Supporting Information

Table S1 Questionnaire used in CCHH phase I.

ID:_____

China Children Homes Health (CCHH) Group

Study on children's health and home environment exposure

China – Children – Homes – Health

Note: Please fill in the blank on the line or choose the answer with" √"in " □".

Basic information

Who fill in the survey?

- □ Father
- □ Mother
- □ Grandmother
- □ Grandfather
- □ Others

What was the weight and height of the child at birth? ____kg; _____cm
What was the current weight and height of the child? ____kg; _____cm
How old of mother when the child was given birth? _____years
At which month the child was born? (month) _____
Where the child was born? (province)_____
When is the survey completed? (year)____(month)_____(date)_____

Background information of the child and the family

1a. In which week of pregnancy is the child born?

- □ Before month 8 (before week 34)
- □ Month 8-8.5 (in week 34 – 36)
- □ Month 8.5-9 (in week 36 – 38)
- □ Month 9-9.5 (in week 38-40)
- □ After month 9 (after week 40)
- □ Not known

2a. Gender of the child?

- □ Male
- □ Female

2b. Age of the child?

- □ 1 year
- □ 2 years
- □ 3 years
- □ 4 years
- □ 5 years
- □ 6 years
- □ 7 years
- □ 8 years

4. How long has the child been breast-fed totally or partly?

- □ No breast-feeding
- □ < 1 month
- □ 1-2 months
- □ 3-6 months
- □ > 6 months

5. At what age was the child first given infant formula, gruel or porridge?

- □ Younger than 3 months
- □ 3 – 6 months
- □ Older than 6 months

6. At what age was the child first given tasters (samples) of food, e.g. fruit purées, mashed root vegetables (e.g. potatoes)?

- □ Younger than 3 months
- □ 3 – 6 months
- □ Older than 6 months

7. What kind of napkins (Am. diapers) is <u>most commonly</u> used?

- □ Nappy
- □ Disposable nappy
- □ Other kind

8. How many children, who are less than 8 years old, are permanently living at home?_____

9. How many persons, totally, are permanently living at home?_____

10. Whose family does the child stay with permanently?

- □ Parents
- □ Grandparents
- □ Both
- □ Others

11. Who take care of the child before the child starts to attend day nursery?

- Parents
- Grandparents
- Nanny or others

12. If the child has stayed at day nursery, at what age did the child start to attend it?

- 2 years of age or younger
- 3 years of age or older

13. The occupation of the mother during pregnancy:

- Unemployed
- Farmer
- Teacher
- Office worker
- Housewife
- Medical work
- At factory
- Salesperson
- Student
- Other

The child's and the family's health

14 Has your child <u>ever</u> had wheezing or whistling in the chest at any time in the past? (More than one alternative possible)

- Yes, prior to 1 year of age
- Yes, 1 – 2 years of age
- Yes, 3 – 4 years of age
- Yes, more than 4 years of age
- No

15 Has your child had wheezing or whistling in the chest <u>in the last 12 months</u>? (More than one alternative possible)

- Yes, when having a cold
- Yes, during exercise
- Yes, when playing or being outdoors
- Yes, when laughing or crying
- Yes, in contact with furred animals
- No

16. <u>In the last 12 months</u>, has your child had a dry cough at night for more than two weeks, apart from a cough associated with a cold or chest infection?

- Yes
- No

17. Has your child been diagnosed with asthma by a doctor?

- Yes
- No

18. Has your child had croup (breathing difficulties with server (dry) cough)?

- Yes
- No

19. Has your child been diagnosed with pneumonia by a doctor?

- □ Yes
- □ No

20 Has your child ever had a problem with sneezing, or a runny, or a blocked nose when he / she did not have a cold or a flu? (More than one alternative possible)

- □ Yes, prior to 1 year of age
- □ Yes, 1 – 2 years of age
- □ Yes, 3 – 4 years of age
- □ Yes, after 4 years of age
- □ No

21. In the past 12 months, has your child had a problem with sneezing, or a runny, or a blocked nose when he / she did not have a cold or the flu?

- □ Yes
- □ No

22. In the past 12 months, has your child had a problem with sneezing, a runny or a blocked nose, or itchy-watery eyes after been in contact with furred animals?

- □ Yes
- □ No

23a). In the past 12 months, has your child had a problem with sneezing, a runny or a blocked nose, or itchy-watery eyes after been in contact with pollen?

- □ Yes
- □ No

23 b). During the past 12 months, in which months your child had the problem with sneezing, a runny or a blocked nose, or itchy-watery eyes after been in contact with pollen? (More than one alternative possible)

- □ January
- □ February
- □ March
- □ April
- □ May
- □ June
- □ July
- □ August
- □ September
- □ October
- □ November
- □ December

24. Has your child been diagnosed with hay fever or allergic rhinitis by a doctor?

- □ Yes
- □ No

25. In the past 12 months, how many times has your child had a cold?

- □ Less than 3 times
- □ 3– 5 times
- □ 6 – 10 times
- □ More than 10 times

26. How long does usually a cold last?

- □ Less than 2 weeks
- □ 2 – 4 weeks
- □ More than 4 weeks

27. Has your child ever had inflammations of the ears?

- Yes, 1 – 2 times
- Yes, 3 – 5 times
- Yes, more than 5 times
- No

28 a) Has your child ever had an itchy rash (eczema), which was coming and going for the last 6 months?

- Yes, prior to 1 year of age
- Yes, 1 – 2 years of age
- Yes, 3 – 4 years of age
- Yes, after 4 years of age
- No

28 b) Has this itchy rash at any time affected any of the following places: the fold of the elbows, behind the knees, in front of the ankles, under the buttocks, or around the neck, ears or eyes?

- Yes
- No

28 c) Has your child had this itchy rash at any time in the last 12 months?

- Yes
- No

28 e) In the last 12 months, how often, on average, has your child been kept awake at night by this itchy rash?

- Never
- Less than one night per week
- One or more nights per week

29.Has the child at any time had allergic irritations such as eczema, nettle-rash, diarrhoea, swollen lips or eyes caused by the listed foods below? (More than one alternative possible)

- Yes, egg
- Yes, sea food
- Yes, meat
- Yes, vegetable
- Yes, flour
- Yes, bean
- Yes, fruit
- Yes, milk or dairy product
- Yes, nut, (peanut, walnut etc.)
- Yes, other
- No
- Not known

30. Has the child been taking medicines with antibiotic, e.g. penicillin?

More than one alternative possible

- Yes, when 0 – 12 months old
- Yes, when 12 – 24 months old
- Yes, after 24 months old
- No, never

31. If the child was taking antibiotic when 0 – 12 months old, how many treatments did he / she receive?

- 1 treatment
- 2 treatments
- 3 or more treatments

32 a) Do asthma or allergic problems exist in the family?

- Yes
- No.

32 b) If Yes, which kind of problems and for whom? (More than one alternative possible)
Biological father
- □ Asthma
- □ Allergic nose or eyes problems
- □ Eczema

Biological mother
- □ Asthma
- □ Allergic nose or eyes problems
- □ Eczema

Full or half siblings
- □ Asthma
- □ Allergic nose or eyes problems
- □ Eczema

Grandparents
- □ Asthma
- □ Allergic nose or eyes problems
- □ Eczema

33. Does any of the following persons in your household cough without having a cold?
Father
- □ Yes
- □ No

Mother
- □ Yes
- □ No

Grandparents
- □ Yes
- □ No

Siblings
- □ Yes
- □ No

34. How many times have you had colds in your household the past year?
Grandparents
- □ None
- □ 1 – 2 times
- □ 3 – 4 times
- □ 5 or more times

Father
- □ None
- □ 1 – 2 times
- □ 3 – 4 times
- □ 5 or more times

Mother
- □ None
- □ 1 – 2 times
- □ 3 – 4 times
- □ 5 or more times

Siblings
- None
- 1 – 2 times
- 3 – 5 times
- 6 – 10 times
- 10 or more times

35. Do you feel cold in your home in winter?
- Every day
- Often (every week)
- Sometimes
- Never

36. During the last 3 months, have you (parent or guardian who complete this survey) had any (one or more) of the following symptoms? (More than one alternative possible)

Fatigue
- Yes, often (every week)
- Yes, sometimes
- No, never

Feeling heavy-headed
- Yes, often (every week)
- Yes, sometimes
- No, never

Headache
- Yes, often (every week)
- Yes, sometimes
- No, never

Nausea / dizziness
- Yes, often (every week)
- Yes, sometimes
- No, never

Difficulties concentrating
- Yes, often (every week)
- Yes, sometimes
- No, never

Itching, burning or irritation of the eyes
- Yes, often (every week)
- Yes, sometimes
- No, never

Irritating, stuffy or runny nose
- Yes, often (every week)
- Yes, sometimes
- No, never

Hoarse, dry throat
- Yes, often (every week)
- Yes, sometimes
- No, never

Cough

- Yes, often (every week)
- Yes, sometimes
- No, never

Dry or flushed facial skin

- Yes, often (every week)
- Yes, sometimes
- No, never

Scurfing / itching scalp or ears

- Yes, often (every week)
- Yes, sometimes
- No, never

Hands dry, itching, red skin

- Yes, often (every week)
- Yes, sometimes
- No, never

Joint pain

- Yes, often (every week)
- Yes, sometimes
- No, never

The residence of the child

37. Has the child been living at the present residence during the whole of his/her life?

- Yes
- No, lived here since year_____

39 a). Where is the residence situated?

- Inner city area
- Suburban
- Rural area (countryside)

39b). Surrounding environment (within 200 meters) of your residence (More than one alternative possible)

- High way
- River or lake
- Commercial district
- Industrial district
- Other

39 c). Window types of your residence?

Glass in frames is:

- Single layer
- Double layers
- Three layers

Window frames are:

- Wooden
- Other

41a. In which kind of house is the child living in at the moment?

- □ Single-family dwelling
- □ Attached or semi-attached dwelling
- □ Flat / apartment in multi-family dwelling
- □ Other

41b. How many floors of this house? _____

41c. Child's room is in which floor? _____

42. Can you approximately estimate the size of your residence?

- □ Smaller than 40 sq. m. (m^2)
- □ 41 – 60 sq. m. (m^2)
- □ 61 – 75 sq. m. (m^2)
- □ 76– 100 sq. m. (m^2)
- □ 101– 150 sq. m. (m^2)
- □ 150 or larger than 150 sq. m. (m^2)

43. Can you state, approximately, the year that the residence was built?

- □ Prior to 1980
- □ 1980 – 1990
- □ 1991 – 2000
- □ 2001 – 2005
- □ 2006 – until now

44. Are you the owner of the residence?

- □ Yes
- □ No

46. In which room does the child sleep most of his/her sleeping time?

- □ The child's own room
- □ Sharing bed room with siblings (brothers and sisters)
- □ Sleeping with grandparents
- □ Sleeping with parents

49. State which kind of flooring material there is in the child's room?

- □ Wooden floor
- □ Laminate wooden floor
- □ Bamboo
- □ Tile and stones
- □ Cement
- □ PVC(plastic)
- □ Chemical fiber carpet
- □ Wool carpet
- □ Hemp carpet
- □ Not known

50. Which kind of surface layer is on the walls in the child's room?

- □ Wallpaper
- □ Paint
- □ Wooden panel
- □ Lime
- □ Cement
- □ Latex paint
- □ Other

52. Which type of heating is there in the residence? (More than one alternative possible)

- □ Coal stove
- □ Kang
- □ Fire wall
- □ Fire basin
- □ Electric heater
- □ Air conditioner heating
- □ Floor heating
- □ District heating
- □ Individual heating
- □ Other
- □ No heating

53. Which fuel do you generally use for cooking? (More than one alternative possible)

- □ Coal
- □ Wood
- □ Gas
- □ Electricity
- □ Other

54a). What kind of exhaust equipments are there in your kitchen? (More than one alternative possible)

- □ Smoke exhaust ventilator
- □ Exhaust fan
- □ No

54b). Is there any exhaust fan in your bathroom?

- □ Yes
- □ No

54c). Where is the bathroom air exhausted to?

- □ Outside of the residence
- □ Inside the residence (such as corridor and staircase.etc)

56. Have you bought new furniture during the period of time stated below?

Within one year before pregnancy

- □ Yes, a few
- □ Yes, many
- □ No

During pregnancy

- □ Yes, a few
- □ Yes, many
- □ No

When the child is 0-1 year old

- □ Yes, a few
- □ Yes, many
- □ No

When the child is more than 1 year old

- □ Yes, a few
- □ Yes, many
- □ No

57. Have you renovated your home during the period of time stated below?
Within one year before pregnancy
- □ Yes
- □ No
- □ Not known

During pregnancy
- □ Yes
- □ No
- □ Not known

When the child is 0-1 year old
- □ Yes
- □ No
- □ Not known

When the child is more than 1 year old
- □ Yes
- □ No
- □ Not known

58. Have you noticed any <u>visible mould</u> on the floor, walls or ceiling in the child's room?
- □ Yes
- □ No
- □ Not known

59. Have you noticed any <u>visible damp stains</u> on the floor, walls or ceiling in the child's room?
- □ Yes
- □ No
- □ Not known

60. How often does the window open when the child is sleeping during night?
Spring:
- □ Never
- □ Sometimes
- □ Often

Summer:
- □ Never
- □ Sometimes
- □ Often

Autumn:
- □ Never
- □ Sometimes
- □ Often

Winter:
- □ Never
- □ Sometimes
- □ Often

63a. Have you noticed your clothing and/or bedding are damp in the last year?
- □ Never
- □ Sometimes
- □ Often

63b. Have your bedding been sun-cured?

- Never
- Sometimes
- Often

64. Have there been any flooding or other kinds of water damages in your residence?

- Yes, in the past years
- Yes, in the last 12 months
- No
- Not known

66. In the winter, does condensation or moisture occur on <u>the inside,</u> at the bottom, of windows in the child's room?

- No, never
- Yes, less than 5 centimetres
- Yes, 5 – 25 centimetres
- Yes, more than 25 centimetres
- Not known

67. Have you during the last 3 months been bothered by any (one or more) of the odours, stated below, in your residence?

Stuffy "bad" smell

- Yes, frequently (weekly)
- Yes, sometimes
- No, never

Unpleasant smell

- Yes, frequently (weekly)
- Yes, sometimes
- No, never

Pungent smell

- Yes, frequently (weekly)
- Yes, sometimes
- No, never

Mouldy smell

- Yes, frequently (weekly)
- Yes, sometimes
- No, never

Tobacco smoke

- Yes, frequently (weekly)
- Yes, sometimes
- No, never

Air humid

- Yes, frequently (weekly)
- Yes, sometimes
- No, never

Air dry

- Yes, frequently (weekly)
- Yes, sometimes
- No, never

68a. Have you noticed any animals, stated below, in your residence?

Cockroach

- □ Always
- □ Often
- □ Sometimes
- □ No

Mice

- □ Always
- □ Often
- □ Sometimes
- □ No

Mosquitoes and flies

- □ Always
- □ Often
- □ Sometimes
- □ No

68b. Have you used mosquito coils or mosquito repellents in your residence?

- □ Yes, often
- □ Yes, sometimes
- □ No

68c. Have you used incense in your residence?

- □ Yes, often
- □ Yes, sometimes
- □ No

69a. Did you notice there are visible mould or damp stains on the floor, walls or ceiling in the child's residence at birth?

- □ Yes, often (weekly)
- □ Yes, sometimes
- □ No, never

69b. Did you notice there are condensation or moisture occur on <u>the inside,</u> at the bottom, of windows in winter in the child's residence at birth?

- □ Yes, often (weekly)
- □ Yes, sometimes
- □ No, never

70. Have you been bothered by any (one or more) of the odours, stated below, in the child's residence at birth?

Stuffy "bad" smell

- □ Often
- □ Sometimes
- □ No

Unpleasant smell

- □ Often
- □ Sometimes
- □ No

Pungent smell

- □ Often
- □ Sometimes
- □ No

Mouldy smell
- Often
- Sometimes
- No

Tobacco smoke
- Often
- Sometimes
- No

Dry air
- Often
- Sometimes
- No

Damp air
- Often
- Sometimes
- No

Questions concerning habits and customs

71. Do you have any furred animals / pets in your present residence?
- Yes, cats
- Yes, dogs
- Yes, rodents (rabbits, rats, etc.)
- Yes, birds
- Yes, fis0068 or reptiles
- Yes, the other
- No.

72 Were there any furred animals / pets in the child's residence at birth?
- Yes, cats
- Yes, dogs
- Yes, rodents (rabbits, rats, etc.)
- Yes, birds
- Yes, fish or reptiles
- Yes, the other
- No.

73. Have you got rid off any furred animals / pets due to allergic illnesses in the family?
- Yes
- No

74. Have you refrained from procuring any furred animals / pets due to allergic illnesses in the family?
- Yes
- No

76. How long does your child stay in traffic vehicles per day?
- Less than 30 minutes
- More than 30 minutes

77. How often do you vacuum clean, sweep or mop (wet) the floor in the child's room?
- Every day
- Approx. twice a week
- Once a week
- Every second week
- Once a month
- Less than once a month

78. Have your cleaning routines changed due to allergies in the family?

- □ Yes
- □ No
- □ Not known

79a. Do you have (one or more) of the equipments, stated below, in your residence?

More than one alternative possible

- □ Printer or photocopy machine
- □ Air humidifier
- □ Ionizer
- □ Air conditioner
- □ Air cleaner

79b. Is there a TV set in the child's room?

- □ Yes
- □ No

79c. Is there a computer in the child's room?

- □ Yes
- □ No

80. Does anyone in your family smoke?

- □ Yes, mother
- □ Yes, father
- □ Yes, grandmother
- □ Yes, grandfather
- □ Yes, siblings
- □ Yes, other person
- □ No

81. Did any of the parents smoke during the child's first year of life?

- □ Mother
- □ Father
- □ No one

82. Did any of the parents smoke during the pregnancy?

- □ Mother
- □ Father
- □ No one

Questions concerning food habits

83a. How often does the child eat hamburgers or fried chicken (McDonald and KFC.etc) every month?

- □ 0 time
- □ 1 time
- □ 2 times
- □ 3 times
- □ 4-10 times
- □ 11 times or more

83b. Please state the food that the child eats often in the following list.

- □ Instant noodle
- □ Bread
- □ Cookies like moon cake or housewife cake, etc
- □ Biscuits
- □ Chips
- □ French fries
- □ Fried chicken
- □ Hamburger
- □ Popcorn
- □ Chocolate
- □ Soft drinks (carbonated drinks or soda water)
- □ Juice
- □ Pepper and other spices
- □ Pickled vegetables
- □ Instant coffee
- □ Tea
- □ Candy
- □ Jam
- □ Smoking meat
- □ Ice cream
- □ Frozen food
- □ Canned foods
- □ Animal pluck

Thank you for your participation!

To further investigate the influence of your indoor environment on child's health, we would like to inspect your residence and do medical exam for your child.

Would you like to take the home inspection?

- □ Yes
- □ No

Would you like to take your child to the hospital for free medical examination?

- □ Yes
- □ No

If "yes", please inform us your contact information:

Mobile phone: _____

Home address: _____

Home phone: _____

Table S2 Comparison between short questionnaires and Phase I questionnaires in Chongqing

	Short questionnaires (%)	Phase I (%)	P Chi-square Test
Sample size	206	5299	
Response rate	68.7	74.5	
House Site (Locations)			
Rural	11.2	10.4	0.070
Suburban	24.7	18.7	
Urban	64.1	70.9	
Gender			
Boy	53.9	51.3	0.478
Girl	46.1	48.7	
Wheezing in last 12 months			
Yes	26.3	20.6	0.054
Visible damp stains			
Yes	10.8	8.1	0.181
Family smoking			
Yes	71.4	65.6	0.099

Table S3 Summary of general characteristics of the study populations, children 1-8 years old (%)

	Harbin	Urumqi	Beijing	Shanghai	Nanjing	Xi'an	Taiyuan	Wuhan	Changsha	Chongqing
Breast feeding										
≥3 months	83.3	71.8	78.3	69.7	80.3	78.0	79.2	79.4	78.0	73.6
< 3 months	16.7	28.2	21.7	30.3	19.7	22.0	20.8	20.6	22.0	26.4
Child care										
Grandparents care	40.1	38.8	51.0	48.9	42.3	30.7	39.5	35.6	37.5	38.0
Parents care	54.8	54.8	49.2	48.3	55.2	67.0	57.1	65.3	59.8	59.3
Nanny or others	5.0	6.4	11.6	2.8	2.5	2.3	3.3	3.4	2.7	2.7
Starting age of daycare										
2 yrs or younger	38.1	12.8	32.7	16.4	23.5	24.1	17.3	22.6	26.9	32.9
3 yrs or above	61.9	87.2	67.3	83.6	76.5	75.9	82.7	77.4	73.1	67.1
Pet keeping										
At current	16.6	18.6	25.0	20.4	20.7	15.5	18.4	19.1	14.4	20.9
At birth	11.4	11.8	14.1	12.3	10.4	10.0	12.0	11.6	8.9	16.4
Get rid of pets										
Yes	9.6	6.0	13.3	15.7	11.7	12.2	7.0	16.2	10.9	12.4
Refrain from pets										
Yes	14.2	11.5	21.2	27.7	18.0	17.1	8.5	23.1	16.8	17.0
ETS										
Any smoker in family	60.5	57.6	54.2	56.6	62.6	62.7	61.3	58.2	66.0	65.6
Mother smoke during early life of child	0.6	1.2	0.6	0.9	0.1	0.0	1.1	0.5	0.5	1.1
Mother smoke during pregnancy	0.5	0.5	0.4	0.7	0.1	0.0	0.1	0.5	0.3	1.0
Renovation of home one year before pregnancy, during pregnancy or the first year of child	23.9	28.4	22.6	24.6	28.2	20.1	31.3	28.6	23.1	17.7
New furniture one year before pregnancy, during pregnancy or the first year of child	39.3	35.6	46.5	34.1	45.9	40.0	36.0	45.6	40.0	37.9
Use of										
Incense	6.9	13.7	13.3	12.9	10.5	13.7	8.2	19.6	26.5	17.8
Air purifier	3.6	4.5	13.4	8.8	2.9	5.5	6.0	4.5	3.5	4.3
Window opening often										
Spring	6.3	19.5	18.9	44.0	37.1	35.8	14.3	42.9	59.0	62.2
Summer	43.4	56.1	64.8	62.0	64.5	74.1	54.7	69.5	70.8	73.8
Autumn	7.8	23.3	23.3	45.3	39.5	34.2	15.2	46.8	64.8	63.9
Winter	2.8	8.9	7.0	17.5	11.7	10.8	6.3	15.7	27.1	35.8
Cleaning frequency										
More than once per week	90.9	82.2	82.6	86.0	84.7	79.0	89.0	79.3	82.0	76.0
Once per week	6.5	15.6	12.7	11.7	12.1	9.0	9.6	15.7	13.7	19.2
Less than once per week	2.6	2.2	4.8	2.3	3.1	12.0	1.3	5.0	4.3	4.8
Put bed sheets under sunshine often	40.5	30.1	49.0	82.3	87.7	56.1	40.6	77.6	61.8	40.8

Table S4 Summary of building characteristics in investigated regions, children 1-8 years old (%)

Locations	Harbin	Urumqi	Beijing	Shanghai	Nanjing	Xi'an	Taiyuan	Wuhan	Changsha	Chongqing
Urban	88.1	85.2	83.3	68.5	63.6	78.8	84.2	71.7	89.5	70.9
Suburb	10.7	12.8	14.7	27.0	33.0	16.7	13.5	26.2	9.5	18.7
Rural	1.2	2.1	2.0	4.5	3.4	4.5	2.2	2.1	1.0	10.4
House type										
Single family house	53.2	22.4	41.3	22.7	9.3	42.5	32.7	32.7	26.8	30.3
Detached dwelling/row house	0.2	1.6	2.2	1.2	0.7	1.3	1.3	2.3	0.7	1.7
Apartment	36.7	64.8	56.5	68.1	82.6	56.2	58.4	53.3	62.1	49.1
Pingfang		3.3					3.1			
Home size										
⩽60 m^2	56.6	19.2	23.2	35.6	25.6	39.2	29.8	13.9	16.4	28.5
60–100 m^2	35.0	57.2	36.8	35.2	49.5	41.1	43.1	43.7	42.2	44.4
⩾100 m^2	8.3	23.7	40.0	29.2	24.9	19.7	27.0	42.4	41.5	27.1
House age										
Before 1980	4.3	2.5	7.1	10.3	3.9	9.0	5.6	5.4	5.2	4.0
1980–1990	9.8	10.5	14.0	14.1	15.8	12.7	16.7	15.7	12.8	9.4
1991–2000	32.5	28.2	23.2	32.6	26.6	29.6	27.0	28.1	25.6	22.7
2001–2005	32.9	36.9	36.7	28.4	37.0	23.2	26.1	29.8	29.6	34.5
2006-present	20.5	21.9	19.0	14.6	16.7	25.4	24.6	21.0	26.8	29.4
Ownership										
Owners occupied	70.7	73.4	64.5	63.0	66.0	41.0	62.8	68.5	65.5	58.2
Tenant	29.3	26.6	35.5	37.0	34.0	59.0	37.2	31.5	34.5	41.8
Ventilation system										
Exhaust fan in kitchen	94.9	93.9	97.1	91.3	91.8	83.1	93.8	96.7	95.9	84.7
Exhaust fan in bathroom	84.4	59.3	79.3	78.6	71.2	62.0	79.7	68.8	80.0	72.4
Heating system										
Coal stove	3.3	1.9	3.3	0.2	0.1	12.6	1.4	1.7	1.1	0.1
Kang or firewall	2.8	1.0	0.5	0.1	0.1	0.4	0.2	0.3	0.2	0.3
Fire basin	0.0	0.1	0.1	0.1	0.4	0.2	0.2	0.7	0.7	1.2
Electric heater	2.1	1.1	4.2	20.7	23.6	16.8	2.7	43.3	60.4	26.4
Air conditioner heating	0.8	1.0	6.0	77.6	73.2	14.6	3.7	44.4	58.4	29.6
Floor heating	12.0	18.5	12.8	1.3	1.1	4.7	9.8	0.9	1.2	1.0
No heating	0.6	0.3	0.4	12.4	14.8	7.7	0.2	18.6	5.8	44.8
Cooking										
Coal	2.6	3.0	2.4	11.9	3.1	7.7	2.8	5.7	2.7	1.6
Wood	1.4	1.7	0.4	0.7	0.4	0.5	0.8	1.0	0.3	3.6
Gas	90.0	86.3	92.5	67.8	73.6	68.1	69.7	72.4	82.3	80.7
Electricity	25.2	5.1	14.3	27.8	32.7	31.6	30.3	30.1	25.3	36.4
Floor covering in child's room										
PVC	2.2	2.1	2.0	1.7	1.9	1.9	1.7	1.0	0.6	0.6
Wood/bamboo	46.8	19.7	33.6	67.8	52.7	13.1	22.2	40.7	41.4	19.8
Carpet	0.2	3.8	1.1	0.7	0.2	0.3	0.6	0.9	0.3	0.3
Tiles/ceramic, stone	4.2	44.2	30.2	5.8	9.7	54.0	41.4	21.3	27.0	34.9
Cement	4.0	4.4	5.7	8.0	9.6	14.4	8.2	13.1	6.4	17.4
Laminated parquet	42.7	24.3	36.5	16.0	23.0	16.4	27.1	22.2	26.1	27.0
Wall covering in child's room										
Wall paper	3.5	12.4	13.3	11.5	5.7	5.3	9.4	6.6	5.5	11.9
Paint/latex paint	75.1	68.0	67.0	66.5	74.5	58.5	62.6	71.4	58.2	54.0
Wooden panel	0.6	1.1	1.5	1.9	1.3	0.7	1.2	1.2	1.5	1.2
Cement wall	2.7	3.0	4.4	4.8	4.1	4.6	5.3	4.8	3.8	8.9
Lime	13.0	9.2	14.2	12.4	9.1	24.9	14.5	14.6	22.8	19.4

Table S5 Dampness and odor indices in homes in investigated regions, children 1-8 years old (%)

	Harbin	Urumqi	Beijing	Shanghai	Nanjing	Xi'an	Taiyuan	Wuhan	Changsha	Chongqing
Dampness index										
Visible mould [a]	12.0	8.6	4.0	7.9	4.5	4.0	4.4	6.8	6.9	5.3
Visible damp stain [b]	14.2	14.1	5.9	15.2	7.7	7.7	9.8	11.3	10.2	8.1
Water leakage [c]	12.0	26.7	9.0	18.0	8.9	7.5	17.2	11.4	10.0	9.2
Condensation on windows [d]	15.8	15.4	20.5	26.0	32.2	19.1	25.5	20.6	22.2	14.3
Odors										
Stuffy odor [e]	2.0	5.0	4.2	2.3	2.6	2.9	3.9	2.1	1.7	1.9
Pungent odor [f]	1.1	1.5	0.8	0.7	0.5	0.6	0.7	1.3	0.9	1.1
Mouldy odor [g]	1.9	0.9	0.8	0.8	0.4	0.8	0.6	0.7	0.6	0.8
Tobacco smoke odor [h]	6.9	5.7	5.8	4.8	6.1	6.2	4.3	5.4	7.4	7.3
Dry air [i]	12.5	17.8	27.5	1.7	3.1	8.5	6.8	2.8	1.8	1.7
Humid air [j]	2.0	2.2	1.2	2.0	1.1	1.3	1.7	1.7	1.0	1.8

a) Visible mildew or mold on the floor, walls, or ceilings in child's room; b) Visible damp stains on the floor, walls, or ceilings in child's room; c) Flooding in dwellings; d) More than 5 cm of condensation on the inside of the window pane during wintertime in child's room; e) Stuffy "bad" odour often (every week) during the last three months; f) Pungent odour often (every week) during the last three months; g) Mouldy odour often (every week) during the last three months; h) Tobacco smoke odour often (every week) during the last three months; i) Perception of dry air often (every week) during the last three months; j) Perception of humid air often (every week) during the last three months.