

Supplementary material

Cicha-Mikołajczyk A, Piwońska A, Borowiec A, et al. Disparities in knowledge of cardiovascular risk factors and prevention methods related to cardiovascular status and functional health literacy, Poland, 2020–2021. Kardiol Pol. 2023.

Please note that the journal is not responsible for the scientific accuracy or functionality of any supplementary material submitted by the authors. Any queries (except missing content) should be directed to the corresponding author of the article.

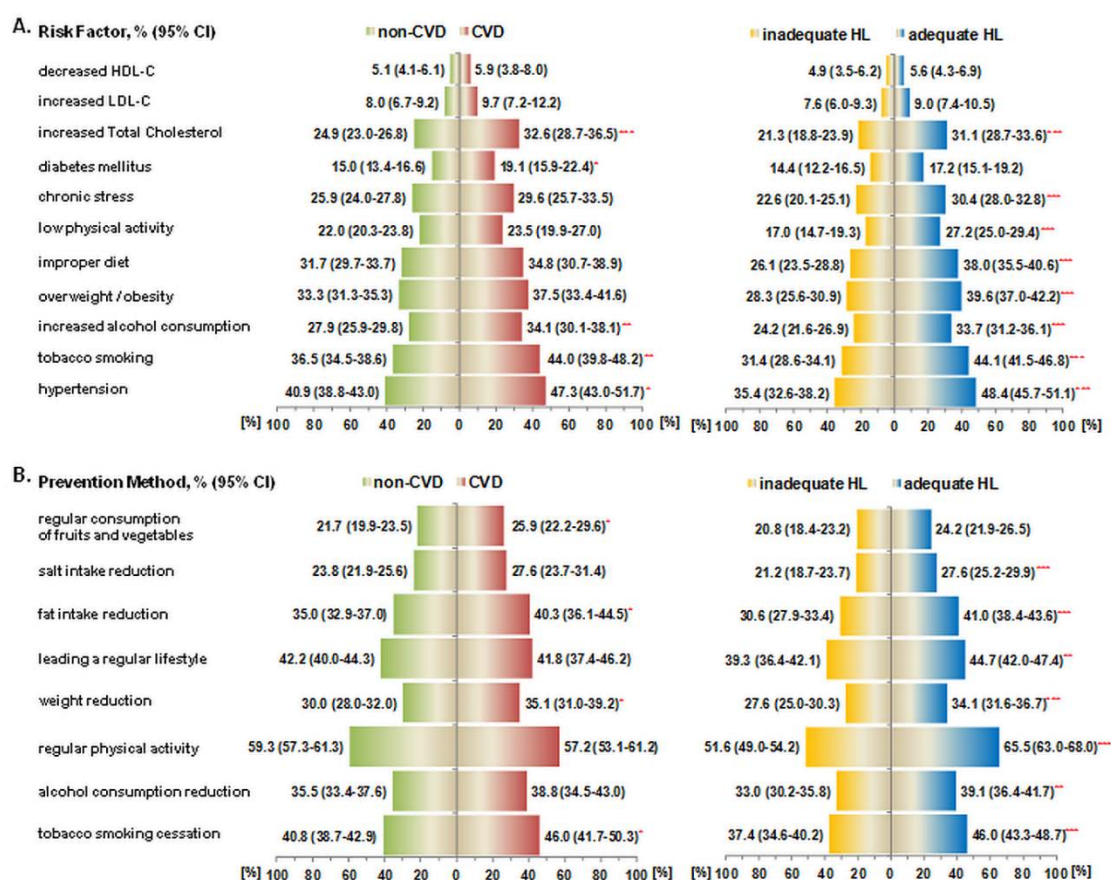
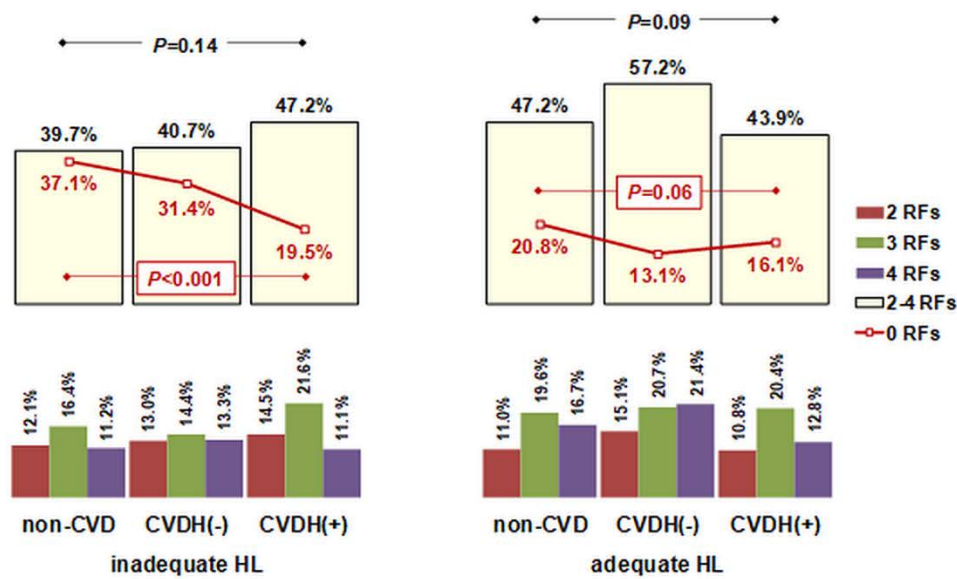


Figure S1. Distribution of self-reported knowledge of cardiovascular disease (CVD) risk factors and non-pharmacological CVD prevention methods by CVD status or health literacy (HL). All data adjusted for age, sex, education level, and size of the place of residence. CVD status defined as non-CVD for persons without cardiovascular disease, and CVD for persons with cardiovascular disease. HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol. * $P < 0.05$. ** $P < 0.01$. *** $P < 0.001$

A. Self-reported knowledge of CVD Risk Factors (RFs) [%]



B. Self-reported knowledge of CVD Prevention Methods (PMs) [%]

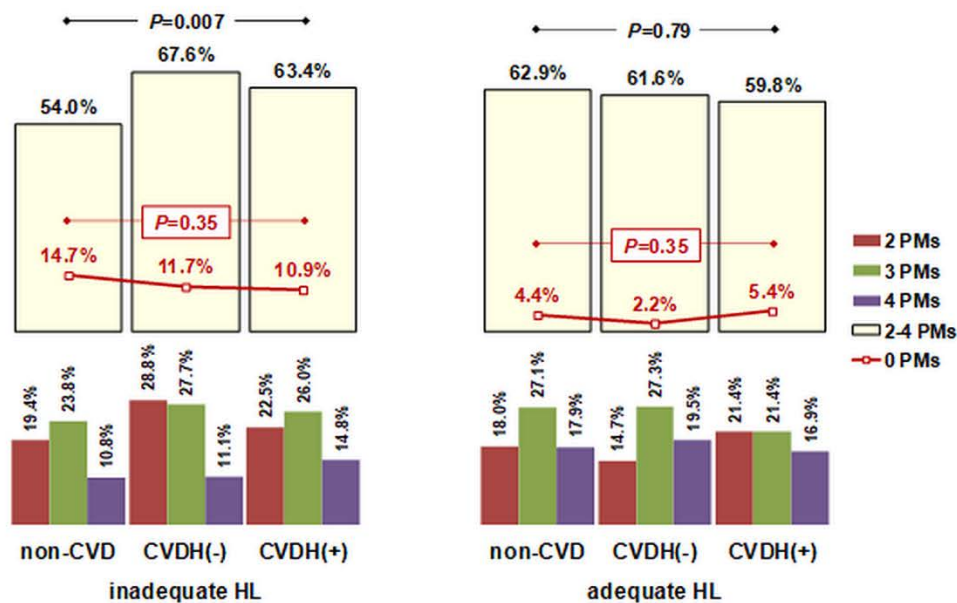


Figure S2. Distribution of self-reported knowledge of cardiovascular disease (CVD) risk factors (RFs) and non-pharmacological CVD prevention methods (PMs) by health literacy (HL) in CVD status groups. All data adjusted for age, sex, education level, and size of the place of residence. CVD status defined as non-CVD for persons without cardiovascular disease, CVDH(-) for persons with diagnosed cardiovascular disease but not hospitalized due to CVD, CVDH(+) for persons with diagnosed cardiovascular disease and hospitalized due to CVD. *P*-value for self-reported knowledge of 2–4 RFs/PMs and 0 RFs/PMs, respectively

Table S1. Self-reported Knowledge of CVD Risk Factors and Non-pharmacological Methods of CVD Prevention by Health Literacy and CVD status adjusted for age, sex, education level, and size of the place of residence.

	Inadequate Health Literacy				Adequate Health Literacy			
	n=1289				n=1538			
	Cardiovascular disease status			<i>P</i> ^a	Cardiovascular disease status			<i>P</i> ^a
	non-CVD n=964	CVD			non-CVD n=1302	CVD		
CVDH(-) n=88		CVDH(+) n=237	CVDH(-) n=112	CVDH(+) n=124				
Risk Factor, % (95% CI)								
Hypertension	35.4 (32.0-38.9)	45.2 (35.0-55.3)	47.3 (40.8-53.9)	0.003	48.1 (44.6-51.6)	47.5 (37.8-57.2)	51.8 (42.4-61.1)	0.74
Tobacco smoking	31.4 (28.2-34.6)	34.9 (25.4-44.4)	35.8 (29.6-41.9)	0.40	42.2 (38.8-45.7)	56.1 (46.4-65.8)	52.3 (43.0-61.6)	0.005
Increased alcohol consumption	25.1 (22.1-28.0)	23.2 (14.5-32.0)	32.3 (26.7-38.0)	0.05	33.4 (30.1-36.8)	41.6 (32.1-51.0)	43.2 (34.1-52.3)	0.046
Overweight/obesity	27.5 (24.4-30.7)	29.7 (20.5-38.8)	36.7 (30.8-42.6)	0.02	39.9 (36.5-43.3)	40.2 (30.6-49.9)	41.6 (32.3-50.9)	0.94
Improper diet	23.4 (20.8-26.1)	22.7 (13.8-31.6)	24.5 (19.1-29.9)	0.93	42.2 (39.5-44.8)	55.4 (46.2-64.5)	36.3 (27.6-45.0)	0.008
Low physical activity	15.7 (13.3-18.1)	17.9 (10.9-24.9)	21.4 (16.9-25.9)	0.08	26.7 (23.5-29.8)	33.1 (24.3-42.0)	16.2 (7.7-24.7)	0.01
Chronic stress	22.9 (20.0-25.7)	26.3 (18.0-34.6)	26.3 (20.9-31.7)	0.44	29.8 (26.5-33.1)	38.0 (28.8-47.2)	31.2 (22.4-40.1)	0.23
Diabetes mellitus	12.9 (10.5-15.3)	21.6 (14.5-28.6)	18.7 (14.1-23.3)	0.01	16.4 (13.6-19.2)	12.7 (4.9-20.4)	22.3 (14.9-29.7)	0.16
Increased Total Cholesterol	20.5 (17.6-23.4)	27.0 (18.5-35.6)	32.1 (26.6-37.6)	<0.001	29.8 (26.5-33.1)	32.3 (23.0-41.5)	37.8 (28.9-46.7)	0.22
Increased LDL-C	8.1 (6.3-9.9)	11.3 (6.0-16.6)	10.5 (7.1-13.9)	0.31	8.3 (6.1-10.4)	7.3 (1.2-13.4)	11.5 (5.6-17.4)	0.52
Decreased HDL-C	5.3 (3.8-6.7)	6.9 (2.7-11.2)	6.7 (4.0-9.5)	0.54	5.2 (3.3-7.0)	3.7 (0.0-8.8)	6.9 (2.0-11.8)	-
Observed level of CVD risk factors knowledge, % (95% CI)								
Poor	45.5 (42.0-49.0)	38.2 (27.9-48.4)	31.6 (25.0-38.2)	<0.001	28.9 (26.1-31.7)	17.3 (9.4-25.2)	23.8 (16.2-31.3)	0.001
Moderate	28.5 (25.2-31.8)	27.4 (17.7-37.1)	36.1 (29.8-42.4)	0.88	30.5 (27.3-33.7)	35.8 (26.8-44.8)	31.1 (22.5-39.8)	0.06
Good	16.3 (13.7-18.9)	20.6 (13.0-28.2)	17.4 (12.5-22.4)	0.56	24.8 (21.7-27.9)	29.7 (21.0-38.5)	25.8 (14.4-34.3)	0.56
Very good	9.7 (7.8-11.6)	13.8 (8.1-19.5)	14.9 (11.2-18.6)	0.03	15.8 (13.0-18.5)	17.2 (9.5-24.9)	19.3 (11.9-26.7)	0.65
Number of self-reported CVD risk factors, mean (95% CI)								
Average	2.3 (2.1-2.5)	2.7 (2.2-3.2)	3.0 (2.7-3.3)	<0.001	3.2 (3.0-3.4)	3.6 (3.1-4.1)	3.5 (3.0-3.9)	0.17
Recommended satisfactory level of CVD risk factors knowledge, % (95% CI)								
≥ 5 RFs	14.8 (12.5-17.2)	21.1 (14.2-28.0)	21.2 (16.7-25.7)	0.02	23.9 (20.7-27.0)	25.5 (16.7-34.4)	32.3 (23.9-40.8)	0.16

Prevention Method, % (95% CI)								
Tobacco smoking cessation	36.9 (33.5-40.4)	38.2 (28.2-48.3)	44.9 (38.3-51.4)	0.10	46.0 (42.5-49.5)	55.9 (46.1-65.7)	46.0 (36.6-55.4)	0.14
Alcohol consumption reduction	33.4 (30.0-36.7)	35.5 (25.6-45.3)	39.8 (33.4-46.2)	0.20	41.3 (37.8-44.7)	44.2 (34.5-53.9)	41.8 (32.5-51.1)	0.84
Regular physical activity	52.9 (49.4-56.3)	46.1 (36.1-56.2)	53.9 (47.4-60.5)	0.38	69.7 (66.7-72.7)	73.4 (64.9-81.8)	61.9 (53.7-70.0)	0.10
Weight reduction	26.5 (23.3-29.6)	38.3 (29.0-47.5)	30.5 (24.5-36.5)	0.04	34.7 (31.4-38.1)	41.4 (32.0-50.8)	36.8 (27.8-45.9)	0.38
Leading a regular lifestyle	40.0 (36.5-43.6)	31.9 (21.6-42.3)	41.5 (34.8-48.2)	0.26	43.8 (40.3-47.3)	45.0 (35.3-54.8)	44.1 (34.7-53.4)	0.97
Fat intake reduction	30.5 (27.2-33.8)	36.8 (27.2-46.4)	30.6 (24.4-36.8)	0.45	40.3 (36.8-43.7)	52.2 (42.5-61.9)	48.5 (39.1-57.8)	0.02
Salt intake reduction	22.9 (20.1-25.7)	28.1 (19.9-36.3)	21.8 (16.4-27.1)	0.41	28.6 (25.4-31.9)	39.3 (30.2-48.3)	34.2 (25.5-42.9)	0.05
Regular consumption of fruits and vegetables	20.3 (17.6-23.0)	26.8 (18.8-34.8)	22.5 (17.3-27.6)	0.27	24.6 (21.5-27.7)	37.1 (28.3-45.8)	23.9 (15.5-32.3)	0.02
Observed level of CVD prevention methods knowledge, % (95% CI)								
Poor	30.8 (27.6-34.1)	19.0 (9.5-28.6)	22.5 (16.4-28.7)	0.009	15.3 (13.0-17.5)	5.7 (0.0-12.0)	14.0 (7.9-20.2)	0.02
Moderate	43.2 (39.6-46.8)	56.5 (45.9-67.1)	48.5 (41.7-55.4)	0.04	45.1 (41.6-48.5)	42.0 (32.4-51.7)	42.8 (33.5-52.2)	0.78
Good	17.4 (14.7-20.1)	14.7 (6.7-22.6)	19.5 (14.4-24.6)	0.56	29.1 (25.8-32.4)	35.6 (26.4-44.8)	31.9 (23.1-40.8)	0.36
Very good	8.6 (6.8-10.3)	9.8 (4.6-15.0)	9.5 (6.1-12.8)	0.84	10.6 (8.3-12.9)	16.7 (10.3-23.1)	11.2 (5.1-17.3)	0.18
Number of self-reported CVD prevention methods, mean (95% CI)								
Average	2.6 (2.5-2.8)	2.8 (2.4-3.2)	2.9 (2.6-3.1)	0.22	3.3 (3.2-3.4)	3.9 (3.5-4.2)	3.4 (3.0-3.7)	0.005
Recommended satisfactory level of CVD prevention methods knowledge, % (95% CI)								
≥ 5 PMs	15.2 (12.9-17.5)	13.4 (6.7-20.2)	14.1 (9.8-18.5)	0.83	21.8 (18.8-24.8)	32.7 (24.3-41.1)	26.2 (18.1-34.3)	0.03

Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HDL-C, high-density lipoprotein cholesterol; HL, health literacy; LDL-C, low-density lipoprotein cholesterol; *P*, *P*-value; PM, prevention method; RF, risk factor

Definitions:

non-CVD - without CVD; CVDH(-) – CVD-diagnosed but not hospitalized; CVDH(+) - CVD-diagnosed and hospitalized

Levels of CVD RFs/PMs knowledge: Very Good - ≥6 RFs/PMs; Good - 4-5 RFs/PMs; Moderate - 2-3 RFs/PMs; Poor - 0-1 RFs/PMs

^a – Tukey adjustment for multiple comparisons