ANALYSIS AND PUBLICATION GUIDELINES FOR THE NATIONAL BIRTH DEFECTS PREVENTION STUDY (NBDPS) CONDUCTED BY THE CENTERS FOR BIRTH DEFECTS RESEARCH AND PREVENTION (CBDRP)

The Data Sharing Committee

I. GOALS and PURPOSE

The purpose of this committee is:

1. To assure and expedite orderly and timely presentation to the scientific community of all pertinent data resulting from the collaborative NBDPS;

2. To promote accurate and scientifically sound presentations and papers from the NBDPS and its collaborating investigators;

3. To assure that all participating investigators have the opportunity to be involved in data analysis and the preparation of NBDPS papers and presentations;

4. To assure that press releases, interviews, presentations, and publications are accurate and objective, and do not compromise the collaborative study and the acceptance of its results;

5. To establish guidelines for authorship, acknowledgements, and funding citations for any presentations and publications of the NBDPS; and

6. To maintain a record of proposed and published papers and presentations from the NBDPS study.

II. SCOPE OF THE GUIDELINES

This policy covers papers, abstracts, and presentations that involve unpublished data collected by the NBDPS and compiled at the Centers for Disease Control and Prevention (CDC) from the ten participating study sites [AR, CA, GA, IA, MA, NC, NJ (inactive), NY, TX, UT]. The data covered by these guidelines include all interview, clinical, and biologic data associated with this study. It does not apply to data collected and maintained by individual Centers as part of the NBDPS or to data collected as part of local studies by each Center. These guidelines should be followed for any studies or writing projects involving data from two or more Centers. These policies will remain in force until the Data Sharing Committee is formally dissolved.

III. MEMBERS OF THE DATA SHARING COMMITTEE

1. Members of the Data Sharing Committee will include two representatives from each of the active Centers plus two representatives from CDC. The Center representatives may be the Principal Investigator and one additional representative, or the two Co-Principal Investigators. The Centers may allow substitute members to attend meetings or phone conferences but only the official committee members can vote on project approvals.

2. The Data Sharing Chair will serve as administrator of the Committee. The Data Sharing Chair will serve at term of 6 months, January-June, July- December. CDC will coordinate the administrative aspects of the Committee as well as represent the Atlanta study site. All

correspondence to the committee, including letters of intent, proposals and abstracts, and manuscripts will be sent to CDC for distribution to Committee members. The CDC coordinators will also be responsible for ensuring that all IRB requirements are met for any analyses resulting from the collaborative NBDPS. Committee members from each Center will be responsible for sharing documents submitted to the committee with their Center staff in order to inform them about proposed projects and to obtain their feedback. Each Center can submit 2 reviews to the Data Sharing committee for each proposal or manuscript being considered by the committee.

3. The Data Sharing Editor will assign 3-4 reviewers according to area of interest or specialty and give final approval on all manuscripts involving the shared NBDPS data. The Data Sharing Editor will have a term of 6 months. If a conflict of interest arises, the "editor in waiting" will be asked oversee the review process for that particular manuscript.

IV. APPROVAL OF PROJECTS FOR ANALYSIS AND PUBLICATION

A. Approval of NBDPS Projects for Analysis and Writing

1. To initiate an analysis and writing project, a participating investigator must first submit a letter of intent to the Data Sharing Committee. The purpose of the letter of intent is to communicate research ideas and facilitate collaboration among Centers. The letter of intent should include:

    a. the name of the lead investigator
    b. the name of the sponsoring PI
    c. the hypothesis to be tested
    d. collaborators involved in the research
    e. any issues related to conflict with existing or proposed research conducted by other Centers.

    Letters of intent should be submitted to the Data Sharing Committee via the CDC Coordinator by the third Thursday of the month (Attachment J, Data Sharing Schedule). The lead investigator must copy the sponsoring PI and all co-authors when submitting letters of intent to the Data Sharing committee.

2. The CDC Coordinator will distribute the letter to all committee members for review on the day after the Data Sharing conference call. The Committee members will review the letter to determine that the scope of the analysis is reasonable, and that there are no conflicts with existing analyses being conducted by other Centers investigators. The committee members may also make suggestions for collaboration with other Centers investigators.

3. Committee members will send their comments about the letter of intent using the email review form supplied when the letters of intent are distributed (Attachment A). Reviews are due three weeks after the letters are distributed to the Committee. Comments will be compiled by the CDC Coordinator and distributed to the committee on the Monday before the next Data Sharing call. The compiled comments will include the name of each reviewer, along with his/her comments. During the Data Sharing call, the committee will discuss and informally vote on letters of intent. If the author or sponsoring PI is not on the call the Committee will respond to investigators the following day with their decision and any comments, unless issues are raised that require further discussion. The Data Sharing Committee decision will also be entered in the Data Sharing Database and added to the Centers website.

4. Under very limited circumstances, the CDC administrators of the Data Sharing Committee may call for an expedited review of a letter of intent. Requests for an expedited review should be submitted to the committee with justification for the need to expedite the review.

5. After the committee approves the research proposed in the letter, the investigators should prepare a 2-5 page study proposal. Proposals should be submitted no sooner than 6 months before the time that it is expected that there will be enough cases or exposures of interest to do the study. The proposal should include:
    1) investigators with lead investigator and sponsoring PI noted
    2) contribution of each investigator
    3) objectives, aim or hypothesis
    4) background with relevant references
    5) methods describing –
        a) specific outcomes of interest
        b) primary exposures of interest
        c) analysis plan with power calculations if relevant
        d) other data collection or record matching if relevant.

If particular expertise in, for example, molecular genetics, statistics, epidemiology or case classification will be required for the study, plans for obtaining this should be noted in the proposal.

If the proposed research includes use of biologic material, the following guidelines apply:

<u>I. Limited and Expanded SNP Projects</u>

These guidelines should be followed for those studies that typically include a small number of candidate genes and a small number of SNPs chosen because of known functionality and previous studies (limited SNP projects) and studies that are an expansion of these currently approved and proposed NBDPS LOIs and proposals. Guidelines for whole genome scans are considered separately in section II below.

The proposed guidelines include:

1) Typically only a defect or defect group will be proposed for interrogation.

2) Priority should be given to questions of public health, clinical, and biologic significance. Priority should be given to projects with high likelihood of success based on power calculations.

3) Justification must be provided for the choice and prioritization of target genes and SNPs. A broad array of genes and SNPs may be chosen depending upon the hypothesis. The proposal should clearly articulate the criteria used to select the genes/SNPs, including but not limited to, as appropriate, allele frequencies, known associations, functionality of polymorphism, or LD structure of the gene.

4) Additional anonymous SNPs may be selected to define or tag haplotypes or bins of correlated SNPs. In addition, there should be a description of the approach used to select a minimal number of SNPs needed to define haplotypes including ethnic-specific SNP selection methods if necessary.

5) The proposal should clearly state the genotyping methodology to be used and provide reliable data on the capabilities of the laboratory to perform the genotyping methodology. For projects that contain a limited number of genes and 25 or fewer SNPs data for each SNP using the proposed genotyping methodology on local samples should be included. For expanded SNP projects (>25), a general description of the laboratory's experience with the relevant platform and SNP type should be included. It is expected that the laboratory, whether a Center's in-house facility, or a collaborating or contract lab, will provide this summary. Note that the laboratory can

present the data from a representative genotyping experiment for a relevant SNP or group of SNPs; presentation of data for every proposed SNP is not required for expanded SNP projects. For all proposals, the quantity of DNA necessary to perform whole genome amplification and genotyping assays should be included. Other data, as it applies to the specific platform, can include data quality assessment by determining the concordance between DNA from blood and buccal cells, between DNA from buccal cells using a different methodology than that proposed when blood is unavailable, illustrating Mendelian inheritance when more than one generation is available, or illustrating Hardy-Weinberg equilibrium. Where appropriate, specifics regarding the inclusion of negative and positive controls as well as QC replicates, duplicates of selected samples, or the repeat testing of 5-10% of samples should be included. Local NBDPS samples should be used for all feasibility studies and pilot testing. Verification that WGA products were amplified with no allele bias using other sources of DNA should be included. The PI from the Center where the specimens will be taken should sign off on the proposal.

6) A proposal section on the methods to be used to determine and account for potential false positive associations should be included.

7) If genes are of interest to other researchers, research agendas should be coordinated among interested investigators. Proposals should specify others who were contacted regarding interest in the project. Priority should be given to those proposals that combine genotyping from multiple projects into a single effort.

8) Sharing of initial results with the group and contribution of final data to the NBDPS repository. The primary research team should within 6 months deposit the initial results of the planned studies into the Biologics Genotyping Database. If the team is unable to meet this deadline they should notify the Data Sharing Committee when to expect the transmission of results.

9) Approved proposals may be resubmitted as amended/revised proposals including the expanded aims. The description of the new target genes/SNPs and related material should be incorporated into the approved original proposal with the new text demarcated.

II. Whole Genome Studies

Development of WGS projects are complex, requiring extensive planning for genotyping platforms, DNA quality, costs, data analysis, etc. Additional technical expertise, facilities, and major funding are required. Given that they are typically beyond the scope of usual NBDPS genetic projects these may be undertaken by a team of NBDPS investigators with relevant expertise representing multiple Centers and the CDC. Issues to be considered when planning and preparing LOIs and proposals involving whole genome scans include:

1) Typically only a defect or defect group will be proposed for interrogation.

2) Priority should be given to questions of public health, clinical, and biologic significance.

3) Other groups with potential overlap through ongoing or planned genetic studies of the same defect or defect group should be contacted. Proposals should specify others who were contacted regarding interest in the project.

4) Sharing of initial results with the group and contribution of final data to the NBDPS repository. The primary research team should within 6 months deposit the initial results of the planned studies into the Biologics Genotyping Database. If the team is unable to meet this deadline they should notify the Data Sharing Committee when to

expect the transmission of results.

5) The primary research team must provide information demonstrating that they are capable of conducting WGS studies with regard to: 1) performing the appropriate laboratory assays and 2) performing primary data analysis. This should be a general description of the laboratory's experience with the relevant WGS platform. It is expected that the laboratory, whether a Center's in-house facility, or a collaborating or contract lab, will provide this summary. Note that the laboratory should present preliminary data from a representative WGS genotyping experiment. The quantity of DNA necessary to perform whole genome amplification and genotyping assays should be included. Other data, as it applies to the specific WGS platform, should include data quality assessments. Where appropriate, specifics regarding the inclusion of negative and positive controls as well as QC replicates, duplicates of selected samples, or the repeat testing of 5-10% of samples should be included. Local NBDPS samples should be used for all feasibility studies and pilot testing. Verification that WGA products were amplified with no allele bias using other sources of DNA should be included. The PI from the Center where the specimens will be taken should sign off on the proposal. The group's experience and expertise in the processing and analysis of WGS and similar high-dimensional gene data should be presented.

6) The authorship plan for the primary publications from the scan project and associated secondary papers should be defined in advance. These collaborative efforts will require a list of primary authors with The NBDPS listed last on the authorship line. The PI from the Center that will author the primary publication should sign off on the proposal.

7) Decisions may be made by an expanded research team including the PI and co-investigators including those of the primary research team, others with ongoing or planned analyses of candidate genes of the defect(s) under study and those with additional expertise and interest.

The general plan for the project including data sharing and linked analyses will be submitted initially to the genetic analysis working group. The proposals will be reviewed by a minimum of 2 people from the GAWG. They will be distributed to the GAWG for input but the technical review will come from a minimum of 2 members. The intent is to make sure the methods, etc are reviewed by those most knowledgeable of genotyping, etc. The primary research team can submit the proposals to the GAWG early (a minimum of 2 weeks before the DSC deadline) so the technical review can be attached to it for the DSC to review. If they wait to submit it until the DSC deadline, it will be submitted to the GAWG for review and will not be reviewed by the DSC until the following month.

The proposal should include a section addressing the issues raised above. The proposal will then be presented to and reviewed by the Data Sharing Committee for final approval.

Beginning with proposals submitted in September 2003, all proposals involving the use of biologic samples will be reviewed at CDC to ensure compliance with the above guidelines. All proposals that have not followed the guidelines will be returned to the submitting lead investigator with a brief note outlining criteria from the Data Sharing Guidelines that have not been addressed. For example, "Please provide information on the pilot testing of the proposed methods including results of pilot studies." The investigator will then be asked to resubmit the proposal with the next data sharing round.

For proposals approved prior to September 2003, the same review will occur when samples are requested from CASPIR. If the approved proposal does not address the criteria in the Data Sharing Guidelines, it will be necessary to submit an updated proposal that addresses these issues.

Proposals should be submitted to the Data Sharing Committee to the CDC coordinator by the third Thursday of the month. The lead investigator must copy the sponsoring PI and all co-authors when a submitting a proposal to the Data Sharing committee.

6. The CDC administrator will distribute the proposal to all committee members for review the day after the Data Sharing conference call. The Committee members will review the proposal to determine that it is scientifically sound and that the scope of the analysis is reasonable. The committee members may also make suggestions for collaboration with other Centers investigators or comment if there are conflicts with existing analyses being conducted by other Centers investigators. [The committee expects that issues dealing with collaboration and conflicts with other NBDPS research will be dealt with when the letter of intent is reviewed. The review of research proposals will deal mainly with scientific content.]

7. Committee members will review the proposals using the form in Attachment B and will return the form to the CDC administrator via e-mail. Reviews are due three weeks after the proposal is distributed to the committee. At least one comprehensive review must be prepared by each Center. Comments will be compiled by the CDC Administrator and distributed to the committee on the Monday before the next Data Sharing call. The compiled comments will show the name of each reviewer, along with his/her comments. During the Data Sharing call, the committee will discuss and officially vote on proposals. In order for a proposal to be approved, a minimum of six Centers must be on the call. The vote will then be decided by the majority of the committee members on the call. If the author or sponsoring PI is not on the call the Committee will respond to investigators the following day with their decision and any comments, unless issues are raised that require further discussion. The Data Sharing Committee decision will also be entered in the Data Sharing Database and added to the Centers website.

8. After approval of the research proposal by the Data Sharing Committee, investigators may begin analysis and may request biologic samples from CASPIR (long-term storage facility). All proposals involving biologics approved before September 2003 will require a second review to assure they meet the biologics criteria described in item 4 above.

9. Proposals that are disapproved may be revised and resubmitted to the Committee.

B. Approval of NBDPS Abstracts

1. Abstracts of collaborative NBDPS results presentations at scientific meetings should be sent to the Data Sharing Committee for approval prior to submission. The abstract should be submitted to the Data Sharing Committee via the CDC administrator and should indicate the meeting to which the abstract will be submitted.

2. The CDC administrator will distribute the abstract or manuscript to all committee members for review. The Committee members will review the abstracts to determine that they are accurate, scientifically sound, and do not compromise the collaborative study.

3. Committee members will review the abstracts using the form in Attachment C and will send the form to the CDC administrator by e-mail. Two reviews may be submitted from each Center. If there are no concerns or issues raised, the CDC administrator will inform the investigator that the committee has approved their abstract or manuscript. Any comments or suggestions for improving the document will be sent to the lead investigator as well. If there are minor issues raised by the committee members, an attempt will be made to resolve these by e-mail discussions among the committee members. If there are major areas of concern, the CDC administrator will schedule a conference call for the committee to discuss the issues. The committee will respond to the investigators within 1

week of submission for abstracts.

4. Under very limited circumstances, the CDC administrators of the Data Sharing Committee may call for an expedited review of an abstract. Requests for an expedited review should be submitted to the committee with justification for the need to expedite the review.

5. Abstracts that are disapproved may be revised and resubmitted to the Committee.

6. A copy of accepted abstracts should be sent to the Data Sharing Committee for recordkeeping purposes.

C. Approval of Manuscripts

Manuscripts may be submitted to the Data Sharing Editor at any time. The Editor will assign 3-4 reviewers according to area of expertise. Review turnaround time will depend on the number/type of issues that arise during the review process. Reviews will be conducted anonymously and compiled comments will be presented in electronic form to the Committee. Approval status will be communicated to the Data Sharing Committee as a FYI and to the CDC coordinators for recordkeeping purposes.

It is the responsibility of the lead investigator to determine if a re-review of a manuscript by the Data Sharing Committee is necessary when peer review requires substantial revision of the manuscript.

A copy of published manuscripts should be sent to the Data Sharing Committee for recordkeeping purposes.

D. Guidelines for Presentations

Presentations must be sent to the Committee as an FYI.

E. Theses/Dissertations

The Committee will not conduct formal review of dissertations. [This assumes a DS committee member will be a member of the students academic review committee]. The masters or doctoral candidate must submit an abstract of the dissertation as an FYI to the Committee.

V. AUTHORSHIP

1. Authors who participate in the writing of a manuscript from the collaborative NBDPS should do so in accordance with the International Committee of Medical Journal Editors guidelines (N Engl J Med 1997 Jan 23;336(4):309-15). These guidelines can be found in Attachment D.

2. All papers should include the words "The National Birth Defects Prevention Study" in the authorship line (e.g. Smith JL, Jones KC, Williams ME, and The National Birth Defects Prevention Study). All papers should also include an "Acknowledgements" section that lists each Center unless journal policy prohibits publication of such a list.

3. Also in the "Acknowledgement" section, all papers should include the words "This study was supported by a cooperative agreement from the Centers for Disease Control and Prevention."

4. First Authorship

   a. First authors will usually be NBDPS investigators. Other scientists may serve as first authors if at least one other NBDPS investigator serves as a co-author and

"sponsor" of the project and the scientist has played a major role in the data analysis and writing for the paper.

b. Conflicts about first authorship should be resolved, if at all possible, by members of the analysis/writing group. In case the group is unable to resolve a conflict among the Centers, the Data Sharing Committee will adjudicate and may assign first authorship.

c. If progress on a given project is unduly slow, the Data Sharing Committee may request an explanation from the lead investigator. If timely progress is not likely to occur in the near future, the Data Sharing Committee may, at its discretion, assign a new lead investigator to the study.

5. Co-Authorship

a. The first author should determine the order of authorship on a paper. In general, authors will appear in order of contribution to the writing and analysis of the paper.

b. If conflicts among the Centers regarding the order of authorship cannot be resolved by the analysis/ writing group, the Data Sharing Committee will adjudicate and may assign order.

VI. DATA SHARING WORKING GROUPS

1. Working Groups will be formed of interested scientists from the Centers for specific topics such as congenital heart defects, orofacial clefts, neural tube defects, folate, and environmental exposures. These groups will be formed on an ad hoc basis.

2. The primary role of the Working Groups will be to develop comprehensive research agendas, to be informed about the current state of knowledge in the specific topic area, and to discuss how the research activities might be shared among the interested collaborators. The Working Groups will meet regularly by phone and occasionally in-person and will create reports to keep the rest of the Centers collaborators informed about research findings and progress in the specific topic area.

3. A minor role of these groups will be to discuss letters of intent or proposals that are in conflict or overlap for the specific topic area. The Working Group may help the investigators reach agreement as to how the research will be apportioned to the interested Centers. The Data Sharing Committee, however, has the ultimate responsibility for working out any conflicts between Centers investigators.

VII. AVAILABILITY AND ANALYSIS OF DATA BY OUTSIDE INVESTIGATORS

1. Investigators outside the NBDPS who are interested in accessing the data must identify a collaborator and sponsoring PI from one of the participating centers. If outside investigators are unable to identify a potential collaborator their own, they may submit a brief letter describing their research interest (maximum of 2 pages) to the Data Sharing committee in care of Sarah Ruuska. The Data Sharing committee will forward it to the appropriate NBDPS working group. All submissions will be considered in terms of potential for collaboration, priority for the current NBDPS research agenda, and scientific merit. Because of the limited amount of DNA currently available, proposals involving the use of biological specimens will be carefully evaluated to ensure that the study is an optimal use of the available material.

A sample response to inquiries from outside investigators is located in Attachment E.

2. It is the intention of the Data Sharing Committee to supply data tapes with the collaborative NBDPS data to each Center at the end of the study so that additional analyses can proceed after termination of the Cooperative Agreement. So long as the Data Sharing Committee remains active, the committee must still approve projects and review manuscripts prior to submission even if the analyses are done locally.

3. The Data Sharing Committee will determine the format of the public use data tapes and will specify the variables which are to be included in the database.

VIII. CONFIDENTIALITY AND DATA USE OATH AND DATA TRACKING

1. Scientists, colleagues, and collaborators who are given access to clinical, interview and biologic data from the NBDPS must sign a confidentiality and data use oath that describes how the data should be used, stored and returned at the conclusion of a research project (Attachment F).

2. The Principal Investigator at each Center has full and direct responsibility for assuring that each person who has access to the data has read and signed the confidentiality and data use oath. The Principal Investigator also has the responsibility of tracking the use of the NBDPS data at their Center using the Data Tracking Sheet (Attachment G). Copies of the data tracking sheets will be kept on file at CDC. Oaths must be signed by study staff/collaborators and copies sent to CDC on a yearly basis.

4. Each Center should maintain files of the signed confidentiality and data use oaths. Signed oaths will also be kept on file at the CDC. It will be left to the discretion of the individual Centers to determine when the oaths should be renewed for specific individuals or projects.

5. The CDC local data sharing policy is located in Attachment H.

IX. PROJECT UPDATES

Project update forms must be completed at least annually for every active NBDPS project. Any project either actively terminated or not updated by the deadline will have the project status changed to “terminated.” New letters of intent may be submitted on these topics.

If project is not terminated but taken over by a different group of investigators, a new LOI must be submitted to the Committee.

The project update form is located in Attachment I.

X. LOCAL STUDIES

In order to decrease potential duplication of effort, to ensure that the quality of publications of the data meet a consistent standard, and to enhance collaboration, all local study abstracts and manuscripts using NBDPS data must be submitted to the data sharing committee as a courtesy. Committee members are encouraged to comment but the Committee will not vote on local studies.

Review of NBDPS Letters of Intent (to be distributed in email form)

LOI Title:

APPROVE:
OUR CENTER WOULD LIKE TO DISCUSS COLLABORATION:
NEEDS DISCUSSION:
COMMENTS:

Review of NBDPS Proposals

Title of Proposal: _____

Lead Investigator: _____

Sponsoring PI: ___ **Center: ___**

Date reviewed: _____

Reviewed by: _____ **Center: ___**

1. Investigators with lead investigator noted ☐YES ☐NO ☐NA
Comment: _____

2. Objectives, aim or hypothesis stated ☐YES ☐NO ☐NA
Comment: _____

3. Background with relevant references ☐YES ☐NO ☐NA
Comment: _____

4. Methods
- specific outcomes of interest ☐YES ☐NO ☐NA
- primary exposures of interest ☐YES ☐NO ☐NA
- analysis plan with power calculations ☐YES ☐NO ☐NA
- other data collection or record matching ☐YES ☐NO ☐NA
Comment: _____

5. Scope of analysis is reasonable ☐YES ☐NO ☐NA
Comment: _____

6. Plans for particular expertise in statistics, epidemiology, molecular genetics or case classification described ☐YES ☐NO ☐NA
Comment: _____

6a. Biologics criteria have been addressed ☐YES ☐NO ☐NA

7. Conflicts with existing research ☐YES ☐NO ☐NA
Comment: _____

8. Suggestions for collaboration ☐YES ☐NO ☐NA
Comment: _____

9. Need for additional IRB approval ☐YES ☐NO ☐NA
Comment: _____

10. Other Comments: _____

☐**APPROVE** ☐**DISAPPROVE** ☐**RESUBMIT** ☐**NEEDS DISCUSSION:**

AUTHOR MUST RESPOND TO THE FOLLOWING COMMENTS:

Review of NBDPS Abstracts or Manuscripts

Title of Document: _____

Lead Investigator: _____

Sponsoring PI: ___ **Center: ___**

Date reviewed: _____

Reviewed by: _____ **Center: ___**

1. **Investigators with lead investigator noted** ☐**YES** ☐**NO** ☐**NA**
   Comment: _____

2. **Comments on scientific aspects of the document: _____**

3. **Comments on other issues (e.g. authorship, conflict with other NBDPS research, etc): _____**

☐**APPROVE** ☐**DISAPPROVE** ☐**RESUBMIT**

Uniform requirements for manuscripts submitted to biomedical journals.
International Committee of Medical Journal Editors.

N Engl J Med 1997 Jan 23;336(4):309-15

Response to Inquiry from Outside Investigator

Dear <name of person making inquiry>,

Thank you for your inquiry about access to the data from the National Birth Defects Prevention Study (NBPDS). This study is being conducted as part of a cooperative agreement between 9 sites (state health departments and universities) and the Centers for Disease Control and Prevention (CDC). We have just begun the analytic phase of this study, and there is currently no public use data set available.

Because of the collaborative nature of the study, we have established clear guidelines for data sharing among the investigators participating in the study. All research proposals must be sponsored by one of the collaborating Principal Investigators, and be submitted to NBDPS Data Sharing committee for review and approval.

At this time, researchers outside the NBDPS centers who are interested in accessing the data must identify a collaborator and sponsoring PI from one of the participating centers. If you are unable to identify a potential collaborator on your own, you may submit a brief letter describing your research interest (maximum of 2 pages) to the Data Sharing committee in care of Ms. Sarah Ruuska (SRuuska@cdc.gov). The Data Sharing committee will forward it to the appropriate NBDPS working group. All submissions will be considered in terms of potential for collaboration, priority for the current NBDPS research agenda, and scientific merit. Because of the limited amount of DNA currently available, proposals involving the use of biological specimens will be carefully evaluated to ensure that the study is an optimal use of the available material. You will be notified of the status of your submission.

I have listed 2 references below which you may find helpful. Thank you for your interest in the NBDPS.

Sincerely,
<name of person responding>

1. Yoon P, et al. The National Birth Defects Prevention Study. *Public Health Reports*, 2001;116(Suppl 1):32-40.
2. Rasmussen SA, et al. Integration of DNA sample collection into a multi-site birth defects case-control study. *Teratology* 66(4):177-84, 2002

NATIONAL BIRTH DEFECTS PREVENTION STUDY (NBDPS) CONFIDENTIALITY AND DATA USE OATH

Each Center for Birth Defects Research and Prevention (Centers) has been awarded a Certificate of Confidentiality from the Centers for Disease Control and Prevention (CDC). In accordance with Section 301(d) of the Public Health Service (PHS) Act (42 U.S.C. 241(d)), I, as a _____ (Centers employee, CDC employee, scientist, colleague), am permitted access to personally identifiable data. As a condition of this access and my participation in this project, I am required to comply with the following safeguards and policy commitments for individuals against invasions of privacy.

1. I agree to be bound by the following promise:

In accordance with Section 301(d) of the PHS Act (42 U.S.C. 241(d)), all respondents are assured that the confidentiality of their responses in this study will be maintained, and that the privacy of research subjects is protected by the withholding of, from all persons not connected with the study, any personally identifying characteristics of the research subjects.

2. I agree to maintain the following safeguards to assure that confidentiality is protected and to provide for the physical security of the records:

To preclude observation of confidential information by persons not authorized to have access to the information on this project, I shall maintain all records that identify individuals, or from which individuals could be identified, in locked containers or protected computer files, when not under immediate supervision by me or another authorized member of the project. The keys or means of access to these containers or files are not to be given to anyone other than NBDPS authorized staff. I further agree to abide by any additional requirements imposed by CDC for safeguarding the identity of individuals.

3. The NBDPS Data Sharing Committee must approve uses of the NBDPS data. No analysis of data or dissemination of findings from the NBDPS may occur without approval from the committee for a specific research purpose. Instructions for submission of research proposals are specified in the Data Sharing Guidelines document available from each Center.

4. The Principal Investigator of the NBDPS from each Center is responsible for tracking the use of the NBDPS data at their Center and assuring that each person who has access to the data has read and signed this agreement.

5. I understand that the Data Sharing Committee must approve any manuscripts, abstracts, or public presentations based on the analyses before they can be submitted for consideration.

6. I agree not to attempt to identify any individual person whose information is contained in the NBDPS data.

7. I agree not to distribute, copy, or share the data with any person(s) other than those designated by the Principal Investigator of the Center.

8. At the conclusion of the research covered by this agreement, I agree to promptly return to the Center from which the data were obtained, any documentation and manuals about the NBDPS, and to remove (delete) any electronic files containing data or output from any computer equipment which I have used to gain access to and/or to analyze NBDPS data.

My signature below indicates that I have carefully read and understand this agreement and the oath which pertains to the confidential nature of all records to be handled in regard to this project. As a _____ (Center employee, CDC employee, scientist, colleague), I understand that I am prohibited from disclosing any such confidential information that has been obtained under this project to anyone other than authorized staff of NBDPS. I understand that any disclosure in violation of this Confidentiality Oath may lead to termination of my employment, as well as other penalties.

_____ _____

(Typed/Printed Name) (Signature)

_____

(Date)

_____ _____

(Center PI) **(Date)**

Local Data Tracking Sheet

National Birth Defects Prevention Study:
Use of the Atlanta and Pooled NBDPS Analytic Data

1) Confidentiality

a) Read and sign data confidentiality pledge prior to receiving data (See Sarah Ruuska for a copy of the pledge)
b) Submit a request to ITSO asking for the NBPDS analytic tools and Access 2000 to be installed on your computer.
c) Provide Sarah with the computer barcode for the computer on which the data are installed. Also provide the building and room number where your computer is located, your phone number and email address.
d) All NBDPS data must be removed from your computer before leaving the group or changing computers. Please email Sarah to verify that you have uninstalled the Analytic database/tools and deleted all created files (CSV, SAS files, etc.) from the hard drive.
e) Do not send any NBDPS data by non-secure methods.
f) No information that would allow identification of an individual should be included in a publication or be shared in any manner with an individual who is not an NBDPS collaborator. Researchers should only review identifying information that is critical to their analysis.

2) Data Sharing

a) NBDPS data sharing guidelines (normal, expedited, local)
b) For Atlanta data only analyses, submit a one-pager outlining planned analysis to your supervisor and then to the PI (Peggy or Jennita). These analyses should not conflict with existing letters of intent (LOIs) and proposals for the pooled data. These will be shared with the NBDPS data sharing committee, and may in the future be subject to approval by the data sharing committee.
c) For analyses of pooled NBDPS data, LOIs must be submitted to your supervisor and then to the Atlanta PI for review prior to submission to the NBDPS Data Sharing Committee. Same procedure must be used for proposals.
d) All abstracts and manuscripts using pooled NBDPS data must be reviewed and approved by the NBDPS Data Sharing Committee prior to submission.
e) All abstracts and manuscripts using Atlanta-NBDPS data must be sent to the Atlanta PI and the NBDPS Data Sharing Committee on an informational basis prior to submission.

3) Analysis

a) New NBDPS investigators must be carefully oriented to NBDPS and the documentation.
b) Please review all documentation before beginning any analysis or requesting further assistance.
c) Duplication and/or review of work is essential to minimize errors.
d) Epidemiologists/Analysts should complete the NBDPS data exercises and compare their work to the answer key prior to commencing other analytic work.
e) Communicate all potential data issues/problems to Jennita Reefhuis.
f) All investigators should be using version 4.06 of the data. If you have an older version, please have ITSO remove/uninstall it from your computer have them install the current version. Earlier versions should NOT be used for any analysis. Be sure to let Sarah know when you have a new version installed on your computer.
g) Calculated variables should be used whenever possible to improve consistency across studies.

4) Key Do's and Don'ts

a) Do ensure you have the most current version of the analytic data
b) Do use calculated variables
c) Do read all documentation before seeking assistance
d) Do maintain the confidentiality of participants at all times
e) Do promptly communicate problems with the data to Jennita.
f) Do attend NBDPS analytic meetings to be aware of current issues
g) Do use the tools to extract the data from the Access database

h) Do not access the data via the back-end
i) Do not release any unpublished data to anyone who is not an NBDPS collaborator
j) Do not attempt to convert the database to a different version of Access
k) Do not ask Chris for assistance with the analytic database/tools
l) Do not begin analysis of NBDPS data without submitting a one-pager or LOI to your supervisor and the PI

5) Documentation

a) Included with analytic database/tools
   i) Documentation of the tools and analytic database
   ii) NBDPS data cleaning document
   iii) SAS field labels
   iv) SAS short labels
b) Other key documentation
   i) Study background
   ii) CATI database
   iii) Clinical database
   iv) Summary of changes to CATI
   v) Summary of changes to protocol

6) Attachments

a) Confidentiality pledge
b) Data sharing guidelines
c) Data sharing schedule for 2006

NBDPS Data Sharing Update Form

******* Please refer to the data sharing search instructions before filling out this form *******

Date _____

Project ID _____ **Letter of Intent Doc ID** _____ **Proposal Doc ID** (if applicable) _____

Title: _____

Sponsoring PI **Center:** __

Name of current lead investigator: _____

Names of all current collaborators: _____

Project status:

☐ Not yet begun
☐ In progress
☐ Completed
☐ Project terminated (no longer plan to pursue this research project)

If not yet begun:
Projected date when proposal was submitted/will be submitted: _____

Projected date when adequate sample size will be available: _____

Projected date when analysis may realistically begin: _____

If in progress:
Briefly describe progress to date (2-3 sentences): _____

Other comments: _____

- Data sharing updates for ***all*** approved letters and proposals are due **September 15, 2003**. Any projects either actively terminated or not updated by the deadline will have the project status changed to "terminated." New letters of intent/proposals may be submitted on these topics.

- A final update for each project should be submitted when the project is complete. For completed projects, please provide the citations for any published abstracts/manuscripts in the comment section.

2006 NBDPS Data Sharing Schedule

Submission Deadline	Date of Distribution	Review Due Date	Date of Call
19-Jan-2006	27-Jan-2006	16-Feb-2006	23-Feb-2006
16-Feb-2006	24-Feb-2006	16-Mar-2006	23-Mar-2006
16-Mar-2006	24-Mar-2006	20-Apr-2006	27-Apr-2006
20-Apr-2006	28-Apr-2006	18-May-2006	25-May-2006
18-May-2006	26-May-2006	15-Jun-2006	22-Jun-2006
15-Jun-2006	23-Jun-2006	20-Jul-2006	27-Jul-2006
20-Jul-2006	28-Jul-2006	17-Aug-2006	24-Aug-2006
17-Aug-2006	25-Aug-2006	21-Sep-2006	28-Sep-2006
21-Sep-2006	29-Sep-2006	19-Oct-2006	26-Oct-2006
19-Oct-2006	27-Oct-2006	16-Nov-2006	Holiday – No Call *
16-Nov-2006	24-Nov-2006	21-Dec-2006	Holiday – No Call *
21-Dec-2006	29-Dec-2006	18-Jan-2007	25-Jan-2007

*** The October and November data sharing rounds will be done entirely though email. Any areas of concern will be discussed on the January 2007 call.**