

# PSAC Yukon Indoor Air Quality Survey

April 2005



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*PSAC IAQ Survey*

# Survey objectives

- Provide an understanding of chemical sensitivities and indoor air quality problems for collective bargaining purposes
- Confidentiality of responses
- High response rates
- Research questions:
  - How many people are affected by IAQ/CS issues?
  - How are they affected, including time lost?
  - What workplaces are affected?
  - Who wants to participate in further work and provide more detail on IAQ problems?

# Survey methodology

- Mail-out with mail-in or Web responses
  - Sent out with April newsletter
  - April 15 cut-off
  - \$200 draw
    - incentive to participate
  - Short survey (2 pages) to not discourage participation

# Reason for mail-out survey

- Dilemma:
  - Do we go for representative sample & percentage of people who have problems

OR

- Do we get detailed data on buildings, symptoms & causes

# Why not representative sample survey?

- More expensive
- Greater reluctance to respond to telephone surveys
- Relatively small percentage of people affected would mean unreliable data on affected buildings, causes & symptoms, except with a prohibitively large sample

# Caveats on survey

- Self-selected sample
  - people with problems more likely to respond
  - self-selection “bias”
- Not representative
  - cannot extrapolate percentages to entire population

# Survey strengths

- Gives good idea of extent of problem
  - establishes minimum number of people affected, days lost, etc.
- Identifies symptoms & causes/triggers
- Identifies problem buildings/workplaces

# Survey questions

- Workplace/building
- Air quality evaluation
- Whether respondent affected including
  - Causes/triggers &
  - Symptoms experienced
- Time off work
- Whether others affected
- Scent free policy:
  - currently in place
  - support
- Left job because of IAQ?
- Demographics:
  - Age
  - Sex
  - Community
- Comments
- Willingness to participate in further more extensive survey

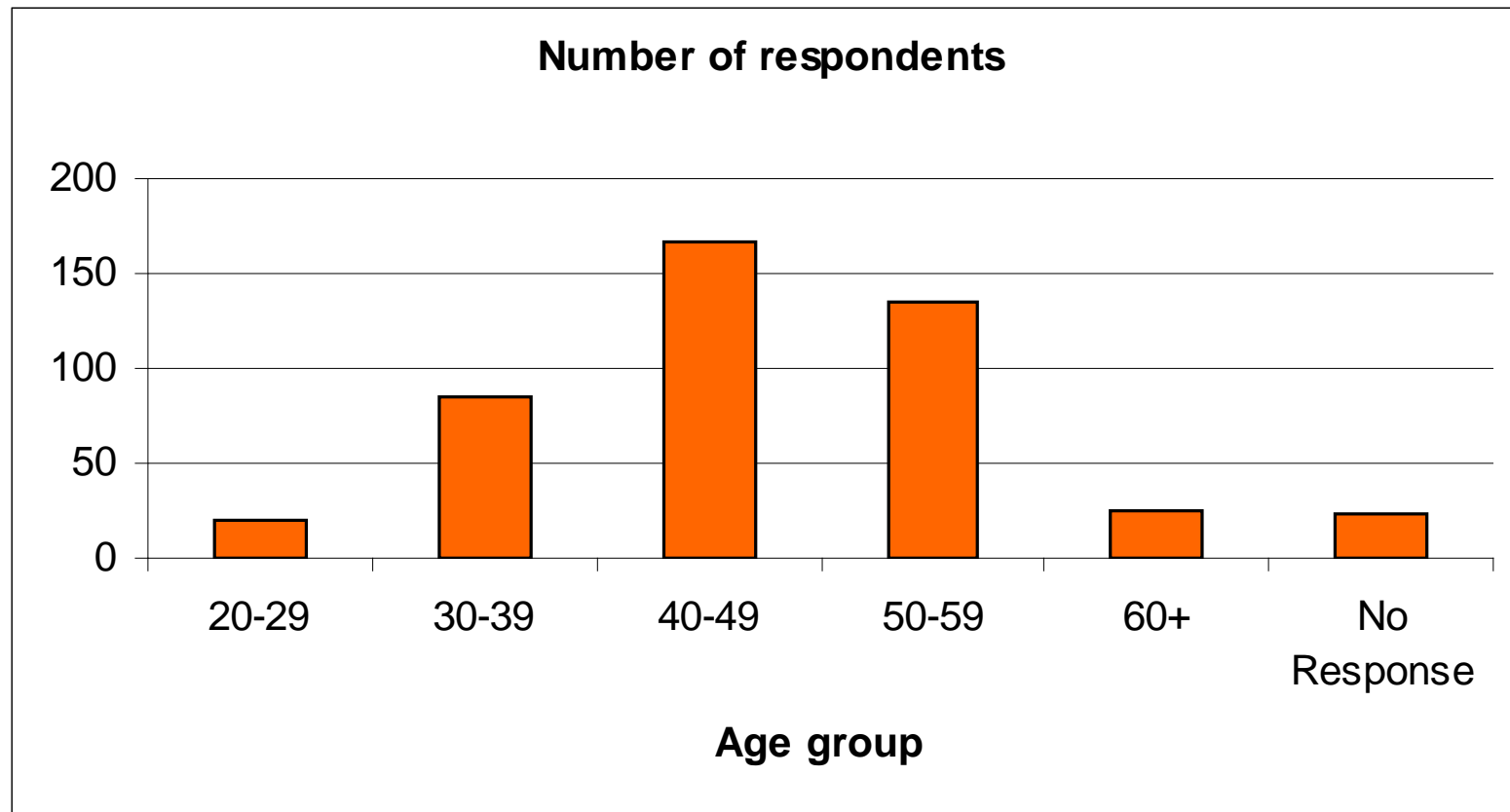
# Response rates

- 3600 questionnaires printed
  - 3200 mailed out to YEU members
  - 400 distributed otherwise
- 454 completed responses
- Approximately 12% response rate

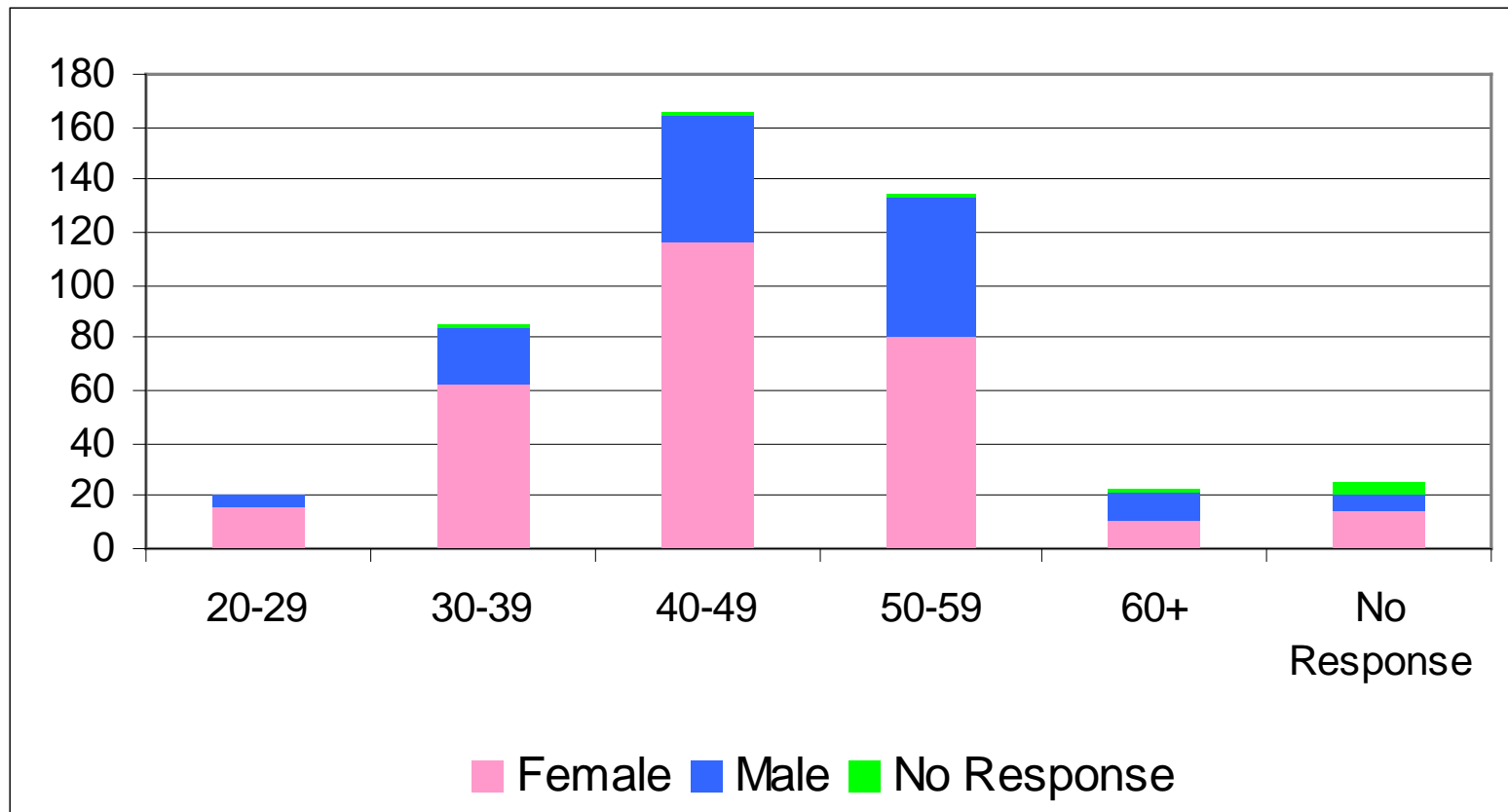
# Respondent Demographics

- Age
- Sex
- Community

# Ages of respondents



# Age & Sex



# Communities

Community	Number of responses
Whitehorse	379
Haines Junction	19
Dawson City	15
Watson Lake	10
Other communities	31
Total	454

# Buildings/workplaces

- Respondents from over 100 buildings or workplaces
  - some respondents had varied workplaces
  - 24 workplaces had 5 or more respondents
  - data on specific buildings will be made available to Health & Safety Committee

# Types of buildings

- Office
- Institutional (schools, hospitals, extended care, jails)
- Industrial (shops, highway maintenance camps, warehouses, etc.)
- Other (e.g. liquor stores, customs, visitor centres)

# Types of buildings

Type of building	Number of respondents
Office	291
Institutional	108
Industrial	29
Other	8
Not available	18
<b>Total</b>	<b>454</b>

# Air quality evaluation

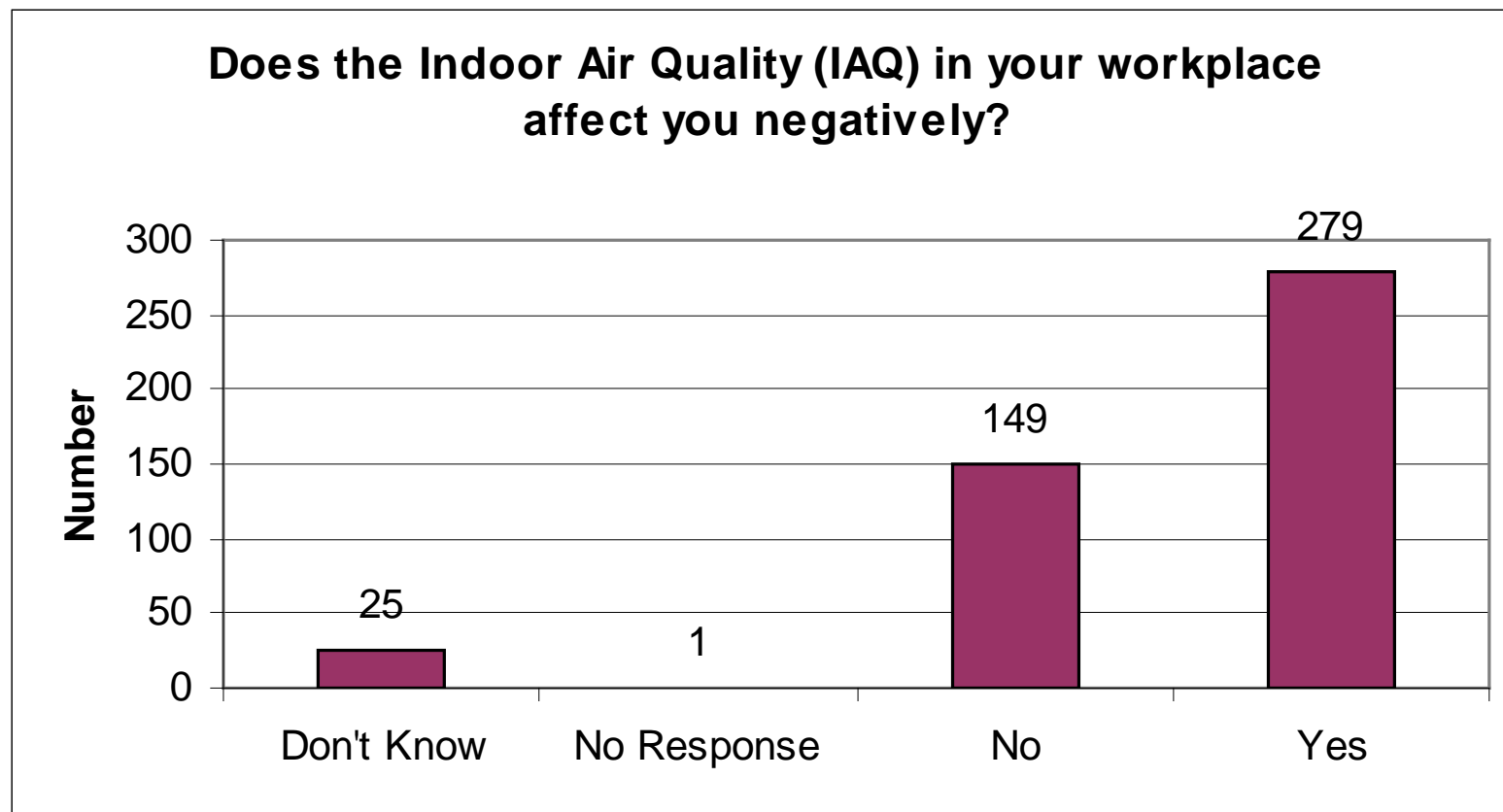
- Scale of 1 to 5
  - 1 is “Almost unbreathable”
  - 5 is “Fresh and pure”

Almost unbreathable	2	3	4	Fresh and pure
7%	19%	39%	30%	5%
Average=3.1				
438 valid responses				

# Extent of problem

- 62% of respondents (279) affected negatively by IAQ
  - Percentage not necessarily representative of entire membership
- **At least** 8% of workforce (one person out of 12) suffers from IAQ problem

# Numbers with IAQ problem



# Demographics of problems

- IAQ problems seem to affect women more than men

	Female	Male	Total
Affected negatively	74%	25%	100%
All respondents	66%	31%	100%

# Demographics of problems

- Age does not seem to make a difference.
- Age distribution of respondents with IAQ problems is very close to the age distribution of those with no problem

Age Group	Respondents <b>without</b> IAQ problem	Respondents <b>with</b> IAQ problem
20-29	5%	5%
30-39	17%	21%
40-49	36%	40%
50-59	32%	30%
60+	4%	5%

# Awareness of others

- In workplaces where some respondents indicated they had an IAQ problem:
  - 43 respondents with problems not aware of other colleagues with IAQ issues in the same workplace.
  - 56 of the respondents without a problem did not know that there are colleagues with IAQ problems in their workplace

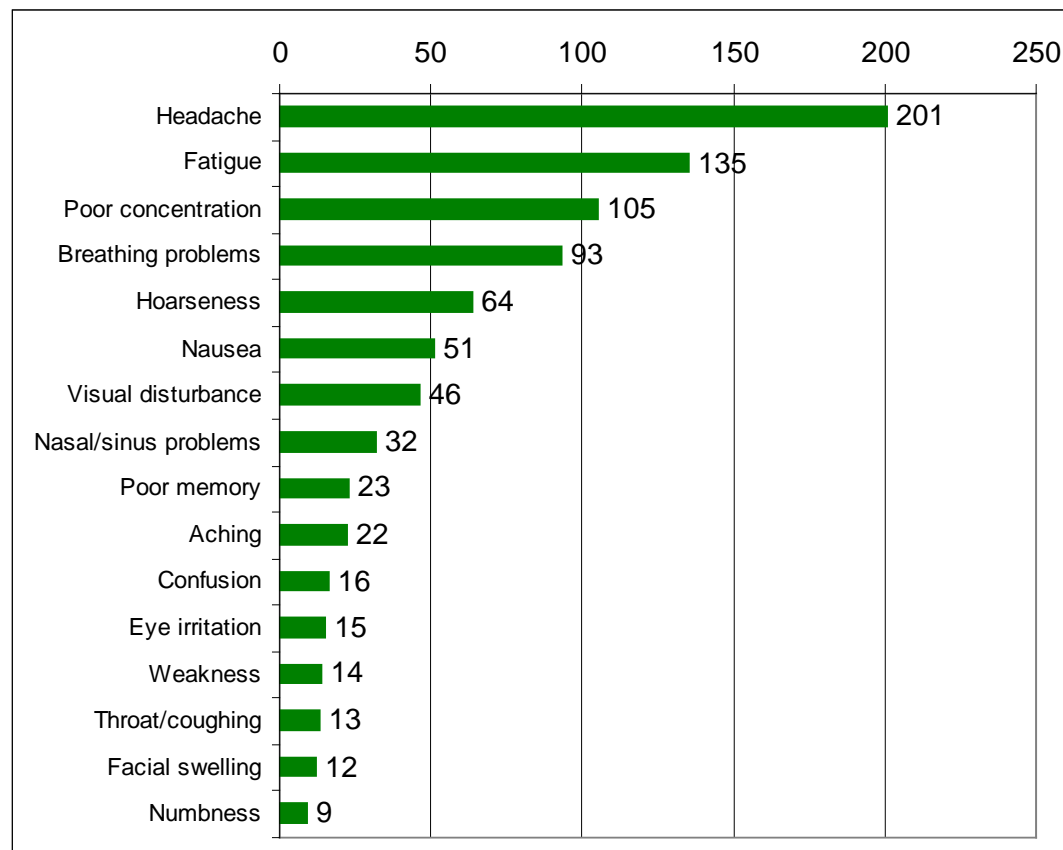
# Time lost

- Respondents reported taking a total of **239 sick days off** in the last year because of IAQ problems

# IAQ caused symptoms

- Questionnaire choices
  - Headache
  - Facial swelling
  - Numbness
  - Weakness
  - Fatigue
  - Visual disturbance
  - Aching
  - Hoarseness
  - Confusion
  - Nausea/vomiting
  - Poor concentration
  - Breathing problems
  - Poor memory
- Other write-ins
  - Nasal/sinus problems (stuffiness, sneezing)
  - Throat/coughing
  - Eye irritation

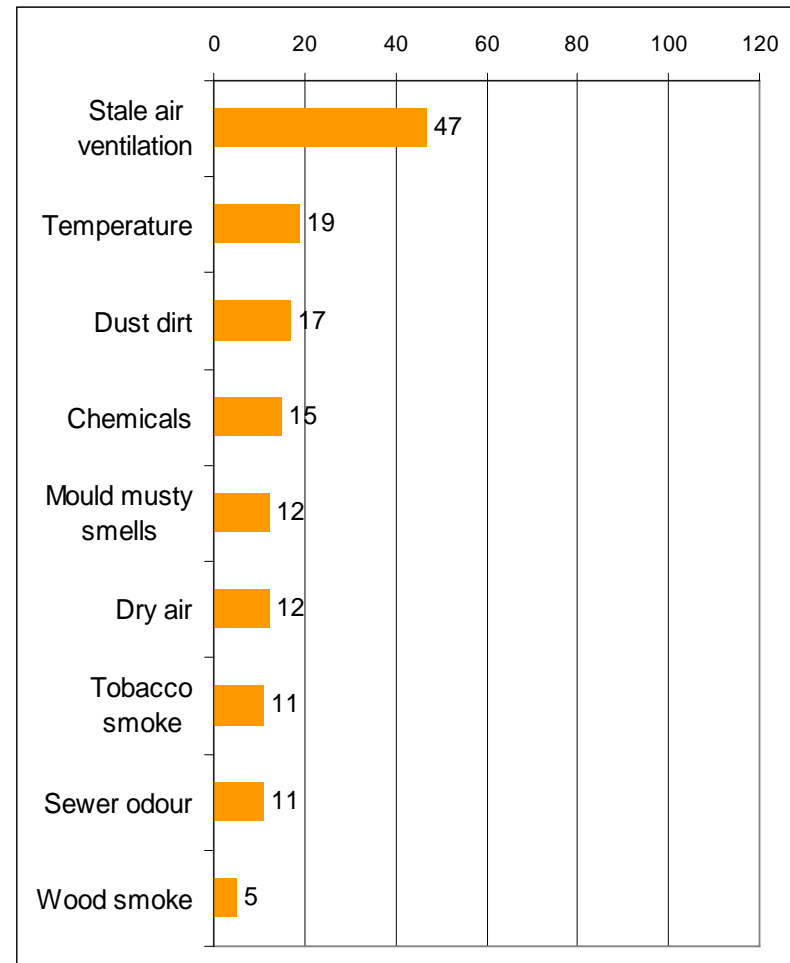
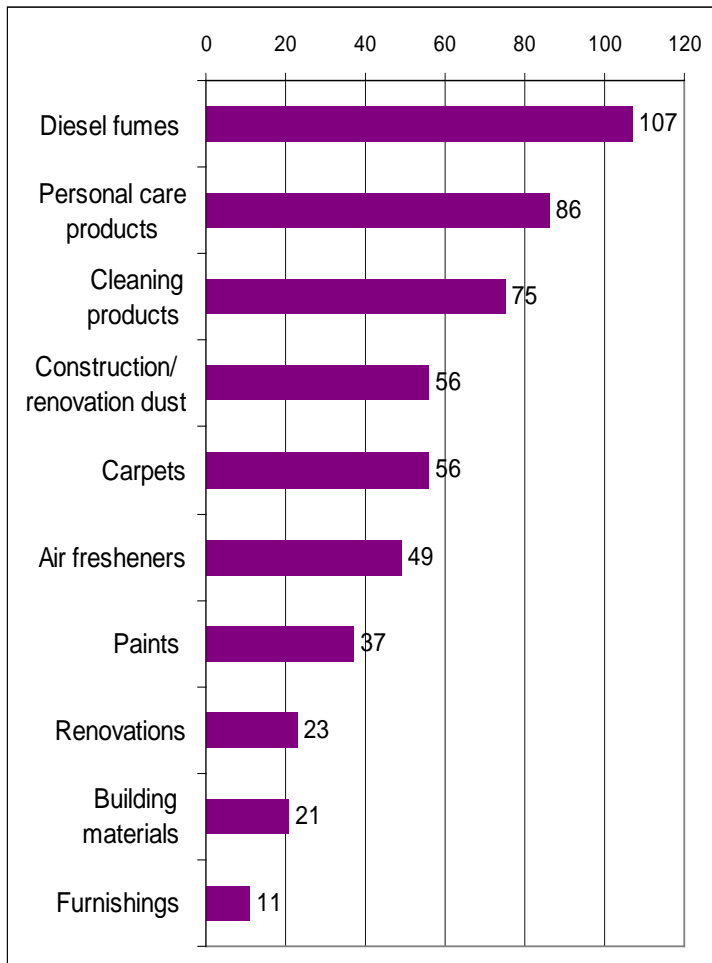
# IAQ caused symptoms



# Symptom triggers/causes

- Questionnaire included:
  - Personal care products
  - Paints
  - Carpets
  - Cleaning products
  - Construction/renovation dust
  - Building materials
  - Carpets
  - Furnishings
  - Diesel fumes
  - Air fresheners
  - Renovations
- Additional write-ins:
  - Tobacco smoke
  - Sewer odour
  - Mould & musty smells
  - Stale air/ventilation problems
  - Dust/dirt
  - Dry air
  - Temperature
  - Chemicals
  - Wood smoke

# Triggers/causes



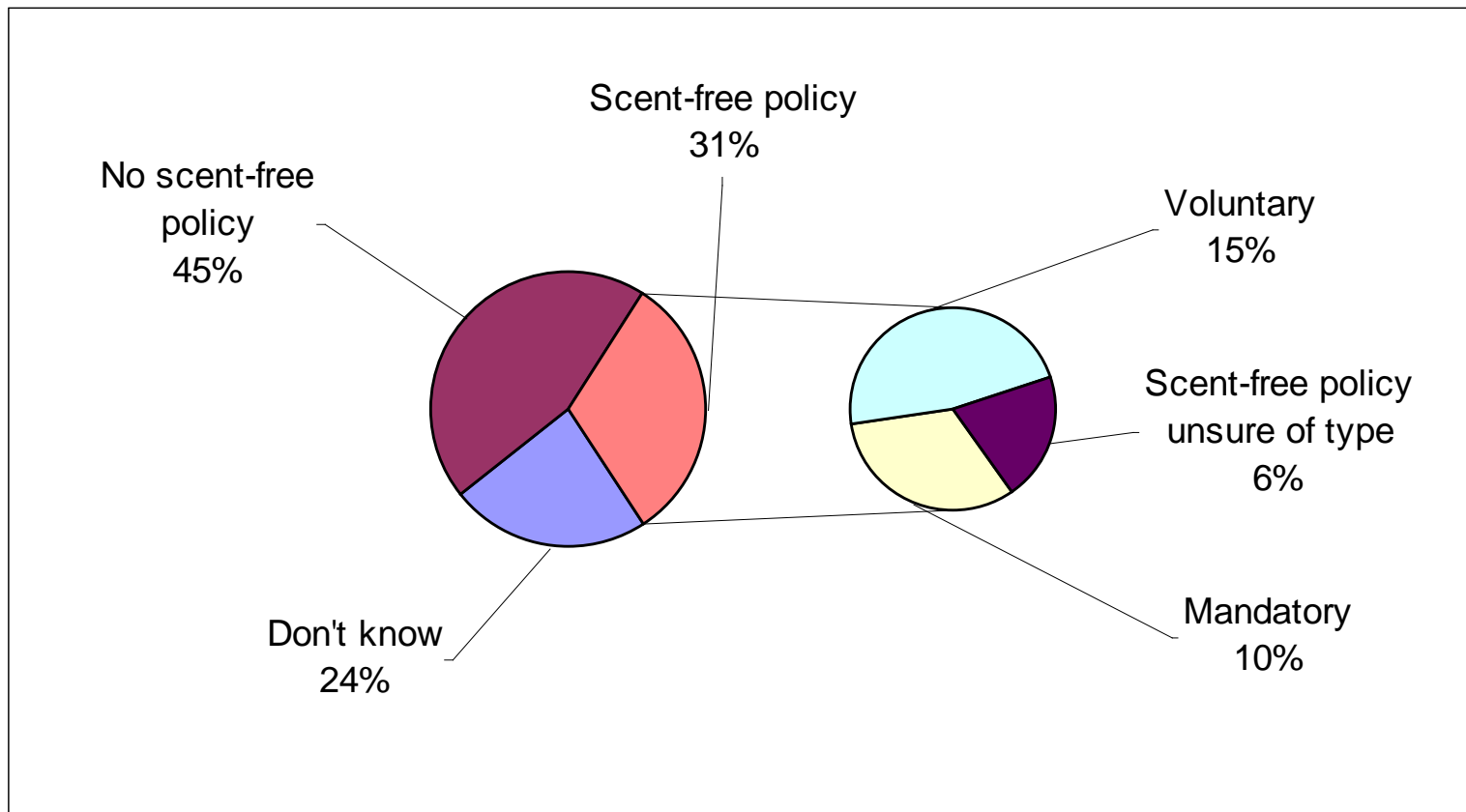
# Triggers in order of importance

- Office
  - Diesel fumes
  - Personal care products
  - Cleaning products
  - Stale air/ventilation
  - Construction dust
  - Air fresheners
- Institutional
  - Cleaning products
  - Personal care products
  - Construction dust
  - Diesel fumes
  - Air fresheners
- Industrial
  - Diesel fumes
  - Cleaning products

# Scent-free policy

- Workplaces with
  - mandatory/voluntary
- Extent of support (people w/out problems)

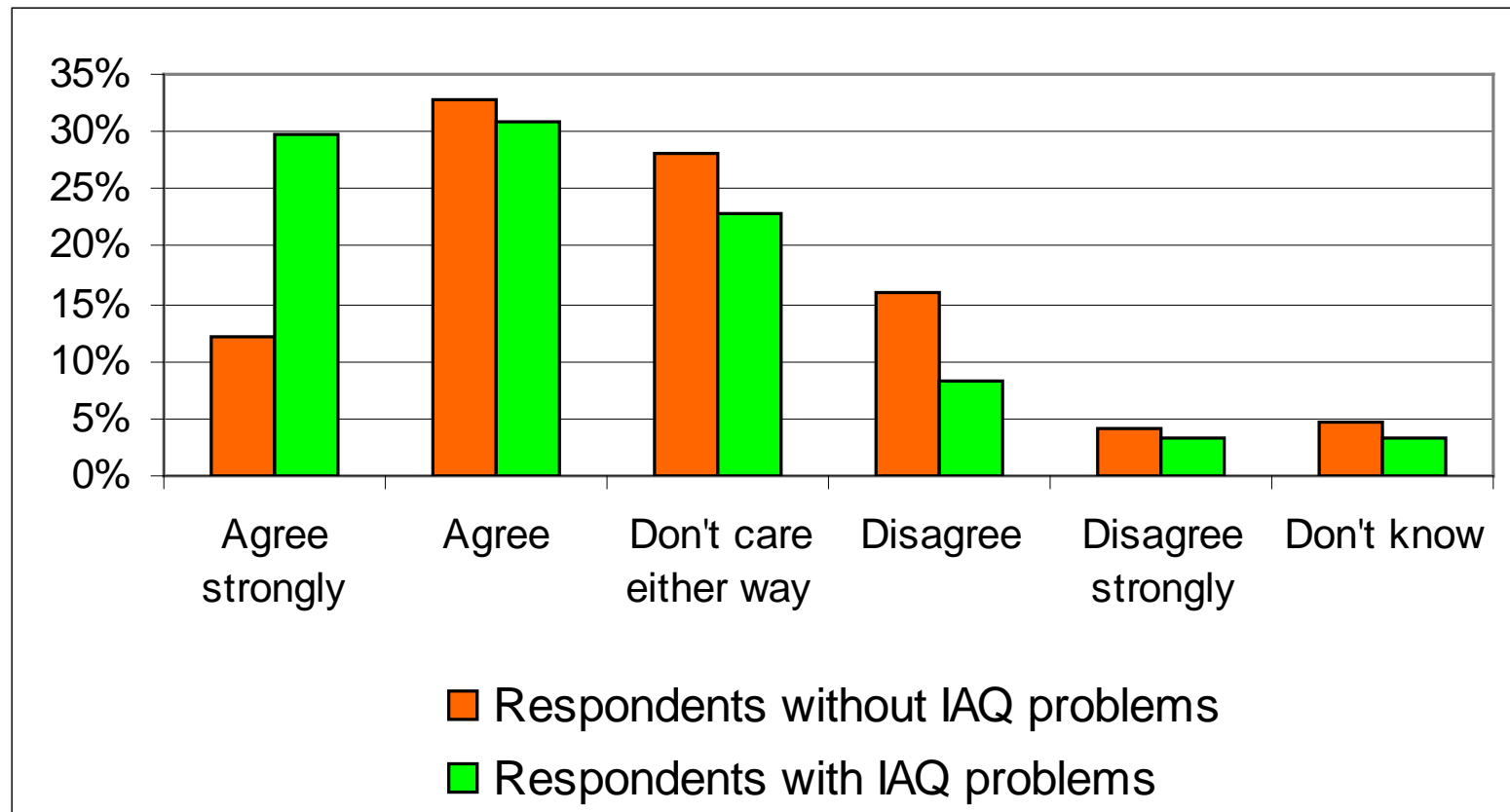
# Presence of scent-free policy



# Support for scent-free policy

- Majority of respondents either supports or doesn't care
  - true of both people with and without problems
- Opposition
  - 20% of respondents who do not have IAQ problem are opposed
  - 11% of people suffering from IAQ problem
- Survey not necessarily representative of all members

# Support for scent-free policy



# Willingness to participate further

- 144 respondents provided name and contact info to question on:
  13. Would you be prepared to participate in a more extensive survey on indoor air quality?

# Lessons for future surveys

- Mail-in works
- Need better list of buildings/workplaces
- Some additions to symptoms
  - nasal congestion/sneezing
  - eye irritation
  - coughing
- A fair number of other triggers identified