Biochemical Flow Sheet
Collection Guidance

- A blood test for anemia such as hemoglobin or hematocrit requires standardized technique, equipment that is validated or calibrated per manufacturer's instructions and trained staff.
- Agencies must use this guidance when collecting biochemical data. If other methods are used, they must have prior approval from the Department via the designated Regional Nutritionist Consultant.
- A hemoglobin or hematocrit test for anemia must be completed at the WIC certification and/or obtained from referral sources for applicants following time frames per category in IL WIC PM CS 6.3. Hemoglobin or hematocrit testing may be deferred up to 90 days following IL WIC PM CS 6.4.

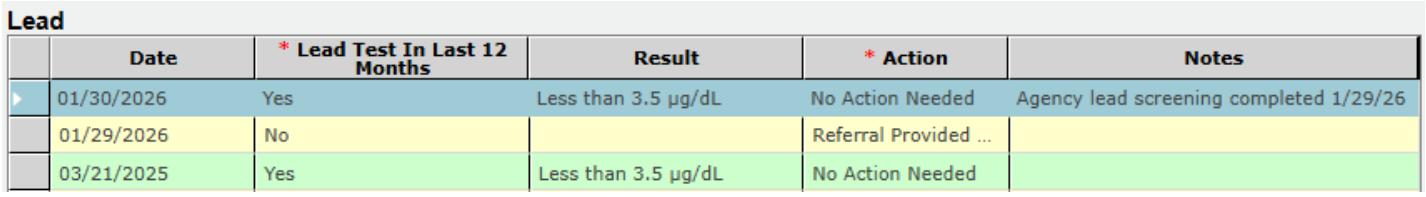
Age/Category	Anemia Test Required at Certification
0-8 months (Infant)	NO First test at C1 Recertification
9-11 months (Infant)	YES Next test at C1 Recertification
12-59 months (C1-C4)	YES*
Breastfeeding Woman	YES*
Pregnant Woman Postpartum Woman	YES

** If low Hgb/Hct, a follow-up test is recommended at the Mid Certification Appointment.*

- As part of the WIC assessment, all applicants must be asked if they have had a blood lead test within the last 12 months (IL WIC PM CS 6.1). If a child has not had a test, a referral must be made and documented in WIC MIS on the Referral screen. If the child has been tested, staff should include the results in the WIC MIS and provide education and counseling as appropriate. (IL WIC PM CS 13.4).
- Frontline/Lab role cannot be assigned for the sole purpose of entering lab values.

Blood Lead Screening

- If a blood lead value is available during the WIC appointment (this can be verbal; documentation is not required), enter the results in WIC MIS on the Lab screen, Screening tab.
- If a blood lead value is not available during the WIC appointment and is completed as part of the visit:
  1. Enter in WIC MIS as "No" lead test in the past 12 months.
  2. Enter in WIC MIS as "Referral Provided and Documented".
  3. Once the results are received by WIC staff, enter blood lead results into WIC MIS by adding a new row in the lead grid with the updated information. Update Referral Screen, if applicable.
  4. You may add to Notes any clarification.



Lead

Date	* Lead Test In Last 12 Months	Result	* Action	Notes
01/30/2026	Yes	Less than 3.5 µg/dL	No Action Needed	Agency lead screening completed 1/29/26
01/29/2026	No		Referral Provided ...	
03/21/2025	Yes	Less than 3.5 µg/dL	No Action Needed	

Local agencies should have a process in place for how an abnormal result received in-between WIC appointments will be followed up on (e.g., add an alert to notify CPA of the follow-up needed).

- If multiple lead results are received, only the most recent should be entered.
- The date of the blood lead data entry does NOT need to match the date the blood test was collected, it will appear as the current date data was entered.

Hemoglobin Screening

1. Measuring Hemoglobin with Blood Sample

- This guidance follows the World Health Organization's (WHO) Guidelines on Drawing Blood: Best Practices in Phlebotomy and general manufacturer guidelines.
- The finger is the preferred collection site for adults and children over the age of six months.

The following steps outline the process for obtaining a blood sample:

1. Turn on testing device.
2. Wash or sanitize hands and put on new disposable gloves for each participant.
3. Collect required materials: remove cuvette from vial, lancet, gauze, alcohol wipe, bandage.
4. Participant should be comfortably seated. If infant/child, may be held by the caregiver.
5. Remove all rings prior to sampling.
6. Ensure finger is warm to touch or have participant wash with warm water prior to testing.
7. Clean finger with alcohol wipe and dry completely using a gauze pad.
8. Keep finger in a downward position and gently massage for blood flow, avoid going past the first knuckle. Do not "milk" the finger.
9. Using a lancet, prick the upward side of the fingertip, slightly off center near the side of the fingertip.
10. Wipe away the first 2-3 drops using the gauze pad.
11. Using a large droplet, fill the cuvette by touching its pointed tip to the middle of the blood drop, filling the cuvette completely. Using a gauze pad, wipe excess blood from outside of cuvette, being careful not to touch the open end. Never refill or top off the cuvette. If air bubbles are in cuvette, repeat collection with a new cuvette.
12. Cover skin with gauze and apply gentle pressure.
13. Insert cuvette into analyzer, within 40 seconds. Once results are obtained, apply bandage. Due to choking risk, it is not recommended to apply a bandage to a child less than 2 years old.
    a. If results are outside normal range, repeat test with new cuvette. This can often be done using the same puncture site, provided that excessive pressure was not applied.
14. Dispose of used cuvette and lancet into sharps disposable container and other nonhazardous waste into the trash.
15. Remove and discard gloves. Wash hands or use approved hand sanitizer.
16. Record measurement in WIC MIS on the Lab screen, Screenings tab.

2. Measuring Hemoglobin with Non-invasive Machine

1. Turn on testing device (should not be placed in direct sunlight during testing).
2. Ensure participant is comfortably seated. If infant/child, may be held by the caregiver.
3. The participant should be sitting during the reading, holding their finger or thumb as still as possible.
4. Select a pediatric or adult sensor and connect to the device. <u>Children must weigh at least 22 lbs. to use the pediatric sensor.</u>
5. Place sensor on the participant's finger. The finger must cover all lights within the sensor to accurately work. For children, place sensor on their thumb.
6. Inaccurate readings may be due to nail polish or excessive ambient light such as sunlight.
7. Begin the test and wait for the timer to countdown.
8. If results displayed outside normal range, repeat test or test with a blood sample machine.
9. Wipe sensor with alcohol pad.
10. Record measurement, in WIC MIS on the Lab screen, Screenings tab.

For details on hemoglobin or lead WIC risk factors refer to the Addendum USDA WIC Nutrition Risk Manual (IL WIC PM CS 6.1). For details on IWIC documentation refer to the IWIC User Manual.