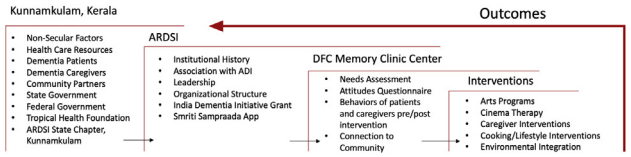

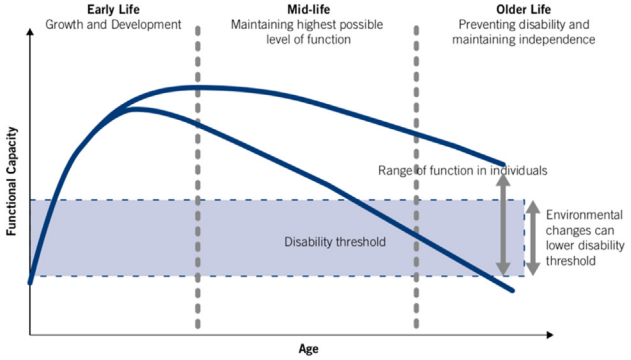

were no statistically significant differences in change in any measured outcome from baseline to 2-7 days or 6 weeks post-disclosure (Table 1). Those in the telephone arm reported less increase in disease specific-distress, although this was not statistically significant. Satisfaction with services was slightly higher in the telephone disclosure arm post-disclosure (0.8 higher in telephone arm, p=0.07). Further analysis by *APOE* result (heterozygote v. homozygote v. noncarrier) will be completed to better understand if outcomes are similar by test result. **Conclusions:** Data from this ongoing investigation will help inform the optimal delivery method of genetic disclosure, and has potential implications for the implementation of *APOE* testing to screen individuals and families at risk for Alzheimer's disease dementia in the clinic.

Table 1

	Telephone Mean (SD)	Real-time VC Mean (SD)	p
Change from baseline to 2-7 days post disclosure			
Knowledge	1.23 (3.67)	1.43 (3.77)	0.61
STATE anxiety	-0.36 (3.03)	-0.45 (2.89)	0.77
Disease specific distress	0.27 (4.49)	1.12 (5.99)	0.13
Depression	-0.13 (0.93)	-0.08 (0.97)	0.65
Change from baseline to 6 weeks post disclosure			
Knowledge	0.90 (3.42)	1.39 (4.41)	0.27
STATE anxiety	-0.25 (2.80)	-0.47 (3.29)	0.52
Disease specific distress	-0.34 (5.36)	-0.08 (5.21)	0.66
Depression	-0.08 (1.15)	0.00 (1.00)	0.53
Satisfaction (post-disclosure only)			
Satisfaction with genetic services	39.7 (4.24)	38.9 (4.48)	0.07
Satisfaction with remote counseling	44.8 (5.02)	44.6 (4.81)	0.63

P4-654 CONNECT 4 *APOE*: A RANDOMIZED STUDY OF PHONE VERSUS VIDEOCONFERENCE DELIVERY OF *APOE* GENOTYPE DISCLOSURE IN THE GENERATION STUDY

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Background: *APOE* testing is increasingly important to identify candidates eligible for Alzheimer's trials. How best to provide genetic services for the disclosure of *APOE* results remains unclear. Both telephone and real-time videoconferencing (RTVC) have been shown to be feasible for remote delivery of genetic services, but outcomes have not been compared in a randomized trial. **Methods:** The Alzheimer's Prevention Initiative Generation Study 1 (NCT02565511) is enrolling cognitively normal *APOE e4* homozygotes aged 60-75 years and includes a standardized approach to *APOE* disclosure. Some study sites do not have genetic providers to provide counseling and test disclosure to participants. CONNECT 4 *APOE* (NCT02978729) is a multi-site randomized study to evaluate the relative advantages of RTVC disclosure over telephone for disclosure of *APOE* genotype results in a large clinical trial. Participants are randomized to disclosure of results by phone or RTVC; counselors use standardized counseling checklists, risk estimates and visual aids. Knowledge and psychosocial outcomes are measured at various time points. **Results:** In a planned interim analysis, 410 participants have been randomized (201 to RTVC, 209 to phone disclosure). Mean participant age is 67 years, 64% are female, 93% white, and >99% have a family history of dementia. 124 (31%) are *APOE e4* homozygotes and 157 (39%) are heterozygotes. Participant characteristics and *APOE* results did not differ significantly between arms. In this early planned analysis, there

P4-655 ADDRESSING AD HEALTH DISPARITIES THROUGH A CULTURAL LENS

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Background: Health disparities affect the diagnosis, treatment and care of Alzheimer's Disease (AD). While some information is available in each of these areas, much less is known about the role of cultural contexts. The Michigan Center for Contextual Factors in Alzheimer's Disease (MCCFAD) explores these issues through community health events embedded in the Arab American and Latinx communities. **Methods:** Preliminary data are offered from 8 community events, four each held at culturally suitable locations in the Dearborn and Grand Rapids areas of Michigan, providing a trustworthy atmosphere. Events were widely advertised in the community using ethnic mediums (e.g., Arabic-language radio, social media, community partners and community advisory board members). During the events presentations were made by AD experts with input and feedback sought from Community Advisory Board members. **Results:** Presentations were given in English with Arabic or Spanish speakers integrally involved; and ethnically appropriate food was provided at each event. On average 30 to 60 people attended each event, with over 300 attendees in all. Topics covered included: What is AD; Top AD stories in the news; How to reduce risk of AD; the Healthy brain. Most attendees were young or middle aged, i.e. 20-50. Over 70% of the attendees indicated they

attended the event because they were interested in learning more about AD. Overwhelmingly, people were quite positive in their evaluations of the events (above 4.5 on 5-point scale). Cultural issues were always raised: Do 'we' get it more than others; Does it run in 'our' families; What should family members do? Participants specifically mentioned problems dealing with the cultural stigma around AD. In both Arab American and Latinx communities, great pride was expressed in the cultural norm of 'taking care of our elders'. At the same time, people consistently mentioned the shame associated with the disease, resulting in denial and the inability to reach out for assistance, even when desperately needed. **Conclusions:** Culturally targeted and sensitive community health events can identify health disparity issues within a cultural context.

P4-656 CROSS-LAGGED MODELLING OF GLOBAL COGNITION AND CORE SOCIAL NETWORK SIZE IN THE SYDNEY MEMORY AND AGEING STUDY

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Background: The friends and family with whom we frequently interact comprise our core social networks (Stiller and Dunbar, 2007). Meta-analyses indicate that poor social engagement, including having a limited social network, is a risk factor for dementia (Penninkilampi et al., 2018). Evidence for a causal relationship between social network size and cognition is mixed, indicating that larger networks protect against cognitive decline (Sörman et al., 2017) or alternatively that network size and cognitive decline are not associated (Kuiper et al., 2019). This research investigated possible reciprocal associations between global cognition and core social network size, controlling for socio-demographic and health-related variables. **Methods:** Data were collected at baseline and at 2-year intervals across six years in the Sydney Memory and Ageing Study. Structural Equation Modeling (SEM) cross-lagged panel model (CLPM) was used to analyse longitudinal association between cognition and network size. Global cognition scores for each wave were calculated as the average of cognitive domain scores for the corresponding wave. Social network size was number of friends and relatives contacted monthly. Covariates were age, sex, education, and Geriatric Depression Scale (GDS) score (Sheikh and Yesavage, 1986). The model included baseline covariates at wave 1 and GDS score as a time-varying covariate. **Results:** Respondents were 1037 Sydney residents aged 70-90 years, 55.2% were female. Cognition and network size declined linearly across time-points. CLPM fit indices were adequate [CFI=0.94, SRMR=0.046, RMSEA=0.08 (0.07, 0.09), Chi-Square=279, df=54, p<0.0001]. Age, sex, and education significantly predicted baseline cognition. Significant negative association between GDS score and network size were observed at waves 1 and 4. Wave 2 cognition was positively related to wave 3 network size. Post-hoc group-based trajectory modeling indicated heterogeneous patterns of network size trajectories across time. **Conclusions:** Global cognitive function and core social network size declined over time. Although lower wave 2 cognition appeared to drive reduced wave 3 network size, results generally did not support causation for either cognition or network size for our sample. Relationship quality matters as well as quantity. Some social contact may be unsupportive. Detection of causal associations may require longer study timeframes and more depth in social contact data.

P4-657 POPULATION PHARMACOKINETIC/ PHARMACODYNAMIC ANALYSES OF BAN2401 IN PATIENTS WITH EARLY ALZHEIMER'S DISEASE: CORRELATION OF BAN2401 EXPOSURE, PET STANDARD UPTAKE VALUE RATIO, AND COGNITIVE OUTCOMES

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Background: BAN2401, a humanized IgG1 monoclonal antibody that selectively binds to Aβ protofibrils, recently demonstrated dose-dependent reduction in brain amyloid, that was accompanied by slower decline on clinical outcomes in patients with early Alzheimer's disease (AD) after 18 months of treatment, with differences observed as early as 6 months. The objective of this analysis was to explore the relationship between 1.) pharmacokinetic model-predicted exposure to BAN2401 and PET standard uptake value ratio (SUVr) assessments and 2.) SUVr assessments and clinical endpoints (ADCOMS, CDR-SB, ADAS-Cog) at 12 and 18 months. **Methods:** Population pharmacokinetic model for BAN2401 was developed using pooled data from 2 phase 1 studies and one phase 2 study . Cerebral amyloid plaque removal was measured in phase 2 study using PET imaging. pharmacokinetic model-predicted BAN2401 exposures were correlated with absolute SUVr measurements using indirect response Emax model. The relationship between key clinical endpoints (ADCOMS, CDR-SB, and ADAS-Cog) and SUVr values calculated from 2 reference regions: a) subcortical white matter (SUVrSWM) and b) whole cerebellum mask (SUVrWC) was explored using a linear model. Various demographic and clinical covariates were evaluated. **Results:** Model-predicted BAN2401 concentration at the time of SUVr assessment was correlated with a reduction in SUVrWC and SUVrSWM. Significant covariates on Emax parameter were Baseline SUVrWC value and age. Emax was not significantly affected by neutralizing ADA or APOE4 carrier status for both SUVrWC and SUVrSWM. . Reduction of amyloid as measured by SUVrWC and SUVrSWM was positively correlated with slowing of disease progression rate as measured by ADCOMS, CDR-B and ADAS-Cog, except for ADAS-Cog vs SUVrWC. Duration of treatment (18 vs 12 months) was a significant covariate