

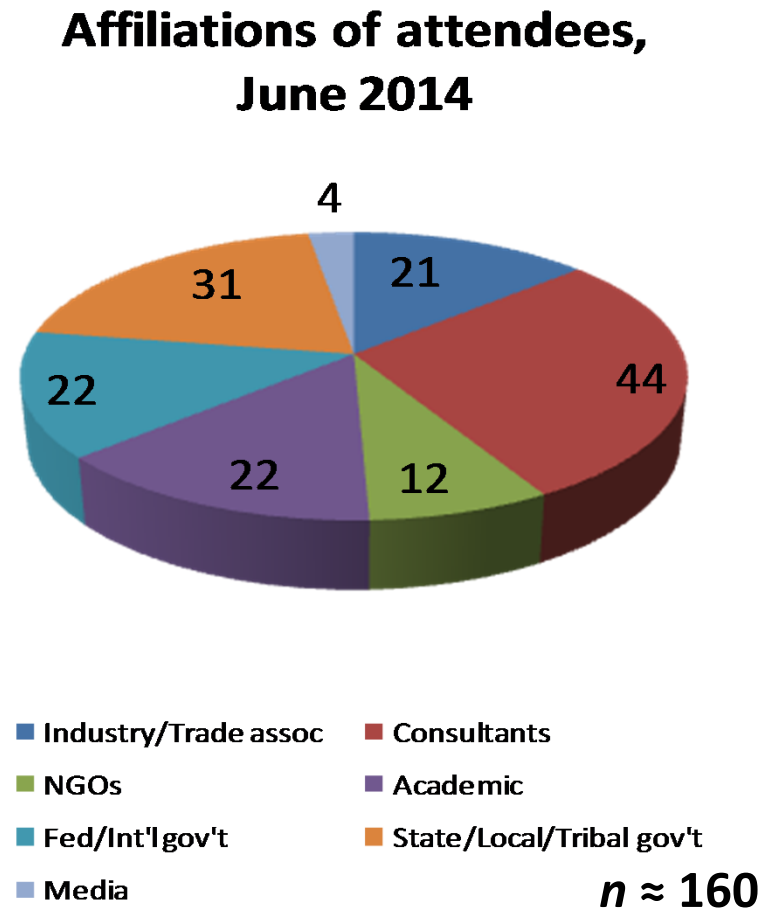
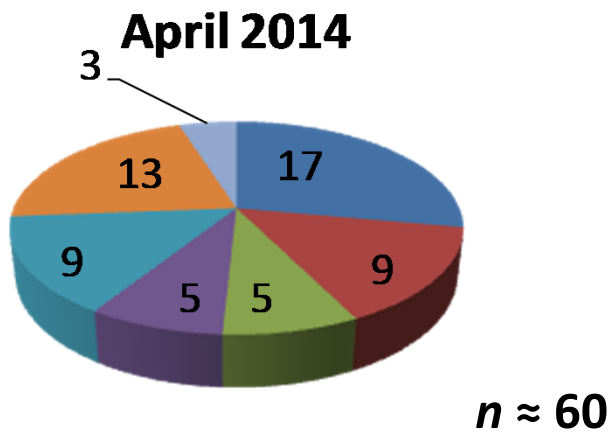
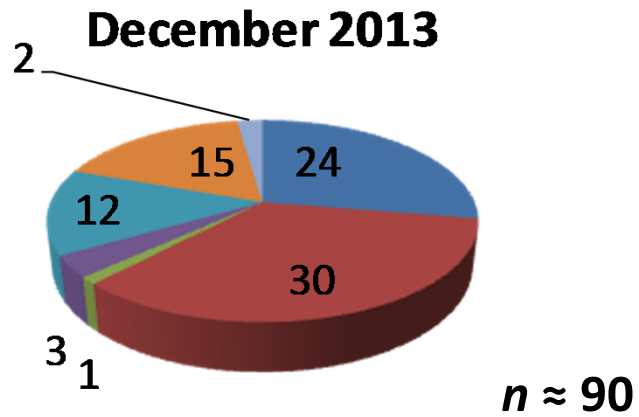


*Welcome! . . . to the June 2014
IRIS Bimonthly Public Science
Meeting*



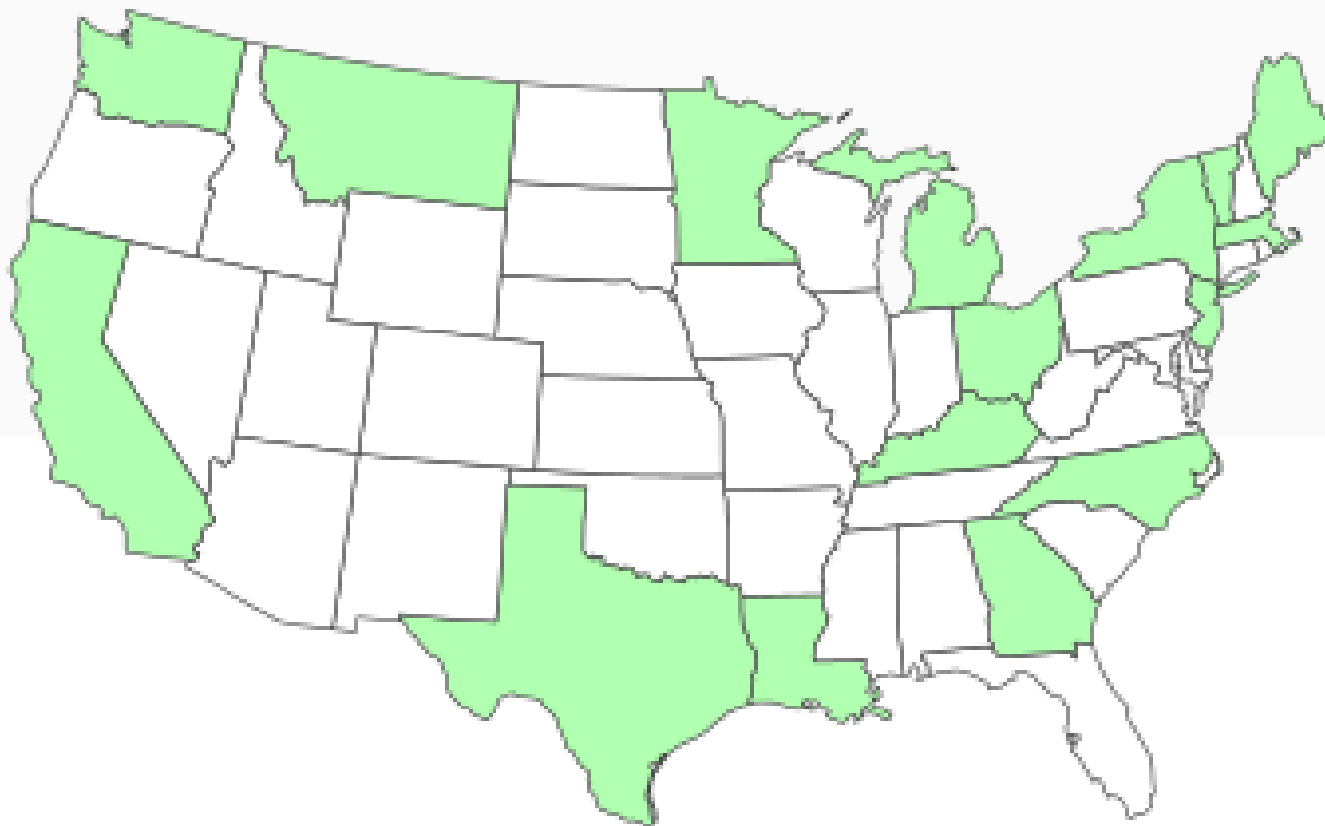


Today's Attendance Is More Diverse Than Before





Scientists from Many State Agencies Are Calling In

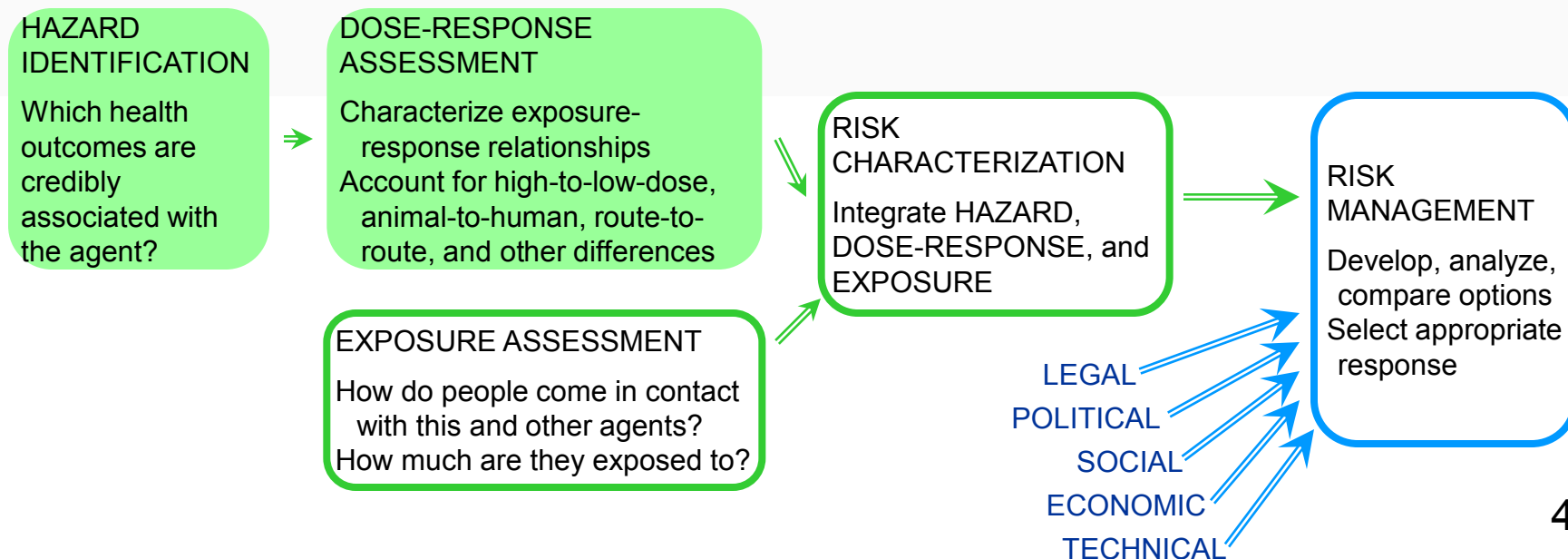




About IRIS

IRIS assessments critically review the publicly-available peer-reviewed scientific studies to

- Identify adverse health outcomes
- Characterize exposure-response relationships





IRIS Assessments Have New Scientific Content

The HAZARD IDENTIFICATION section identifies all credible health hazards

- A workshop in Aug 2013 explored evidence-integration frameworks
- Another workshop in Oct 2014 will address this topic

The DOSE-RESPONSE ASSESSMENT explores toxicity values for each credible health hazard

- This will facilitate subsequent cumulative risk assessments that consider the combined effect of multiple agents acting at a common site or through common mechanisms

HAZARD IDENTIFICATION
Which health outcomes are credibly associated with the agent?

DOSE-RESPONSE ASSESSMENT
Characterize exposure-response relationships
Account for high-to-low-dose, animal-to-human, route-to-route, and other differences

EXPOSURE ASSESSMENT
How do people come in contact with this and other agents?
How much are they exposed to?

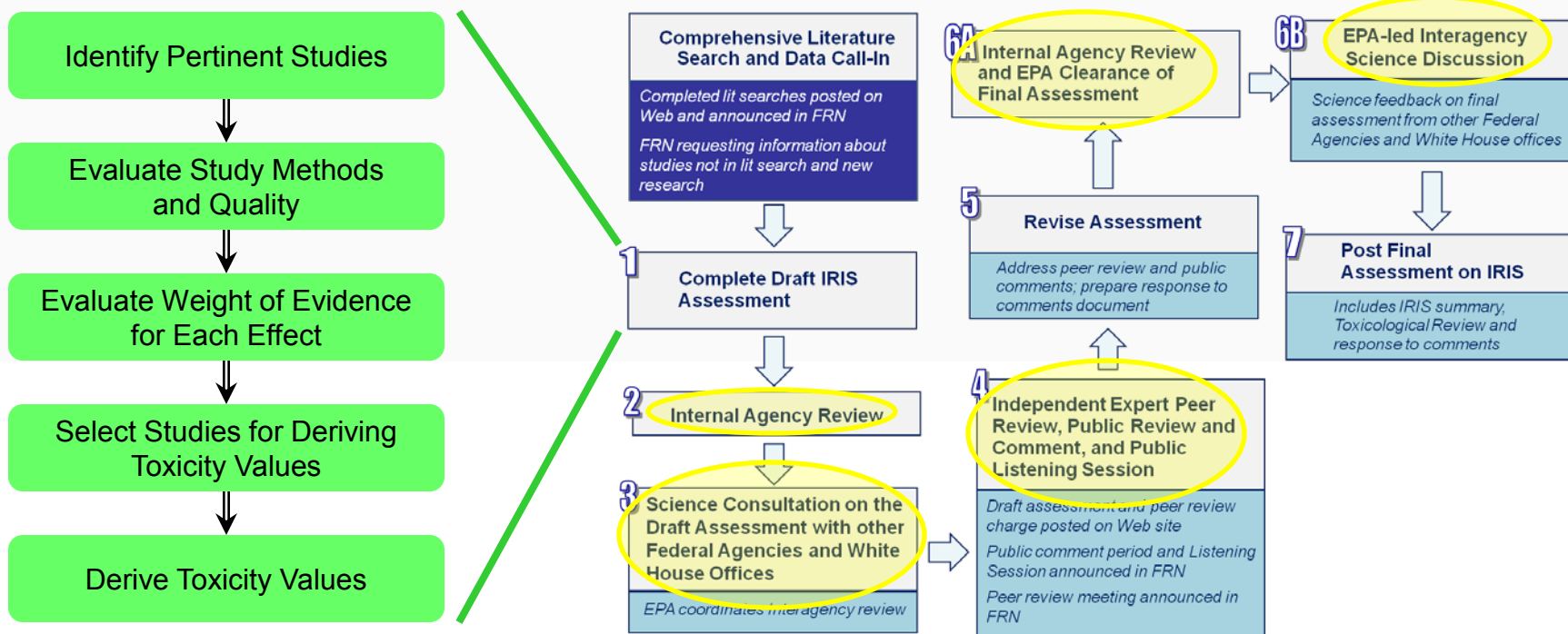
RISK CHARACTERIZATION
Integrate HAZARD, DOSE-RESPONSE, and EXPOSURE

RISK MANAGEMENT
Develop, analyze, compare options
Select appropriate response

LEGAL
POLITICAL
SOCIAL
ECONOMIC
TECHNICAL

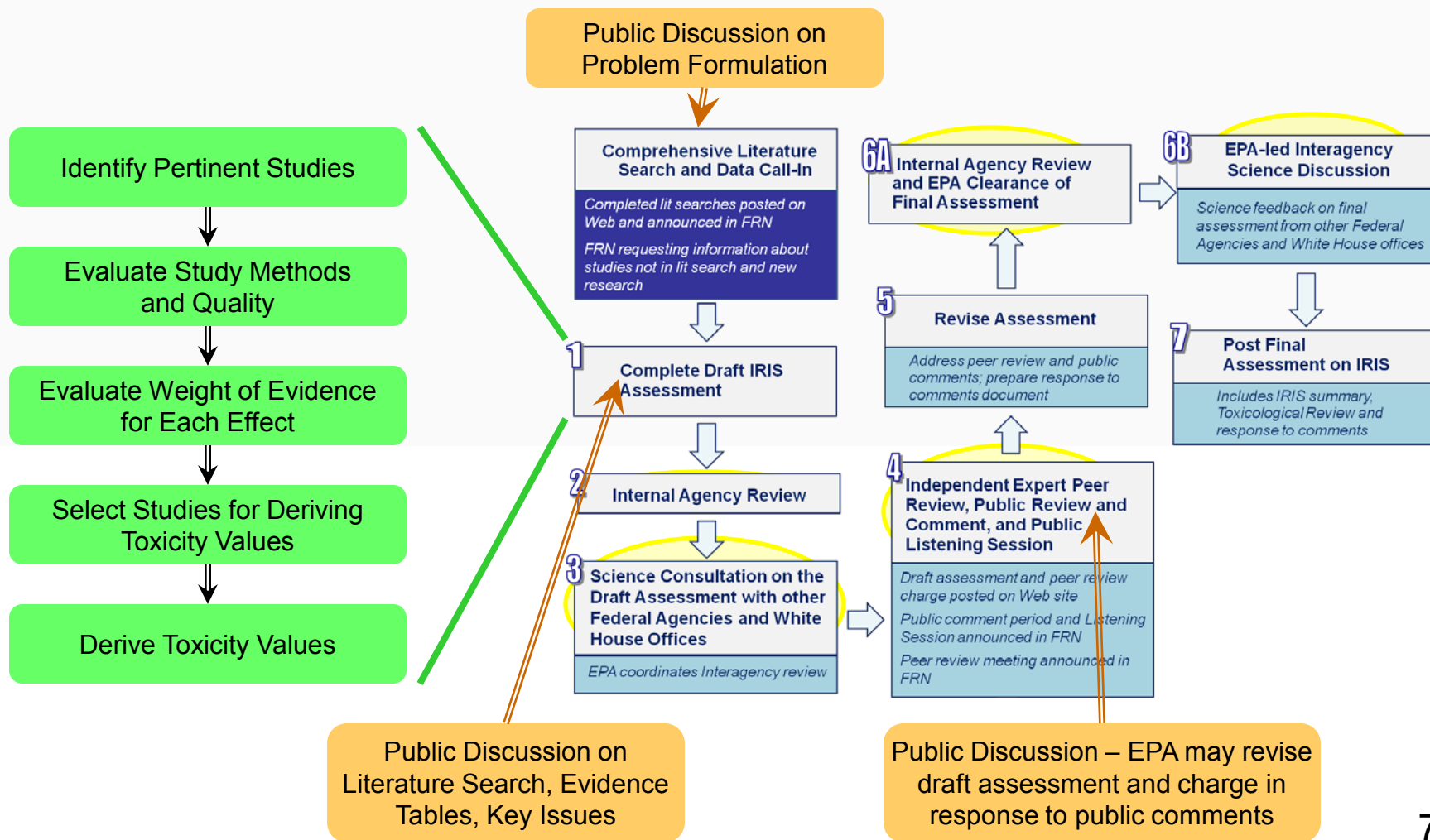


IRIS Means Systematic Review





IRIS Means Public Engagement





IRIS Was Recently Reviewed by the National Research Council

“Overall, the committee finds that substantial improvements in the IRIS process have been made, and it is clear that EPA has embraced and is acting on the recommendations in the NRC formaldehyde report. The NRC formaldehyde committee recognized that its suggested changes would take several years and an extensive effort by EPA staff to implement. Substantial progress, however, has been made in a short time, and the present committee’s recommendations should be seen as building on the progress that EPA has already made.”

[NRC 2014, p 9]



IRIS Was Recently Reviewed by the National Research Council

“ . . . the IRIS program has moved forward steadily in planning for and implementing changes in each element of the assessment process. The committee is confident that there is an institutional commitment to completing the revisions of the process even as the program continues through the current transition phase . . .”
[NRC 2014, p 129]

“Kenneth Olden . . . has made a far-reaching effort to engage the full array of stakeholders, including the general public, in providing input into the changes being made. The revisions embrace stakeholder engagement in all relevant phases of the process.” [p 129]



IRIS Wants Broad Participation at These Meetings

All meetings are conducted by webinar – no travel needed

All meetings give the public advance notice

- Agenda and materials – 2 months in advance
- Timetable – 3-4 weeks in advance

IRIS reaches out to NGOs and academic scientists

There is telephone access for webinar participants

IRIS will continue to improve the format to achieve meaningful scientific discussion that reflects all scientific perspectives



Some Things to Keep in Mind

We are here to discuss key science issues

- We have not yet drawn conclusions
- The evidence tables are factual, without interpretation
- We want to hear all scientific perspectives

We are trying multiple approaches – and will evaluate how well each approach

- Facilitates subsequent assessment development
- Promotes constructive public discussion
- Makes efficient use of program resources



Study Selection in IRIS Assessments

1. Literature search – depicted by PRISMA diagram
 - Start with a broad database search
 - Exclude studies that are not pertinent
2. Evaluation of study pertinence, methods, and quality
 - Exclude studies based on problem formulation
 - Exclude studies with fundamental flaws
 - For health outcomes with numerous studies, apply additional criteria to identify the most robust
3. Evidence tables – summarize study methods and results₁₂



Agenda for Today's Public Science Meeting

For each assessment . . .

- Introduction by the IRIS assessment managers
- For each science issue . . .
 - Opening remarks by registered discussants
 - Continued discussion involving all meeting attendees
- Open Forum on the assessment

General Open Forum at the end of the meeting



Upcoming Public Science Meetings

Sept 3-4

- Ethylbenzene: problem formulation
- Naphthalene: problem formulation

Oct 29-30

- Hexavalent chromium:
literature search/evidence tables/key issues (part 2)
 - Human studies
 - Toxicokinetics
 - Mechanistic data



The New, Enhanced IRIS

Improved science

- Systematic review
- Toxicity values for all credible health hazards
- Strengthened peer review

Increased transparency

- Clear, concise, systematic assessments
- Opportunities for public engagement
- Frequent discussions with stakeholders

Increased productivity

We must make the Enhanced IRIS work by completing more assessments in less time

IRIS will continue to evolve as we receive public input and peer review advice . . . Thank you!