

# Tests

```
# read in master data
bhet_master_data <- osf_retrieve_node("vxur5")
bhet_master_data %>%
  osf_ls_files("Master Dataset (Seasons 1-4)",
    pattern = "csv") %>%
  osf_download(path = here("data-clean"),
    conflicts = "overwrite")

# read in data for Aim 1
aim_1 <- osf_retrieve_node("qsmbr")
aim_1 %>%
  osf_ls_files("Air pollution",
    pattern = "csv") %>%
  osf_download(path = here("data-clean"),
    conflicts = "overwrite")
```

Read in data

Make a table

See `?@tbl-table1` for details.

Now try for the kable version:

Another DiD table

See `?@tbl-table3` for more.

See ?@fig-cbhp-map.

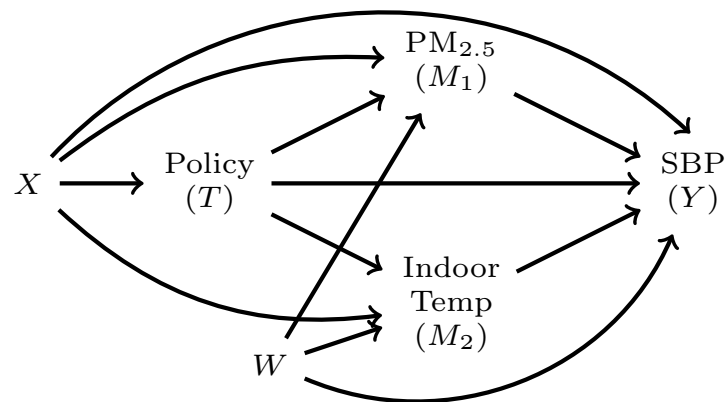


Figure 1: ?(caption)

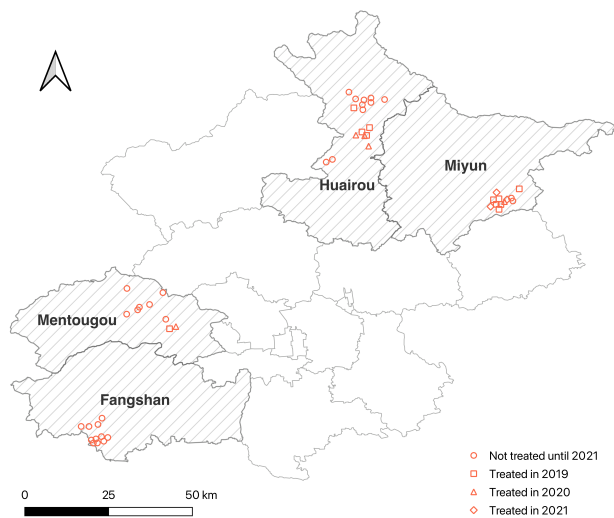


Figure 2: ?(caption)

The source profiles for the four-factor solution are presented in Figure X. The first source was identified as dust by high percentages of crustal elements like wi-Ca, Si, and wi-Mg. The second source was constituted of non-sulfate sulfur as well as secondary inorganic ions (ammonium, nitrate, and sulfate). Non-sulfate sulfur is a tracer for primary coal combustion, while secondary inorganic ions indicate a secondary source. Since coal combustion is a major source of energy in our study area, it is likely that the second source is a mixture of primary and secondary emissions that originate from coal and other sulfurous fuel combustion.

Additionally, in Figure3 for details. the mean source contribution of the second source is higher in outdoor than personal exposure measurements. Secondary formation occurs outdoors in the presence of sunlight, so higher outdoor concentrations compared to personal exposure further support our naming the second source and sulfur secondary. The third source had high percentages of ws-Ca and Al, which in our study region, has been found to be indicative of transported

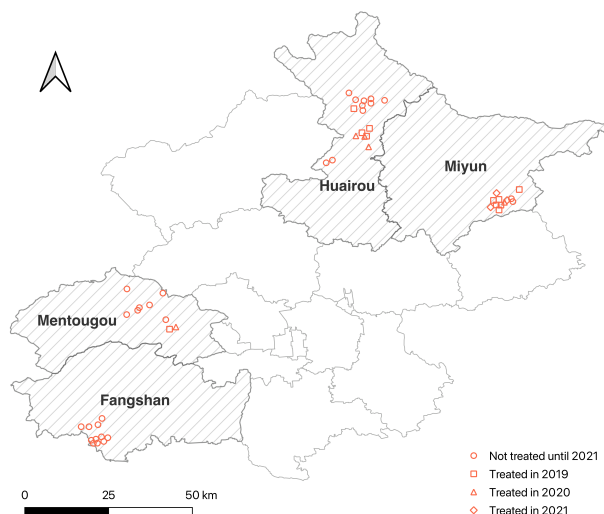


Figure 3: Google scholar metrics

dust from dust storms that can occur in the spring. While our samples were collected during winter months only, it is possible that transported dust from previous years still remained. The fourth source was characterized by high percentages of tracers for both coal (OC, wi-K, chloride, Pb) and biomass combustion (EC, ws-K). Coal and biomass combustion is common in our study setting so this source is likely a mixture of the two combustion sources.

Another example

```
Rows: 16 Columns: 13
-- Column specification -----
Delimiter: ","
chr (13): category, type, time, substance, metric, Mean_S1, GM_S1, Mean_S2, ...

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

	Personal: PM2.5	Personal: BC
<i>Average ATT</i>		
ATT(All, All)	1.95 [-23.34, 27.23]	-0.43 [-1.67, 0.81]
<i>Cohort-Time ATTs</i>		
ATT(2019, 2019)	-0.05 [-28.97, 28.87]	-0.69 [-1.84, 0.45]
ATT(2019, 2021)	-4.31 [-41.92, 33.30]	-0.25 [-2.11, 1.62]
ATT(2020, 2021)	23.61 [-19.88, 67.11]	-0.27 [-2.04, 1.50]
ATT(2021, 2021)	-19.06 [-43.19, 5.07]	-0.56 [-2.46, 1.34]

First note.

Cohort	Time	ATT	(95%CI)
<b>Average ATT</b>			
All	All	-0.08	(-0.15, -0.01)
<b>Cohort-Time ATTs</b>			
2019	2019	-0.11	(-0.20, -0.02)
2019	2021	-0.10	(-0.21, 0.00)
2020	2021	0.01	(-0.10, 0.13)
2021	2021	-0.12	(-0.22, -0.01)

Joint test that all ATTs are equal:  $F(3, 2579) = 1.283$ ,  $p = 0.278$

			Season 1			Season 2		Season 3		Season 4	
			Est.	CI		Est.	CI	Est.	CI	Est.	CI
Personal											
Filter-derived	24h	PM2.5	Mean	117	[105, 129]	97	[87, 107]			84	[72, 97]
			GM	72	[65, 80]	59	[53, 65]			47	[42, 52]
		BC	Mean	4	[3.5, 4.4]	3.5	[2.7, 4.2]			3.7	[2.9, 4.5]
			GM	2.6	[2.4, 2.8]	1.9	[1.7, 2.1]			1.7	[1.5, 1.9]
Indoor											
Sensor-derived	Seasonal	PM2.5	Mean			94	[84, 104]	84	[75, 94]	67	[60, 75]
			GM			71	[65, 78]	63	[57, 70]	47	[42, 52]
Filter-derived	24h		Mean			69	[59, 79]			59	[49, 69]
			GM			45	[39, 53]			33	[27, 40]
		BC	Mean			2.3	[1.8, 2.8]			2.8	[2.1, 3.4]
			GM			1.6	[1.3, 2.0]			1.6	[1.3, 1.9]
Outdoor											
Sensor-derived	Seasonal	PM2.5	Mean	47	[45, 48]	55	[54, 56]	23	[22, 23]	33	[32, 34]
			GM	36	[35, 37]	40	[39, 41]	33	[32, 34]	22	[22, 23]
Filter-derived			Mean	38	[34, 42]	38	[34, 41]			26	[24, 28]
			GM	33	[29, 36]	30	[28, 32]			22	[21, 24]
		BC	Mean	1.5	[1.3, 1.6]	1.4	[1.3, 1.5]			1.2	[1.1, 1.2]
			GM	1.3	[1.1, 1.4]	1.1	[1.0, 1.2]			1	[0.9, 1.1]

Note: Est. = Estimate, CI = 95% CI