

**Supplemental Figure Legends**

Supplemental figure 1 The location of Tianjin

Supplemental figure 2 Time series of daily counts of patients admitted with unintentional injuries

Supplemental figure 3 Cumulative associations between 25th temperature and unintentional injury over  
0-21 lag days according to age or gender

Supplemental figure 4 Cumulative associations between 25th temperature and unintentional injury over  
0-21 lag days according to injury mechanism or injury location

**Supplemental Table Legends**

Supplemental table 1 Correlations between the meteorological variables

Supplemental table 2 Descriptive statistics for daily meteorological variables

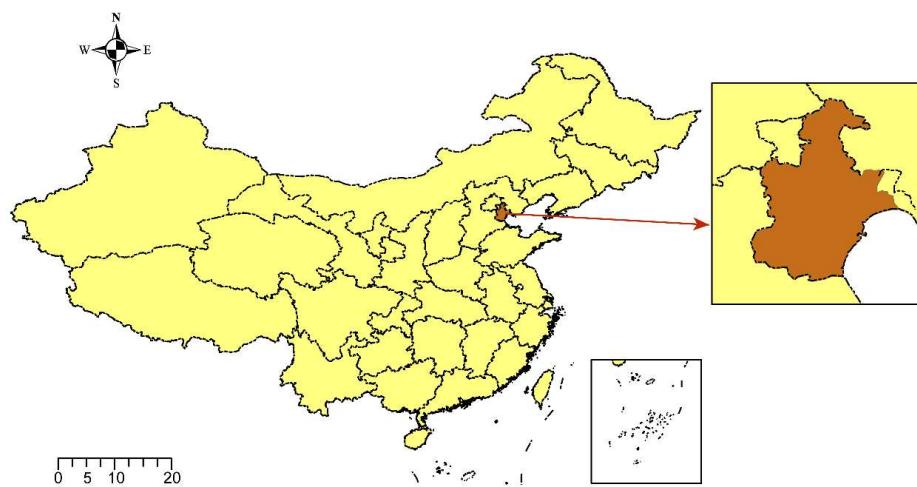
Supplemental table 3 Epidemiology of patients admitted with unintentional injuries

Supplemental table 4 Cumulative associations between 10th temperature and unintentional injury over  
0-14 lag days

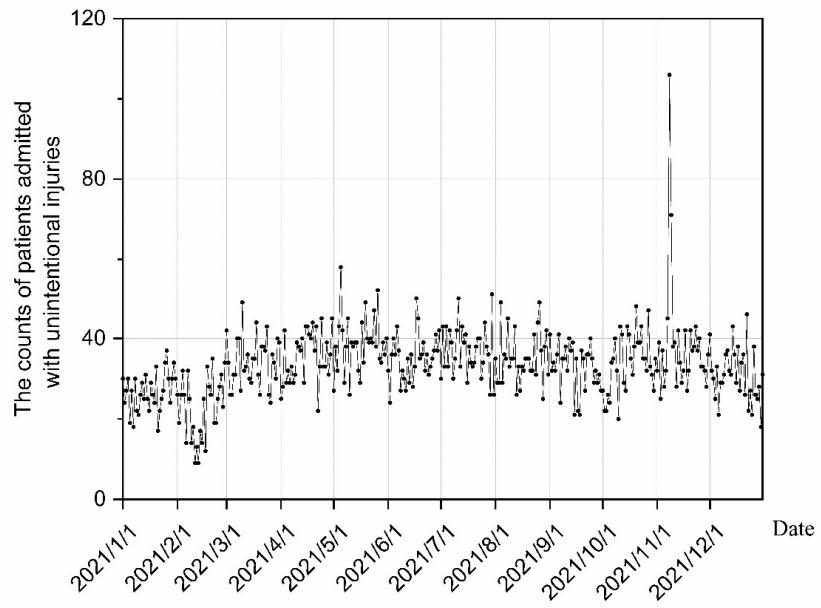
Supplemental table 5 Cumulative associations between 25th temperature and unintentional injury over  
0-14 lag days

Supplemental table 6 Cumulative associations between 10th temperature and unintentional injury over  
0-28 lag days

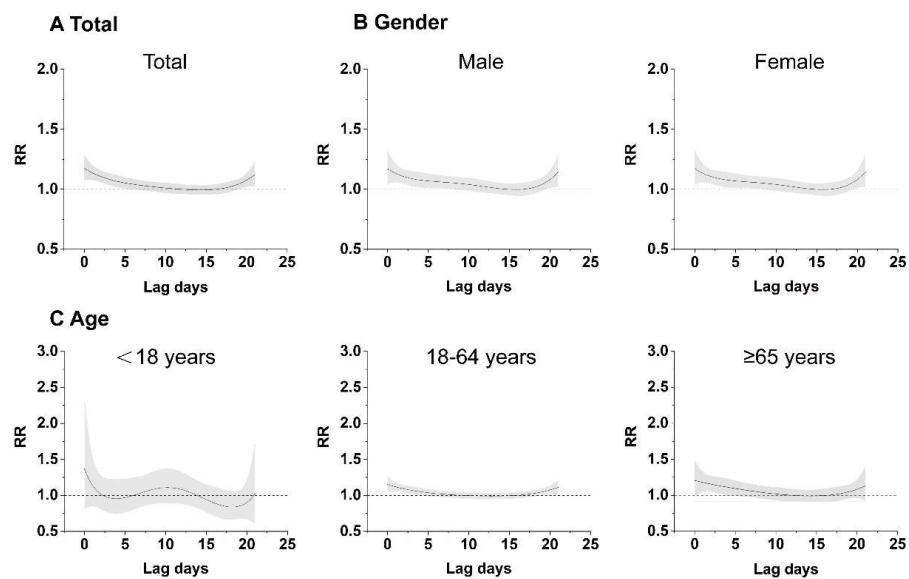
Supplemental table 7 Cumulative associations between 25th temperature and unintentional injury over  
0-28 lag days



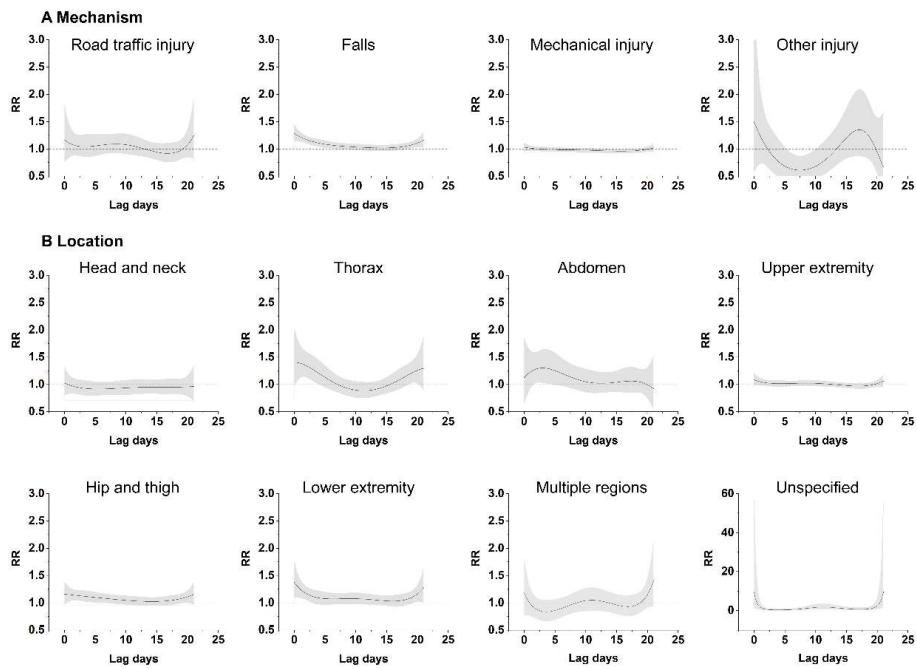
**Supplemental figure 1** The location of Tianjin



**Supplemental figure 2** Time series of daily counts of patients admitted with unintentional injuries



**Supplemental figure 3 Cumulative associations between 25th temperature and unintentional injury over 0-21 lag days according to age or gender**



**Supplemental figure 4 Cumulative associations between 25th temperature and unintentional injury over 0-21 lag days according to injury mechanism or injury location**

**Supplemental table 1 Correlations between the meteorological variables**

Weather variables								Average
	Barometric pressure	Mean	Max	Min	Relative humidity	Precipitation	Wind	
		pressure	temperature	temperature	temperature			velocity
Barometric pressure	1.00	-	-	-	-	-	-	-
Mean temperature	<b>-0.87**</b>	1.00	-	-	-	-	-	-
Max temperature	<b>-0.85**</b>	<b>0.98**</b>	1.00	-	-	-	-	-
Min temperature	-0.80**	<b>0.97**</b>	<b>0.92**</b>	1.00	-	-	-	-
Relative humidity	-0.25**	0.37**	0.29**	0.48**	1.00	-	-	-
Precipitation	-0.25**	0.29**	0.21**	0.38**	0.46**	1.00	-	-
Average wind velocity	-0.14**	0.07	0.05	0.08	-0.37**	0.02	1.00	

\*\*:  $P \leq 0.01$ ; Bold font: The Spearman correlation coefficients were greater than 0.8.

**Supplemental table 2 Descriptive statistics for daily meteorological variables**

Meteorological variables	<i>Min</i>	<i>P<sub>10</sub></i>	<i>P<sub>25</sub></i>	<i>P<sub>50</sub></i>	<i>P<sub>75</sub></i>	<i>P<sub>90</sub></i>	<i>Max</i>
Mean temperature (°C)	-14.2	-1.1	4.9	14.2	23.6	27.0	30.3
Max temperature (°C)	-7.9	4.6	11.0	20.5	28.6	31.6	36.9
Min temperature (°C)	-19.9	-5.8	-0.5	9.2	19.1	22.8	26.5
Barometric pressure (hPa)	994.4	1002.9	1007.6	1016.4	1024.3	1028.7	1044.5
Relative humidity (%)	18.3	30.2	45.4	65.0	75.8	85.2	98.8
Precipitation (mm)	0.0	0.0	0.0	0.0	0.0	3.5	136.6
Average wind velocity (m/s)	0.7	1.4	1.8	2.4	3.1	4.1	8.0

**Supplemental table 3 Epidemiology of patients admitted with unintentional injuries**

<b>Variable</b>	<b>n (%)</b>
<b>Total</b>	12 241 (100%)
<b>Gender</b>	
Male	7 360 (60.13%)
Female	4 881 (39.9%)
<b>Age</b>	
< 18 years	1 118 (9.1%)
18-64 years	7 827 (63.9%)
≥ 65 years	3 296 (26.9%)
<b>Mechanism</b>	
Road traffic injury	1 571 (12.8%)
Falls	7 521 (61.4%)
Mechanical injury	2 830 (23.1%)
Other injury	319 (2.6%)
<b>Location</b>	
Head and neck	122 (1.0%)
Thorax	597 (4.9%)
Abdomen	548 (4.5%)
Upper extremity	4 375 (35.7%)
Hip and thigh	2 828 (23.1%)
Lower extremity	3 373 (27.6%)

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Multiple regions in 176 (1.4%)

the body

Unspecified 222 (1.8%)

**Diagnosis**

Fracture 9 969 (81.4%)

Non-fracture 2 272 (18.6%)

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**Supplemental table 4 Cumulative associations between 10th temperature and unintentional injury over 0-14 lag days**

Subgroups	Lag	0	1	3	5	7	... 14
<b>Total</b>	1.30 (1.12, 1.50)	1.23 (1.14, 1.33)	1.13 (1.04, 1.22)	1.07 (1.00, 1.17)	1.06 (0.97, 1.12)		0.91 (0.78, 1.06)
<b>Gender</b>							
Male	1.27 (1.07, 1.50)	1.21 (1.11, 1.32)	1.13 (1.04, 1.24)	1.10 (1.02, 1.19)	1.09 (1.01, 1.19)		0.89 (0.75, 1.06)
Female	1.34 (1.09, 1.65)	1.25 (1.12, 1.40)	1.11 (1.00, 1.24)	1.02 (0.93, 1.12)	0.97 (0.88, 1.07)		0.93 (0.75, 1.15)
<b>Age</b>							
< 18 years	1.64 (0.86, 3.14)	1.16 (0.84, 1.60)	0.97 (0.70, 1.36)	1.06 (0.81, 1.39)	1.12 (0.84, 1.48)		1.92 (1.00, 3.68)
18-64 years	1.24 (1.069, 1.448)	1.21 (1.120, 1.31)	1.11 (1.03, 1.20)	1.03 (0.96, 1.10)	1.00 (0.93, 1.08)		0.84 (0.72, 0.97)
≥65 years	1.380 (1.038, 1.835)	1.27 (1.10, 1.47)	1.19 (1.03, 1.38)	1.16 (1.02, 1.31)	1.12 (0.98, 1.28)		0.96 (0.72, 1.28)
<b>Mechanism</b>							

Road traffic injury	1.38 (1.04, 1.84)	1.27 (1.10, 1.47)	1.19 (1.03, 1.38)	1.16 (1.02, 1.31)	1.12 (0.98, 1.28)		0.96 (0.72, 1.28)
Falls	1.58 (1.28, 1.95)	1.35 (1.22, 1.51)	1.17 (1.05, 1.31)	1.13 (1.03, 1.24)	1.12 (1.02, 1.24)		0.93 (0.75, 1.15)
Mechanical injury	1.08 (0.90, 1.30)	1.04 (0.95, 1.15)	1.00 (0.90, 1.10)	0.97 (0.90, 1.08)	0.97 (0.88, 1.06)		0.94 (0.79, 1.13)
Other injury	1.09 (0.34, 3.54)	1.43 (0.81, 2.51)	1.12 (0.63, 2.00)	0.64 (0.40, 1.03)	0.47 (0.28, 0.78)		0.85 (0.26, 2.71)
<b>Location</b>							
Head and neck	1.48 (0.73, 3.02)	0.93 (0.62, 1.37)	0.73 (0.49, 1.08)	0.84 (0.59, 1.19)	0.94 (0.62, 1.41)		1.17 (0.46, 2.93)
Thorax	2.05 (1.20, 3.51)	1.72 (1.29, 2.29)	1.51 (1.14, 2.01)	1.40 (1.09, 1.80)	1.15 (0.88, 1.52)		1.19 (0.69, 2.03)
Abdomen	1.00 (0.98, 1.02)	0.99 (0.98, 1.00)	0.99 (0.98, 1.01)	1.00 (0.99, 1.01)	1.01 (1.00, 1.02)		1.01 (0.99, 1.03)
Upper extremity	1.16 (0.95, 1.40)	1.09 (0.98, 1.20)	1.02 (0.92, 1.12)	1.01 (0.93, 1.10)	1.05 (0.95, 1.15)		0.86 (0.70, 1.04)
Hip and thigh	1.40 (1.01, 1.94)	1.19 (1.01, 1.41)	1.13 (0.95, 1.34)	1.20 (1.04, 1.38)	1.20 (1.04, 1.40)		1.09 (0.78, 1.52)
Lower extremity	1.58 (1.21, 2.07)	1.37 (1.20, 1.58)	1.14 (1.00, 1.32)	1.06 (0.94, 1.19)	1.04 (0.92, 1.18)		0.98 (0.75, 1.29)
Multiple regions	1.45 (0.66, 3.17)	1.03 (0.68, 1.56)	0.76 (0.51, 1.15)	0.79 (0.55, 1.13)	0.94 (0.65, 1.38)		0.88 (0.40, 1.94)

Unspecified	1.92 (0.27, 13.76)	1.57 (0.62, 4.00)	0.57 (0.23, 1.42)	0.27 (0.12, 0.61)	0.33 (0.14, 0.78)		0.34 (0.05, 2.40)
<b>Diagnosis</b>							
Fracture	1.45 (1.23, 1.71)	1.28 (1.17, 1.39)	1.12 (1.03, 1.22)	1.09 (1.01, 1.17)	1.08 (1.00, 1.16)		0.96 (0.81, 1.13)
Non-fracture	1.14 (0.84, 1.55)	0.98 (0.83, 1.16)	0.92 (0.79, 1.08)	0.99 (0.86, 1.14)	1.04 (0.89, 1.20)		1.34 (1.00, 1.79)

**Supplemental table 5 Cumulative associations between 25th temperature and unintentional injury over 0-14 lag days**

<b>Subgroups</b>	<b>Lag</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>...</b>	<b>14</b>
<b>Total</b>	1.15 (1.04, 1.27)	1.12 (1.07, 1.18)	1.08 (1.02, 1.14)	1.05 (1.01, 1.10)	1.03 (0.99, 1.08)			0.95 (0.85, 1.05)
<b>Gender</b>								
Male	1.14 (1.01, 1.28)	1.12 (1.05, 1.18)	1.08 (1.02, 1.15)	1.06 (1.01, 1.11)	1.06 (1.00, 1.11)			0.93 (0.82, 1.04)
Female	1.16 (1.02, 1.32)	1.13 (1.05, 1.21)	1.07 (1.00, 1.15)	1.03 (0.97, 1.09)	0.99 (0.93, 1.06)			0.98 (0.85, 1.12)
<b>Age</b>								
< 18 years	1.44 (0.80, 2.61)	1.10 (0.82, 1.47)	0.97 (0.72, 1.31)	1.06 (0.84, 1.35)	1.11 (0.86, 1.42)			1.79 (1.00, 3.20)
18-64 years	1.11 (1.01, 1.22)	1.11 (1.06, 1.16)	1.07 (1.02, 1.12)	1.02 (0.98, 1.07)	1.01 (0.96, 1.05)			0.90 (0.82, 0.99)
≥65 years	1.21 (0.97, 1.50)	1.16 (1.04, 1.28)	1.11 (1.00, 1.24)	1.09 (1.00, 1.20)	1.07 (0.97, 1.18)			0.97 (0.78, 1.20)
<b>Mechanism</b>								

Road traffic injury	1.21 (0.97, 1.50)	1.16 (1.04, 1.28)	1.11 (1.00, 1.24)	1.09 (1.00, 1.20)	1.07 (0.97, 1.18)		0.97 (0.77, 1.20)
Falls	1.31 (1.12, 1.53)	1.19 (1.10, 1.28)	1.10 (1.02, 1.20)	1.10 (1.03, 1.17)	1.10 (1.02, 1.17)		0.97 (0.830, 1.14)
Mechanical injury	1.02 (0.93, 1.12)	1.01 (0.97, 1.07)	1.00 (0.96, 1.05)	0.99 (0.95, 1.03)	0.98 (0.94, 1.03)		0.96 (0.88, 1.06)
Other injury	1.43 (0.48, 4.27)	1.31 (0.78, 2.20)	0.91 (0.54, 1.53)	0.64 (0.42, 0.980)	0.56 (0.36, 0.88)		1.06 (0.37, 3.02)
<b>Location</b>							
Head and neck	1.14 (0.86, 1.51)	0.97 (0.83, 1.14)	0.91 (0.77, 1.06)	0.96 (0.83, 1.10)	0.98 (0.84, 1.16)		1.07 (0.74, 1.54)
Thorax	1.43 (1.02, 2.01)	1.34 (1.12, 1.59)	1.27 (1.06, 1.51)	1.20 (1.03, 1.40)	1.06 (0.90, 1.25)		1.19 (0.84, 1.69)
Abdomen	1.01 (0.80, 1.28)	0.91 (0.81, 1.03)	0.93 (0.83, 1.05)	1.04 (0.94, 1.16)	1.10 (0.97, 1.23)		1.09 (0.87, 1.36)
Upper extremity	1.07 (0.95, 1.20)	1.05 (0.99, 1.11)	1.02 (0.96, 1.08)	1.01 (0.96, 1.06)	1.03 (0.97, 1.08)		0.91 (0.81, 1.03)
Hip and thigh	1.23 (0.94, 1.60)	1.08 (0.95, 1.22)	1.05 (0.92, 1.20)	1.13 (1.01, 1.26)	1.15 (1.02, 1.29)		1.13 (0.87, 1.48)
Lower extremity	1.30 (1.07, 1.59)	1.21 (1.10, 1.34)	1.09 (0.99, 1.21)	1.04 (0.96, 1.13)	1.04 (0.95, 1.13)		0.95 (0.78, 1.16)
Multiple regions	1.11 (0.78, 1.56)	1.01 (0.85, 1.21)	0.91 (0.76, 1.09)	0.90 (0.77, 1.05)	0.95 (0.80, 1.12)		0.91 (0.64, 1.29)

Unspecified	2.30 (0.34, 15.74)	1.58 (0.63, 3.94)	0.55 (0.23, 1.33)	0.30 (0.14, 0.65)	0.40 (0.18, 0.89)		0.54 (0.06, 3.38)
<b>Diagnosis</b>							
Fracture	1.23 (1.10, 1.37)	1.15 (1.08, 1.21)	1.08 (1.02, 1.14)	1.06 (1.01, 1.11)	1.05 (1.00, 1.11)		0.98 (0.87, 1.10)
Non-fracture	1.20 (0.79, 1.83)	0.97 (0.77, 1.22)	0.89 (0.72, 1.11)	0.98 (0.81, 1.19)	1.06 (0.86, 1.29)		1.50 (1.01, 2.24)

**Supplemental table 6 Cumulative associations between 10th temperature and unintentional injury over 0-28 lag days**

Subgroups	Lag	0	1	3	5	7	... 28
<b>Total</b>		1.39 (1.23, 1.56)	1.30 (1.20, 1.41)	1.17 (1.10, 1.25)	1.09 (1.03, 1.17)	1.05 (0.99, 1.11)	1.08 (0.97, 1.21)
<b>Gender</b>							
Male		1.35 (1.16, 1.58)	1.29 (1.16, 1.44)	1.20 (1.11, 1.30)	1.14 (1.05, 1.23)	1.10 (1.02, 1.180)	1.12 (0.97, 1.30)
Female		1.44 (1.22, 1.72)	1.31 (1.16, 1.48)	1.13 (1.03, 1.24)	1.03 (0.94, 1.13)	0.98 (0.90, 1.06)	1.08 (0.92, 1.27)
<b>Age</b>							
< 18 years		1.33 (0.92, 1.93)	1.19 (0.92, 1.53)	1.04 (0.86, 1.26)	1.01 (0.84, 1.23)	1.03 (0.87, 1.24)	1.14 (0.81, 1.60)
18-64 years		1.36 (1.19, 1.55)	1.27 (1.16, 1.39)	1.14 (1.07, 1.22)	1.06 (0.99, 1.14)	1.02 (0.95, 1.09)	1.08 (0.95, 1.22)
≥65 years		1.48 (1.15, 1.91)	1.42 (1.19, 1.68)	1.29 (1.14, 1.47)	1.19 (1.04, 1.35)	1.12 (0.99, 1.25)	1.08 (0.84, 1.37)

<b>Mechanism</b>							
Road traffic injury	1.13 (0.76, 1.67)	1.16 (0.89, 1.51)	1.19 (0.99, 1.44)	1.18 (0.98, 1.43)	1.15 (0.96, 1.37)		1.24 (0.86, 1.81)
Falls	1.64 (1.39, 1.95)	1.48 (1.32, 1.67)	1.27 (1.17, 1.39)	1.16 (1.06, 1.26)	1.10 (1.01, 1.19)		1.14 (0.97, 1.34)
Mechanical injury	1.05 (0.92, 1.20)	1.04 (0.95, 1.14)	1.01 (0.94, 1.09)	0.98 (0.91, 1.05)	0.95 (0.89, 1.02)		0.99 (0.88, 1.11)
Other injury	1.94 (0.81, 4.63)	1.35 (0.74, 2.44)	0.83 (0.54, 1.28)	0.66 (0.43, 1.02)	0.63 (0.4, 0.93)		0.82 (0.35, 1.88)
<b>Location</b>							
Head and neck	1.21 (0.60, 2.44)	1.01 (0.61, 1.67)	0.81 (0.54, 1.20)	0.740 (0.50, 1.10)	0.74 (0.50, 1.07)		1.76 (0.85, 3.64)
Thorax	2.27 (1.40, 3.68)	1.98 (1.42, 2.77)	1.53 (1.19, 1.98)	1.23 (0.95, 1.59)	1.04 (0.82, 1.31)		0.95 (0.58, 1.54)
Abdomen	1.46 (0.90, 2.36)	1.40 (1.00, 1.95)	1.29 (1.01, 1.66)	1.21 (0.94, 1.55)	1.14 (0.90, 1.43)		1.09 (0.69, 1.73)
Upper extremity	1.13 (0.95, 1.34)	1.12 (1.10, 1.26)	1.10 (1.00, 1.19)	1.07 (0.98, 1.16)	1.04 (0.96, 1.13)		1.10 (0.942, 1.282)
Hip and thigh	1.42 (1.14, 1.78)	1.34 (1.15, 1.57)	1.23 (1.10, 1.39)	1.16 (1.03, 1.31)	1.12 (1.00, 1.25)		1.09 (0.88, 1.34)
Lower extremity	1.69 (1.36, 2.10)	1.49 (1.28, 1.73)	1.24 (1.11, 1.39)	1.11 (1.10, 1.25)	1.06 (0.95, 1.17)		1.11 (0.90, 1.37)

Multiple regions	1.05 (0.57, 1.95)	0.93 (0.60, 1.43)	0.81 (0.59, 1.12)	0.80 (0.58, 1.12)	0.85 (0.62, 1.17)		0.91 (0.52, 1.59)
Unspecified	2.65 (0.66, 10.76)	1.59 (0.63, 4.02)	0.83 (0.42, 1.64)	0.64 (0.31, 1.30)	0.63 (0.32, 1.23)		2.08 (0.50, 8.72)
<b>Diagnosis</b>							
Fracture	1.47 (1.29, 1.67)	1.36 (1.24, 1.49)	1.20 (1.12, 1.29)	1.11 (1.03, 1.19)	1.05 (0.99, 1.12)		1.07 (0.94, 1.21)
Non-fracture	1.09 (0.87, 1.35)	1.07 (0.92, 1.25)	1.05 (0.93, 1.17)	1.03 (0.91, 1.15)	1.00 (0.90, 1.12)		1.15 (0.94, 1.40)

**Supplemental table 7 Cumulative associations between 25th temperature and unintentional injury over 0-28 lag days**

<b>Subgroups</b>	<b>Lag</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>...</b>	<b>28</b>
<b>Total</b>	1.21 (1.11, 1.32)	1.17 (1.10, 1.24)	1.11 (1.06, 1.16)	1.07 (1.02, 1.12)	1.04 (1.10, 1.08)			1.06 (0.98, 1.15)
<b>Gender</b>								
Male	1.21 (1.06, 1.37)	1.17 (1.08, 1.28)	1.13 (1.06, 1.20)	1.09 (1.02, 1.16)	1.07 (1.00, 1.13)			1.12 (0.98, 1.26)
Female	1.22 (1.09, 1.37)	1.17 (1.08, 1.27)	1.09 (1.03, 1.15)	1.03 (0.97, 1.10)	1.00 (0.95, 1.06)			1.04 (0.93, 1.16)
<b>Age</b>								
< 18 years	1.18 (0.91, 1.53)	1.10 (0.92, 1.32)	1.02 (0.90, 1.17)	1.01 (0.88, 1.15)	1.02 (0.90, 1.15)			1.11 (0.87, 1.42)
18-64 years	1.19 (1.09, 1.30)	1.15 (1.08, 1.23)	1.09 (1.04, 1.14)	1.05 (1.00, 1.10)	1.02 (0.98, 1.07)			1.06 (0.97, 1.15)
≥65 years	1.28 (1.03, 1.58)	1.24 (1.08, 1.44)	1.18 (1.06, 1.31)	1.12 (1.01, 1.25)	1.07 (0.97, 1.18)			1.05 (0.86, 1.30)
<b>Mechanism</b>								

Road traffic injury	1.10 (0.77, 1.58)	1.14 (0.89, 1.44)	1.16 (0.98, 1.37)	1.15 (0.96, 1.36)	1.11 (0.95, 1.30)		1.21 (0.86, 1.71)
Falls	1.35 (1.18, 1.54)	1.28 (1.17, 1.40)	1.18 (1.10, 1.26)	1.11 (1.04, 1.19)	1.08 (1.01, 1.15)		1.11 (0.98, 1.26)
Mechanical injury	1.01 (0.96, 1.07)	1.01 (0.97, 1.06)	1.01 (0.97, 1.04)	0.99 (0.96, 1.03)	0.98 (0.96, 1.01)		0.99 (0.94, 1.04)
Other injury	1.75 (0.79, 3.88)	1.21 (0.71, 2.07)	0.76 (0.52, 1.11)	0.62 (0.42, 0.91)	0.61 (0.43, 0.87)		0.79 (0.37, 1.67)
<b>Location</b>							
Head and neck	1.08 (0.74, 1.56)	1.01 (0.77, 1.32)	0.93 (0.76, 1.14)	0.90 (0.73, 1.10)	0.89 (0.73, 1.08)		1.30 (0.89, 1.89)
Thorax	1.64 (1.13, 2.40)	1.50 (1.16, 1.94)	1.28 (1.06, 1.54)	1.13 (0.93, 1.37)	1.04 (0.87, 1.24)		1.11 (0.76, 1.63)
Abdomen	1.26 (0.87, 1.82)	1.27 (0.98, 1.63)	1.25 (1.04, 1.51)	1.21 (1.00, 1.46)	1.16 (0.98, 1.38)		1.02 (0.72, 1.45)
Upper extremity	1.07 (0.95, 1.20)	1.07 (0.99, 1.16)	1.06 (1.00, 1.13)	1.05 (0.99, 1.11)	1.03 (0.98, 1.09)		1.06 (0.95, 1.18)
Hip and thigh	1.22 (1.05, 1.42)	1.18 (1.07, 1.31)	1.13 (1.05, 1.22)	1.10 (1.02, 1.19)	1.07 (1.00, 1.15)		1.08 (0.94, 1.25)
Lower extremity	1.37 (1.16, 1.63)	1.28 (1.14, 1.44)	1.16 (1.07, 1.26)	1.09 (1.00, 1.19)	1.06 (0.98, 1.15)		1.07 (0.91, 1.26)
Multiple regions	1.01 (0.78, 1.33)	0.96 (0.80, 1.16)	0.908 (0.789, 1.044)	0.900 (0.781, 1.038)	0.920 (0.804, 1.053)		0.957 (0.749, 1.223)

Unspecified	2.76 (0.71, 10.73)	1.62 (0.66, 3.97)	0.84 (0.44, 1.62)	0.67 (0.34, 1.33)	0.70 (0.37, 1.32)		1.98 (0.50, 7.86)
<b>Diagnosis</b>							
Fracture	1.25 (1.14, 1.38)	1.20 (1.13, 1.28)	1.13 (1.08, 1.18)	1.08 (1.03, 1.13)	1.05 (1.00, 1.09)		1.05 (0.96, 1.15)
Non-fracture	1.05 (0.90, 1.21)	1.04 (0.94, 1.16)	1.04 (0.96, 1.12)	1.02 (0.95, 1.10)	1.01 (0.94, 1.08)		1.10 (0.95, 1.26)