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Supplemental Table 1. Pearson correlations between the individual dietary saturated fatty acids intakes (in en%) in EPIC-Norfolk and EPIC-Denmark

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>EPIC-Norfolk</i>								
(1) Sum of C4:0-C10:0	1							
(2) C12:0	0.68	1						
(3) C14:0	0.89	0.65	1					
(4) Sum of C12:0 & C14:0	0.89	0.82	0.97	1				
(5) C16:0	0.66	0.48	0.81	0.77	1			
(6) Sum C15:0 & C17:0	0.75	0.44	0.88	0.81	0.78	1		
(7) C18:0	0.64	0.47	0.77	0.73	0.92	0.77	1	
(8) Sum of C12:0-C18:0	0.76	0.59	0.90	0.87	0.98	0.94	0.94	1
<i>EPIC-Denmark</i>								
(1) Sum of C4:0-C10:0	1							
(2) C12:0	0.95	1						
(3) C14:0	0.92	0.93	1					
(4) Sum of C12:0 & C14:0	0.94	0.96	1.00	1				
(5) C16:0	0.58	0.62	0.75	0.73	1			
(6) C15:0	0.95	0.94	0.95	0.96	0.60	1		
(7) C18:0	0.43	0.46	0.58	0.56	0.90	0.47	1	
(8) Sum of C12:0-C18:0	0.66	0.71	0.82	0.80	0.99	0.70	0.92	1

Supplemental Table 2. Hazard ratios (95%CI) for the associations between individual SFAs (in quintiles) and MI incidence risk in sensitivity analyses**

	Quintile	During first 8 years of follow-up		Excluding first 2 years of follow-up		Excluding lipid lowering drugs users		Adjustment for
		<i>EPIC-Norfolk</i>	<i>EPIC-Denmark</i>	<i>EPIC-Norfolk</i>	<i>EPIC-Denmark</i>	<i>EPIC-Norfolk</i>	<i>EPIC-Denmark</i>	<i>EPIC-Norfolk</i>
Cases/subjects (n)		395/22050	1237/53375	1166/21886	2029/52828	1179/21808	2175/52597	1051/19974
Sum C4:0-C10:0	Ref							
	2	0.89 (0.65, 1.22)	0.86 (0.72, 1.03)	0.99 (0.82, 1.20)	0.90 (0.78, 1.03)	0.99 (0.82, 1.19)	0.90 (0.79, 1.03)	0.97 (0.79, 1.18)
	3	0.81 (0.58, 1.13)	0.84 (0.70, 1.01)	0.98 (0.81, 1.20)	0.86 (0.74, 1.00)	0.99 (0.82, 1.21)	0.87 (0.75, 1.00)*	0.99 (0.80, 1.21)
	4	0.61 (0.42, 0.90)*	0.74 (0.61, 0.91)*	0.85 (0.68, 1.07)	0.83 (0.70, 0.97)*	0.84 (0.67, 1.04)	0.81 (0.69, 0.94)*	0.84 (0.66, 1.06)
	5	0.77 (0.46, 1.28)	0.89 (0.71, 1.11)	0.86 (0.63, 1.17)	0.93 (0.78, 1.12)	0.86 (0.64, 1.16)	0.90 (0.76, 1.06)	0.84 (0.61, 1.16)
C12:0	Ref							
	2	0.83 (0.59, 1.17)	0.87 (0.73, 1.04)	0.95 (0.78, 1.16)	0.90 (0.78, 1.04)	0.99 (0.81, 1.21)	0.89 (0.78, 1.02)	0.92 (0.74, 1.13)
	3	1.00 (0.71, 1.40)	0.86 (0.71, 1.04)	1.12 (0.92, 1.37)	0.89 (0.76, 1.03)	1.14 (0.93, 1.39)	0.89 (0.77, 1.03)	1.05 (0.85, 1.30)
	4	0.91 (0.63, 1.31)	0.80 (0.65, 0.99)*	1.06 (0.86, 1.31)	0.94 (0.80, 1.11)	1.06 (0.86, 1.31)	0.91 (0.78, 1.07)	1.02 (0.82, 1.28)
	5	1.04 (0.68, 1.58)	0.78 (0.60, 1.00)*	1.03 (0.80, 1.32)	0.85 (0.70, 1.04)	1.02 (0.79, 1.31)	0.80 (0.66, 0.96)*	0.97 (0.74, 1.27)
C14:0	Ref							
	2	0.72 (0.52, 1.01)	0.92 (0.76, 1.11)	0.91 (0.74, 1.11)	0.92 (0.79, 1.06)	0.92 (0.76, 1.13)	0.96 (0.83, 1.10)	0.92 (0.75, 1.14)
	3	0.57 (0.39, 0.83)*	0.78 (0.63, 0.97)*	0.89 (0.72, 1.11)	0.84 (0.71, 0.98)*	0.89 (0.71, 1.11)	0.84 (0.72, 0.99)*	0.94 (0.75, 1.19)
	4	0.62 (0.41, 0.94)*	0.75 (0.60, 0.95)*	0.83 (0.64, 1.07)	0.78 (0.65, 0.94)*	0.83 (0.64, 1.06)	0.81 (0.68, 0.96)*	0.83 (0.63, 1.09)
	5	0.55 (0.31, 0.98)*	0.75 (0.56, 1.00)*	0.80 (0.57, 1.13)	0.82 (0.66, 1.03)	0.81 (0.57, 1.14)	0.81 (0.66, 1.01)	0.82 (0.57, 1.18)
Sum C12:0 & C14:0	Ref							
	2	0.88 (0.63, 1.23)	0.86 (0.71, 1.04)	0.93 (0.76, 1.14)	0.92 (0.79, 1.06)	0.97 (0.79, 1.18)	0.95 (0.83, 1.09)	0.96 (0.78, 1.19)
	3	0.77 (0.54, 1.10)	0.78 (0.64, 0.96)*	0.98 (0.80, 1.21)	0.81 (0.69, 0.95)*	0.99 (0.80, 1.22)	0.83 (0.71, 0.96)*	1.02 (0.81, 1.27)
	4	0.75 (0.51, 1.12)	0.71 (0.57, 0.89)*	0.89 (0.71, 1.13)	0.82 (0.69, 0.98)*	0.89 (0.70, 1.12)	0.83 (0.70, 0.98)*	0.91 (0.71, 1.17)
	5	0.75 (0.45, 1.27)	0.71 (0.54, 0.93)*	0.82 (0.60, 1.12)	0.83 (0.67, 1.03)	0.82 (0.61, 1.12)	0.80 (0.66, 0.99)*	0.88 (0.64, 1.22)
C16:0	Ref							
	2	0.90 (0.64, 1.29)	1.03 (0.83, 1.28)	0.95 (0.77, 1.18)	1.01 (0.86, 1.19)	0.99 (0.80, 1.23)	1.03 (0.88, 1.20)	0.97 (0.77, 1.21)
	3	0.66 (0.44, 1.00)	1.05 (0.82, 1.33)	0.97 (0.76, 1.23)	0.96 (0.80, 1.16)	0.98 (0.77, 1.25)	0.99 (0.83, 1.18)	0.99 (0.77, 1.28)
	4	0.76 (0.48, 1.21)	1.09 (0.83, 1.41)	0.88 (0.67, 1.16)	1.01 (0.82, 1.24)	0.90 (0.68, 1.19)	1.04 (0.86, 1.26)	0.88 (0.66, 1.19)
	5	0.69 (0.37, 1.28)	1.16 (0.85, 1.59)	0.89 (0.62, 1.29)	1.13 (0.88, 1.44)	0.92 (0.64, 1.33)	1.15 (0.91, 1.45)	0.88 (0.60, 1.31)
Sum C15:0 & C17:0	Ref							
	2	0.77 (0.55, 1.08)	0.90 (0.75, 1.07)	0.90 (0.74, 1.10)	0.95 (0.82, 1.09)	0.88 (0.72, 1.07)	0.94 (0.83, 1.08)	0.91 (0.74, 1.13)
(EPIC-Denmark: C15:0 only)	3	0.67 (0.47, 0.97)*	0.85 (0.70, 1.03)	0.88 (0.71, 1.09)	0.92 (0.79, 1.07)	0.88 (0.71, 1.08)	0.91 (0.78, 1.05)	0.97 (0.77, 1.21)
	4	0.61 (0.41, 0.92)*	0.76 (0.62, 0.95)*	0.83 (0.65, 1.06)	0.88 (0.74, 1.04)	0.79 (0.62, 1.01)	0.86 (0.73, 1.01)	0.83 (0.64, 1.08)
	5	0.57 (0.34, 0.97)*	0.78 (0.60, 1.01)	0.81 (0.59, 1.10)	0.92 (0.75, 1.13)	0.77 (0.57, 1.05)	0.85 (0.70, 1.04)	0.91 (0.65, 1.26)

C18:0	Ref							
	2	0.87 (0.61, 1.25)	1.05 (0.84, 1.30)	1.01 (0.82, 1.24)	0.96 (0.82, 1.14)	1.01 (0.82, 1.24)	1.00 (0.86, 1.17)	0.97 (0.78, 1.20)
	3	0.73 (0.49, 1.09)	1.11 (0.88, 1.40)	0.96 (0.76, 1.21)	1.02 (0.85, 1.21)	0.95 (0.75, 1.20)	1.05 (0.89, 1.25)	0.91 (0.72, 1.17)
	4	0.79 (0.50, 1.24)	1.07 (0.83, 1.38)	0.87 (0.67, 1.14)	0.99 (0.82, 1.21)	0.87 (0.66, 1.14)	1.00 (0.83, 1.21)	0.85 (0.64, 1.12)
	5	0.67 (0.37, 1.21)	1.20 (0.90, 1.60)	0.77 (0.54, 1.10)	1.07 (0.86, 1.34)	0.75 (0.53, 1.06)	1.11 (0.90, 1.37)	0.71 (0.49, 1.04)
Sum C12:0-C18:0	Ref							
	2	0.82 (0.58, 1.16)	1.03 (0.84, 1.25)	0.98 (0.80, 1.20)	1.01 (0.87, 1.18)	1.00 (0.82, 1.23)	1.03 (0.89, 1.19)	0.98 (0.79, 1.21)
	3	0.66 (0.45, 0.97)*	1.00 (0.82, 1.23)	0.90 (0.72, 1.13)	0.95 (0.81, 1.11)	0.90 (0.72, 1.13)	0.98 (0.84, 1.14)	0.91 (0.72, 1.16)
	4	0.61 (0.40, 0.93)*	1.08 (0.87, 1.33)	0.85 (0.66, 1.10)	1.04 (0.89, 1.23)	0.85 (0.66, 1.09)	1.06 (0.91, 1.24)	0.82 (0.63, 1.08)
	5	0.53 (0.30, 0.94)*	1.09 (0.87, 1.37)	0.77 (0.55, 1.09)	1.06 (0.88, 1.27)	0.79 (0.56, 1.10)	1.08 (0.91, 1.28)	0.76 (0.53, 1.08)

* statistically significant at p<0.05 level.

**Hazard ratios are adjusted for age, sex, total energy intake, BMI, education level, physical activity level, smoking status, hypertension, alcohol intake and use of post-menopausal hormones, the sum of the other SFAs, intake of protein and PUFA, and in EPIC-Norfolk for aspirin use, multivitamin use, family history of MI, and trans-fatty acids.

Supplemental Table 3. Hazard ratios (95%CI) for the associations between C4:0-C10:0 and C12:0 & C14:0 in EPIC-Norfolk, stratified for physical activity*

Sum C12:0 - C18:0	Quintile	Inactive	Moderately inactive	Moderately Active	Active
EPIC-Norfolk					
Cases/subjects (n)		453/6406	331/6376	248/6376	172/5099
	2	0.85 (0.61, 1.18)	1.18 (0.81, 1.73)	1.03 (0.65, 1.64)	1.02 (0.62, 1.68)
	3	0.79 (0.55, 1.13)	0.98 (0.64, 1.51)	1.00 (0.61, 1.66)	0.87 (0.49, 1.54)
	4	0.62 (0.41, 0.94)**	1.26 (0.79, 2.01)	0.95 (0.54, 1.67)	0.68 (0.35, 1.35)
	5	0.59 (0.34, 1.02)	1.36 (0.73, 2.53)	0.72 (0.34, 1.53)	0.58 (0.23, 1.44)
EPIC-Denmark					
Cases/subjects (n)		446 / 1347	720/16473	779/16593	315/7062
	2	0.87 (0.64-1.20)	1.24 (0.96, 1.60)	1.08 (0.84, 1.38)	0.71 (0.46, 1.09)
	3	0.96 (0.69-1.33)	0.96 (0.73, 1.26)	0.94 (0.73, 1.22)	1.16 (0.78, 1.73)
	4	0.94 (0.67-1.33)	0.97 (0.73, 1.29)	1.13 (0.86, 1.45)	1.28 (0.86, 1.93)
	5	1.13 (0.78-1.67)	1.13 (0.83, 1.52)	1.03 (0.77, 1.37)	1.08 (0.67, 1.71)

*Hazard ratios are adjusted for age, sex, total energy intake, BMI, education level, physical activity level, smoking status, hypertension, alcohol intake and use of post-menopausal hormones, aspirin use, multivitamin use, family history of MI, the sum of other specified SFA sources, intake of protein, PUFA and trans-fatty acids.

** statistically significant at p<0.05 level.

Supplemental Table 4. Intakes of individual SFA (en%/day) in EPIC-Norfolk and EPIC-Denmark*

Individual SFA intake	<i>EPIC-Norfolk</i>	<i>EPIC-Denmark</i>
Sum C4:0, C6:0, C8:0 and C10:0	0.7 (0.5-1.1)	1.2 (0.9-1.6)
C12:0	0.5 (0.4-0.6)	0.4 (0.3-0.5)
C14:0	1.3 (1.0-1.8)	1.4 (1.1-1.7)
Sum C12:0 & C14:0	1.8 (1.4-2.4)	1.8 (1.4-2.2)
C16:0	6.9 (5.9-8.0)	7.4 (6.4-8.2)
Sum C15:0 & C17:0	0.3 (0.2-0.4)	
C15:0		0.1 (0.1-0.1)
C18:0	2.8 (2.4-3.3)	3.2 (2.7-3.6)
Sum C12:0, C14:0, C15:0, C16:0, C17:0, C18:0	11.9 (10.1-14.0)	12.5 (10.8-14.0)

*All values are expressed as median (quartile 1 – quartile 4).

Supplemental Table 5. Hazard ratios (95% CI) for the associations between SFA from specific sources (in en%/day) and MI incidence risk***

<i>EPIC-Norfolk</i>			<i>EPIC-Denmark</i>		
SFA derived from	Median intake (en%)	HR (95% CI)	SFA derived from	Median intake (en%)	HR (95% CI)
Total dairy*	3.7	0.99 (0.96,1.02)	Total dairy*	4.1	1.01 (0.99,1.04)
Meat	1.6	1.01 (0.95,1.06)	Meat	3.2	1.08 (1.04,1.12)**
Cakes & cookies	1.5	0.98 (0.92,1.03)			
Cheese	1.1	0.98 (0.92,1.04)			
Soft fats	0.8	1.08 (1.00,1.18)			
Hard fats	0.04	0.99 (0.91,1.09)			

*Does not include butter.

** statistically significant at p<0.05 level.

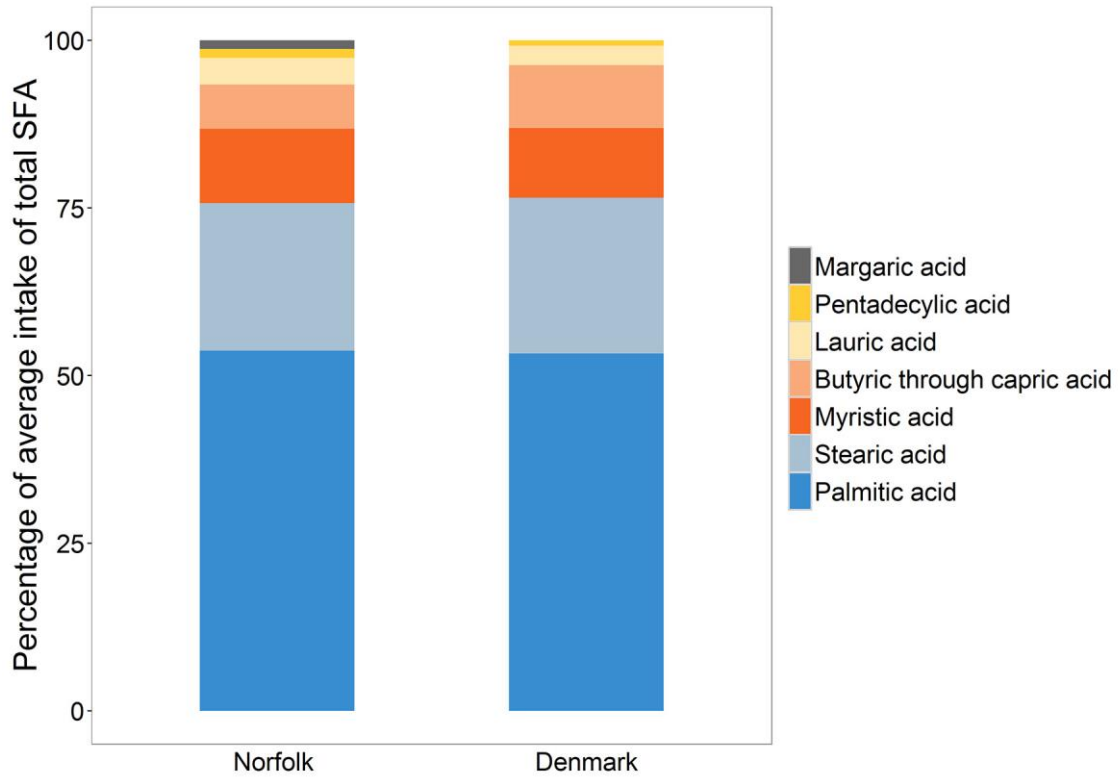
***Hazard ratios are adjusted for age, sex, total energy intake, BMI, education level, physical activity level, smoking status, hypertension, alcohol intake and use of post-menopausal hormones, the sum of other specified SFA sources, intake of protein and PUFA, and in EPIC-Norfolk for aspirin use, multivitamin use, family history of MI, and trans-fatty acids.

Supplemental Table 6. Hazard ratios (95%CI) for the associations between individual SFAs and MI incidence risk in EPIC-Norfolk, EPIC-Denmark, and pooled using random effects*

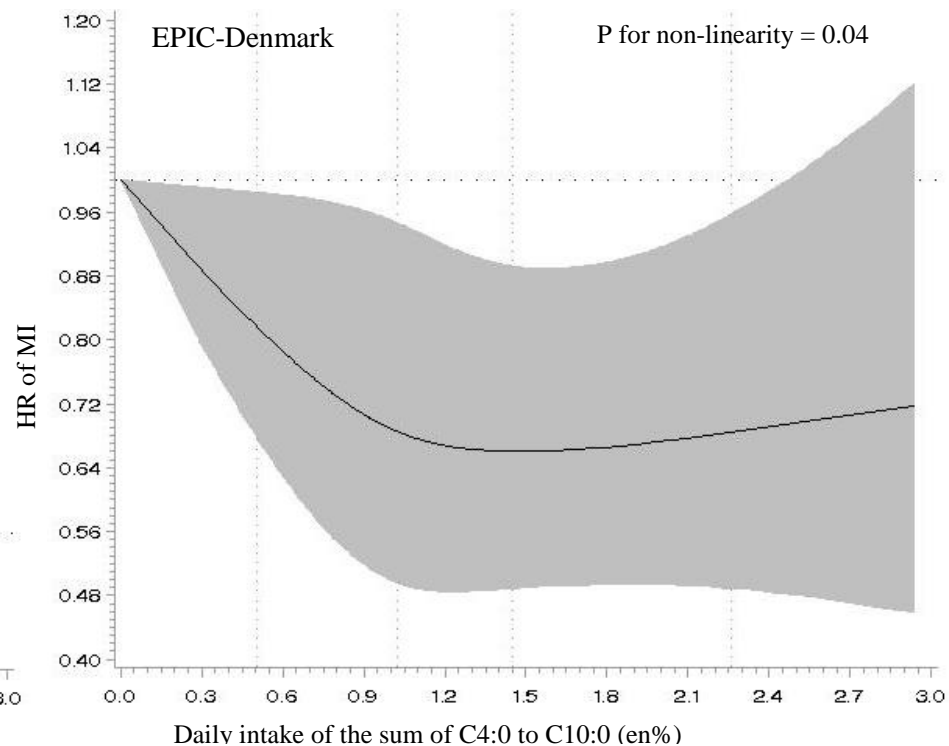
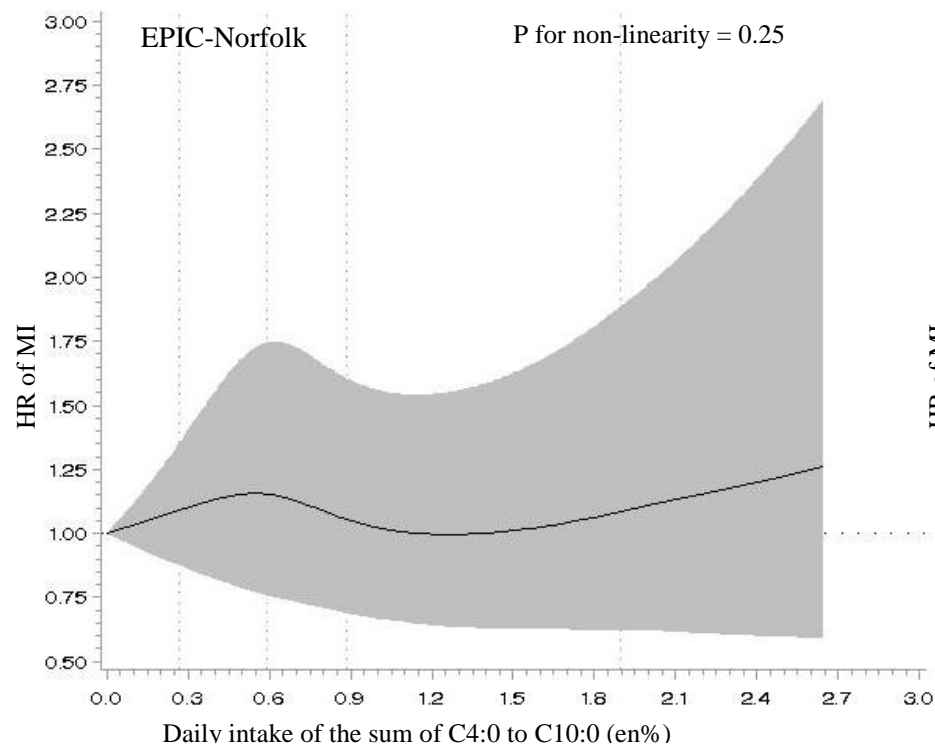
SFA intake	Quintile	EPIC-Norfolk	EPIC-Denmark	Pooled	I ² (%)
Sum C4:0 to C10:0	Ref				
	2	0.99 (0.82, 1.19)	0.90 (0.79, 1.03)	0.93 (0.84-1.04)	0
	3	0.99 (0.81, 1.20)	0.87 (0.75, 1.00)**	0.91 (0.81-1.02)	10
	4	0.83 (0.67, 1.04)	0.81 (0.69, 0.94)**	0.82 (0.72-0.93)**	0
	5	0.85 (0.63, 1.14)	0.90 (0.76, 1.06)	0.88 (0.76-1.03)	0
C12:0	Ref				
	2	0.96 (0.79, 1.17)	0.89 (0.78, 1.02)	0.92 (0.82-1.03)	0
	3	1.11 (0.91, 1.36)	0.89 (0.77, 1.03)	0.98 (0.79-1.23)	71
	4	1.05 (0.85, 1.30)	0.91 (0.78, 1.07)	0.96 (0.84-1.10)	11
	5	1.01 (0.79, 1.29)	0.80 (0.66, 0.96)**	0.88 (0.70-1.12)	54
C14:0	Ref				
	2	0.90 (0.74, 1.09)	0.96 (0.83, 1.10)	0.94 (0.84-1.05)	0
	3	0.88 (0.71, 1.09)	0.84 (0.72, 0.99)**	0.86 (0.75-0.97)*	0
	4	0.80 (0.62, 1.03)	0.81 (0.68, 0.96)**	0.81 (0.70-0.93)**	0
	5	0.78 (0.55, 1.09)	0.81 (0.66, 1.01)	0.81 (0.67-0.97)**	0
Sum of C12:0 to C14:0	Ref				
	2	0.94 (0.78, 1.15)	0.95 (0.83, 1.09)	0.95 (0.85-1.06)	0
	3	0.97 (0.79, 1.20)	0.83 (0.71, 0.96)**	0.88 (0.76-1.03)	34
	4	0.87 (0.69, 1.10)	0.83 (0.70, 0.98)**	0.85 (0.74-0.98)**	0
	5	0.81 (0.59, 1.09)	0.80 (0.66, 0.99)**	0.80 (0.68-0.95)**	0
C16:0	Ref				
	2	0.99 (0.80, 1.21)	1.03 (0.88, 1.20)	1.01 (0.90-1.15)	0
	3	0.98 (0.77, 1.24)	0.99 (0.83, 1.18)	0.99 (0.86-1.14)	0
	4	0.90 (0.68, 1.18)	1.04 (0.86, 1.26)	0.99 (0.84-1.16)	0
	5	0.91 (0.63, 1.31)	1.15 (0.91, 1.45)	1.07 (0.86-1.14)	10
Sum of C15:0 and C17:0 (EPIC-Denmark: C15:0 only)	Ref				
	2	0.89 (0.73, 1.08)	0.94 (0.83, 1.08)	0.92 (0.83-1.03)	0
	3	0.88 (0.71, 1.08)	0.91 (0.78, 1.05)	0.90 (0.80-1.01)	0
	4	0.80 (0.63, 1.02)	0.86 (0.73, 1.01)	0.84 (0.74-0.96)**	0
	5	0.78 (0.58, 1.06)	0.85 (0.70, 1.04)	0.83 (0.70-0.98)**	0
C18:0	Ref				
	2	1.03 (0.84, 1.26)	1.00 (0.86, 1.17)	1.01 (0.89-1.15)	0
	3	0.97 (0.77, 1.22)	1.05 (0.89, 1.25)	1.02 (0.89-1.18)	0
	4	0.90 (0.69, 1.17)	1.00 (0.83, 1.21)	0.96 (0.82-1.13)	0
	5	0.79 (0.56, 1.13)	1.11 (0.90, 1.37)	0.97 (0.70-1.35)	62
Sum of C12:0 to C18:0	Ref				
	2	0.99 (0.81, 1.21)	1.03 (0.89, 1.19)	1.02 (0.91-1.14)	0
	3	0.90 (0.72, 1.13)	0.98 (0.84, 1.14)	0.95 (0.84-1.08)	0
	4	0.85 (0.66, 1.09)	1.06 (0.91, 1.23)	0.97 (0.78-1.20)	55
	5	0.78 (0.56, 1.09)	1.08 (0.91, 1.28)	0.95 (0.70-1.30)	65

*Hazard ratios are adjusted for age, sex, total energy intake, BMI, education level, physical activity level, smoking status, hypertension, alcohol intake and use of post-menopausal hormones, the sum of the other SFAs, intake of protein and PUFA, and in EPIC-Norfolk for aspirin use, multivitamin use, family history of MI, and trans-fatty acids. Pooled estimates were obtained by pooling hazard ratios from EPIC-Norfolk and EPIC-Denmark with random effects.

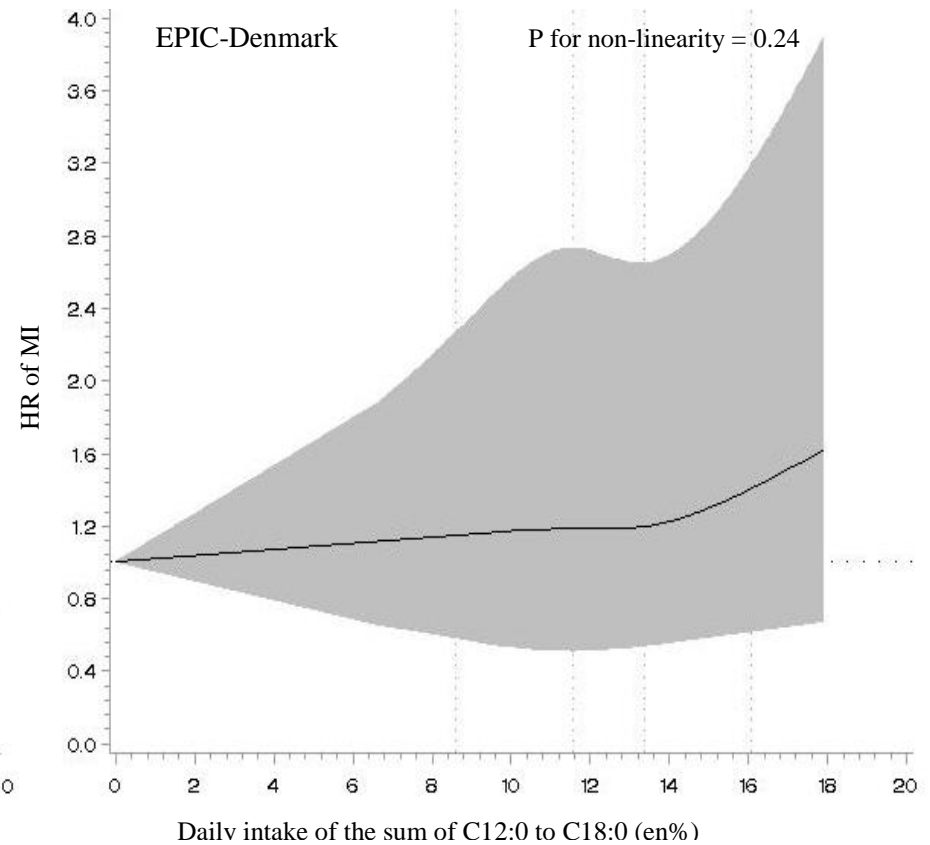
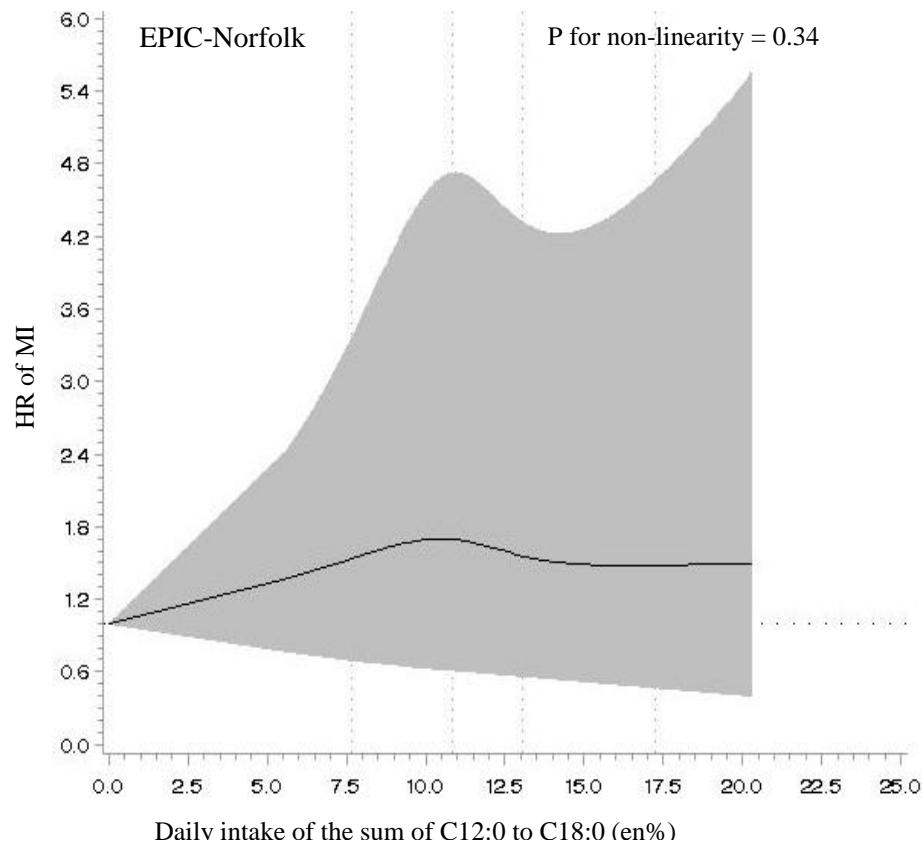
**statistically significant at p<0.05 level.



Supplemental figure 1. Individual SFAs in percentages of the mean intake of total SFA in EPIC-Norfolk and EPIC-Denmark



Supplemental figure 2. HR (95%CI) modelled with restricted cubic splines for the association between intake of the sum of C4:0 to C10:0 after excluding the lowest and highest intake percentile in EPIC-Norfolk and EPIC-Denmark. Tests for non-linearity used the likelihood ratio test, comparing the model with only the linear term to the model with the linear and the cubic spline terms. Adjusted for age, sex, total energy intake, BMI, education level, physical activity level, smoking status, hypertension, alcohol intake and use of post-menopausal hormones, the sum of the other SFAs, intakes of protein and PUFA.



Supplemental figure 3. HR (95%CI) modelled with restricted cubic splines for the association between intake of the sum of C12:0 to C18:0 after excluding the lowest and highest intake percentile in EPIC-Norfolk and EPIC-Denmark. Tests for non-linearity used the likelihood ratio test, comparing the model with only the linear term to the model with the linear and the cubic spline terms. Adjusted for age, sex, total energy intake, BMI, education level, physical activity level, smoking status, hypertension, alcohol intake and use of post-menopausal hormones, the sum of the other SFAs, intakes of protein and PUFA.