Table 1a. Prevalence, relative risk and PAR for potentially modifiable risk factors for dementia in South Africa among men

Risk factor	Prevalence	Relative Risk (95% CI)	PAR% (95% CI)
Diabetes mellitus	10%[a]	1.73 (1.65 to 1.82)	7% (5.9% to 7.4%)
Midlife hypertension	16%[b]	1.61 (1.16 to 2.24)	9% (2% to 17%)
Midlife obesity	5%[b]	1.33 (1.08 to 1.63)	2% (0.4% to 3.1%)
Physical inactivity	29%[b]	1.37 (1.15 to 1.61)	10% (4% to 15%)
Depression	7%[c]	1.98 (1.50 to 2.63)	6% (3% to 10%)
Smoking	37%[b]	1.30 (1.18 to 1.45)	10% (6% to 14%)
Low educational attainment	12%[b]	1.81 (1.59 to 2.06)	9% (6% to 11%)
Hearing Loss	18%[d]	1.90 (1.38 to 2.73)	14% (6% to 24%)
Social Isolation	19%[e]	1.57 (1.32 to 1.85)	10% (6% to 14%)
Chronic Lung Disease	29%[f]	1.74 (1.55 to 1.96)	18% (14% to 22%)
Traumatic Brain Injury	*Not available*	1.63 (1.34 to 1.99)	*Not calculated*
HIV	15%[g]	*Not available*	*Not calculated*

a. SAHANES-1 b. DHS 2016, c. SASH, d. Population based community survey, e. HAALSI, f. BOLD survey, g. StatsSA 2017

Table 1b. Prevalence, relative risk and PAR for potentially modifiable risk factors for dementia in South African among women

Risk factor	Prevalence	Relative Risk (95% CI)	PAR% (95% CI)
Diabetes mellitus	11%[a]	1.73 (1.65 to 1.82)	7% (6.5% to 8.1%)
Midlife hypertension	17%[b]	1.61 (1.16 to 2.24)	9% (3% to 17%)
Midlife obesity	19%[b]	1.33 (1.08 to 1.63)	6% (1.5% to 10.7%)
Physical inactivity	48%[b]	1.37 (1.15 to 1.61)	15% (7% to 22%)
Depression	12%[c]	1.98 (1.50 to 2.63)	11% (6% to 16%)
Smoking	7%[b]	1.30 (1.18 to 1.45)	2% (1% to 3%)
Low educational attainment	14%[b]	1.81 (1.59 to 2.06)	10% (8% to 13%)
Hearing Loss	9%[d]	1.90 (1.38 to 2.73)	7% (3% to 13%)
Social Isolation	19%[e]	1.57 (1.32 to 1.85)	10% (6% to 14%)
Chronic Lung Disease	20%[f]	1.74 (1.55 to 1.96)	13% (10% to 16%)
Traumatic Brain Injury	*Not available*	1.63 (1.34 to 1.99)	*Not calculated*
HIV	21%[g]	*Not available*	*Not calculated*

a. SAHANES-1 b. DHS 2016, c. SASH, d. Population based community survey, e. HAALSI, f. BOLD survey, g. StatsSA 2017

preventable dementia in South Africa is hampered by the lack of epidemiological data. Our planned research will improve prevalence and risk estimates for known and emerging dementia risk factors.

O3-05-06 GLOBAL COUNCIL ON BRAIN HEALTH LIFESTYLE RECOMMENDATIONS FOR ADULTS 50+

Sarah Lenz Lock, Lindsay Rachel Chura, Nicholas Barraccca, *AARP, Washington, DC, USA. Contact e-mail: SLock@aarp.org*

Background: Lifestyle modifications are at the heart of efforts to promote healthy aging and risk reduction for cognitive decline and dementia. The Global Council on Brain Health (GCBH) is an independent collaborative of scientists, clinicians, scholars and policy experts convened by AARP to provide evidence-based advice on what people and professionals can do to maintain and improve brain health. The Council translates scientific research into actionable recommendations for the public that will help drive behavior change in individuals across communities and cultures. 2019 represents a milestone year for the Council as it prepares to address the last major lifestyle factor in our systematic review of topics based on the 2015 AARP Survey on Brain Health. This presentation will provide highlights from the multi-year effort to systematically examine lifestyle factors including topics such as physical activity, sleep, cognitively stimulating activities, and nutrition. This body of work will serve as the springboard for future Council work. **Methods:** Issue specialists from around the world were brought together to build consensus and issue lifestyle recommendations based upon the cumulative body of evidence. These experts have conducted research that has significantly contributed to the body of evidence linking a range of modifiable risk factors with brain health in older adults. **Results:** This presentation will feature consensus points and recommendations issued by the Council. It will also showcase statements and practical tips generated by the Council that are based on the latest research advancements. Data from surveys fielded by AARP research, developed in consultation with the GCBH, will also be featured. **Conclusions:** In sum, this presentation will highlight the work of the Council at the forefront of this international effort. Particular emphasis will be paid to the scientific and policy dimensions of brain health, with an emphasis on individuals aged 50 and older.

ORAL SESSIONS
O3-06
NEUROPSYCHOLOGY: NOVEL METHODS OF DETECTING COGNITIVE CHANGE

O3-06-01 NIH TOOLBOX COGNITION TABLET BATTERY IN IDENTIFICATION OF EARLY COGNITIVE IMPAIRMENT

Yonatan Kahsay[1], Natcha Srimaneerungroj[1], Arijit K. Bhaumik[1,2], Tanisha G. Hill-Jarrett[1], Annalise rahman-Filipiak[1], Voyko Kavcic[3,4], Nicolas May[1], Sarah Shair[1,2], Stephen Campbell[1,2], Henry L. Paulson[1,2], Judith L. Heidebrink[1,2], Benjamin M. Hampstead[1,2,5], **Bruno Giordani**[1,2], *[1]Michigan Alzheimer's Disease Center, Ann Arbor, MI, USA; [2]University of Michigan, Ann Arbor, MI, USA; [3]Wayne State University, Detroit, MI, USA; [4]International Institute of Applied Gerontology, Ljubljana, Slovenia; [5]VA Ann Arbor Healthcare System, Ann Arbor, MI, USA. Contact e-mail: giordani@med.umich.edu*

Background: The computer-based NIH Toolbox-Cognition battery includes subtests measuring executive function (Dimensional Card Sort), episodic memory (Picture Sequence Memory), language (Vocabulary, Oral Reading), processing speed (Pattern Comparison), working memory (List Sorting), and attention (Attention/Flanker) and is now available on a tablet platform. The battery was designed by an expert panel to provide valid and reliable data in epidemiological and longitudinal research, in order to present a "common currency" for studies. For this reason, Toolbox has particular appeal for longitudinal studies of aging and early detection of dementia. The present study was designed to gain information about the ability of Toolbox-Cognition to differentiate healthy controls from persons with mild cognitive impairment (MCI). **Methods:** A sample of consensus-diagnosed Healthy Controls (HC; N=61; Age=69.3±7.9), Amnestic MCI single or multiple domain (aMCI; N=42, Age=74.1±7.7), and non-Amnestic MCI single or multiple domain (naMCI; N=16; Age-71.5±8.8) participants recruited from the Michigan Alzheimer's Disease Core Center (MADCC) were administered the NIH Toolbox-Cognition battery. The sample included 67 African Americans and 52 non-Hispanic white participants. Data from the core subtests u sing the iPad tablet Toolbox app were chosen for analyses in this paper to compare across groups using a multivariate analysis of variance model. **Results:** Groups did not differ in age or education. The overall MANOVA model was significant ($p<.0001$). Across individual subtests that demonstrated significant differences, the Flanker test demonstrated better performance by controls compared to aMCI ($p<.01$). For List Sorting, Controls performed better than both aMCI ($p<.002$) and naMCI ($p<.01$). For Picture Sequence Memory, Controls performed better than aMCI ($p<.0001$), and naMCI performed better than aMCI ($p<.002$). No differences were noted for race. No differences were seen for Card Sort, Oral Reading, Pattern Comparison, and Vocabulary. Discriminant analysis classified Controls from MCI at an overall rate of 77% and aMCI from naMCI at 76%. **Conclusions:** aMCI differed from controls on measures of attention, working memory, and memory, and naMCI differed from controls only on working memory. aMCI and naMCI differed only on memory. The tablet version of Toolbox-Cognition appears to be a reasonable measure to reflect differences across early age- and illness-associated cognitive changes.