



Setting blood pressure guidelines for an Alzheimer's Disease and Related Dementia Study for American Samoans.

Grace-Damona Tuato’o, Tulimalefoi Mauga Vaofanua, Fenumia’i Iosia, Helen Aitaoto, Katherine Tong, Joyce Fou, James Galvin, Va’atausili Tofaeono

Culturally grounded protocols allow for improved inclusivity in research participation for indigenous populations.

Background: Native Hawaiian and Pacific Islanders populations are underrepresented in Alzheimer’s Disease and Related Dementia (ADRD) research, limiting the generalizability and equity of the evidence base. National data sources illustrate this gap. In American Samoa, 58.4% of adults aged 65 years and older have hypertension, a recognized vascular risk factor for ADRD. However, standardized blood pressure (BP) screening thresholds derived from predominantly non-Indigenous populations may inadvertently exclude individuals at highest vascular risk from ADRD studies. Standards from the American Heart Association in table 1 were used to inform program procedures but it introduced selection bias and limited the ability to examine vascular contributions to cognitive impairment. The team hypothesized that by modifying program protocols through combining Westernized and Indigenous frameworks, it will improve inclusivity of the Samoan population in ADRD studies and maintain participant safety.

Table 1: AHA blood pressure standards. (American Heart Association, n.d)

Status	Systolic (mmHg)	Diastolic (mmHg)	Actions
Normal	<120	<80	
Elevated	120-129	<80	
Stage 1 hypertension	130-139	80-89	Asymptomatic: Call PHP
Severe hypertension	180+	120+	Call 911

Method: We conducted a data-informed, consensus-driven evaluation of BP screening procedures used in the *Puipui Malu Manatu* (PMM) study (RF1AG075904). The structured consensus group consisted of PMM’s Principal Investigator, nursing staff, and research coordinators who reviewed descriptive BP data from 794 PMM participants. BP measurements were summarized overall across age groups (**Table 2**).

Table 2: Participant age groups

Group	Age	No. of pts
A	50-64	487
B	65-74	251
C	75+	56
All	50+	794

Averages across groups were then used to inform protocol decisions relevant to older adults (**Table 3**). The consensus process incorporated Indigenous and community-centered decision-making frameworks, including Two-Eyed Seeing and Talanoa, to integrate empirical data with culturally grounded norms.

Table 3: Blood pressure averages. Sys/Dias *mmHg

Group	Sitting	Standing
A	145/90	147/94
B	147/88	149/91
C	150/85	148/89
ALL	146/89	148/92

Results: Based on these findings, the consensus was to revise study protocol to discontinue reliance on non-population-specific BP exclusion thresholds. Instead, enhanced monitoring and clinical oversight procedures were implemented to support safe inclusion of older adults and individuals with hypertension. **Table 4** shows the updated number of participants following the protocol modifications, with an additional 163 participants from December 2025, with **Table 5** displaying the averages across the age groups.

Updated protocol:

- BP exclusion criteria modified:
 - > 180/100 & symptomatic? YES: Reschedule with ED referral. If NO: AMA and continue visit.
 - >200/120 & asymptomatic - Bed patient for 15 minutes and retake BP. If persists
 - >200/120 reschedule with ED referral.

Table 4: Participant age groups

Group	Age	No. of pts
A	50-64	487
B	65-74	346
C	75+	124
All	50+	957

Table 5: Blood pressure averages. Sys/Dias *mmHg

Group	Sitting	Standing
A	145/90	147/94
B	148/88	133/108
C	145/82	114/119
ALL	146/88	138/102

Conclusion: Data-informed, culturally grounded protocol modification in the PMM study reduced selection bias and improved inclusivity. This approach provides a scalable model for improving equity and scientific rigor in ADRD research involving Indigenous and other high-risk populations globally.



References:

American Heart Association. (n.d.). What is high blood pressure? | American Heart Association. What is High Blood Pressure? <https://www.heart.org/en/health-topics/high-blood-pressure/the-facts-about-high-blood-pressure>

Contact:

Grace Tuato’o
Research Assistant
American Samoa Community Cancer Coalition
Email: gtuatoo@ascancer.org
Phone: (206)-519-2925
Website: www.ascancercoalition.org