

**FY00-XXXV-99**  
**NORTH DAKOTA CHILDREN'S HEALTH STUDY**

**CONTRACTOR:** ND Children's Health Study Team

**PRINCIPAL INVESTIGATOR:** ND Children's Health Study Team  
 Project Managers

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**PARTICIPANTS**

<u>Sponsor</u>	<u>Cost Share</u>
ND Children's Health Study Team	
ND Department of Health	\$83,333
Lignite Energy Council Stakeholders	
Basin Electric Power Cooperative	\$11,905 <sup>1</sup>
Dakota Gasification Company	\$11,905
Minnkota Power Cooperative	\$11,905
Minnesota Power	\$11,905
Montana-Dakota Utilities Co.	\$11,905
Otter Tail Power Company	\$11,905
Great River Energy	<u>\$11,905</u>
Subtotal	\$83,333
ND Industrial Commission	<u>\$83,333</u>
Total Project Costs	\$250,000

**Project Schedule - 17 Months**

Contract Date - 3/8/00  
 Start Date - 3/8/00  
 Completion Date - 11/15/01

**Project Deliverables**

Status Report - 5/15/00 ✓  
 Status Report - 10/15/00 ✓  
 Draft Final Report - 8/15/01 ✓  
 Final Report - 11/15/01 ✓

**OBJECTIVE / STATEMENT OF WORK**

The ND Children's Health Study Team selected Environmental Health & Engineering, of Newton, Massachusetts to conduct the study. Co-Principal Investigators for the study are: John Daniel Spengler, Ph.D. (Professor of Environmental Health on the Faculty of Public

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<sup>1</sup> Amount shown is rounded to the nearest \$.

Health, Harvard University), Jonathan Michael Samet, M.D. (Professor and Chairman of the Department of Epidemiology, School of Hygiene and Public Health, Johns Hopkins University), and Margo Schwab, Ph.D. (Assistant Director, Risk Sciences and Public Policy Institute, Faculty Department of Epidemiology, Johns Hopkins School of Public Health).

The objectives of this study are:

- Establish the prevalence rates of respiratory symptoms and asthma in kindergarten through sixth grade students living in “coal country” (McLean, Oliver, and Mercer counties), including the towns of Beulah, Hazen, Stanton, Washburn, Underwood and Center.
- Establish the prevalence of respiratory symptoms and asthma in kindergarten through sixth grade students living in selected North Dakota communities that are distant from lignite energy sources.
- Compare the prevalence rates of respiratory symptoms, between the two North Dakota regions with similar age groups controlling for confounding factors. Compare the prevalence of respiratory symptoms in the North Dakota study to other published epidemiological studies.

The study is not designed to determine the cause(s) in any difference(s) that may exist in the study groups. If a statistically significant difference in the prevalence rates is found, then additional research will be recommended.

The study is based on a survey conducted using a standard questionnaire that is adapted for regional factors.

## **STATUS**

This program was originally proposed for the spring of 2000. However, scheduling conflicts with the sample population, finalizing of the questionnaire and selection of comparable counties forced postponement of the survey until the fall of 2000.

On September 15, 2000, The Bismarck Tribune ran in a story of the impending survey. The story in the Tribune cited the findings of a previous study that asthma and breathing problems were more severe in coal country. On September 18, 2000, the questionnaires were distributed to the students.

Because of the concern for unbiased scientific analysis and the potential adverse impact of publicity on recall bias, industry formally withdrew from active participation in the study in October 2000. The North Dakota Department of Health and North Dakota Industrial Commission continued monitoring the study.