

UB residents understandings of AP

A survey

May 2019

Importance of understanding people's perspectives and practices about air quality



Why did we conduct a survey

- Lack of evidence about nature and distribution of residents views about AP
- Gain some insight into resident views
- To address research questions
- To share the results of the survey in the workshop
- Help identify what else we should ask about in further survey work



You said we needed data about....

“ Survey of citizens awareness of AP-related policies, whether they have changed their own behaviour, what benefits they think exist

Qualitative data/surveys – citizen's and cultural views – particularly those that you want to engage in the policies

”

What do we ask about and why?

- **Demographics** (age, gender, employment, education, location, housing, income)
- **Knowledge** of AP and **consequences**, preferred **information sources**.
- Beliefs about **severity** of AP and when it will **improve**
- Beliefs about whose **responsibility** it is to improve AP
- Actions taken to guard against the health effects of AP
- Effectiveness of government actions to improve AP

We have data about

Demographics (e.g. age, gender, education level, income, etc.

Knowledge about air pollution

- sources of information,

- knowledge on health consequences and effectiveness of interventions

Attitudes to AP

- satisfaction with air quality,

- responsibility for improvements

Practices relating to air pollution

- use of masks, purifiers

Beliefs about government management of AP

Willingness to pay for better air quality.

Cleaning the data

- Sense checks for missing data.
- Removing blanks where needed.
- Checks responses make sense – correct scales, appropriate for the question, etc.

Different types of response option in the survey

Yes No

Tick all apply

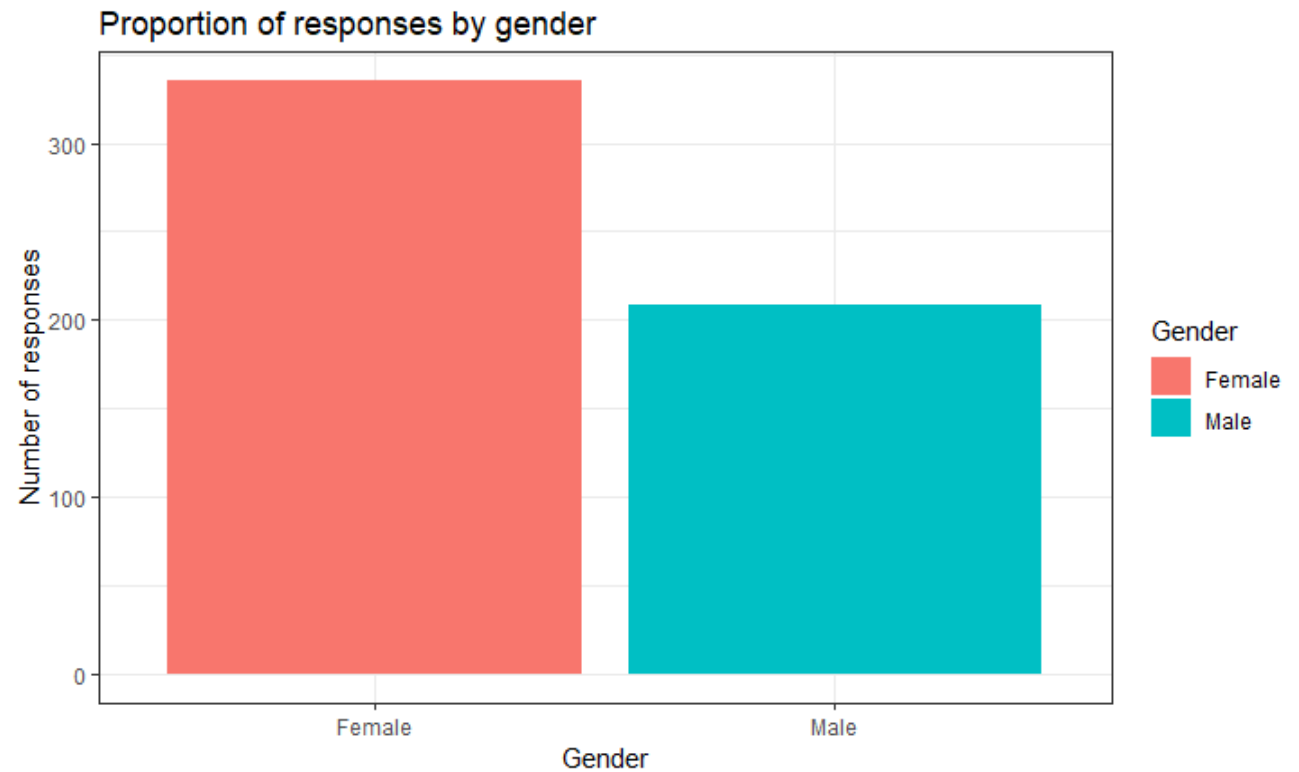
Tick the one that applies

5 point scale

(maybe put examples in from Mongolian questions?)

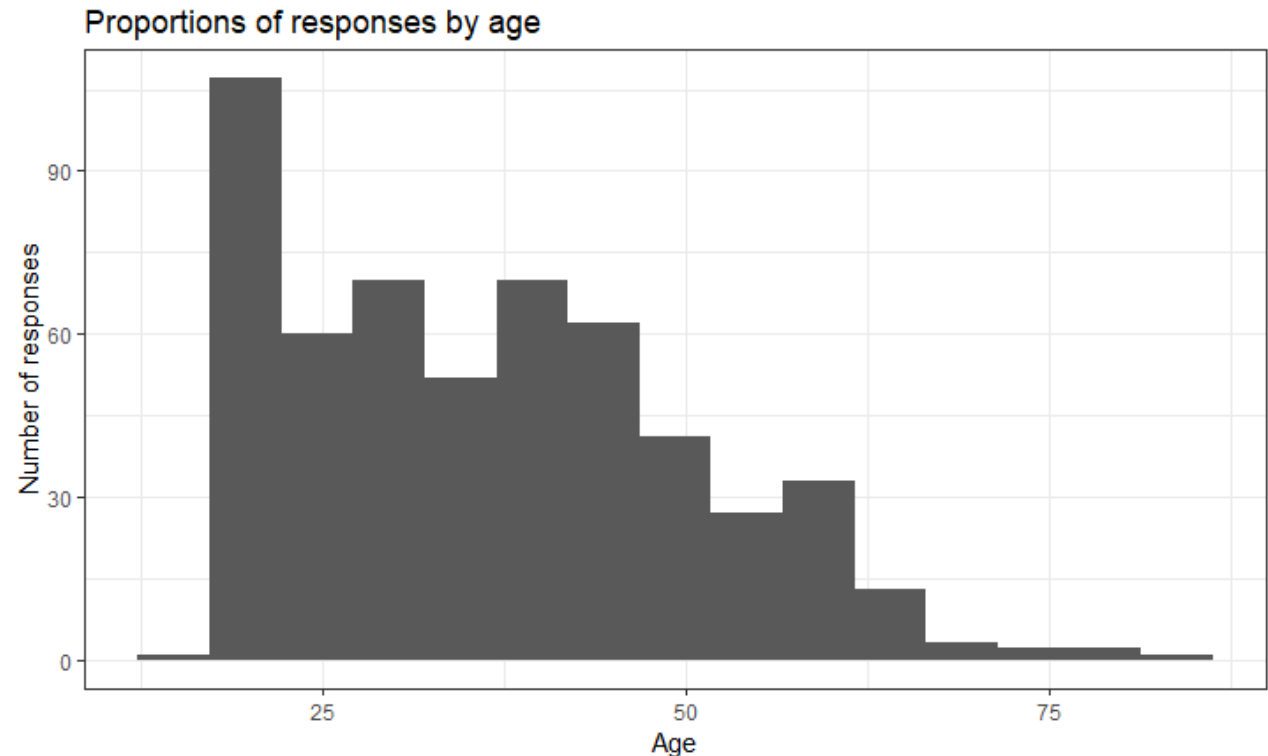
Who completed the survey – by gender?

- 335 female responses
- 209 male responses



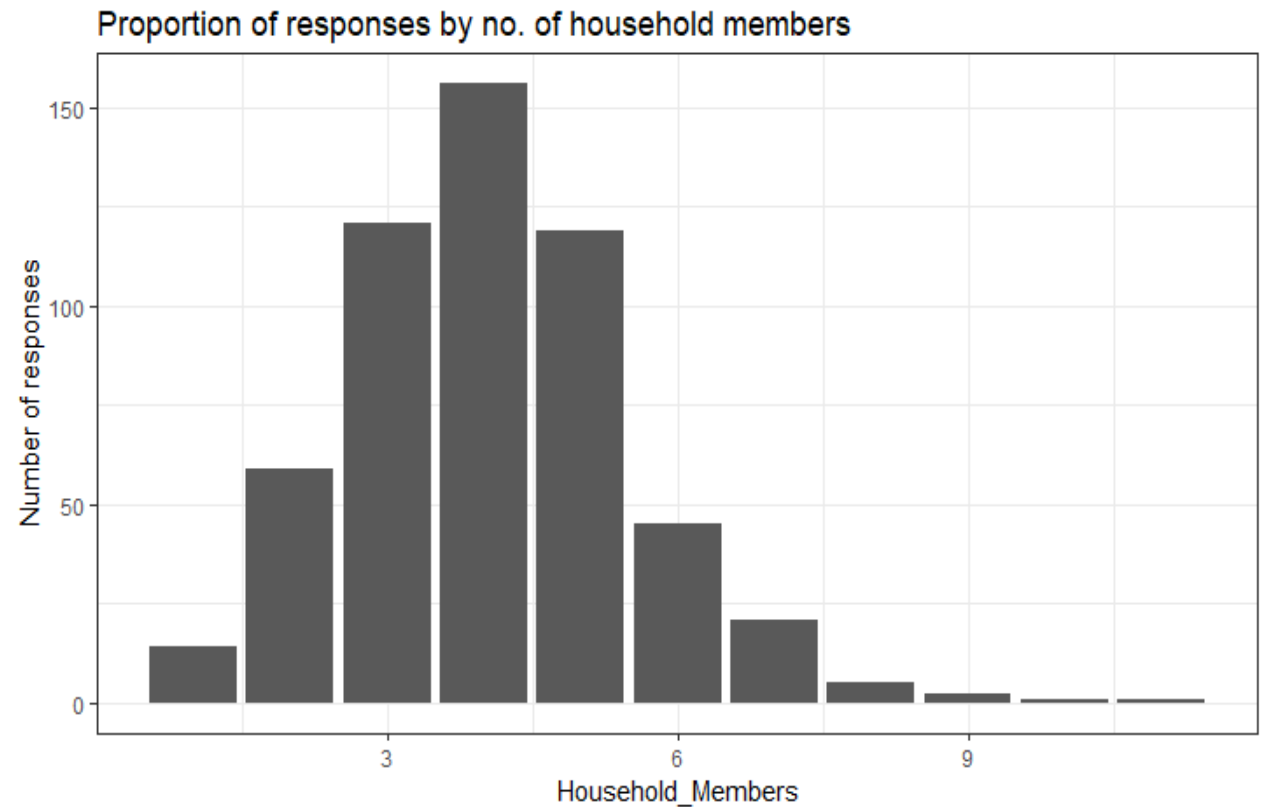
Who completed the survey – by age?

- Ages ranged from 15-84.
- Mean of 36.5 and median of 35.



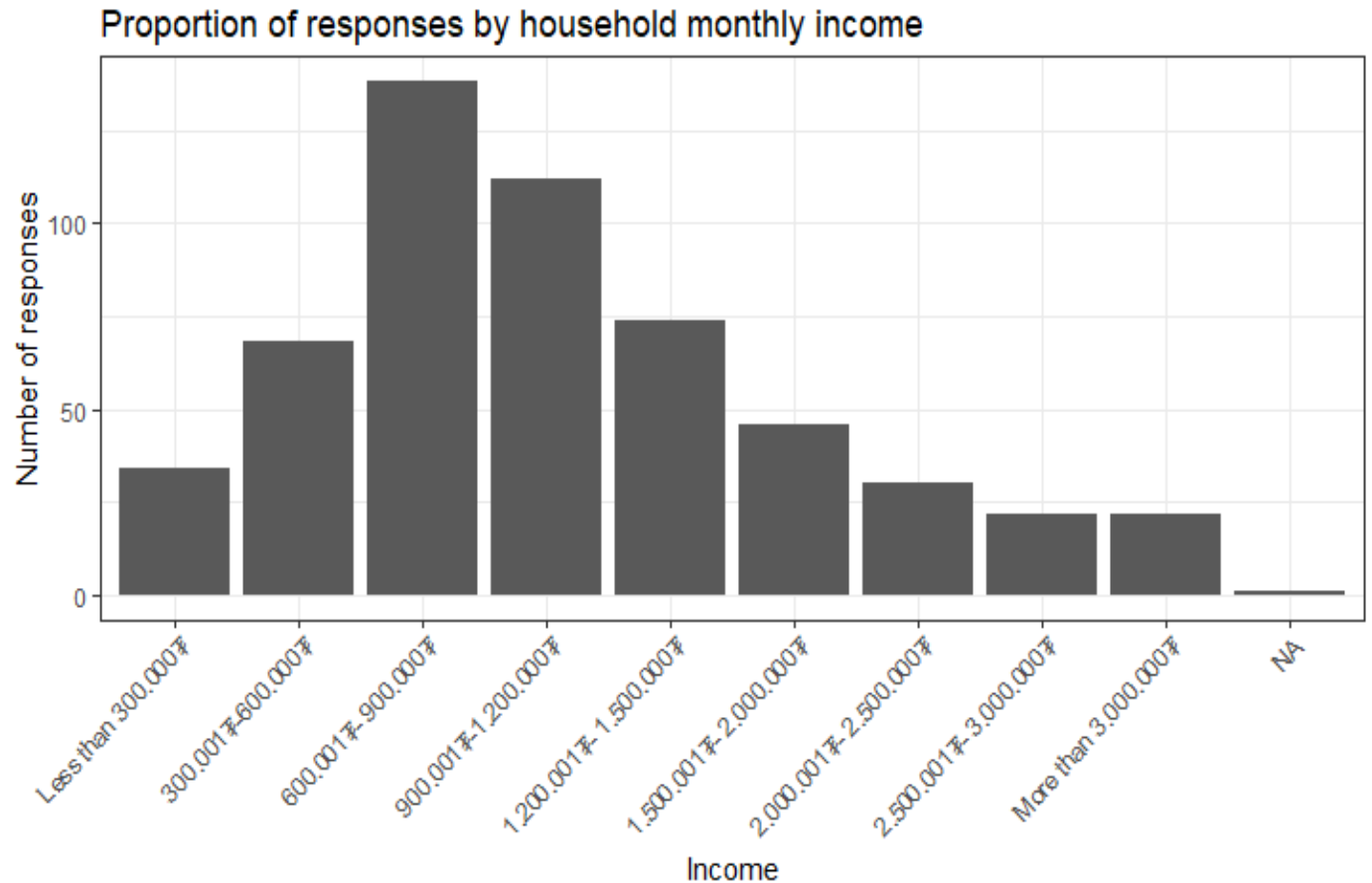
Who completed the survey – household members?

- Respondents have a minimum of 0 children and a maximum of 9 children.
- They have on average 1.5 children.
- 137 of the respondents had no children.



Who completed the survey – income levels?

- 34 respondents receive less than 300.000MNT monthly.
- 68 between 300.001-600.000MNT.
- 138 between 600.001-900.000MNT.
- 111 between 900.001-1.200.000MNT.
- 72 between 1.200.001-1.500.000MNT
- 46 between 1.500.001-2.000.000MNT.
- 30 between 2.000.001-2.500.000MNT
- 22 between 2.500.001-3.000.000MNT
- 22 with more than 3.000.000MNT monthly.
- 1 respondent did not answer this.



Sources of air pollution

In your opinion, what is the *main* source of air pollution in UB?

- a. Powerplants
- b. Vehicles
- c. Household burning raw coal
- d. Dust and soil pollution
- e. Other (Please specify): _____

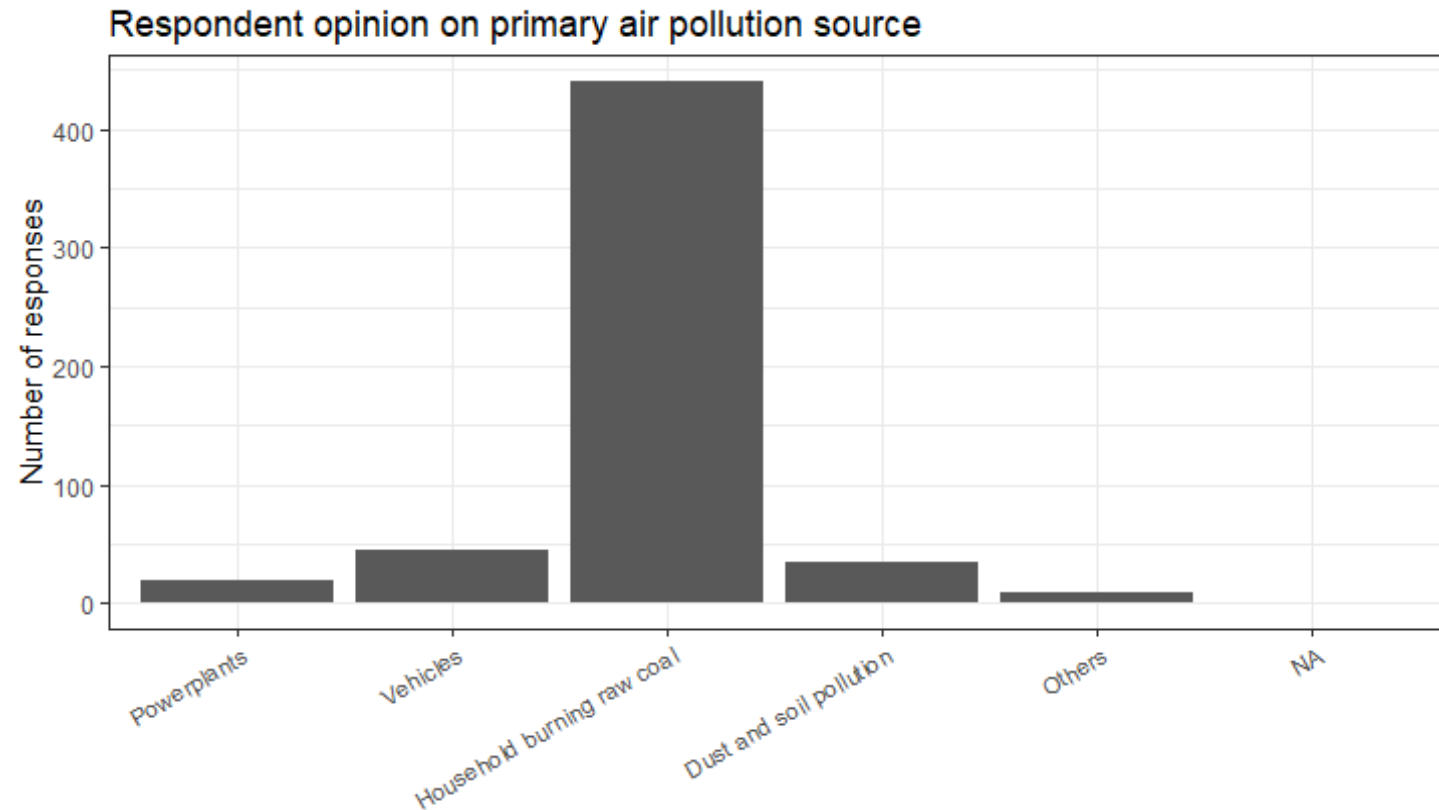
2. УБ хотын агаарын бохирдлын гол эх үүсвэр нь таны бодлоор юу вэ? /Нэг сонголттой/

- 1. Цахилгаан станцууд
- 2. Тээврийн хэрэгсэл
- 3. Гэр хорооллын түүхий нүүрсний утаа
- 4. Шороо, хөрсний бохирдол
- 5. Бусад (Бичнэ үү): _____

Why do we have an 'other' option?

Sources of air pollution

- 439 believe **burning raw coal** to be the main source.
- 44 believe it to be **vehicles**.
- 33 suggest **dust/soil pollution**.
- 18 chose **powerplants**.
- 9 chose **other**.



Доорх агаарын чанарын мэдээллийн эх
үүсвэрүүдээс та алинд нь илүү итгэдэг вэ?
/Нэг сонголттой/

1. Засгийн газрын мэдэгдлүүд
2. Цаг уур, орчны шинжилгээний газар
3. Академик судалгаа, лекц, семинарууд
4. Мэргэжлийн эмч, мэргэжилтнүүд
5. Гэр бүр, найз нөхдийн хүрээлэл
6. Бусад (Бичнэ үү): _____

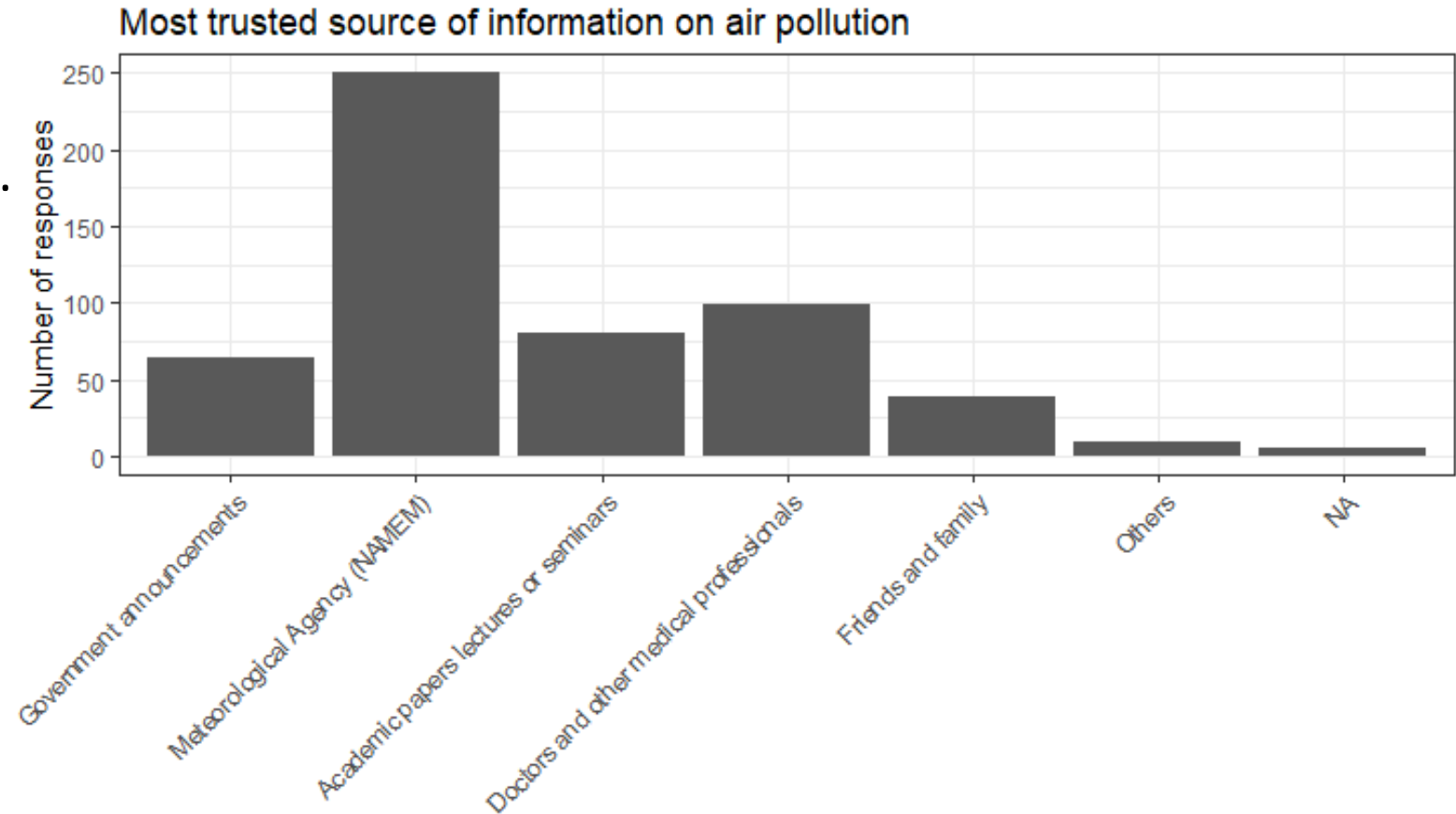
Whose information about air quality do you trust the most?

- a. Government announcements
- b. Meteorological Agency (NAMEM)
- c. Academic papers lectures or seminars
- d. Doctors and other medical professionals
- e. Friends and family
- f. Other (Please specify): _____

Why did we ask
about trust?

What information about AQ do we trust?

- Almost half of all respondents (250) chose the **Meteorological Agency**.
- 100 respondents said they trusted **medical professionals** the most.
- Just **64** chose government announcements.
- Academic papers were chosen by **78**, while **40** chose friends and family.
- **7** chose "Other".



ACTIVITIES FROM GOVERNMENT TOWARD IMPROVING AIR QUALITY

18. What actions have the government taken to improve air quality */Open-ended/*

АГААРЫН БОХИРДЛЫГ САЙЖРУУЛАХ ЧИГЛЭЛД ЗАСГИЙН ГАЗРЫН АВЧ ХЭРЭГЖҮҮЛСЭН ҮЙЛ АЖИЛЛАГАА

18. Агаарын чанарыг сайжруулахад авч хэрэгжүүлсэн засгийн газрын үйл ажиллагаанаас та өөрийн мэдэхийг нэрлэнэ үү. */Бичнэ/*

What actions have the government taken to improve AQ?

- 222 said improved stoves
- 108 don't know
- 92 said improved fuel
- 42 think tariffs for electricity have been reduced
- 26 think no action is taken
- 10 think banning burning of raw coal.



19. Засгийн газрын дараажь үйл ажиллагаа бүр агаарын чанарыг сайжруулахад хэрхэн үр нөлөө үзүүлнэ гэж та бодож байна вэ? /Мөр бүрт нэг хариулт сонгоно/

	Маш их үр дүнтэй	Үр дүнтэй	Дунд зэрэг	Бага зэрэг үр дүнтэй	Огт үр дүнгүй
Сайжруулсан зуух					
Сайжруулсан түлш					
Агаарын бохирдлын хэмжилтийг сайжруулахын тулд агаарын чанарын станцуудыг байршуулах					
Агаар цэвэршүүлэгч байршуулахыг уриалсан төслүүд					
Орон сууцжуулах хөтөлбөр					
Дулаалга төсөл					
Гэр хорооллын өрхүүдийн шөнийн тариф тэглэх					
Хот руу ирэх шилжилт хөдөлгөөнийг хязгаарлах					
Бусад (Бичнэ үү): _____					

Improved stoves
Improved fuel
Locating more air quality stations to improve measurement of air pollution
Encouraging people to use air purifier
Construction project for ger district to improve housing
Insulation project to improve housing
Eliminating electricity tariffs in ger district
Restricting urban migration into the city
Other (Please specify): _____

How effective do you think that each of the following government actions are in improving air quality ?

Extremely effective	Very Effective	Moderately effective	Slightly effective	Not at all effective
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Effectiveness of government actions in improving air quality

Intervention	Mean
Improved stoves	3.43
Improved fuel	3
Locating more air quality stations	2.94
Use of air purifiers	2.99
Construction project for ger district	3.20
Insulation project to improve housing	3.07
Eliminating electricity tariffs in the ger district	3.06
Restricting urban migration into the city	3.14

*Scale from 1-5, 3 is "Moderately effective"

Effectiveness of government actions in improving air quality

- Doesn't appear to be a belief that any interventions are effective.
- How would this look if we split the sample by gender, age or income?
- Will look at comparing groups tomorrow – can we detect a difference?

Example of a hypothesis: people who spend most of their day outside will consider AP to be more severe than those who work inside

- Those who stay inside report a severity of 4.18 (on a scale of 1 to 5).
- Those who are predominantly outside report a severity of 4.31.
- Does this constitute a significant difference? Do we have enough data to be able to tell? More tomorrow...

Awareness of today's raw coal ban

- 384 out of 544 participants were aware of this coal ban – 70% of all responses.
- 145 were unaware.
- 15 did not respond.

