

BIO is the largest trade organization to serve and represent the biotechnology industry in the United States and around the globe. BIO represents more than 1,200 biotechnology companies, academic institutions, state biotechnology centers, and related organizations in the United States. BIO is pleased to have the opportunity to submit comments to the Federal Coordinating Council on Comparative Effectiveness Research (FCC).

As a representative of an industry committed to discovering new cures and ensuring patient access to them, BIO strongly supports efforts to increase the availability of accurate, scientific evidence to inform clinical decision-making. BIO believes that individual patients and their doctors should be armed with the best available information to help assess the relative clinical benefits and risks of various treatment alternatives. When appropriately applied, comparative effectiveness information is a valuable tool that, together with a variety of other types of medical evidence, can contribute to improving health care delivery. However, BIO is concerned that comparative effectiveness information may be used strictly as a means to contain costs, rather than deliver health care value by improving patient health outcomes. BIO appreciates the opportunity to comment to the FCC and will focus on four areas: methodological issues, coordination and transparency and finally, infrastructure needs for federal comparative effectiveness research activities.

### ***Methodological Standards in Comparative Effectiveness Research***

BIO believes that it is imperative that this panel evaluate the lack of consistent methodologies that are used in comparative effectiveness research. Doing so will enable CER to provide maximum benefits to patients.

Careful consideration should be given as to what methods should be selected. In addition, rigorous standards must be applied to the research method selected, such as randomized controlled trials (RCTs), retrospective studies, or data synthesis. These standards should consider both the benefits and challenges associated with different methodologies. For example, RCTs utilize a select population chosen to demonstrate reproducible and confirmatory evidence of the safety and efficacy of the product being studied. This allows practitioners to achieve confirmatory validation of the intervention or product's performance when used in a group of fairly homogeneous patients. In the real world the combination of multiple medical conditions or multiple treatments may require provider decisions to be made for not only similar patients, but also for patients who are unlikely to be representative of the patients evaluated when generating the scientific evidence. Retrospective studies have their own set of limitations. First, the data that are used for retrospective studies are generally administrative data that were not designed to determine effectiveness. Thus, data elements that may be needed to adjust for differences in multiple medical conditions and overall health risks may be missing or incorrectly coded. Second, there may be bias for certain patients to be selected for treatment for which one cannot adjust with the previously collected data. CER's usefulness and practicality may be advanced by examining ways to reliably use observational data, how registries can be useful not just in identifying rare safety events but also in suggesting new treatment hypotheses. In their final form, comparative effectiveness research studies should include a concise description of the

research question, transparency as to the inclusion or exclusion of evidence or clinical information, transparent analytical methods, discussion of limitations in the quality of the evidence and methods and overall conclusions. These studies should also include recommendations for refinement of methodology and recommendations for areas of future research.

Comparative effectiveness studies should capture all relevant aspects of diseases and their treatments using high standards of evidence. Comparative effectiveness analyses often ignore many important aspects of treatment interventions that affect patients or may not account for the spectra of disease severities. Increased worker productivity, reduced caregiver burden and savings to other parts of the health care system are also important benefits that may not be reflected in studies conducted with a narrow perspective.

Advancements in the development of innovative therapies are grounded in the ability of researchers to focus on the mechanisms of action that allow particular therapies to work in specific patient populations. Promoting innovation in personalized medicine requires clinicians to have the ability to make patient-centered treatment choices without conforming to inflexible standards or practice guidelines. In addition, many therapies targeting rare or “orphan” diseases, as well as severe, rapidly progressive, or life-threatening diseases, are not conducive to comparative effectiveness studies due to the vulnerabilities, small size, heterogeneity, and other characteristics of these patient populations. Government policies addressing comparative effectiveness need to acknowledge the limitations of current methodologies and ensure that they do not lead to conclusions and decisions that discourage or impede medical advancements and breakthroughs that can address unmet medical needs.

#### ***Coordination and Transparency of Federal Comparative Effectiveness Research Initiatives***

As BIO has previously commented to the Institute of Medicine (IOM) on the composition of the Committee to establish Comparative Effectiveness Research Priorities (Committee), it is critical that all stakeholders be involved and represented in these efforts. BIO believes that broad stakeholder involvement is the best way to create a neutral advisory body, ensure thoughtful discussion and generate rigorous and also feasible recommendations. As the IOM has noted in the past, broad stakeholder participation creates a neutral discussion platform and BIO urged the IOM to include this same range of stakeholders on the Committee. Unfortunately, the composition of the Committee does not represent all stakeholders. Notably, the Committee remains devoid of representatives from the innovator industries such as biotechnology, pharmaceutical and medical device. Further, significant representation from patient and minority groups is also lacking. BIO urges the Federal Coordinating Council to advise the IOM to improve the quality of its advisory Committee by including additional representatives from the patient, minority and innovator groups.

Including all stakeholders at the table will enhance the Committee’s discussions and deliberations. Each group of stakeholders brings different and valuable perspectives, and it is important that all perspectives are able to have a voice and be heard as part of the Committee. The IOM Roundtable recognized this principle and stated, “The determination of the priorities to pursue is a policy exercise in which all relevant stakeholders have a right to engage and to which

they can add value.”<sup>1</sup> Therefore, stakeholders should be afforded the opportunity to serve on the Committee as well as provide meaningful input into all steps along the study process, including the identification of priority areas to research, study design and research methods, and dissemination of results. Having all stakeholders at the table with full disclosure of potential conflicts of interest is a good way to manage potential biases and conflict of interest. Disclosure and broad representation are critical to ensure a balanced end product.

Additionally, BIO urges the Federal Coordinating Council to establish a uniform process for all federal activities related to CER. By undertaking this step, the coordination and transparency of these efforts will be improved. For example, the National Institutes of Health issued a significant number of research areas for Challenge Grants related to CER. However, this was undertaken in a process with seemingly little, if any, coordination from the Agency for Healthcare Research and Quality or the Department of Health and Human Services and with no public input on the potential areas for research. BIO believes that the NIH should establish a process that is similar to AHRQ’s process which allows for meaningful public input and participation.

#### ***Comparative Effectiveness Research Infrastructure Needs***

As previously discussed in the methodologies section of these comments, critical to the success of comparative effectiveness research is the need to better understand which methodologies and research modalities will lead to the most robust results. The Federal Coordinating Council should dedicate a significant portion of its funding to evaluating methodologies to produce the best data. Given the funding that has been made available elsewhere in the Department of Health and Human Services’ budget for health IT, BIO urges the FCC to focus on ways to link the various databases within its operating agencies as well as to those systems that will be utilized by providers under the health IT initiatives. By electronically coordinating these data, the value of CER will be realized by informing practitioner’s clinical decision making.

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BIO appreciates the Federal Coordinating Council’s thoughtful consideration of our comments and looks forward to continuing to work with this body in the implementation of comparative effectiveness research in the federal health-related programs.

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<sup>1</sup> Institute of Medicine, IOM Roundtable on Evidence Based Medicine, “Learning What Works Best: The Nation’s Need for Evidence on Comparative Effectiveness in Health Care,” September, 2007.