Supplemental information

The temporal dynamics of the gut mycobiome

and its association with cardiometabolic health

in a nationwide cohort of 12,641 Chinese adults

Wanglong Gou, Huijun Wang, Chang Su, Yuanqing Fu, Xinyu Wang, Chang Gao, Menglei Shuai, Zelei Miao, Jiguo Zhang, Xiaofang Jia, Wenwen Du, Ke Zhang, Bing Zhang, and Ju-Sheng Zheng
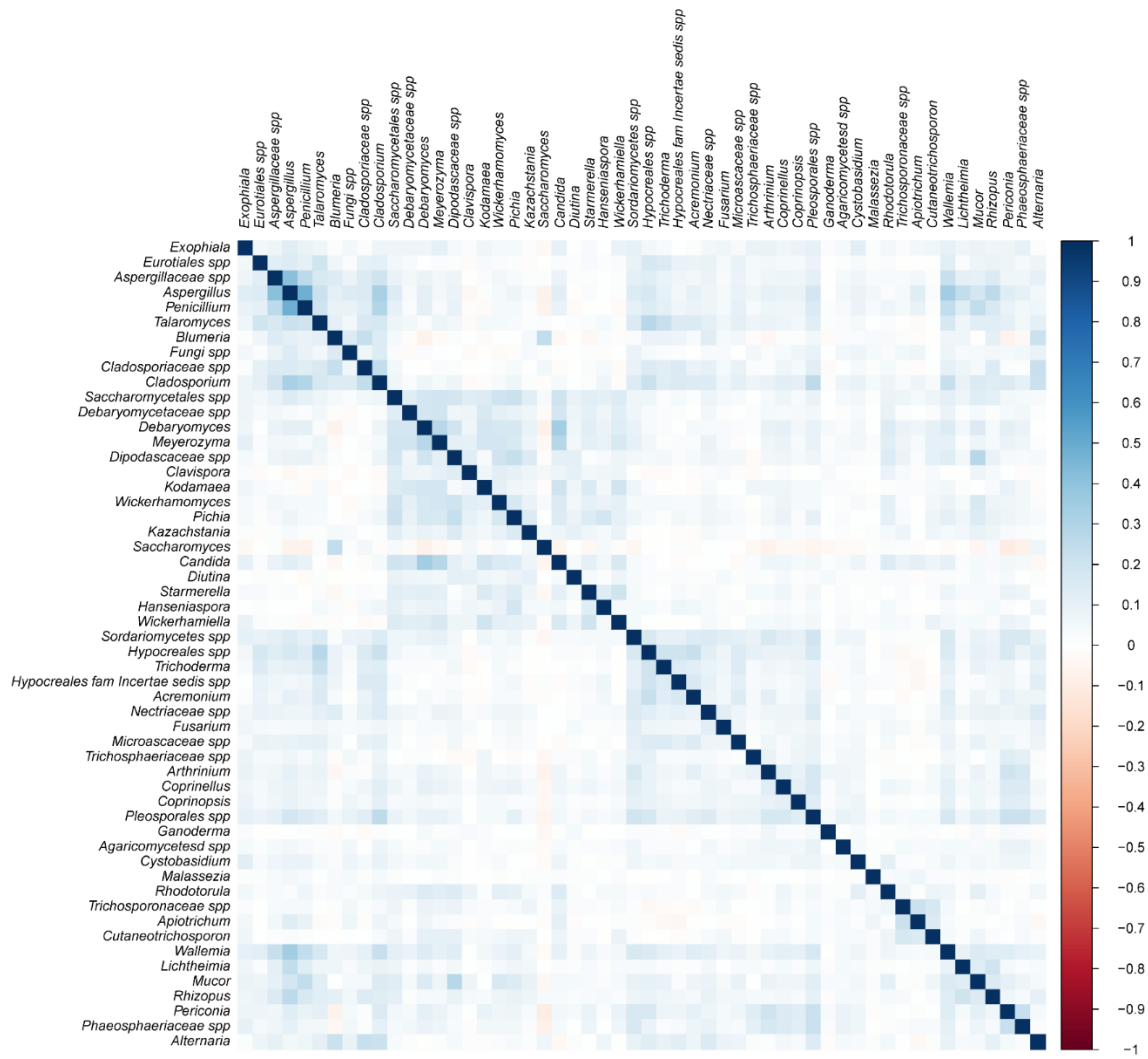
Figure S1. The inter-correlation of fungal genera, related to Figure 2. The correlation between each genus was calculated by Spearman correlation.
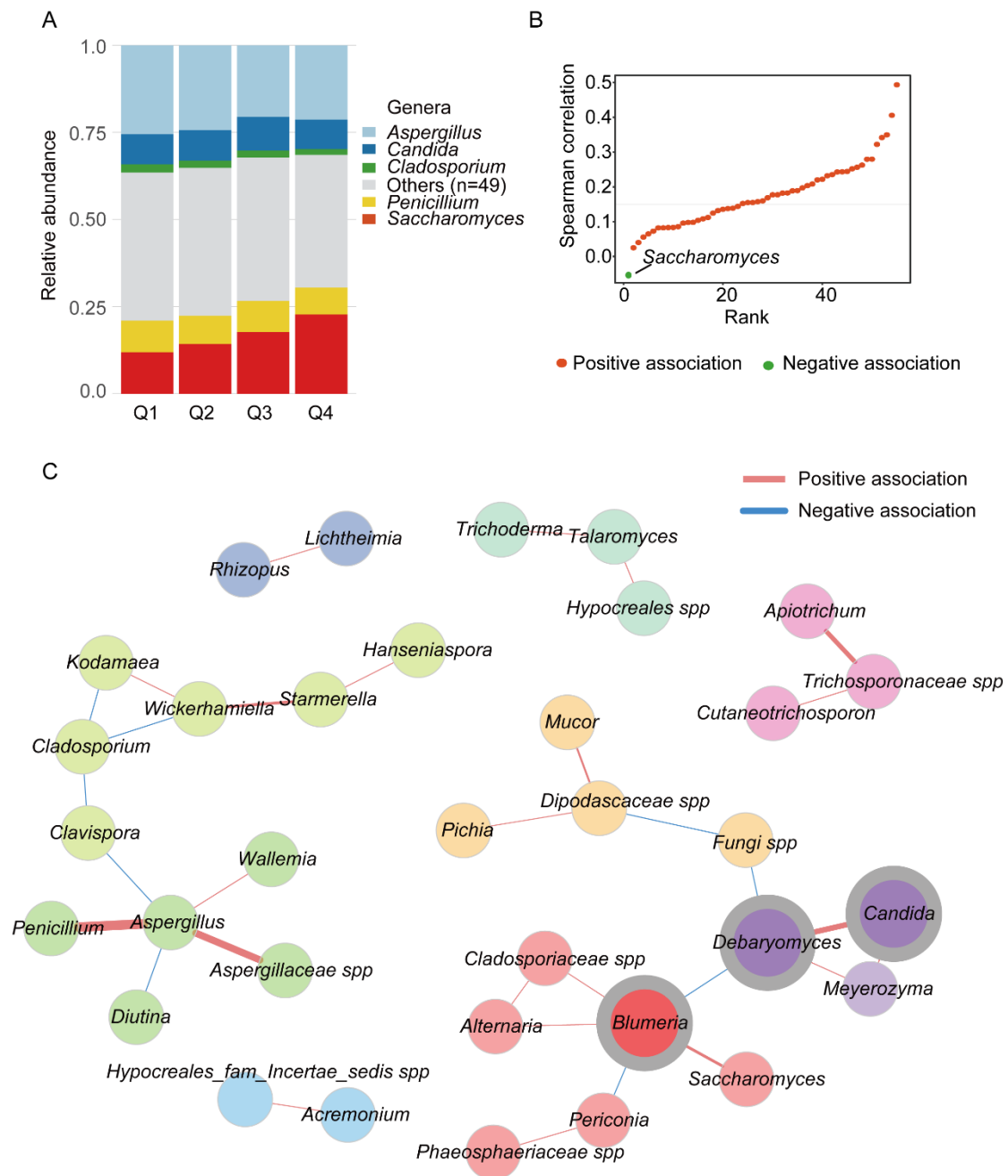
Figure S2. Distribution of fungal genera across urbanization score and correlation analyses, related to Figure 2. A, Distribution of fungal taxa that present in at least 50% of samples at a minimum relative abundance of 0.1%, across urbanization score. Q1 to Q4 represent the quantiles of the urbanization score. **B,** Correlations between the gut fungal genera and observed OUT. The values on the x-axis and y-axis represent the rank and Spearman's coefficient of each genus's correlation with observed OTUs, respectively. **C,** Co-abundance network construction and keystone taxa identification. Co-abundance network was constructed by SparCC analysis. Correlations with FDR adjusted P values < 0.05 and with a magnitude above 0.2 were selected for further visualization and network analysis. Here, we used eigenvector centrality to define the central node in the co-abundance network (node with a centrality value above the empirical 95% quantile in the network). The size of each node was proportional to its eigenvector centrality value. Nodes were clustered and marked with different colors to visually distinguish between clusters.
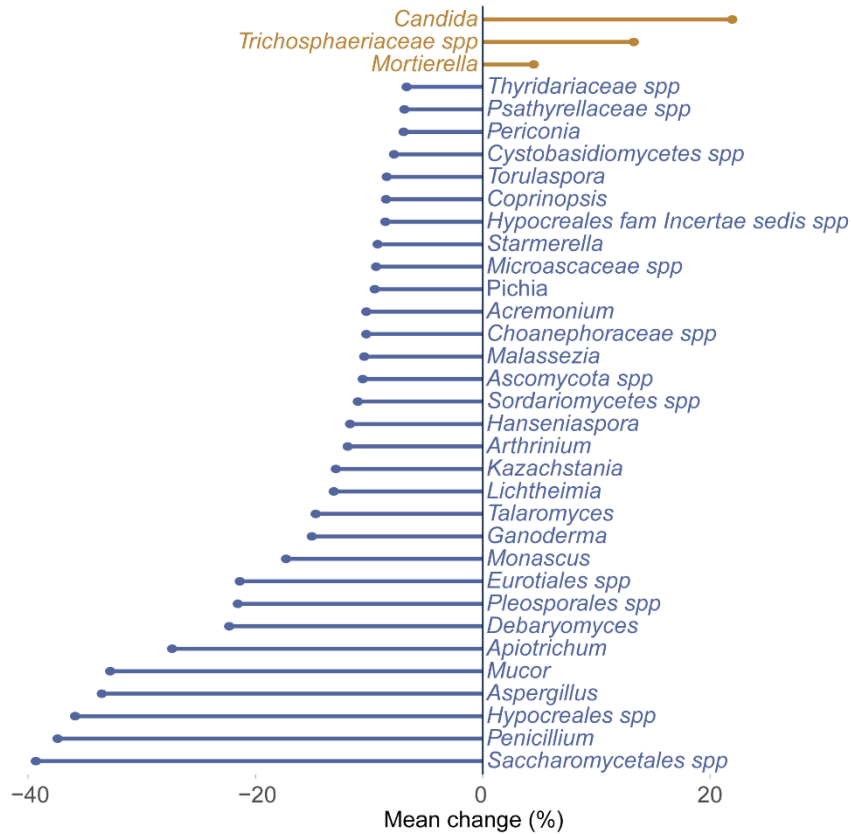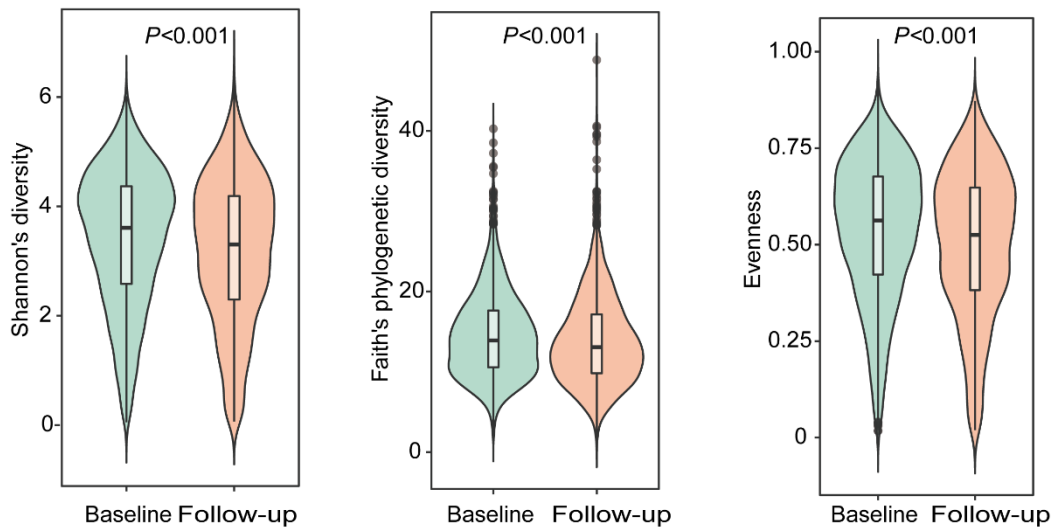
Figure S3. Temporal variability of gut mycobiome over time, related to Figure 4. A, Percentage changes of fungal genera with significant increase (brown-orange) or decrease (blue) in abundance over three years. Temporal changes in the relative abundance of the gut mycobiome were evaluated using a paired two-sided Wilcoxon signed-rank test. Only statistically significant results (FDR < 0.05) are depicted in the figure. **B,** Comparison of the fungal alpha diversity indices between baseline and follow-up.

Figure S4. DMM clustering of ITS gene sequencing data, related to Figure 4. A, Model fitting performance for different numbers of clusters. The x-axis represents the number of clusters, while the y-axis showcases the correspo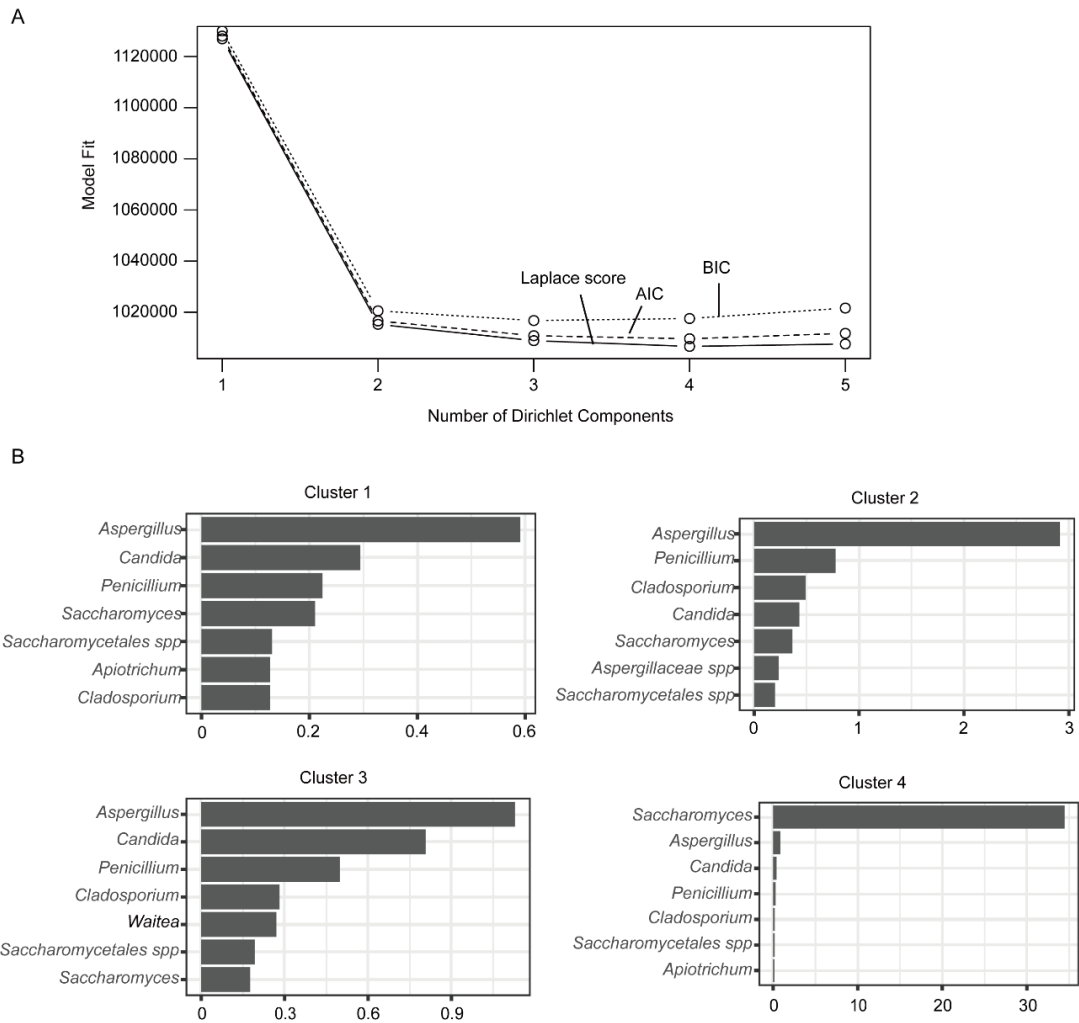nding values of the performance indices. AIC, Akaike Information Criterion; BIC, Bayesian Information Criterion. **B,** Box plot showing the importance for dominant fungal taxa per DMM cluster.
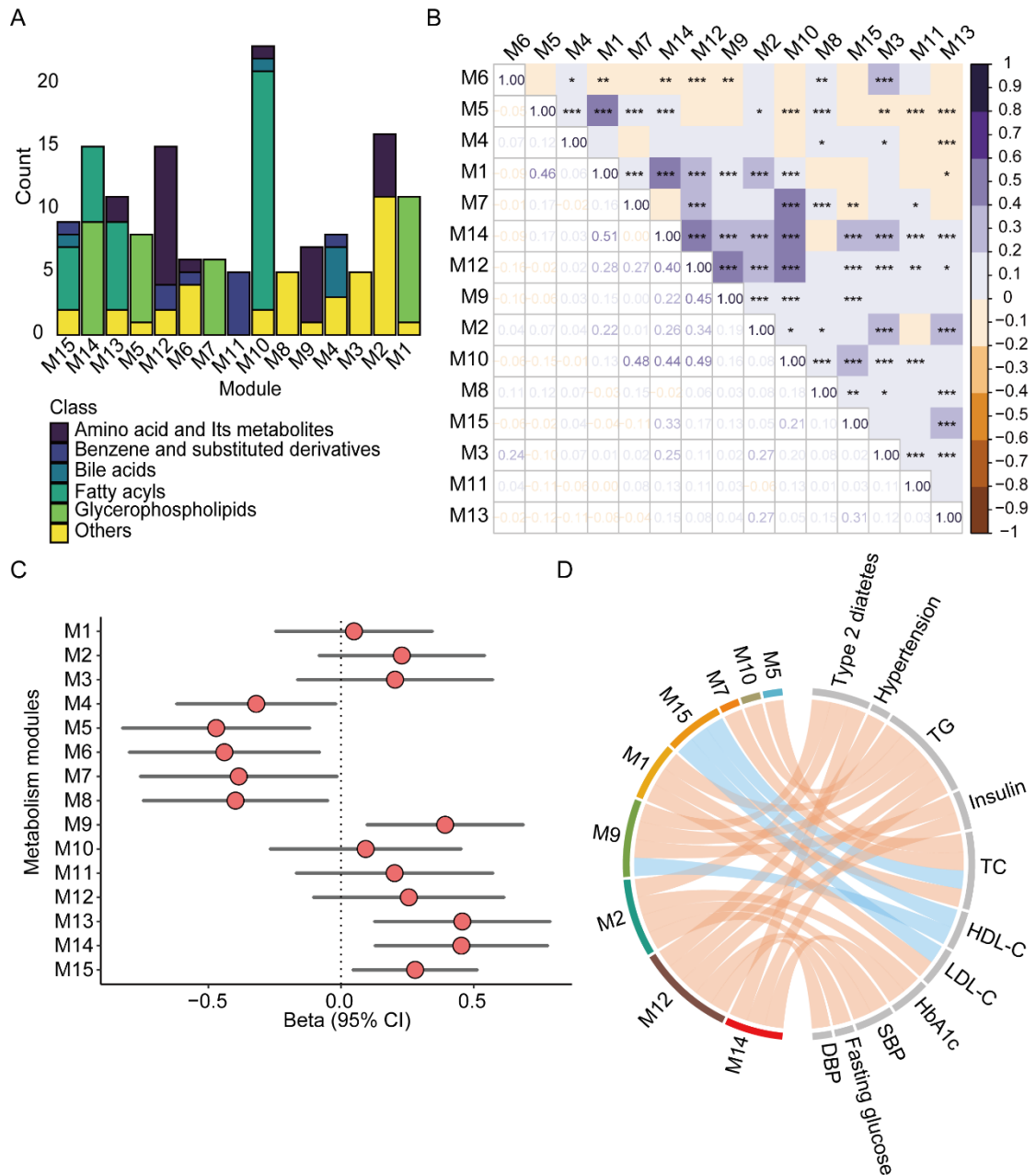
Figure S5. Dynamic interplay between gut mycobiome, metabolism modules and cardiometabolic health, related to Figure 5. A, The distribution of metabolites across different metabolism modules. **B,** Paired association of metabolism modules. The correlation between each metabolism module was calculated by Spearman correlation coefficient. Significance levels are indicated as follows: *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$. **C,** Association of gut mycobiome with metabolism modules. The analysis was conducted using linear mixed-effects regression model, with adjustment for the age, gender and BMI. The linear mixed-effects model included a random intercept and random coefficient for provinces or megacities, accounting for the variability in gut fungal composition across different regions. The figure presents Z-scored beta coefficients along with their corresponding 95% confidence intervals. **D,** Association of metabolism modules with cardiometabolic diseases, as well as host metabolism indicators. Weighted Gene Co-expression Network Analysis was employed to identify metabolism modules of differential metabolites. Only significant associations (orange for positive, blue for negative) were showed on the chord diagram.
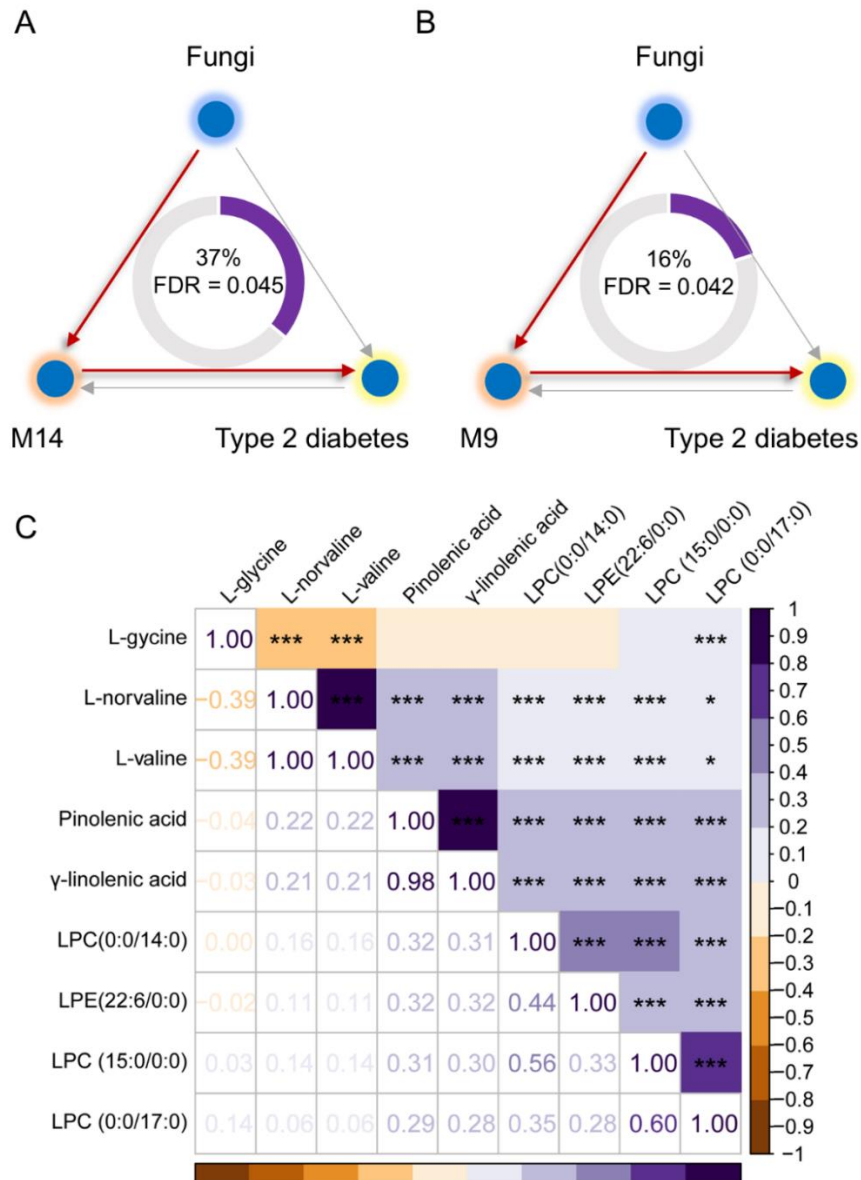
Figure S6. Metabolism modules mediate the effect of gut mycobiome on type 2 diabetes, related to Figure 6. A, Mediation linkages among the gut mycobiome, metabolism modules (M14 and M9) and type 2 diabetes. The proportion of mediation effect is displayed at the center of the ring chart. **B,** As in A, but for M9 module. **C,** Paired associations of metabolites belong to M14 and M9. The correlation between each metabolite was calculated by Spearman correlation coefficient. Significance levels are indicated as follows: *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$.

Table S1. Characteristics of the participants included in the study, related to Figure 1.

Factor	CHNS-1	CHNS-2 (baseline)	CHNS-2 (follow-up)
Number of participants	10695	1946	1946
Age, years	51.30 (15.48)	56.51 (13.73)	59.54 (13.73)
Women, n (%)	5727 (53.6%)	1064 (54.7%)	1064 (54.7%)
Urban, n (%)	4281 (40.0%)	584 (30.0%)	584 (30.0%)
Urbanization score	71.95 (17.64)	75.05 (16.68)	75.05 (16.68)
Pet owership, n (%)	1973 (19.0%)	496 (26.0%)	515 (26.7%)
Education, n (%)			
Middle school or lower	6822 (63.8%)	1459 (75.0%)	1459 (75.0%)
High school or professional college	2296 (21.5%)	353 (18.1%)	353 (18.1%)
University	1577 (14.7%)	134 (6.9%)	134 (6.9%)
Married, n (%)	10216 (95.5%)	1908 (98.0%)	1908 (98.0%)
Income, yuan / year per household	68145.23 (92725.05)	77164.02 (2.3e+05)	83565.78 (1.4e+05)
BMI, kg/m2	24.15 (4.10)	24.19 (4.23)	24.24 (3.85)
Waist circumference, cm	83.79 (12.72)	84.59 (12.05)	84.69 (11.12)
Hip circumference, cm	94.68 (10.34)	94.89 (9.56)	94.60 (9.17)
SBP, mmHg	126.91 (19.04)	131.16 (18.80)	133.75 (20.12)
DBP, mmHg	80.62 (11.17)	82.51 (10.57)	83.47 (11.59)
HbA1c, %	5.72 (0.97)	5.73 (0.92)	5.69 (0.97)
Fasting glucose, mmol/l	5.49 (1.53)	5.44 (1.40)	5.87 (1.62)
Insulin, mmol/l	7.62 (7.87)	7.07 (7.48)	10.44 (19.35)
HDL-C, mmol/l	1.28 (0.33)	1.25 (0.34)	1.46 (0.43)
LDL-C, mmol/l	3.12 (0.90)	3.12 (0.94)	3.15 (0.92)
TC, mmol/l	4.91 (1.10)	5.02 (1.04)	5.01 (0.99)
TG, mmol/l	1.50 (1.12)	1.53 (1.29)	1.73 (1.62)
Type 2 diabetes, n (%)	1183 (11.1%)	235 (12.1%)	285 (14.6%)
Prediabetes, n (%)	2900 (31.1%)	624 (32.1%)	514 (26.4%)
Hypertension, n (%)	2973 (28.0%)	721 (37.1%)	815 (41.9%)
Dyslipidemia, n (%)	3465 (32.4%)	698 (40.0%)	640 (34.7%)
Intestinal disease, n (%)	245 (2.4%)	25 (1.3%)	48 (2.5%)
Diarrhea, n (%)	101 (1.0%)	23 (1.2%)	18 (0.9%)
Myocardial infarction, n (%)	87 (0.8%)	16 (0.8%)	19 (1.0%)
Stroke, n (%)	135 (1.3%)	32 (1.6%)	53 (2.7%)
Cancer, n (%)	115 (1.1%)	19 (1.0%)	26 (1.3%)
Hypertension medications, n (%)	1446 (13.5%)	332 (17.1%)	414 (21.3%)
Diabetes medications, n (%)	437 (4.1.0%)	80 (4.1%)	104 (5.3%)
Antibiotic (current), n (%)	205 (2.0%)	29 (1.5%)	42 (2.2%)
Antibiotic (within 6 months), n (%)	1000 (9.7%)	153 (8.0%)	188 (9.8%)
Probiotics, n (%)	335 (3.2%)	43 (2.3%)	86 (4.5%)
Anti-inflammatory medications, n (%)	259 (2.5%)	30 (1.6%)	51 (2.6%)
Antiacid medications, n (%)	104 (1.0%)	18 (0.9%)	22 (1.1%)
Proton pump inhibitor, n (%)	154 (1.5%)	27 (1.4%)	33 (1.7%)
Current smoking, n (%)	2785 (26.3%)	490 (25.4%)	462 (23.8%)
Current alcohol consumption, n (%)	2905 (27.5%)	539 (27.9%)	503 (26.0%)
Physical activity, MET	143.48 (164.77)	173.93 (175.42)	171.24 (193.38)
Wheat intake, g/day	137.27 (136.18)	92.00 (109.05)	100.89 (108.53)
Rice intake, g/day	220.75 (172.69)	241.95 (132.27)	233.65 (142.74)
Dark vegetable intake, g/day	65.28 (75.69)	79.02 (93.01)	61.01 (81.76)
Light vegetable intake, g/day	200.56 (132.86)	214.45 (133.23)	214.30 (136.44)
Vegetable intake, g/day	265.83 (153.97)	293.47 (150.02)	275.31 (153.13)
Salted vegetable intake, g/day	3.58 (12.58)	5.34 (14.39)	5.13 (18.65)
Fruit intake, g/day	41.77 (73.87)	52.31 (81.80)	52.82 (90.17)
Nuts intake, g/day	4.47 (14.53)	4.68 (14.23)	4.76 (14.98)
Pork intake, g/day	68.54 (70.36)	65.58 (65.53)	63.87 (66.97)
Poultry intake, g/day	16.02 (36.24)	19.12 (39.95)	17.93 (37.95)
Milk intake, g/day	27.48 (75.69)	20.45 (61.36)	20.73 (62.03)
Egg intake, g/day	27.01 (31.03)	29.70 (33.36)	28.76 (35.16)
Fish intake, g/day	26.45 (46.70)	35.89 (54.12)	35.66 (54.20)
Carrot intake, g/day	27.52 (61.04)	28.28 (53.46)	32.48 (67.69)
Tuber intake, g/day	36.40 (54.73)	33.60 (59.24)	34.02 (66.63)
Pastes intake, g/day	1.74 (10.77)	1.15 (4.76)	1.16 (6.21)
Other meat intake, g/day	10.18 (27.12)	7.73 (23.57)	8.83 (26.44)
Cake intake, g/day	14.43 (38.36)	10.82 (29.48)	15.24 (39.97)
Sugar intake, g/day	2.26 (9.00)	2.35 (5.91)	1.93 (6.77)
Vegetable oils intake, g/day	35.94 (34.95)	39.14 (34.79)	35.55 (27.08)
Animal oil intake, g/day	3.47 (13.03)	0.45 (3.45)	1.03 (7.22)
Salt intake, g/day	8.53 (11.19)	9.99 (30.19)	7.70 (5.67)
Sauce intake, g/day	9.44 (27.57)	9.71 (13.70)	10.08 (13.04)
Other foods intake, g/day	18.77 (30.00)	16.19 (28.53)	14.09 (26.77)

Table S2. The prevalence and relative abundance of included genera in the CHNS-1 cohort, related to Figure 2.

Phylum	Class	Order	Family	Genus	Relative abundance (%)	Prevalence (%)
Ascomycota	Eurotiomycetes	Eurotiales	Aspergillaceae	Aspergillus	22.60	99.21
Ascomycota	Saccharomycetes	Saccharomycetales	Saccharomycetaceae	Saccharomyces	16.12	82.56
Ascomycota	Saccharomycetes	Saccharomycetales	Saccharomycetales_fam_Incertae_sedis	Candida	8.80	89.76
Ascomycota	Eurotiomycetes	Eurotiales	Aspergillaceae	Penicillium	8.35	91.93
Ascomycota	Saccharomycetes	Saccharomycetales	Debaryomycetaceae	Debaryomyces	3.31	67.18
Ascomycota	Saccharomycetes	Saccharomycetales	Unassigned	Unassigned	3.04	64.82
Ascomycota	Saccharomycetes	Saccharomycetales	Dipodascaceae	Unassigned	2.88	57.28
Ascomycota	Dothideomycetes	Capnodiales	Cladosporiaceae	Cladosporium	2.00	71.86
Ascomycota	Leotiomycetes	Erysiphales	Erysiphaceae	Blumeria	1.20	46.11
Ascomycota	Eurotiomycetes	Eurotiales	Aspergillaceae	Unassigned	1.03	50.30
Ascomycota	Dothideomycetes	Pleosporales	Unassigned	Unassigned	0.99	48.21
Ascomycota	Saccharomycetes	Saccharomycetales	Pichiaceae	Pichia	0.88	26.42
Ascomycota	Saccharomycetes	Saccharomycetales	Saccharomycetaceae	Kazachstania	0.82	26.63
Ascomycota	Sordariomycetes	Hypocreales	Unassigned	Unassigned	0.71	35.41
Ascomycota	Dothideomycetes	Pleosporales	Periconiaceae	Periconia	0.54	24.09
Ascomycota	Saccharomycetes	Saccharomycetales	Debaryomycetaceae	Meyerozyma	0.48	26.45
Ascomycota	Saccharomycetes	Saccharomycetales	Saccharomycetales_fam_Incertae_sedis	Starmerella	0.47	19.41
Ascomycota	Saccharomycetes	Saccharomycetales	Saccharomycodaceae	Hanseniaspora	0.45	15.95
Ascomycota	Eurotiomycetes	Eurotiales	Trichocomaceae	Talaromyces	0.39	28.85
Ascomycota	Eurotiomycetes	Eurotiales	Unassigned	Unassigned	0.38	22.69
Ascomycota	Saccharomycetes	Saccharomycetales	Phaffomycetaceae	Wickerhamomyces	0.34	22.48
Ascomycota	Saccharomycetes	Saccharomycetales	Metschnikowiaceae	Clavispora	0.33	12.36
Ascomycota	Eurotiomycetes	Chaetothyriales	Herpotrichiellaceae	Exophiala	0.29	21.43
Ascomycota	Dothideomycetes	Pleosporales	Pleosporaceae	Alternaria	0.27	22.64
Ascomycota	Sordariomycetes	Unassigned	Unassigned	Unassigned	0.26	23.22
Ascomycota	Saccharomycetes	Saccharomycetales	Trichomonascaceae	Wickerhamiella	0.26	13.28
Ascomycota	Sordariomycetes	Trichosphaeriales	Trichosphaeriaceae	Unassigned	0.25	15.08
Ascomycota	Saccharomycetes	Saccharomycetales	Saccharomycetales_fam_Incertae_sedis	Diutina	0.25	10.08
Ascomycota	Sordariomycetes	Hypocreales	Nectriaceae	Unassigned	0.24	20.34
Ascomycota	Sordariomycetes	Hypocreales	Hypocreaceae	Trichoderma	0.21	14.58
Ascomycota	Dothideomycetes	Capnodiales	Cladosporiaceae	Unassigned	0.21	20.15
Ascomycota	Saccharomycetes	Saccharomycetales	Metschnikowiaceae	Kodamaea	0.18	11.88

Ascomycota	Saccharomycetes	Saccharomycetales	Debaryomycetaceae	Unassigned	0.17	12.63
Ascomycota	Sordariomycetes	Hypocreales	Hypocreales_fam_Incertae_sedis	Acremonium	0.14	10.04
Ascomycota	Sordariomycetes	Microascales	Microascaceae	Unassigned	0.13	11.01
Ascomycota	Sordariomycetes	Xylariales	Apiosporaceae	Arthrinium	0.13	12.03
Ascomycota	Dothideomycetes	Pleosporales	Phaeosphaeriaceae	Unassigned	0.12	11.82
Ascomycota	Sordariomycetes	Hypocreales	Hypocreales_fam_Incertae_sedis	Unassigned	0.11	10.29
Ascomycota	Sordariomycetes	Hypocreales	Nectriaceae	Fusarium	0.11	12.59
Basidiomycota	Tremellomycetes	Trichosporonales	Trichosporonaceae	Apiotrichum	1.97	62.46
Basidiomycota	Microbotryomycetes	Sporidiobolales	Sporidiobolaceae	Rhodotorula	0.85	39.34
Basidiomycota	Agaricomycetes	Unassigned	Unassigned	Unassigned	0.76	20.95
Basidiomycota	Wallemiomycetes	Wallemiales	Wallemiaceae	Wallemia	0.76	43.52
Basidiomycota	Agaricomycetes	Polyporales	Ganodermataceae	Ganoderma	0.43	12.12
Basidiomycota	Tremellomycetes	Trichosporonales	Trichosporonaceae	Cutaneotrichosporon	0.38	19.06
Basidiomycota	Tremellomycetes	Trichosporonales	Trichosporonaceae	Unassigned	0.35	23.00
Basidiomycota	Cystobasidiomycetes	Cystobasidiales	Cystobasidiaceae	Cystobasidium	0.28	23.38
Basidiomycota	Agaricomycetes	Agaricales	Psathyrellaceae	Coprinopsis	0.20	16.14
Basidiomycota	Malasseziomycetes	Malasseziales	Malasseziaceae	Malassezia	0.12	11.81
Basidiomycota	Agaricomycetes	Agaricales	Psathyrellaceae	Coprinellus	0.09	10.83
Mucoromycota	Mucoromycetes	Mucorales	Mucoraceae	Mucor	3.49	61.93
Mucoromycota	Mucoromycetes	Mucorales	Rhizopodaceae	Rhizopus	0.83	41.25
Mucoromycota	Mucoromycetes	Mucorales	Lichtheimiaceae	Lichtheimia	0.11	15.63
Unassigned	Unassigned	Unassigned	Unassigned	Unassigned	9.95	89.71

Table S3. Normalized eigenvector centrality and degree of genera in the network for the CHNS-1 cohort, related to Figure 2.

Genus	Normalized eigenvector centrality	Degree
Blumeria	1	5
Debaryomyces	0.92	4
Candida	0.57	2
Cladosporiaceae spp	0.56	2
Alternaria	0.55	2
Meyerozyma	0.55	2
Fungi spp	0.44	2
Periconia	0.40	2
Saccharomyces	0.38	1
Dipodascaceae spp	0.21	3
Phaeosphaeriaceae spp	0.14	1
Mucor	0.079	1
Pichia	0.074	1
Lichtheimia	0	1
Aspergillus	0	5
Wickerhamiella	0	3
Cladosporium	0	3
Talaromyces	0	2
Trichosporonaceae spp	0	2
Clavispora	0	2
Kodamaea	0	2
Starmerella	0	2
Acremonium	0	1
Apiotrichum	0	1
Aspergillaceae spp	0	1
Cutaneotrichosporon	0	1
Diutina	0	1
Hanseniaspora	0	1
Hypocreales spp	0	1
Penicillium	0	1
Rhizopus	0	1
Trichoderma	0	1
Wallemia	0	1
Hypocreales_fam_Incertae_sedis spp	0	1
Agaricomycetes spp	0	0
Arthrinium	0	0
Coprinellus	0	0
Coprinopsis	0	0
Cystobasidium	0	0
Debaryomycetaceae spp	0	0
Eurotiales spp	0	0
Exophiala	0	0
Fusarium	0	0
Ganoderma	0	0

Kazachstania	0	0
Malassezia	0	0
Microascaceae spp	0	0
Nectriaceae spp	0	0
Pleosporales spp	0	0
Rhodotorula	0	0
Saccharomycetales spp	0	0
Sordariomycetes spp	0	0
Trichosphaeriaceae spp	0	0
Wickerhamomyces	0	0

Table S4. Association of fungal alpha diversity with cardiometabolic diseases, adjusted for sequencing depth, related to Figure 3.

Fungal alpha diversity	Cardiometabolic diseases	Adjusted odds ratio	Lower confidence interval	Higher confidence interval	P
Faith_pd	Dyslipidemia	0.90	0.86	0.94	0.000017
Observed OTUs	Type 2 diabetes	0.89	0.83	0.96	0.002
Observed OTUs	Dyslipidemia	0.93	0.89	0.98	0.003
Shannon	Type 2 diabetes	0.92	0.86	0.98	0.010
Observed OTUs	Hypertension	0.94	0.90	0.99	0.020
Faith_pd	Type 2 diabetes	0.92	0.86	0.99	0.029
Evenness	Type 2 diabetes	0.94	0.88	1.00	0.043
Shannon	Dyslipidemia	0.97	0.93	1.01	0.187
Shannon	Hypertension	0.97	0.93	1.02	0.269
Evenness	Dyslipidemia	0.99	0.94	1.03	0.493
Evenness	Hypertension	0.99	0.94	1.04	0.668
Faith_pd	Hypertension	0.99	0.94	1.04	0.711

Table S5. Characteristics of the participants at baseline, stratified by fungal clusters, related to Figure 4.

Factor	C1	C2	C3	C4
Number of participants	1084	525	174	163
Age, years	55.96 (13.79)	58.15 (12.77)	56.63 (15.25)	54.80 (14.29)
Women, n (%)	582 (53.7%)	298 (56.8%)	93 (53.4%)	91 (55.8%)
Urban, n (%)	398 (36.7%)	86 (16.4%)	33 (19.0%)	67 (41.1%)
Urbanization score	76.29 (17.33)	69.01 (17.47)	65.85 (15.31)	78.28 (16.50)
Education, n (%)				
Middle school or lower	767 (70.8%)	425 (81.0%)	149 (85.6%)	100 (61.3%)
High school or professional college	224 (20.7%)	71 (13.5%)	20 (11.5%)	45 (27.6%)
University	93 (8.6%)	29 (5.5%)	5 (2.9%)	18 (11.0%)
Married, n (%)	1063 (98.1%)	517 (98.5%)	172 (98.9%)	159 (97.5%)
Income, yuan / year per household	84922.58 (1.3e+05)	82833.71 (1.6e+05)	67058.78 (1.2e+05)	94251.86 (1.0e+05)
BMI, kg/m2	24.28 (3.72)	24.34 (3.66)	22.85 (7.65)	24.58 (3.83)
Waist circumference, cm	84.90 (12.09)	85.47 (10.75)	78.89 (13.29)	85.78 (12.81)
Hip circumference, cm	95.31 (9.76)	95.62 (7.97)	88.96 (11.60)	96.08 (8.38)
SBP, mmHg	131.32 (18.08)	131.70 (19.65)	129.59 (20.26)	130.03 (19.14)
DBP, mmHg	82.40 (10.15)	83.24 (11.04)	80.50 (10.46)	83.06 (11.62)
HbA1c, %	5.74 (0.96)	5.73 (0.83)	5.57 (0.93)	5.78 (0.87)
Fasting glucose, mmol/l	5.44 (1.43)	5.39 (1.36)	5.63 (1.23)	5.49 (1.45)
Insulin, mmol/l	7.22 (7.75)	6.58 (7.03)	6.36 (4.68)	8.35 (9.09)
HDL-C, mmol/l	1.25 (0.34)	1.24 (0.34)	1.37 (0.37)	1.21 (0.31)
LDL-C, mmol/l	3.15 (0.93)	3.00 (0.87)	3.36 (0.92)	3.13 (1.20)
TC, mmol/l	5.03 (1.02)	4.92 (0.98)	5.29 (1.06)	5.04 (1.32)
TG, mmol/l	1.54 (1.10)	1.53 (1.34)	1.30 (0.90)	1.69 (2.21)
Type 2 diabetes, n (%)	136 (12.6%)	61 (11.6%)	10 (5.8%)	28 (17.2%)
Hypertension, n (%)	394 (36.5%)	203 (38.7%)	61 (35.1%)	63 (38.7%)
Dyslipidemia, n (%)	388 (40.3%)	190 (39.0%)	55 (38.2%)	65 (42.5%)
Current smoking, n (%)	279 (26.1%)	129 (24.7%)	39 (22.4%)	43 (26.5%)
Current alcohol consumption, n (%)	317 (29.6%)	128 (24.5%)	52 (29.9%)	42 (25.9%)
Physical activity, MET	158.65 (162.54)	209.92 (201.01)	181.86 (172.98)	149.75 (152.88)
Wheat intake, g/day	87.39 (102.33)	118.22 (124.52)	36.87 (64.77)	96.27 (110.14)
Rice intake, g/day	237.89 (126.15)	228.43 (124.33)	322.50 (171.69)	226.44 (115.96)
Dark vegetable intake, g/day	76.67 (86.58)	64.78 (82.91)	147.41 (140.84)	68.05 (67.90)
Light vegetable intake, g/day	215.59 (132.90)	219.21 (133.08)	183.38 (130.83)	223.84 (132.24)
Vegetable intake, g/day	292.35 (149.76)	283.99 (149.98)	330.79 (151.52)	291.89 (145.70)
Salted vegetable intake, g/day	5.23 (13.55)	4.49 (12.97)	7.71 (16.79)	5.65 (12.35)
Fruit intake, g/day	57.04 (86.59)	48.07 (76.01)	30.65 (53.86)	56.43 (80.83)
Nuts intake, g/day	5.27 (14.88)	4.18 (11.91)	2.89 (10.90)	3.69 (11.88)
Pork intake, g/day	68.02 (65.82)	54.30 (62.77)	89.06 (70.08)	60.75 (58.90)
Poultry intake, g/day	18.53 (38.16)	14.90 (33.84)	32.84 (48.51)	20.50 (39.56)
Milk intake, g/day	24.83 (66.79)	10.39 (39.92)	5.36 (34.58)	39.33 (86.33)
Egg intake, g/day	31.04 (32.64)	30.83 (37.49)	17.92 (26.49)	29.64 (27.21)
Fish intake, g/day	37.71 (55.77)	32.96 (50.67)	22.18 (36.28)	47.52 (64.52)
Carrot intake, g/day	26.43 (48.29)	33.73 (58.67)	29.48 (58.80)	20.49 (47.99)
Tuber intake, g/day	36.64 (63.52)	35.10 (56.16)	8.22 (30.23)	35.27 (54.78)
Pastes intake, g/day	1.12 (4.68)	1.48 (5.54)	0.44 (2.57)	1.00 (3.62)

Other meat intake, g/day	8.38 (22.82)	5.42 (20.54)	3.98 (13.58)	14.09 (33.12)
Cake intake, g/day	9.65 (26.35)	13.30 (34.57)	5.46 (19.01)	15.92 (36.38)
Sugar intake, g/day	2.35 (5.47)	2.32 (6.36)	1.53 (5.69)	3.25 (6.96)
Vegetable oils intake, g/day	37.38 (32.60)	42.22 (35.59)	38.37 (30.04)	40.91 (41.60)
Animal oil intake, g/day	0.38 (3.04)	0.60 (3.74)	0.36 (2.31)	0.49 (4.34)
Salt intake, g/day	9.14 (14.32)	10.03 (21.09)	16.71 (83.58)	8.05 (6.98)
Sauce intake, g/day	9.40 (13.00)	10.01 (15.25)	10.68 (13.39)	9.65 (12.11)
Other foods intake, g/day	17.94 (31.64)	14.39 (24.96)	9.65 (17.61)	17.19 (24.59)