

Lower Price Hill Children's Health Survey

Survey done by: Donna Jones, Mike Walters, June Raines, Bill Raines, Stacie Ward, and Karen Schlanger of the Environmental Leadership Group with help from Katie Brown and Molly Tomlin of the University of Cincinnati Department of Environmental Health.

How we did the study:

During the spring and summer of 1998, the Lower Price Hill Environmental Leadership Group conducted a Children's Health Survey. With the help of Katie Brown and Molly Tomlin from the University of Cincinnati, we developed a questionnaire and a method of interviewing parents of children living in Lower Price Hill. We were all trained in how to conduct the interviews and how to keep track of all the paperwork. We picked families to be interviewed at random, (we didn't pick families where we knew sick children lived). Because we chose families at random, our results should give us an accurate picture of the health of children in Lower Price Hill. In order to pick families at random, we came up with a list of all the addresses people live at in Lower Price Hill and randomly picked addresses using a computer until we finished 112 surveys with households with children under 18 living there. There were no families that refused to be interviewed (**We had a 100% response rate**), although we did not complete surveys with a few people who asked us to come back at a different time.

Once we finished each survey, we reviewed what was written, and entered into a computer program. Every survey was checked at least twice in the computer for mistakes. We then used the computer to add up the numbers and percentages of children with each health condition. The information presented here comes from the results of our study.

Limitations of our study include:

- We did not keep track of individual children with health problems, but just keep numbers of children with each health condition.
- We did not collect information in a way that we can compare our results to children in other neighborhoods. We decided that it was most important at this time to just describe what problems children in Lower Price Hill are facing and not try to claim that they are better or worse off than children in another neighborhood.

RESULTS

Demographics

- 112 households were surveyed.
- The total number of children in these households was 264.
- The majority of households had 4 or 5 people living in them (average of 4.24 people)
- Most households had 3 or less children under age eighteen, or an average of 2.36.
- Most children were between the ages of 1 and 10 (61%).
- Most children (72%) lived their entire life in Lower Price Hill

The children's environmental health survey was done as part of the Lower Price Hill Environmental Leadership Project. The Project is funded by a grant from the National Institute of Environmental Health Sciences through the Urban Appalachian Council.

Health Care Providers

- Most families (77 out of 112 or 68%) use the Price Hill Clinic for their primary health care.
- 21% of families interviewed take their children to private doctors, and 13% take their children to Children's Hospital for primary care.
- 11% (or 29 children) visited asthma or lung specialists in the past year alone, 13% visited hearing specialists in the past year, and 8% visited lead poisoning specialists in the past year

Frequency of Illnesses

Many symptoms or illnesses occurred more frequently in children than might be expected:

- Colds more than 4 times per year (42 %)
- Sinus or allergy symptoms more than twice per month (40%)
- Viral or bacterial infections more than 4 times per year (39%)
- Ear aches or infections more than once per month (35%)
- Headaches more than twice per month (28%)
- Scratchy throat more than 3 times per month (25%)
- High fever (102) more than 4 times per year (20%)
- Stomach aches more than twice per month (20%)
- Strep throat more than 6 times per year (18 %)
- Diagnosis or treatment for Jaundice or Hepatitis (7% or 19 children)

There was also a high frequency of children who had ear tubes inserted:

- Ear tubes inserted in the child's life (22%)
On average, one out of every two households had at least one child who had ear tubes inserted.

There was also a high frequency of breathing related problems:

- Diagnosis or treatment for asthma (16%)
- Bronchitis symptoms more than 3 times per year (15%)
- Breathing problems other than asthma more than once per month (14%)
- Use of a breathing machine or inhaler (15%)

Learning or Developmental Problems:

- 18% are believed to have a learning disability that has not been diagnosed
- 15% had been treated for delayed speech development
- 10% were diagnosed with or treated for Attention Deficit Disorder (ADD or ADHD)

Lead Poisoning:

72% of households had their children checked for lead.

- 28% of children tested for lead poisoning had at least one child with high results
- 15% of the children tested for lead had severe lead poisoning (lead levels higher than 20 micrograms).

SMOKING

80% of households have one or more adult smoker

10% of households have one or more children under age eighteen who smoke

ODORS

In addition to asking about children's health, we also asked people about the odors they smell in the neighborhood and what if any health symptoms to they think are related to the odors.

Results of odor questions: People said they smell a lot of odors in Lower Price Hill a lot of the time. The strongest odors named come from both MSD and Queen City Barrel.

What do people say they smell in the air in Lower Price Hill:

- **Sewage (87%)**
Of the people who smell the sewage, 68% say they smell it 3 or more days per week
- **Paint/Chemical (83%)**
Of the people who smell the Paint/Chemical, 58% say they smell it 3 or more days per week
- **Rotten Eggs (70%)**
Of the people who smell Rotten Eggs, 61% say they smell it 3 or more days per week
- **Chlorine (56%)**
Of the people who smell Chlorine, 30% say they smell it 3 or more days per week
- **Sickly-sweet (43%)**
Of the people who smell the sickly-sweet smell, 42% say they smell it 3 or more days per week

Health symptoms associated with odors:

People interviewed were asked if they experienced specific health symptoms. They were than asked if they thought any of these experienced symptoms were related to odors they smell in the neighborhood. If they could identify which odors they associated with a symptom, we asked them to do so.

Of the people surveyed, the following percentage of people indicated they experienced each symptom. The number in parentheses after the symptom, indicates how many people who experienced that symptom told us they sometimes associate it will neighborhood odors. As you can see by the high numbers in the parentheses above, people most likely associated their symptoms with smells in the neighborhood.

- **78% say they experience Headaches (83% associate this symptom with odors)**
- **68% say they experience Coughing (85% associate this symptom with odors)**
- **67% say they experience Dry Irritated Throat (91% associate this symptom with odors)**
- **67% say they experience Watery Eyes (87% associate this symptom with odors)**
- **65% say they experience Sick to stomach (90% associate this symptom with odors)**
- **57% say they experience Burning Eyes (90% associate this symptom with odors)**

- 49% say they experience Shortness of Breath (91% associate this symptom with odors)
- 43% say they experience Gagging/Dry heaves (92% associate this symptom with odors)
- 43% say they experience Metal taste in mouth (96% associate this symptom with odors)

Which odors were symptoms associated with:

All symptoms were most likely to be associated with more than one odor (on average, 50% of the people who answered this question, said they associated with symptoms with more than one odor). However, of the specific odors, all but "sick to stomach" were most often associated with the "Paint/Chemical" odor. Most, if not all, of the "Paint/Chemical" smells in the neighborhood come from the Queen City Barrel plant. "Sick to stomach" symptoms were most often associated with the "Sewage" odor (odors from MSD). ***In other words, people felt that smells coming from Queen City Barrel were more likely to cause symptoms,*** (although people smell Queen City Barrel and MSD odors about the same amount). For all symptoms except "sick to stomach", between 19-40% of the people who answered this question (average 28%) associating their symptoms from smells coming from Queen City Barrel. It is also possible that some of the burning odors that people said they smelled are also from Queen City Barrel operations, in addition to the "Paint/Chemical" smell. An additional, 2-20% (average 10%) said they associated their symptoms with a "burning" smell.

Differences in Air Quality throughout the week, and year:

Most people said that smells are stronger during the weekdays (90%) and worst in the summer (91%)

WHAT DO THE RESULTS MEAN?:

1. Lead poisoning is a major problem for children in Lower Price Hill. Every child is not being tested for lead poisoning. Every child should be tested for lead poisoning in Lower Price Hill.
2. Most families in Lower Price Hill have smokers in them. Smoking is most likely a major factor that contributes to health problems among our children.
3. Many children in Lower Price Hill have asthma and other breathing problems.
4. Many children in Lower Price Hill have hearing problems, ear infections, and/or have had tubes inserted in their ears.
5. Many adults in Lower Price Hill consider that some of their health problems are associated with smells in the neighborhood coming from Queen City Barrel, MSD and possibly other nearby industry. There is no real way to determine if in fact people's health problems are coming from these local industries and to what extent these industries are affecting our children's health.

WHAT ARE WE DOING NEXT:

From doing this survey, we became aware of a lot of health concerns for people in Lower Price Hill. We do not know if children in Lower Price Hill has more or less health problems than other neighborhoods. However, we do know that a lot of children have many different kinds of health problems. To address some of the health problems children in Lower Price Hill are facing, we are developing workshops for parents to learn more about certain illnesses so we can all take better care of our children and grandchildren. We couldn't address every health concern that has come up in the survey, but we have decided to start off by developing 4 workshops. Workshops will be on topics including: Asthma, ear infections and ear tubes, lead poisoning prevention, and how to stop smoking.