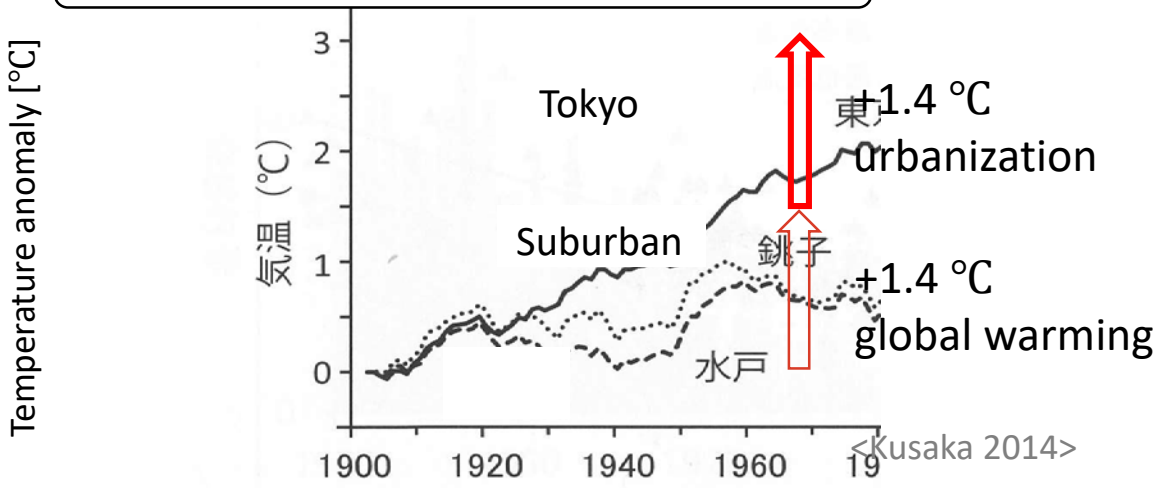
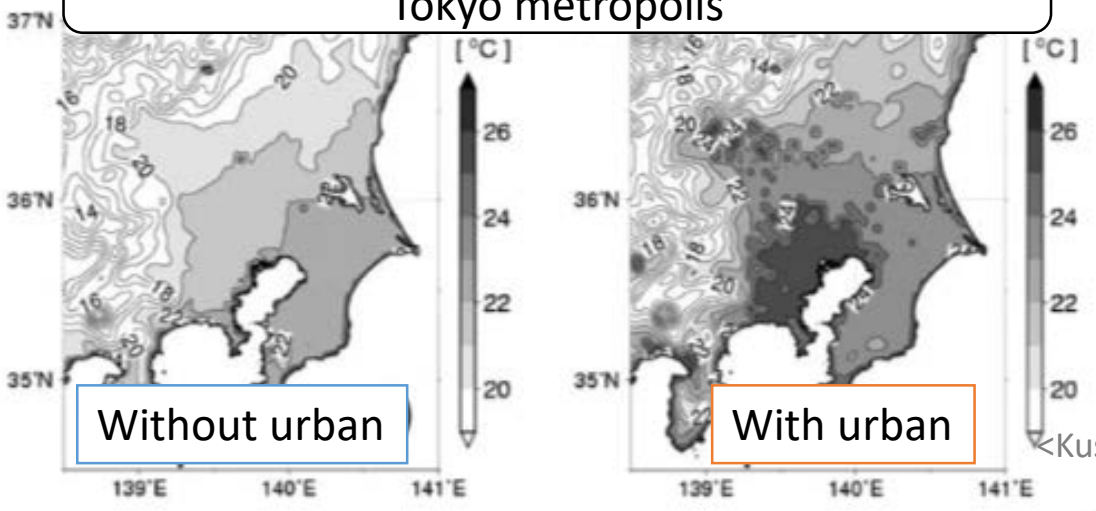
1. Global warming + urbanization

Annual mean temperature anomalies



<Kusaka 2014>

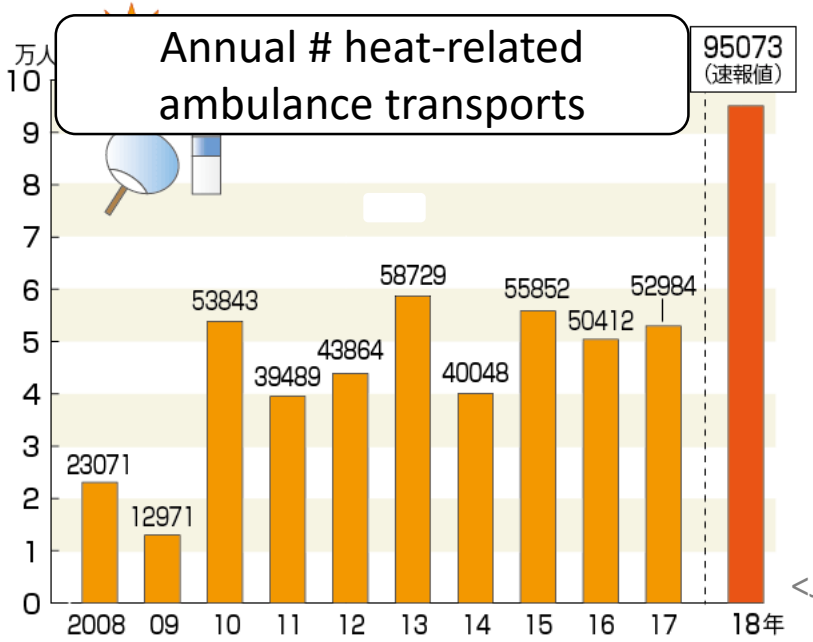
Summer-time temperature simulations for Tokyo metropolis



<Kusaka et al. 2012>

2. Heat-related hospital transports and death

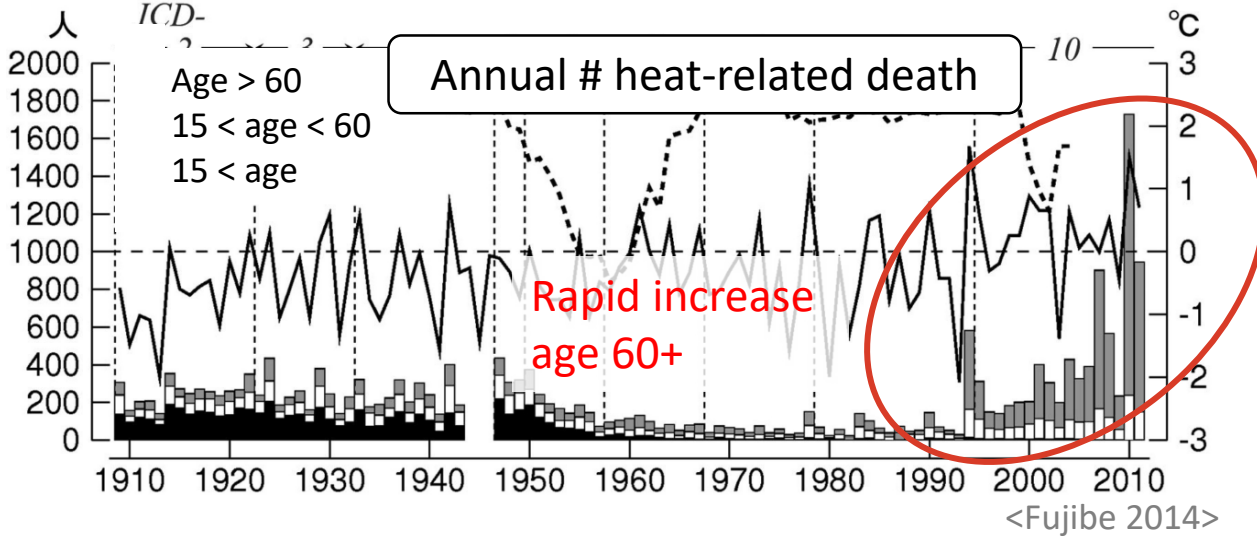
Annual # heat-related ambulance transports



<Jiji press>

Heatstroke is now #1 weather-related injury

Annual # heat-related death

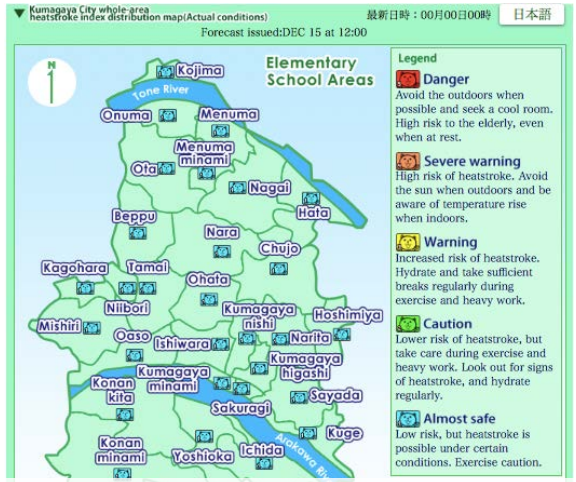


<Fujibe 2014>

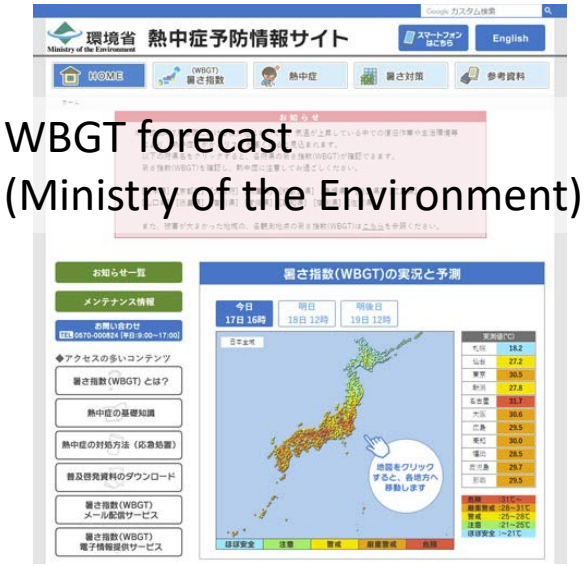
3. Routine monitoring and forecasts

Routine monitoring and forecasts for heatstroke risk, based primarily on Wet-bulb Black Globe Temperature.

WBGT monitoring
(Ministry of the Environment)



Intra-city WBGT monitoring
(City of Kumagaya)



WBGT forecast
(Ministry of the Environment)

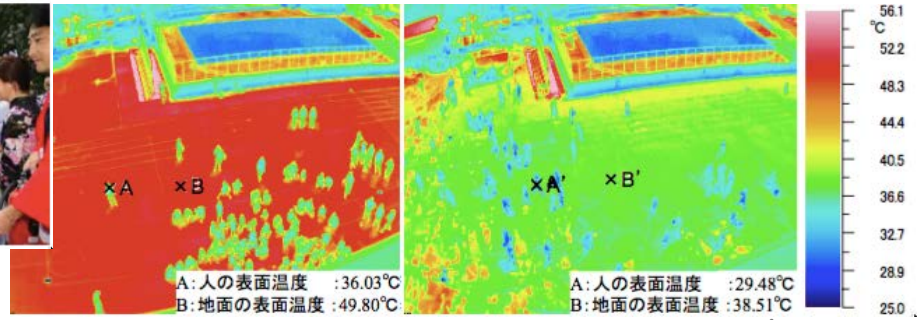
Real-time forecasts on trains
(Japan Weather Association)

4. Adaptation measures

Climate Change Adaptation Act

- Evaluate state of climate change and its impact every 5 years
- Establish the national and prefectural centers for collecting, distributing and help understand climate data for stakeholders

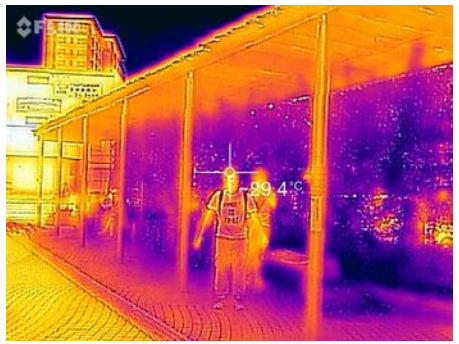
‘Uchi-mizu’



<Kato et al. 2008>

Wet mist and ‘green curtain’

<City of Tatebayashi>



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