

## SHOW blood draw protocol for plasma, serum, and whole blood

### Sample Collection Appointments

Biological sample collection (for blood, urine, stool, and hair) typically occurs at a temporary SHOW sample collection site in the local community. For those subjects who prefer, due to mobility issues or simple preference, sample collection procedures may be conducted in the home.

Upon arriving at the sample collection site, each participant is checked into the computer system and his or her identity and study number is verified. The phlebotomist or field staff interviewer outlines the planned procedures, conducts, or verifies consent and answers any questions.

No biosample collection for children is conducted or planned at this time.

Staff will be instructed to wear personal protective equipment and devices during all stages of sample collection, for staff as well as participant safety.

### Phlebotomy Procedure

The blood draw will be completed on participants  $\geq 18$  years of age by certified phlebotomists at a sample collection site established in each community, or if needed, at the subject's home.

The research staff performing the phlebotomy procedure are certified in their phlebotomy skills and receive annual updates to certification updates as needed. Additionally, the phlebotomists are First Aid/(CPR)-certified, thus prepared for unexpected events such as syncope.

This blood is drawn from the participant's arm using standard venipuncture technique. Tubes are drawn in a prescribed order based on the type of tube and additive. Approximately 34 to 54 mL of blood will be drawn from each participant and collected into six to nine tubes. The order in which the tubes are collected is *extremely important* and must be done as follows:

1. 4mL CPT blue tube for cell extraction (collected in some years and not in others)
2. 5 mL gold top SST with gel barrier for Marshfield Lab (for chemistries)
3. 10mL red top for serum
4. 10mL red top for serum
5. 10 mL EDTA lavender top for plasma and DNA
6. 10 mL EDTA lavender top for plasma and DNA
7. 3mL EDTA lavender top for Marshfield Lab (for CBC)
8. 3mL EDTA lavender top for Marshfield Lab (for HgA1C)
9. 2.5 mL PaxGene Tube for whole blood sample collection and RNA

For participants not interested in or willing to provide a blood sample, an alternative option of providing dried blood spots was offered in some survey years. Two cards per participant with four samples each were collected following standard data collection protocol. Cards were dried in the lab and sealed for long-term storage. Cards are stored at -80C. All samples are protected during transport to avoid high temperature extremes.