Impact of the 2015 July Heat Waves in France on Heat-Related Causes

Céline Caserio-Schönemann*, Anne Fouillet, Aymeric Ung, Manuel Zurbaran, Vanina Bousquet, Karine Laaidi, Mathilde Pascal, Sébastien Denys, Thierry Cardoso and Anne Gallay

French Institute for Public Health Surveillance, Saint Maurice, France

Objective
To present the evolution of heat-related pathologies during heat waves occurring in July 2015 in France

Introduction
Two major heat waves occurred in France in July 2015. A first episode characterized by early onset, intensity, large geographical coverage and duration occurred between 29th of June 8th of July. A second episode less intense was localized on the South-East of the country from 15th to 23rd of July. The French heat warning system has been operating by InVS since 2004 as part of the French National Heat Wave Plan. Warnings are based on meteorological forecasts and on real-time follow-up of specific health indicators to support decision-making. The evolutions in emergency health care facilities during the July heat waves are presented.

Methods
Real-time morbidity indicators are produced by the French national syndromic surveillance system SurSaUD® which is based on the daily collection of data from emergency department (ED) involved in the OSCOUR® network and from General practitioner’s emergency associations SOS Médecins (GPSM). Individual data are automatically recorded and transmitted daily to InVS including administrative, demographic and medical information (coded medical diagnosis) [1]. ED attendances and GPSM visits for all-causes and for heat-related causes are specifically followed during heat waves. Heat-related causes include heat stroke/hyperthermia, dehydration and hyponatremia in ED and heat stroke and dehydration in GPSM. These pathologies only represent a small part of the potential health impact during heat waves. They were selected for their reactivity and to provide indications on the spatio-temporal dynamics of the health impacts. Indicators are investigated by age, with a special focus on people aged 75 and over. The proportion of hospital admissions (HA) for heat-related diagnoses in the total of HA was also followed. Indicators analyses are performed at local and national levels during heat waves, which are defined at the local level when forecasted biometeorological indicators have a high probability of exceeding warning thresholds [2].

Results
During both episodes, we observed a sharp increase in the number of ED attendances and GPSM visits for heat-related causes.

During the first heat wave there were a total of 3 729 ED attendances and 1 456 GPSM visits for all-causes and for heat-related causes. An increase in all heat-related indicators was observed in all age groups and to a particularly high extent in the elderly during the July heat waves. A high proportion of HA for diagnoses related to heat in the total of HA is an indicator of severity and could generate local and occasional situations of tensions in the health care system, as observed during the July heat waves.

Conclusions
An increase in all heat-related indicators was observed in all age groups and particularly in the elderly during the July 2015 heatwaves. This confirms that heat-related indicators are specific and sensible.

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References

*Céline Caserio-Schönemann
E-mail: c.caserio-schonemann@invs.sante.fr