# About the Metadata Access Tool for Climate and Health (MATCH)

## RATIONALE

Climate change can have a wide array of impacts on human health—either directly through, for example, increased frequency of extreme heat waves, or indirectly through such phenomena as expanded endemic ranges of disease-carrying insects. An improved understanding of current and anticipated climate-related health risks could help inform strategies for mitigating and adapting to climate change and related policies. Gratifyingly, much of the information that could contribute to this understanding—including rich datasets from years of observations and research in the environmental, geophysical, and health sciences—already exists in government files and various data banks. But too often, these files are either difficult to access or lack standardized metadata – summary information that puts each dataset into context – thereby impeding research that could reveal important relationships between climate change and health. Until now, no comprehensive tools existed to help researchers, public health practitioners, or policy makers rapidly search for and review metadata from diverse disciplines in order to facilitate identification and combination of useful datasets. MATCH addresses this need by providing a searchable online clearinghouse of publicly available Federal metadata specific to climate change and human health.

## AGENCY INVOLVEMENT

MATCH is a product of the US Global Change Research Program (USGCRP), the Federal program that coordinates and integrates global change research across 13 government agencies. MATCH is the culmination of a two-year collaborative effort by representatives of USGCRP's Climate Change and Human Health Group from NOAA, NIH, CDC, EPA, and USGS, and is a manifestation of the Obama Administration's focus on making government and other data and metadata openly available for use by private citizens, researchers, state and local planners, and others.

## OUTREACH ACTIVITIES TO SUPPORT TOOL DEVELOPMENT

Input from potential users and content experts guided MATCH's development. Academics studying the health consequences of climate change, state and local public health departments developing climate adaptation plans, and members of Federal agencies provided feedback during two rounds of pre-release testing. Listening sessions conducted during the annual meetings of the American Public Health Association, American Meteorological Society, and American Geophysical Union provided additional venues for stakeholder input.

## DATA SOURCES

MATCH provides access to metadata for more than 9,000 datasets from NOAA, NASA, CDC, EPA, USGS, and USACE (US Army Corps of Engineers). Many of the publicly available datasets accessible via metadata records on MATCH would be difficult or impossible to find and access through an ordinary search of Federal agency websites. MATCH supports and cultivates the rigorous use of standardized metadata formats. For the first time, public health metadata are available together with climate and environmental metadata.

## SCOPE

The scope of metadata on MATCH is broad, reflecting the numerous pathways by which climate affects health. MATCH metadata ranges from acute and chronic health conditions to weather to ecosystem ecology. Recognizing that links between climate and health are often indirect, MATCH takes an inclusive approach to the metadata it incorporates.

## TOOL MAINTENANCE

Members of the USGCRP Climate Change and Human Health Group, USGCRP coordination office staff, and a web development contractor are currently responsible for maintaining and developing MATCH.

**FUTURE PLANS**

Short-term plans for MATCH include providing users with the ability to contribute metadata, identifying a "Top 100" list of datasets used by climate and health researchers, adding metadata from other federal agencies, and highlighting case studies. Long-term goals include supporting data overlay – identifying datasets with observations that overlap spatially and chronologically – and ultimately, providing a platform for integrating at least a critical subset of full datasets.