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### The impact on health of the earthquake in L'AQUILA, Italy.

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#### Introduction

Italy is a country earthquake-prone, the last earthquake is occurred on 6 april 2009 at 7 km from L'Aquila city, capitol of Abruzzo region.

Abruzzo region, the University of L'Aquila, the National Institute of Health, with the support of Ministry of health have carried out a survey called "COMETES" which stands for midterm consequences on health of an earthquake in Italy.

#### Objective

Assess frequencies of and changes in health related behaviours, health related quality of life, mental disorders and other aspects of prevention, after the earthquake in L'Aquila, 6 April 2009.

#### Methods

From June to November 2010, a proportional sample of 957 adult (18-69 years) stratified by sex and age responded to a telephone structured interview (response rate: 95%). Analysis was based on the Behavioral Risk Factor Surveillance System PASSI with a properly modified questionnaire to investigate:

- Health Related Behaviours (BRFSS);
- Health Related Quality of Life (Healthy Days method);
- Depressive symptoms (PHQ2);
- PTSD (Module I of the International Neuropsychiatric Interview – Mini Italian version 5.0.0);
- Other aspects of health and prevention.

We compared data of health data from Italian Behavioural Risk Factor Surveillance System PASSI, collected in L'Aquila, before the earthquake, in 2008 and part of 2007, and health data collected, in L'Aquila, from COMETES survey.

#### Results

- 92% of the responders have experienced the earthquake, 5% were injured, 42% lost a loved one, 45% reported serious economic losses, 62% left their home due to damage. Compared to the behavioural related health, there was a significant change for the prevalence of physical activity between pre and post-earthquake (42% vs 32%) .
- 34% (95% CI:30,8-36,5), self perceived health as "bad", associated to sex, to age, to financial problems, to education, to social status and to chronic illnesses.
- The attention of individual prevention for cancer (cervical, breast, colonrectal) has not changed between pre and post earthquake, but the prevalences of mental disorder are high: depressive symptoms was 10,5% in pre earthquake and 15,7% in post earthquake, the prevalence of Post Traumatic Stress Disorder was 4,1% (95% IC: 3,0-5,5).

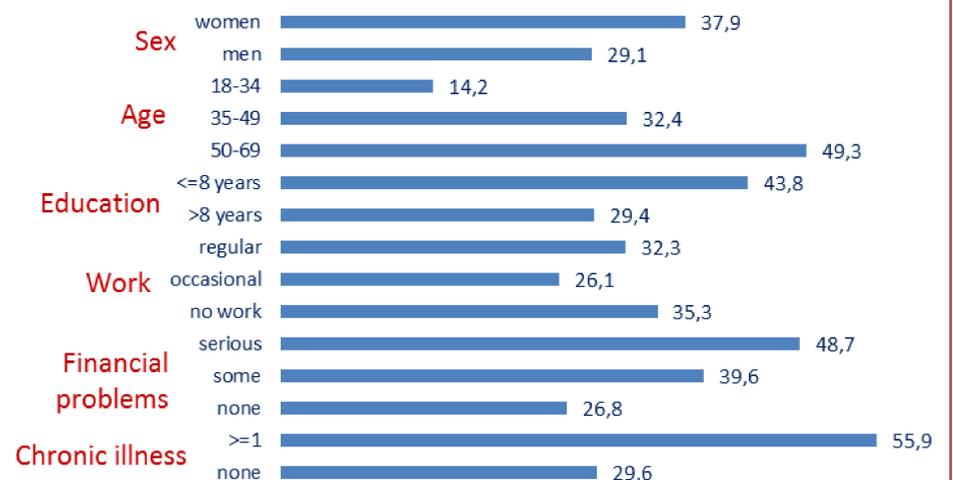
#### Data Collection

Complete interviews	957
Complete interviews uploaded	957
Response rate	95%
Substitution rate	5%
Refusal rate	5%
Not found	1%
Eligibility rate	97%
CATI use	17%
Average duration of interview	26 min.

#### Health related behaviours (BRFSS)

	2010 n. 957		2007-2008 n. 283	
	%	(95% CI)	%	(95% CI)
Smokers	34.0	(31-37)	31.5	(26-37)
Alcohol Consumption	52.9	(49-56)	61.6	(56-67)
Physical activity	<b>31.9</b>	(29-35)	<b>41.7</b>	(36-48)
Sedentary	<b>38.6</b>	(36-42)	<b>19.2</b>	(15-24)
Obese	11.4	(10-14)	11.4	(8-16)
Ipertension	20.0	(18-23)	23.2	(19-28)
Hypercholesterolemia	22.5	(20-26)	26.2	(23-30)

#### Negative health self-perceived all 34% CI: 30,1-36,5)



#### Conclusion

- We have a 20% increase in the prevalence of sedentary behaviour between before after earthquake (from 19% to 39%);
  - 34% self perceived health as "bad" after the earthquake, the prevalence was 38% before the earthquake;
  - Mental Health: after the earthquake we have higher estimates than those available in Italy – prevalence of depressive symptoms from 10% to 16% -.
- The study is a useful tool for public health needs, for the assessment and planning after a disaster

#### Cometes Working Group

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- Vincenza Cofini, Anna Carbonelli
- Stefania Salmaso, Nadia Mirante, Valentina Minardi, Massimo Trinito, Antonella Gigantesco, Emanuele Tarolla, Paolo D'Argenio