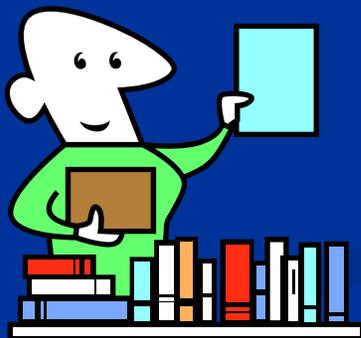




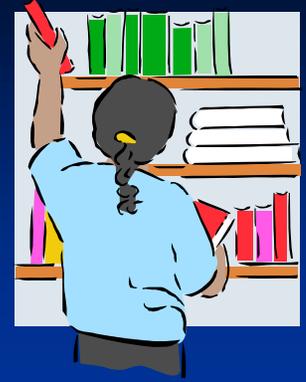
ATSDR's Library of Chemical Exposure Questions



ATSDR

Chemical Exposure Questionnaire Library

What is it?



- Library of more than 200 chemical exposure questions
- Investigators build site-specific questionnaires
- Questions help investigators get quickly to possible sources of exposure (i.e., hobbies, jobs, recreational activities, etc)

Who Should Use the Library?



- People who are regularly doing exposure investigations at either the state or federal level. Note: States conducting EIs with ATSDR must use this library to meet our OMB requirements.
- Physicians and others taking exposure histories.
- People developing new chemical exposure programs, particularly those concerned with chemical terrorism.

Source of the Questions

Derived from a variety of sources, including the questions used at ATSDR in exposure investigations, plus well-tested questions used in national questionnaires by EPA and CDC.



Electronic Library

- Summer of 2006, ATSDR put library into a software package (Rapid Data Collector or RDC) and conducted a pilot test.
- Questions can be accessed and combined to help create situation-specific exposure questionnaires.
- Developing some templates.
- Also be available in hard copy and in Microsoft Word.



Questionnaire Library Categories - *Confounders*

**Confounders for Biologic
Samples:**

What other sources of that
chemical could the participant be
encountering?



Occupation

Hobbies



Medicines

**Health
Conditions**



Lifestyle

**Household
Uses or House
Construction**



Foods

Questionnaire Library Categories – *Exposure Factors*



Soils:
Gardening,
Playing, Pets

Exposure Factors ;
What activities would cause
someone to have more
exposure than another?

Foods:
Garden Veg, Fish,
Game, Domestic



Water:
DW source,
Plumbing



Air:
Indoor/Outdoor
Odors,
Symptoms,
Length of time
indoors, House
construction, etc





Example from PILOT TEST

Background

- The XYZ lead smelter is an active facility that has been in operation in Dael (population 2,800) since 1892
- Located in a residential neighborhood

Methods

- *Participants:*
 - ATDSR staff and personal colleagues
- *Questionnaire Information:*
 - Provided participant profiles including gender, age, race, and number of children
 - Provided participants fictitious addresses, phone numbers, and map
 - Participants chose their occupation, housing age and condition, drinking water sources, and hobbies

Methods Continued

- *Data Collection and Analysis:*
 - Face to face interviews
 - Phone Interviews
 - Microsoft Excel
 - RDC Simple Statistics Response Function



Results

Phone Interviews

- Used with RDC web
- Impersonal
- More Convenient
- Less time consuming (Average 15 min)



Face to Face Interviews

- Used RDC Windows Version
- Personal
- Less convenient
- More time consuming (Average 20 min)



Example Screen in RDC

Exposure Investigation for Lead - Microsoft Internet Explorer

Indoor Air

Script - These questions will help us determine the possible sources of air pollutants in your household and any symptoms or conditions that would make breathing pollutants more harmful to you.

Time Indoors

How many hours per day do you usually spend inside your home on a weekday or the days you are working outside the home? (12 midnight to 12 midnight)

- < 8 hours
- 8 - 14 hours
- 15 - 24 hours

How many hours per day do you usually spend inside your home on a weekend or the days you are home from work?

- < 8 hours
- 8 - 14 hours
- 15 - 24 hours

How many fewer hours do you spend indoors during the warmer months? (How much additional time are you outside)?

- Same
- 1 -3 hours
- 4 or more hours

Attributes of the Structure of Home

Is the home or building on a slab, does it have crawlspace, and/ or basement?

- Slab
- Crawlspace
- Basement

What is the condition of your home or building?

- Good
- Fair
- Poor

<< Previous

Close

Cancel

Next >>



start

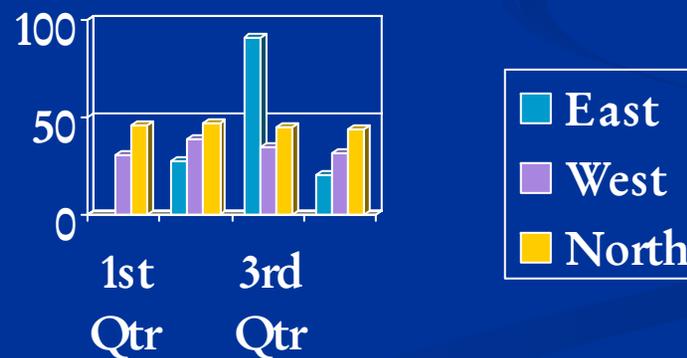


Local intranet

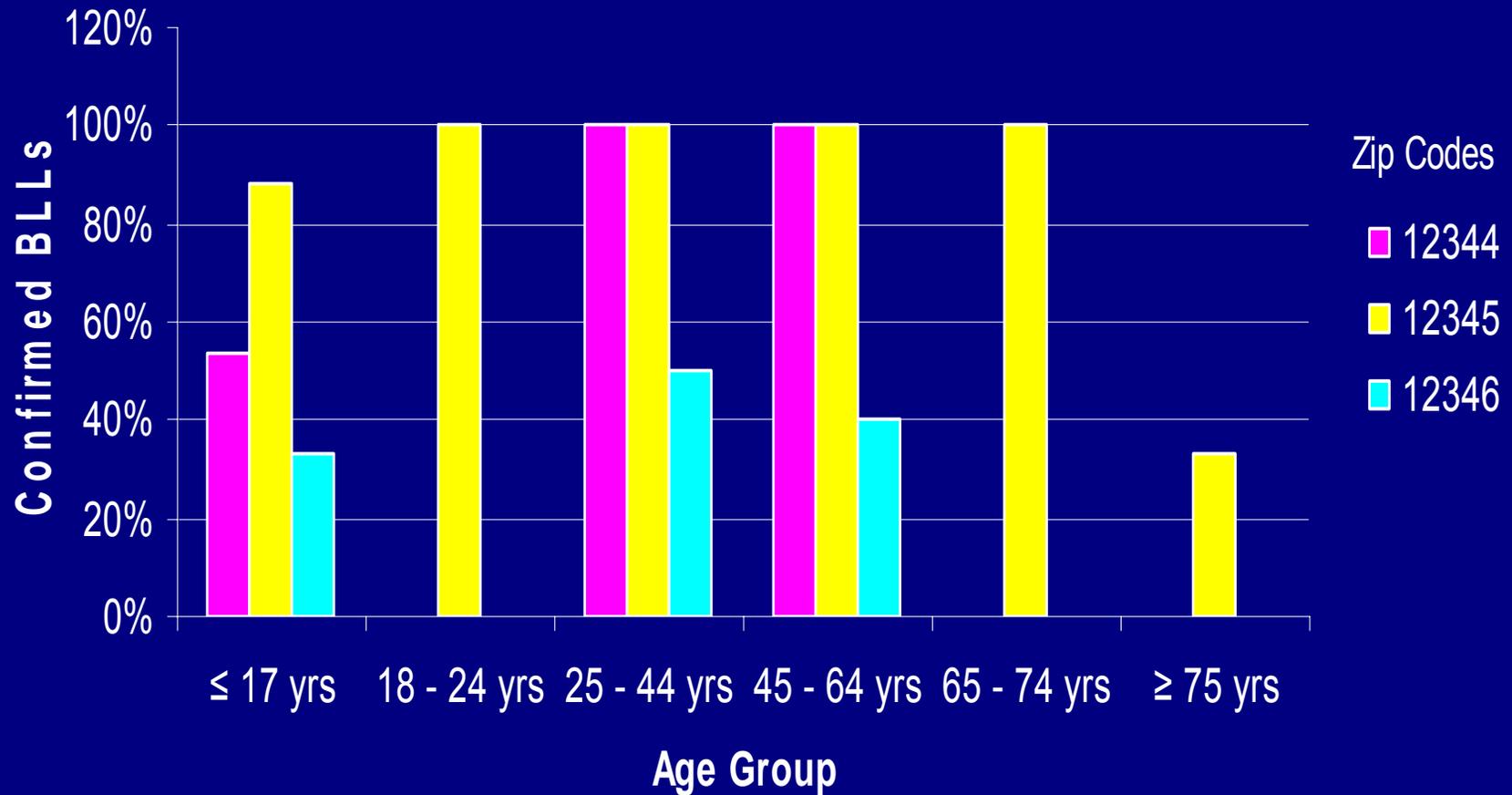
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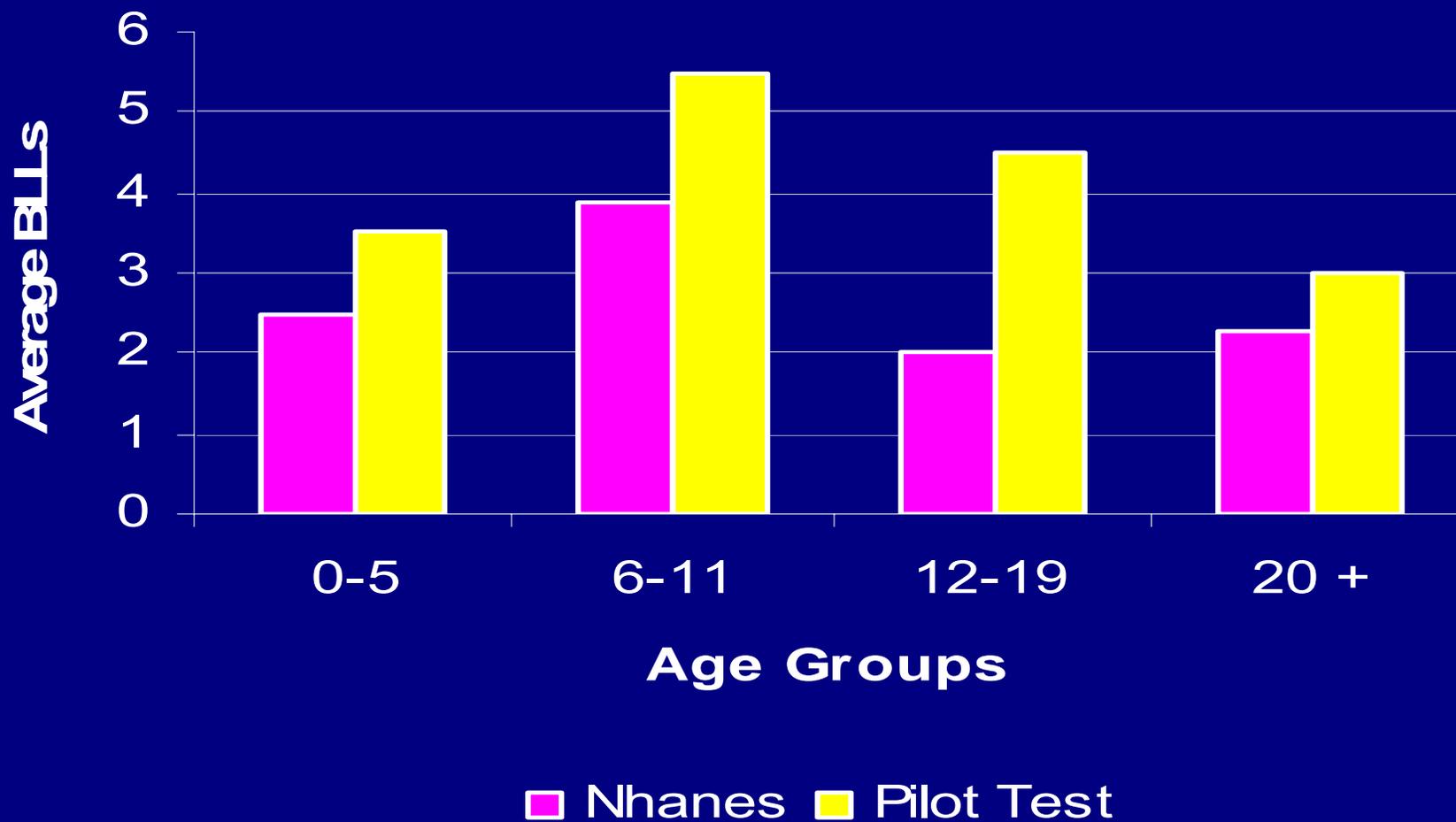
Data Depiction Examples



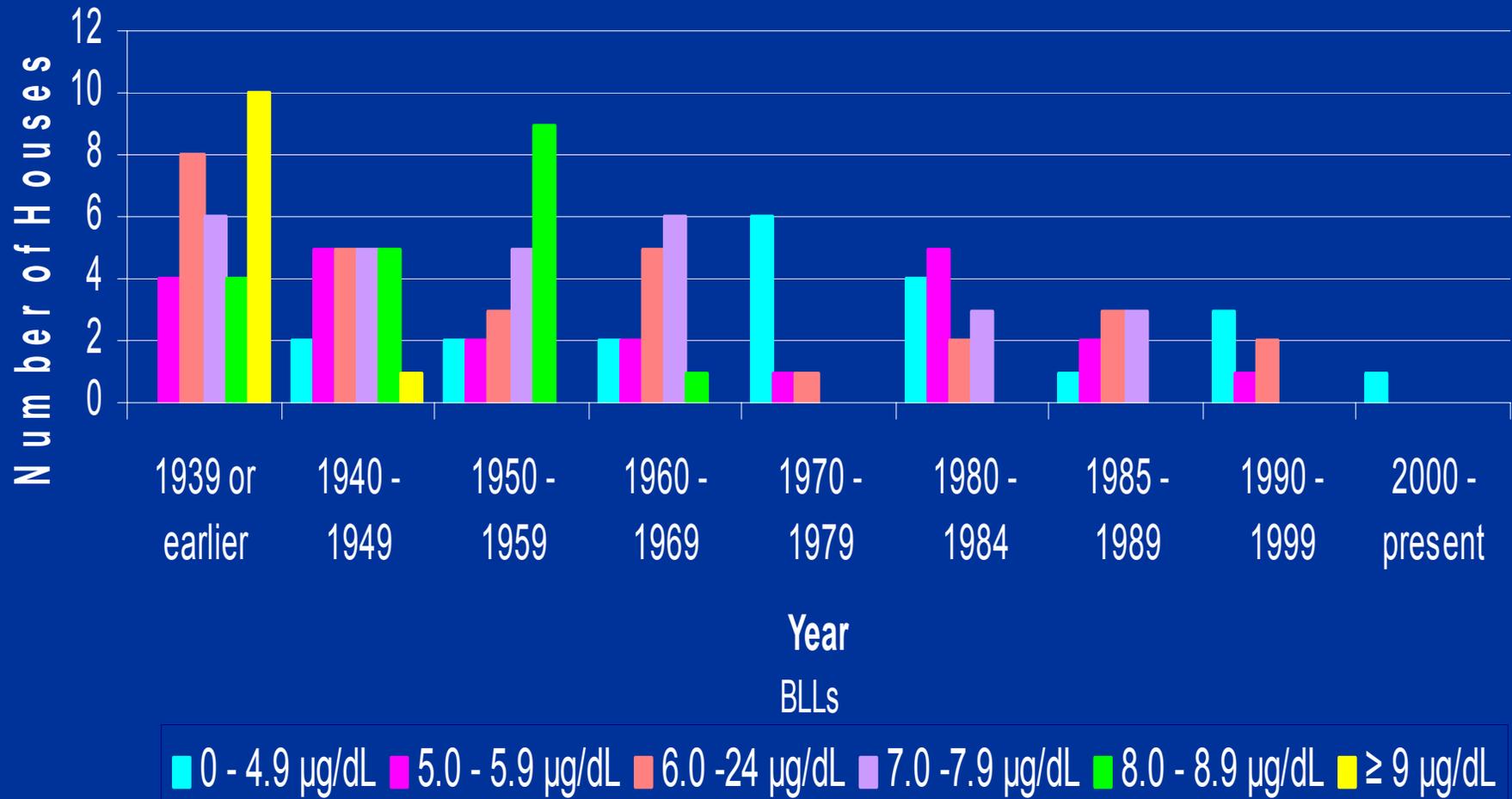
Total Population Elevated Blood Lead Levels in Dael



Comparison of NHANES and Pilot Test



EBLLs Vs Year House was Built



Example Conclusions

- Houses built in early-mid 1900s served as a contributor to lead exposure
- Distance from the smelter affected BLL
- Occupations dealing with lead contributed to exposure

Top 5 BLL's profiles

ID	Distance	BLL $\mu\text{g}/\text{dL}$	Hobbies	Occupation	Protective Gear	Age of House
001	0.75 mile	30	Gardening	Machinist XYZ Smelter	Gloves, eye protection	1960
005	1 mile	28	Fishing	Roofer	N/A	1980
028	0.5 mile	25	Soap making	Laborer XYZ Smelter	Gloves, overalls, eye protection	2000
016	2.5 miles	21	Jewelry Making	Office worker XYZ Smelter	N/A	1970
008	3 miles	20	Painting, reading	Office worker XYZ Smelter	N/A	1950

Benefits of Electronic Version

- Electronic version allows easy results downloads to evaluation software such as SAS, Excel, etc.
- Ease of creating individual profiles for evaluation and results distribution
- Ease of site-specific summaries by category

Summary

- The Library includes more than 200 chemical exposure questions that investigators can use to develop site-specific questionnaires for taking an exposure history.
- States conducting EIs under cooperative agreement with ATSDR must use this library to meet our OMB requirements. ATSDR will need a copy of your questionnaires and the results to report back to OMB.
- Electronic version offers many benefits.

Summary Cont.

- ATSDR will post Word version of library on FTP site.
- ATSDR will soon provide access to the Rapid Data Collector software and the electronic library of questions. More on this to come.
- ATSDR will develop additional chemical-specific or issue-specific (indoor air, etc) templates and post them for your use. If anyone wants to help with the templates or provide topics for needed templates, contact Diane Jackson @ djackson3@cdc.gov or 404-498-0376.