Charge to the Breakout Groups –

Please consider these questions as they relate to either chemical (Breakout Group 1) or microbial (Breakout Group 2) hazards. They are intended to focus but not limit your discussion. At the end of the break out sessions, each group will be asked to summarize their work and to look for commonalities and critical differences between the two groups.

1. Is the concept of what constitutes a susceptible population clear for this group of hazards? Can you provide a description or definition of the concept that you think should be generally used by risk assessors and risk managers and in multiple public health contexts? Is the definition sufficiently concrete that it can be applied when extracting data from the literature or resource databases? For example, is it possible to actually use the concept of being "immunocompromised" or "elderly" for data mining? If not, are there other more functional terms that should be used? Does it make sense to consider the probability of an adverse outcome separately from the severity of outcomes when thinking about susceptible populations?

2. What currently available data resources can be used to characterize susceptible populations in terms of their size, demographics, and exposures? Is it possible to "mash up" data from multiple resources to provide more detailed descriptions of specific susceptible populations? Is there significant heterogeneity in the quality and quantity of data available for different susceptible populations or types of susceptibility (e.g. lifestage versus genetic)?

3. What currently available data resources and tools can be used to characterize the relative susceptibility for different populations? Can the available data sources and tools be used to characterize both the probability of adverse events and the relative severity of the events in susceptible populations? Are data resources available for some populations but not others, or for some hazards and exposure but not others? To what extent can data from different populations or about different hazards be used to fill data gaps? Do we have tools that will allow us to differentiate variability and uncertainty when considering differential susceptibility in risk assessments?

4. Are there untapped data resources and tools that were developed for other purposes that might be used to identify and measure susceptible populations? (For example, medical treatment records or public health records assembled to monitor other issues).

5. What important questions were not included in this charge?

6. Considering the answers to the previous questions, what are the most critical data gaps and needs? Which of these data needs can be addressed in the short term and which require long term solutions?