

Charge for peer review of ACE3 indicator documents
3/8/11

EPA has selected 23 children's environmental health topics to address in *America's Children and the Environment, Third Edition* (ACE3), and has prepared a separate draft document for each topic. Each document includes a discussion of the importance of the issue to children's environmental health, and presentation of one or more indicators. For ACE3, an indicator is a quantitative depiction of an important aspect of children's environmental health that summarizes the underlying data in a relevant, understandable and technically appropriate manner.

EPA's goal in preparing ACE3 is to summarize key issues and data relevant to each topic in a way that conveys important information to both technical and non-technical audiences.

Following this review, various elements of the indicator documents will be reorganized into a draft report. The main body of the draft report will consist of four sections: Environments and Contaminants, Biomonitoring, Health, and Special Features. The content of each section will be the text, indicator graphics, and bullet points for the topics included in that section. References will be presented at the end of each section. Data tables and metadata will be provided in appendices, and methods will be made available online at EPA's ACE website. The organization of the final ACE3 report will therefore be very similar to the organization of the 2003 ACE report (available at www.epa.gov/ace).

Before you prepare responses to the charge questions below, please read the appropriate background documents that provide further introduction.

- All reviewers should read: “Introduction to *America's Children and the Environment, Third Edition*”
- In addition:
 - Reviewers of Environments and Contaminants topics should read: “Introduction to Environments and Contaminants Topics”
 - Reviewers of Biomonitoring topics should read: “Introduction to Biomonitoring Topics”
 - Reviewers of Health topics should read: “Introduction to Health Topics”
 - Reviewers of Special Features topics should read: “Introduction to Special Features”

1. Topic text

The initial pages of each draft ACE3 indicator document provide text discussing the scope of the topic and explain why it is an important children's environmental health issue.

Questions for Reviewers:

Does the topic text appropriately and clearly describe the topic and its importance for children's environmental health? Are there additional aspects of the topic's importance for

children's environmental health that should be included? Is the relevant literature appropriately summarized? Are there other important references that should be added? Are there ways that this text could be made more understandable for audiences with varying levels of existing knowledge (including researchers, government officials, medical doctors and nurses, concerned parents and educators)?

2. Indicator text

Presentation of the indicators begins with the indicator title and a short Overview paragraph in a text box. The overview is followed by more detailed indicator text that describes the data source and outlines key aspects in how the indicator was calculated. (The indicator text is not intended to provide a complete and comprehensive description of the indicator calculation, as full details are provided in the Methods section.)

Questions for Reviewers:

Does the indicator text provide sufficient information about the data set and the indicator calculation to enable an understanding of the indicator? Are there ways that this text could be made more understandable for audiences with varying levels of existing knowledge (including researchers, government officials, medical doctors and nurses, concerned parents and educators)?

3. Indicator presentation

Each indicator is presented in a figure, followed by a series of explanatory bullet points that highlight key findings. The bullet points may refer to data provided in the indicator figure and to supplementary data that are presented in the data tables.

For each indicator figure, there is a corresponding data table that provides all of the values depicted in the figure; it may also contain further detail not captured in the figure. Supplementary data tables provide additional values of interest (for example, data by race/ethnicity and income that are not depicted in the indicator graph).

Questions for Reviewers:

Do the indicator graph, bullet points, and data tables provide an appropriate and understandable summary of the underlying data? Are there ways in which the presentation and description of the indicator values could be improved? Are there ways that this text could be made more understandable for audiences with varying levels of existing knowledge (including researchers, government officials, medical doctors and nurses, concerned parents and educators)? Please comment on the appropriateness of the comparisons made in the indicator(s) and whether other comparison populations and/or benchmarks may be informative to the public.

4. Context and utility

Topic text, indicator text and indicator presentation may all be relevant to these questions.

Questions for Reviewers:

For each indicator, please comment on whether the text appropriately and objectively reflects the strengths and limitations of existing knowledge regarding relationships between environmental conditions and children's health that are relevant to the topic.

For each indicator, please comment its utility and appropriateness addressing the three principal objectives of ACE:

- a) to presents concrete, quantifiable indicators of key factors relevant to the environment and children in the United States. These indicators are designed to offer a basis for understanding time trends for some factors and for further investigation of others.
- b) to inform discussions among policymakers and the public about how to improve federal data on children and the environment.
- c) to provide indicators that can be used by policymakers and the public to track and understand the potential impacts of environmental contaminants on children's health and, ultimately, to identify and evaluate ways to minimize environmental impacts on children.

5. Documentation

Articles, reports and other resources referenced in the topic text and indicator text are listed in the references section.

A metadata table provides information about the database used in calculating the indicator. A single metadata table has been prepared for each data source, and the same questions are used in preparing the metadata for all data sources. The metadata is intended to provide a general characterization of the data source. Some data sets are used in calculating indicators for multiple topics; in such cases, the metadata generally do not address issues specific to particular ACE3 topics.

Methods text provides detailed information on the calculation of each indicator, including specific data sets and variables used. Where applicable, details on the statistical testing of indicator values (to identify statistically significant changes over time or differences between population groups) are also provided. The methods text will not be included in the published ACE3 report, but will be made available online within the ACE website.

Question for Reviewers:

Is the documentation complete and transparent?