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NINCDS COLLABORATIVE
PERINATAL PROJECT
A User's Guide to the Project and Data

Volume II: Project Study Forms and Documentation of Transfer to Computerized Data Items in Master File

Part E: Neonatal Exams and Observations

December 1983

Prepared for
the National Institute of Neurological
and Communicative Disorders and Stroke
under Contract 2311105150

Battelle
Pacific Northwest Laboratories

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NINCDS COLLABORATIVE PERINATAL PROJECT: A USER'S GUIDE TO THE PROJECT AND DATA

Volume II. Project Study Forms and Documentation of Transfer to Computerized Data Items in Master File

Part E. Neonatal Exams and Observations

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INTRODUCTION

DOCUMENT OBJECTIVES AND READER ASSUMPTIONS

Volume II, Project Study Forms and Documentation of Transfer to Computerized Data Items in Master File, provides researchers with detailed documentation for how data were collected, coded and stored on the data base. Volume II will help investigators decide: if data were collected in a suitable way for addressing particular research questions; if revision of forms affected the collection of specific data items; if data were coded on master, variable or work files, or are available only on microfilm. The reader is assumed to be the principal investigator for a project in which data from the data base will be used.

DOCUMENT STRUCTURE

Because of its size, this volume is divided into ten separate parts, each containing material on a group of forms related by subject. Each part groups together similar study forms. Generally, a part covers a single time period. The parts do not correspond exactly to the hierarchical classification structure described in Volume I. The parts of Volume II include:

A. Prenatal Record and Medical History
B. Labor and Delivery
C. Pathological Exams and Autopsies
D. Family and Socioeconomic History
E. Neonatal Exams and Observations
F. Pediatric and Neurological Exams, Four Months - One Year
G. Pediatric Neurological Exams, Seven Years
H. Psychological Exams, Eight Months
I. Psychological Exams, Four Years and Seven Years
J. Speech, Language and Hearing Exams, Three Years and Eight Years (Final)

This part of Volume II contains Part E: Neonatal Exams and Observations and includes Forms PED-1, PED-2, PED-3, PED-4 (ADM-44), PED-5, PED-6, PED-7 and PED-8.

To allow easy access to the data as they appear on the master file, all documentation for each form or form grouping representing a card series on the master file is identified by form number appearing at the bottom of each page. Forms are arranged in what may appear to be illogical numerical order in some cases, but the arrangement presented here ties forms and their revisions together and allows an investigator to trace an item through all revision cycles. Thus, in Part A of Volume II, OB-42 follows OB-9 and OB-10 appears next to OB-44 and OB-45. (For an explanation of how the master file was organized to result in this ordering, see the next section of the Introduction.)

All material related to a form is organized as a single unit within each part of Volume II. The material included for each form is given below in the order it appears:

- Descriptive Summary of Form. Includes purpose of form, history of use, revisions and location of records stored on Master File. A table is provided for each form (except those on microfilm only) showing the number of records available for each revision.
- Data Items Referencing Form. A list of all data items in computer files originating from form. List ordered by data item identification with reference to item number on form.
- Form. Copy of last revision of form.
- Form item numbers linked to data items. A list organized by form item numbers of all computerized data items originating from the form.
- Definition of codes. Coding instructions detailing the codes assigned to each computerized data item from the form.
- Master File Card Image. Illustrates transfer of data on form to Master File card.
- Instructions for Completing Form. The instructions used by study personnel to complete the form for each case.
- Earlier Forms or Manuals. Copies of earlier versions of forms or manuals that were used during the study.

MASTER FILE ORGANIZATION AND REVISION OF FORMS

Some understanding of how the master file was organized should aid investigators who want to trace the entry of data into computerized study files. The numbering system used both on forms and cards provides information on how data may be retrieved from the master file.

Forms

The first forms used in the study were the OB forms; as a consequence, this group of forms underwent the most revision. At first glance, it appears that forms disappear from the file and reappear in strange or bewildering places. In actuality, revisions were made according to a specific method.

Two types of revision and subsequent recodes appear in the master file, both of which appear in the OB series. In the first type of revision, radical changes in the concept of a form created a need for new coding in the computer file. Form OB-9, for example, was replaced by forms OB-40 (an optional form retained by the institution), OB-42, and OB-43 in April 1962. Data for earlier patients were recorded on OB-9 and entered on cards 1309, 2309, 3309 and 4309 of the master file; after April 1962, data was recorded on OB-42 and OB-43 and were entered on cards 0342, 1343 and 2343 of the master file.

In the second type of revision, the Collaborative Perinatal Task Force considered revisions important enough to warrant the distinction of a new form number, but considered the data for both forms to be similar enough to allow combining of data from both the old and new forms on the same card series. An example of this type of revision is form OB-35, replaced by OB-57 in April 1962. Records for both OB-35 and OB-57 are entered on cards 0357, 1357, 2357, 3357, 4357, and 5357 in the master file.

In assigning numbers to forms and their revisions, designers of the study followed a plan: prenatal records, history, and summaries of the prenatal period received numbers 1 through 15; when revised, these forms were assigned numbers in the forties. Labor and hospital records appeared on the 30 series of forms. When these forms were revised, they were assigned numbers in the fifties. Some OB data in the master file were abstracted by NINCDS staff members from forms filled out at the hospital. Cards derived from this procedure were designated as coming from forms ADm-49, 50 and 51 (which were actually ABSTRACT SHEETS). Autopsy protocol and laboratory exams of the placenta were recorded on forms PATH-1, PATH-2 and PATH-3.

Forms for recording family health history and genetic information during pregnancy also received a fair amount of revision. Early records appear on forms FHH-1,2,3 and 4. With revisions in April 1963, form SE-1 replaces part of FHH-1 and FHH-3; FHH-2, FHH-4 and parts of FHH-1 and FHH-3 were replaced by

forms GEN-5 through GEN-8 in May 1961. Form FHH-9, initiated in November 1965 for collection of socioeconomic data at time the child was seven years of age, was not replaced or revised.

The PED series of forms underwent little revision. Records for newborn babies appeared in PED-1 through PED-8; records for children up to age one and interval records were placed on PED-10 through PED-29. Seven year records were included in the series numbered PED-74 and up. Only one pediatrics form was radically revised: PED-7 was replaced by PED-8 in March 1963.

No replacements occur in the PS series, where results of psychological and speech, language and hearing tests were recorded. The PS forms are divided into distinct groups based on time of testing and subject of testing. Psychological testing occurred at 8 months, 4 years and 7 years; speech, language and hearing exams were administered at ages 3 and 8. Only the 8 month psychological examination underwent substantial revisions.

Master File Card Number and NINDB Case Number Rationale

Computer cards for each NCPP study form are numbered to reflect their origin and possible revisions. Card numbers are assigned to identify the type of data (subject), the presence of multiple cards in a series, NCPP study form and form revisions. The first five digits of each card on the master file are the card number. The study forms and card numbers are given in Figure 1.

The first fourteen columns of each master file computer card contain the master file card number and the NINDB case number. Table 1 identifies the function of each of these columns.

Column 1 identifies multiple cards in a series. It contains a zero for cards unique to a particular form (that is, no other cards are present), for example OB-3, or for cards where repetitive data are contained. Cards for OB-2 are an example of this second type; no new categories of information are included on successive cards, but previous births in excess of four must be recorded on an add-on card. For card series where data entered are unique to a card and more than one card is required to complete the series, a "1" is used to designate the first card, for example CD-5. OB-57, PATH-2 and PED-14 are exceptions to these rules.

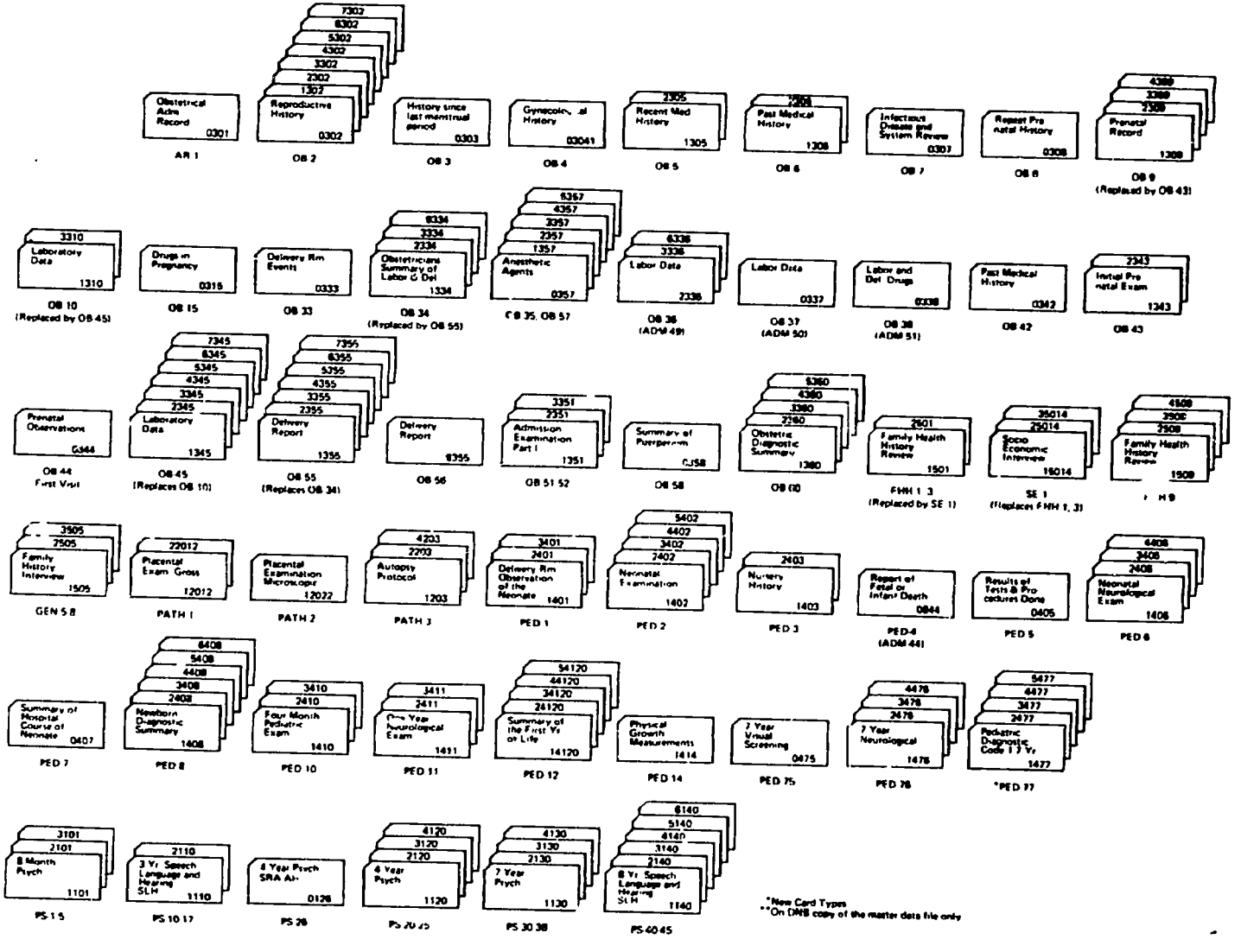


FIGURE 1. Cards on the Master Data File

TABLE 1. Derivation of Master File Card Number and NINDB Case Number.

Contents	Columns
Master File Card Number	
card identifier	1
general subject matter	2
form number	3-4
revision code	5
NINDB Case Number	
collaborating institution	6-7
type of patient selection	8
gravida identification number	9-12
order of the pregnancy	13
identifies child or gravida	14

The second digit on the card reveals the general subject matter covered by data on the card. All cards containing information pertaining to obstetrics, for example, are designated by a "3" in column 2; family histories are designated by a "5"; pathology with a "2"; pediatrics, with a "4"; and psychological testing with a "1".

Columns three and four reveal the form number. In the case of forms where old and new forms having different numbers are included together, the number of the latest form appears on the master file. This rule does not apply to data abstracted from several forms by NINCDS staff (ADM forms).

Column 5 of the card contains a revision code indicating which form or combination of forms was used in arriving at data on a particular card. A typical card will have one to three revision codes, with a zero indicating the first version of a form and "1", "2", and "3" indicating later revisions. As a rule, revision codes used on cards differ from card to card; investigators should check the definition of codes provided in Volume II to determine the meaning of revision codes used.

Each woman and child studied in the project received a unique case number (NINDB case number) composed of nine digits, recorded in columns 6 through 14 of all master file cards. The case number identified the institution, the mother and the child. The first two digits represented the collaborating institution (see Table 2). The third digit indicated the type of patient

selection. A "1" was used for patients selected for the central core study; a "6" indicated that a patient had been transferred from one institution to another, and a "7" indicated that the patient was part of a special study undertaken by the collaborating institution. The fourth through seventh digits were used to identify the gravida, while the eighth digit identified the order of the pregnancy of a given gravida in the project. The ninth digit was used to identify the gravida or child of the pregnancy; "9" indicated the gravida, "0" indicated the child of a single birth, "1" indicated the first child of a multiple birth, "2" indicated the second child of a multiple birth, etc.

TABLE 2. Collaborating Institutions and Their Code Number (Columns six and seven of all master file cards.)

05 - Boston, Massachusetts
Harvard Medical School
Boston Lying-In Hospital
Children's Hospital Medical Center

10 - Buffalo, New York
University of Buffalo
Children's Hospital

15 - New Orleans, Louisiana
Charity Hospital
Tulane University School of Medicine Medical Center
Louisiana State University

31 - New York, New York
Columbia University College of Physicians & Surgeons
Columbia-Presbyterian Medical Center

37 - Baltimore, Maryland
The Johns Hopkins University School of Medicine
The Johns Hopkins Hospital

45 - Richmond, Virginia
Virginia Commonwealth University
Medical College of Virginia

50 - Minneapolis, Minnesota
University of Minnesota Hospital
Health Sciences Center

55 - New York, New York
New York Medical College
Metropolitan Hospital

60 - Portland, Oregon
University of Oregon
Medical School

66 - Philadelphia, Pennsylvania
University of Pennsylvania
Pennsylvania Hospital
The Children's Hospital of Philadelphia

71 - Providence, Rhode Island
Brown University
Child Study Center

82 - Memphis, Tennessee
University of Tennessee College of Medicine
Gailor Hospital

Data Item Identification and Naming

The NCPP data base contains over 6700 different data items and blank filler locations on computer files. We have assigned each of these a unique identification and a terse, stylized name. Because names were chosen to facilitate use of this guide, they do not duplicate names used by NINDB during the active phase of the project. Users should consult appropriate documentation before using data items from the master, variable or work files (Volumes II, III and IV).

The data item identifiers consist of 11 characters. At the far left are four unique numbers that were assigned sequentially. The next character is always a period and is followed by up to six characters. For data items on the master file, these characters describe the data collection form from which a data item was derived; for data items on the variable (VAR) or work (WXX) files, these characters indicate the appropriate file. If the right side is less than six characters, periods are inserted as shown in these examples:

850..OB-34	an item from OB-34; on the master file
3650.PATH-3	an item from PATH-3; on the master file
5223....VAR	an item on the variable file
6340...W-10	an item on work file 10, Rupture of Membranes

We assigned the numbers sequentially as they appear in Volume V. For the master file, we followed the order in which the cards would be found within an NINDB case. All card columns are accounted for by one of our data item identifications. For the variable and work files, the numbers were assigned in the order that data items appear within a case.

We categorized each data item according to the person to whom the data refer, by the time of measurement and/or the time to which the item applies and by general type or subject area (Table 3). Then we assigned names to the data items using the following guidelines:

- The name and the three associated categories had to stand alone - they must describe the data item out of context.
- The first word in the data item name had to be an important or key word when all names were listed alphabetically as in Volumes VI and VII. Thus "cry, abnormal" was used rather than "abnormal cry" because a

researcher is more likely to look for this item under "C" than under "A" in an alphabetic list.

- Secondary key words were preceded with a semicolon to facilitate preparation of the permuted index. For example, "abruptio; placenta" will be found under both the "A" and "P" portion of Volume VI.

- Qualifying words are delimited by commas and will not appear as keywords in Volume VI. Thus "abruptio; placenta, degree" will not be found in the "D" section.

- If medical terminology or usage has changed since the study was conducted, modern terms may be included and will be enclosed in brackets. Thus "mongolism; [Down's syndrome]" will appear under both the "M" and "D" portions of Volume VI.

- If measurement units are associated with a data item name, they are enclosed in parentheses and placed at the end of the name as in "Birthdate (yr)."

- The categories (person, time and subject) are appended to the right of the data item name.

Definitions for each category used in naming data items are given in Table 4 at the end of this introduction. Additional information is found in Chapter 4 of Volume I.

Data item names thus assigned are terse and highly stylized; as we have already indicated, they are <u>not</u> the names used by NINDB during the active phase of the project. Our aim was to develop standardized names that would stand alone. These names are intended to facilitate a user's search for data items potentially useful in a research project. Before an item is used, a researcher should consult its complete description. For a data item from the master files, e.g., 850..OB-34, the data item should be traced to the appropriate study form, e.g., OB-34, located in Volume II. A variable file data item, e.g., 5223....VAR, is traced to Volume III, where it is defined and its original source given. A data item from a work file is traced to Volume IV for its description.

Some data items contained in the indexes may include the notation "DO NOT USE." These items are either inaccurate or an alternative data item is available that gives better information. Users will find more appropriate data items by consulting one of the indexes to the data items (Volumes, V, VI and VII).

Tables of Data Items: Column Headings

For each form, two sets of computer generated pages list all data items in either the master, variable or work files derived from this form. These lists enable a user to track form items to computerized data items listed in other volumes of the User's Guide and vice versa. The computer listings have the following information.

Column Heading	Description
DATA ITEM ID	A unique identifier for this data item. See Data Item Identification and Naming above for details.
ITEM ON FORM	An identifier used on the NCPP study form to identify the question or group of questions which was used to generate this data item.
CARD NUM	Identifies the master file card on which this data item is located. See Master File Card Number and NINDB Case Number Rationale above for a description of card number.
FROM	Beginning card column for this data item.
TO	Ending card column for this data item.
DATA ITEM NAME	Terse stylized name for this data item. See Data Item Identification and Naming above for details.

ASSOCIATED DOCUMENTS

By examining the tables provided for each, investigators will be able to determine which computer files contain data of interest. For data contained in the variable file, see Volume III of this guide; for data contained in work files, see Volume IV.

TABLE 3. Abbreviations for Person, Time and Subject Categories

Person	Time	Subject
Mother	General	Administrative
Father	Preconception	Anesthesia
Placenta	Registration	Clin. Impression
Fetus	Prenatal	Clinical Lab
Child	Admission	Current Pregnancy
M Surrogate	Intrapartum	Environ. Exposure
Family	Delivery	Events
Sibship	Post Partum	Hearing
	Neonatal	Hospitalizations
	Four month	Language
	Eight month	Linkage
	One year	Malformations
	Three year	Diag. & Cond.
	Four year	Med. History
	Seven year	Medications
	Eight year	Neurological Exam
		Observations
		Pathology
		Physical Exam
		Procedure
		Psych. Exam
		Reproductive Hist.
		Serology
		Socioecon. Info
		Speech
		Vision
		Work History
		X-ray
		Summary
		Gyn. History
		Special Studies
		Fam/Genetic Hist.
		SLH Exam

TABLE 4. Definition of Person, Time and Subject Categories

PERSON	DEFINITION
Mother	Study registrant bearing the "study pregnancy"; biologic mother of the "study child"; gravida.
Father	Biologic father of the study child or study pregnancy; in the case of socioeconomic data, this category may indicate either the "father of baby" (not necessarily husband of the mother) or the "husband" (not necessarily related biologically to the study child).
Placenta	The organ of metabolic and gaseous interchange between the fetus and mother; also included in this category are gross and microscopic pathologic data from examination of the umbilical cord.
Fetus	Conceptus; the product of conception including the embryonic stage, i.e., from conception to the moment of birth.
Child	Product of the study pregnancy from the moment of birth onward; study child.
M Surrogate	Person or persons substituting for the mother of a study child, e.g., adoptive parents, foster parents or guardian.
Family	Person or persons biologically related to the mother or father of the study child.
Sibship	Child or children having one or both of the same biologic parents as the study child; siblings; half siblings; full siblings.

TABLE 4. Definition of Person, Time and Subject Categories (Cont.)

TIME	DEFINITION
General	Data with no pertinent time period or data pertaining to more than one time period.
Preconception	Data pertaining to the period prior to conception of the study pregnancy.
Registration	Data collected at the time of study mother's registration in the study.
Prenatal	Data pertaining to the period from conception of the study pregnancy to delivery of the study child.
Admission	Data collected at the time of study mother's admission to the hospital for delivery of the study child.
Intrapartum	Data pertaining to the period from admission for delivery or onset of labor to delivery of the study child.
Delivery	Data pertaining to the time period during which delivery of the study child occurred.
Post Partum	Data (pertaining to the study mother) collected during the period immediately following birth of the study child.
Neonatal	Data pertaining to the study child during the period from birth to one month of age; the majority of these data were collected prior to or at the time a study child was discharged from the hospital.
Four Month	Data collected at the time of the four month examination of the study child.
Eight Month	Data collected at the time of the eight month examination of the study child.
One Year	Data collected at the time of the one year examination of the study child.
Three Year	Data collected at the time of the three year examination of the study child.
Four Year	Data collected at the time of the four year examination of the study child.
Seven Year	Data collected at the time of the seven year examination of the study child.
Eight Year	Data collected at the time of the eight year examination of the study child.

TABLE 4. Definition of Person, Time and Subject Categories (Cont.)

SUBJECT	DEFINITION
Administrative	Data pertaining to the administrative aspects of the study.
Anesthesia	Data on medications and procedures used to obtain anesthesia.
Clin. Impression	Impression of abnormality or dysfunction gained by an examiner following evaluation of clinical signs and symptoms and including a subjective component.
Clinical Lab	Data obtained from laboratory examination of clinical specimens.
Current Pregnancy	Personal data and medically relevant information pertaining to the study pregnancy for which the mother is enrolled.
Environ. Exposure	Data on exposure to occupational or other environmental entities or hazards.
Events	Data related to a specific event, occurrence or incidence.
Hearing	Data obtained from examination and testing of hearing function.
Hospitalizations	Data on specific hospital admissions or the number of hospitalizations.
Language	Data obtained from examination and testing of language function.
Linkage	Data on the genetic relationships of family members to the study mother, father or child.
Malformations	Data on the conditions in which failure of normal development has resulted in abnormal physical traits existing at the time of birth.
Diag. & Cond.	Data on specific diagnoses or conditions obtained from past medical history or examination during the study.
Med. History	Data obtained from the study participant or medical records relevant to past or current medical diagnoses or conditions.
Medications	Data on drugs or medications used.
Neurological Exam	Data obtained from observation and physical examination of the central nervous system.
Observations	Data obtained from observations not categorized elsewhere.
Pathology	Data obtained from clinical and anatomical pathological examination.
Physical Exam	Data obtained from physical examination of the study participant.
Procedure	Data relating to specific procedures performed on the study participant prior to or during the period of enrollment in the study.
Psych. Exam	Data obtained from the psychological examinations and observations.

TABLE 4. Definition of Person, Time and Subject Categories. (Cont.)

SUBJECT	DEFINITION
Reproductive Hist.	Data pertaining to the outcome of pregnancies prior to and or during the period of enrollment in the study.
Serology	Data obtained from the laboratory examination of serum by specific immunologic methods.
Socioecon. Info	Data related to the social and economic characteristics and environment of the study participant.
Speech	Data obtained from examination and observation of speech function.
Vision	Data obtained from examination of the eyes.
Work History	Data pertaining to occupation and employment prior to and during the period of enrollment in the study.
X-Ray	Data on diagnostic x rays and diagnostic or therapeutic radiological procedures.
Summary	Data presented as a summary of data collected and recorded elsewhere.
Gyn. History	Medical history specifically related to the female genital tract, reproductive physiology and endocrinology.
Special Studies	Data pertaining to participation in other special organized studies conducted during the period of enrollment in the study.
Fam/Genetic Hist.	Data on the medical histories of family members genetically related to the study child.
SLH Exam	Data obtained from the speech, language and hearing examinations not specifically or exclusively related to one of these areas.

CONTENTS

PED-1 Delivery Room Observation of the Neonate

Form PED-1 was used in recording important delivery room events observed during birth. Observations included: the sequence of events in the establishment of circulation and respiration outside the uterus; information on the functional integrity of the infant immediately following birth; possible signs of perinatal stress that couldn't be observed elsewhere; birth; and certain measurements and facts about the child. The form was first implemented in January 1959 and underwent revisions in November 1959 and in January 1961. Some cards from the master file also came from a test revision dated November 1959. Only the test revision and final form were available for inclusion here. Data from PED-1 were punched onto three cards in the master file (Table PED-1.1).

TABLE PED-1.1 Cards and Data Records by Revision for Form PED-1

CARD NAME	CARD NUMBER	REV. NO.	NUMBER RECORDS
PED-1: Delivery Observations	1401		
		0	6,401
		1	3,938
		2	1,841
		3	42,616
			54,796
PED-1: Apgar Score	2401		
		0	6,399
		1	3,935
		2	515
		3	42,628
			53,477
PED-1: Delivery Procedures	3401		
		0	6,392
		1	3,930
		2	514
		3	42,588
			53,424
	total for form		161,697

Data Items Referencing Form PED-1, Delivery Room Observations of Neonate

DATA ITEM ID	ITEM ON FORM	CARD NUM	FROM	TO	DATA ITEM NAME
3726.....		1401	1	5	Card number (sequence, form type, form number, revision number)
3727.....		1401	6	14	NINDB case number
3728..PED-1	4	1401	15	16	Birth date (mo)
3729..PED-1	4	1401	17	18	Birth date (day)
3730..PED-1	4	1401	19	20	Birth date (yr)
3731..PED-1	32	1401	21	21	Sex
3732..PED-1	33	1401	22	23	Birth; weight (lbs)
3733..PED-1	33	1401	24	25	Birth; weight (oz)
3734..PED-1	5	1401	26	27	Birth time (hr)
3735..PED-1	5	1401	28	29	Birth time (min)
3736..PED-1	6	1401	30	30	Cord clamped, before or after delivery
3737..PED-1	6	1401	31	32	Cord clamped, time (min)
3738..PED-1	7	1401	33	33	Breath, first, before or after delivery
3739..PED-1	7	1401	34	35	Breath, first time (min)
3740..PED-1	8	1401	36	36	Cry, first, before or after delivery
3741..PED-1	8	1401	37	38	Cry, first time (min)
3742..PED-1	9	1401	39	39	Suction, DO NOT USE, see card 03401 column 30
3743..PED-1	9	1401	40	40	Drugs; medications, DO NOT USE, see card 03401 column 31
3744..PED-1	9	1401	41	41	Oxygen administered, DO NOT USE, see card 03401 column 32-41
3745..PED-1	9	1401	42	42	Resuscitation procedures, DO NOT USE, see card 03401 column 42-51
3746..PED-1	17	1401	43	44	Physical examination, time since birth (min)
3747..PED-1	20	1401	45	45	Respiration
3748..PED-1	21	1401	46	46	Motor activity; tone
3749..PED-1	22	1401	47	47	Neck; tone
3750..PED-1	23	1401	48	48	Molding; birth
3751..PED-1	24	1401	49	49	Forceps marks
3752..PED-1	25	1401	50	50	Cord, stained/unstained
3753..PED-1	26	1401	51	52	Cord, length on body (cm)
3754..PED-1	26	1401	53	54	Cord, length on placenta (cm)
3755..PED-1	26	1401	55	56	Cord, length other (cm)
3756..PED-1	26	1401	57	58	Cord, length total (cm)
3757..PED-1	27	1401	59	59	Skin color
3758..PED-1	28	1401	60	60	Cry
3759..PED-1	29	1401	61	61	Moro; reflex
3760..PED-1		1401	62	62	Motor activity
3761..PED-1		1401	63	63	Movements; body
3762..PED-1		1401	64	64	Edema
3763..PED-1		1401	65	65	Bleeding
3764..PED-1		1401	66	67	Respiration, sustained; breath, 10th (min)
3765..PED-1		1401	68	68	Observation by study personnel
3766.....		1401	69	77	Blank
3767..PED-1		1401	78	78	Card 14012, reason

Data Items Referencing Form PED-1, Delivery Room Observations of Neonate

DATA ITEM ID	ITEM ON FORM	CARD NUM	FROM	TO	DATA ITEM NAME
3768.....		1401	79	80	Blank
3769.....		2401	1	5	Card number (sequence, form type, form number, revision number)
3770.....		2401	6	14	NTNDB case number
3771..PED-1	4	2401	15	16	Birth date (mo)
3772..PED-1	4	2401	17	18	Birth date (day)
3773..PED-1	4	2401	19	20	Birth date (yr)
3774..PED-1	32	2401	21	21	Sex
3775..PED-1	33	2401	22	23	Birth: weight (lbs)
3776..PED-1	33	2401	24	25	Birth: weight (oz)
3777..PED-1	5	2401	26	27	Birth time (hr)
3778..PED-1	5	2401	28	29	Birth time (min)
3779..PED-1	10	2401	30	30	Apgar, heart rate, 1 minute
3780..PED-1	10	2401	31	31	Apgar, respiratory effort, 1 minute
3781..PED-1	10	2401	32	32	Apgar, muscle tone, 1 minute
3782..PED-1	10	2401	33	33	Apgar, reflex irritability, 1 minute
3783..PED-1	10	2401	34	34	Apgar, color, 1 minute
3784..PED-1	10	2401	35	36	Apgar, total score, 1 minute
3785..PED-1	10	2401	37	37	Apgar, heart rate, 2 minute
3786..PED-1	10	2401	38	38	Apgar, respiratory effort, 2 minute
3787..PED-1	10	2401	39	39	Apgar, muscle tone, 2 minute
3788..PED-1	10	2401	40	40	Apgar, reflex irritability, 2 minute
3789..PED-1	10	2401	41	41	Apgar, color, 2 minute
3790..PED-1	10	2401	42	43	Apgar, total score, 2 minute
3791..PED-1	10	2401	44	44	Apgar, heart rate, 5 minute
3792..PED-1	10	2401	45	45	Apgar, respiratory effort, 5 minute
3793..PED-1	10	2401	46	46	Apgar, muscle tone, 5 minute
3794..PED-1	10	2401	47	47	Apgar, reflex irritability, 5 minute
3795..PED-1	10	2401	48	48	Apgar, color, 5 minute
3796..PED-1	10	2401	49	50	Apgar, total score, 5 minute
3797..PED-1	10	2401	51	51	Apgar, heart rate, 10 minute
3798..PED-1	10	2401	52	52	Apgar, respiratory effort, 10 minute
3799..PED-1	10	2401	53	53	Apgar, muscle tone, 10 minute
3800..PED-1	10	2401	54	54	Apgar, reflex irritability, 10 minute
3801..PED-1	10	2401	55	55	Apgar, color, 10 minute
3802..PED-1	10	2401	56	57	Apgar, total score, 10 minute
3803..PED-1	10	2401	58	58	Apgar, heart rate, 15 minute
3804..PED-1	10	2401	59	59	Apgar, respiratory effort, 15 minute
3805..PED-1	10	2401	60	60	Apgar, muscle tone, 15 minute
3806..PED-1	10	2401	61	61	Apgar, reflex irritability, 15 minute
3807..PED-1	10	2401	62	62	Apgar, color, 15 minute
3808..PED-1	10	2401	63	64	Apgar, total score, 15 minute
3809..PED-1	10	2401	65	65	Apgar, heart rate, 20 minute
3810..PED-1	10	2401	66	66	Apgar, respiratory effort, 20 minute

Data Items Referencing Form PED-1, Delivery Room Observations of Neonate

DATA ITEM ID	ITEM ON FORM	CARD NUM	FROM	TO	DATA ITEM NAME
3811..PED-1	10	2401	67	67	Apgar, muscle tone, 20 minute
3812..PED-1	10	2401	68	68	Apgar, reflex irritability, 20 minute
3813..PED-1	10	2401	69	69	Apgar, color, 20 minute
3814..PED-1	10	2401	70	71	Apgar, total score, 20 minute
3815.....		2401	72	80	Blank
3816.....		3401	1	5	Card number (sequence, form type, form number, revision number)
3817.....		3401	6	14	NINDB case number
3818..PED-1	4	3401	15	16	Birth date (mo)
3819..PED-1	4	3401	17	18	Birth date (day)
3820..PED-1	4	3401	19	20	Birth date (yr)
3821..PED-1	32	3401	21	21	Sex
3822..PED-1	33	3401	22	23	Birth: weight (lbs)
3823..PED-1	33	3401	24	25	Birth: weight (oz)
3824..PED-1	5	3401	26	27	Birth time (hr)
3825..PED-1	5	3401	28	29	Birth time (min)
3826..PED-1	9	3401	30	30	Suction
3827..PED-1	9	3401	31	31	Drugs: medication
3828..PED-1	9	3401	32	32	Oxygen administered, open
3829..PED-1	9	3401	33	34	Oxygen administered, open, age begun (min)
3830..PED-1	9	3401	35	36	Oxygen administered, open, duration (min)
3831..PED-1	9	3401	37	37	Oxygen or air administered, positive pressure
3832..PED-1	9	3401	38	39	Oxygen or air administered, positive pressure, age begun (min)
3833..PED-1	9	3401	40	41	Oxygen or air administered, positive pressure, duration (min)
3834..PED-1	9	3401	42	42	Intubation
3835..PED-1	9	3401	43	44	Intubation, age begun (min)
3836..PED-1	9	3401	45	46	Intubation, duration (min)
3837..PED-1	9	3401	47	47	Procedures, other
3838..PED-1	9	3401	48	49	Procedures, other, age begun (min)
3839..PED-1	9	3401	50	51	Procedures, other, duration (min)
3840.....		3401	52	80	Blank
5382....VAR	6		546	548	Cord clamped, interval time (sec)
5383....VAR	26		549	550	Cord, length (cms)
5384....VAR	26		551	552	Cord, length, categorized
5385....VAR			553	553	Records present: pediatric
5386....VAR	32		554	554	Sex
5387....VAR	10		555	555	Apgar, heart rate, 1 minute
5388....VAR	10		556	556	Apgar, respiratory effort, 1 minute
5389....VAR	10		557	557	Apgar, muscle tone, 1 minute
5390....VAR	10		558	558	Apgar, reflex irritability, 1 minute
5391....VAR	10		559	559	Apgar, color, 1 minute
5392....VAR	10		560	561	Apgar, total, 1 minute
5393....VAR			562	562	Apgar, total, 1 minute, classified
5394....VAR	10		563	563	Apgar, heart rate, 5 minute

Data Items Referencing Form PED-1, Delivery Room Observations of Neonate

DATA ITEM ID	ITEM ON FORM	CARD NUM	FROM	TO	DATA ITEM NAME
5395....VAR	10		564	564	Apgar, respiratory effort, 5 minute
5396....VAR	10		565	565	Apgar, muscle tone, 5 minute
5397....VAR	10		566	566	Apgar, reflex irritability, 5 minute
5398....VAR	10		567	567	Apgar, color, 5 minute
5399....VAR	10		568	569	Apgar, total, 5 minute
5400....VAR			570	570	Apgar, total, 5 minute, classified
5401....VAR	9		571	571	Suction
5402....VAR	9		572	572	Drugs; medications administered
5403....VAR	9		573	573	Oxygen administered, open
5404....VAR	9		574	574	Oxygen or air administered, positive pressure
5405....VAR	9		575	575	Intubation
5406....VAR	9		576	576	Procedures, other
5916....VAR			1092	1093	Outcome of study pregnancy; deaths; survivors
5918....VAR	33		1095	1098	Birth; weight (gms)
5920....VAR	0		1101	1102	Gestation at delivery (wks)
5921....VAR	4		1103	1108	Birth date; date of birth or delivery (mo/day/yr)
5935....VAR	8		1122	1122	Cry, first, before or after delivery
5986....VAR	5		1218	1221	Birth time (hr/min)
5987....VAR	7		1222	1223	Breath, first, time before/after delivery (min)
5988....VAR	23		1224	1224	Molding; birth
5989....VAR	24		1225	1225	Forceps marks
5990....VAR	25		1226	1226	Cord, stained / unstained
5993....VAR	10		1231	1231	Apgar heart rate, 10 minute
5994....VAR	10		1232	1232	Apgar respiratory effort, 10 minute
5995....VAR	10		1233	1233	Apgar muscle tone, 10 minute
5996....VAR	10		1234	1234	Apgar reflex irritability, 10 minute
5997....VAR	10		1235	1235	Apgar color, 10 minute
5998....VAR	10		1236	1237	Apgar total, 10 minute
5999....VAR			1238	1238	Apgar total, 10 minute, classified
6000....VAR	10		1239	1239	Apgar heart rate, 15 minute
6001....VAR	10		1240	1240	Apgar respiratory effort, 15 minute
6002....VAR	10		1241	1241	Apgar muscle tone, 15 minute
6003....VAR	10		1242	1242	Apgar reflex irritability, 15 minute
6004....VAR	10		1243	1243	Apgar color, 15 minute
6005....VAR			1244	1245	Apgar total, 15 minute
6006....VAR			1245	1245	Apgar total, 15 minute, classified
6007....VAR	10		1247	1247	Apgar heart rate, 20 minute
6008....VAR	10		1248	1248	Apgar respiratory effort, 20 minute
6009....VAR	10		1249	1249	Apgar muscle tone, 20 minute
6010....VAR	10		1250	1250	Apgar reflex irritability, 20 minute
6011....VAR	10		1251	1251	Apgar color, 20 minute
6012....VAR	10		1252	1253	Apgar total, 20 minute
6013....VAR			1254	1254	Apgar total, 20 minute, classified

Data Items Referencing Form PED-1, Delivery Room Observations of Neonate

DATA ITEM ID	ITEM IN FORM	CARD NUM	FROM	TO	DATA ITEM NAME
6014....VAR	21		1255	1255	Motor activity; tone (revision 3)
6015....VAR	27		1256	1256	Skin color
6016....VAR	28		1257	1257	Cry, present / absent / abnormal / unknown
6017....VAR	27		1258	1258	Motor Activity, neonate
6035....VAR	8		1279	1280	Cry, first, before or after delivery, time (mins)
6162....VAR	4-5		1457	1460	Rupture of membranes, interval; INACCURATE DO NOT USE
6330...W-10	4		12	17	Birth date (mo/day/yr)
6331...W-10	5		18	20	Birth time (hr/min)

REV. 1/61

DELIVERY ROOM OBSERVATION OF THE NEONATE

2. OBSERVED BY | 3. TITLE OR POSITION

4. DATE OF BIRTH Mo. | Day | Year | 5. TIME OF BIRTH (24-hr clock)

Time all events below as age before or after delivery

		Age Began	Age Ended
6. CORD CLAMPED (Age) Min. Sec. ☐ Before Delivery ☐ After Delivery	9. PROCEDURES (Omit uncomplicated oral-pharyngeal suction) ☐ 0 None ☐ 1 Gastric Suction ☐ 2 Tracheal Suction ☐ 3 Drugs (Give type & Dose) ☐ 4 Open Oxygen ☐ 5 Positive Pressure Oxygen or Air ☐ 6 Intubation ☐ 9 Other (Specify)	Min.	Min.
7. FIRST BREATH (Age) Min. Sec. ☐ Before Delivery ☐ After Delivery		Min.	Min.
8. FIRST CRY (Age) Min. Sec. ☐ Before Delivery ☐ After Delivery		Min.	Min.

10. APGAR SCORE (*Score infant at 1, 2 and 5 minutes of age. If score of 8 is not attained, score at 10, 15 and 20 minutes.*)

				11.	12.	13.	14.	15.	16.
			1) AGE AT TIME OF SCORING	Min. Sec.	Min. Sec.	Min. Sec.	Min. Sec.	Min. Sec.	Min. Sec.
2) HEART RATE	0 – Absent	1 – Slow – Less Than 100	2 – 100 or over						
3) RESPIRATORY EFFORT	0 – Absent	1 – Weak Cry, Hypoventilation	2 – Crying Lustily						
4) MUSCLE TONE	0 – Flaccid	1 – Some Flexion Extremities	2 – Well Flexed						
5) REFLEX IRRITABILITY	0 – No Response	1 – Some Motion	2 – Cry						
6) COLOR	0 – Blue Pale	1 – Blue Hands and Feet	2 – Entirely Pink						
			7) TOTAL						

PHYSICAL EXAMINATION

17. Begun at _____ min. of age | 18. EXAMINED BY | 19. TITLE OR POSITION

20. RESPIRATION ☐ 0 Normal ☐ 9 Other

21. MOTOR ACTIVITY AND TONE ☐ 0 Normal and Symmetrical ☐ 9 Other

22. TONE OF NECK ☐ 0 Normal and Symmetrical ☐ 9 Other

23. MOLDING ☐ 0 Absent or Minimal ☐ 1 Moderate or Marked

24. FORCEPS MARKS ☐ 0 Absent ☐ 1 Present

25. UMBILICAL CORD ☐ 0 Unstained ☐ 1 Stained

26. LENGTH OF CORD (*Include all segments*)

On Body _____ Cm. Other _____ Cm.

On Placenta _____ Cm. Total _____ Cm.

27. SKIN (*Acute or transient findings*)

☐ 0 Normal (*Including peripheral cyanosis*)
☐ 1 Pallor ☐ 3 Petechiae
☐ 2 General Cyanosis ☐ 4 Stained
☐ 5 Other

28. CRY

☐ 0 Present
☐ 1 Present, Abnormal
☐ 2 Absent After Maximal Stimulation

29. MORO REFLEX

☐ 0 Flexor and Extensor Components Present and Symmetrical
☐ 8 Other Pattern
☐ 9 Not Evaluated

30. COMMENTS AND OTHER FINDINGS

(Continue on CP-5, Continuation Sheet)

31. RACE (*Copy from AR-1. Optional*) ☐ 1 W ☐ 2 N ☐ 3 Or ☐ 4 PR ☐ 8 Other

32. SEX ☐ 1 Male ☐ 2 Female ☐ 9 Undetermined

33. BIRTH WEIGHT

Collaborative Research
Perinatal Research Branch, NINDB, NIH
Bethesda 14, Md.

(PED-1) (Rev. 1-61)

Form Item Numbers linked to Data Items on PED-1, Delivery Room Observations of Neonate

ITEM ON FORM	DATA ITEM ID	CARD NUM	FROM	TO	DATA ITEM NAME
	5999....VAR		1238	1238	Apgar total, 10 minute, classified
	6005....VAR		1244	1245	Apgar total, 15 minute
	6006....VAR		1245	1245	Apgar total, 15 minute, classified
	6013....VAR		1254	1254	Apgar total, 20 minute, classified
	5393....VAR		562	562	Apgar, total, 1 minute, classified
	5400....VAR		570	570	Apgar, total, 5 minute, classified
	3763..PED-1	1401	65	65	Bleeding
	3767..PED-1	1401	78	78	Card 14012, reason
	3762..PED-1	1401	64	64	Edema
	3760..PED-1	1401	62	62	Motor activity
	3761..PED-1	1401	63	63	Movements; body
	3765..PED-1	1401	68	68	Observation by study personnel
	5916....VAR		1092	1093	Outcome of study pregnancy; deaths; survivors
	5385....VAR		553	553	Records present; pediatric
	3764..PED-1	1401	66	67	Respiration, sustained; breath, 10th (min)
0	5920....VAR		1101	1102	Gestation at delivery (wks)
4	3819..PED-1	3401	17	18	Birth date (day)
4	3729..PED-1	1401	17	18	Birth date (day)
4	3772..PED-1	2401	17	18	Birth date (day)
4	3818..PED-1	3401	15	16	Birth date (mo)
4	3771..PED-1	2401	15	16	Birth date (mo)
4	3728..PED-1	1401	15	16	Birth date (mo)
4	6330...W-10		12	17	Birth date (mo/day/yr)
4	3730..PED-1	1401	19	20	Birth date (yr)
4	3820..PED-1	3401	19	20	Birth date (yr)
4	3773..PED-1	2401	19	20	Birth date (yr)
4	5921....VAR		1103	1108	Birth date; date of birth or delivery (mo/day/yr)
4-5	6162....VAR		1457	1460	Rupture of membranes, interval; INACCURATE DO NOT USE
5	3824..PED-1	3401	26	27	Birth time (hr)
5	3734..PED-1	1401	26	27	Birth time (hr)
5	3777..PED-1	2401	26	27	Birth time (hr)
5	5986....VAR		1218	1221	Birth time (hr/min)
5	6331...W-10		18	20	Birth time (hr/min)
5	5986....VAR		1218	1221	Birth time (hr/min)
5	3825..PED-1	3401	28	29	Birth time (min)
5	3735..PED-1	1401	28	29	Birth time (min)
5	3778..PED-1	2401	28	29	Birth time (min)
6	3736..PED-1	1401	30	30	Cord clamped, before or after delivery
6	5382....VAR		546	548	Cord clamped, interval time (sec)
6	3737..PED-1	1401	31	32	Cord clamped, time (min)
7	3739..PED-1	1401	34	35	Breath, first time (min)
7	3738..PED-1	1401	33	33	Breath, first, before or after delivery

Form Item Numbers linked to Data Items on PED-1, Delivery Room Observations of Neonate

ITEM ON FORM	DATA ITEM ID	CARD NUM	FROM	TO	DATA ITEM NAME
7	5987....VAR		1222	1223	Breath, first, time before/after delivery (min)
8	3741..PED-1	1401	37	38	Cry, first time (min)
8	3740..PED-1	1401	36	36	Cry, first, before or after delivery
8	5935....VAR		1121	1122	Cry, first, before or after delivery
8	6035....VAR		1279	1280	Cry, first, before or after delivery, time (mins)
9	3827..PED-1	3401	31	31	Drugs; medication
9	5402....VAR		572	572	Drugs; medications administered
9	3743..PED-1	1401	40	40	Drugs; medications, DO NOT USE, see card 03401 column 31
9	3834..PED-1	3401	42	42	Intubation
9	5405....VAR		575	575	Intubation
9	3835..PED-1	3401	43	44	Intubation, age begun (min)
9	3836..PED-1	3401	45	46	Intubation, duration (min)
9	3744..PED-1	1401	41	41	Oxygen administered, DO NOT USE, see card 03401 column 32-41
9	3828..PED-1	3401	32	32	Oxygen administered, open
9	5403....VAR		573	573	Oxygen administered, open
9	3829..PED-1	3401	33	34	Oxygen administered, open, age begun (min)
9	3830..PED-1	3401	35	36	Oxygen administered, open, duration (min)
9	3831..PED-1	3401	37	37	Oxygen or air administered, positive pressure
9	5404....VAR		574	574	Oxygen or air administered, positive pressure
9	3832..PED-1	3401	38	39	Oxygen or air administered, positive pressure, age begun (min)
9	3833..PED-1	3401	40	41	Oxygen or air administered, positive pressure, duration (min)
9	3837..PED-1	3401	47	47	Procedures, other
9	5406....VAR		576	576	Procedures, other
9	3838..PED-1	3401	48	49	Procedures, other, age begun (min)
9	3839..PED-1	3401	50	51	Procedures, other, duration (min)
9	3745..PED-1	1401	42	42	Resuscitaton procedures, DO NOT USE, see card 03401 column 42-51
9	3826..PED-1	3401	30	30	Suction
9	5401....VAR		571	571	Suction
9	3742..PED-1	1401	39	39	Suction, DO NOT USE, see card 03401 column 30
10	5997....VAR		1235	1235	Apgar color, 10 minute
10	6004....VAR		1243	1243	Apgar color, 15 minute
10	6011....VAR		1251	1251	Apgar color, 20 minute
10	5993....VAR		1231	1231	Apgar heart rate, 10 minute
10	6000....VAR		1239	1239	Apgar heart rate, 15 minute
10	6007....VAR		1247	1247	Apgar heart rate, 20 minute
10	5995....VAR		1233	1233	Apgar muscle tone, 10 minute
10	6002....VAR		1241	1241	Apgar muscle tone, 15 minute
10	6009....VAR		1249	1249	Apgar muscle tone, 20 minute
10	5996....VAR		1234	1234	Apgar reflex irritability, 10 minute
10	6003....VAR		1242	1242	Apgar reflex irritability, 15 minute
10	6010....VAR		1250	1250	Apgar reflex irritability, 20 minute
10	5994....VAR		1232	1232	Apgar respiratory effort, 10 minute
10	6001....VAR		1240	1240	Apgar respiratory effort, 15 minute

Form Item Numbers linked to Data Items on PED-1, Delivery Room Observations of Neonate

ITEM ON FORM	DATA ITEM ID	CARD NUM	FROM	TO	DATA ITEM NAME
10	6008....VAR		1248	1248	Apgar respiratory effort, 20 minute
10	5998....VAR		1236	1237	Apgar total, 10 minute
10	6012....VAR		1252	1253	Apgar total, 20 minute
10	3783..PED-1	2401	34	34	Apgar, color, 1 minute
10	5391....VAR		559	559	Apgar, color, 1 minute
10	3801..PED-1	2401	55	55	Apgar, color, 10 minute
10	3807..PED-1	2401	62	62	Apgar, color, 15 minute
10	3789..PED-1	2401	41	41	Apgar, color, 2 minute
10	3813..PED-1	2401	69	69	Apgar, color, 20 minute
10	3795..PED-1	2401	48	48	Apgar, color, 5 minute
10	5398....VAR		567	567	Apgar, color, 5 minute
10	5387....VAR		555	555	Apgar, heart rate, 1 minute
10	3779..PED-1	2401	30	30	Apgar, heart rate, 1 minute
10	3797..PED-1	2401	51	51	Apgar, heart rate, 10 minute
10	3803..PED-1	2401	58	58	Apgar, heart rate, 15 minute
10	3785..PED-1	2401	37	37	Apgar, heart rate, 2 minute
10	3809..PED-1	2401	65	65	Apgar, heart rate, 20 minute
10	3791..PED-1	2401	44	44	Apgar, heart rate, 5 minute
10	5394....VAR		563	563	Apgar, heart rate, 5 minute
10	5389....VAR		557	557	Apgar, muscle tone, 1 minute
10	3781..PED-1	2401	32	32	Apgar, muscle tone, 1 minute
10	3799..PED-1	2401	53	53	Apgar, muscle tone, 10 minute
10	3805..PED-1	2401	60	60	Apgar, muscle tone, 15 minute
10	3787..PED-1	2401	39	39	Apgar, muscle tone, 2 minute
10	3811..PED-1	2401	67	67	Apgar, muscle tone, 20 minute
10	3793..PED-1	2401	46	46	Apgar, muscle tone, 5 minute
10	5396....VAR		565	565	Apgar, muscle tone, 5 minute
10	5390....VAR		558	558	Apgar, reflex irritability, 1 minute
10	3787..PED-1	2401	33	33	Apgar, reflex irritability, 1 minute
10	3800..PED-1	2401	54	54	Apgar, reflex irritability, 10 minute
10	3788..PED-1	2401	40	40	Apgar, reflex irritability, 2 minute
10	3812..PED-1	2401	68	68	Apgar, reflex irritability, 20 minute
10	3794..PED-1	2401	47	47	Apgar, reflex irritability, 5 minute
10	5397....VAR		566	566	Apgar, reflex irritability, 5 minute
10	3806..PED-1	2401	61	61	Apgar, reflex irritability, 15 minute
10	3780..PED-1	2401	31	31	Apgar, respiratory effort, 1 minute
10	5388....VAR		556	556	Apgar, respiratory effort, 1 minute
10	3798..PED-1	2401	52	52	Apgar, respiratory effort, 10 minute
10	3804..PED-1	2401	59	59	Apgar, respiratory effort, 15 minute
10	3786..PED-1	2401	38	38	Apgar, respiratory effort, 2 minute
10	3810..PED-1	2401	66	66	Apgar, respiratory effort, 20 minute
10	3792..PED-1	2401	45	45	Apgar, respiratory effort, 5 minute
10	5395....VAR		564	564	Apgar, respiratory effort, 5 minute

Form Item Numbers linked to Data Items on PED-1, Delivery Room Observations of Neonate

ITEM ON FORM	DATA ITEM ID	CARD NUM	FROM	TO	DATA ITEM NAME
10	3784..PED-1	2401	35	36	Apgar, total score, 1 minute
10	3802..PED-1	2401	56	57	Apgar, total score, 10 minute
10	3808..PED-1	2401	63	64	Apgar, total score, 15 minute
10	3790..PED-1	2401	42	43	Apgar, total score, 2 minute
10	3814..PED-1	2401	70	71	Apgar, total score, 20 minute
10	3796..PED-1	2401	49	50	Apgar, total score, 5 minute
10	5392....VAR		560	561	Apgar, total, 1 minute
10	5399....VAR		568	569	Apgar, total, 5 minute
17	3746..PED-1	1401	43	44	Physical examination, time since birth (min)
20	3747..PED-1	1401	45	45	Respiration
21	3748..PED-1	1401	46	46	Motor activity; tone
21	6014....VAR		1255	1255	Motor activity; tone (revision 3)
22	3749..PED-1	1401	47	47	Neck; tone
23	3750..PED-1	1401	48	48	Molding; birth
23	5988....VAR		1224	1224	Molding; birth
24	5989....VAR		1225	1225	Forceps marks
24	3751..PED-1	1401	49	49	Forceps marks
25	5990....VAR		1226	1226	Cord, stained / unstained
25	3752..PED-1	1401	50	50	Cord, stained/unstained
26	5383....VAR		549	550	Cord, length (cms)
26	3753..PED-1	1401	51	52	Cord, length on body (cm)
26	3754..PED-1	1401	53	54	Cord, length on placenta (cm)
26	3755..PED-1	1401	55	56	Cord, length other (cm)
26	3756..PED-1	1401	57	58	Cord, length total (cm)
26	5384....VAR		551	552	Cord, length, categorized
27	6017....VAR		1258	1258	Motor Activity, neonate
27	6015....VAR		1256	1256	Skin color
27	3757..PED-1	1401	59	59	Skin color
28	3758..PED-1	1401	60	60	Cry
28	6016....VAR		1257	1257	Cry, present / absent / abnormal / unknown
29	3759..PED-1	1401	61	61	Moro; reflex
32	3774..PED-1	2401	21	21	Sex
32	3821..PED-1	3401	21	21	Sex
32	3731..PED-1	1401	21	21	Sex
32	5386....VAR		554	554	Sex
33	5918....VAR		1095	1098	Birth; weight (gms)
33	3822..PED-1	3401	22	23	Birth; weight (lbs)
33	3732..PED-1	1401	22	23	Birth; weight (lbs)
33	3775..PED-1	2401	22	23	Birth; weight (lbs)
33	3733..PED-1	1401	24	25	Birth; weight (oz)
33	3823..PED-1	3401	24	25	Birth; weight (oz)
33	3776..PED-1	2401	24	25	Birth; weight (oz)

DEFINITION OF CODES
DELIVERY ROOM EXAMINATION OF THE NEONATE
FORM PED-1 CARD 1401

FIELD		CARD COLUMN
1.	Card Number Code: 1	1
2.	Form Number Code: 401	2-4
3.	Revision Number * Code: 0 - Form Dated: 1/59 1 - Form Dated: Rev. 11/59 2 - Form Dated: Test Rev. 11/59 or delivery elsewhere ** 3 - Form Dated: Rev. 1/61	5
4.	NINDB Number Item 1 Nine-digit number for Patient Identification Code: As given	6-14
5.	Date of Birth Item 4 Six-digit code for month (cols. 15-16), day (cols. 17-18) and year (cols. 19-20) Code: As given Code for unknown date-delivery elsewhere only: 0231XX *** - Month and/or day unknown	15-20
6.	Sex Item 32 Code: 1 - Male 2 - Female 3 - Undetermined 9 - Not reported	21

* Unless specified, Fields, Codes and Card Columns refer to Revision Number "0", "1", "2", and "3". Item numbers refer to Form Dated Rev. 1/61.

** A card is punched for delivery elsewhere, with information in cols. 1-25, 70 only.

*** XX = year

FIELD		CARD COLUMN
7.	**Weight** Item 33 Code: As given in pounds and ounces 99 - Unknown pounds or ounces	22-25
8.	**Time of Birth** Item 5 Code: Blank - Delivered elsewhere As given based on 24 hour clock 9999 - Not reported	26-29
9.	**Cord Clamped** Item 6 Three-digit code for: **Before or After Delivery** (col. 30) Code: Blank - Delivered elsewhere 0 - Before 1 - After 9 - Not reported **Time** (cols. 31-32) Code: Blank - Delivered elsewhere 00 - Less than one minute 01-10 - As given in minutes 99 - Not reported Additional codes reviewed and approved (cols. 31-32): 11-15, 17-21, 24, 25, 30, 34, 35, 38, 46, 60, 92	30-32
10.	**First Breath** Item 7 Code: Same as in Field 9, except: Additional codes reviewed and approved (cols. 34-35): 11-20, 22, 23, 25, 26, 31, 33-35, 52	33-35
11.	**First Cry** Item 8 Three-digit code for: **Before or After Delivery** (col. 36) Code: Same as in Field 9 col. 30 **Time** (cols. 37-38) Code: Blank - Delivered elsewhere 00 - Less than one minute 01-15 - As given in minutes 99 - Not reported Additional codes reviewed and approved (cols. 37-38): 16-28, 30, 32-36, 41, 44, 45, 48, 49, 52, 54, 55, 60, 80, 97, 98	36-38

FIELD		CARD COLUMN
12.	**Procedures** Item 9 DO NOT USE IN ANY REQUEST Suction (col. 39) Code: Blank - Reported as "other on Rev. "0" and "1", now included as code 8 in col. 42 0 - None (includes reports of bulb on Rev. "0" and "1") 1 - Gastric 2 - Tracheal 9 - Not reported Drugs (Revisions "2" and "3" only) (col. 40) Code: Blank - Not included on Rev. "0" and "1" 0 - None 1 - Drugs 9 - Not reported Oxygen (column 41) Code: Blank - Reported as "other" on Rev. "0" and "1", now included as code 8 in column 42 0 - None 1 - Open Oxygen 2 - Positive pressure 3 - Mask - Revisions "0" and "1" only 9 - Not reported Resuscitation (column 42) Code: 0 - None 1 - Intubation 8 - Other 9 - Not reported NOTE: This field is not to be used in any tabulation. Refer to card 3 for procedures.	39-42
13.	**Time of Physical Examination** Item 17 Code: Blank - Delivered elsewhere 00 - Less than one minute 01-97 - As given in minutes 98 - 98 minutes and above 99 - Not reported	43-44
14.	**Respiration** Item 20 Code: Blank - Delivered elsewhere 0 - Normal 8 - Other 9 - Not reported	45

FIELD		CARD COLUMN
15.	**Motor Activity and Tone** (Rev. "3" only) Item 21 Code: Blank - Not on Rev. "0", "1" and "2", Del. elsewhere. 0 - Normal and symmetrical 8 - Other 9 - Not reported	46
16.	**Tone of Neck** (Rev. "2" and "3" only) Item 22 Code: Blank - Not on Rev. "0", "1", Del. elsewhere 0 - Normal and symmetrical 8 - Other 9 - Not reported	47
17.	**Molding** Item 23 Code: Blank - Delivered elsewhere 0 - Absent or minimal 1 - Marked 9 - Not reported	48
18.	**Forceps Marks** Item 24 Code: Blank - Delivered elsewhere 0 - Absent 1 - Present 9 - Not reported	49
19.	**Umbilical Cord** (Rev. "3" only) Item 25 Code: Blank - Not on Rev. "0", "1" and "2", Del. elsewhere 0 - Unstained 1 - Stained 9 - Not reported	50
20.	**Length of Cord on Body** Item 26 Code: Blank - Delivered elsewhere 00 - Less than one cm. 01-97 - As given in cms. 98 - 98 cms. or over 99 - Not reported	51-52
21.	**Length of Cord on Placenta** (Rev. "2" and "3" only) Item 26 Code: Same as in Field 20, except Blank - Not on Rev. "0" and "1", Delivered elsewhere	53-54

FIELD		CARD COLUMN
22.	Length of Cord (Other) (Rev. "2" and "3" only) Item 26 Code: Same as in Field 21	55-56
23.	Length of Cord (Total) (Rev. "2" and "3" only) Item 26 Code: Same as in Field 21	57-58
24.	Skin Item 27 Code: Blank - Peripheral Cyanosis on Rev. "2", Del. elsewhere 0 - Normal 1 - Pallor 2 - General Cyanosis (Rev. "2" and "3" only) 3 - Petechaie 4 - Stained 5 - Cyanosis (Rev. "0" and "1" only) 6 - Jaundice (Rev. "0" and "1" only) 7 - Combination of codes 8 - Other 9 - Not reported	59
25.	Cry Item 28 Code: Blank - Delivered elsewhere 0 - Present 1 - Abnormal 2 - Absent (Rev. "2" and "3" only) 9 - Not reported	60
26.	Moro Reflex Item 29 Code: Blank - Delivered elsewhere 0 - Flexor and extensor symmetrical 8 - Other pattern 9 - Not evaluated	61
27.	Motor Activity (Rev. "2" only) Code: Blank - Not on Rev. "0", "1" and "3", Del. elsewhere 0 - Normal and Symmetrical 8 - Other 9 - Not reported	62

DEFINITION OF CODES (Continued)

FORM PED-1
Card 1401

FIELD		CARD COLUMN
28.	Body Movements (Rev. "0" and "1" only) Code: Blank - Not on Rev. "2" and "3", Del. elsewhere 0 - Normal 1 - Abnormal 9 - Not reported	63
29.	Generalized Edema (Rev. "0", "1" and "2" only) Code: Blank - Not on Rev. "3", Delivered elsewhere 0 - Absent 1 - Present 9 - Not reported	64
30.	Bleeding (Rev. "0", "1" and "2" only) Code: Blank - Not on Rev. "3", Delivered elsewhere 0 - Absent 1 - Present 9 - Not reported	65
31.	Tenth Breath (Rev. "1") or Sustained Respiration (Rev. "0") Code: Blank - Not on Rev. "2" and "3", Delivered elsewhere 00 - Less than one minute 01-97 - As given in minutes 98 - 98 minutes and above 99 - Not reported	66-67
32.	Observations Made by Study Personnel Code: Blank - Yes, Delivered elsewhere 1 - No (Deliv. in hosp. & observed by non-study personnel)	68
33.	Reason for 14012 Card Code: Blank - Punched from Test Rev. 11/59 1 - Delivery elsewhere	78

DEFINITION OF CODES (Continued)

FORM PED-1
Card 2401

FIELD		CARD COLUMN
1.	Card Number Code: 2	1
2.	Basic Data * Code: Same as in columns 2-29 of Card 1	2-29
3.	One Minute Apgar Item 10 Heart Rate (column 30) Code: 0 - Absent 1 - Slow 2 - 100 or over 9 - Not reported Respiratory Effort (column 31) Code: 0 - Absent 1 - Weak cry 2 - Crying Lustily 9 - Not reported Muscle Tone (column 32) Code: 0 - Flaccid 1 - Some flexion 2 - Well flexed 9 - Not reported Reflex Irritability (column 33) Code: 0 - No response 1 - Some motion 2 - Cry 9 - Not reported Color (column 34) Code: 0 - Blue pale 1 - Blue hands and feet 2 - Entirely pink 9 - Not reported. Total Score (columns 35-36) Code: 00-10 - As given 20-29 - Total as given based on incomplete data 99 - No report	30-36

* Unless specified, Fields, Codes and Card Columns refer to Revision Number "0", "1", "2", and "3". Item numbers refer to Form Dated 1/61.

FIELD		CARD COLUMN
4.	Two Minute Apgar Item 10 Code: Same as in Field 3	37-43
5.	Five Minute Apgar Item 10 Code: Same as in Field 3	44-50
6.	Ten Minute Apgar Item 10 Code: Same as in Field 3	51-57
7.	Fifteen Minute Apgar Item 10 Code: Same as in Field 3	58-64
8.	Twenty Minute Apgar Item 10 Code: Same as in Field 3	65-71

DEFINITION OF CODES (Continued)

FORM PED-1
Card 3401

FIELD		CARD COLUMN
1.	**Card Number** Code: 3	1
2.	**Basic Data** * Code: Same as in columns 2-29 of Card 1	2-29
3.	**Suction** Item 9 Code: 0 - None 1 - Gastric Suction only 2 - Tracheal Suction 9 - Not reported	30
4.	**Drugs** (Revisions "2" and "3" only) Item 9 Code: Blank - Not on Rev. "0" and "1" 0 - None 1 - Drugs 9 - Not reported	31
5.	**Open Oxygen** Item 9 Code: 0 - Not used 1 - Used 9 - Not reported	32
6.	**Open Oxygen - Begun** Item 9 Code: 00 - Under 1 minute 01-97 - Age as given in minutes 98 - 98 minutes and above 99 - Unknown or not applicable	33-34
7.	**Open Oxygen - Duration** Code: Same as in Field 6	35-36
8.	**Positive Pressure** Item 9 Code: 0 - Not used 1 - Used 9 - Not reported	37

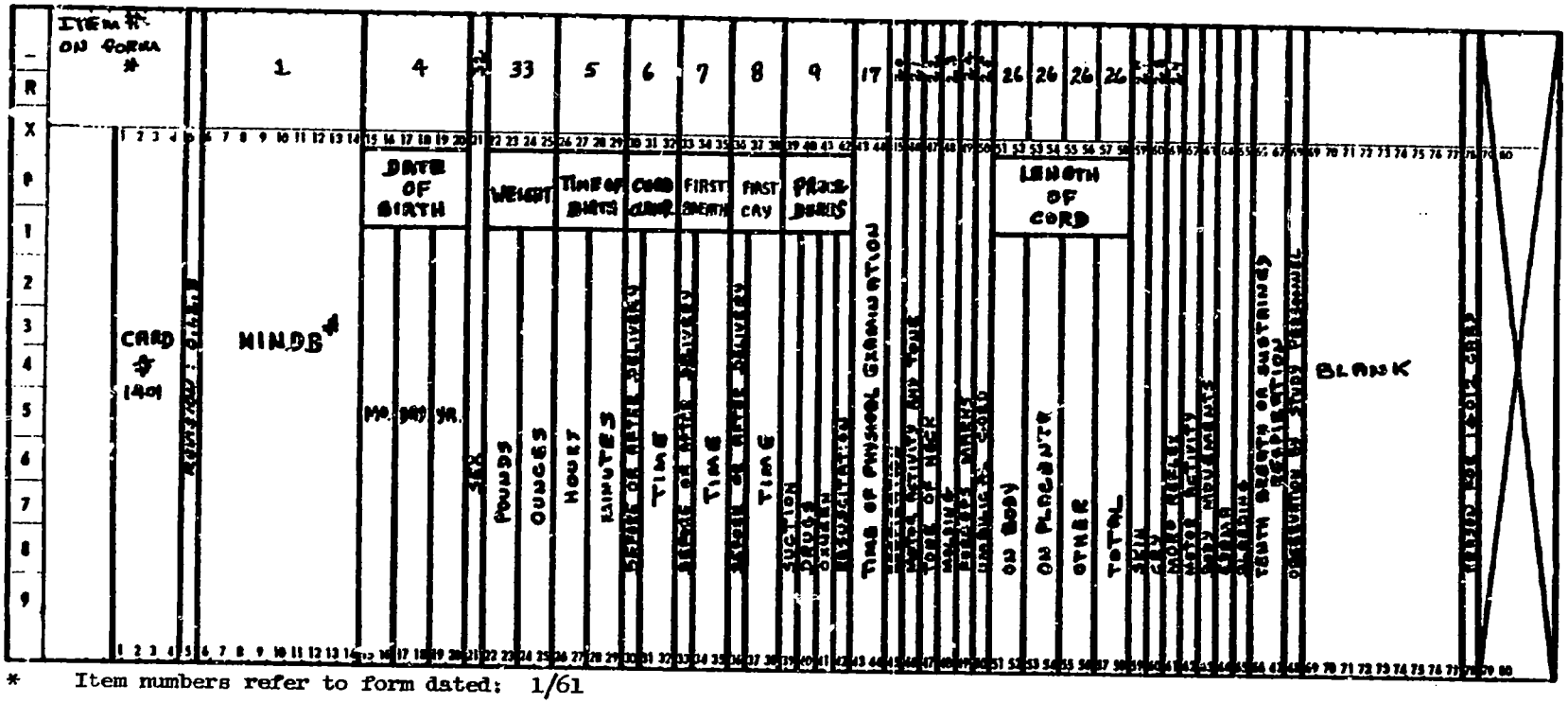
*. Unless specified, Fields, Codes and Card Columns refer to Revision Number "0", "1", "2" and "3". Item numbers refer to Form Dated: Rev. 1/61.

DEFINITION OF CODES (Continued)

FORM PED-1
Card 3401

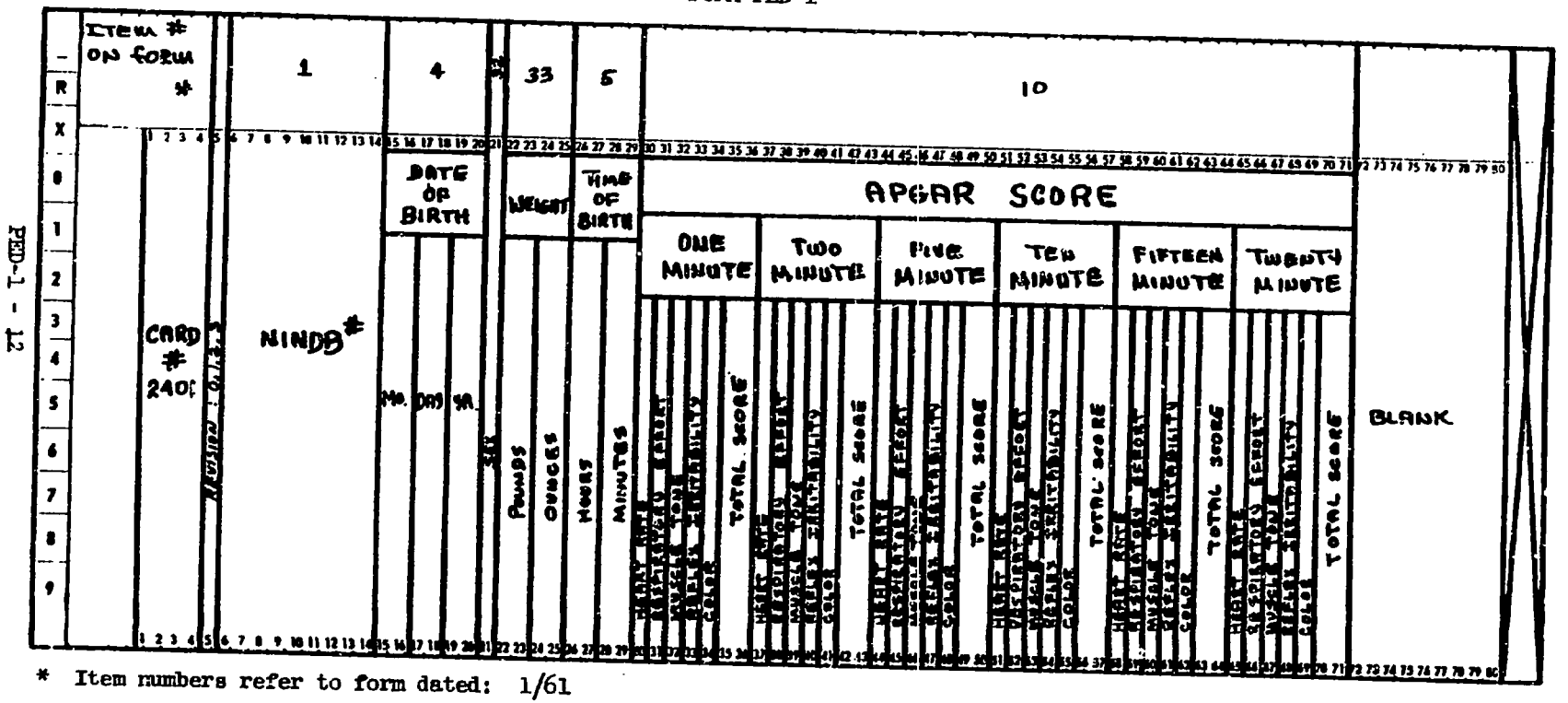
FIELD		CARD COLUMN
9.	**Positive Pressure - Begun** Item 9 Code: Same as in Field 6	38-39
10.	**Positive Pressure - Duration** Code: Same as in Field 6	40-41
11.	**Intubation** Item 9 Code: 0 - Not used 1 - Used 9 - Not reported	42
12.	**Intubation - Begun** Item 9 Code: Same as in Field 6	43-44
13.	**Intubation - Duration** Code: Same as in Field 6	45-46
14.	**Other** Item 9 Code: 0 - Not Used 1 - Used 9 - Not reported	47
15.	**Other - Begun** Item 9 Code: Same as in Field 6	48-49
16.	**Other - Duration** Code: Same as in Field 6	50-51

DELIVERY ROOM OBSERVATIONS OF THE NEONATE
FORM PED-1



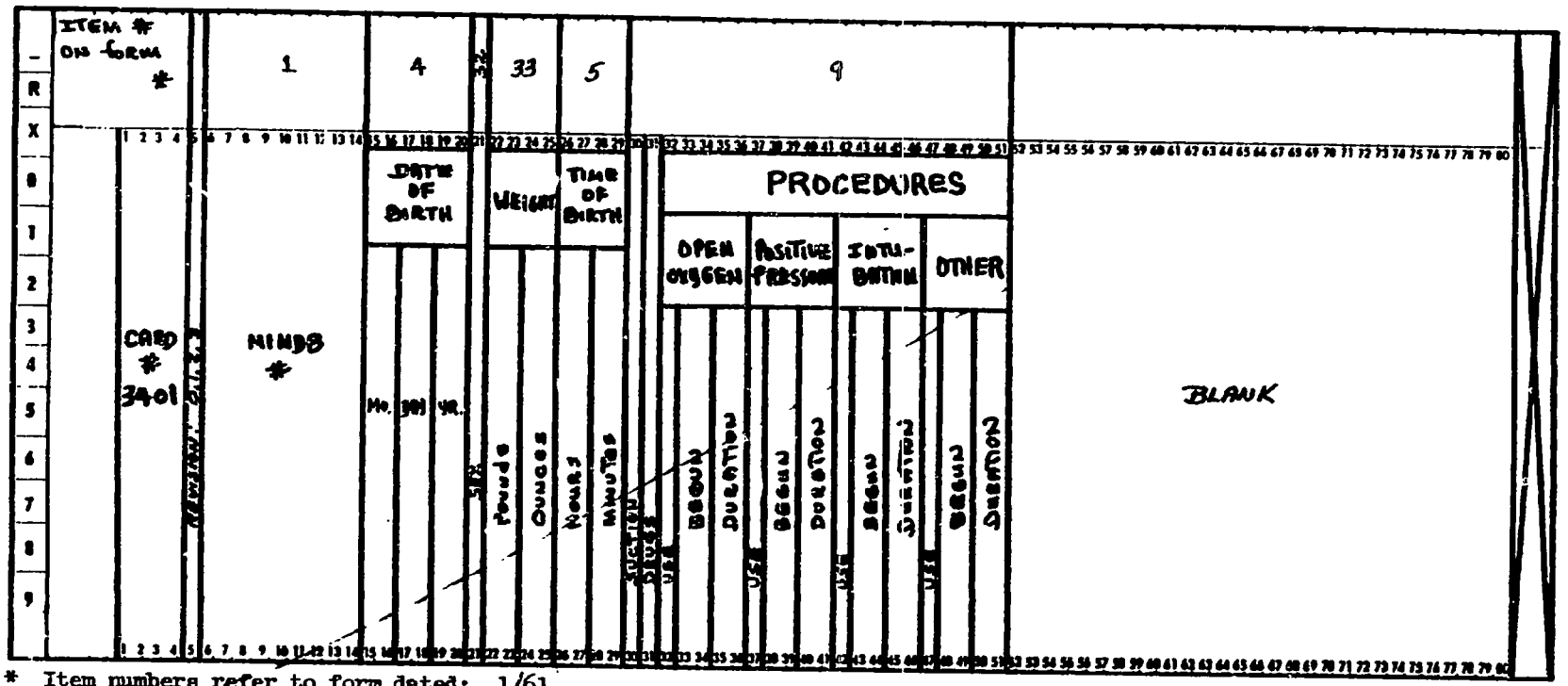
* Item numbers refer to form dated: 1/61

DELIVERY ROOM OBSERVATIONS OF THE NEONATE
FORM PED-1



* Item numbers refer to form dated: 1/61

DELIVERY ROOM OBSERVATIONS OF THE NEONATE
FORM PED-1



* Item numbers refer to form dated: 1/61

PEDIATRICS MANUAL
DELIVERY ROOM OBSERVATIONS OF THE NEONATE
(For Form PED-1, Rev. 1-61)

I. INTRODUCTION

The purposes of the Delivery Room Observations of the Neonate are:

A. To observe and record the time and sequence of events in the establishment of circulation and respiration in the extra-uterine environment.

B. To observe and record information reflecting the functional integrity of the infant immediately following the birth.

C. To observe and record possible signs of perinatal stress which cannot be observed elsewhere.

D. To observe and record potentially stressful influences operating immediately following birth.

E. To obtain and record certain measurements and facts about the child which are most conveniently obtained in the delivery room.

The PED-1 form has been provided to record the above types of information in a systematic fashion. This manual has been developed to assist in the uniform interpretation and recording of this information.

II. GENERAL INSTRUCTIONS

A. **The Examiner.** It is recommended that a nurse or a trained lay observer who does not have responsibility for other duties in the delivery room be present at the delivery and make the observations for this protocol. If no such person is available and it is necessary to employ a physician for this purpose it is essential that he be free of other responsibilities and be able to devote full attention to observing and timing the events of the first few minutes of life. The physical examination portion of this protocol should be performed by a physician or under the supervision of a physician. This is important in order that questionable findings be detected and properly classified and abnormal findings clearly described.

B. **Equipment.** The only equipment necessary for these observations are:

1. One, and preferably two, stop watches.
2. A stethescope.
3. A metric rule or tape.
4. Record form PED-1.
5. One or more sheets of record form CP-5 (Continuation Sheet).
6. Pencil or ball-point pen.

II. GENERAL INSTRUCTIONS (cont.)

C. **Timing of the Observation and Examination:** The emphasis of this examination is on accurate and objective observation and strict timing, with clinical or diagnostic interpretation being secondary. The observer should be in the delivery room at the time of the delivery, and should be equipped with at least one stop watch. The time of birth will be given as local twenty-four hour clock time. All other events shall be timed as the age before or after complete delivery of the child. Complete delivery shall be defined as that moment when all parts of the child's body became free of the maternal introitus. If any of the events in this protocol such as "first breath," "first cry," or "cord clamped" occur prior to complete delivery the time from occurrence of such an event to the moment of complete delivery should be measured with a stop watch. Then, at the moment of complete delivery the stop watch may be reset, or a second stop watch may be started to time the subsequent events.

The observations for the five parts of the Apgar score (Item 10, sub items 1-6) should be made on every child at age one minute, two minutes, and five minutes. Subsequent observations of this series are to be made if the score on the five minute series is seven or less.

The physical examination is to be performed between 10 and 20 minutes of age. If it is impossible to perform the physical examination during this time period, it should be performed as soon as possible and the child's age at the time it was begun recorded in Item 17.

D. **Bias.** Since it is necessary for the observer performing this examination to be present in the delivery room at the time of birth it is obvious that the observer will be aware of the events of labor and delivery. Every effort should be made to be as objective as possible in making and recording the observations and examination. Every reasonable effort has been made to phrase the items and instructions so as to encourage observations of fact rather than interpretation or judgment. However, this is manifestly impossible to accomplish when our "measuring sticks" are often not definable, and such terms as "weak" and "normal" are unavoidable.

The term "normal" as used in this examination form and manual should be interpreted

II. GENERAL INSTRUCTIONS (Cont.)

in the most limited sense as being nearly synonymous with "ideal." Thus, although it is statistically normal for respiration to be depressed by morphine, an infant exhibiting respiratory depression due to morphine would not be considered normal in this restricted sense of the term.

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS

Item 1. Patient Identification: This item is to be completed using the child's name plate which should contain the following items in the order listed:

Name of Child (Surname, Given Name if known)
Child's NINDB number
Date of Birth - Hour of Birth (24 hr. clock)
Sex - Birth Weight (grams preferred) - Race

Item 2. Observed By: Here record the name of the person making the observations for items 6 through 16.

Item 3. Title or Position: Here record the professional status of the person whose name appears in Item 2 (nurse, pediatrician, obstetrician, intern, etc.).

Item 4. Date: Here record the date of the birth, using the sequence month, day, year.

Item 5. Time of Birth: Here record the time of the birth to the second, using local twenty-four clock time.

Items 6-8. The following three items represent the time of occurrence of certain crucial events in the establishment of extra-uterine life. The fact observed and reported is to be the age of the child at the moment the event occurred. This age is to be the age of the child recorded in minutes and seconds before or after the moment of complete delivery. (Complete delivery is, for this purpose, defined as that moment when all parts of the child's body become free of the maternal introitus.)

For each of these three items there are check boxes in which to indicate if the event occurred before or after complete delivery. If, by chance, the event should occur simultaneously with the moment of complete delivery, report it as 1 second after delivery.

Item 6. Cord Clamped: Record the age of the child in minutes and seconds at the time the cord was clamped. Check "before delivery" if the event occurred before complete delivery, or "after delivery" if the event occurred after complete delivery.

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Item 7. First Breath: Record in minutes and seconds the age of the child at the time it took its first breath. Check "before delivery" if the event occurred before complete delivery, or "after delivery" if the event occurred after complete delivery.

Item 8. First Cry: Record the age of the child in minutes and seconds at the time the first cry was produced. Check "before delivery" if the event occurred before complete delivery, or "after delivery" if the event occurred after complete delivery.

Item 9. Procedures: The type of procedures which should be reported in this item are gastric suction, tracheal suction, the administration of drugs, the administration of oxygen either by open hose or mask or by positive pressure device, laryngeal intubation, and other resuscitative measures such as rocking bed, airlock, etc. Do not report routine oral-pharyngeal suction as a procedure.

If a catheter is passed into the stomach for the purpose of aspirating the stomach contents the first box "gastric suction" should be checked.

"Tracheal suction" is defined as passing a soft catheter into the larynx and trachea for the purpose of clearing those passages of foreign material (cf. definition of "intubation" below).

If drugs are given in the delivery room, check the box "drugs," and give the drug name (either trade name or generic name, whichever is in common use), the route of administration, and the dose. Do not include in this category silver nitrate prophylactic eye treatment, or medication applied topically to the umbilical cord in the delivery room. If there is insufficient room in this space continue under Item 30.

If extra oxygen is offered to the child by a means of open hose, oxygen tent, or loosely applied mask, check the box "open oxygen." Indicate in the adjacent blanks the ages of the child at which this procedure was begun and ended. If the procedure was intermittent the ages reported should be those at which the procedure was first started, and finally terminated. Report ages to the nearest minute.

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Item 9. Procedures. (Cont.)

If oxygen was given to the child by means of a tight-fitting mask and rubber bag or other positive pressure device the box "positive pressure oxygen or air" should be checked. Mouth-to-mouth resuscitation, whether or not extra oxygen was added in the process, should also be reported here. Indicate the ages of the child at the time the procedure was begun and ended. If the procedure was intermittent, the ages reported should be those at which the procedure was first started, and finally terminated. Report ages to the nearest minute.

"Intubation" shall be defined as the insertion of a firm catheter into the larynx for the purpose of facilitating aspiration of foreign material and/or the establishment of respiration. (If positive pressure oxygen or air were administered through this tube by either a positive pressure device or by blowing or puffing with the mouth, the previous category "positive pressure oxygen or air" should be checked as well.) Indicate in adjacent blanks the ages of the child at which the procedure was begun and discontinued. If the procedure was repeated, report the ages of the child at which the procedure was first attempted, and finally discontinued. Report ages to the nearest minute.

"Other." Check this category if procedures other than those listed above are used for the purpose of inducing, assisting, or maintaining respiratory or cardiac function. Record the age of the child at the onset and termination of the procedure to the nearest minute. The procedure should be clearly identified.

Items 10-16. Apgar Score: This series of observations is designed to provide a uniform, systematic evaluation of certain physiological functions of every neonate at specified time intervals.

Timing:

(a) The first series of observations should be performed when the child is as close as possible to one minute of age.

(b) A second series of observations should be made when the child is as close as possible to two minutes of age.

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Items 10-16. Apgar Score (Cont.)

(c) A third series of observations should be performed when the child is as close as possible to five minutes of age.

(d) If the total score on the five minute series is seven or below, the series of observations should be performed at 10, 15 and 20 minutes of age.

Reporting:

There are six columns provided on the form for scoring the one, two, five, ten, fifteen, and twenty minute observations. These columns should be used for reporting only those observations performed at approximately these times. Thus, if for some reason it is impossible to perform the observations at one minute, the observations performed at two minutes should be reported in the second column, not in the first column.

If the Apgar score at twenty minutes of age is still seven or below, the examiner should proceed with the physical examination and continue to keep careful notes on the child's progress, either in the form of the Apgar score categories or in narrative clinical progress notes in Item 30. In the event the space provided in Item 30 is too small, continue the comments on a properly labelled CP-5.

Instructions and Criteria for Scoring:

All scores should reflect the child's condition during the interval of the observations without regard to earlier condition or performance. It is very possible for the child to have a lower score at five minutes than at two minutes, or than the child might have had on a similar series of observations at three and a half minutes of age.

(1) Age at Time of Scoring
At the top of each column there is a box for reporting the age of the child at the time of the observations. The age of the child reported at the head of a column should be the start of the series of observations recorded in that column.

(2) Heart Rate

Score:	Observation:
0 —	No heart rate can be seen, felt or heard.
1 —	Heart rate below 100.
2 —	Heart rate 100 or over.

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Items 10-16. Apgar Scores (Cont.)

Heart rate may be determined by auscultation of the precordium, observation of the epigastrium, or palpation of the umbilical cord near the umbilicus.

(3) Respiratory Effort

Score: Observation:
- 0 — Apnea, no respiratory effort.
- 1 — Weak respiratory effort, weak cry, hypoventilation.
- 2 — Breathing well, crying lustily.

Apnea shall be defined as the absence of breathing for a notable period — approximately 20 seconds or more.

(4) Muscle Tone

Score: Observation:
- 0 — Flaccid, very little or no muscle tone.
- 1 — Weak flexion tone, with persistent "floppiness."
- 2 — Spontaneous flexion of arms and legs.

(5) Reflex Irritability

Stimulus: Brisk tangential slap on the soles of the feet. (If child is spontaneously producing "active motion and crying," no stimulus is necessary, simply score 2.)

Score: Observation:
- 0 — No response.
- 1 — Some motion.
- 2 — Active motion and crying.

(6) Color

Score: Observation:
- 0 — Child entirely blue or cyanotic.
- 1 — Some areas persistently cyanotic.
- 2 — Child entirely pink.

(7) Total

Add the scores for each of the five categories in the column and record the sum in the "total" box. If it was impossible to score one or more of the categories, do not report a total for that column. Do not report fractions or more than one number per blank. Admittedly, these categories are coarse and for some the distinction between the score of 1 and the score of 2 is not sharp. However, the observer is in a better position than anyone will be subsequently to make the decision on the scoring. If there is doubt about the criteria for scoring, the physician in charge of this aspect of the study should be consulted and the matter discussed locally and perhaps with other institutions and pediatricians at NINDB in order to insure optimal uniformity in scoring.

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Items 10-16. Apgar Scores (Cont.)

Physical Examination

The physical examination in the delivery room is a very brief series of observations of the neonate for the purpose of detecting and reporting signs of stress, and certain other items of information which cannot be obtained elsewhere. The examination should be performed by or under the supervision of a physician.

Timing of the Examination. The child should be examined between ten and twenty minutes of age. If it is impossible to examine the child during this interval it is desirable that the examination be performed as soon as possible after the child is twenty minutes of age and before it has left the delivery room.

Item 17. Here record the age of the child to the nearest minute at the start of the physical examination.

Item 18. Examined By: Here record the name of the person performing the physical examination.

Item 19. Title or Position: Here record the professional status of the person whose name is recorded in Item 18, i.e., nurse, pediatrician, obstetrician, intern, etc.

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Item 20. Respiration: The examiner should observe the child's spontaneous respiration through the course of the examination. The box "normal" should be checked if, by the time of the examination, the child has established adequate air exchange and exhibits no potentially abnormal respiratory signs such as retractions, nasal flare, grunting or stridor, or unusual rhythm or rate. The box "other" should be checked if there are any indications of respiratory problems, including those listed in the previous sentence. All unusual or abnormal findings should be clearly described in Item 30.

Item 21. Motor Activity and Tone: The examiner should observe the child's spontaneous motor activity and tone throughout the course of the examination for signs of increase, decrease, or asymmetry of tone or movement. The box "normal and symmetrical" should be checked if there are no unusual features in the child's motor activity or tone. The box "other" should be checked if there are any unusual features and any such feature should be thoroughly described in Item 30.

Item 22. Tone of Neck: The examiner should evaluate specifically the tone of the child's neck muscles both by observing the spontaneous activity and by pulling the child by the arms to a sitting position. If no unusual findings are noted, the category "normal and symmetrical" should be checked. The box "other" should be checked if the neck is hypotonic or flaccid or if other unusual features of the neck muscle tone are noted. If this box is checked, a comment is required to differentiate the moderately limp neck from the neck which is so flaccid that the head falls back on the spine when the infant is pulled to the sitting position. Any other unusual features should also be described.

Item 23. Molding: The examiner should evaluate the child's head by inspection and palpation to determine the presence and degree of distortion of the child's head due to the birth process. Overriding of the bones at the suture lines as well as distortion of the shape of the bones themselves should be included in this item. The category "absent or minimal" should include the slight degree of molding seen in most children. The category "moderate or marked" should be checked if the degree of molding in this child is greater than that usually seen in normal children. The distinction between "absent or minimal" and "moderate or marked" is obviously only a vaguely quantitative one, but the examiner's judgment should remain as objective as possible and not be modified by his knowledge of the events of labor and delivery. If the molding is "moderate or marked," describe the locus and extent, including notation of the sutures which are overlapped.

Item 24. Forceps Marks: This item should be an objective observation not an interpretation of knowledge of prior events. If there is no evidence of tissue trauma from the use of forceps, the category "absent" should be checked. If there is evidence of tissue trauma about the head or face due to the use of forceps the box "present" should be checked and a clear and concise description of the location of the forceps marks should be recorded in Item 30. Clearly specify the location and the side (right or left). A sketch may make the description more simple and clear.

Item 25. Umbilical Cord: This item is intended for use only in reporting the presence or absence of meconium staining of the umbilical cord. Any fresh meconium should be wiped from the cord with a damp cloth before making the observation. If there is no evidence of staining of the cord, check the box "unstained." If the cord appears to be stained, check the appropriate box and describe the color and intensity.

Item 26. Length of Cord: It is desirable that the total length of the umbilical cord be determined and recorded in one spot, and this can only be done in the delivery room. Each segment of the cord should be measured with a metric ruler or tape and recorded in the appropriate blank. If there is no "other" segment of cord, enter "0" in the blank space labelled "other." It is not necessary to perform the addition and fill in the blank "total" as this can be done later or at NINDB.

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Item 27. Skin (Acute or transient findings). The examiner should observe the skin over the child's entire body for acute lesions and discoloration. It is not necessary to report and describe congenital malformations or nevi. Do not report Mongolian spots. Peripheral cyanosis should not be considered an abnormal finding in the delivery room examination. All acute or transient findings should be indicated by a check mark in the appropriate box, and described under Item 30.

"**Pallor**" should be checked if, in the examiner's judgment, the child is unusually pale.

"**Generalized cyanosis**" should be checked it the child is cyanotic over the entire body, or major portion of the body and should include such things as cyanosis of the head, one upper quadrant, one extremity, or one half of the body. Cyanosis of the hands, feet or perioral region alone should not be reported as generalized cyanosis.

"**Petechiae**" shall include any bleeding into the skin (including ecchymoses) but not bleeding from abrasions or forceps marks.

"**Stained**" means exogenous yellow, green or brown coloration of the skin, vernix or fingernails, which is not readily removable. Fresh meconium on the skin should not be reported as staining. Obviously, if there is fresh meconium on the skin, this should be removed with a damp cloth before the evaluation of the presence or absence of staining of the skin is made. If the skin is stained, check the appropriate box and describe the color and intensity.

"**Other**" should be checked if there are other acute lesions or conditions portrayed in or on the skin, such as abrasions, lacerations, and infection.

Item 28. Cry: If the child does not cry spontaneously, attempt to induce crying by such stimuli as slapping the soles of the feet or the buttocks or pinching the heel. These shall be considered maximal stimuli and more drastic methods are not recommended. If such stimulation does not make the child cry, check the box "absent after maximal stimulation." If the child cries spontaneously, consider such unusual qualities as high pitched, feeble, whining, hoarse, or stridulous, in evaluating whether the cry is normal or abnormal, and check the appropriate box. If the child does cry spontaneously and the cry has no unusual character, check the first box "present and normal quality." Describe all abnormal findings under Item 30.

Item 29. Moro Reflex: The same techniques as used in the other examinations of the neonate shall be employed here for eliciting the Moro reflex. That is, "support the child under the back and head, and let the head drop back about 30 degrees." Note that there is a definition of the reaction rather than the term "normal" following box 0. If the response fits this definition "flexor and extensor components, present and symmetrical" even if it is considered not to be normal, check box 0. Describe any reasons for considering it abnormal. If the response does not fit the definition following box 0, then box 8 "other pattern" should be checked. If box 8 is checked the pattern should be clearly described. The examiner is invited to register his opinion as to whether or not he thinks the response is normal, no matter which box is checked.

If the child is in an incubator or otherwise inaccessible, other stimuli such as slapping the incubator or producing a loud noise may be used to attempt to elicit a Moro reflex. If, by this method, the defined response (box 0) is elicited, check box 0 and describe the stimulus used. If this response is not elicited by the non-standard stimulus, check box 9 "not evaluated" and indicate the situation.

Item 30. Comments and Other Findings: This space is to be used for a narrative description of any abnormal findings or procedures reported above. Also, the examiner is invited to note any unusual features of the child not included in the above items such as a knot in the umbilical cord, congenital malformations, a single umbilical artery, etc., and to record his clinical impression of this child. The

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Item 30. Comments and Other Findings. (Cont.)

use of "normal" in this last situation will be interpreted in the usual clinical sense as a diagnostic statement. Therefore, although the examiner may have been forced by the strict definition of "normal" in the above items to report such things as grunting respiration, limp neck, or pallor, he may qualify these by writing "normal baby" under Item 30 if this indeed is his clinical evaluation or summary of the situation. No information concerning the mother's condition should be written in this comment space.

Since this record form is set up on one page for maximum convenience in use for the vast majority of cases that are normal or slightly unusual, one or more sheets of form CP-5 (Continuation Sheet) should be immediately available for extending comments and descriptions of unusual findings on abnormal cases. (If form CP-5 is used be certain to indicate "PED-1" in the space for form number to insure proper identification of the extended comments.)

Item 31. Race: The child's race is to be reported as the same as the mother's race (as it is recorded on form AR-1) in one of

III. SPECIFIC INSTRUCTIONS AND DEFINITIONS (Cont.)

Item 31. Race. (Cont.)

the categories: White, Negro, Oriental, Puerto Rican or Other. If this information appears in Item 1 on this form, it does not need to be repeated here.

Item 32. Sex: Record the infant's sex as male, female or undetermined.

Item 33. Birth Weight: Here record the child's official birth weight. It is desirable that a metric system scale be used and the weight be recorded in grams. However, if an English system scale is used, report the weight in pounds rather than converting to grams. Report ounces as fractions (--1/16) of a pound thus: seven pounds, six ounces is recorded as 7 and 6/16.

Distribution:

One copy of this form must become part of the local Study or hospital Pediatrics record, one copy should become part of either the Study or the hospital Obstetrics record, and one copy must be sent to NINDB with the Study Pediatrics nursery records.

July 1963

COLR-6004-1
REV. 1/61

DELIVERY ROOM OBSERVATION OF THE NEONATE

getting superseded by same but minor changes in items 6–8 incl.

1. PATIENT IDENTIFICATION

2. OBSERVED BY | 3. TITLE OR POSITION

4. DATE OF BIRTH Mo. | Day | Year | 5. TIME OF BIRTH (24-hr clock)

Time all events below as age before or after delivery

		Age Began	Age Ended
6. CORD CLAMPED (Age) Min. Sec. ☐ Before ☒ delivery	9. PROCEDURES (Omit uncomplicated oral-pharyngeal suction) ☐ 0X None ☐ 1 Gastric Suction ☐ 2 Tracheal Suction ☐ 3 Drugs (Give type & Dose) ☐ 4 Open Oxygen ☐ 5 Positive Pressure Oxygen or Air ☐ 6 Intubation ☐ 9 Other (Specify)	Min.	Min.
7. FIRST BREATH (Age) Min. Sec. ☐ Before ☒ delivery		Min.	Min.
8. FIRST CRY (Age) Min. Sec. ☐ Before ☒ delivery		Min.	Min.

10. APGAR SCORE (*Score infant at 1, 2 and 5 minutes of age. If score of 8 is not attained, score at 10, 15 and 20 minutes.*

				11.		12.		13.		14.		15.		16.	
1) AGE AT TIME OF SCORING				Min.	Sec.	Min.	Sec.	Min.	Sec.	Min.	Sec.	Min.	Sec.	Min.	Sec.
2) HEART RATE	0 – Absent	1 – Slow – Less Than 100	2 – 100 or over												
3) RESPIRATORY EFFORT	0 – Absent	1 – Weak Cry Hypoventilation	2 – Crying Lustily												
4) MUSCLE TONE	0 – Flaccid	1 – Some Flexion Extremities	2 – Well Flexed												
5) REFLEX IRRITABILITY	0 – No Response	1 – Some Motion	2 – Cry												
6) COLOR	0 – Blue Pale	1 – Blue Hands and Feet	2 – Entirely Pink												
			7) TOTAL												

PHYSICAL EXAMINATION | 17. Began at _____ min. of age | 18. EXAMINED BY | 19. TITLE OR POSITION

20. RESPIRATION ☐ 0 Normal ☐ 9 Other

21. MOTOR ACTIVITY AND TONE ☐ 0 Normal and Symmetrical ☐ 9 Other

22. TONE OF NECK ☐ 0 Normal and Symmetrical ☐ 9 Other

23. MOLDING ☐ 0 Absent or Minimal ☐ 1 Marked

24. FORCEPS MARKS ☐ 0 Absent ☐ 1 Present

25. UMBILICAL CORD ☐ 0 Unstained ☐ 1 Stained

26. LENGTH OF CORD (*Include all segments*)
On Body _____ Cm. Other _____ Cm.
On Placenta _____ Cm. Total _____ Cm.

27. SKIN (*Acute or transient findings*)
☐ 0 Normal (*Including peripheral cyanosis*)
☐ 1 Pallor ☐ 3 Petechiae
☐ 2 General Cyanosis ☐ 4 Stained
☐ 9 Other

28. CRY
☐ 0 Present
☐ 1 Present, Abnormal
☐ 2 Absent After Maximal Stimulation

29. MORO REFLEX
☐ 0 Flexor and Extensor Components Present and Symmetrical
☐ 8 Other Pattern
☐ 9 Not Evaluated

30. COMMENTS AND OTHER FINDINGS

(Continue on CP-5, Continuation Sheet)

31. RACE (*Copy from AR-7. Optional*) ☐ 1 W ☐ 2 N ☐ 3 Or ☐ 4 PR ☐ 9 Other

32. SEX (*Optional*) ☐ 1 Male ☐ 2 Female ☐ 3 Undetermined

33. BIRTH WEIGHT (*Optional*)

Collaborative Research
Perinatal Research Branch, NINDB, NIH
Bethesda 14, Md.

(PED-1) (Rev. 1-61)

DELIVERY ROOM OBSERVATIONS OF THE NEONATE

1. PATIENT IDENTIFICATION — Test only

2. OBSERVED BY

3. STATUS

4. DATE — Mo. / Day / Year

5. TIME OF BIRTH (24-Hour Clock)

Time events as age before or after complete delivery.

6. CORD CLAMPED (Age) — Min. / Sec. — ☐ BEFORE (X) ☐ AFTER (0)

7. FIRST BREATH (Age) — Min. / Sec. — ☐ BEFORE (X) ☐ AFTER (0)

8. FIRST CRY (Age) — Min. / Sec. — ☐ BEFORE (X) ☐ AFTER (0)

9. PROCEDURES (Omit uncomplicated oral-pharyngeal suction)

☐ NONE (X)
☐ GASTRIC SUCTION (1)
☐ TRACHEAL SUCTION (2)
☐ DRUGS (Give type and dose) (3)

INDICATE AGE:	BEGUN	ENDED
☐ OPEN OXYGEN (4)		
☐ POSITIVE PRESSURE OXYGEN (5)		
☐ INTUBATION (6)		
☐ OTHER (8)		

10. COMMENTS ON EVENTS OR PROCEDURES
☐ NONE (0)

11. APGAR SCORE Note: *Score infant at 1, 3, and 5 minutes, and if score of 8 not attained, score at 10, 15, and 20 minutes.*

	12. 1st	13. 2nd	14. 3rd	15. 4th	16. 5th	17. 6th
1) AGE AT TIME OF SCORING						
2) HEART RATE (0-ABSENT; 1-SLOW, LESS THAN 100; 2-100 OR OVER)						
3) RESPIRATORY EFFORT (0-ABSENT; 1-WEAK CRY, HYPOVENT.; 2-CRYING LUSTILY)						
4) MUSCLE TONE (0-FLACCID; 1-SOME FLEX. EXTREM.; 2-WELL FLEXED)						
5) REFLEX IRRITABILITY (0-NO RESPONSE; 1-SOME MOTION; 2-CRY)						
6) COLOR (0-BLUE, PALE; 1-BLUE HANDS & FEET; 2-ENTIRELY PINK)						
7) TOTAL						

PHYSICAL EXAMINATION

18. AT _____ MIN. OF AGE

19. EXAMINED BY

20. STATUS

21. CRY
☐ PRESENT - NORMAL (0)
☐ PRESENT - ABNORMAL (Describe) (1)
☐ ABSENT AFTER MAXIMAL STIMULATION (2)

22. MORO
☐ FLEXOR AND EXTENSOR COMPONENTS PRESENT AND SYMMETRICAL (0)
☐ OTHER PATTERN (Describe) (1)
☐ NOT EVALUATED (9)

23. SKIN
☐ NORMAL (0)
☐ PALLOR (1)
☐ GENERALIZED CYANOSIS (2)
☐ PERIPHERAL CYANOSIS (3)
☐ PETECHIAE (4)
☐ STAINED (5)
☐ OTHER (8)

24. TONE OF NECK
☐ NORMAL (0)
☐ ABNORMAL (Describe) (2)

25. MOTOR ACTIVITY
☐ NORMAL AND SYMMETRICAL (0)
☐ OTHER (Describe) (9)

26. RESPIRATIONS
☐ NORMAL (0)
☐ ABNORMAL (Describe) (1)

27. GENERALIZED EDEMA
☐ ABSENT (0)
☐ PRESENT (Describe) (2)

28. LENGTH OF CORD IN CM. (Measured last sequence)
ON BODY _____ OTHER _____
ON PLACENTA _____ TOTAL _____

29. BLEEDING
☐ ABSENT (0)
☐ PRESENT (Describe) (1)

30. FORCEPS MARKS
☐ ABSENT (0)
☐ PRESENT (Describe) (2)

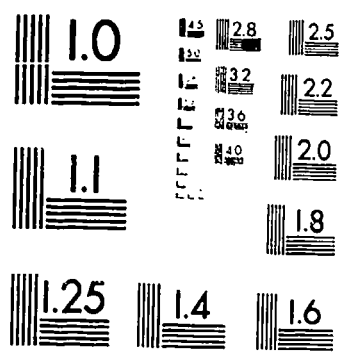
31. MOLDING
☐ ABSENT OR MINIMAL (0)
☐ MODERATE OR MARKED (Describe)

32. COMMENTS

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

TEST

(REV. 11-58) PED-1



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No 2)

CONTINUED ON NEXT FICHE