

National Health and Nutrition Examination Survey

2001-2002 Data Documentation, Codebook, and Frequencies

Complete Blood Count with 5-part Differential - Whole Blood (L25_B)

Data File: L25_B.xpt

First Published: September 2003

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Component Description

The Beckman Coulter® MAXM instrument in the MEC produces a complete blood count on blood specimens and provides a distribution of blood cells for all participants.

Eligible Sample

Participants aged 1 year and over were tested.

Description of Laboratory Methodology

The methods used to derive CBC parameters are based on the Beckman Coulter® method of counting and sizing, in combination with an automatic diluting and mixing device for sample processing, and a single beam photometer for hemoglobinometry. The WBC differential uses VCS technology. See Chapter 7 of the NHANES Laboratory/Medical Technologists Procedures Manual for details.

Data Processing and Editing

Five derived variables were created in this data file. The formula for their derivation is as follows:

$\text{LBDLYMNO} = \text{LBXWBCSI} * \text{LBXLYPCT}/100$ (round to 1 decimal)

$\text{LBDMONO} = \text{LBXWBCSI} * \text{LBXMOPCT}/100$ (round to 1 decimal)

$\text{LBDNENO} = \text{LBXWBCSI} * \text{LBXNEPCT}/100$ (round to 1 decimal)

$\text{LBDEONO} = \text{LBXWBCSI} * \text{LBXEOPCT}/100$ (round to 1 decimal)

$\text{LBDDBANO} = \text{LBXWBCSI} * \text{LBXBAPCT}/100$ (round to 1 decimal)

Blood specimens were measured at the NHANES Mobile Examination Centers. Detailed specimen collection and processing instructions are discussed in the NHANES Laboratory/Medical Technologists Procedures Manual (LPM). Read the LABDOC file for detailed data processing and editing protocols. The analytical methods are described in the Description of the Laboratory Methodology section.

Laboratory Quality Assurance and Monitoring

The NHANES quality control and quality assurance protocols (QA/QC) meet the 1988 Clinical Laboratory Improvement Act mandates. Detailed quality control and quality assurance instructions are discussed in the NHANES Laboratory/Medical Technologists Procedures Manual (LPM). Read the LABDOC file for detailed QA/QC protocols.

Analytic Notes

The analysis of NHANES 2001-2002 laboratory data must be conducted with the key survey design and basic demographic variables. The NHANES 2001-2002 Household Questionnaire Data Files contain demographic data, health indicators, and other related information collected during household interviews. They also contain all survey design variables and sample weights for these age groups. The phlebotomy file includes auxiliary information such as the conditions precluding venipuncture. The household questionnaire and phlebotomy files may be linked to the laboratory data file using the unique survey participant identifier SEQN.

Codebook and Frequencies

SEQN - Respondent sequence number

Variable Name:	SEQN
SAS Label:	Respondent sequence number
English Text:	Respondent sequence number.
Target:	Both males and females 1 YEARS - 150 YEARS

LBXWBCSI - White blood cell count (SI)

Variable Name: LBXWBCSI

SAS Label: White blood cell count (SI)

English Text: White blood cell count: SI

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
2.3 to 36.6	Range of Values	8952	8952	
.	Missing	977	9929	

LBXLYPCT - Lymphocyte percent (%)

Variable Name: LBXLYPCT
SAS Label: Lymphocyte percent (%)
English Text: Lymphocyte percent (%)
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
4.6 to 78.9	Range of Values	8925	8925	
.	Missing	1004	9929	

LBXMOPCT - Monocyte percent (%)

Variable Name: LBXMOPCT
SAS Label: Monocyte percent (%)
English Text: Monocyte percent (%)
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1 to 33.3	Range of Values	8925	8925	
.	Missing	1004	9929	

LBXNEPCT - Segmented neutrophils percent (%)

Variable Name: LBXNEPCT
SAS Label: Segmented neutrophils percent (%)
English Text: Segmented neutrophils percent (%)
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
7.3 to 90.1	Range of Values	8925	8925	
.	Missing	1004	9929	

LBXEOPCT - Eosinophils percent (%)

Variable Name: LBXEOPCT
SAS Label: Eosinophils percent (%)
English Text: Eosinophils percent (%)
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0 to 48	Range of Values	8925	8925	
.	Missing	1004	9929	

LBXBAPCT - Basophils percent (%)

Variable Name: LBXBAPCT
SAS Label: Basophils percent (%)
English Text: Basophils percent (%)
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0 to 11.5	Range of Values	8925	8925	
.	Missing	1004	9929	

LBDLYMNO - Lymphocyte number

Variable Name: LBDLYMNO
SAS Label: Lymphocyte number
English Text: Lymphocyte number
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0.4 to 28.9	Range of Values	8925	8925	
.	Missing	1004	9929	

LBDMONO - Monocyte number

Variable Name: LBDMONO

SAS Label: Monocyte number

English Text: Monocyte number

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0.1 to 4.5	Range of Values	8925	8925	
.	Missing	1004	9929	

LBDNENO - Segmented neutrophils number

Variable Name: LBDNENO

SAS Label: Segmented neutrophils number

English Text: Segmented neutrophils number

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0.5 to 17.9	Range of Values	8925	8925	
.	Missing	1004	9929	

LBDEONO - Eosinophils number

Variable Name: LBDEONO

SAS Label: Eosinophils number

English Text: Eosinophils number

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0.0 to 5.3	Range of Values	0	0	
0	0	8925	8925	
.	Missing	1004	9929	

LBDBANO - Basophils number

Variable Name: LBDBANO

SAS Label: Basophils number

English Text: Basophils number

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0.0 to 1.0	Range of Values	0	0	
0	0	8925	8925	
.	Missing	1004	9929	

LBXRBCSI - Red cell count SI

Variable Name: LBXRBCSI

SAS Label: Red cell count SI

English Text: Red cell count SI

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1.71 to 9.16	Range of Values	8952	8952	
.	Missing	977	9929	

LBXHGB - Hemoglobin (g/dL)

Variable Name: LBXHGB

SAS Label: Hemoglobin (g/dL)

English Text: Hemoglobin (g/dL)

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
5.9 to 19.7	Range of Values	8952	8952	
.	Missing	977	9929	

LBXHCT - Hematocrit (%)

Variable Name: LBXHCT

SAS Label: Hematocrit (%)

English Text: Hematocrit (%)

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
16.3 to 59.9	Range of Values	8952	8952	
.	Missing	977	9929	

LBXMCVSI - Mean cell volume (fL)

Variable Name: LBXMCVSI
SAS Label: Mean cell volume (fL)
English Text: Mean cell volume (fL)
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
56.4 to 120.2	Range of Values	8952	8952	
.	Missing	977	9929	

LBXMCHSI - Mean cell hemoglobin (pg)

Variable Name: LBXMCHSI
SAS Label: Mean cell hemoglobin (pg)
English Text: Mean cell hemoglobin (pg)
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
17 to 42.8	Range of Values	8952	8952	
.	Missing	977	9929	

LBXMC - MCHC (g/dL)

Variable Name: LBXMC

SAS Label: MCHC (g/dL)

English Text: Mean cell hemoglobin concentration (g/dL)

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
27.8 to 44.9	Range of Values	8952	8952	
.	Missing	977	9929	

LBXRDW - Red cell distribution width (%)

Variable Name: LBXRDW

SAS Label: Red cell distribution width (%)

English Text: Red cell distribution width (%)

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
10.5 to 31.6	Range of Values	8952	8952	
.	Missing	977	9929	

LBXPLTSI - Platelet count (%) SI

Variable Name: LBXPLTSI
SAS Label: Platelet count (%) SI
English Text: Platelet count (%) SI
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
12 to 999.9	Range of Values	8951	8951	
.	Missing	978	9929	

LBXMPSI - Mean platelet volume (fL)

Variable Name: LBXMPSI
SAS Label: Mean platelet volume (fL)
English Text: Mean platelet volume (fL)
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
5.3 to 13.5	Range of Values	8951	8951	
.	Missing	978	9929	

