NIEHS
National Institute of Environmental Health Sciences

PEPH Evaluation Metrics Manual Education and Training Chapter

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Why create a PEPH Evaluation Metrics Manual?

- PEPH Stakeholders identified evaluation metrics as a clear need:
  - RFI & Workshop, 2008
- Outreach and translational components of projects are difficult to measure
- Need logic models, approaches, and tangible metrics to use in both planning and evaluation
- Establish a common language around activities, outputs, and impacts among those involved in PEPH projects

What do we mean by "metrics"?

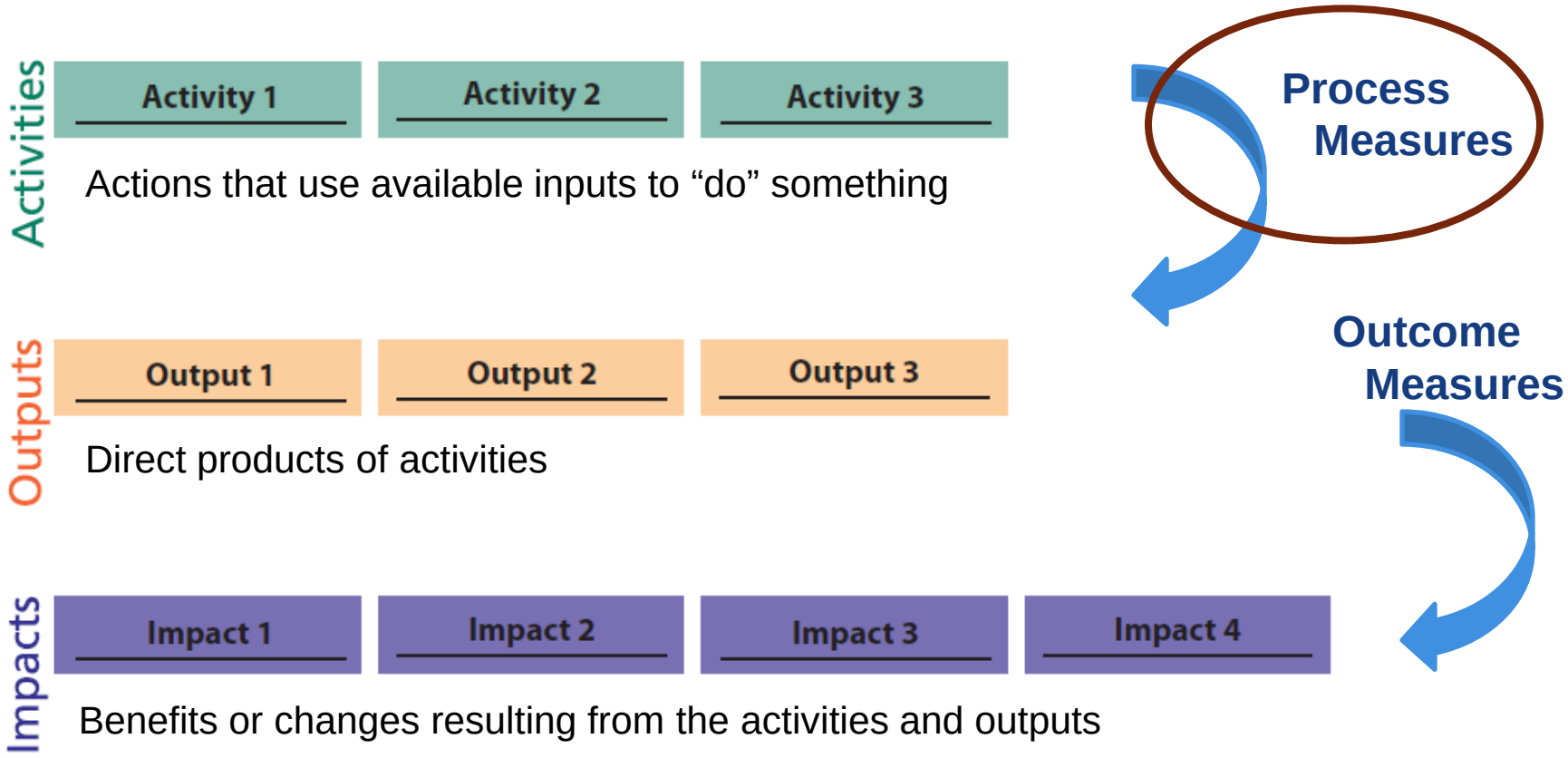
- METRIC = a measure of magnitude (or another characteristic)
  - An inch is a metric for length
  - Length is a characteristic of an object – e.g., a projection screen
- All metrics are not equal; some are much easier to understand and apply than others
  - It is more challenging to think about how to measure the magnitude of a partnership or an education program
  - A key step to define your metrics is to define the characteristics of what you are trying to measure
  - "Indicators" (both quantitative and qualitative)

Logic Models

- A logic model typically describes how a program is expected
  - to utilize various resources (*inputs*)
  - conduct a range of *activities*
  - to produce a series of products (*outputs)*
  - which in turn result in benefits (*impacts*)
- Logic models can contain many layers of information but there is no single format that a logic model should take

W.K. Kellogg Foundation, “Logic model development guide: using logic models to bring together planning, evaluation and action,” 2004, Battle Creek, MI, http://www.wkkf.org/knowledge-center/resources/2010/Logic-Model-Development-Guide.aspx

Example Logic Model



Metric development

- Metrics can be developed for any component of a logic model
- Metrics are established based on the goals and components of a program
- The manual provides examples of metrics for each component of each example logic model

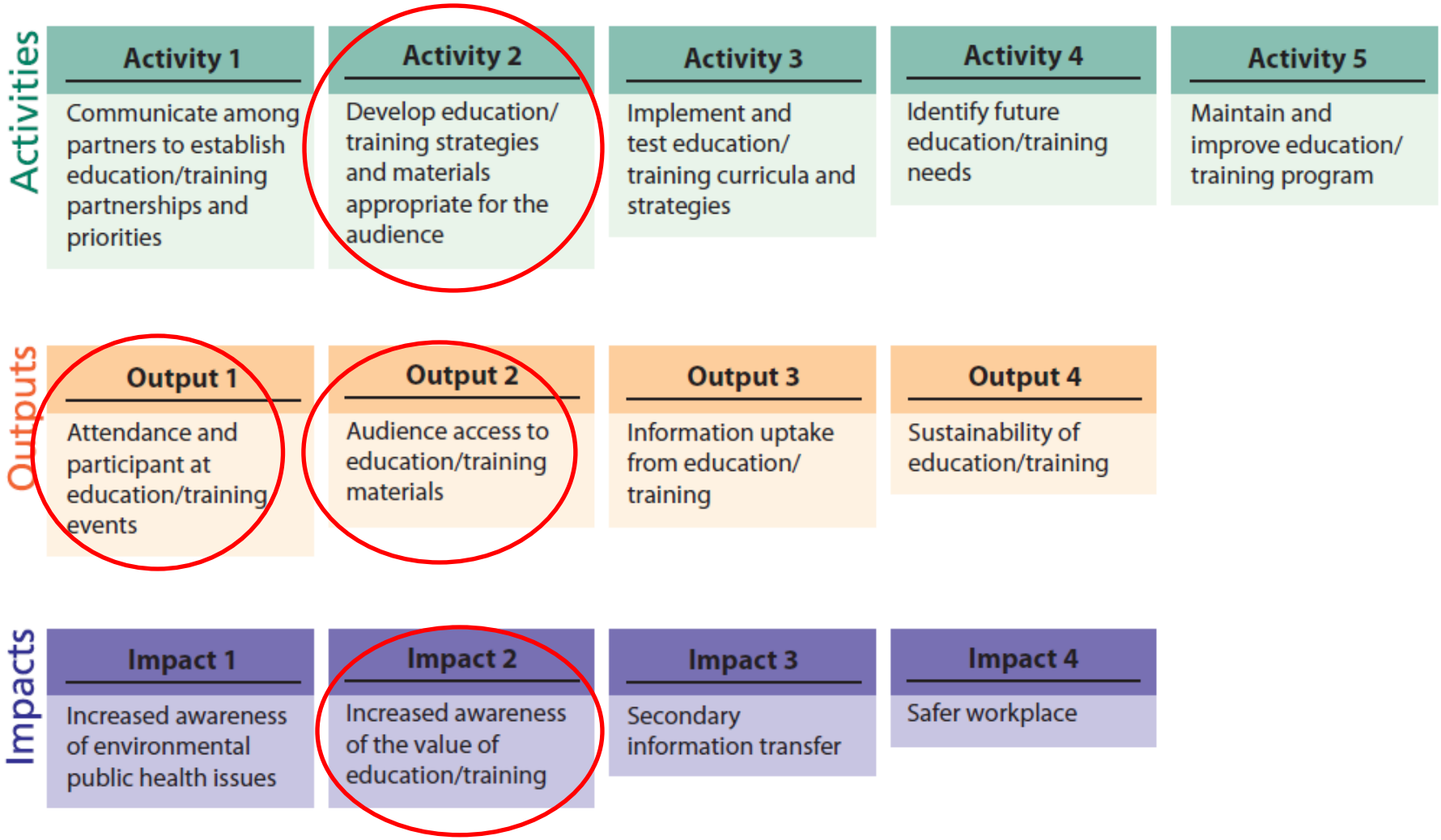
How did we develop the manual?

- Discussions with NIEHS staff
  - Prioritized PEPH program activity areas (for metrics)
  - Gathered program literature
- Discussions with subject experts (grantees from a wide range of different programs)
  - Asked how grantees gauge success
- Literature review
  - Programmatic literature (summaries, websites, previous evaluation efforts)
  - Peer reviewed articles, book chapters, etc.
  - Web searches
- Synthesized common measures across programs and areas
- Drafted logic models, approaches, metrics for each area

Evaluation Metrics Manual Chapters

1. Introduction
2. Partnerships
3. Leveraging
4. Products and dissemination
5. Education and training
6. Capacity-building
7. Evaluation

Education and Training Logic Model (draft)



A2: Develop education / training strategies and materials appropriate to audience (activities and approaches)

- Identify and prioritize target audiences
- Survey characteristics of the target audience
- Determine levels of comprehension and appropriate communication strategies
- Test and refine materials with target audiences

A2: Develop education / training strategies and materials appropriate to audience

- Needs and Makeup of Community
  - Cultural sensitivities
  - Language, literacy and educational levels
- Participants involved in the development of products for education/training
  - Productivity of meetings/interactions
  - Growth in partner abilities
- Education and training materials developed
  - Communication media used
  - Accessibility of education and training materials

O1: Attendance and participation at educational and training events (approaches and activities)

Use of:

- Rosters
- Attendance Sheets
- Formal Registration
- Distribution of materials (large scale events)

O1: Attendance and participation at educational and training events

- Number of participants at educational and training events
- Regularity of training and educational events
- Degree that actual trainees matched the intended audience
- Number and type of materials distributed (curricula, manuals, handouts, presentations, etc)

O2: Audience access to education / training materials (activities and approaches)

- Assess the ability of trainees and students to participate.

- Assess the ability of trainees and students to understand and absorb the materials. Is there a basic level of scientific or environmental health literacy that prevents students from understanding messages?

O2: Audience access to education / training materials

- Efforts made to increase access of participants to training and educational events
- Efforts made to increase access to the information provided in materials
- Number and types of education and training materials/curricula provided
- Number of materials accessed or obtained through various forms of dissemination (distributed in hard copy, downloaded from websites, accessed through mobile phone, etc)

I2: Increased awareness of the value of education and training (approaches and activities)

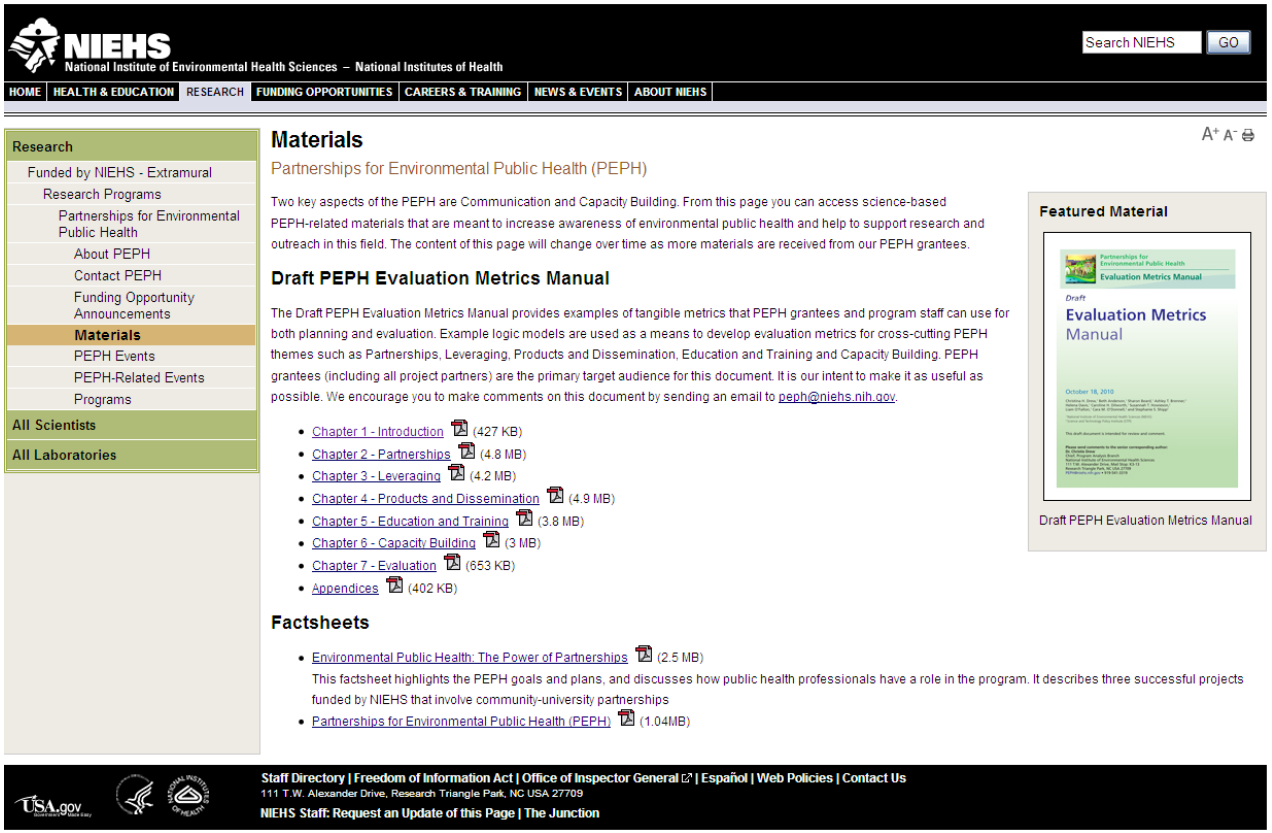
- Collecting information from surveys
- Collecting personal comments and anecdotes from trainers, educators, and students
- Collecting data from recipients of secondary information

I2: Increased awareness of the value of education and training

- Evidence of increased value of knowledge
  - Increased knowledge/skill set demonstrated in the workplace
  - Participant attendance at additional training activities
- Evidence of increased interest in education
  - Enrollment of participants in courses or training outside of PEPH
  - Participation of trained/educated individuals in additional events of PEPH interest.
- Evidence of personal gain
  - Participant descriptions or testimonials that describe anticipated uses of knowledge/skills
  - Descriptions of benefits gained by participants (e.g., surveys, stories)

Next Steps

- Chapters are available (http://www.niehs.nih.gov/research/supported/programs/peph/materials/index.cfm)
- Comments welcome: PEPH@niehs.nih.gov
- Working on a review form to collect comments
  - What works?
  - What doesn't work?
  - How will you use it?
  - More examples?
- PEPH Webinar to be scheduled
- Chapters will be revised based on comments and feedback



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