Survey on Air Quality and Respiratory Health of Children
Objectives

• Raise public awareness of the health impact of air pollution on children;

• Sound out parents’ concerns about air pollution & child health;

• Provide quantitative figures to demonstrate the need to improve air quality
Survey Background

- Period of time: Late February to end of March (5 weeks)
- Questions were vetted by HK Asthma Society chairman, Dr. Alfred Tam
- Location: 10 pediatricians’ clinics throughout Hong Kong
- Sample size: 512 respondents
  (Hong Kong local: 322   Expat: 67   Unidentified: 123)
- Respondents were evenly distributed throughout HK
  (HK Island 32%, KLN 32% and NT 34%)
- 52%: 1 child   38%: 2 children   8%: 3 children   2%: 4 children
- Child age: 53%: 0-5 below   23%: 5-10   23%: above 10
Findings
Are you satisfied with the air quality of HK?

- Very satisfied: 30%
- Somewhat satisfied: 3%
- Indifferent: 12%
- Somewhat dissatisfied: 54%
- Very dissatisfied: 1%

84% are not satisfied with the air quality of Hong Kong.
How severe do you think the air pollution in HK is compared to 3 years ago?

- Very severe: 28%
- Somewhat severe: 53%
- Indifferent: 3%
- Not so severe: 3%
- No answer: 13%

81% found it more severe than 3 years ago.
91% parents think the current poor air quality threatens their children’s health.
Air pollution and child health

74% believe there is a correlation between their children’s health and API readings.
Worsening health condition

How frequently does your child/children suffer from the illnesses below?

- **Sinusitis**
  - Chronically ill: 79%
  - One or several times a year: 75%
  - Once every few years: 50%
  - Once or twice in lives: 22%
  - Never: 11%

- **Asthma**
  - Chronically ill: 79%
  - One or several times a year: 75%
  - Once every few years: 50%
  - Once or twice in lives: 22%
  - Never: 11%

- **Allergic rhinitis**
  - Chronically ill: 4%
  - One or several times a year: 22%
  - Once every few years: 10%
  - Once or twice in lives: 14%
  - Never: 92%

- **Brochitis**
  - Chronically ill: 18%
  - One or several times a year: 41%
  - Once every few years: 9%
  - Once or twice in lives: 7%
  - Never: 7%

- **Viral Croup**
  - Chronically ill: 15%
  - One or several times a year: 52%
  - Once every few years: 7%
  - Once or twice in lives: 51%
  - Never: 5%

- **Upper respiratory infection**
  - Chronically ill: 18%
  - One or several times a year: 51%
  - Once every few years: 7%
  - Once or twice in lives: 51%
  - Never: 5%

- **Pneumonia**
  - Chronically ill: 15%
  - One or several times a year: 54%
  - Once every few years: 8%
  - Once or twice in lives: 6%
  - Never: 6%

- **Coughing**
  - Chronically ill: 14%
  - One or several times a year: 50%
  - Once every few years: 14%
  - Once or twice in lives: 5%
  - Never: 5%

- **Sputum**
  - Chronically ill: 12%
  - One or several times a year: 29%
  - Once every few years: 7%
  - Once or twice in lives: 25%
  - Never: 25%

- **Wheezing**
  - Chronically ill: 11%
  - One or several times a year: 22%
  - Once every few years: 9%
  - Once or twice in lives: 9%
  - Never: 89%
Worsening health condition

*Chronically* ill:

- 31% cough
- 29% have sputum
- 22% upper respiratory infection
- 20% allergic rhinitis
- 10% bronchitis and wheezing

*Parents were given the choice of “chronic”, “sometimes” and “never”*
What do you observe when your child is / children are exposed to an air polluted environment?

- Air pollution does not bother my child / children: 60%
- Others: 38%
- Irritability: 73%
- Skin allergy: 60%
- Sneezing: 38%
- Dry or sore throat: 60%
- Stinging, burning or itchy eyes: 73%
- Difficulty in breathing: 60%
- Coughing or choking: 60%
Pollution source

Have you seen your child's / children's illness worsen when there is a high level of the following?

- Others
- Lack of air circulation due to tall building walls
- Construction works
- Chemicals (e.g. insecticides)
- Second-hand smoke
- Automobile emission
- Dust
- Smog

- Others: 67%
- Lack of air circulation due to tall building walls: 51%
- Construction works: 46%
- Chemicals (e.g. insecticides): 46%
- Second-hand smoke: 51%
- Automobile emission: 67%
- Dust: 67%
- Smog: 46%
Anxiety

Do you worry that your children's respiratory health will worsen/illness will be triggered when the API is at a 'High Level' or above?

93% of parents worry that children’s respiratory health will worsen when the API is at a “High Level” or above.
What do you do with your child/children when the Air Pollution Index (API) is at a 'High Level' or above?

- Avoid outdoor activities: 48%
- Avoid prolonged stay in crowded areas: 54%
- Use air cleaner/filters: 31%
- Close all the windows when staying at home
- Use face mask
- Skip school
- Take medicine
- Continue life as usual
- Others

Ways of avoidance
Have you relocated or considered relocation within HK because of the impact of air pollution on your children's health?

43% have relocated or considered relocation

Have you ever thought of leaving HK for the sake of your children's health due to the air pollution?

34% have thought of leaving HK

Time to leave?
Would you support more government spending to improve air quality?

- Yes: 96%
- No: 1%
- No Answer: 3%
Government Action

Which of the following Government measures would you support to reduce air pollution for the benefit of your child’s / children’s health?

- Government to set a date for all buses to adopt the Euro V (newest) standard: 63%
- Government to use taxpayer money to enable purchase of newer buses: 52%
- Government to urge bus companies to reduce bus frequency in order to lower emission: 36%
- Government to establish a system of 'poor air quality arrangement for kindergartena nd day schools': 36%
- Government to tighten air quality standards asap: 71%
- Others: 3%
Conclusions

• Strong linkage between high air pollution and respiratory illnesses in children

• A significant percentage of children visiting doctors in Hong Kong suffer CHRONICALLY from pollution-related ailments.

• A significant percentage of parents are or would consider relocating for their children’s health

• Parents unanimously support more government spending to improve air quality
Recommendations

• Government to tighten AQOs asap.

• The government should replace all pre-Euro III buses by 2015.

• Get Pre-Euro III Diesel Commercial Vehicles off the road by 2015 through effective carrot and stick policies.

• Set up alarm systems like those for typhoon or heavy rainfall.
The End