Supplementary Table S1. General characteristics of participants with and without dyslipidemia

Variables	Participants with dyslipidemia (n = 145)	Participants without dyslipidemia (n = 247)	p-value
Age, years (median, IQR)	39 (34-45)	32 (26-42)	<0.0001*
Person-years, PY (median, IQR)	2.3 (0.9-5.2)	7.9 (4.9-10.7)	<0.0001†
Sex (n, %)			
male	138 (95.2)	235 (95.1)	0.989‡
female	7 (4.8)	12 (4.9)	-
Race (n, %)			
Korean	142 (97.9)	244 (98.8)	0.255§
Asian	3 (2.1)	3 (1.2)	
CD4+ cell counts, cells/μL (n, %)			0.824†
<100	33 (22.8)	61 (24.7)	0.807‡
100-199	25 (17.2)	40 (16.2)	-
200-499	81 (55.9)	131 (53.0)	-
≥500	6 (4.1)	15 (6.1)	-
BMI, kg/m² (n, %)			0.0003†
< 18.5	7 (4.8)	23 (9.3)	0.047‡
18.5-24.9	110 (75.9)	195 (79.0)	-
≥25	28 (19.3)	29 (11.7)	-
Days from diagnosis to ART (median, IQR)	272 (39-1372)	88 (30-684)	0.007†
Smoking (n, %)			
Current	87 (60.0)	127 (51.4)	0.383§
Previous	18 (12.4)	43 (17.4)	-
Never	38 (26.2)	73 (29.6)	-
Unknown	2 (1.4)	4 (1.6)	-
Drinking (n, %)			
Current	78 (53.8)	134 (54.3)	0.205‡
Previous	15 (10.3)	42 (17.0)	-
Never	42 (29.0)	60 (24.3)	-
Unknown	10 (6.9)	11 (4.4)	-

Variables	Participants with dyslipidemia (n = 145)	Participants without dyslipidemia (n = 247)	p-value
Family history of dyslipidemia (n, %)			
Yes	2 (1.4)	1 (0.4)	0.709§
No	139 (95.9)	239 (96.8)	-
Unknown	4 (2.7)	7 (2.8)	-
Diabetes mellitus (n, %)			
Yes	16 (11.0)	4 (1.6)	<0.0001§
No	129 (89.0)	243 (98.4)	-
Hypertension (n, %)			
Yes	31 (21.4)	20 (8.1)	0.0002‡
No	114 (78.6)	227 (91.9)	-
ART regimen (n, %)			
INSTI	135 (93.1)	206 (83.4)	0.005‡
non-INSTI	10 (6.9)	41 (16.6)	-
Education level (n, %)			
Elementary school graduate	5 (3.4)	6 (2.4)	0.634‡
Middle school graduate	24 (16.6)	43 (17.4)	-
High school graduate	18 (12.4)	21 (8.5)	-
College graduate	81 (55.9)	153 (62.0)	-
Postgraduate degree	2 (1.4)	3 (1.2)	-
Unknown	15 (10.3)	21 (8.5)	-

All values are presented as median (IQR) or n (%).

* Independent t-test, † Mann-Whitney U test, ‡ Pearson's χ^2 test, § Fisher's exact test

Supplementary Table S2. Comparison of baseline characteristics between AHD and non-AHD participants at ART initiation

Variables	AHD participants (n = 159)	non-AHD participants (n = 233)	p-value
Age, years (median, IQR)	38 (30-45)	34 (26-42)	<0.001†
Person-years, PY (median, IQR)	6.1 (2.3-10.7)	5.4 (3.1-8.7)	0.223†
Sex (n, %)			
male	153 (96.2)	220 (94.4)	0.668‡
female	6 (3.8)	13 (5.6)	-
Race (n, %)			
Korean	157 (98.7)	229 (98.3)	0.310§
Asian	2 (1.3)	4 (1.7)	
CD4+ cell counts, cells/μL (median, IQR)	75 (30-150)	317 (256-393)	<0.0001†
BMI, kg/m² (n, %)	20.9 (19.1-22.9)	22.1 (20.4-23.6)	<0.0001†
< 18.5	18 (11.3)	12 (5.2)	0.008‡
18.5-24.9	126 (79.3)	179 (76.8)	-
≥25	15 (9.4)	42 (18.0)	-
Days from diagnosis to ART (median, IQR)	45 (18-302)	274 (70-1150)	<0.0001†
Smoking (n, %)			
Current	41 (25.8)	70 (30.0)	0.033§
Previous	35 (22.0)	26 (11.2)	-
Never	81 (50.9)	133 (57.1)	-
Unknown	2 (1.3)	4 (1.7)	-
Drinking (n, %)			
Current	41 (25.8)	61 (26.2)	<0.001‡
Previous	37 (23.3)	20 (8.6)	-
Never	73 (45.9)	139 (59.7)	-
Unknown	8 (5.0)	13 (5.5)	-
Family history of dyslipidemia (n, %)			
Yes	1 (0.6)	2 (0.9)	0.656§
No	152 (95.6)	226 (97.0)	-
Unknown	6 (3.8)	5 (2.1)	-
Diabetes mellitus (n, %)			
Yes	5 (3.1)	15 (6.4)	0.146‡
No	154 (96.9)	218 (93.6)	-

Variables	AHD participants (n = 159)	non-AHD participants (n = 233)	p-value
Hypertension (n, %)			
Yes	22 (13.8)	29 (12.5)	0.688‡
No	137 (86.2)	204 (87.5)	-
ART regimen (n, %)			
INSTI	142 (89.3)	199 (85.4)	0.260‡
non-INSTI	17 (10.7)	34 (14.6)	-
Education level (n, %)			
Elementary school graduate	5 (3.1)	6 (2.6)	0.210§
Middle school graduate	35 (22.1)	32 (13.7)	-
High school graduate	16 (10.1)	23 (9.9)	-
College graduate	87 (54.7)	147 (63.1)	-
Postgraduate degree	1 (0.6)	4 (1.7)	-
Unknown	15 (9.4)	21 (9.0)	-

All values are presented as median (IQR) or n (%).

* Independent t-test, †Mann-Whitney U test, ‡Pearson's χ^2 test, §Fisher's exact test

Supplementary Table S3. Incidence rate by study group

	Total PY	Dyslipidemia	Incidence rate*
Total population	2469.4	145	58.72
Group 1 (NAHD-Inc)	844.58	51	60.39
Group 2 (NAHD-Dec)	563.04	36	63.94
Group 3 (AHD-Inc)	777.90	48	61.70
Group 4 (AHD-Dec)	283.87	10	35.23

*Incidence rate per 1000 person-years

Supplementary Table S4. Interaction effects between visit sequence and study group on BMI changes: results from a linear mixed model

Visit Sequence (month)	Group 1 (NAHD-Inc)	Group 2 (NAHD-Dec)	Group 3 (AHD-Inc)	Group 4 (AHD-Dec)
1 (0 mo)	0 (Ref)	0 (Ref)	0 (Ref)	0 (Ref)
2 (6 mo)	0 (Ref)	-0.56 (-0.90, -0.22)*	0.91 (0.62, 1.20)**	-0.08 (-0.54, 0.38)
3 (12 mo)	0 (Ref)	-0.65 (-1.04, -0.25)*	1.26 (0.93, 1.60)**	-0.21 (-0.74, 0.31)
4 (18 mo)	0 (Ref)	-0.98 (-1.40, -0.57)**	1.03 (0.68, 1.38)**	-0.40 (-0.95, 0.15)
5 (24 mo)	0 (Ref)	-1.24 (-1.70, -0.78)**	1.17 (0.78, 1.56)**	-0.45 (-1.06, 0.17)
6 (30 mo)	0 (Ref)	-1.52 (-1.99, -1.05)**	1.34 (0.94, 1.74)**	-0.64 (-1.27, -0.01)*
7 (36 mo)	0 (Ref)	-1.65 (-2.15, -1.15)**	1.25 (0.83, 1.67)**	-0.83 (-1.50, -0.16)*

All values are presented as β (95% CI).

* p-value < 0.05, ** p-value < 0.001