

**NHANES 2001-2002 Public Release Data File
Complete Blood Count with 5-part Differential
(Last Revised: August 2007)**

(1) Documentation File Date-September 3, 2003

(2) Documentation File Name- Complete Blood Count with 5-part Differential

(3) Survey Years Included in this File Release-2001-2002

(4) 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.

(5) Sample Description:

5.1 Eligible Sample

Participants aged 1 year and over were tested.

(6) Description of the 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.

(7) Laboratory Quality Control 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.

(8) Data Processing and Editing

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

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

LBDMONO = LBXWBCSI * LBXMOPCT/100 (round to 1 decimal)
LBDNENO = LBXWBCSI * LBXNEPCT/100 (round to 1 decimal)
LBDEONO = LBXWBCSI * LBXEOPCT/100 (round to 1 decimal)
LBDBANO = LBXWBCSI * 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.

(9) Data Access:

All data are publicly available.

(10) Analytic Notes for Data Users:

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.