

Submission Format for Childhood Blood Lead Surveillance (CBLS) Text Files

CDC Program Announcement No. CDC-RFA-EH17-1701PPHF17
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This document contains a list of variables that Awardees submit to NCEH by the final business day of the following quarter (e.g., data collected during the first quarter is due on the final business day of the second quarter). Data submitted in text files are processed and maintained in the CBLS database. NCEH uses its processing software, CBLS Central, to perform data checks for required formatting on Awardee text files. Text files are parsed into separate linkable data tables (e.g., Child, Address, Lab Results, and Investigation).

| Table No. | Record Type | File ID |
|-----------|----------------------------------|---------|
| 1 | Child | CHI |
| 2 | Address | ADD |
| 3 | Lab Results | LAB |
| 4 | Investigation | INV |
| 5 | Child-to-Address Link (optional) | LNK |

Processing reports are generated and sent to Awardees, to indicate how many records were properly parsed and entered into the CBLS database and how many records were not loaded with an explanation of the rejection. Corrections from Awardees are returned in the next quarterly report. Therefore, NCEH has a 1 to 2 quarter lag with on-time data delivery. CBLS Annual Reports are based on the calendar year and are sent to Awardees at the end of the second quarter of the fiscal year.

The Awardees input data reported to their state or local jurisdiction(s) into the Healthy Homes and Lead Poisoning Surveillance System (HHLPSS), which is developed and provided by NCEH at no cost to Awardees, or into another lead surveillance reporting system chosen by Awardee. Awardees are required to de-identify the data prior to delivery to NCEH. Personally identifiable information (PII), such as names and addresses of children are removed; only Child ID and Address ID are submitted to NCEH.

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| This information is collected under the authority of the Public Health Service Act [Section 301 (42 U.S.C. Section 241 and Section 247b-1 and 247b-3)]. CDC estimates the average public reporting burden for this collection of information as 4 hours per response, including the time for reviewing instructions, searching existing data/information sources, gathering and maintaining the data/information needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB Control Number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30333; ATTN: PRA (0920-xxxx). |
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OVERVIEW OF DATA PROCESSING OF Awardee RECORDS INTO CBLS RELATIONAL TABLE FORMATS

Each record contains a file identifier (FILEID), a program identifier (PGMID), and record-specific information to create a unique record identifier.

FILEID + PGMID + Record-specific information

CHI + PGMID + CHILD_ID
 ADD + PGMID + ADDR_ID
 LAB + PGMID + CHILD_ID + SAMP_DATE
 INV + PGMID + ADDR_ID + DATE_REF
 LNK + PGMID + CHILD_ID + ADDR_ID + FIRST_OCC

BASIC FORMAT

| |
|--------------------------------------|
| FILEID ... PGMID |
| CHILD_ID |
| ADDR_ID |
| TABLE-SPECIFIC FIELDS (see below) |

Basic Format is used to create tables:

- **Table 1** – Child;
- **Table 2** – Address;
- **Table 3** – Lab Results;
- **Table 4** – Investigation; and
- **Table 5** – Child-to-Address Link (*optional*)

CHILD_ID ONLY TABLE

| Table 1: CHILD |
|---------------------------------|
| CHI ... PGMID Positions 1-12 |
| CHILD_ID Positions 13-20 |
| CHILD FIELDS Positions 21-51 |

CHILD_ID & ADDRESS_ID TABLES

| Table 3: LAB RESULTS |
|--|
| LAB ... PGMID Positions 1-12 |
| CHILD_ID Positions 13-20 |
| ADDR_ID Positions 29-36 |
| LAB RESULTS FIELDS Positions 21-144 |

ADDRESS_ID ONLY TABLES

| Table 2: ADDRESS |
|-----------------------------------|
| ADD ... PGMID Positions 1-12 |
| ADDR_ID Positions 13-20 |
| ADDRESS FIELDS Positions 21-73 |

Data must be submitted by Programs in ASCII fixed field length (non-delimited), variable record length. Each record must have a unique numeric identifier determined by the values in the FILEID field and the unique identifier for each record (described above).

Each record submitted is validated for correct formatting and coding. Within each submission to NCEH, there should be no duplicate records. Duplicate records are not loaded into the database and non-duplicate record validation, ensures:

- One unique CHI record
- One unique LAB record per child per sample date (see Appendix for more details)

Table 5: CHILD-TO-ADDRESS LINK

| |
|---------------------------------|
| LNK ... PGMID Positions 1-12 |
| CHILD_ID Positions 13-20 |
| ADDR_ID Positions 21-28 |
| LINK FIELDS Positions 29-45 |

Table 4: INVESTIGATION

| |
|--|
| INV ... PGMID Positions 1-12 |
| ADDR_ID Positions 13-20 |
| INVESTIGATION FIELDS Positions 21-127 |

CHILDHOOD BLOOD LEAD SURVEILLANCE (CBLS) RECORD AND TABLE FORMATS

| Record Type: Basic Format | | |
|----------------------------------|-------------------|---|
| Position | Field Name | Valid Values - Description |
| 1-3 | FILEID | File identifier for record type. REQUIRED CHI - Child ADD - Address LAB - Lab INV - Investigation LNK - Child-to-address link |
| 4 | ACTION | Database action code. REQUIRED A - Add record C - Change/replace D - Delete |
| 5 | QTR | Reporting quarter. All annual submissions should be "4" for fourth quarter. REQUIRED 1 - First quarter (1/01/yy - 3/31/yy) 2 - Second quarter (4/01/yy - 6/30/yy) 3 - Third quarter (7/01/yy - 9/30/yy) 4 - Fourth quarter (10/01/yy - 12/31/yy) |
| 6-7 | RPT_YR | Reporting year. REQUIRED Last two digits of the reporting year. Must be numeric. |
| 8-12 | PGMID | Program identifier. REQUIRED A unique identifier for the Awardee submitting the data, or for each lead reporting database within the Awardee jurisdiction. The first two positions must contain the state FIPS (Federal Information Processing Standard) code. The next three positions are pre-assigned for HHLPPSS and must be unique for each lead database within a state (including databases other than HHLPPSS). Program ID is obtained from the Healthy Homes and Lead Poisoning Prevention Program (HHLPPP). |
| 13-20 | CHILD_ID | Child identifier. REQUIRED A unique identifier for a child; must be numeric and zero-filled. This would generally be a system-assigned sequential number within a database. The identifier is used in relational databases to eliminate redundant data. The child information exists only once, in one physical record, and is linked to related records by the child identifier. When records from two or more databases are combined, the combination of PGMID and CHILD_ID form a unique identifier within the combined database. |
| 13-20 | ADDR_ID | Address identifier. REQUIRED A unique identifier for an address; must be numeric and zero-filled. This would generally be a system-assigned sequential number within a database. The identifier is used in relational databases to eliminate redundant data. The address information exists only once, in one physical record, and is linked to related records by the identifier. When records from two or more databases are combined, the combination of PGMID and ADDR_ID form a unique identifier within the combined database. |
| 21-249 | --- | Table-specific variable format area based on required reporting. The contents and format depend on the value in the field FILEID. See Tables 1-5 to follow. |

Attachment 5a. CBLS Variables – Text Files

| Table: 1 Record Type: Child FILEID: CHI | | |
|---|------------|---|
| Position | Field Name | Valid Values - Description |
| 1-3 | FILEID | CHI – Child. REQUIRED File identifier for record type. |
| 4 | ACTION | Database action code. REQUIRED A - Add record C - Change/replace D - Delete |
| 5 | QTR | Reporting quarter. All annual submissions should be "4" for fourth quarter. REQUIRED 1 - First quarter (1/01/yy - 3/31/yy) 2 - Second quarter (4/01/yy - 6/30/yy) 3 - Third quarter (7/01/yy - 9/30/yy) 4 - Fourth quarter (10/01/yy - 12/31/yy) |
| 6-7 | RPT_YR | Reporting year. REQUIRED Last two digits of the reporting year. Must be numeric. |
| 8-12 | PGMID | Program identifier. REQUIRED A unique identifier for the Awardee submitting the data, or for each lead reporting database within the Awardee jurisdiction. |
| 13-20 | CHILD_ID | Child identifier. REQUIRED A unique identifier for a child; must be numeric and zero-filled. |
| 21-28 | DOB | Child's date of birth. (CCYYMMDD) REQUIRED Birth date cannot be after the end of the reporting year. Child may not be older than 16 years at the start of the reporting year. |
| 29 | SEX | Sex. REQUIRED 1 - Male 2 - Female 9 - Unknown |
| 30 | ETHNIC | Ethnicity (Select only one). REQUIRED 1 - Hispanic or Latino 2 - Not Hispanic or Latino 9 - Unknown |
| 31 | RACE | Race (Select only one). REQUIRED 1 - American Indian or Alaskan Native 2 - Asian 3 - Black or African American 4 - Native Hawaiian or Other Pacific Islander 5 - White 6 - More than one race 9 - Unknown |
| 32 | CHELATED | Chelation therapy administered. REQUIRED 1 - Yes 2 - No 9 - Unknown |
| 33 | CHEL_TYPE | Type of chelation. REQUIRED 1 - Inpatient 2 - Outpatient 3 - Both 9 - Unknown Cannot be blank if CHELATED =1. Cannot be 1, 2, or 3 if CHELATED =2 or 9. |

Attachment 5a. CBLS Variables – Text Files

| Table: 1 (continued) Record Type: Child FILEID: CHI | | |
|---|------------|---|
| Position | Field Name | Valid Values - Description |
| 34 | CHEL_FUND | Source of funding for the chelation therapy. REQUIRED 1 - Public, includes Medicaid 2 - Private insurance 3 - Parent self-pay 8 - Other 9 - Unknown Cannot be blank if CHELATED = 1. |
| 35 | NPLSZ | Non-paint lead source - other. REQUIRED 1 - Yes 2 - No 9 - Unknown |
| 36 | NPLSM | Non-paint lead source - traditional medicines. REQUIRED 1 - Yes 2 - No 9 - Unknown |
| 37 | NPLSO | Non-paint lead source - occupation of household member. REQUIRED 1 - Yes 2 - No 9 - Unknown |
| 38 | NPLSH | Non-paint lead source - hobby of household member. REQUIRED 1 - Yes 2 - No 9 - Unknown |
| 39 | NPLSP | Non-paint lead source - pottery, imported or improperly fired. REQUIRED 1 - Yes 2 - No 9 - Unknown |
| 40 | NPLSC | Non-paint lead source - child occupation. REQUIRED 1 - Yes 2 - No 9 - Unknown |
| 41 | BIRTH | Country of birth. 1 - U.S. 2 - Other 3 - Unknown |

Attachment 5a. CBLs Variables – Text Files

| Table: 2 Record Type: Address FILEID: ADD | | |
|---|------------|---|
| Position | Field Name | Valid Values - Description |
| 1-3 | FILEID | ADD – Address. REQUIRED File identifier for record type. |
| 4 | ACTION | Database action code. REQUIRED A - Add record C - Change/replace D - Delete |
| 5 | QTR | Reporting quarter. All annual submissions should be "4" for fourth quarter. REQUIRED 1 - First quarter (1/01/yy - 3/31/yy) 2 - Second quarter (4/01/yy - 6/30/yy) 3 - Third quarter (7/01/yy - 9/30/yy) 4 - Fourth quarter (10/01/yy - 12/31/yy) |
| 6-7 | RPT_YR | Reporting year. REQUIRED Last two digits of the reporting year. Must be numeric. |
| 8-12 | PGMID | Program identifier. REQUIRED A unique identifier for the Awardee submitting the data, or for each lead reporting database within the Awardee jurisdiction. |
| 13-20 | ADDR_ID | Address identifier. REQUIRED |
| 21-35 | CITY | City name. |
| 36-38 | CNTY_FIPS | County FIPS code. REQUIRED Numeric, zero-filled. A list of counties their associated FIPS codes is available from HHLPPP. |
| 39-47 | ZIP | Zip code (5+4 format, no dash). Left justified, blank-fill or zero-fill. |
| 48-49 | STATE | State abbreviation (two-letter alphabetic code). |
| 50-56 | CENSUS | Census tract. Left justified, blank-fill. |
| 57 | RENOVATED | Residence renovated. REQUIRED 1 - Yes, once 2 - No 3 - Yes, more than once 9 - Unknown |
| 58-65 | START_REN | Date first renovation begun. (CCYYMMDD) Date must be present when RENOVATED is coded 1 or 3. Date must be blank when RENOVATED is coded 2 or 9. |
| 66-73 | COMP_REN | Date latest renovation completed. (CCYYMMDD) Cannot be earlier than START_REN. Leave blank if renovation is ongoing as of the end of the reporting year. |

Attachment 5a. CBLs Variables – Text Files

| Table: 3 Record Type: Lab Results FILEID: LAB | | |
|---|------------|--|
| Position | Field Name | Valid Values - Description |
| 1-3 | FILEID | LAB – Lab Results. REQUIRED File identifier for record type. |
| 4 | ACTION | Database action code. REQUIRED A - Add record C - Change/replace D - Delete |
| 5 | QTR | Reporting quarter. All annual submissions should be "4" for fourth quarter. REQUIRED 1 - First quarter (1/01/yy - 3/31/yy) 2 - Second quarter (4/01/yy - 6/30/yy) 3 - Third quarter (7/01/yy - 9/30/yy) 4 - Fourth quarter (10/01/yy - 12/31/yy) |
| 6-7 | RPT_YR | Reporting year. REQUIRED Last two digits of the reporting year. Must be numeric. |
| 8-12 | PGMID | Program identifier. REQUIRED A unique identifier for the Awardee submitting the data, or for each lead reporting database within the Awardee jurisdiction. |
| 13-20 | CHILD_ID | Child identifier. REQUIRED |
| 21-28 | SAMP_DATE | Date sample was drawn. (CCYYMMDD) REQUIRED . May not be prior to child DOB. |
| 29-36 | ADDR_ID | Address identifier. (Unique identifier of child's primary address on the date sample was drawn) Zero-fill if unknown. |
| 37 | PREGNANT | Pregnant at time of blood lead test. 1 - Yes 2 - No 3 - N/A 9 - Unknown |
| 38-39 | -- | BLANK |
| 40 | LAB_FUND | Source of funding for the laboratory test. REQUIRED 1 - Public, includes Medicaid 2 - Private insurance 3 - Parent self-pay 8 - Other 9 - Unknown |
| 41 | SAMP_TYPE | Sample type. REQUIRED 1 - Venous, blood lead 2 - Capillary, blood lead 9 - Unknown |
| 42 | TEST_RSN | Test reason. REQUIRED 1 - Screening (asymptomatic child without previous elevated level) 2 - Clinical suspicion of lead poisoning (child symptomatic) 3 - Confirmatory test following elevated value by fingerstick 4 - Follow-up, child with confirmed elevated level 5 - EP, not for lead-screening 9 - Unknown/other |

Attachment 5a. CBLs Variables – Text Files

| Table: 3 (continued) Record Type: Lab Results FILEID: LAB | | |
|---|--------------|--|
| Position | Field Name | Valid Values - Description |
| 43 | LAB_TYPE | Type of laboratory processing sample. REQUIRED 1 - Public health laboratory 2 - Commercial laboratory 3 - Clinical setting (i.e., lead screening) 9 - Unknown |
| 44 | SCRN_SITE | Type of provider ordering test, or screening site. REQUIRED 1 - CLPPP fixed-site specific to lead 2 - Door to door program 3 - Other fixed-site screening program, e.g. WIC 4 - Private health care provider 5 - Referred for confirmation, no screening information 9 - Unknown/other |
| 45 | METH_ANAZ | Laboratory method used to analyze sample. REQUIRED 1 - Inductively coupled plasma mass spectrometry (ICP-MS) 2 - Graphite furnace atomic absorption spectroscopy (GFAAS) (also known as Electrothermal Atomic Absorption Spectroscopy (ETAAS)) 3 - Anodic Stripping Voltammetry (ASV) (e.g., LeadCare®) 9 - Unknown |
| 46-51 | METH_LOD | Limit of detection of METH_ANAZ. (000.00) See Note below. |
| 52-59 | SAMP_ANAZ_DT | Date sample analyzed by lab. (CCYYMMDD) May not be prior to SAMP_DATE. |
| 60-67 | RSLT_RPT_DT | Date results reported to/received by health department. (CCYYMMDD) May not be prior to SAMP_DATE. |
| 68-73 | RESULT | Sample result measured in µg/dL. (000.00) REQUIRED See Note below. |
| 74 | RST_INTPCODE | Numeric result comparator (result interpretation code). REQUIRED 1 - Equal 2 - Less Than 3 - Greater Than |
| 75-80 | LAB_LOD | Limit of detection of the lab that performed the results. (000.00) Only need for "No Result" test. See Note below. |
| 74-123 | LAB_NAME | Name of Laboratory that reported result |
| 124-134 | LAB_ID | Clinical Laboratory Improvement Amendment (CLIA) Number of laboratory |
| 135-144 | NPI | National Provider Identifier or NPI is a unique 10-digit identification number issued to health care providers in the United States by the Centers for Medicare and Medicaid Services (CMS). |

Note: Laboratory sample results and limits of detection (LODs) should all be shown right-justified, zero-filled on the left, and formatted with two decimal positions. If no decimal value, format with decimal and zero (000.00).

Attachment 5a. CBLs Variables – Text Files

| Table: 4 Record Type: Investigation FILEID: INV | | |
|---|------------|---|
| Position | Field Name | Valid Values - Description |
| 1-3 | FILEID | INV – Investigation. REQUIRED File identifier for record type. |
| 4 | ACTION | Database action code. REQUIRED A - Add record C - Change/replace D - Delete |
| 5 | QTR | Reporting quarter. All annual submissions should be "4" for fourth quarter. REQUIRED 1 - First quarter (1/01/yy - 3/31/yy) 2 - Second quarter (4/01/yy - 6/30/yy) 3 - Third quarter (7/01/yy - 9/30/yy) 4 - Fourth quarter (10/01/yy - 12/31/yy) |
| 6-7 | RPT_YR | Reporting year. REQUIRED Last two digits of the reporting year. Must be numeric. |
| 8-12 | PGMID | Program identifier. REQUIRED A unique identifier for the Awardee submitting the data, or for each lead reporting database within the Awardee jurisdiction. |
| 13-20 | ADDR_ID | Address identifier. REQUIRED |
| 21-28 | DATE_REF | Date address referred for investigation. (CCYYMMDD) REQUIRED |
| 29-36 | INSP_COMP | Date address investigation inspection completed. (CCYYMMDD) May not be prior to DATE_REF. |
| 37-44 | ABAT_COMP | Date address hazard remediation or abatement completed. (CCYYMMDD) May not be prior to INSP_COMP. |
| 45-48 | YEAR | Year the dwelling was constructed. (YYYY) Blank if unknown. May not be after reporting year. |
| 49 | OWNERSHIP | Residential ownership status. REQUIRED 1 – Private, owner-occupied 2 – Rental, privately owned 3 – Rental, publicly owned 4 – Rental, Section 8 9 – Unknown |
| 50 | DWELL_TYPE | Type of dwelling. REQUIRED 1 – Attached, single family 2 – Day care center 3 – Detached, single family 4 – Multi-unit 5 – School 8 – Other 9 – Unknown |
| 51 | PAINT_HAZ | Dwelling with peeling, chipping, or flaking paint. REQUIRED 1 – Yes, interior 2 – Yes, exterior 3 – Yes, both 4 – No 9 – Not inspected Must be 9 if INSP_COMP is blank. |

Attachment 5a. CBLs Variables – Text Files

| Table: 4 (continued) Record Type: Investigation FILEID: INV | | |
|---|------------|--|
| Position | Field Name | Valid Values - Description |
| 52-56 | XRF | Highest XRF reading in mg/cm ² . (000.0) See Note below. |
| 57-64 | DUST_FLOOR | Highest floor dust sample reading. (000000.0) See Note below. |
| 65 | FLOOR_MSR | Unit of measure. U – µg/ft ² P – ppm Cannot be blank if DUST_FLOOR > 0. |
| 66-73 | DUST_SILL | Highest window sill dust sample reading. (000000.0) See Note below. |
| 74 | SILL_MSR | Unit of measure. U – µg/ft ² P – ppm Cannot be blank if DUST_SILL > 0. |
| 75-82 | DUST_WELL | Highest window well dust sample reading. (000000.0) See Note below. |
| 83 | WELL_MSR | Unit of measure. U – µg/ft ² P – ppm Cannot be blank if DUST_WELL > 0. |
| 84-91 | PAINT | Highest paint chip sample reading. (000000.0) See Note below. |
| 92 | PAINT_MSR | Unit of measure. U – µg/ft ² P – ppm M – mg/cm ² Cannot be blank if PAINT > 0. |
| 93-100 | SOIL | Highest soil sample reading in ppm. (000000.0) See Note below. |
| 101-108 | WATER | Highest water sample reading in ppb. (000000.0) See Note below. |
| 109 | INDHAZ | Industrial hazard near dwelling. 1 – Yes 2 – No 9 – Unknown |
| 110-117 | DATE_DUE | Date remediation due. (CCYYMMDD) |

Attachment 5a. CBL Variables – Text Files

| Table: 4 (continued) Record Type: Investigation FILEID: INV | | |
|---|--------------|---|
| Position | Field Name | Valid Values - Description |
| 118 | INV_CLOS_RES | Investigation closure reason. A - Administratively closed B - Batch closed C - Remediation complete D - Unit demolished F - Insufficient funds I - Permanent injunction M - Family moved N - No hazard found R - Inspection refused U - No longer rental unit |
| 119-126 | CLEAR_DATE | Date clearance testing completed. (CCYYMMDD) |
| 127 | CLEAR_RSLT | Clearance Testing Results 1 - Passed 2 - Failed 9 - Unknown |

Note: Environmental sample results should all be shown right-justified, zero-filled on the left, and formatted with one decimal position. If no decimal value, format with decimal and zero (000000.0).

Attachment 5a. CBLs Variables – Text Files

| Table: 5 Record Type: Child-to-address link (Optional) FILEID: LNK | | |
|--|------------|---|
| Position | Field Name | Valid Values - Description |
| 1-3 | FILEID | LNK – Child-to-Address Link. REQUIRED File identifier for record type. |
| 4 | ACTION | Database action code. REQUIRED A - Add record C - Change/replace D - Delete |
| 5 | QTR | Reporting quarter. All annual submissions should be "4" for fourth quarter. REQUIRED 1 - First quarter (1/01/yy - 3/31/yy) 2 - Second quarter (4/01/yy - 6/30/yy) 3 - Third quarter (7/01/yy - 9/30/yy) 4 - Fourth quarter (10/01/yy - 12/31/yy) |
| 6-7 | RPT_YR | Reporting year. REQUIRED Last two digits of the reporting year. Must be numeric. |
| 8-12 | PGMID | Program identifier. REQUIRED A unique identifier for the Awardee submitting the data, or for each lead reporting database within the Awardee jurisdiction. |
| 13-20 | CHILD_ID | Child identifier. REQUIRED |
| 21-28 | ADDR_ID | Address identifier. REQUIRED |
| 29 | TYPE_ADDR | Type of Address. REQUIRED 1 – Primary address 2 – Relocation address 3 – Alternative 4 – Supplemental 9 – Unknown |
| 30-37 | FIRST_OCC | Date the child first occupied or began spending time at address. (CCYYMMDD) REQUIRED May not be after the end of the reporting period. |
| 38-45 | LAST_OCC | Date the child moved from or ceased spending time at address. (CCYYMMDD) May not be prior to FIRST_OCC. |

NOTE: There should be only one "open" link record per child (LAST_OCC is blank) where address type code is 1 or 2. A relocation address is considered a primary address to which a child has been permanently moved to remove them from a hazardous environment.

APPENDIX. Childhood Blood Lead Surveillance (CBLS) Submission Format

1. General Requirements

Data must be in ASCII fixed field length (non-delimited), variable record length. The first three positions of each record will contain a file identifier (FILEID) which governs the record format and length.

2. Formatting and Coding

Each record submitted will be validated for correct formatting and coding. Action codes (Position 4 in each record) will be used to determine the record processing when loading to the master database.

3. CHI Processing

An ACTION code of “C” (change) will

- Replace an existing record on the CDC database if the unique identifiers match *unless* it is a CHI record with a changed DOB (date of birth).
- Add “C” transactions to the database when there is no match.

If a CHI (child) change transaction is received, and the DOB is changed, the existing CHI record, the related LNK, and related LAB records will be deleted. The new transactions for this child will then be added. This is effectively the same as submitting a CHI “delete” transaction and CHI (and any related LAB and LNK) “add” transactions.

This means if you submit a CHI *change* transaction with a changed date of birth, you must include all the related information/tests for the child. LAB records already in our database will be removed because we cannot determine if they are valid for the “new” child.

4. DUPLICATE KEY Processing

Records with ACTION code “A” will

- Be added to the database if there is no match.
- If there IS a match (DUPLICATE KEY=match on unique identifiers, see item 5 below), and

| The record type is ... | The transaction is ... |
|---|---|
| LAB, INV, or LNK | is rejected. |
| CHI and the DOB is different | and all related LAB and LNK transactions in the submitted file are rejected. |
| ADD and both CITY and ZIP are different | and all related LAB, LNK and INV transactions in the submitted file are rejected. |

For CHI and ADD transactions where those data fields (DOB or both city and zip code) are not changed, the transactions will update the master files and related transactions will be processed.

Records with ACTION code “D” are processed first. When a CHI delete transaction is processed, all related LNK and LAB records are also deleted. When an ADD (address) delete transaction is processed, all related LNK and INV records are also deleted. LAB records containing that address ID are modified to clear the ID to all zeroes.

CHI and ADD record types are processed first. When other record types are loaded, the related CHI and ADD records must exist in the master file or they are rejected.

Within each submission to CDC there should be NO duplicate records. For instance, while there may be any number of lab results for a given child, there must be only one occurrence of the child record. Additionally, there may only be one LAB record per child per sample date. Duplicates are determined by the values in the FILEID field and the unique identifier for each record.

Each record contains a file identifier (FILEID), a program identifier (PGMID), and record-specific information to create a unique record identifier, as follows:

| FILEID | + PGMID | + Record-specific information |
|--------|---------|----------------------------------|
| CHI | + PGMID | + CHILD_ID |
| ADD | + PGMID | + ADDR_ID |
| LAB | + PGMID | + CHILD_ID + SAMP_DATE |
| INV | + PGMID | + ADDR_ID + DATE_REF |
| LNK | + PGMID | + CHILD_ID + ADDR_ID + FIRST_OCC |

Duplicates found within the same file are rejected, since we cannot determine which is the correct transaction.

- 4 “Duplicate” lab records (more than one test per child **on the same day**) should be resolved according to these guidelines.

If samples are all venous, take the highest test result.

If samples are mixed capillary and venous, take the (highest) venous.

If the samples are all capillary, take the lowest test result.

5. Record formats are illustrated in the tables and follow a basic record format. The first 12 positions are consistent in every record format. Positions 13-20 contain an 8-digit numeric identifier, either for child or address, depending on the record type. The rest of the layout is dependent upon the record type or FILEID value. Tables 1 through 5 illustrate the format variations for the five specific tables.

The field names used in the tables are CBLS field labels or derivatives. All alpha characters are in upper case. All numeric fields are right justified and zero-filled unless

otherwise stated. Alpha-numeric fields are left justified and padded on the right with blanks as needed.

Values are **required** in all fields in positions 1-20. Fields which have number codes must contain a valid number value. Dates which are not applicable or unknown may be blank unless the table indicates REQUIRED.

6. UNIQUE IDENTIFIERS

Each child and address must have a unique numeric identifier. This identifier will be our only way to identify the record, as we cannot use personal identifiers such as name or street address. These identifiers must remain the same from one submission to the next.

COUNTY

As noted in the following specifications, surveillance data submitted to CDC must use the county FIPS code rather than the county name. We have a file of these codes for all states and will be happy to provide you with a file for your state. HHLPS software includes the FIPS codes. To obtain a copy of the FIPS file for your state, email or write to this office and indicate whether you want the file in ASCII or dBase format.

PROGRAM ID

The program ID number is a number assigned by CDC to states submitting surveillance data. The number must be present in each record submitted. When used in combination with the child ID number or the address ID number, the program ID number will assure that data submitted to the national system remains unique.

The need for a program ID number results from the use of database systems which generate "unique" identifiers for that database. If a state is using a system which is installed in more than one location, and each location assigns a "unique" identifier to each child and/or each address, there may be a problem with combining data into a single database. Each location may generate identifiers using the same approach, e.g., each location may assign the number "00000001" to the first child in the system.

A different program ID number will be assigned to each location submitting data to the state system (see below for details). When the program ID number is combined with the "unique" identifier assigned by the location, it will create a "true" unique identifier for each record in the state system.

CDC's HHLPS Team assigns and maintains the program IDs. Each registered HHLPS user receives a unique program ID with the HHLPS software. We assign only one program ID number to each state for databases that are not HHLPS databases. If your state collects data from several non-HHLPS databases and needs additional program ID numbers, please write or email to HHLPS Support a list of names and locations, and we will assign a program ID number for each location.