

EPIDEMIOLOGY OF HOSPITALISED BURN PATIENTS IN FRANCE

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Introduction

- 500,000 persons injured by burns each year in France
French population : 63 million inhabitants
- Individual consequences and high economic cost
- Objectives:
 - determine the demographic characteristics and incidence of hospitalised burn patients
 - better prevent and distribute health care services

Material and method (1/2)

- The French Hospital Information System
Medical information system programme – PMSI
- Identification of all hospitalisation records belonging to the burns and corrosions group
Principal diagnoses coded according to the International Classification of Diseases (ICD-10), i.e. T20 to T32
- Analysis on patients victims of burns
- Year 2008 in France (Mainland)
- 20 centres for burn injuries (CBI) + ~ 600 units

Material and method (2/2)

- Burn severity defined using
 - Burn size or total body surface area (TBSA) burned
 - Occurrence of inhalation injury
 - Age
- Severe burns defined as one of the following criteria
 - Children < 5 years old with TBSA burned $\geq 20\%$
 - Persons ≥ 5 years old with TBSA burned $\geq 30\%$
 - Inhalation injuries
- Data analysis
 - Descriptive statistics
 - Standardised incidence rates were calculated per 100,000 persons (using the 1999 French census data)

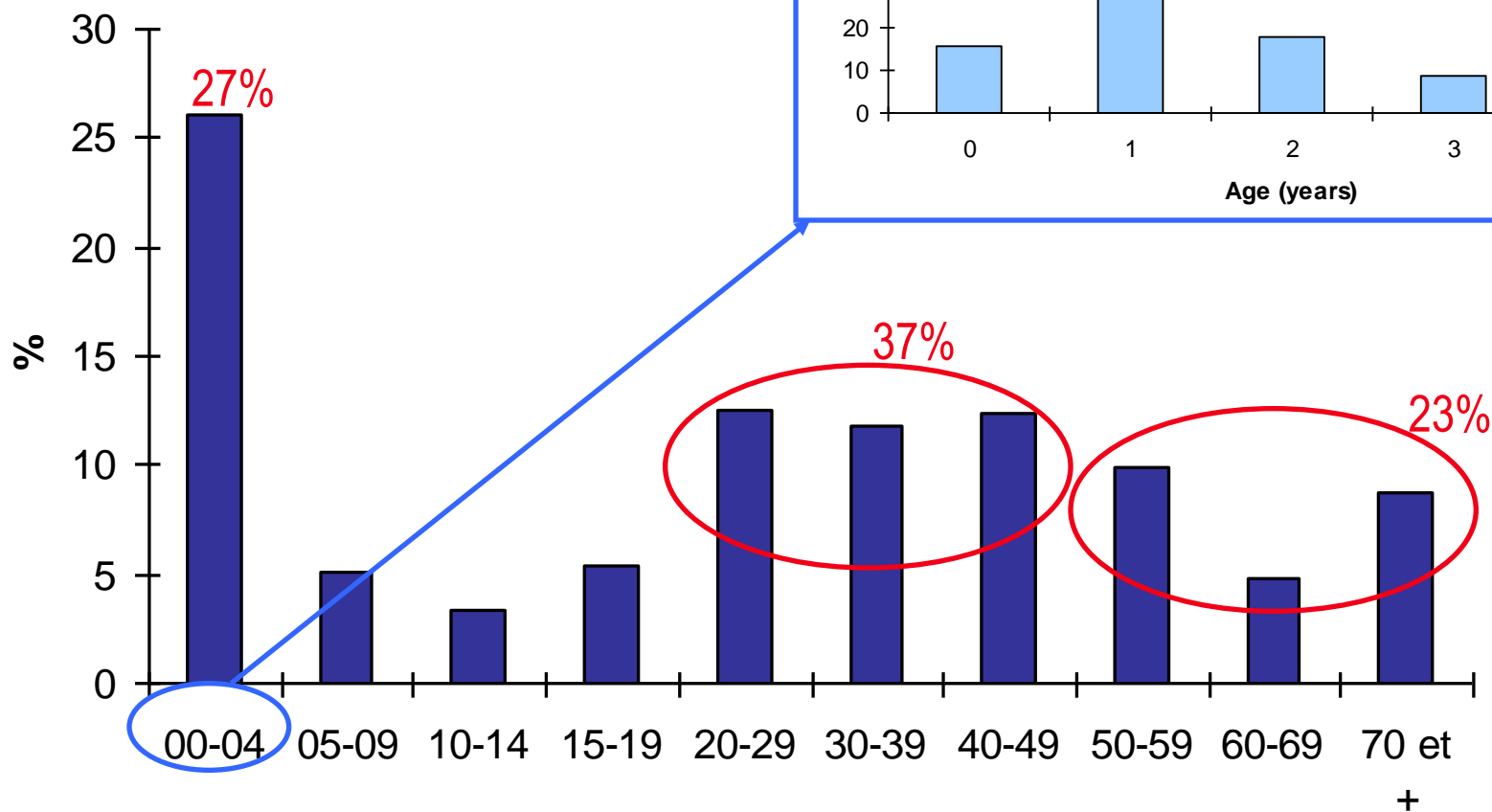
Results

France - 2008:

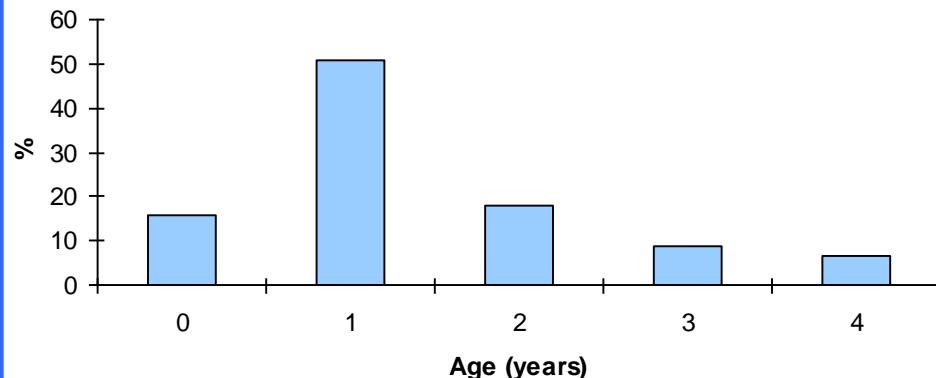
- ~ 13,000 admissions for burns
- ~ 9,000 patients → 1.4 admissions / patient
- General incidence rate: 14.5/100,000 inhabitants
- 64% men; 36% women → sex ratio: 1.8
- Average age: 30 years old; median: 27 years old

Results: age

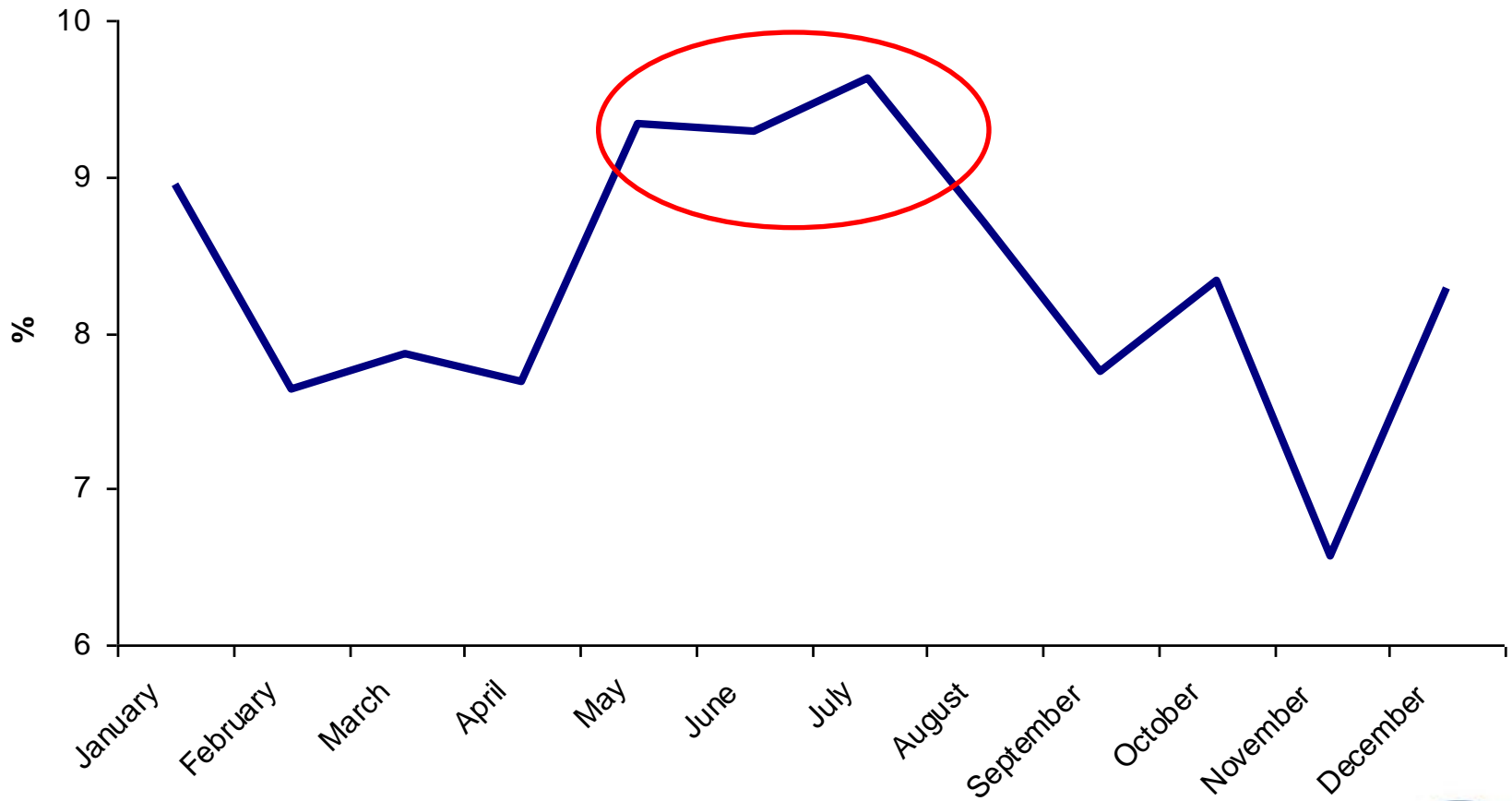
Burn distribution by age



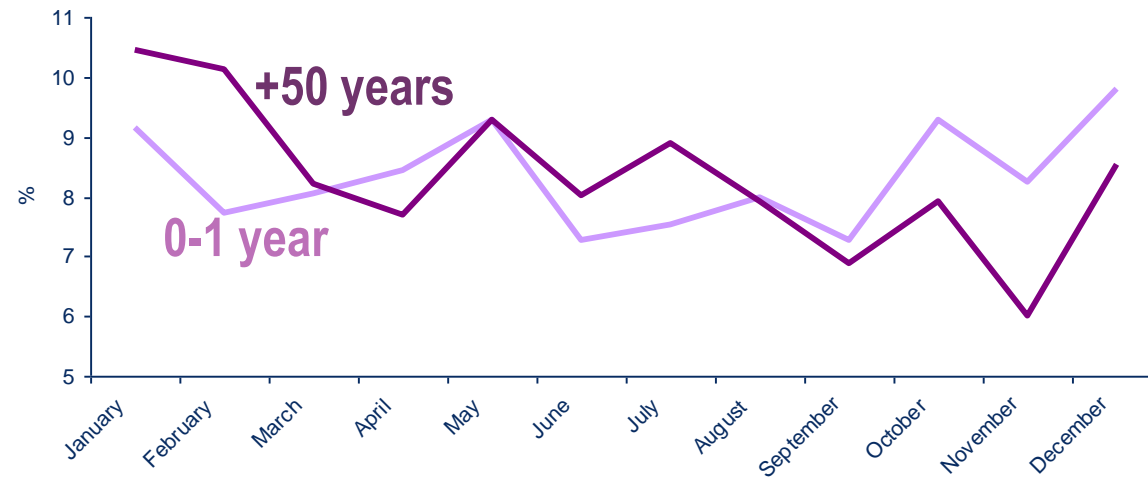
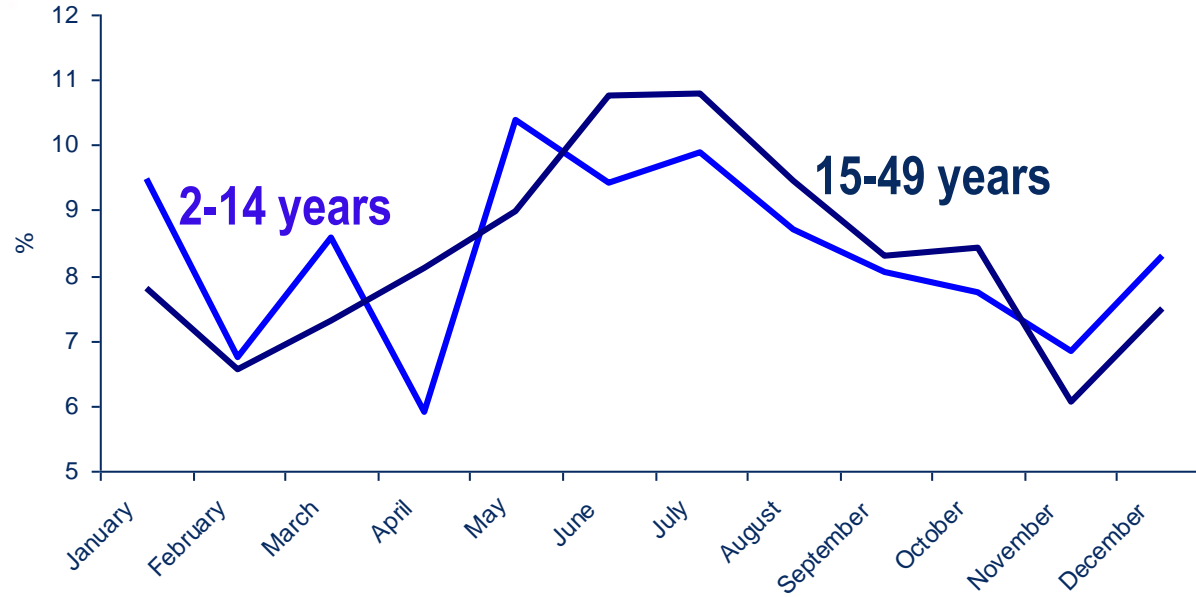
Burn distribution by age for children under 5 years old



Results: monthly burn distribution (1/2)⁷



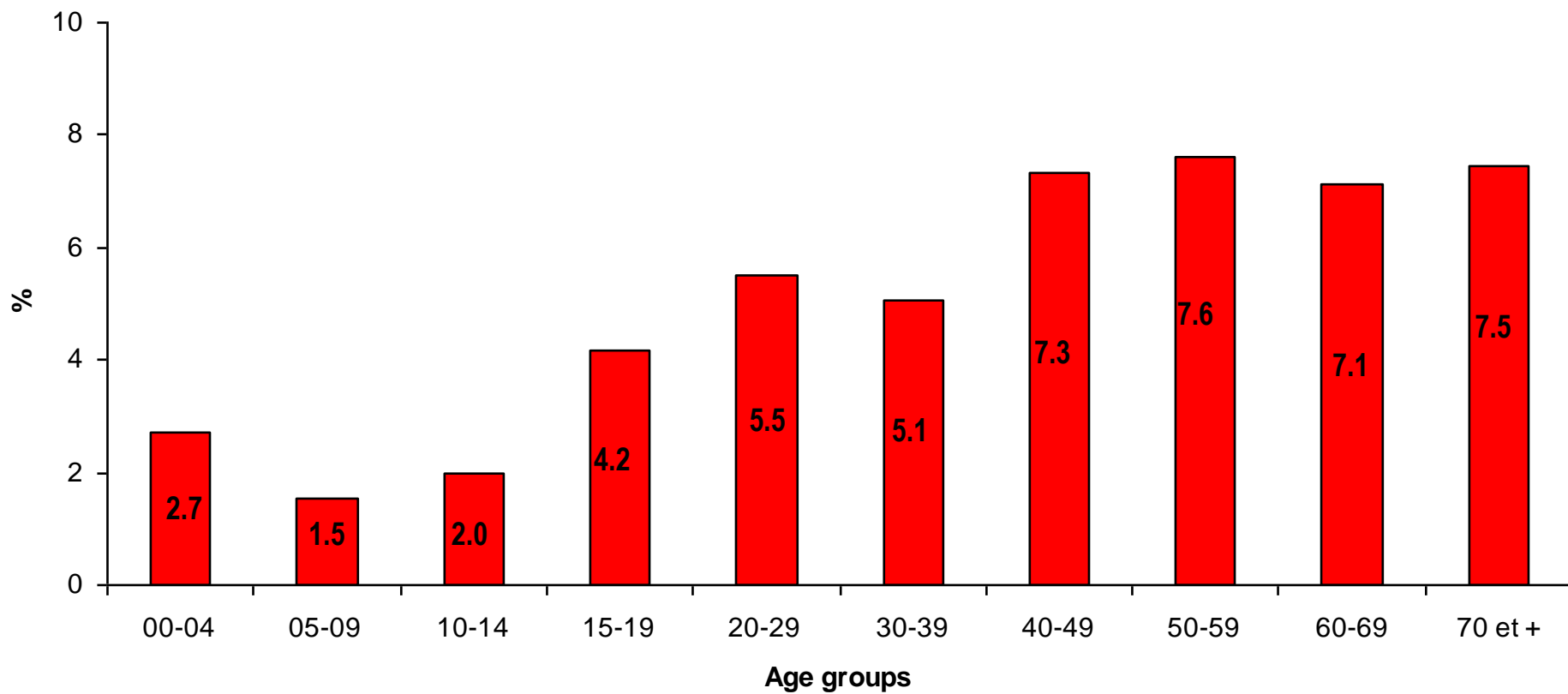
Results: monthly burn distribution (2/2)⁸



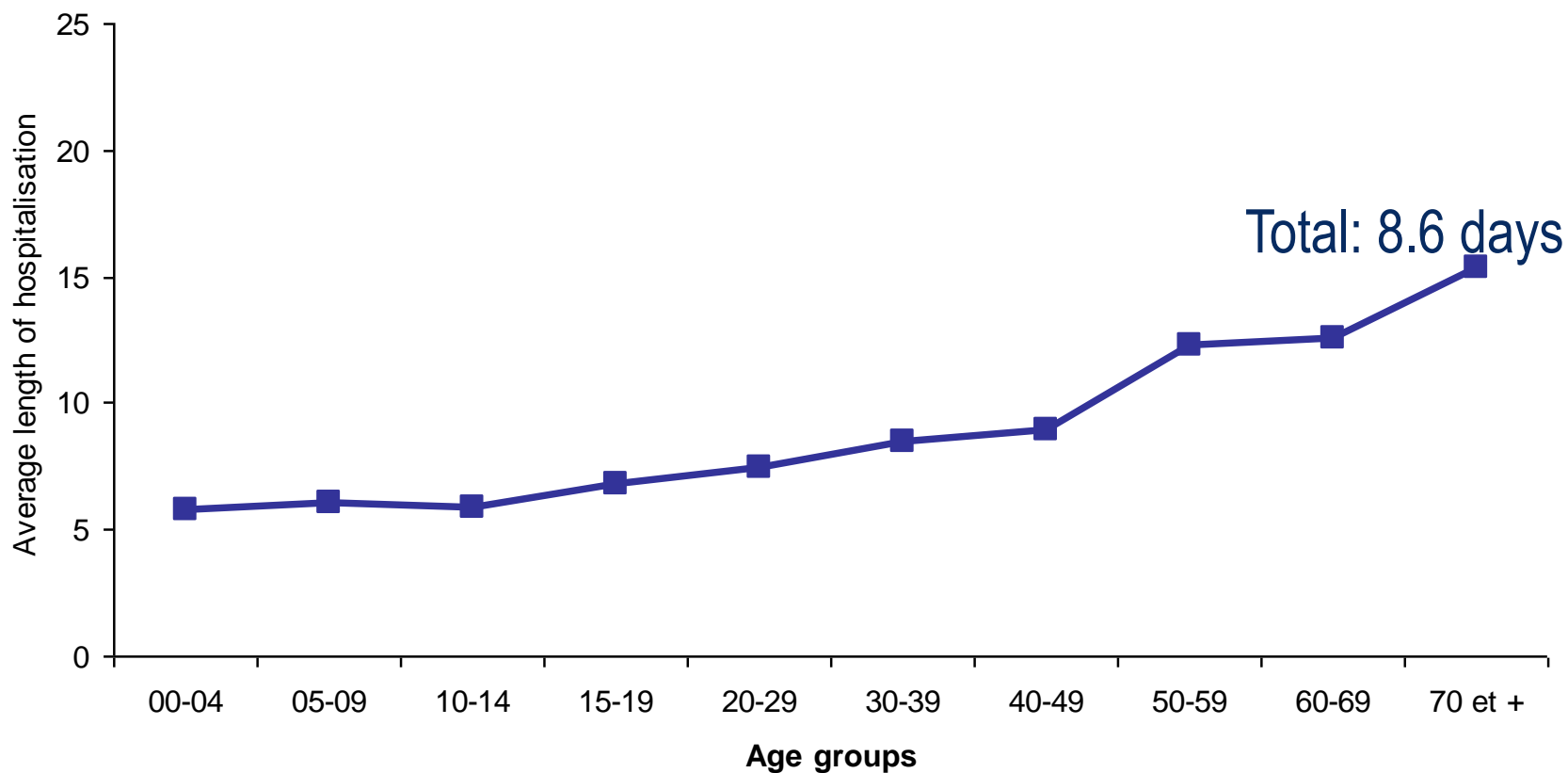
Results: burn severity

	Total	Severe burns	Minor burns	<i>p</i>
N	8,944 100 %	448 5 %	8,496 95 %	
Type of units				<0.001
Centres for burn injuries - CBI -	3,362 38 %	305 68 %	3,057 36 %	
Others units	5,582 62 %	143 32 %	5,439 64 %	
Average length of hospit.	8.5	14	5	<0.001
Median length of hospit.	3	7	1	
Average age	30	30	30	=0.4
Median age	27	28	27	

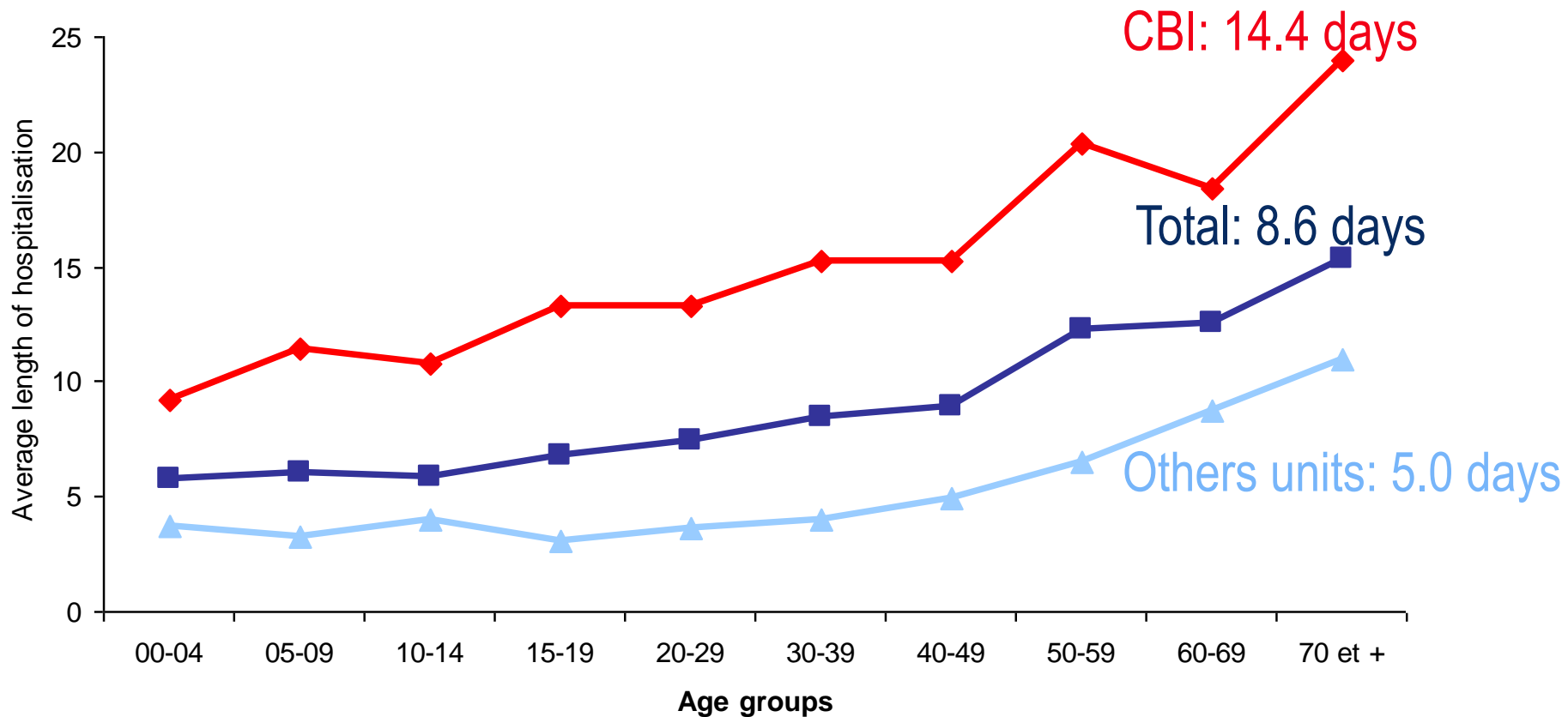
Results: severe burns by age



Results: length of hospitalisation



Results: length of hospitalisation



Results: deaths by burns

PMSI	Deaths N =194	%
Gender		
Male	110	57 %
Female	84	43 %
Age groups		
Under 2 years old	3	1 %
2-14	4	2 %
15-49	52	27 %
50 and over	135	70 %
Type of unit		
CBI	152	78 %
Others units	42	22 %
Length of hospit. (days)		
< 2	50	26 %
[2 ;5[32	17 %
[5 ;15[47	24 %
[15 ;30[24	13 %
>=30	39	20 %
Average length of hospit.	19	
Median length of hospit.	7	
Average/median age		
	61	

For information:

~ 500 deaths by fire injury in France (death certificate)

~35-40 children < 14 years

Discussion

- The French Hospital Information System (PMSI) is a reference tool for burns analysis
 - Exhaustive
 - Specific coding for burns with T20 to T32 codes, ICD-10
- No information on the causes of hospitalisations for burns: chapter XX, ICD-10, is not used in PMSI
- Results in accordance with previous studies

Conclusion

- Developing prevention campaign
 - → → becoming aware of the risk
 - In children population, when they start walking
 - In elderly people, burns are more often severe and lead to the death
- Adopting regulation measures
 - → → making the environment safer, particularly households
 - Law 2005: reduction of domestic water temperature
 - Law 2010: obligation to install a home smoke alarm

Thank you !

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