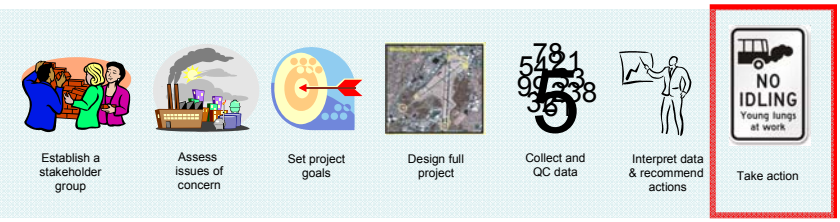
What Are Next Steps?

- What do I do with my data?
- How do I tell a compelling, scientific story?
- How do I work with community groups? Industry?
- What actions are to be taken because of my study?
- Lessons learned



What Do I Do with My Data?

- Perform relevant analyses as discussed in Section 5 (Data Analysis and Interpretation)
- Get the data into AQS!
- Work with your team to interpret results
- Translate results into possible actions
- Finalize your communication plan

Effective Communication

- Who is the audience?
  - What is the appropriate technical level?
  - What do they care about most?
  - What background information do they need to understand the story?
- How will the information be used?
  - Where will the document live?
- What are the questions you are trying to answer?
- If a document, what are the requirements?
  - Consider using a report to summarize results and placing details in appendices
  - When working with multiple authors, make clear assignments of who does what

Telling Your Story

- In "Me Write Pretty One Day" (http://www.ascb.org/files/0405wicb.pdf), the author states: "Science is a story. Tell it."
- Plan your report before you start collecting data – what do you hope to find?
  - Write your introduction, approach, and hypotheses up front
- Characteristics of a good story
  - A single theme, clearly defined → So What?
  - A well-developed plot → Logical flow
  - Appropriate to listeners → Audience

Six Useful Guidelines

1. Organize information logically
2. Provide cues to help readers follow and find information
3. Make the proportion of space you give to any information reflect the relative importance of that information
4. Choose words precisely
5. Write clear, concise sentences
6. Review drafts for format, spelling, punctuation, units of measurement, labels for figures, figure/table numbering, etc. Allow time to pass between drafts and revisions.

Additional Tips

- Tables and figures should “stand alone” including all units, abbreviations, and descriptive footnotes
- Photos are useful in telling your story and making it more personal to your audience
- Get ideas on graphic types, outline, structure, formatting from other reports and presentations

How Do I Work with Community Groups?

- Your community can be a valuable resource
- Establishing and maintaining positive relationships with local folks is vital to your success
- This relationship helps ensure positive outcomes and provides a sense of local ownership

Factors in Working with Community Groups

- Ensure roles and responsibilities are defined, established
- Provide opportunity for real influence and involvement (so that people feel they are making a difference)
- Communicate regularly and make information easily accessible
- Access community expertise, acknowledge and celebrate input

Consider a Community Advisory Board

- A CAB can have responsibilities such as
  - Reviewing quality assurance plans
  - Providing input to project design
  - Providing a link to a target population
  - Providing active problem solving
  - Developing communication plans to share findings with the community

Community Participation Can Enhance Your Research

Community-Based Participatory Model	Full participation of community in identifying issues of greatest Importance. *Increased motivation to participate in research process*	Community representatives involved with study design and proposal submission. *Increased acceptability of study approach, include funds for community*	Measurement instruments developed with community input and tested in similar population *Potentially sensitive issues handled better and increased reliability and validity of measures*	Community members help guide intervention development *Assures greater cultural and social relevance to the population served, increasing the likelihood of producing positive change.*	Community members assist researchers with interpretation, dissemination and translation of findings. *Assures greater sensitivity to cultural and social norms and climate and potential group harm and enhances potential for translation of findings into practice.*
	↓	↓	↓	↓	↓
Research Component or Step	Health concern(s) identified	Study designed and funding sought	Measurement instruments designed and data collected	Intervention designed and implemented	Data analyzed and interpreted, findings disseminated and translated

From the Series*: UCSF Clinical and Translational Science Institute (CTSI) Guides to Community-Engaged Research*

Communication Do's

- Manage expectations right from the beginning
- Get out into the community early
  - Develop a contact list and include local officials
  - Build relationships
  - Show empathy, competence, honesty, and dedication
  - Be realistic, frank, and truthful
  - Identify community concerns
  - Notify community in timely manner
- Focus your remarks
  - Assume everything you say is part of the public record
  - Define all technical terms and acronyms
  - Use language appropriate to the audience

Communication Do's

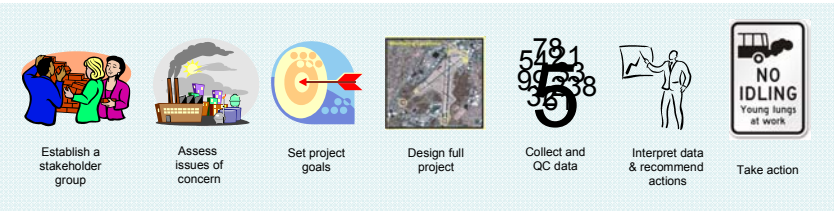
- Look for ways to enhance public involvement
  - Reward and recognize champions in your community
  - Establish open communication with clearly defined contact persons
  - Identify barriers (language, understanding, communication, handicaps)
  - Find the method of communication that works best (phone, newspaper, radio, word of mouth, website, 1-800 hotline, one on one…)
  - Consider public input when making decisions
- Communication is essential in a crisis
  - Ask if you have made yourself clear – don't assume you have been understood
  - Remain calm, communicate positively

Risk Communication

- Make the numbers understandable
  - Keep it simple.
  - Select and explain a few numbers instead of many technical details.
  - Use familiar units of measure.
- Make simple transformations
  - Change small decimals into whole numbers and simple fractions (e.g., 0.004 ppm = 4 ppb)
- Make concentration comparisons
  - 1 ppm = 1 inch in 16 miles, 1 minute in 2 years, 1 penny in $10,000
  - 1 ppb = 1 second in 32 years, 1 pinch of salt in 10 tons of potato chips

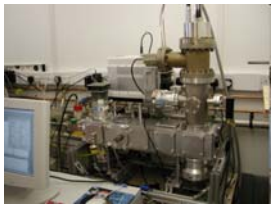
How Do I Work with Industry?

- Engage industry representatives early in the process
- Use similar approach as discussed for community involvement



Taking Action

- Measurement method development and evaluation
  - Provide feedback to larger air toxics community about readiness of methods
  - Work with methods developers to improve methods for routine deployment



Taking Action (cont.)

- Community-scale monitoring
  - If an emission source is identified as a key contributor to pollutant levels or risk, work with the source to reduce emissions
  - Work with community to reduce exposure
  - Evaluate and improve air quality models to guide state or local policy actions
  - Develop mitigation strategies
  - Create outreach materials
  - Improve SOPs, conduct training

Taking Action (cont.)

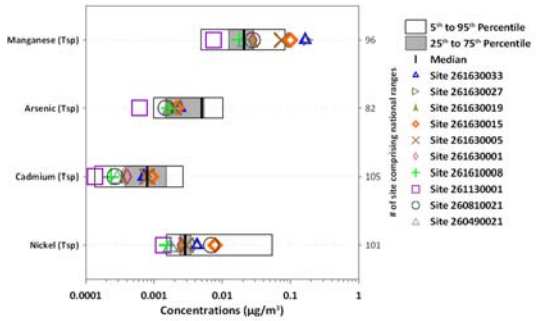
- Data Analysis
  - Get validated data into AQS
  - Share data with health effects and risk assessment specialists
  - Characterize source impacts and work with community to understand ways to reduce exposure
  - Set priorities for future reduction activities
  - Share analysis methods and results

Example: JATAP

- Raised community awareness about air toxics through meetings and training (focus on Tribal outreach)
- Gained a better understanding of urban emission impacts on tribal lands
- ADEQ assisted tribes in developing an emission inventory
- Implemented anti-idling programs
- Offered diesel bus retrofits
- Developed plans for further evaluation of Tribal land emissions (e.g., agricultural burning, unpaved road dust)

Example: Michigan

- Provided data to range of health research projects
- Provided additional data to the Manganese Workgroup



Lessons Learned

- Communicating results
  - Leave adequate time and funds for reporting
  - Sometimes you don't get the result you expected (e.g., landfill not contributing to community toxics levels)
  - "Should have used a different group for communication"
  - Write a less technical paper and get it out first (i.e., communicate early), then focus on the larger document.

Lessons Learned (cont.)

- Working with community/industry groups
  - "Should have engaged community groups earlier"
  - "Providing quarterly reports to community leaders was effective."

Lessons Learned (cont.)

- Taking action
  - Anti-idling programs initiated
  - Litigation against a source initiated
  - Used results to help with permitting new facilities
  - Evaluated existing permits
  - Established mobile monitoring program to help address concerns in the future