

Online Supplementary Material

1) Development of Study Protocol

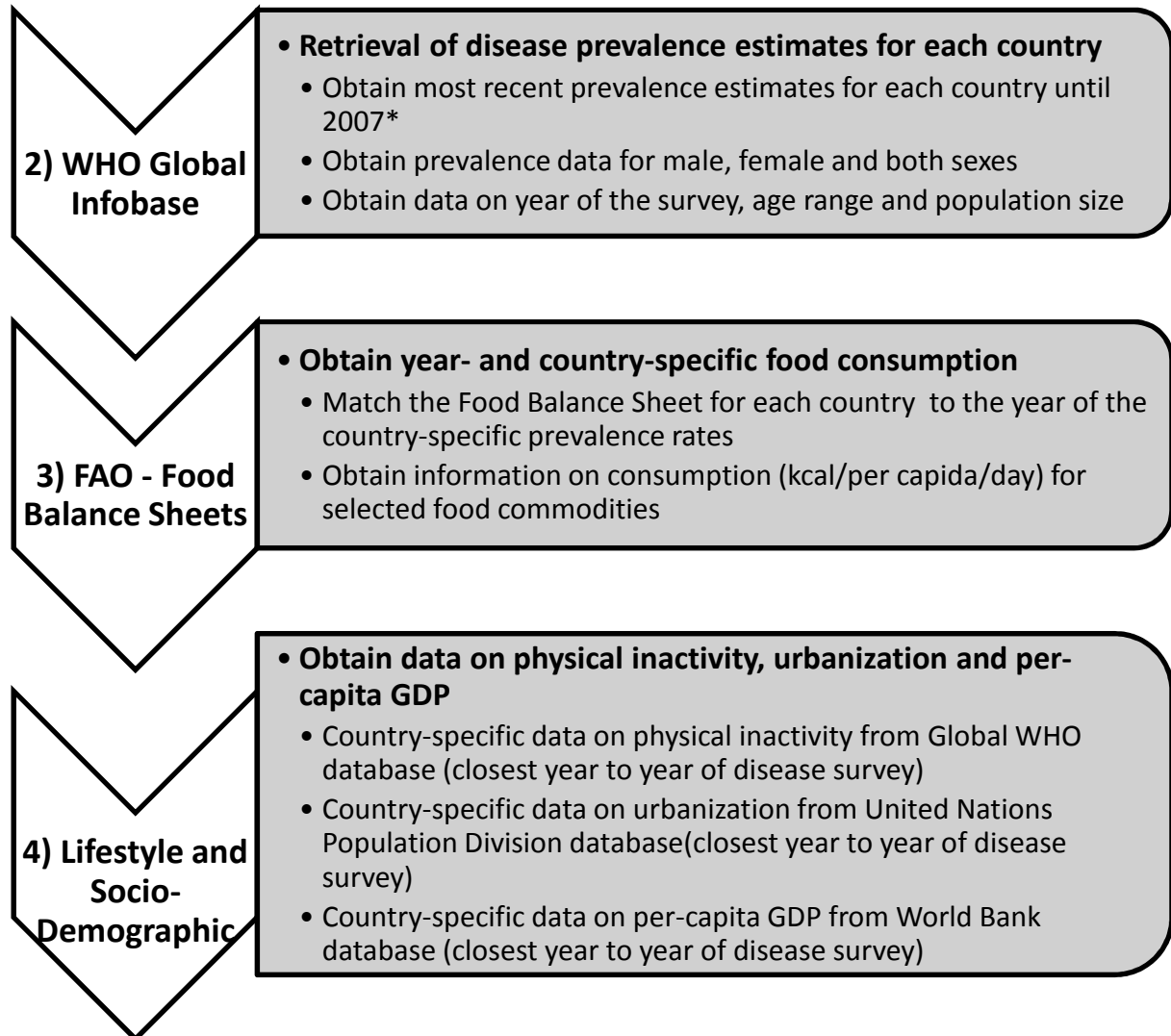


Figure S1: Summary of the different phases of the study. *This upper limit was set because information on food consumption after 2007 was not available from the Food and Agriculture Organization database (FAOSTAT).

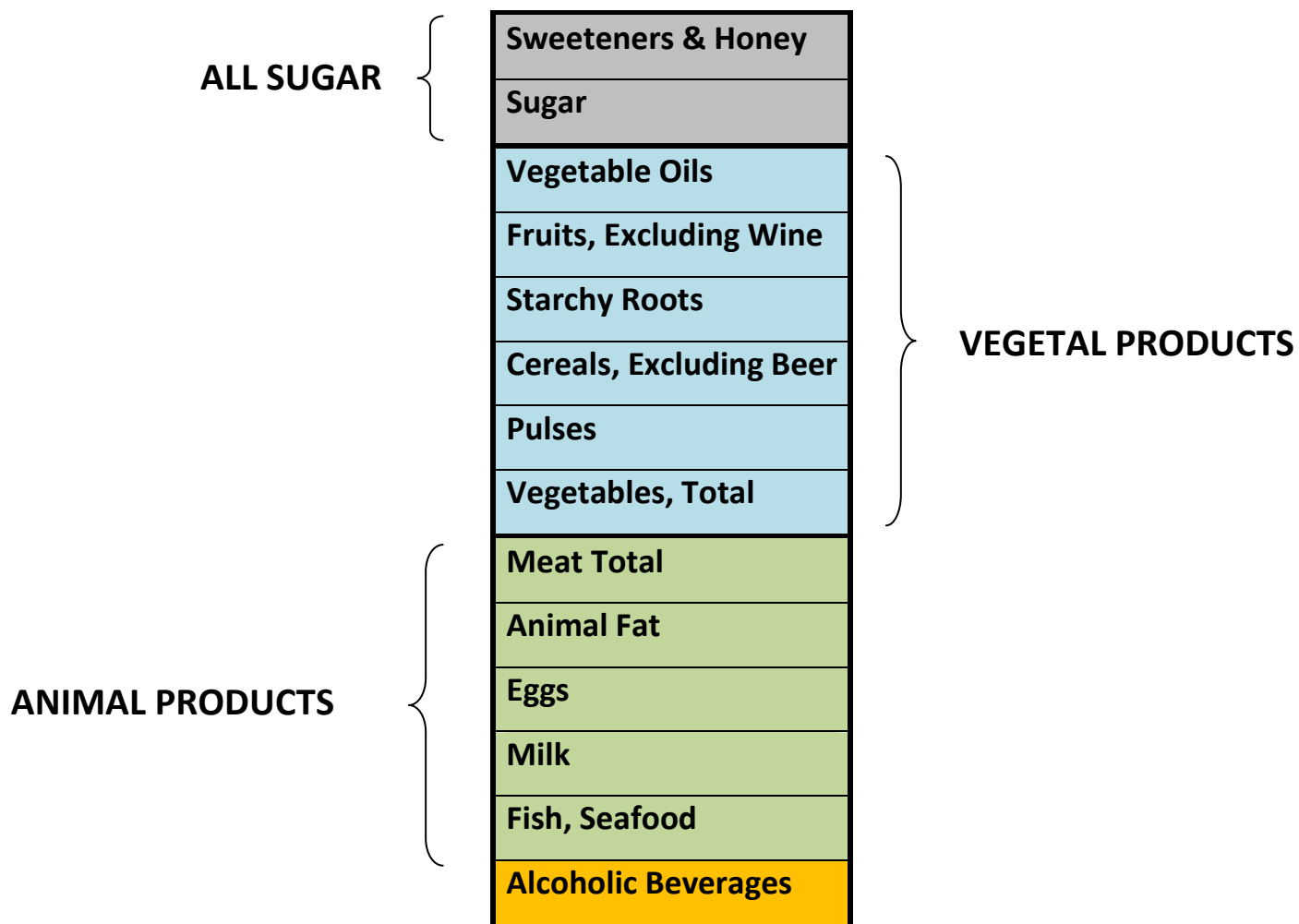
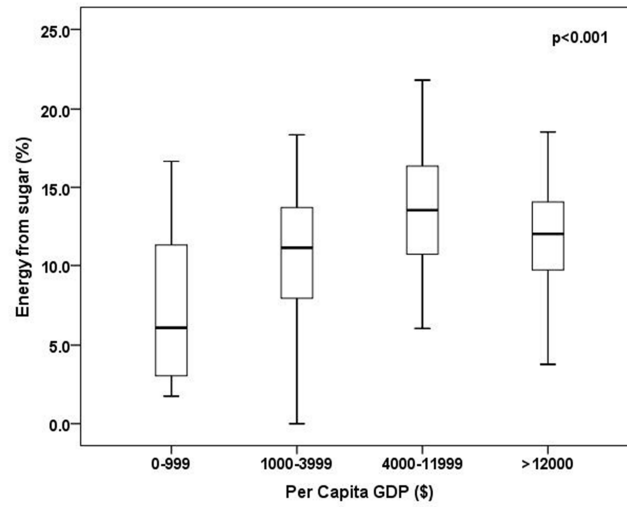
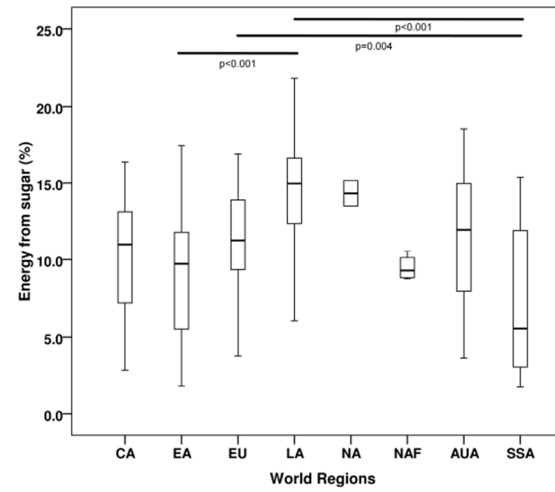


Figure S2: Classification of food groups used extracted from Food Balance Sheets



A

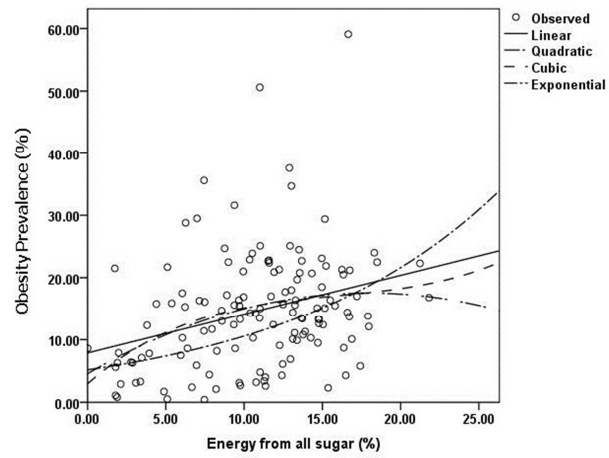


B

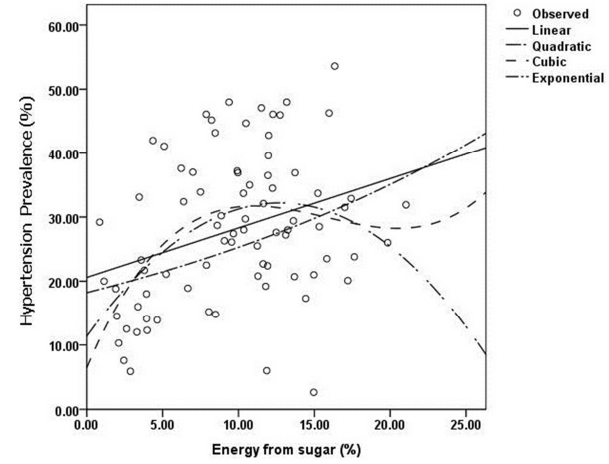
Figure S3: Sugar consumption, *per capita* gross domestic product (GDP) (A) and world regions (A). CA= Central Asia; EA= East Asia; EU= Europe; LA= Latin America; NA= North America; NAF= North Africa; AUA= Australasia and Pacific Islands; SSA= Sub-Saharan Africa.

Table S1: Curve fitting to identify the best prediction model of the relationship between disease prevalence estimates and percent energy from sugar.							
	Model	R²	P value	Intercept	B1	B2	B3
O: Obesity (%) E: Energy from all sugar (%) N=128	Linear	0.09	<0.001	7.8	0.6		
	Quadratic	0.10	<0.001	4.5	1.4	-0.07	
	Cubic	0.10	<0.001	2.9	2.1	-0.12	0.003
	Exponential	0.15	<0.001	5.1	0.07		
O: Hypertension (%) E: Energy from all sugar (%) N=79							
	Linear	0.10	0.004	20.5	0.7		
	Quadratic	0.16	0.001	11.3	3.2	-0.1	
	Cubic	0.18	0.001	6.4	5.5	-0.3	0.008
	Exponential	0.08	0.009	18.2	0.03		

O= outcome; E= exposure. N= number of countries. B= unadjusted regression coefficients; R²= explained variance.



A



B

Figure S4: Curve fitting to identify the best model explaining the association between energy from all sugar and obesity (A) and hypertension (B) prevalence estimates.

Table S2: Differences in overweight and obesity prevalence estimates in countries stratified by per capita gross domestic product (GDP) and gender.

		<i>Per Capita GDP (\$)</i>	Number of Countries	Mean	SD
Males	Overweight (%) (Chi Square, 57.9; p<0.001)	0-999	28	19.5	12.2
		1000-3999	38	41.3	16.4
		4000-11999	24	51.5	12.8
		>12000	25	55.3	7.6
	Obesity (%) (Chi Square, 38.0; p<0.001)	0-999	28	5.7	9.3
		1000-3999	39	10.7	8.8
		4000-11999	24	14.2	6.2
		>12000	28	14.7	5.9
Females	Overweight (%) (Chi Square, 22.9; p<0.001)	0-999	29	32.7	17.9
		1000-3999	38	50.1	16.6
		4000-11999	24	52.6	11.8
		>12000	25	44.7	10.3
	Obesity (%) (Chi Square, 16.6; p=0.001)	0-999	28	13.5	14.4
		1000-3999	40	20.7	11.5
		4000-11999	24	21.0	8.9
		>12000	28	16.0	7.1

Table S3: Difference in overweight and obesity prevalence between males and females.			
	Males	Females	P value
Overweight (%)	41.2±18.7	45.1±16.6	0.21
Number of Countries	115	116	
Obesity (%)	11.1±8.5	18.0±11.3	<0.001
Number of Countries	119	120	

Data are showed as mean±SD. Mann-Whitney U test was used to compare groups.

Table S4: Differences in hypertension prevalence estimates in countries stratified by per capita gross domestic product (GDP) and gender.			
Per Capita GDP (\$)	Number of Countries	Mean	SD
Males (Chi square, 12.6, p=0.006)			
0-999	28	24.5	11.3
1000-3999	26	29.4	11.1
4000-11999	12	37.0	7.3
>12000	10	32.4	8.8
Females (Chi square, 12.6, p=0.13)			
0-999	28	21.8	11.8
1000-3999	26	26.9	12.2
4000-11999	12	30.4	8.0
>12000	10	26.9	9.9

Table S5: Difference in hypertension prevalence between males and females.			
	Males	Females	P value
Number of Countries	76	76	0.04
Hypertension (%)	29.2±11.8	25.6±11.4	

Data are showed as mean±SD. Mann-Whitney U test was used to compare groups.

List of countries included in the analyses of overweight and obesity

1. Albania
2. Algeria
3. Angola
4. Antigua
5. Argentina
6. Australia
7. Austria
8. Azerbaijan
9. Bahamas
10. Barbados
11. Belgium
12. Belize
13. Benin
14. Bolivia
15. Bosnia
16. Botswana
17. Brazil
18. Brunei
19. Bulgaria
20. Burundi
21. Cameroon
22. Canada
23. Cape Verde
24. Chile
25. China
26. Colombia
27. Congo
28. Costa Rica
29. Cote Ivorie
30. Croatia
31. Cuba
32. Cyprus
33. Czech Republic
34. Dem Rep Congo
35. Denmark
36. Dominican Rep
37. Ecuador
38. Egypt
39. El Salvador
40. Eritrea
41. Estonia
42. Ethiopia
43. Fiji
44. Finland
45. France
46. Gambia
47. Georgia
48. Germany
49. Ghana
50. Greece
51. Grenada
52. Guatemala
53. Guinea Bissau
54. Guyana
55. Haiti
56. Hungary
57. Iceland
58. India
59. Indonesia
60. Iran
61. Ireland
62. Israel
63. Italy
64. Jamaica
65. Japan
66. Jordan
67. Kirgikistan
68. Kiribati
69. Kuwait
70. Lao
71. Latvia
72. Lebanon
73. Lesotho
74. Lithuania
75. Madagascar
76. Malawi
77. Malaysia
78. Maldives
79. Mali
80. Malta
81. Mauritania
82. Mauritius
83. Mexico
84. Mongolia
85. Morocco
86. Mozambique
87. Myanmar
88. Nepal
89. Netherlands
90. New Zealand
91. Nigeria
92. Norway
93. Pakistan
94. Panama
95. Paraguay
96. Peru
97. Philippines
98. Poland
99. Portugal
100. Rep Korea
101. Romania
102. Russia
103. S Vincent
Grenada
104. Saint Lucia
105. Samoa
106. Sao
107. Saudi Arabia
108. Serbia
109. Seychelles
110. Slovakia
111. Slovenia
112. San Kitts Nevis
113. Solomon Islands
114. South Africa
115. Spain
116. Sri Lanka
117. Sudan
118. Suriname
119. Swaziland
120. Sweden
121. Switzerland
122. Syria
123. Thailand
124. Yugos
125. Trinidad
126. Tunisia
127. Turkey
128. UK
129. Un Rep Tanzania
130. Uruguay
131. USA
132. Uzbekistan
133. Vanuatu
134. Venezuela
135. Vietnam
136. Yemen
137. Zimbabwe

List of countries included in the analyses of hypertension

1. Albania
2. Algeria
3. Argentina
4. Armenia
5. Australia
6. Austria
7. Bangladesh
8. Barbados
9. Bolivia
10. Bosnia
11. Botswana
12. Brazil
13. Bulgaria
14. Cambodia
15. Cameroon
16. Canada
17. Chile
18. China
19. Congo
20. Costa Rica
21. Cote Ivorie
22. Croatia
23. Cube
24. Ecuador
25. Egypt
26. Eritrea
27. Estonia
28. Ethiopia
29. Fiji
30. Finland
31. France
32. Gambia
33. Ghana
34. Greece
35. Haiti
36. Hungary
37. India
38. Indonesia

39. Iran
40. Italy
41. Japan
42. Latvia
43. Lebanon
44. Lesotho
45. Liberia
46. Madagascar
47. Malaysia
48. Maldives
49. Malta
50. Mauritania
51. Mauritius
52. Mexico
53. Mongolia
54. Morocco
55. Mozambique
56. Nepal
57. Netherlands
58. Nigeria
59. Pakistan
60. Peru
61. Philippines
62. Rep Korea
63. Saudi Arabia
64. Senegal
65. Seychelles
66. Slovakia
67. South Africa
68. Spain
69. Thailand
70. Tunisia
71. Turkey
72. Ukraine
73. UK
74. Un Rep
Tanzania
75. USA
76. Uzbekistan
77. Venezuela
78. Vietnam

79. Zimbabwe