

**ACTION PLAN TO PREVENT THE EFFECTS OF A
HEAT WAVE ON HEALTH (POCS)**

**REPORT ON MEASURES IMPLEMENTED
AND RESULTS OBTAINED
(SUMMER 2008)**

November 2008

With the participation of:

- Ministry of Social Action and Citizenship
- Ministry of Governance and Public Administration
- Ministry of Home Affairs, Institutional Relations and Participation
- Ministry of Employment
- Meteorological Service of Catalonia
- Comprehensive Emergency Plan of Catalonia (PIUC)
- Medical Emergencies Service (SEMSA)
- Catalan Health Institute
- Public Health Agency of Barcelona
- Personal Services of Barcelona
- Catalan Association of Municipalities and Counties
- Federation of Municipalities of Catalonia
- Council of the Association of Chemists of Catalonia
- Institute of Legal Medicine of Catalonia
- Catalonia Hospital Consortium
- Catalan Union of Hospitals
- Barcelona Social Services Consortium
- Red Cross.

Coordinated by:

Ministry of Health:

- Directorate-General for Public Health
- The Catalan Health Service (CatSalut)

CONTENTS

1. Introduction	4
2. Summary of activities carried out in the summer of 2008.....	8
Data obtained:	
Objective 1	
• Data on the number of natural deaths (total of the ten municipalities) associated with temperature	9
• Activation of Alert Phase 2	13
• Data on deaths (the Institute of Legal Medicine of Catalonia).....	13
• Data on the four sentinel hospitals	14
• Evolutionary follow-up of healthcare activity: hospital mortality.....	16
• Activities carried out in primary healthcare centres and collaboration with social healthcare centres.....	20
• Sanitat Respon	22
• Activities carried out by the Ministry of Social Action and Citizenship.....	23
• Activities carried out by the Ministry of Home Affairs, Institutional Relations and Participation	24
• Activities carried out by the Catalan Association of Municipalities and Counties..	24
• Activities carried out by the Federation of Municipalities of Catalonia.....	25
Objective 2	
Distribution of information materials	
• Ministry of Health	26
• Ministry of Social Action and Citizenship	27
• Ministry of Employment.....	27
3. Conclusions	31
Annexes.....	33

1. Introduction

In 2004, the Ministry of Health and CatSalut implemented, for the first time, an action plan to prevent the effects of a heat wave on health (POCS) also involving the Ministry of Social Action and Citizenship; the Ministry of Home Affairs, Institutional Relations and Participation; the Ministry of Governance and Public Administration; the Meteorological Service of Catalonia; the Ministry of Employment; the Comprehensive Emergency Plan of Catalonia (PIUC); the Medical Emergencies Service (SEMSA); the Catalan Health Institute; the Public Health Agency of Barcelona; the Personal Services of Barcelona; the Catalan Association of Municipalities and Counties; the Federation of Municipalities of Catalonia; the Council of the Guild of Chemists of Catalonia; the Institute of Legal Medicine of Catalonia; the Catalonia Hospital Consortium; the Catalan Union of Hospitals; the Barcelona Social Services Consortium, and the Red Cross.

The objectives of the POCS 2008 are as follows:

1. To predict, as far in advance as is rendered possible by the technical means available, any possible meteorological risk situation.
2. To minimise the negative effects of heat on the population of Catalonia, especially the groups most at risk: elderly people, especially the group over 75 years of age, newborns, people with physical or psychiatric disabilities that limit their ability to care for themselves, people with chronic illnesses, frail people who live alone, people at high social risk, patients using medications that act on the central nervous system, people partaking in strenuous physical activity or who must remain outdoors or perform physical activity outdoors (including work), etc.
3. To coordinate the measures and resources currently available in Catalonia in order to deal with a possible heat wave.

The following actions were proposed in order to fulfil the above objectives:

▪ **Objective 1**

a) To predict, as far in advance as is rendered possible by the technical means available, any possible meteorological risk situation due to heat (from 1 June to 30 September). In order to fulfil this objective, the following actions must be carried out:

- Record the daily temperatures registered (maximum and minimum) and the humidity as well as the two-day forecast for 10 towns in Catalonia: Barcelona, l'Hospitalet de Llobregat, Manresa, Mataró, Santa Coloma de Gramenet, Sabadell, Terrassa, Girona, Lleida and Tarragona.
- Assess the forecasts on the basis of prior warnings (up to 96 hours in advance) and warnings of meteorological situations of risk (MSR). Two types of the latter exist:
 - i. A warning of an extreme maximum temperature (level 1): a level 1 MSR warning will be issued when for the following 36 hours, the 98 percentile for maximum daily temperature is forecast to be exceeded.
 - ii. A heat wave warning (level 2): a level 2 MSR warning will be issued when it is forecast for the 98 percentile for maximum daily temperature to be exceeded over three consecutive days.

Each of the levels of MSR warning may be issued or cancelled in two independent areas:

- i. Inland
- ii. Coastal and pre-coastal

- b) Daily monitoring of funeral data for the same ten municipalities, recording deaths, age and sex.
- c) This information is complemented with data on daily mortalities at four hospitals in Barcelona.
- d) Daily monitoring of deaths in the same ten municipalities and of the deaths by heat stroke in Catalonia.
- e) Coordinated by the Ministry of Health and Consumer Affairs, in the framework of the Preventative action plan against the effects of excess temperatures on health.

▪ **Objective 2**

To minimise the negative effects of a heat wave on the health of the population of Catalonia.

In order to fulfil this objective, the following actions must be carried out:

- a) Recommendations for the general public. A leaflet containing recommendations is available at all Public Healthcare Centres (PHCs) and dispensaries; moreover, information will be made available via the **Sanitat Respon** hotline. These deal with all queries in respect of the heat wave.
- b) Recommendations for healthcare professionals working with populations at risk in PHCs, MHCs, social healthcare centres, hospitals or mental health institutions.
- c) Recommendations for old people's homes. The Ministry of Social Action and Citizenship is to distribute leaflets to all old people's homes and municipal social services.

- d) Recommendations for the workplace. The Ministry of Employment will distribute its three-page leaflet of recommendations, “Working in hot environments”.

2. Summary of activities carried out in the summer of 2008

Objective 1

As of 1 June, the daily temperatures and forecasts were recorded for ten towns in Catalonia: Barcelona, l'Hospitalet de Llobregat, Manresa, Mataró, Santa Coloma de Gramenet, Sabadell, Terrassa, Girona, Lleida and Tarragona. Daily records were also kept of deaths, which were provided by the funeral services of the ten same municipalities, as established in action level 0 of the POCS.

Also collected on a daily basis, as of 15 June, were the records of the activity of four major hospitals in Barcelona (Hospital Universitari Vall d'Hebron, Hospital de la Santa Creu i Sant Pau, Hospital Clínic and Hospital del Mar).

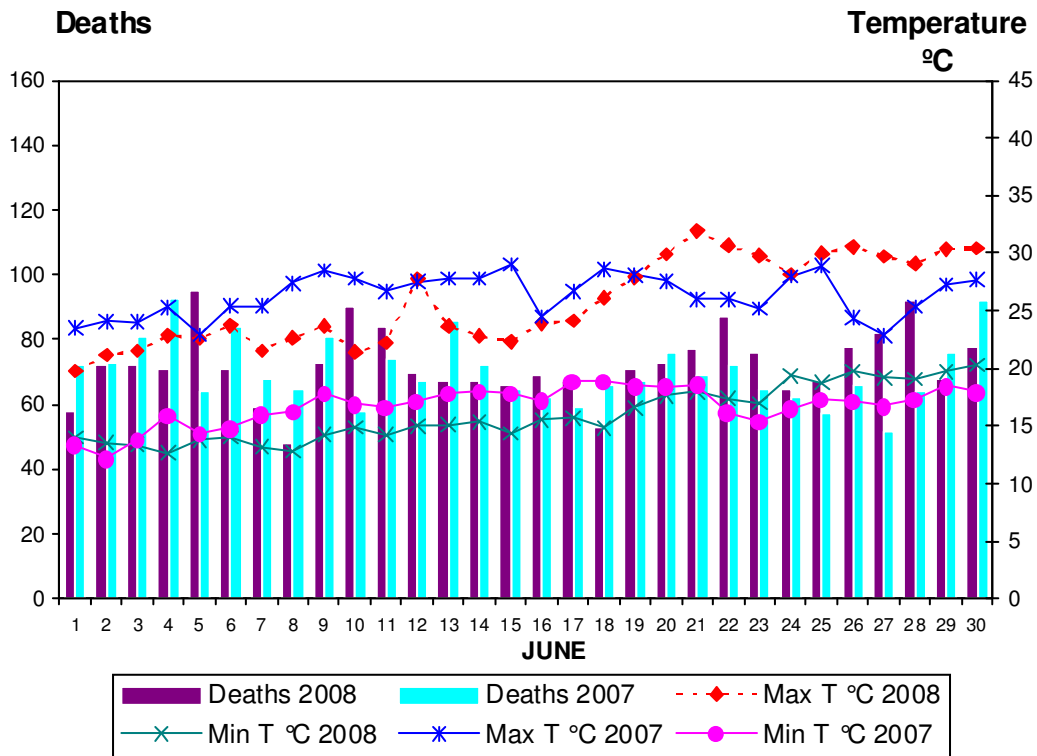
As of 15 June, data were published weekly (on Tuesdays) on the temperatures and deaths, as established in action level 1 of the POCS. Level 1 daily surveillance and weekly publication of the qualitative assessment of temperature data and deaths was kept active until 31 August.

During the month of September daily surveillance was upheld of data concerning temperature and deaths.

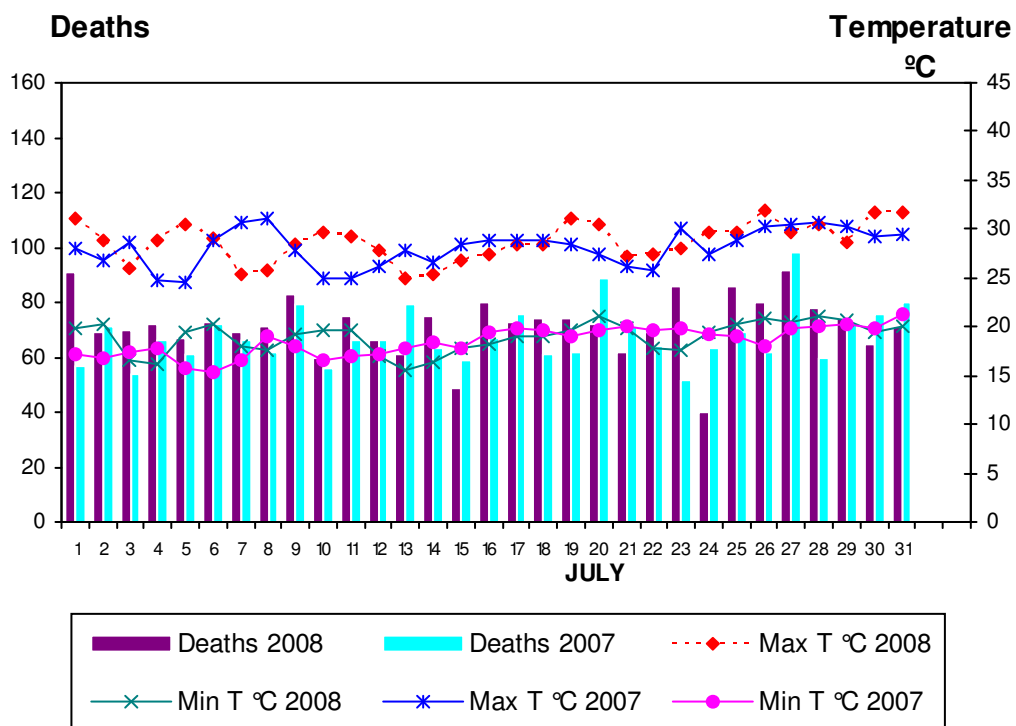
The data obtained are as follows:

Data on the number of natural deaths (total of the ten municipalities) associated with temperature

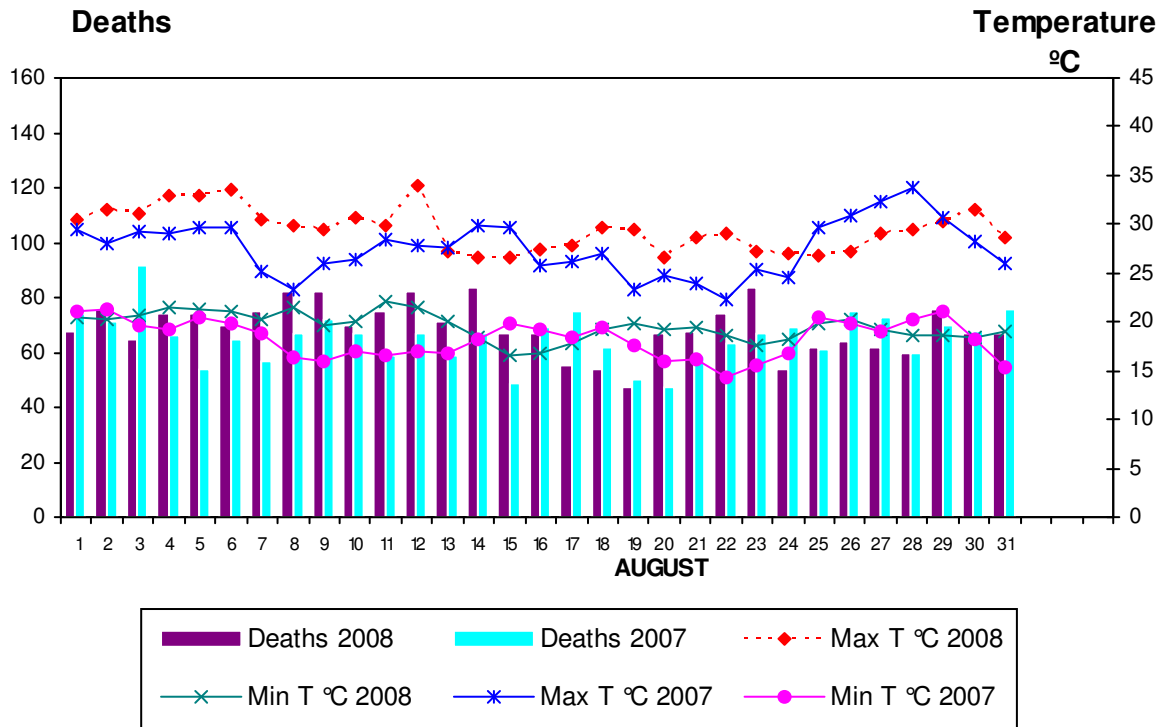
▪ June:



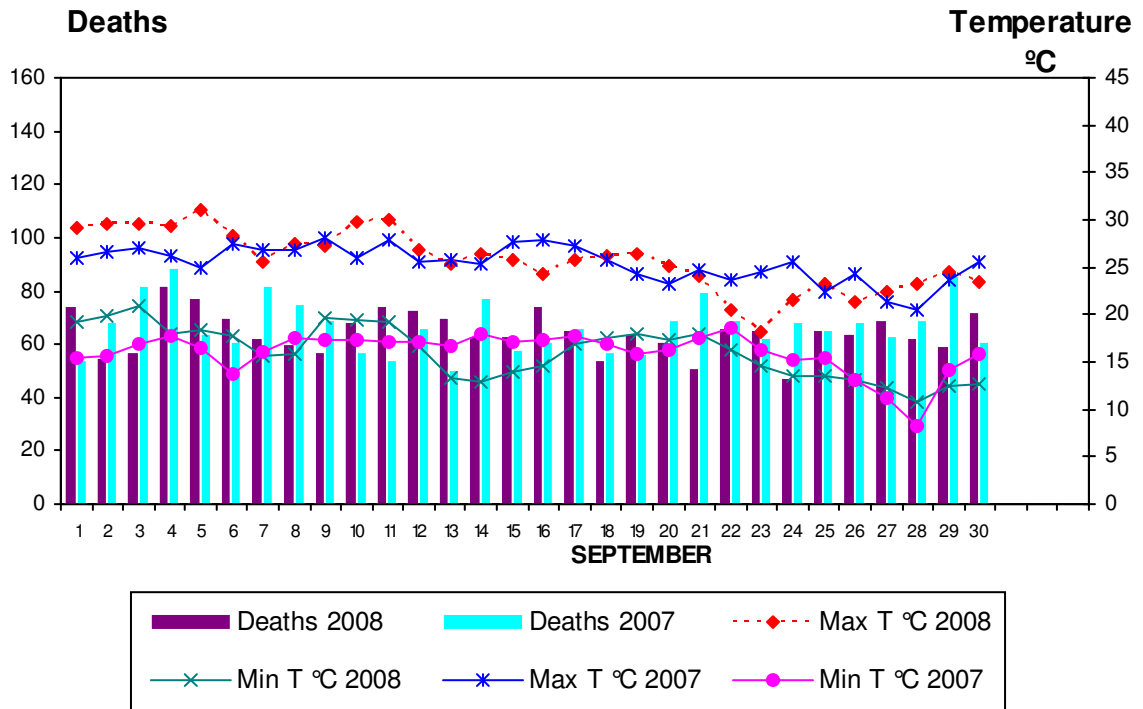
▪ July:



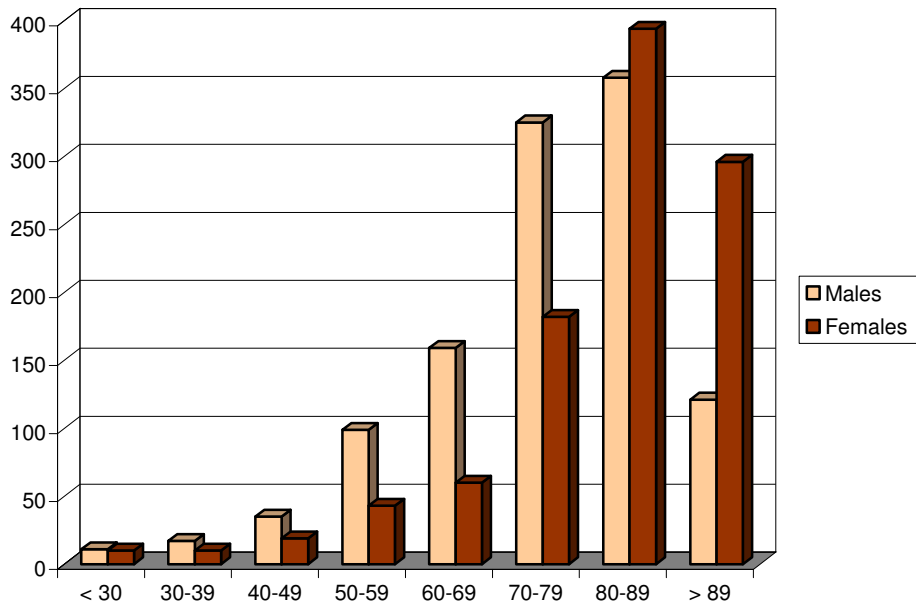
■ August:



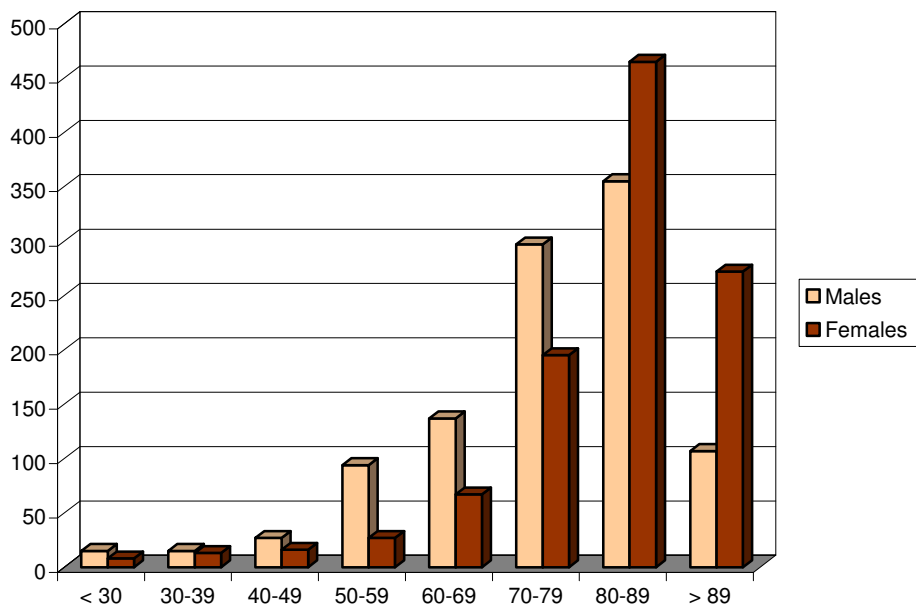
■ September:



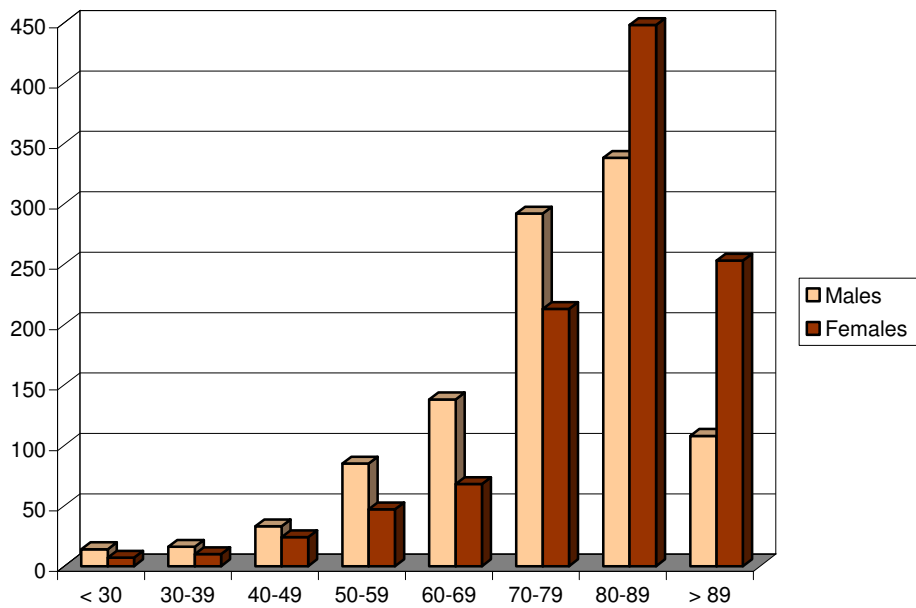
Distribution of deaths in June 2008, by age and sex



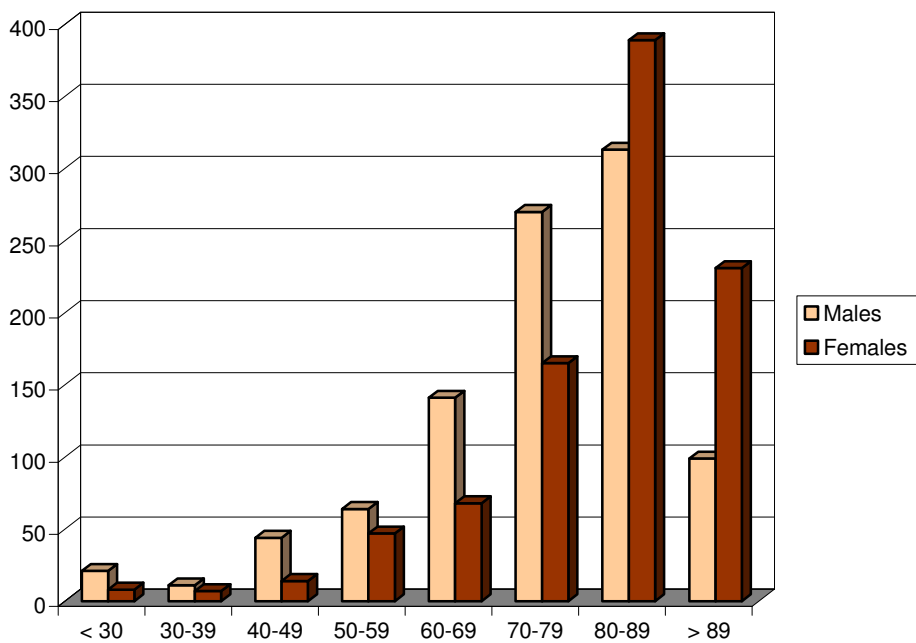
Distribution of deaths in July 2008, by age and sex



Distribution of deaths in August 2008, by age and sex



Distribution of deaths in September 2008, by age and sex



Activation of alert phase 2

On 4 August, the Meteorological Service of Catalonia informed the Ministry of Health that there would be a level 2 meteorological situation of risk from Tuesday 5 to Thursday 7 August. During this period, the POCS alert phase 2 was activated throughout Catalonia.

There was no significant increase in the number of deaths during this alert phase (average = 75.3) compared to the previous year (average = 64.9) and the figures were similar to those of the previous week (average = 71). There was only a slight, non-significant increase in deaths on 8 and 9 August. Furthermore, there was no significant increase in hospital mortality or in the number of casualties attended to or admitted to the four sentinel hospitals.

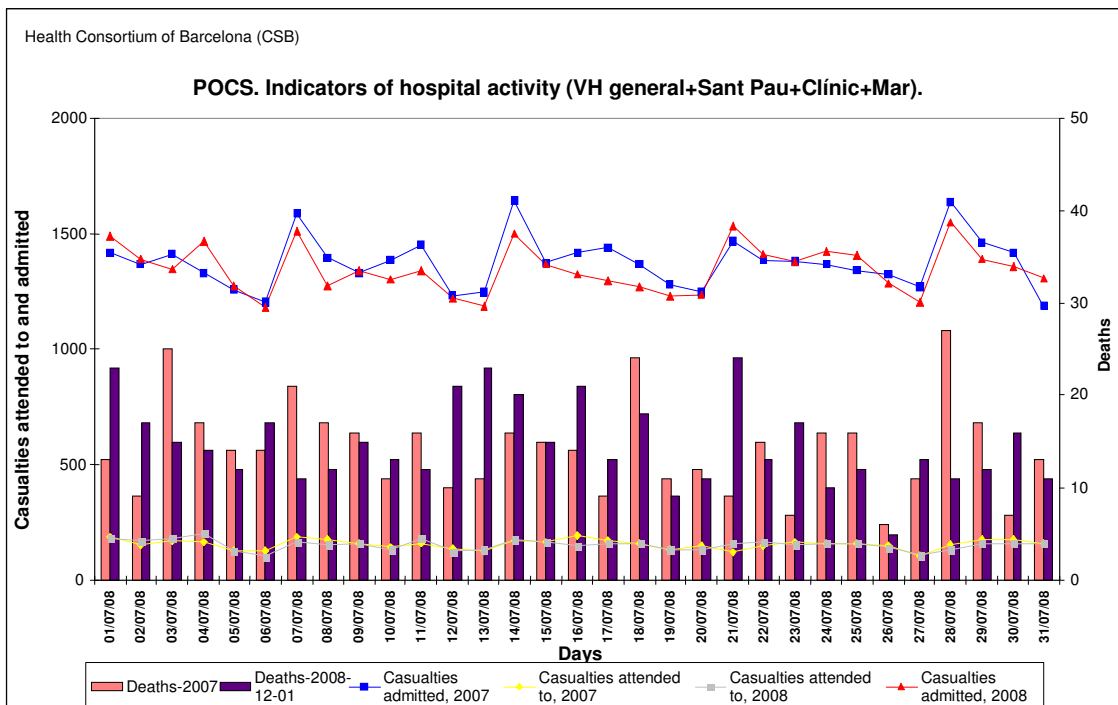
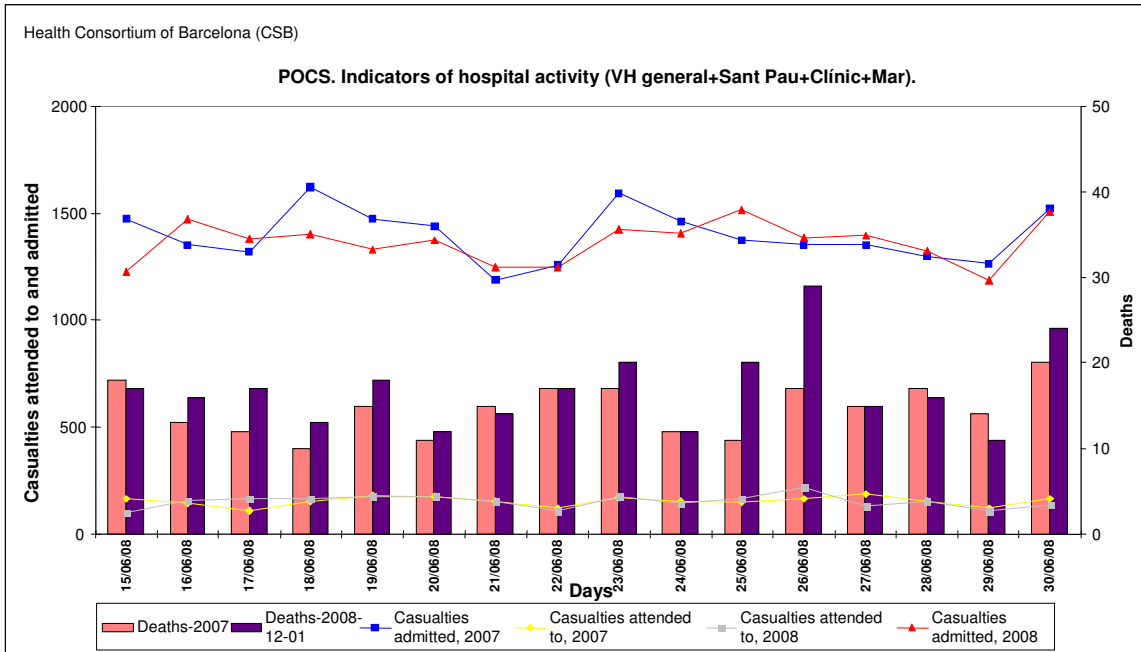
In this period, there was only one notification of a death that was potentially caused by heat stroke. A 90-year-old man was admitted to hospital with a temperature of 39.7°C and no source of infection. The man suffered from heart disease, hypertension and underlying nephropathy. He died on 8 August.

Data on deaths (the Institute of Legal Medicine of Catalonia)

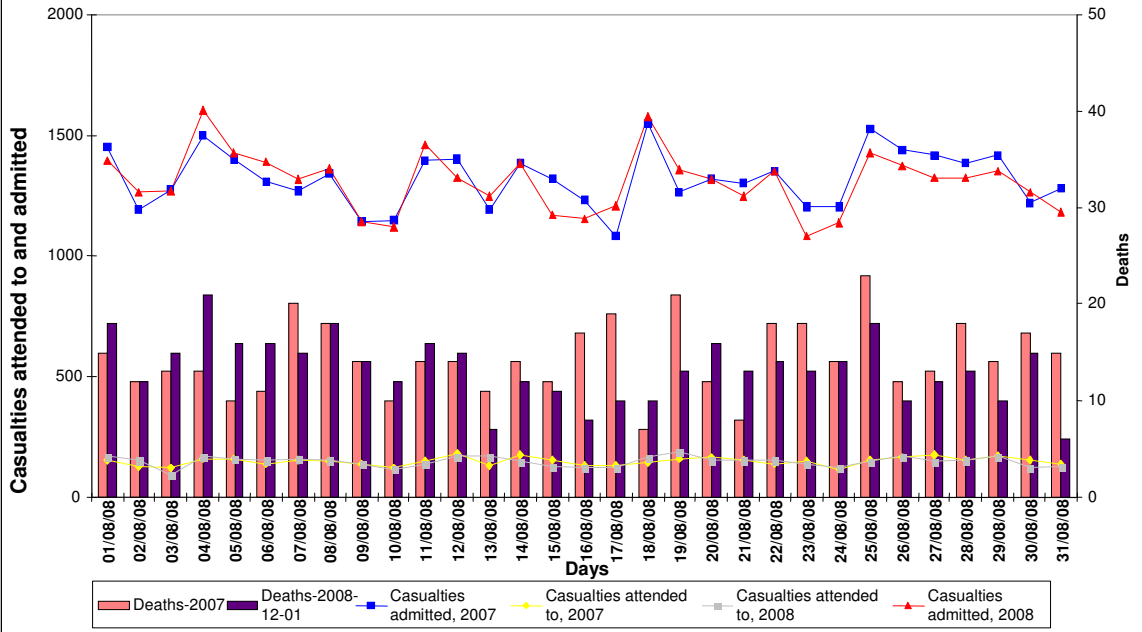
In this period, only one case was recorded in which the cause of death was classified as potential heat stroke. The death was of a 17-year-old boy who worked in the countryside on a building site. He died on 21 June.

Data on the four sentinel hospitals

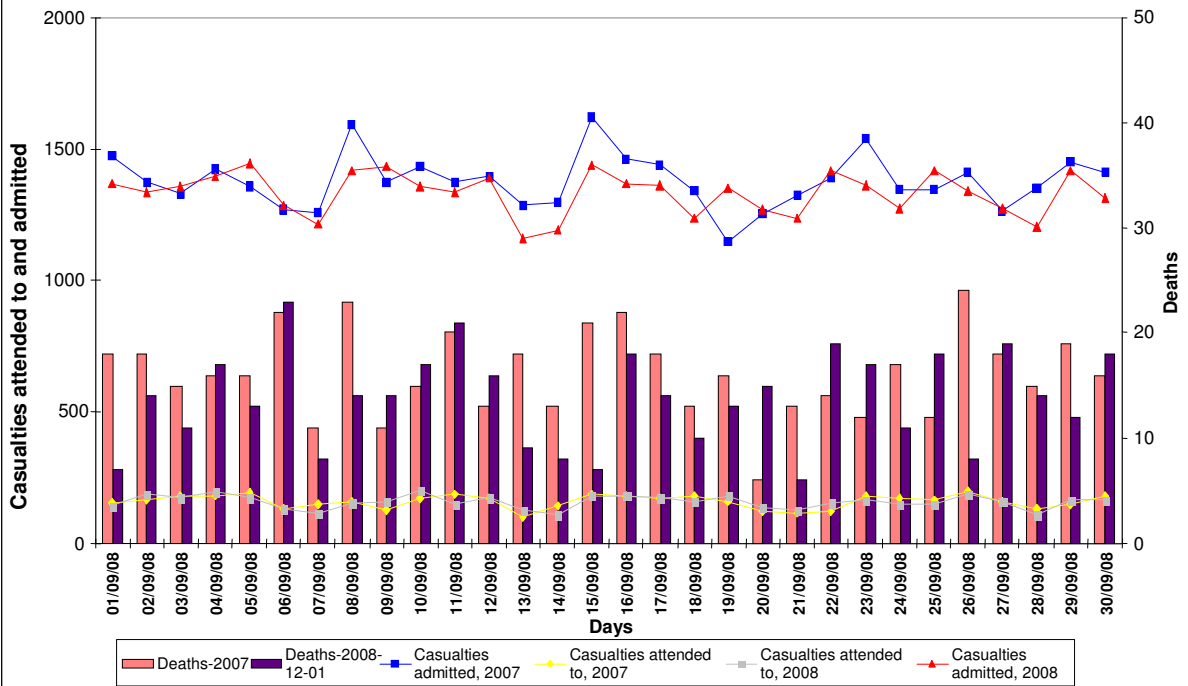
The graphs below are based on the daily data supplied by four sentinel hospitals for the months of June, July, August and September:



POCS. Indicators of hospital activity (VH general+Sant Pau+Clínic+Mar).



POCS. Indicators of hospital activity (VH general+Sant Pau+Clínic+Mar).



Evolutionary follow-up of healthcare activity and hospital mortality

The epidemiological indicators used and monitored are the number of casualties attended to and admitted, and the number of deaths in the sentinel hospitals of the Catalan public hospital network (XHUP). Data come from the Comprehensive Emergency Plan of Catalonia (PIUC); this is why in the evolutionary data for new variables, such as the number of deaths, which was added in the winter of 2003-2004, only the information available for recent summers is presented.

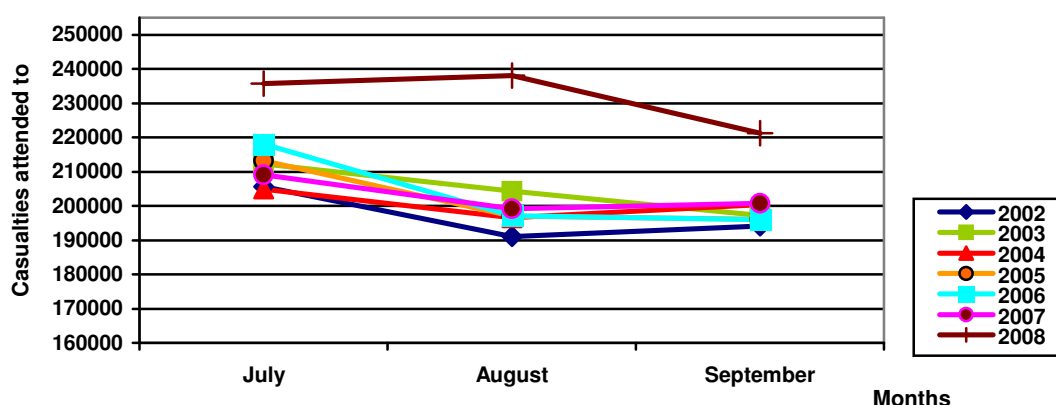
The aim is to describe the variations in activity during the summer months, taking the summer of 2003 as the reference for a heat wave.

The number of casualties attended to in the summer months of 2008 was similar to the number attended to in the same months of the previous year. Table 1 shows higher hospital activity in 2008 than in 2007. This is due to the fact that more hospitals provided data in 2008 than in the previous summer.

Table 1. Evolution of the number of hospital casualties attended to in Catalonia. Summers from 2002 to 2008

Years	July	August	September	TOTAL
2002	205,652	191,055	194,165	590,872
2003	212,252	204,306	197,255	613,813
2004	204,918	196,591	200,360	601,869
2005	213,244	197,060	196,128	606,432
2006	218,055	197,169	196,040	611,264
2007	209,093	199,168	200,716	609,626
2008	235,709	238,023	221,244	694,976

Graph 1. Variation in the number of hospital casualties attended to in Catalonia Summers from 2002 to 2008



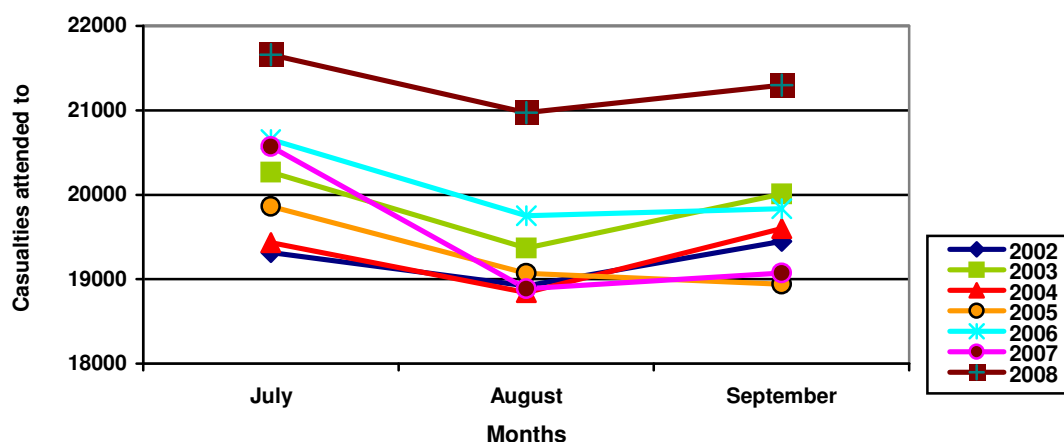
The number of casualties admitted is closely linked to the seriousness of the complaint and people's previous state of health, though there are many other conditioning factors. In all of Catalonia, more people were admitted to hospital during the three summer months of 2003 than in other summers.

As in the previous case, the increase in hospital activity in 2008 was due to the fact that more Catalan hospitals provided data. The activity in summer 2008 was extremely similar to that of the previous year.

Table 2. Evolution in the number of hospital casualties admitted in Catalonia. Summers 2002 to 2008

Years	July	August	September	TOTAL
2002	19,315	18,920	19,449	57,684
2003	20,266	19,368	20,008	59,642
2004	19,433	18,841	19,600	57,874
2005	19,860	19,070	18,942	57,872
2006	20,653	19,751	18,834	59,238
2007	20,572	18,886	19,072	58,530
2008	21,659	20,972	21,299	63,930

Graph 2. Variation in the number of hospital casualties attended to in Catalonia. Summers from 2002 to 2008



The number of in-hospital deaths recorded in Catalonia during the summer months of 2004 to 2008 is shown in table 3.

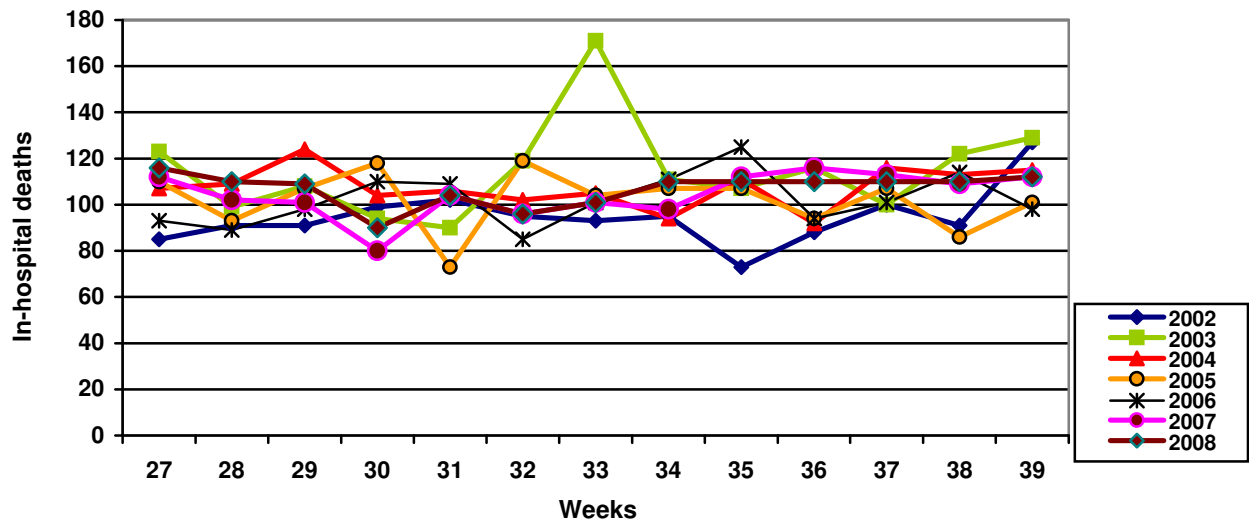
Table 3. Distribution of the number of in-hospital deaths in Catalonia. Summers from 2004 to 2008

Years	July	August	September	TOTAL
2004	1,238	1,152	1,088	3,478
2005	1,205	1,165	1,125	3,495
2006	1,251	1,259	1,161	3,671
2007	1,146	1,099	1,134	3,379
2008	1,551	1,519	1,421	4,491

There were more in-hospital deaths in 2008 than in other years; however, the difference between 2007 and 2008 was not significant. As in other cases, this difference was due to the fact that more hospitals in Catalonia provided information in 2008 than in other years.

The following graph shows the activity of the four hospitals of XHUP Barcelona and enables us to compare the different summers.

Graph 3. Variation in the number of weekly in-hospital deaths at four hospitals of the XHUP in Barcelona. Summers 2002 to 2008



As can be seen in graph 3, no relevant differences were observed between the in-hospital deaths occurring in the summers from 2002 to 2008. In 2003, although the expected oscillations arose, there is a significant increase in the number of deaths, especially between 5 and 25 August (weeks 32, 33 and 34), when the highest temperatures were recorded, with a specific peak between the 12 and 18 August 2003 (week 33).

In order to monitor the evolution of healthcare activity, the whole of Catalonia is monitored on a daily basis together with the figures of activity, casualties attended to and admitted, and hospital mortality for the four hospital centres mentioned. The patterns they provide prove useful to us for reference purposes. Even if the results cannot strictly be extrapolated to the whole of Catalonia, it does alert as to the important variations that occur. The graphs which are drawn up for this monitoring are included in the annex.

Activities carried out in primary healthcare centres and collaboration with social healthcare centres

In the light of the experience of 2003 and in order to avoid and prevent the effects of a heat wave on health, in 2004 the POCS was implemented, encompassing a series of measures at all levels of healthcare. Primary healthcare plays a fundamental role and is considered an ideal, easy-to-access area of action, since the target population are the patients who are most at risk to rapid, sustained temperature changes, and it is outside the hospital environment that monitoring can be done more easily.

Table 4 shows the result of the activities carried out at the different health regions. It should be borne in mind that total figures are sometimes not exhaustive, since in some health regions, information for certain centres was missing.

Even though variability may exist between different centres when evaluating those who are vulnerable to heat, the results and effort made to identify and record all patients at risk of being affected by heat were quite satisfactory, and highly valuable information has been obtained for any action that may need taking.

Table 4. Action taken by primary healthcare centres by health region. Patients at risk. Summer 2008

Health regions	People at risk identified			People at risk attended to		Social healthcare centres		Publicising of measures			
	Updated census	At the place of residence	At the PHC	At the place of residence	At the PHC	Contact social services PH	Verified census	Leaflets	In-house material	Informal talks	Other
Lleida	100%	2,077	50,901	614	6,380	68.2%	31.8%	100%	27%	59%	27%
Alt Pirineu and Aran	100%	205	490	60	150	yes	yes	yes	0%	0%	0%
Girona	100%	7,634	76,421	14,802	31,665	95%	70.00%	90%	39.00%	50.00%	46.70%
Terres de l'Ebre	100%	---	1,930	188	1,742	no	yes	yes	yes	yes	yes
Tarragona	100%	7,005	28,978	5,747	16,566	93.9%	87.87%	96.9%	15.16%	33.3%	36.3%
Central Catalonia	83.3%	6,770	13,337	4,154	4,541	83.3%	71.4%	100%	42.85%	14.28%	28.57%
Barcelona health region	97.2%	43,861	286,363	28,835	124,303	79.7%	42.9	96.6%	45.8%	44.6%	12.1%
TOTAL	98.5%	67,552	458,420	54,400	185,347	78%	53%	97%	42%	31%	22%

In all health regions, the updating of the census of the elderly at risk has been extended and has practically reached 100%, as happened last year. In total, 80.5% of the target population was visited at home and 40.43% at the PHC. The increase in home visits is noteworthy especially because in summer there are fewer resources, and highly satisfactory results were obtained concerning health protection and prevention. When analysis is performed specifically by health region, internal variation is observed. Notable is the Alt Pirineu and Aran health region where, among other factors, the climate also determines a reduction in needs insofar as action to be taken on people at risk.

Most health regions considered contact with the social services, probably due to the complementary help provided by Sanitat Respon. The health regions that have made contact between Primary Attention and social healthcare centres varies between 68.2% and 95% of cases, and the census was verified in all health regions and presented considerable variations (between 31.8% and 87.87%).

The dissemination of preventive measures is widespread, reaching over 97% of the population, basically due to the distribution of leaflets. The use of such material has led to a decrease in the use of in-house material, although this varies between the different health regions: some have not used it at all whereas others have used it in between 15.16% and 45.8% of cases. The programming of talks and other measures was also quite variable; in fact, reiterated individual prevention via individual counselling both at surgery and at the place of residence led to a reduction in the number of talks and other previously implemented measures. Compared to the previous summer, the results of the dissemination of measures were quite similar indeed, which was to be expected given that a heat wave prevention plan has been implemented for several years.

Other action carried out is: programmes/advice on radio stations, individual and group education, the dissemination by megaphone of general advice during the period of action, internet information, phone monitoring, neighbours' association newsletters, advice given in surgery and the assessment of individual needs,

more extensive distribution of material and talks at local community centres, the presentation of the programme to the Town Council, publication by the press, letters addressed to all people registered as being at risk, publication to and contact with public bodies, informative talks to professionals, protocols and appeals or announcements in small villages.

This year, there was a meteorological situation of risk warning for 5-7 August, as it was forecast that the 98 percentile of maximum daily temperature would be exceeded on three consecutive days. This led to a level 2 alert.

Sanitat Respon

Sanitat Respon (the Ministry of Health Responds) is an action plan to inform and support citizens and professionals, and also to follow up the POCS and collaborate with the primary healthcare teams (PHTs).

211 phone queries were dealt with concerning the POCS in 2008 (200 last year).

The reasons for phone calls were as follows:

- To seek information as to how to prevent the effects of the heat wave: 130 queries
- To request information in order to obtain the fans made available by the Ministry of Health: 12 queries
- How to react in the event of heat stroke: 69 queries

Sanitat Respon kept in permanent contact with the 061 medical emergency service in order to detect any possible patients at risk in the event of a heat wave, and in order to be able to channel such patients to the appropriate health centres if necessary.

Within the programme to monitor those potentially at risk, in respect of the POCS and designated by the PHTs of the Catalan Health Institute, 137 patients (662 last year) were included in the project, and had already authorised being followed up.

Between 15 July and 31 August, 432 follow-up phone calls (1,132 last year) were made at different times so as to be able to locate the patients in question.

The overall assessment of all of the collectives participating in the programme was most positive.

Worthy of mention is the support service provided to the PHTs in following up patients who have so required (on the basis of previously established criteria and in accordance with primary healthcare professionals), especially at highly sensitive times (POCS and PIUC).

Activities carried out by the Ministry of Social Action and Citizenship

In pursuing the aims laid out in the POCS programme, the Catalan Institute of Social Healthcare and Services – ICASS - has continued with the programme of air conditioning its centres, mainly residences, which began in 2006.

In 2008, a budget was approved for air conditioning systems for 20 ICASS centres. Air conditioning plans were also proposed for centres for 2009.

In continuation of a process begun in 2007, this summer air conditioning was made available in 10 centres, as a result of renting air conditioning units during June, July, August and September.

Also, the acquisition of awnings and other elements was facilitated in order to palliate the effects of heat at centres whose geographical location and the physical characteristics of the building so required.

Activities carried out by the Ministry of Home Affairs, Institutional Relations and Participation

The following activities were carried out by the Directorate-General for Civil Defence of the Ministry of Home Affairs, Institutional Relations and Participation:

- The Emergency Centre of Catalonia (CECAT) updated its action file by establishing PROCICAT for heat waves and by working with the POCS.
- A meeting was held with the Federation of Municipalities of Catalonia and the Catalan Association of Municipalities and Counties so that municipalities could be reminded of the existence of software created in 2007 by the Directorate-General for Civil Defence. This software enables municipalities to generate databases of the census of at-risk people and of the means and basic resources available in each municipality to deal with a heat wave: the air-conditioned premises available for at-risk people and the methods of transport to these places. Reports on these databases reveal the response capacity of each municipality in a heat wave situation and show what assistance each municipality needs from the Government of Catalonia.
- This summer, due to the Meteorological Service of Catalonia's forecast of a possible heat wave between the 5 and 7 August, the Directorate-General for Civil Defence activated the alert phase of PROCICAT.

Activities carried out by the Catalan Association of Municipalities and Counties (ACM)

- A letter was addressed at all the town and city councils and associated local entities (n=940) (Annex 1).
- Practical information with all the links needed to draw up prevention plans was sent to all town and city councils and associated local entities (n=940).
- Information was published in the ACM magazine in May, issue 287 (2,000 copies), which is distributed to all of the town and city councils (Annex 2).

- A graphic image of the campaign and a link to the public health website was posted on the home page of the ACM website during the summer campaign.

Activities carried out by the Federation of Municipalities of Catalonia (FMC)

- A letter was addressed at all the town and city councils and associated local entities (Annex 3) with detailed information and all the links needed to draw up prevention local plans.
- Information was published in the magazine “Municipal Catalonia”, which is edited by the FCM (Annex4).
- A letter of the campaign was posted on the home page of the FMC website during the summer campaign.

Objective 2

Ministry of Health informative material

- Fans: 525,000 units
- Posters: 7,000 units

Distribution:

- Healthcare centres: 172,000 fans
- Primary healthcare centres:
 - 400 fans for primary healthcare teams
 - 5 posters for primary healthcare teams
- XHUP Hospitals (casualty):
 - 20 posters
- MENTAL HEALTH CENTRES:
 - 2 posters
- PADES:
 - 2 posters
- Social healthcare centres:
 - 8 posters
- Dispensaries: 310,000 fans

Distribution was carried out in accordance with the criteria of the Council of the Guild of Chemists of Catalonia: 100 units per dispensary

Others:

In addition, those centres requesting extra materials are provided with such material and the different requests coming in particular from town and city councils are dealt with (for civic centres or community centres and as informative support for talks and other activities).

Ministry of Social Action and Citizenship

Distribution of information leaflets

- Residences and day centres for the elderly belonging to the Ministry or that are managed by the ICASS.
- The Ministry's territorial services in order to provide information to the corresponding municipalities.

Total: 2,000 leaflets

The leaflets were also distributed by the Ministry's Inspection Service at private residences and day centres for the elderly and to centres collaborating with the ICASS programmes.

Ministry of Employment material

Report on the mailing and distribution of the three-page leaflet "Working in hot environments" by the Occupational Health and Safety Centres (CSSL), on behalf of the Ministry of Employment. June 2008.

The following is a report on the Ministry of Employment's distribution of this three-page leaflet in the workplace. This activity meets objective: 2.d of POCS, which is to minimise the negative effects of a heat wave on the health of the population of Catalonia.

This leaflet was distributed by the Occupational Health and Safety Centres of the four districts of Catalonia.

The centres mailed the leaflets on the basis of available databases and their own criteria. The final objective was for this information to reach the sectors that are most exposed to hot environments.

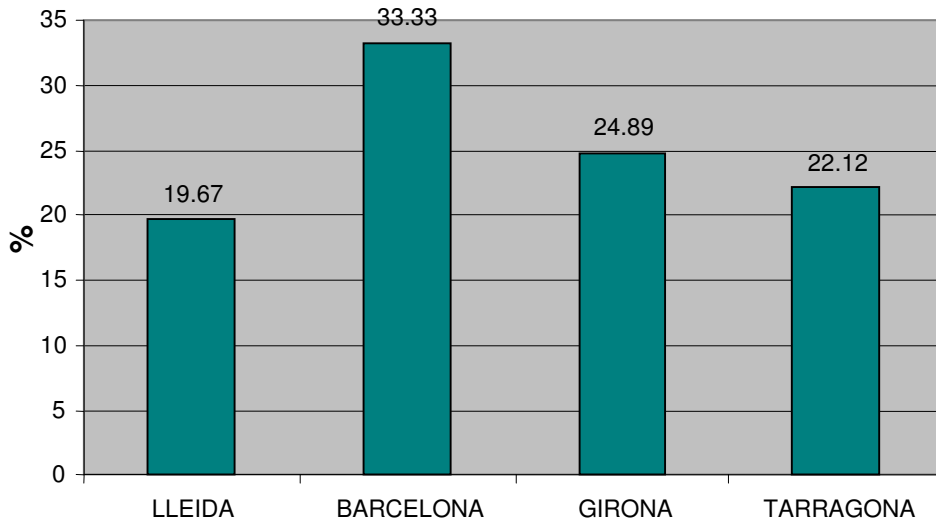
Mailings were sent on the following dates:

- Lleida, 4 June
- Tarragona 9, 10 and 11 June
- Girona, 11 June
- Barcelona, 18 and 19 June

NUMBER OF MAILINGS MADE BY THE CSSLS	
REGIONAL SERVICES	50
LABOUR INSPECTION	50
TRAINING ENTITIES	112
UNION ORGANISATIONS	450
BUSINESS ORGANISATIONS	191
SOCIAL SECURITY OCCUPATIONAL ACCIDENT INSURANCE COMPANIES	640
PREVENTION SERVICES	882
CNAE 45 COMPANIES (CONSTRUCTION)	336
COMPANIES OTHER THAN CNAE 45 THAT HAVE > 100 EMPLOYEES	730
COMPANIES > 50 EMPLOYEES	416
TOWN AND CITY COUNCILS	132
AUDITORS	16
TRADE UNIONS, GUILDS	30
PROFESSIONAL ASSOCIATIONS	38
REGIONAL COUNCILS	16
COOPERATIVES	74
CATALAN AND SPANISH GOVERNMENTS	32
TOTALS	4195

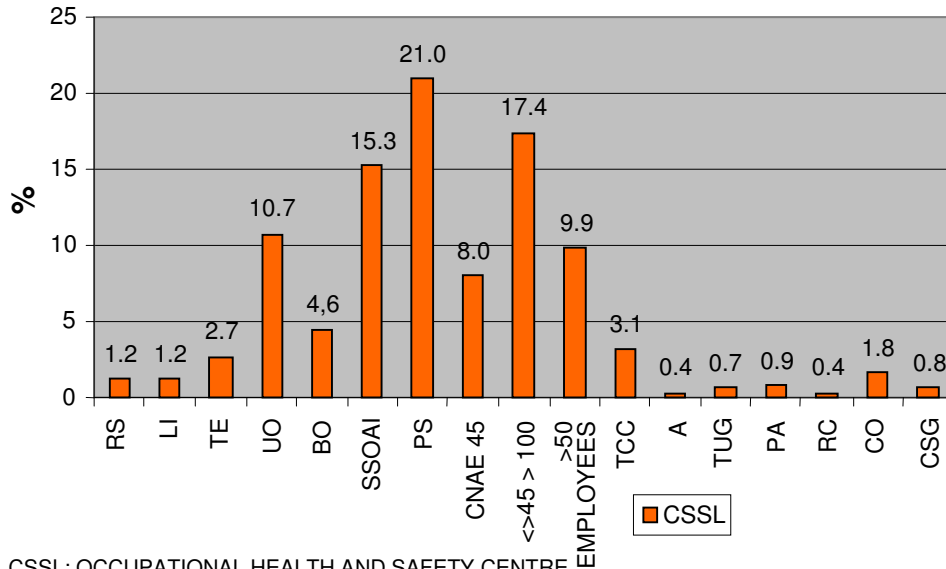
The majority of the mailings were sent by the CSSL of Barcelona (CSSLB). This centre sent 1,398 mailings, which represents 33.33% of the total. The CSSL of Girona was in second place, with 1,044 mailings or 24.89% of the total, followed by the Tarragona centre, which sent 928 mailings or 22.12% of the total. Finally, Lleida sent 825 mailings or 19.67% of the total.

**DISTRIBUTION OF THE LEAFLET “WORKING IN HOT ENVIRONMENTS” BY THE CSSL OF CATALONIA.
JUNE 2008**



CSSL: OCCUPATIONAL HEALTH AND SAFETY CENTRE

**DISTRIBUTION OF THE THREE-PAGE LEAFLET “WORKING IN HOT ENVIRONMENTS” BY THE CCSL OF CATALONIA.
JUNE 2008**



CSSL: OCCUPATIONAL HEALTH AND SAFETY CENTRE

REGIONAL SERVICES	RS
LABOUR INSPECTION	LI
TRAINING ENTITIES	TE
UNION ORGANISATIONS	UO
BUSINESS ORGANISATIONS	BO
SOCIAL SECURITY OCCUPATIONAL ACCIDENT INSURANCE COMPANIES	SSOAI
PREVENTION SERVICES	PS
CNAE 45 COMPANIES (CONSTRUCTION)	CNAE 45
COMPANIES OTHER THAN CNAE 45, WITH OVER 100 EMPLOYEES	<45 >100
COMPANIES WITH OVER 50 EMPLOYEES	>50EMPLOY
TOWN AND CITY COUNCILS	TCC
AUDITORS	A
TRADE UNIONS, GUILDS	TUG
PROFESSIONAL ASSOCIATIONS	PA
REGIONAL COUNCILS	RC
COOPERATIVES	CO
CATALAN AND SPANISH GOVERNMENTS	CSG

The highest number of mailings went to prevention services, which received a total of 882 units (21%). This figure can be broken down into mailings to outsourced prevention services (OPS) and those sent to in-house prevention services (IPS) in Barcelona. The OPS received 212 units and the IPS 90. The group that received the second-highest number of units was companies with over 100 employees in sectors other than construction, with 720 units (17.4 %). The third-highest number of units was received by social security occupational accident and diseases insurance companies (SSOAI), which received around 640 units (15.3 %).

3. Conclusions

- On 5, 6 and 7 August, a POCS alert phase 2 was activated, as the Meteorological Service of Catalonia forecast a level 2 meteorological situation of risk throughout Catalonia.
- In general, no significant increase in the number of deaths was observed in the ten sentinel municipalities. Data were similar to those recorded in previous years with normal meteorological conditions. There were no significant differences from 2007.
- Neither was an increase observed in the data concerning in-hospital deaths.
- Preventive action has provided good results in attending to and monitoring the health of the population.
- In all health regions, the census of the elderly at risk due to heat was updated, reaching practically 100% of primary healthcare centres. People were attended to at home in almost 80.5% of cases and 40.4% were attended to at PHCs (84% and 48% for the previous year).
- Contacts have been established with the social services in between 68% and 95% of cases and the censuses have been verified in all health regions, showing great variability among them.
- The use of leaflets to inform as to preventive measures took place in almost 100% of PHCs throughout Catalonia, some health regions used their own material and others laid on talks and other acts. This, together with the identification of patients at risk and the task of the professionals has meant it has been easier to maintain the stability of the service provided by healthcare centres throughout the summer months.
- Sanitat Respon was basically aimed at keeping contact with the emergency services, social healthcare centres and the population in general. It is important to highlight the support service provided to PHTs in the monitoring of patients based on previously established criteria and in accordance with the professionals of the primary healthcare who so required (137 patients, 432 follow-up phone calls). The result has proved most satisfactory.
- The healthcare activity carried out and the number of in-hospital deaths occurring in the summer months of 2008 were similar to those of other

years, not reaching the figures recorded in the summer of 2003. Any differences observed this year were due to the fact that more hospitals provided data.

- Due to the Meteorological Service of Catalonia's warning of a potential heat wave between the 5 and 7 August, the Directorate-General for Civil Defence activated the alert phase of PROCICAT.
- The ACM informed all the town and city councils and associated local entities of the need to devise local, specific plans in case of emergency situations. It also highlighted the information that was needed in order to respond well to such situations. In addition, an informative article was published in the ACM magazine, which is sent to all town and city councils. The information campaign was also posted on the ACM website throughout the summer.
- The FMC informed all the town and city councils and associated entities of the need to devise local, specific plans in case of emergency situations. It also highlighted the information that was needed in order to respond well to such situations. In addition, an informative article was published in the magazine "Municipal Catalonia". The information campaign was also posted on the FMC website throughout the summer.
- The Ministry of Health distributed 525,000 fans and 7,000 posters to health centres, primary healthcare centres, XHUP hospitals, MHC, PADES and dispensaries.
- Nearly 2,000 information leaflets were distributed to residences and day centres for the elderly belonging to the Ministry or that are managed by the ICASS, and to the Ministry's territorial services. In addition, the Inspection Services distributed leaflets to private residences and day centres and to centres collaborating with the ICASS programmes.
- The leaflet "Working in hot environments" was distributed to different professional institutions and organisations. A total of 4,195 units were distributed.

Annex 1

Standard letter sent to the town and city councils by the Catalan Association of Municipalities and Counties



Dear Mayor/President,
Dear Mayor/President,

From 1 June to 15 September, the **Action Plan to Prevent the Effects of a Heat Wave on Health (POCS)** will be implemented. This is a Directorate-General for Public Health initiative, associated with the Ministry of Health and carried out in collaboration with other organisations of the Government of Catalonia and municipal entities.

If there is a heat wave, the Emergency Centre of Catalonia (CECAT) will activate the Plan for Catalan Civil Protection against a Heat Wave (PROCICAT). If this plan is fully activated, the municipalities will have to carry out certain actions and procedures.

We have attached information regarding these actions and procedures. In the event of a heat wave, the municipalities must take this information into account. Basically, the aim is to compile a census of the at-risk population, as well as an inventory of air-conditioned reception centres and of means of transporting at-risk people if an emergency situation arises.

We recommend that you read all of the attached information carefully, so that each town and city council can take any necessary action to protect the population in the case of a heat wave.

Support material is available to help compile a census of people at risk and to make an inventory of air-conditioned centres:
http://www.gencat.net/interior/esc/docs/esc_planspc.htm
Information for the general public about heat waves can be found at:
<http://www.gencat.cat/salut/depsan/units/sanitat/html/ca/dir438/doc10726.html>

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Salvador Esteve i Figueres', with a horizontal line underneath.

Salvador Esteve i Figueres
President



ASSOCIACIÓ CATALANA
DE MUNICIPIS I COMARQUES
València, 231, 6a. planta
08007 BARCELONA

Tel. 934 961 616
Fax 932 160 286
<http://www.acm.cat>

M.A. EOB/NÚM/287

Salut elabora un pla d'actuació per prevenir els efectes de l'onada de calor

El Departament de Salut ha elaborat el Pla d'actuació per prevenir els efectes de l'onada de calor sobre la salut (POCS) tenint en compte els efectes negatius d'aquestes variacions tèrmiques.

Si es produeix aquest fet, el Departament d'Interior, Relacions Institucionals i Participació té previst col·laborar en la resolució d'aquesta situació d'emergència a través del Pla de protecció civil de Catalunya (PROCI-CAT).

Per aquest motiu, des de dos departaments de la Generalitat de Catalunya es vol fer una comunicació a tots els ajuntaments per incidir en la informació a la població de risc davant aquesta situació i aconseguir, en a mesura que es pugui, una màxima cooperació en la prevenció dels efectes que es poden produir en els mesos de

calor, juliol i agost, i en la protecció a les persones més vulnerables davant d'una situació d'emergència.

El POCS, en les seves diferents fases, pretén poder amb la màxima antelació que permetin els mitjans tècnics les possibles situacions meteorològiques de risc i minimitzar els efectes negatius de l'onada de calor sobre la salut de la població, alhora que coordinar els mitjans i recursos existents a Catalunya per tal de disminuir els efectes de l'onada de calor.

Entre d'altres actuacions previstes hi ha: mecanismes d'informació general a la població de risc de l'onada de calor i recomanacions mitjançant un fulllet informatiu disponible en tots els centres d'atenció primària de Catalunya, oficines de farmàcia i consultes externes dels hospitals d'aguts. D'altra banda, també preveu sistemes de suport i seguiment

a persones considerades com a vulnerables a través dels centres d'assistència primària i de Serveis Socials.

En situació d'emergència, és a dir, temperatures molt altes de forma sostinguda, a banda de les actuacions informatives, pot ser necessari adoptar mesures de protecció a les persones especialment vulnerables. Aquestes poden suposar el seu desplaçament durant les hores de més impacte de les temperatures altes, a espais condicionats on també es pugui aplicar accions de prevenció. Aquest fet coincidiria amb l'activació del pla PROCI-CAT en fase d'emergència.

DESCARREGUEU-VOS!

www.gencat.net/interior/esc/posc/enc_pla_actio.htm



Annex 3

Standard letter sent to the town and city councils by the Federation of Municipalities of Catalonia



Dear Mayor,
Dear President,

As it is usual these days, the Ministry of Health, the Meteorological Service of Catalonia and the Ministry of Home Affairs, Public Relations and Participation have launched the Action Plan to prevent the effects of a heat wave on health (POCS 2008), from 1 June to 15 September. Town halls and city councils have a very important role to play in the implementation of the Plan, both in the information process and in the protection of the population in case of alert or emergency.

Among preventive actions, local authorities will need to have a **census of the population at-risk** that will be compared to that of primary health centres by social services of the municipality, and an **inventory of air-conditioned day centres, hospital centres, and residential homes**.

On the other hand, in order to guarantee the effectiveness of the POCS in case of emergency, town halls will have to prepare an **Emergency Municipal Plan in the event of a sustained heat wave**, where municipal logistics for affected population. This Plan will have to foresee, among others, the fitting out and supply of air-conditioned reception centres or facilities, and the coordination of public and private services of transport for at-risk population to centres fitted out a welfare centres.

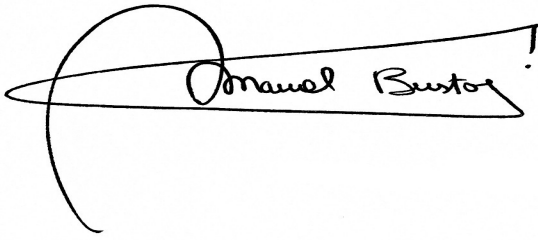
Finally, we attach a document that sets forth actions to be taken by the municipality, insisting in the need to fill out and send Table D of Appendix 3 to the Directorate-General for Civil Protection (protecciocivil@gencat.net), so that the CECAT (Centre for Emergencies of Catalonia) will have a knowledge on the means and resources that the local Administration offers to POCS, as well as the number of persons not be covered to foresee the collaboration with the Red Cross and other emergency mechanisms.

For further information, please consult the Ministry of Health's website: <http://www.gencat.cat/salut/depsan/units/sanitat/html/ca/dir438/doc12128.html>.

On the Ministry of Home Affairs, Public Relations and Participation's website (http://www.gencat.net/interior/esc/docs/esc_planspc.htm), you will find an application ("Eina per elaborar el cens municipal per onada de calor") enabling to municipalities to easily take a census of the number of at-risk persons in the event of a heat wave, as well as to inventory air-conditioned reception centres and means to transport at-risk persons to these centres.

I hope this information will be of your interest.

Yours faithfully,

A handwritten signature in black ink that reads "Manuel Bustos". The signature is written in a cursive style with a large, sweeping loop on the left side that extends above and below the main line of the signature.

Manuel Bustos
President of the FMC and Mayor of Sabadell

Annex 4

Article published in *Catalunya Municipal* review by the Federation of Municipalities of Catalonia

***Catalunya Municipal* Review**

Editor: Federation of Municipalities of Catalonia

Action Plan to prevent the effects of a heat wave on health

The Ministry of Health, the Meteorological Service of Catalonia and the Ministry of Home Affairs, Public Relations and Participation have launched the Action Plan to prevent the effects of a heat wave on health (POCS) from 1 June to 15 September.

Excessive and prolonged heat causes a rise in mortality and admissions, especially of vulnerable persons, those over 75 years, babies, handicapped, chronically sick persons, persons living on their own or in precarious social conditions, and people taking medication that affects the central nervous system.

Town halls and city councils have a very important role to play in the implementation of the Plan, both in the information process and in the protection of the population in case of alert or emergency. Among preventive actions, local authorities will need to have a census of the population at-risk that will be compared to that of primary health centres by social services of the municipality, and an inventory of air-conditioned day centres, hospital centres, and residential homes.

In order to guarantee its effectiveness, town halls will have to prepare an Emergency Municipal Plan in the event of a sustained heat wave. This Plan will have to foresee, among others, the fitting out and supply of air-conditioned reception centres or facilities, and the coordination of public and private services of transport for at-risk population. Finally, means and resources the local Administration offers to POCS should be notified to the Directorate-General for Civil Protection and an estimation of the number of persons not covered to foresee the collaboration with other mechanisms.

