Capacity-building

**3B** In Hong Kong, case study 3B is an example of innovative program to develop a service and mobile phone application that can be used by the families of senior citizens, in order to locate and contact them during high risks periods for heat stress. To make sure the product is appropriately tailored to the needs of senior citizens, a forum was created for them to provide ideas and suggestions for how best to provide weather information and advisories to them.

Heat Early Warning Systems

**5K** Cases studies illustrating the development of early warning systems are focused on heat waves. The first, developed in Quebec, Canada (5K), comprised an integrated platform that provided access to indicators relating exposure to extreme temperature hazards, socioeconomic characteristics of neighbourhoods, and health problems. It is the sole common source of relevant and real-time information on extreme weather hazards at the provincial level, and provides warnings up to 7-days ahead of extreme heat events, which trigger pre-designated activities.

**5L** In China (5L), a heat warning system based on city-specific health risk models and four level response guidance provides timely warnings of health risks due to extreme heat, and specifically developed broad-based risk communication campaign using modern communication technologies (e.g. electronic display screens, mobile text or QQ instant messaging groups).

Heat projections and scenarios

**5O** The final case study (5O) from the United States downscales and interprets complex climate model projections to project the number of future extreme hot days at a meaningful geographic unit for public health surveillance.

Applied climate knowledge

**6A** First from India, case study 6A, describes a complete end-to-end climate service used to inform city-scale heat health action plans and improve local health professionals’ awareness of predicted extreme heat events improving their preparedness and capacity to care for patients with heat-related illnesses.

Evaluation and feedback to improve health decision support

**7A** The first case study from Australia (7A) illustrates that it was essential to conduct an impact evaluation of the heat early warning systems in place in Australia in order to demonstrate that forecasts and alerts save lives.

**7B** The second case study from Spain (7B) is an example of a performance evaluation that demonstrated the economic benefits that could result from adjusting the current heat wave temperature threshold in the national heat early warning system.

**7D T**he final case study (7D) evaluated how warnings issued in Germany on health risk of UV radiation, extreme heat, pollen and ozone conditions help individuals and families make behaviour changes that can prevent negative health consequences.