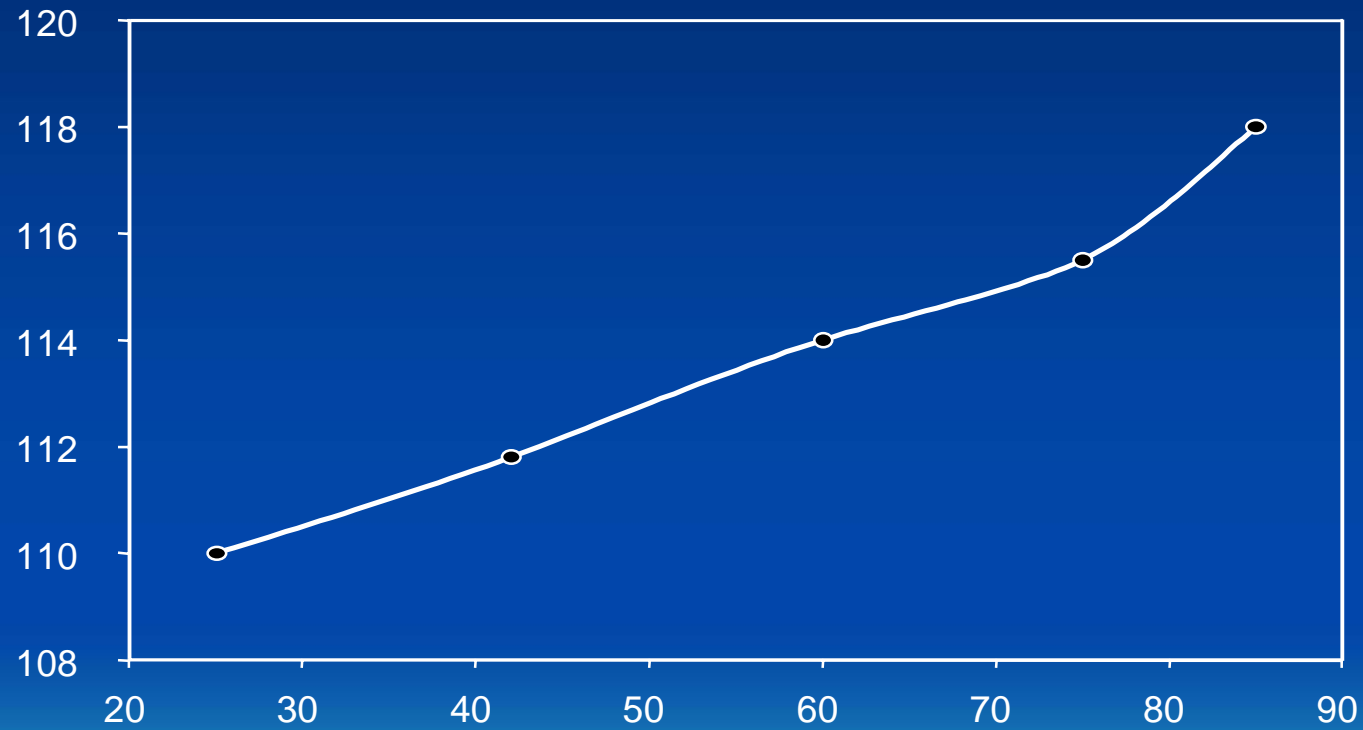
Health problems happen on “good” days

Distribution of AQHI in major Canadian Cities



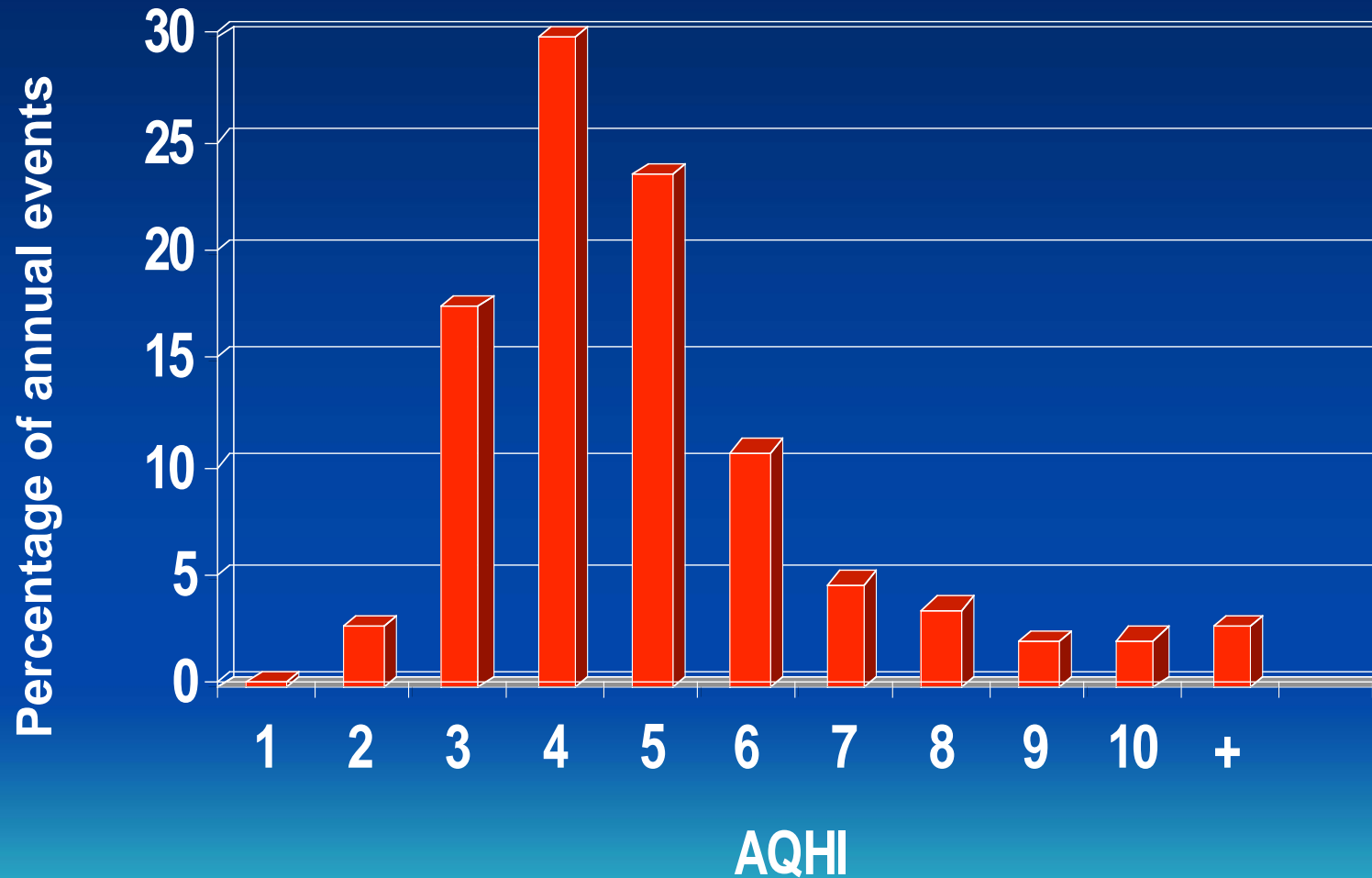
Relationship between air quality and mortality as a health outcome.

Mortality (% relative to background)



Air Quality Units

Number of adverse health outcomes by AQHI



Air Play Today: Current AQHI - Internet Explorer provided by Sympatico

Address <http://airplaytoday.org/>

File Edit View Favorites Tools Help

Google Search PageRank 48 blocked ABC Check AutoLink AutoFill Options

airplay

Check the **air** quality to plan your **activities** today

BC Air Quality Health Index Pilot

- Home
- Current AQHI
- All Communities AQHI
- Recent History AQHI
- Air Pollution & Health
- About the AQHI
- More Information
- What Do You Think?
- Tell A Friend

The Air Quality *Health* Index (AQHI) is a new way to help you protect your health.
Choose your community for today's Index.

Communities throughout BC

Communities within Greater Vancouver & Lower Fraser Valley

[What do you think?](#)

The Air Quality Health Index is a new way to help you protect your health. This website is part of a [Pilot Project](#) to

Done

Slide 14 of 16 Blends English (Canada) Internet

Start Stank... Re: M... Air Pl... AQ M... FW: ... Micro... Inbox... 2:34 PM

Air Quality Health Index

Moncton, New Brunswick: April 13, 2005, 8:00 am



Currently >

6 Moderate Health Risk

At Risk Population:

People with heart or lung disease (including asthma) should monitor symptoms as the index reading increases.

General Population:

Even healthy people may have more difficulty breathing as air pollution increases.

Forecast Maximum >

Today

Moderate Health Risk

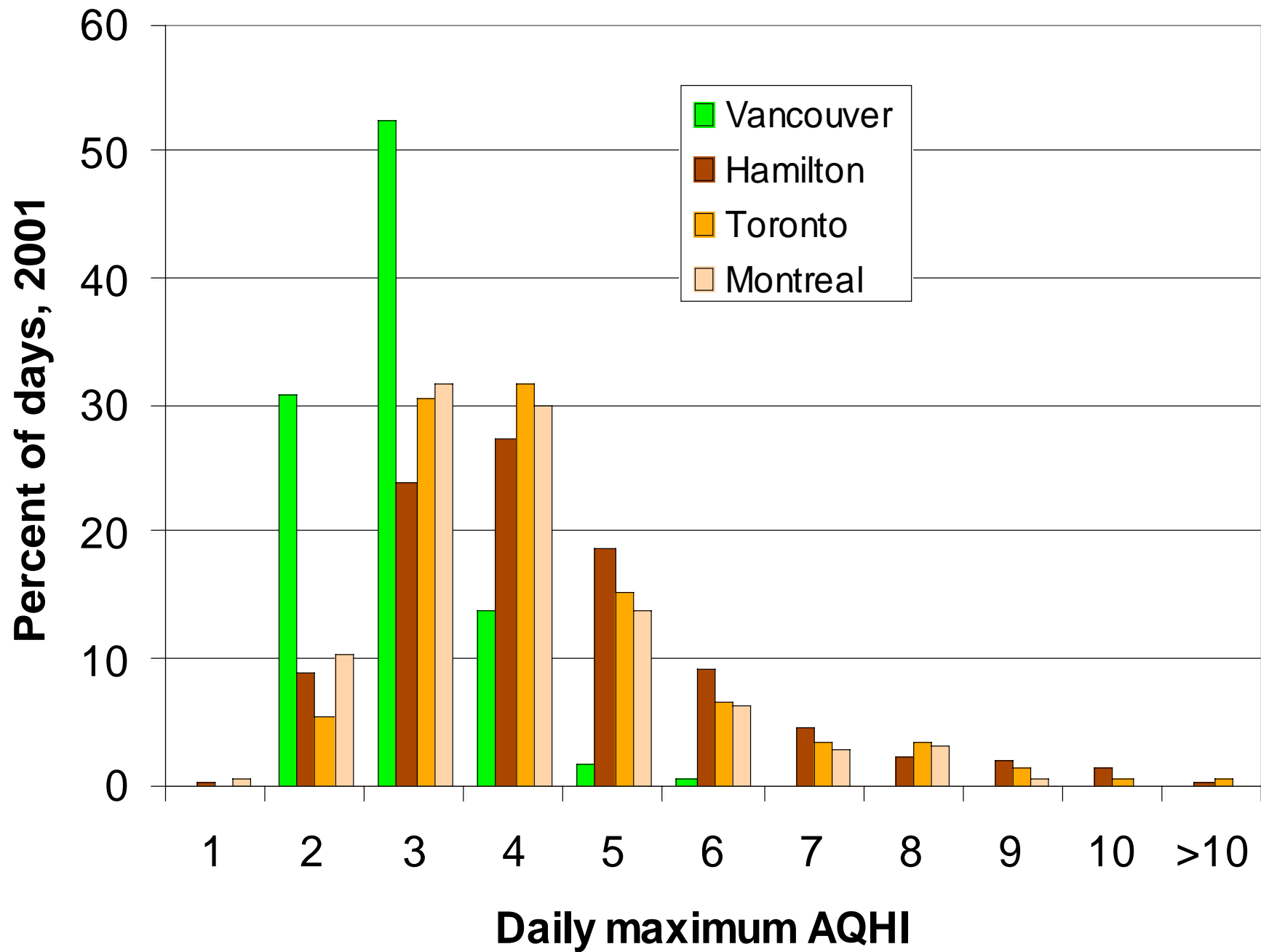
Tomorrow

High Health Risk

Did you know...

A full bus takes 40-60 cars off the road

[Not sure if you're at risk?](#)



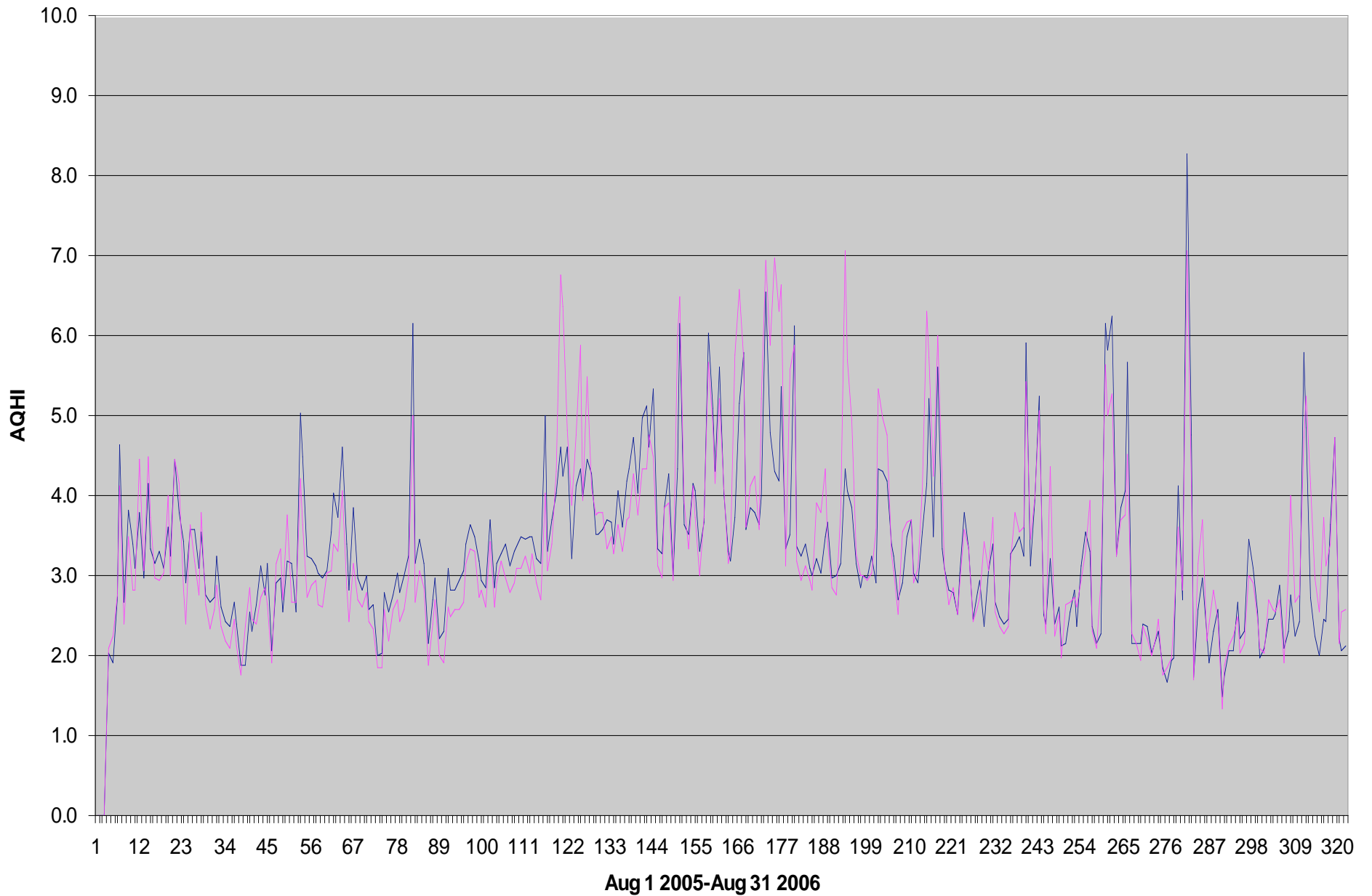
AQHI category



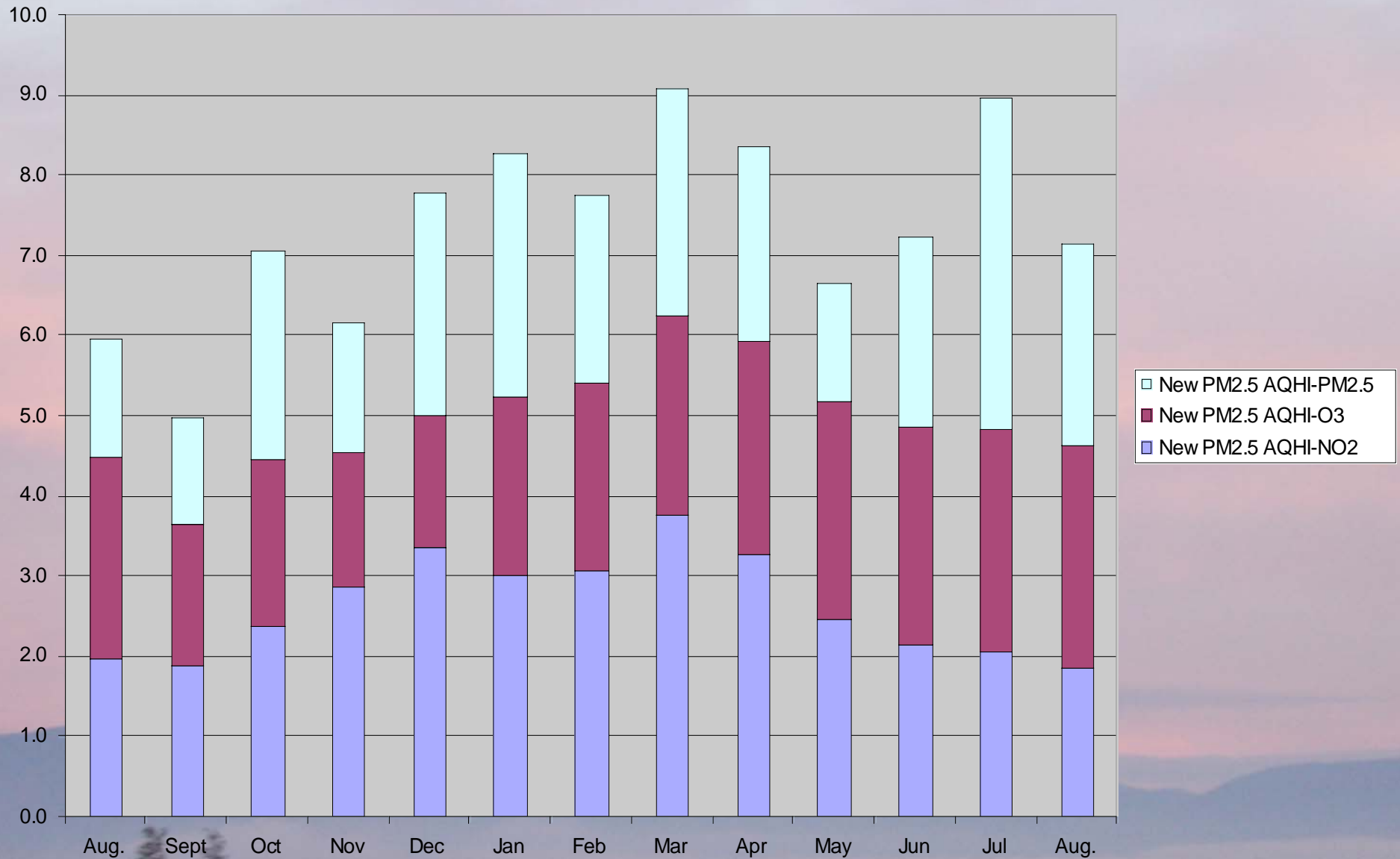
AQHI category

Prince George Aug 2005-Aug 2006: New PM2.5 AQHI and New PM10 AQHI-Daily Max

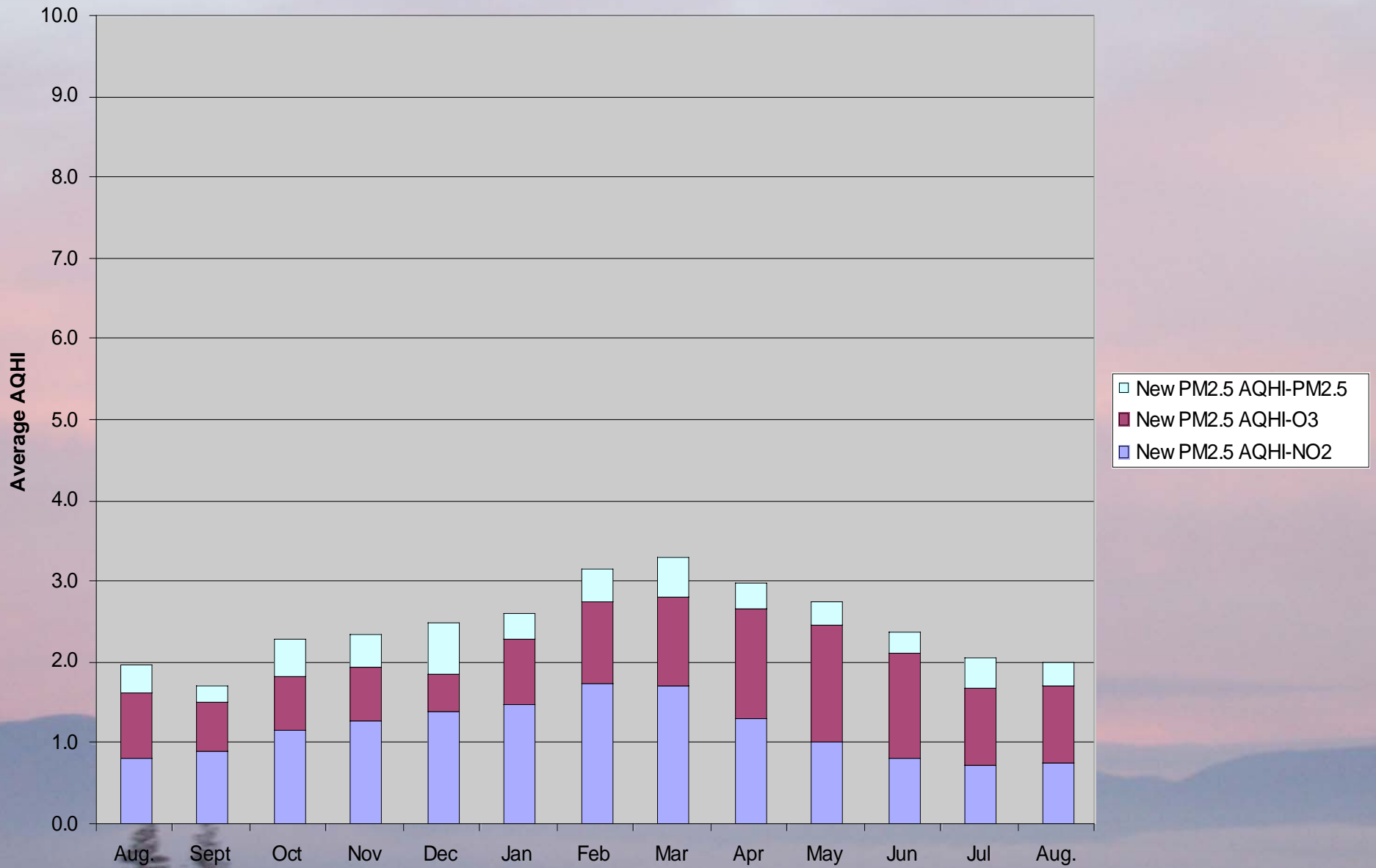
PM10 in mauve, PM2.5 in blue



New PM2.5 AQHI: Prince George Aug 2005 -Aug 2006-hourly maximum independent by month

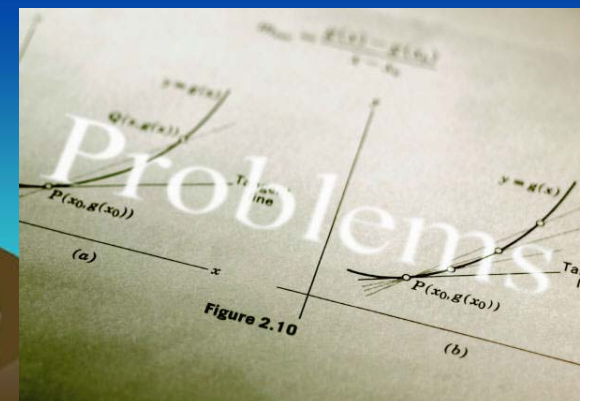


New PM2.5 AQHI: Prince George Aug 2005-Aug 2006-hourly average by month



Issues to Date

- Health messages are informative, but need for messaging to health care workers on how to advise patients
- Message bank may not be robust enough
- Relationship between monitoring requirements using current regulatory structure with new communication tool and index
- Buy-in of lots of folks



Major Issue

- The AQHI is not about adding together the risk associated with various different pollutants
- It is about representing and communicating the total health risk in a single index by using available monitoring information



Next Steps

- **“National” pilot, which includes most of BC, Toronto, possibly areas in Quebec, expansion in Atlantic areas**
- **Integration into EC weather reporting**
- **Review nationally of “brand” to operate in both official languages**
- **Communication outreach tool development**
- **Focus on health care professional messaging on how to use AQHI clinically**
- **Release of the national “brick” – science document**

BC Next Steps

- Onward within the province
 - Explore reporting in more communities
 - EC forecasting to look at geospatial forecast to increase geographic coverage
 - More preparation of clinical tools
 - Increase knowledge base of professionals and consumers

Contact Information (to clear the air)

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