

**IRAC Work Group**  
**Risk Communication: Improving Internal Processes and Outcomes**

**Background**

Risk communication is one of the three key components of risk analysis, the others being risk assessment and risk management. Risk communication requires translating complex scientific and technical content into readily understandable and useable information for regulatory decision-making. This essential task is frequently underemphasized in the context of communication between risk assessors and risk managers.

The failure to equally weight risk communication in risk analysis or to inadequately address risk communication between risk assessors and risk managers can severely compromise the usefulness of risk assessments as decision-making tools and the effectiveness of the public health policies they inform. Identifying barriers to risk communication and developing cases studies on how to communicate complex messages (such as uncertainty in risk estimates) could help minimize these and other consequences.

The development of quantifiable metrics has been shown to be an effective tool for improving otherwise obscure or intangible practices. Communication metrics should be explored for their potential to provide a concrete, quantifiable way to determine which aspects of the risk communication process are working successfully and can help identify where and how improvements can be made. The goal of this workgroup will be to identify and articulate the various components of successful risk communication and then determine ways to measure relative success against those targets. Given the unique perspectives and challenges faced by risk assessors and risk managers, each aspect will require some individual metrics or qualitative measurements that are specific to the direction in which the communication is flowing.

Examples of areas in which potential metrics or qualitative measurements could be useful to improve the effectiveness of communication might include attributes such as

- a) The specificity of the risk management questions (*upstream in the process: were the questions too broad to be meaningful or were they sufficiently specific?*),
- b) The consistency with which messages are repeated upward and outward (*downstream in the process: was what a risk assessor stated as the results of the risk assessment captured correctly by the risk manager in the drafting of a policy document?*),
- c) The frequency with which a risk assessment answers all of the risk management questions posed by risk managers (*could better communication during the planning stage have remedied this?*), or
- d) The frequency with which discrepancies in policies or analyses are identified after the fact by outside sources (*could this discrepancy have been identified and communicated more directly by risk assessors during internal presentations prior to public release?*).

**Proposal**

Form a workgroup of interested IRAC members to:

1. Identify existing pathways and mechanisms for communication during various steps of planning and conducting a risk assessment and applying its results to decision-making. Risk assessments completed by IRAC members could be used as case studies.
2. Identify barriers to optimal communications.
3. Develop an ideal standard for risk communication processes between risk assessors and risk managers, including the various components of successful risk communication at specific points in the communications pathways.
4. Research existing communication metrics or qualitative measurements from the areas of business, engineering, and other fields, for applicable practices and concepts.

5. Develop a set of metrics or qualitative measurements for evaluating the effectiveness of risk communication, compared with the ideal standard and desirable outcomes set forth by this work group.

#### **Expected Outcomes (Deliverables)**

1. A white paper describing (A) examples of how to translate complex concepts and results from risk assessments and (B) a set of metrics or qualitative measurements for characterizing the effectiveness of the risk communication process between risk assessors and risk managers, to be posted on the foodrisk.org website.
2. A proposal for a symposium or workshop to present and discuss findings, possibly for the Society for Risk Analysis (Denver, December 2014).

#### **Time Frame for Completion**

The white paper will be completed in FY2014. A symposium or workshop would take place in FY 2015, with the proposal for such a symposium likely due in the spring of 2014.

#### **Participating Agencies**

USDA Food Safety and Inspection Service  
USDA Animal and Plant Health Inspection Service  
USDA Agricultural Research Service  
FDA Center for Food Safety and Applied Nutrition

Rachel Johnson-DeRycke\*, Janell Kause  
Barbara Bischoff  
Andy Hwang  
Susan Cahill, Jane Van Doren,  
Ji Sun Lee

\*Chair of Work Group