Introduction to the workshop: Data, policy and air pollution

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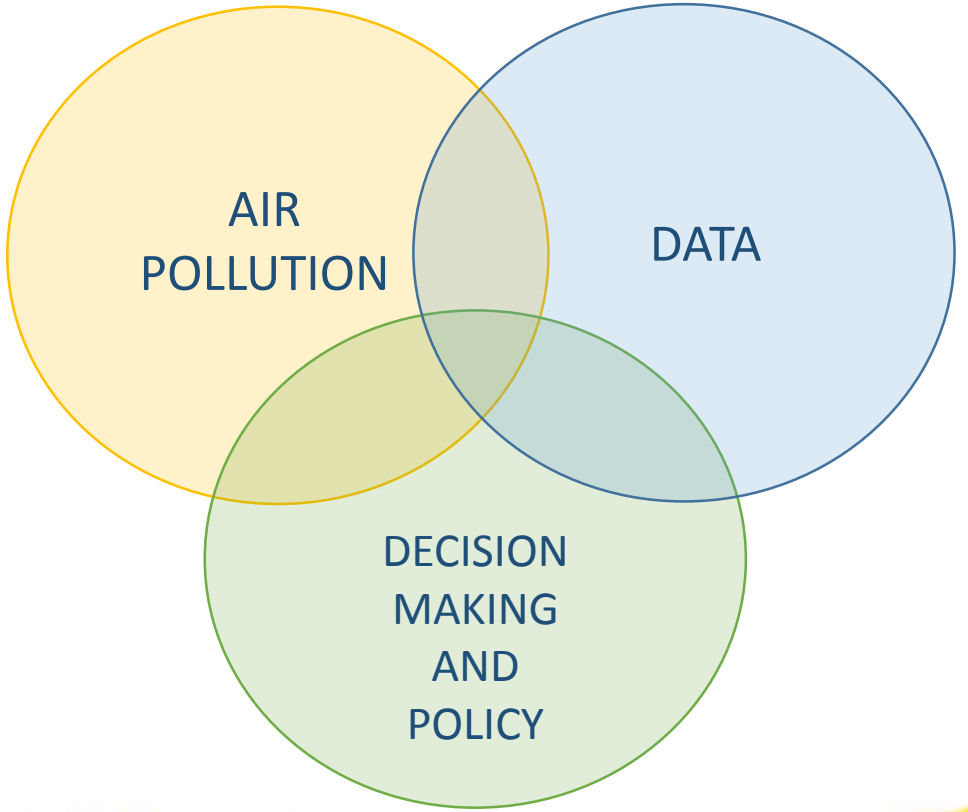
Тавтай морилно уу!
Welcome!

THE PROMISE OF DATA?

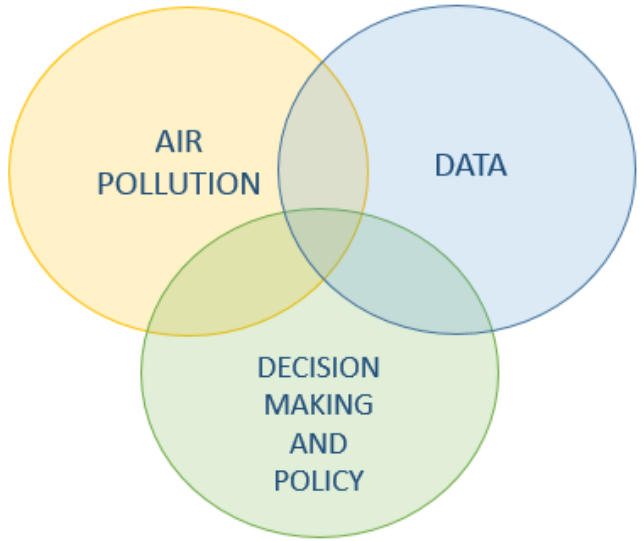
From data we will get the cure for cancer as well as better hospitals; schools that adapt to children's needs making them happier and smarter; better policing and safer homes; and of course jobs.



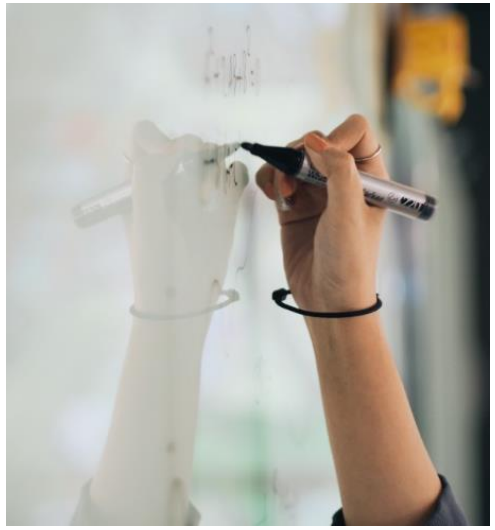
LANCET COMMISSION ON POLLUTION AND HEALTH https://www.thelancet.com/commissions/pollution-and-health

Main aims of the week

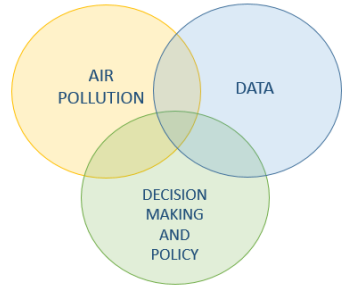
1. Using air pollution data to develop skills in managing and analysing data
2. Identifying questions about air pollution that data can answer.
3. Understanding how data might inform air pollution policy



How will we address the aims of the workshop?



1. Using air pollution data to developing skills in managing and analysing data



- Data management skills – cleaning and reproducibility
- Data visualisation
- Explaining relationships
  - ✓Linear regression
  - ✓Logistic regression

Data is important … but

Data is information in raw or unorganised form (such as alphabets, numbers, or symbols) that refer to, or represent, conditions, ideas, or objects.

Data needs to be organised and arranged to become information that can answer questions and provide evidence that (might be) useful for policy

You need a recipe and some cooking knowledge to turn the ingredients into a cake

Data is important … but

An example:

Year	Mean days off sick per person
2013	3.2
2014	4.1

How was this data constructed?	
What does it mean to have a day off sick?	All day? Part of a day?
Do all managers record sickness in the same way?	Do some keep better records than others?
When does sickness get recorded?	If only off sick for one day is this always recorded?
And has this always been done in the same way?	

Vital to have accurate records of exactly where, when and how data was collected and what it represents

https://www.oxford-review.com/data-v-evidence/

2. Identifying questions about air pollution that data can answer

To find evidence you have to ask questions of the data.

- Not all questions are research questions
- A research question must be researchable or ‘investigable’
- A research question should not be too broad or too imprecise
- A research question should generate knowledge that matters

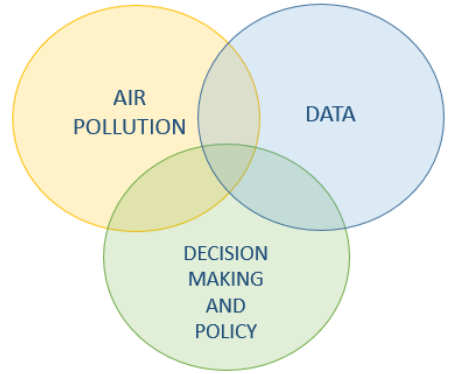
Evidence: infection control in Mongolian hospitals

Generally, I feel that there is a mess.. and something has to be done …but to make a decision we need evidence, statistics which we don't have. ……[we] only need to allocate [the budget] wisely, which means we must carefully choose the really important activities… To choose the right one we should look at evidence. We can't always spend money based on our feeling that is important

It is very difficult to allocate resources to activities without justification. For example, since last year we have been spending money for disposable syringe boxes. And now after18 months, I don't have any idea what effect is given by this money. Actually, it wasn't a small amount of money. We spent money but there are no measured outcomes.

Ider, B.-Eet al. (2012). Perceptions of healthcare professionals regarding the main challenges and barriers to effective hospital infection control in Mongolia: a qualitative study. *BMC Infectious Diseases, 12*(1), 170.

3. Understanding how data might inform air pollution policy



Answering important research questions with data is not the only source of evidence

> Good quality policy making depends on high quality information, derived from a variety of sources – expert knowledge; existing domestic and international research, existing statistics, stakeholder consultation; evaluation of previous policies.

Modernising Government White Paper, Cabinet Office 1999

2. Identifying questions about air pollution that data can answer

Not everything that can be counted counts.
Not everything that counts can be counted.

Тоолж болдог бүхэн
Ач холбогдолтой
байх албагүй
Ач холбогдолтой
бүхнийг
Тоолж болох албагүй

Pressures on the policy making process

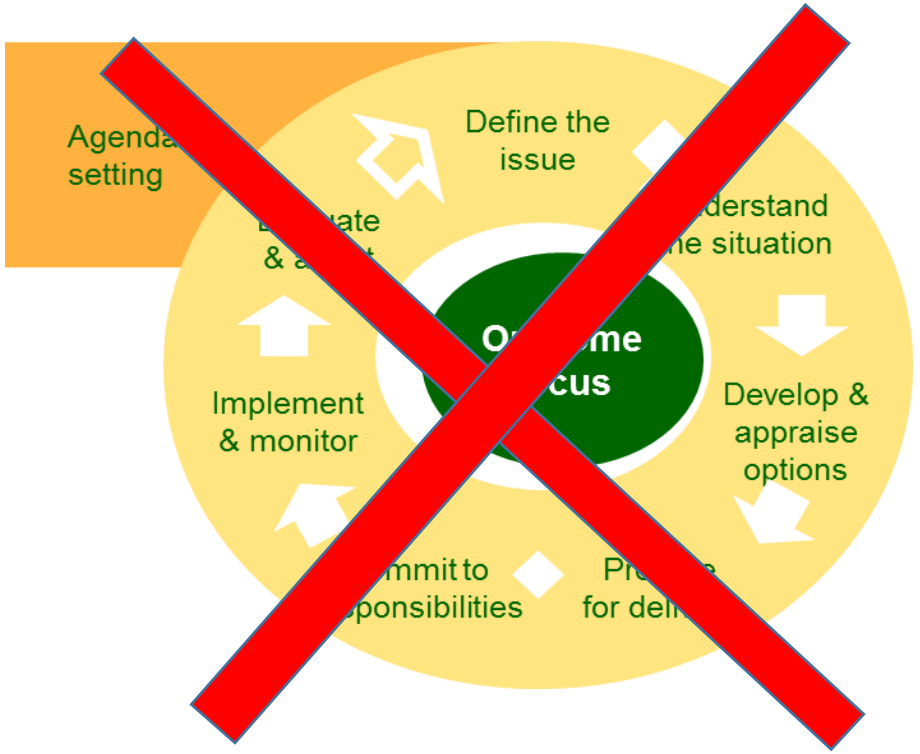
Policy making is messy!

Time pressure and uncertainty

Many stakeholders – politicians, the media, public(s), lobby groups, funders

Research evidence has nothing to contribute to some decisions

Common beliefs, narratives and stories shape policy



Introducing Mentimeter

This week we will use an interactive voting system to get your views about some of our discussions

We can see how similar or different the views of workshop participants are

It is all anonymous so we can only see what options the group has selected - not individuals

www.menti.com

www.menti.com

Go to www.menti.com on your phone, ipad or laptop

Enter the code: .....