NSDI Cooperative Agreements Program
Metadata Training & Outreach Project
Final Project Report

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Organization:
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Project Narrative
The primary purpose of our project was to provide training and assistance to the New
York City Department of Health and Mental Hygiene (DOHMH) to successfully design
and implement a system for creating FGDC compliant metadata for use in their enterprise
GIS. Following on this experience we would reach out to other city or regional health

agencies providing them with the lessons learned on integrating metadata documentation procedures into a public health records system.

Our program was built upon a series of consultation meetings with the Director of GIS for the DOHMH, his staff, and related city agencies and a series of metadata training workshops. The consultation meetings focused on designing a metadata best practices model as a component of DOHMH's newly instituted enterprise GIS. Assistance provided under this grant enabled the DOHMH to better identify who in their agency should be writing metadata, make decision regarding the software tools they would deploy for their system, and to define how and where records are stored and how these metadata records will be shared and managed over the long term.

The metadata training sessions ranged from basic introductory level, to train-the-trainer sessions, to an advanced class on how to facilitate the metadata creation/management process though building templates and customized scripting. A final component of our project was to present a talk on our work at a national public health conference.

Metadata training and outreach assistance
CIESIN conducted the following set of Metadata trainings for the NYC DOHMH and other related city agencies. All of these workshops were posted on our CIESIN metadata webpage calendar and submitted to the FGDC calendar of events. Agendas, notes, workshop materials for each of these trainings are also posted at the CIESIN metadata page at: http://sedac.ciesin.columbia.edu/metadata/

Trainings for the New York City Department of Health and Mental Hygiene
Workshop One: Introduction to FGDC Metadata - February 12 & 14, 2006
Location: Department of Health and Mental Hygiene, 125 Worth Street, New York, NY
This was an introductory level workshop instructing participants on the structure of FGDC metadata and the tools used to create and edit metadata. Sixteen people attended this session with representatives from the NYC DOHMH, Fire Dept, Police Dept, Parks Dept, Office of Emergency Management and DOITT.

Workshop Two: Train the Trainers - April 21, 2006
Location: NYC Fire Department Headquarters, Brooklyn Tech Center, Brooklyn, NY
This workshop focused on helping participants train other people in their organization how to write, edit and manage FGDC compliant metadata. Fourteen people attended this session. with representatives from the NYC DOHMH, Fire Dept, Police Dept, Parks Dept, Office of Emergency Management and DOITT.

Workshop Three: Train the Trainers – October 18, 2006
Location: Department of Health and Mental Hygiene, 125 Worth Street, New York, NY
This workshop was focused on how to use ArcCatalog to write, edit and manage metadata. It specifically looked at how to automate the metadata creation process

through the design of templates and writing scripts. Thirteen people attended this session, with representatives from the NYC DOHMH, Parks Dept, Office of Emergency Management and DOITT.

Regional Training
The second component of this grant was to host two training sessions for health agencies outside of New York City. Our efforts in this activity met with limited success. We were able to host a workshop at the USGS Offices at the Federal Center in Denver, Colorado which drew participants from several state and city health agencies. However, we were frustrated by the difficulty we experienced trying to schedule workshops in other regions. We reached out to state and county health agencies in Florida, California and the greater Metropolitan Washington DC region but never obtained a sufficient level of interest or commitment. Our experiences working with DOHMH indicates that there is certainly a need for promoting metadata standards within the health community. We believe the two main reasons we were not able to organize these workshops were: *1)* we were unable to identify people in these agencies who could champion metadata within their organization; and *2)* timing and scheduling conflicts prohibited their participation. Nonetheless, we did hold a second regional metadata workshop for county officials and environmental monitoring groups in Ulster County, NY.

Regional Workshop One: Introduction to FGDC Metadata- May 15-16, 2006
Location: Federal Data Center, Denver CO.
Eight people attended this session from a variety of state and city health agencies as well as USGS personnel. Session was focused on a basic introduction to writing and managing FGDC compliant metadata

Regional Workshop Two: Introduction to FGDC Metadata- February 28, 2007
Location: Stone Ridge, NY
Five people attended this session from county government and regional environmental associations.

Presentation at National Health Conference
Presentation of the work done under this grant was given at the 2006 ESRI Health GIS Conference on October 23–26, 2006
Colorado Convention Center Denver, Colorado
Approximately 30 people attended this session.

Status of Metadata Service
DOHMH currently has more than 125 layers in an enterprise geodatabase system. Through this program we have completed FGDC compliant metadata records on the most recently acquired or modified data. Approximately half of the layers available now have associated metadata. The remainder will be completed over the next few months. DOHMH data will be served from the NYC Public Health Portal, presently under development with the NYC Department of Information Technology and Telecommunications (DOITT). All data will include metadata records harvestable by the Geospatial One-Stop.

Next Steps
One of the most satisfying aspects of this project was that it generated the formation of a NYC Metadata Working Group which provides a mechanism for building relationships among other agencies that provide or anticipate providing data, and a way to coordinate our activities. DOHMH is interested in continuing this working group at a city-wide level to advance the development of data standardization and sharing practices among interdependent city agencies. Our first area of focus will be the creation of a metadata template adaptable by numerous agencies and a list of requirements for inclusion of essential metadata when data is provided by other bureaus. We will concentrate more on implementing solutions within the specific software framework. In our case this means developing in-depth instructional materials and tutorials on developing metadata using ArcGIS. We hope that our metadata working group can aid other city agencies and the NSDI by the development of guidance documents, best practices models and case studies.

Feedback on Cooperative Agreements Program
We have found that institutionalizing good metadata practices and long-term management of these records is a difficult task. However, the Cooperative Agreements Program was effective at providing the funding and support we needed to successfully meet our goals. The time frame was just right to address the needs of the project and the no-cost extensions to the grant period were very helpful due to the difficulties of scheduling some of our training workshops.

We would make a recommendation to broaden the scope of the grant program to include implementation of metadata on a variety of information, not just GIS data, such as documenting projects, monitoring programs, response simulation events and other organizational operations. We would also suggest that the FGDC expand the range of templates, cookbooks or standard guides they currently provide to help others launch into compiling metadata more effectively and efficiently.

Conclusion
We were surprised to see the extent to which this project exceeded the original expectations we held at the conception of the program. The education and outreach activities conducted under this project have had the additional benefit of coordinating DOHMH metadata initiatives with several other NYC agencies with which they regularly interact and share data. One of the most valuable outcomes of this project is that is has prompted the New York City Department of Information Technology and Telecommunications to begin construction of a data clearinghouse that will be listed as an NSDI nodes and host data and metadata from DOHMH and many other NYC agencies.

Thank you again for this opportunity to provide these services to the public health community and to advance the goals of the NSDI. We hope to continue our collaborations with the FGDC and the DOHMH in the coming years.