## Your Home Environment

1. When thinking about your home, how do you feel about the…?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | I am unhappy with it | I feel it could be improved | I feel it’s fine | I am happy with it |
| Overall quality of the building |  |  |  |  |
| Overall quality of your unit / home |  |  |  |  |
|  |  |  |  |  |
| Air quality inside home |  |  |  |  |
| Air quality outside within neighborhood |  |  |  |  |
| Ability to control temperature inside home |  |  |  |  |
| Ability to control humidity inside home |  |  |  |  |
| Natural lighting (daylight) inside home |  |  |  |  |
| Noise from heating & cooling system |  |  |  |  |
| Privacy |  |  |  |  |
| Security |  |  |  |  |

1. How well do you feel your home protects you from … ?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Not an issue where we live | Home does not protect us well | Home protects us somewhat | Hone protects us very well |
| Outdoor noise |  |  |  |  |
| Outdoor air pollution |  |  |  |  |
| Noise from other apartments |  |  |  |  |
| Odors from other apartments |  |  |  |  |

## Comfort, Odors and Moisture in Your Home

1. Please mark if and when the following sources of discomfort are **problems** in your home.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not a problem | Problem year-round | Problem in  winter | Problem in spring | Problem in summer | Problem in  fall |
| Too cold |  |  |  |  |  |  |
| Too warm |  |  |  |  |  |  |
| Too much air movement |  |  |  |  |  |  |
| Not enough air movement |  |  |  |  |  |  |
| Air is too dry |  |  |  |  |  |  |
| Air is too humid |  |  |  |  |  |  |
| Air smells musty |  |  |  |  |  |  |
| Unpleasant odors from other units in building |  |  |  |  |  |  |

1. If you notice a bad odor in your home, what do you typically do? Select all that apply.
   1. Wait to see if it goes away by itself
   2. Find and remove the source
   3. Light a candle or incense
   4. Open a window
   5. Spray an air freshener
   6. Turn on a ceiling or portable fan
   7. Turn on an exhaust fan
   8. Use “Fan” mode on thermostat to circulate the air in the home
   9. Use a portable air cleaner
   10. None of the above
2. Have any of the following caused a **serious odor *problem*** in your home in the past 12 months? Select all that apply.
3. Arts, Crafts or Hobbies
4. Bathroom use
5. Body odor
6. Cooking
7. Personal care products
8. Pets
9. Carpet or furniture
10. Cleaning products
11. Garbage or compost bin
12. Heater or heating ducts
13. Renovations: paint, floor finish, sealant, etc.
14. Odors from neighbors
15. Odors from other outdoor sources
16. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
17. None of the above
18. Have any of the following moisture-related issues occurred in your home in the past 12 months? Select all that apply.
19. Dampness or frequent condensation
20. Water stains
21. Water damage
22. Musty odors
23. Visible mold or mildew
24. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
25. None of the above

*If yes to any of the above:*

Please note all the places where any moisture-related issue occurred.

1. Bathroom(s)
2. Bedroom(s)
3. Kitchen
4. Laundry Room
5. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Your Household

1. What is your age? \_\_\_\_\_\_\_
2. Which gender do you identify with?
   1. Male
   2. Female
   3. Non-binary / other
   4. Prefer not to answer
3. Do you own or rent the home?
   1. Own
   2. Rent
   3. Other

If own: Are you the first owner?

1. Yes
2. No
3. How long have you lived in your home? \_\_\_\_\_\_
4. How many people live in your home including you? \_\_\_\_\_\_
5. Is anyone in your household under the age of 12?
6. Yes
7. No
8. Prefer not to answer
9. Is anyone in your household over the age of 70?
10. Yes
11. No
12. Prefer not to answer
13. How many cats and dogs live in your home? \_\_\_\_\_\_
14. Which best describes how your home is occupied on most **weekdays**?
    1. Someone is at home all day or most of the day
    2. Everyone is out for at least a few hours
    3. Everyone is out during school or work hours
    4. Our schedules vary; home is occupied some days and unoccupied other days
    5. None of the above
    6. Prefer not to answer
15. Does anyone in your household have any of these health conditions? Select all that apply.
16. Asthma
17. Respiratory allergies
18. Frequent sinus or ear infections
19. COPD, emphysema, or other chronic respiratory disease
20. Cardiovascular disease
21. Elderly and frail
22. Other condition(s) that are affected by air pollution
23. None of the above
24. Prefer not to answer

*If (f) “Other condition…” is selected:*

If you are comfortable doing so, please tell us which condition(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*If Yes to respiratory allergies:*

What types of respiratory allergies do member(s) of your household have? Select all that apply.

1. Animal or pet
2. Dust mite
3. Cockroach, mouse or other pest
4. Mold
5. Pollen
6. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. I don’t know
8. Prefer not to answer
9. Do you think the health of anyone in your household is affected by the quality of the air in your home?
   1. Yes
   2. No
   3. Prefer not to answer

*If yes:*

Is the affect positive or negative?

a. Positive

b. Negative

c. Sometimes positive, sometimes negative

d. Prefer not to answer

## Equipment that Impacts Comfort and Indoor Air Quality

1. How is your home heated? Select all that apply.
2. Central forced air furnace or heat pump 1
3. Heat pump in room 2
4. Radiators or baseboard heaters
5. Gas3 fireplace
6. Gas3 wall furnace or room heater
7. Electric space heater
8. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. I don’t know

*1 Your home likely has a central forced air furnace or heat pump if warm air blows out from vents or registers around your home.*

*2 Heat pump in room can provide both heating and cooling. It is typically mounted on a wall or on the ceiling.*

*3 Gas fireplace, gas wall furnace or room heater may be natural gas or propane.*

*If yes to gas fireplace or gas room heaters:*

Are any of the gas [fireplaces or room heaters] vent-free*1* ?

a. Yes

b. No

c. I don’t know

*1 Vent-free means the fireplace / room heater is not vented to outdoors. Vent-free appliances are often advertised as 100% efficient.*

1. How is your home cooled? Select all that apply.
2. Central air conditioner or heat pump 1
3. Heat pump in room 2
4. Room air conditioner 3
5. Whole-house fan
6. Ceiling fans
7. Portable fans
8. Open windows
9. Other: ……………………………………………
10. I don’t know

*1 Your home likely has a central air conditioner or heat pump if cool air blows out from vents or registers around the home.*

*2 Heat pump in room can provide both heating and cooling. It is typically mounted on a wall or on the ceiling.*

*3 Room air conditioner includes AC mounted on walls or through windows, or freestanding on the floor.*

1. Do you have a smart, internet-connected thermostat\*?
   1. Yes
   2. No
   3. I don’t know

*\*Examples include Nest, Ecobee, Sensi and Honeywell smart thermostats*

1. In the winter, how often does anyone in the home adjust the thermostat?
   1. Every day
   2. Few times per week
   3. Less than a few times per week
   4. Never

*If your home has any cooling system:*

1. In the summer, how often does anyone in the home adjust the thermostat?
   1. Every day
   2. Few times per week
   3. Less than a few times per week
   4. Never
2. Where are the filters for your central heating or cooling system? Select all that apply.
3. At the return grille, where air is pulled into the heating or cooling system
4. At the furnace or air conditioning unit
5. I don’t know
6. My system doesn’t have a filter
7. How often is the air filter in your central heating or cooling system changed?
8. 1 time per year or less often
9. 2 times per year
10. 3-4 times per year
11. 5 times or more per year
12. I don’t know
13. What kind of air filters does your central heating or cooling system have?
    1. Low-cost
    2. Basic efficiency
    3. Medium efficiency
    4. High efficiency
    5. I don’t know

*Air filter efficiency rating may be marked on your air filter or on its packaging material. Some common examples are MERV (Minimum Efficiency Reporting Value), FPR (Filter Performance Rating), and MPR (Microparticle Performance Rating).*

*Low-cost: MERV 1-6 | FPR 1-3 "Economy" | MPR 100-500 "Filtrete Dust Reduction"*

*Basic efficiency: MERV 7-8 | FPR 4-5 "Good" | MPR 600-800 "Filtrete Clean Living","Filtrete Dust & Pollen"*

*Medium efficiency: MERV 9-12 | FPR 6-9 "Better","Best" | MPR 1000-1900 "Filtrete Micro Allergen","Filtrete Ultra Allergen"*

*High efficiency: MERV 13+ | MPR 10 "Premium" | MPR 2200-2800 "Filtrete Elite Allergen"*

1. Other than the air filters, is there any other air cleaning equipment in your central heating or cooling system? Select all that apply.
2. Activated carbon air cleaner for odors
3. Electronic air cleaner
4. HEPA filter
5. Ultraviolet (UV) air purifier
6. There is an air cleaner on our central system, but I don’t know what kind it is
7. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. No air cleaners other than filters
9. I don’t know
10. Are any portable air cleaners used in your home?
11. Yes
12. No
13. I don’t know

*If yes to portable air cleaner use:*

How many air cleaners are used? \_\_\_\_\_\_\_\_\_

Where is an air cleaner used? Select all that apply.

* 1. Master bedroom

1. Other bedroom(s)
2. Living room or dining room
3. Home office
4. Kitchen
5. Other location

How frequently is at least one air cleaner operating in your home?

1. Always on running continuously
2. Always on running intermittently in automatic mode
3. Few hours each day
4. Few times per week
5. Less than a few times per week
6. I don’t know

For what purposes is an air cleaner used in your home? Select all that apply.

* 1. Generally improve indoor air quality
  2. Reduce allergens from outdoors
  3. Reduce indoor allergens
  4. Reduce dust
  5. Remove odors
  6. To help someone in the household with a chronic health condition such as asthma, cardiopulmonary obstructive disorder (COPD)
  7. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In your opinion, how effective is your portable air cleaner?

* 1. Very effective
  2. Somewhat effective
  3. Not effective
  4. I don’t know

1. Is a **humidifier** used in your home? Select all that apply.
   1. Humidifier connected to central heating or cooling system
   2. Portable humidifier
   3. No humidifier

*If portable humidifier:*

Why do you use the **humidifier**? Select all that apply.

1. To deal with seasonal dryness
2. To treat illness
3. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*If seasonal dryness:*

During which seasons do you frequently use the **humidifier**? Select all that apply.

1. Winter
2. Spring
3. Summer
4. Fall

*If your home has air conditioning:*

1. Is the **air conditioner** ever used to dehumidify or dry the home when it is not otherwise needed for cooling?
2. Yes
3. No
4. I don’t know
5. Is a **dehumidifier** used in your home? Select all that apply.
6. Dehumidifier connected to ventilation or central heating or cooling system
7. Portable dehumidifier
8. No dehumidifier
9. I don’t know

*If (b):* Where is a **portable dehumidifier** used? Select all that apply.

1. Basement
2. Garage
3. Living area
4. Attic
5. Other. Please describe: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Do you have or are you considering buying a device to monitor indoor air quality at home?
7. We have an indoor air quality monitor
8. We are considering getting one
9. We don’t have one and we are not considering getting one
10. Unsure if we want an indoor air quality monitor or not
11. I don’t know what an indoor air quality monitor is

*If you have an indoor air quality (IAQ) monitor:*

Which of the following does your IAQ monitor measure? Please select all that apply.

1. Temperature
2. Humidity
3. Carbon dioxide (CO2)
4. Particulate matter (PM)
5. Volatile organic compounds (VOC)
6. Radon
7. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. I don’t know

## Window Use

1. In the middle of each season, for how many hours per day are windows and/or exterior doors open in your home?

|  | No window opening | Less than 2 hours per day | 2 to 8 hours per day | More than 8 hours per day |
| --- | --- | --- | --- | --- |
| Winter |  |  |  |  |
| Spring |  |  |  |  |
| Summer |  |  |  |  |
| Fall |  |  |  |  |

*The next question can be skipped if there is no window opening in any season.*

1. For which reasons do you open windows or an exterior door? Select all that apply.
   1. Bring in fresh air
   2. Cool the home
   3. During major cleaning
   4. For people or pets to enter & leave freely
   5. Remove moisture
   6. Remove odors
   7. Other: ………………………
2. For which reasons do you close windows and exterior doors closed? Select all that apply.
3. No need to keep them open
4. Noise control
5. Privacy
6. Reduce entry of pollutants, odors or allergens from outdoors
7. Security
8. Temperature control
9. Other: ………………………….

## General Ventilation Equipment

1. Does your home have any of the following ventilation equipment? Select all that apply.
2. Exhaust fan operating continuously or automatically on timer
3. Turning on/off exhaust fan as needed
4. Ventilation fan connected to central heating or cooling system
5. Fresh air vent connected to central heating or cooling system
6. Heat Recovery Ventilator (HRV)
7. Energy Recovery Ventilator (ERV)
8. AirCycler® or other timer control for ventilation fan
9. Other type of automatic ventilation
10. No ventilation fans
11. I don’t know

*If yes to any of the Mechanical Ventilation System types (a-g):*

Was the operation of the mechanical ventilation system explained to you when you bought or moved into the home?

a. Yes

b. Somewhat

c. No

d. I don’t know

Is there somebody in your household who knows how to operate or adjust the ventilation system?

a. Yes

b. No

c. The system cannot be turned off or adjusted

d. I don’t know

*If your home has Ventilation fan (c), HRV (e), or ERV (f):*

How often is the air filter on your system changed?

1. 1 time per year or less often
2. 2 times per year
3. 3-4 times per year
4. 5 times per year or more
5. I don’t know

## Cooking and Kitchen Ventilation

1. How often is the **cooktop or oven** used in a typical week?
2. Two or more times per day
3. Once per day
4. 3–5 times per week
5. 1–2 times per week
6. Less than once per week
7. I don’t know
8. How often does anyone in the home **fry or use the oven broil setting** in a typical week?
9. Two or more times per day
10. Once per day
11. 3–5 times per week
12. 1–2 times per week
13. Less than once per week
14. I don’t know
15. How often does anyone in the home use any other **hot surface cooking** device\* in a typical week?
16. Two or more times per day
17. Once per day
18. 3–5 times per week
19. 1–2 times per week
20. Less than once per week
21. I don’t know

*\* Toaster, toaster oven, electric grill, standalone electric burner, griddle, etc.*

1. Does your **kitchen** have any of the following equipment? Select all that apply.
   1. Window that opens
   2. Patio door
   3. Range hood
   4. Microwave with exhaust fan over the range
   5. Downdraft system that pulls air directly from the cooktop
   6. Exhaust fan\*
   7. None of the above

*\* Exhaust fan in the kitchen that is not a range hood, microwave, or downdraft. Select this option also if*

*If your home has a range hood:*

Does the *range hood* remove air from the kitchen (vent) or blow air back into the kitchen?

1. Vents air out of kitchen
2. Blows air back to kitchen
3. Range hood doesn’t work
4. I don’t know

*If your home has a microwave with exhaust fan over the range:*

Does the *microwave* remove air from the kitchen (vent) or blow air back to kitchen?

1. Vents air out of kitchen
2. Blows air back to kitchen
3. Range hood doesn’t work
4. I don’t know

*If there is any exhaust fan or range hood, including microwave:*

1. How often is the range hood or exhaust fan used when cooking?
   1. Usually or always
   2. Sometimes / as needed
   3. Rarely or never
   4. I don’t know
2. For which purposes is your range hood or kitchen exhaust fan used? Select all that apply.
   1. Capture grease
   2. Remove heat
   3. Remove odors
   4. Remove pollutants
   5. Remove smoke
   6. Remove steam / moisture
   7. During oven cleaning
   8. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. If your range hood or kitchen exhaust fan is NOT always used during cooking, why not? Select all that apply.
   1. Not applicable, I always use it
   2. Fan is not working
   3. We don’t think about it
   4. Not effective
   5. Not needed
   6. Too noisy
   7. Open window or patio door instead
   8. Other: ……………........................................
4. In your opinion, how effective is your range hood or kitchen fan?
   1. Very effective
   2. Somewhat effective
   3. Not effective
   4. I don’t know
5. How is your oven cleaned? Select all that apply
   1. Use self-clean setting
   2. Use oven cleaning product
   3. Rarely or never clean oven
   4. I don’t know

*If (a) or (b) above:*

How often is your oven cleaned?

1. At least once a month
2. Every 2 to 4 months
3. Every 5 to 12 months
4. Less than once per year
5. I don’t know

## Bathrooms

1. Think of only the full bathrooms in your home. Which of the following best describes the *exhaust fans*?
   1. Every bathroom has an exhaust fan
   2. Some have exhaust fans, some do not
   3. None have exhaust fans
   4. I don’t know

*If (c), the next set of questions about exhaust fan use can be skipped.*

1. How is the exhaust fan in the *Master Bathroom*controlled? Select all that apply.
2. No exhaust fan
3. On all the time
4. On when light is on
5. Occupancy sensor
6. Humidity sensor
7. On/off switch
8. Shuts off by timer
9. I don’t know
10. When you shower, how often do you use the exhaust fan?
11. No exhaust fan
12. Mostly or always
13. Sometimes / as needed
14. I don’t know
15. When you use the toilet, how often do you use the exhaust fan?
    1. No exhaust fan
    2. Mostly or always
    3. Sometimes / as needed
    4. I don’t know

## Laundry Room

1. Is there a laundry room or laundry closet inside your home?
   1. Yes
   2. No

*If yes:*

Is there an exhaust fan in your laundry room or laundry closet?

1. Yes
2. No
3. I don’t know

*If there is a laundry exhaust fan:*

How often do you use the laundry fan when doing laundry?

1. Fan runs all the time
2. Always or most of the time
3. Sometimes
4. Rarely or never
5. I don’t know

## Activities and Product Use That May Impact Indoor Air Quality

1. How often are the following products used in your home?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Never | Less than 1 time per week | 1 to 3 times per week | More than 3 times per week | I don’t know |
| Fabric deodorizer such as Febreze |  |  |  |  |  |
| Spray air freshener |  |  |  |  |  |
| Spray pesticide | |  |  |  |  |  |
| Art or dry erase markers |  |  |  |  |  |
| Incense |  |  |  |  |  |
| Scented candles |  |  |  |  |  |
| Unscented candles |  |  |  |  |  |
| Nail polish / nail polish remover |  |  |  |  |  |

1. How often is each cleaning activity done in your home?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Never | Less than 1 time per week | 1 to 3 times per week | More than 3 times per week | I don’t know |
| Vacuum |  |  |  |  |  |
| Do laundry |  |  |  |  |  |
| Disinfect surfaces |  |  |  |  |  |
| Clean kitchen floor |  |  |  |  |  |
| Change bed sheets |  |  |  |  |  |

1. How often are the following products used in place of conventional products?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Rarely or never | Some-times | Mostly or always | I don’t know |
| Cleaning products having only natural ingredients |  |  |  |  |
| Dish or clothes detergent that is free of perfumes and dyes |  |  |  |  |
| Non-chlorine bleach instead of chlorine bleach |  |  |  |  |

1. Are any of the following products used routinely *inside* your home? Select any that apply.
   1. Plug-in air fresheners or scented oils
   2. Toilet bowl cleaning tablet
   3. Moth repellent / moth balls
   4. Pesticide or traps for insects
   5. Poison or traps for mice or rats
   6. None of the above
2. Does your vacuum cleaner have a HEPA filter?
3. I don’t have a vacuum cleaner
4. Yes
5. No
6. I don’t know
7. Does vaping of any kind ever occur *inside* your home?
8. Yes
9. No
10. Prefer not to answer

*If Yes:*

How often does vaping occur?

1. Daily
2. Few times per week
3. Few times per month
4. Less than a few times per month
5. I don’t know
6. What **impact** do you believe each of the following actions has **on indoor air quality**? Please rate each item even if it is not relevant to your home.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Negative | Can be Negative or Positive | Positive | No Impact | I don’t know |
| Burning scented candles |  |  |  |  |  |
| Changing air filters frequently |  |  |  |  |  |
| Circulating the air in home  (Fan mode on thermostat) |  |  |  |  |  |
| Cleaning regularly |  |  |  |  |  |
| Cooking |  |  |  |  |  |
| Having air ducts cleaned |  |  |  |  |  |
| Having a cat or dog |  |  |  |  |  |
| Indoor plants |  |  |  |  |  |
| Opening windows regularly |  |  |  |  |  |
| Plug-in scented oil air fresheners |  |  |  |  |  |
| Using an ion generator |  |  |  |  |  |
| Using an ozone generator |  |  |  |  |  |
| Using range hood when cooking |  |  |  |  |  |
| Using a vaporizer |  |  |  |  |  |
| Automatic ventilation system |  |  |  |  |  |

## Demographics

1. What is your highest education level?
2. Did not complete high school
3. High school diploma or GED
4. Some college or trade school
5. Associate’s degree
6. Bachelor’s degree
7. Graduate or professional degree (Masters, PhD, JD, MD, etc.)
8. Prefer not to answer
9. Please select all groups represented by anyone in the household.
10. African American
11. American Indian, Alaska Native
12. Asian or Pacific Islander
13. Latino / Hispanic
14. White, Caucasian
15. Other: ………………….
16. Prefer not to answer
17. What is the total household income?
18. Less than $35,000
19. $35,000 to $ 49,999
20. $50,000 to $ 74,999
21. $75,000 to $ 99,999
22. $100,000 to $150,000
23. More than $150,000
24. Prefer not to answer

**You reached the end of the survey.**

If you do not want your responses to be included in the survey data, please check Do Not Use My Responses. This will remove your responses from the survey data.

­­­­ Do Not Use My Reponses

**We thank you for completing this survey.**  
  
If you have questions about the survey, please contact Brett Singer at 510-486-4779 or bcsinger@lbl.gov.

Have a wonderful day!