Table 1: Summary of Findings from Mendelian Randomization Studies on Alzheimer's Disease Risk Factors Recommended by the World Health Organization

WHO risk factor	Direction of effect on dementia from MR		
	Protective	*Null*	*Harmful*
High smoking quantity	1, 2, 3	4, 5, 21	–
Smoking initiation	1, 5	–	–
Physical inactivity	21	3, 5, 6, 7	–
Hypertension	8, 3	2, 5, 9, 10, 21	–
Diabetes	–	2, 3, 5, 12, 13, 14	11
High alcohol consumption	–	2, 3, 5, 15, 16	–
Adiposity	–	1, 2, 3, 5, 18, 19, 20, 21	17
Low education	–	1, 3	2, 5, 21, 22, 23, 24, 25, 26, 27

Please note that this table does not include MR studies of dietary intake as it is too broad for inclusion. 1- Østergaard et al, 2015.[14] 2- Larsson et al, 2017.[15] 3- Desai et al, 2023.[16] 4- Nordestgaard et al, 2022.[17] 5 – Andrews et al, 2021.[18] 6- Zhang et al, 2022.[19] 7- Baumeister et al, 2020.[20] 8 – Sproviero et al, 2021.[21] 9 – Walker et al, 2020.[22] 10 – Ou et al, 2021.[23] 11- Meng et al, 2022.[24] 12 – Thomassen et al, 2020.[25] 13 – Pan et al, 2020.[26] 14 – Walter et al, 2016.[27] 15 – Andrews et al, 2020.[28] 16 – Campbell et al, 2022.[29] 17 – Li et al, 2021.[30] 18 – Zhuang et al, 2021.[31] 19 – Zhou et al, 2019.[32] 20 – Nordestgaard et al, 2017.[33] 21 – Korologou-Linden, 2022.[4] 22 – Anderson et al, 2020.[34] 23 – Thorp et al, 2022.[35] 24 – Seyedsalehi et al, 2022.[36] 25- Nguyen et al, 2016.[37] 26 – Raghavan et al, 2019.[38] 27 – Liu et al, 2022.[39] **Search strategy and selection criteria.** Please note that this search was not intended to be a full systematic review of the Mendelian randomization literature dementia risk factors, but a comprehensive literature search to inform the table. PubMed was the only database used for the literature search. We searched for any paper that had the terms 'Mendelian randomization' AND 'dementia OR Alzheimer's disease' AND 'risk factor terms*' in the title and/or abstract. We also conducted a more general search of 'risk factors' to identify studies that examined multiple risk factors within the same paper. Abstracts of all papers returned were read to determine suitability for inclusion in the figure. No exclusion criteria were applied and there were no date restrictions on the search. *For each risk factor the following terms were searched: Smoking – 'smoking', 'cigarettes'. Physical inactivity – 'physical activity', 'physical inactivity', 'accelerometer'. Hypertension – 'hypertension', 'blood pressure', 'antihypertensive'. Diabetes – 'diabetes', 'glucose'. Alcohol – 'alcohol'. Adiposity – 'adiposity', 'body mass index', 'BMI', 'obesity'. Low education – 'education', 'educational attainment', 'years of schooling'.