

SISTEMA SANITARIO REGIONALE



Italian heat health prevention plan and warning system

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Italian Heat Health Prevention Plan

Developed in 2003, runs in collaboration with Department of Civil Protection and Ministry of Health- CCM main components of the plan are:

- A) City specific <u>Warning systems (HHWWS)</u>
- B) Information network for dissemination of warning bulletins at national/local level;
- C) Rapid mortality and ER visits surveillance system
- D) Identification of subgroups susceptible to heat
- E) Definition of Health Guidance for general population, health and social services to improve awareness and response to heat waves
- F) Evaluation of the impact of extreme events on health outcomes

WHO Europe Guidance for heat action plans



http://www.who.int/globalchange/publications/technical_guidances/en/







City-specific models based on the temperature-mortality relationship.

On the basis of this relationship, defined using time series data, **HHWW** use weather forecast data to predict at-risk conditions associated to <u>an</u> increase in mortality.

2 models :

Air mass-based models:

Use of synoptic approach to identify oppressive air masses associated to an increase in mortality

Temperature mortality regression models

maximum apparent temperature, calendar month, consecutive hot days



Daily warning bulletin



Sistema di allarme per la prevenzione degli effetti delle ondate di calore sulla salute														
	,	revisione per il giorr	10:											
	10/07/2016	11/07/2016	12/07/2016											
	LIVELLO 1	LIVELLO 2	LIVELLO 2											
Temperatura ore 8:00	25	26	27											
Temperatura ore 14:00	31	35	35											
Temperatura massima percepita *	35	36	36											
Livello 0 Condizioni meteor	ologiche non a rischio per la salute dell	a popolazione												
Livelio 1. Condizioni meteor Pre-Allerta dei s	Condizioni meteorologiche che possono precedere un livelio 2. Pre-Allerta dei servizi sanitari e sociali.													
Livello 2 Allerta del serviz	vate e condizioni meteorologiche in particolare nei sottogruppi di popola ti sanitari e sociali.	che possono avere e zione suscettibili#	ffetti negativi sulla salute											
Livello 3 Ondata di calore Allerta dei serviz	 Condizioni ad elevato rischio che pers zi sanitari e sociali. 	istono per 3 a più giorni cans	iecutivi.											
Indicatore di disaglo bioclimatico che t Per approfondimenti: http://www.salut	iene conto della temperatura dell'aria e la.goviti/caldo/	dell'umidità relativa.												
	A cura del Centro di Competenza	Nazionale												
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Information Network: dissemination of warning to stakeholders.



Imperial College London

Italian Heat Plan



http://www.salute.gov.it/caldo.html

Prevention measures graded on levels of warning issued and individual susceptibility



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Health Prevention measures

Preventive measure	Coverage*	Description
Written prevention plan	+++	Guidelines including prevention activities and health/social services available
Educational campaign	+++	Informative fliers in health centres and GPs. Specific advices during heat waves.
Educational programmes	++	Training, seminars/workshops, diffusion of guidelines among health/social workers
Emergency protocols	+	Measures to improve operative efficiency in hospitals, nursing homes, social centers
Availability of air-conditioning	++	Air-conditioning in health/social centres and increase access during heat waves
Register of susceptible subjects	++	Identification using health information system or notification by GPs/social workers
Health surveillance	++	Phone calls and home visits by GPs. Help-line and network of health/social services
Telephone help-line	+++	Dedicated help-line providing social support services or regular telephone contact
Social support services	+++	Home visits, personal, home care, pharmacy services by social workers or volunteers

* +: <50%; ++: 50-70%; +++: >70%



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Evaluation: Heat warnings issued in summer 2015

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Number of warnings for each summer by cities of the north, centre and south



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Reduction in the heat attributable deaths after the introduction of Heat prevention plan in Rome.



Fonte: PHASE project, de'Donato et al 2015

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Use of Seasonal forecasts in Health Services

Current use:

- seasonal and medium term planning (warning system, health services, hospitals, health surveillance, Ministry of health)

- used to determine when to activate Ministry of Helath help line «1500»

Future use:

Winter season and other extreme weather events (air pollution, intense rainfall, floods) for planning prevention measures, awareness campaigns and activation of health and social services

Needs.

- Seasonal forecast bulletin (in progress) to promote high quality information and understand among non-experts
- Increase dissemination of seasonal forecast to stakeholders
- Better interaction between institutions to ensure better response



