Supplementary Figure 1. Participants' flow chart
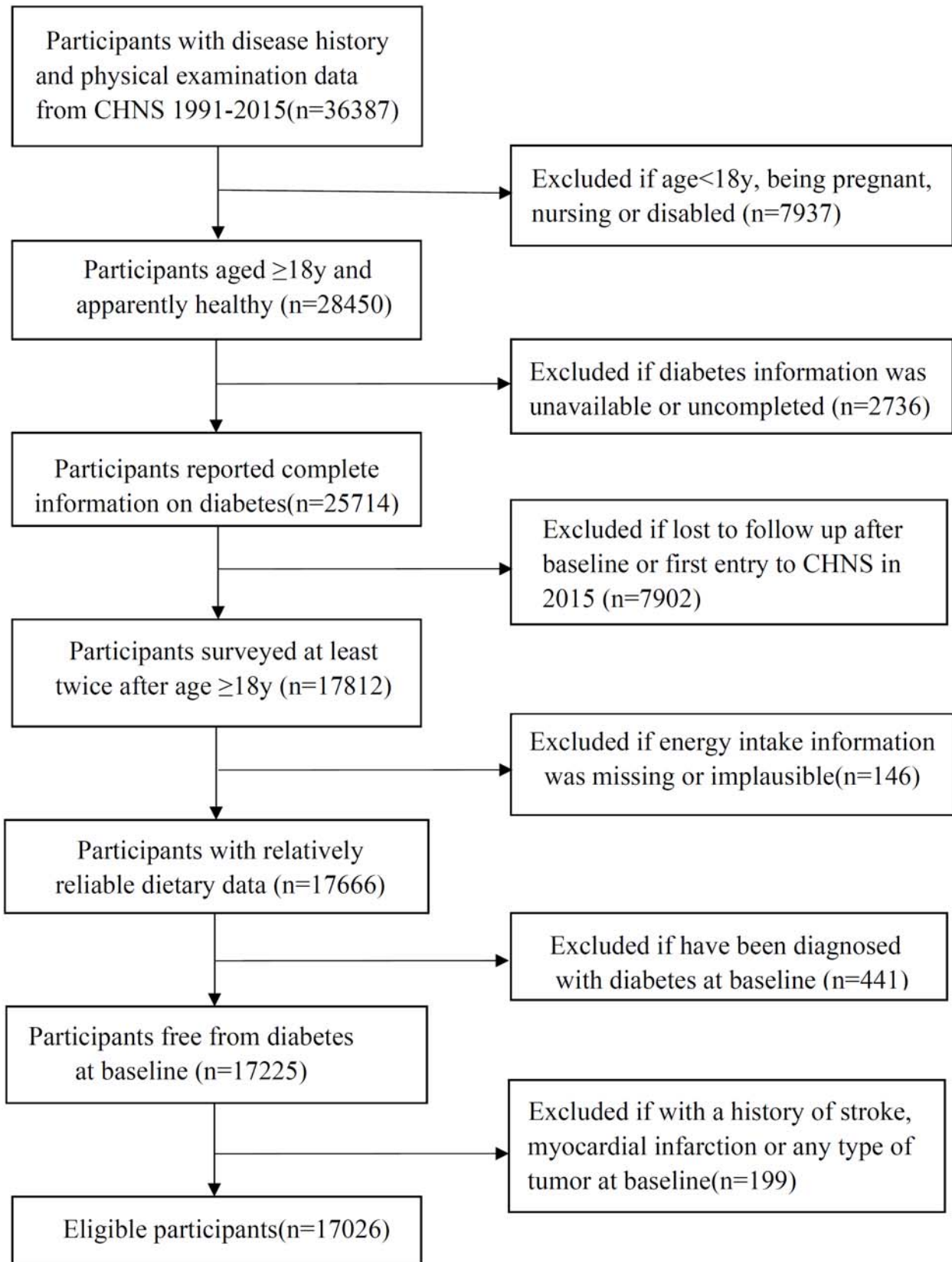
SUPPLEMENTARY DATA

Supplementary Table 1. HRs (95% CIs) of diabetes risk according to quintiles of dietary heme, non-heme and total iron intake stratified by BMI, age, smoking and alcohol drinking status in Chinese men and women

	Quintiles of intake in men					P for trend		Quintiles of intake in women					P for trend
	Q1	Q2	Q3	Q4	Q5			Q1	Q2	Q3	Q4	Q5	
Heme iron													
BMI<24kg/m² (n=6145)							BMI<24kg/m² (n=6144)						
HR (95%CI)	1(ref)	0.69(0.47-1.00) *	0.76(0.49-1.17)	0.70(0.43-1.15)	0.63(0.36-1.12)	0.331	HR (95%CI)	1(ref)	0.65(0.44-0.96)	0.85(0.54-1.32)	0.71(0.42-1.19)	0.95(0.55-1.65)	0.515
BMI≥24kg/m² (n=2201)							BMI≥24kg/m² (n=2536)						
HR (95%CI)	1(ref)	1.30(0.79-2.12)	0.84(0.47-1.51)	0.99(0.53-1.87)	0.83(0.41-1.69)	0.287	HR (95%CI)	1(ref)	0.93(0.63-1.38)	0.79(0.49-1.26)	0.71(0.42-1.20)	0.77(0.42-1.41)	0.442
P-interaction						0.106	P-interaction						0.565
Age<50y (n=6126)							Age<50y (n=6249)						
HR (95%CI)	1(ref)	1.00(0.70-1.43)	0.73(0.47-1.13)	0.69(0.43-1.13)	0.77(0.44-1.34)	0.431	HR (95%CI)	1(ref)	0.69(0.48-1.00)	0.77(0.49-1.21)	0.67(0.40-1.12)	0.73(0.40-1.33)	0.719
Age≥50y (n=2220)							Age≥50y (n=2431)						
HR (95%CI)	1(ref)	0.64(0.37-1.09)	0.75(0.41-1.36)	0.86(0.45-1.64)	0.56(0.27-1.19)	0.348	HR (95%CI)	1(ref)	0.69(0.45-1.05)	0.70(0.43-1.12)	0.55(0.32-0.95)	0.83(0.47-1.49)	0.924
P-interaction						0.638	P-interaction						0.501
Non-smoker (n=3143)							Non-smoker (n=8318)						
HR(95%CI)	1(ref)	0.68(0.41-1.13)	0.53(0.30-0.95)	0.46(0.24-0.89)	0.33(0.15-0.70)	0.009	HR(95%CI)	1(ref)	0.75(0.56-1.00)	0.76(0.54-1.07)	0.63(0.43-0.93)	0.82(0.53-1.26)	0.919
Former or current smoker (n=5203)							Ever or current smoke (n=362)						
HR(95%CI)	1(ref)	0.94(0.65-1.35)	0.89(0.57-1.37)	1.00(0.62-1.61)	0.99(0.58-1.69)	0.780	HR(95%CI)	1(ref)	0.67(0.22-2.01)	0.80(0.24-2.71)	1.08(0.31-3.73)	0.11(0.01-1.41)	0.279
P-interaction						0.309	P-interaction						0.130
Non-drinker (n=3141)							Non-drinker (n=7655)						
HR(95%CI)	1(ref)	0.78(0.46-1.32)	0.95(0.52-1.74)	0.71(0.36-1.43)	0.58(0.26-1.28)	0.141	HR(95%CI)	1(ref)	0.74(0.55-0.99)	0.76(0.54-1.08)	0.65(0.44-0.96)	0.80(0.52-1.24)	0.793
Drinker (n=5205)							Drinker (n=1025)						
HR(95%CI)	1(ref)	0.90(0.63-1.28)	0.68(0.44-1.04)	0.80(0.50-1.28)	0.73(0.43-1.24)	0.435	HR(95%CI)	1(ref)	0.73(0.32-1.65)	0.71(0.28-1.77)	0.63(0.22-1.81)	0.67(0.21-2.14)	0.677
P-interaction						0.733	P-interaction						0.541
Non-heme iron													
BMI<24kg/m² (n=6145)							BMI<24kg/m² (n=6144)						
HR (95%CI)	1(ref)	0.94(0.65-1.35)	0.91(0.63-1.32)	0.72(0.48-1.08)	1.07(0.71-1.61)	0.805	HR (95%CI)	1(ref)	0.53(0.36-0.77)	0.48(0.32-0.70)	0.47(0.31-0.69)	0.58(0.38-0.86)	0.034

SUPPLEMENTARY DATA

BMI≥24kg/m² (n=2201)
HR (95%CI) 1(ref) 0.55(0.35-0.87) 0.48(0.30-0.77) 0.50(0.31-0.81) 0.63(0.38-1.04) 0.497
P-interaction 0.073

Age<50y (n=6126)
HR (95%CI) 1(ref) 0.84(0.59-1.19) 0.73(0.51-1.06) 0.63(0.43-0.92) 0.92(0.63-1.36) 0.818
Age≥50y (n=2220)
HR (95%CI) 1(ref) 0.58(0.35-0.98) 0.71(0.43-1.15) 0.61(0.36-1.03) 0.74(0.43-1.26) 0.292
P-interaction 0.190

Non-smoker (n=3143)
HR(95%CI) 1(ref) 0.66(0.38-1.13) 0.91(0.54-1.54) 0.88(0.51-1.52) 1.37(0.79-2.38) 0.044
Former or current smoker (n=5203)
HR(95%CI) 1(ref) 0.83(0.59-1.17) 0.68(0.48-0.97) 0.55(0.37-0.79) 0.70(0.48-1.03) 0.057
P-interaction **0.030**

Non-drinker (n=3141)
HR(95%CI) 1(ref) 0.88(0.54-1.46) 0.89(0.53-1.49) 0.59(0.33-1.06) 0.98(0.57-1.69) 0.980
Drinker (n=5205)
HR(95%CI) 1(ref) 0.71(0.50-1.01) 0.66(0.47-0.94) 0.65(0.45-0.94) 0.85(0.58-1.25) 0.806
P-interaction 0.837

Total iron
BMI<24kg/m² (n=6145)
HR (95%CI) 1(ref) 0.83(0.58-1.19) 0.7(0.48-1.02) 0.72(0.49-1.06) 0.98(0.65-1.46) 0.913
BMI≥24kg/m² (n=2201)
HR (95%CI) 1(ref) 0.59(0.38-0.94) 0.49(0.31-0.78) 0.46(0.28-0.74) 0.63(0.38-1.04) 0.332
P-interaction 0.068

Age<50y (n=6126)
HR (95%CI) 1(ref) 0.81(0.57-1.14) 0.67(0.47-0.96) 0.63(0.43-0.91) 0.91(0.62-1.34) 0.891
Age≥50y (n=2220)

BMI≥24kg/m² (n=2536)
HR (95%CI) 1(ref) 0.86(0.56-1.33) 0.81(0.52-1.26) 0.93(0.59-1.46) 1.01(0.61-1.66) 0.644
P-interaction 0.138

Age<50y (n=6249)
HR (95%CI) 1(ref) 0.51(0.35-0.74) 0.52(0.36-0.75) 0.47(0.32-0.69) 0.52(0.34-0.78) 0.017
Age≥50y (n=2431)
HR (95%CI) 1(ref) 0.81(0.52-1.25) 0.69(0.44-1.08) 0.79(0.51-1.23) 0.97(0.60-1.56) 0.800
P-interaction 0.559

Non-smoker (n=8318)
HR(95%CI) 1(ref) 0.63(0.48-0.84) 0.55(0.41-0.73) 0.57(0.43-0.77) 0.63(0.46-0.88) 0.044
Ever or current smoke (n=362)
HR(95%CI) 1(ref) 0.49(0.11-2.13) 0.92(0.26-3.25) 0.84(0.24-2.97) 1.44(0.40-5.22) 0.268
P-interaction 0.110

Non-drinker (n=7655)
HR(95%CI) 1(ref) 0.66(0.49-0.89) 0.62(0.46-0.84) 0.60(0.44-0.82) 0.68(0.49-0.95) 0.101
Drinker (n=1025)
HR(95%CI) 1(ref) 0.42(0.19-0.95) 0.33(0.14-0.77) 0.45(0.20-1.02) 0.52(0.22-1.24) 0.538
P-interaction 0.727

BMI<24kg/m² (n=6144)
HR (95%CI) 1(ref) 0.46(0.31-0.68) 0.6(0.41-0.87) 0.48(0.32-0.71) 0.62(0.41-0.94) 0.102
BMI≥24kg/m² (n=2536)
HR (95%CI) 1(ref) 0.72(0.47-1.11) 0.89(0.59-1.33) 0.8(0.52-1.24) 0.98(0.61-1.57) 0.671
P-interaction 0.153

Age<50y (n=6249)
HR (95%CI) 1(ref) 0.45(0.3-0.65) 0.56(0.39-0.8) 0.47(0.32-0.69) 0.57(0.38-0.86) 0.080
Age≥50y (n=2431)

HR (95%CI)	1(ref)	0.51(0.31-0.83)	0.51(0.31-0.83)	0.53(0.32-0.88)	0.62(0.36-1.05)	0.325	HR (95%CI)	1(ref)	0.68(0.43-1.07)	0.93(0.62-1.41)	0.77(0.5-1.2)	0.98(0.62-1.58)	0.719
P-interaction						0.184	P-interaction						0.637
Non-smoker (n=3143)							Non-smoker (n=8318)						
HR(95%CI)	1(ref)	0.65(0.39-1.08)	0.79(0.47-1.33)	0.76(0.44-1.3)	1.13(0.65-1.96)	0.212	HR(95%CI)	1(ref)	0.55(0.41-0.74)	0.67(0.5-0.88)	0.56(0.42-0.76)	0.69(0.5-0.95)	0.157
Former or current smoker (n=5203)							Ever or current smoke (n=362)						
HR(95%CI)	1(ref)	0.78(0.56-1.09)	0.56(0.4-0.8)	0.55(0.38-0.79)	0.7(0.48-1.01)	0.088	HR(95%CI)	1(ref)	0.43(0.12-1.55)	0.97(0.3-3.14)	0.75(0.22-2.55)	1.24(0.35-4.41)	0.397
P-interaction						0.082	P-interaction						0.355
Non-drinker (n=3141)							Non-drinker (n=7655)						
HR(95%CI)	1(ref)	0.78(0.47-1.27)	0.79(0.47-1.31)	0.49(0.28-0.86)	0.85(0.5-1.47)	0.657	HR(95%CI)	1(ref)	0.6(0.44-0.82)	0.75(0.56-1)	0.63(0.47-0.86)	0.72(0.52-1.01)	0.234
Drinker (n=5205)							Drinker (n=1025)						
HR(95%CI)	1(ref)	0.72(0.51-1.01)	0.56(0.4-0.8)	0.66(0.46-0.95)	0.84(0.58-1.22)	0.815	HR(95%CI)	1(ref)	0.26(0.11-0.64)	0.39(0.18-0.85)	0.24(0.1-0.59)	0.54(0.24-1.22)	0.538
P-interaction						0.869	P-interaction						0.737

*Values are multivariable-adjusted HRs (95% CIs) for risk of diabetes according to quintiles of dietary heme, non-heme and total iron intake stratified by BMI, age, smoking and alcohol drinking status in model 3s.