ATTIVITA' DI STUDIO PER L'IMPLEMENTAZIONE DELLO STRUMENTO "SUNFRAIL"
Napoli, Mercoledì 30 Ottobre 2019 - ore 10:00-16.00

Interventi di comunità: l'esperienza di "Viva gli Anziani!"

G Liotta[1] . O Madaro[2.4]. MC Inzerilli[3]. MC Marazzi[5]

[1] Biomedicine and Prevention Dept. – University of Rome "Tor Vergata"

[2]"Long Live the Elderly!" program. Community of Sant'Egidio

[3] Municipality of Rome

[4] Local Health Unit Roma 3.Rome

[5] LUMSA University. Rome

COMUNITÀ DI SANT'EGIDIO
Viva gli Anziani!

Mortality by month in Italy 2002-2004 and 2012-2016

Figura 2. Morti per mese. Anni 2002-2004

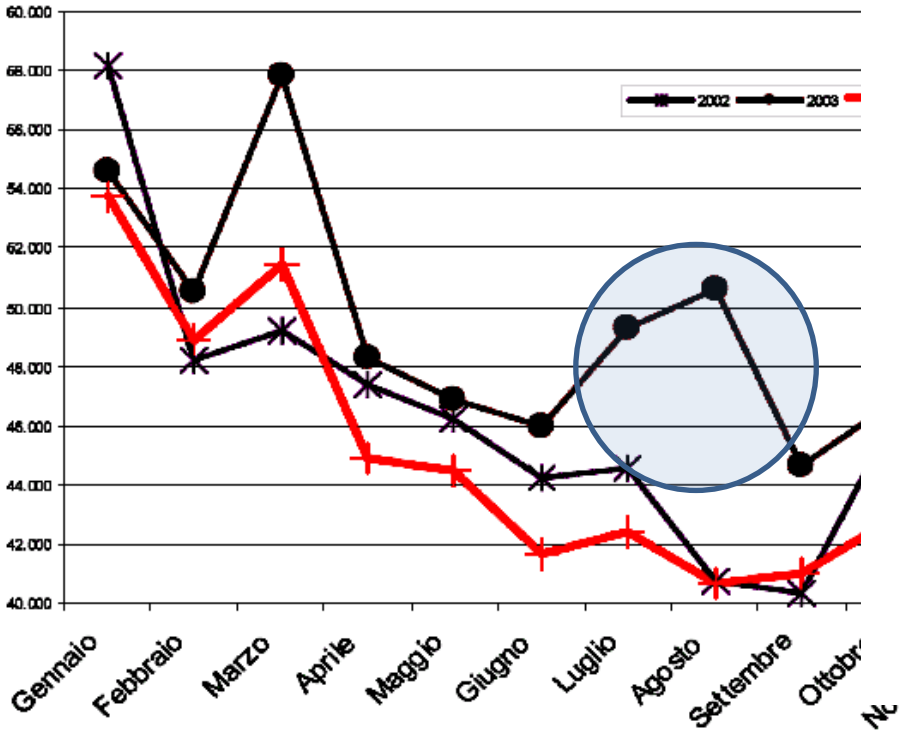
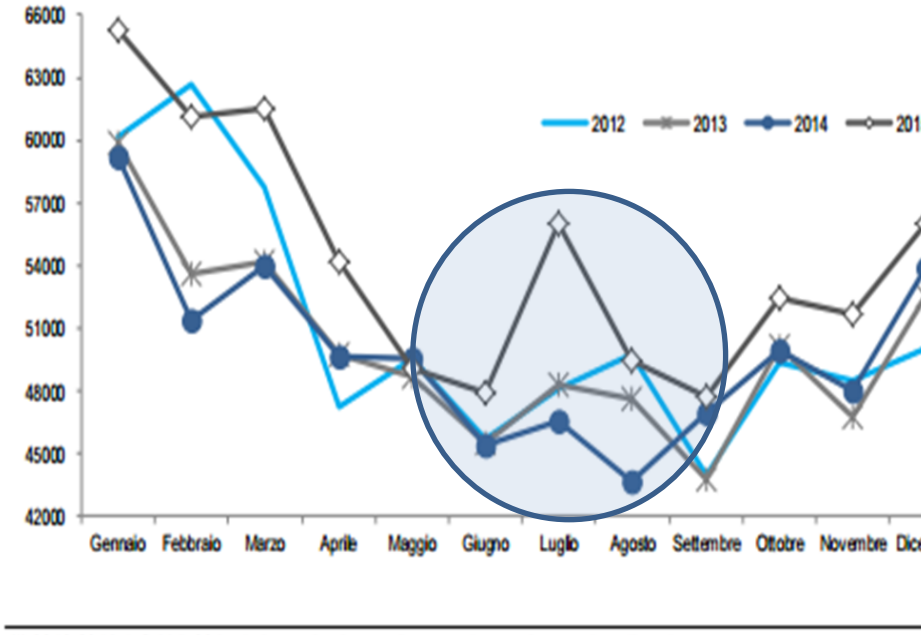


FIGURA 2. MORTI RESIDENTI PER MESE – ITALIA. Anni 2012-2015

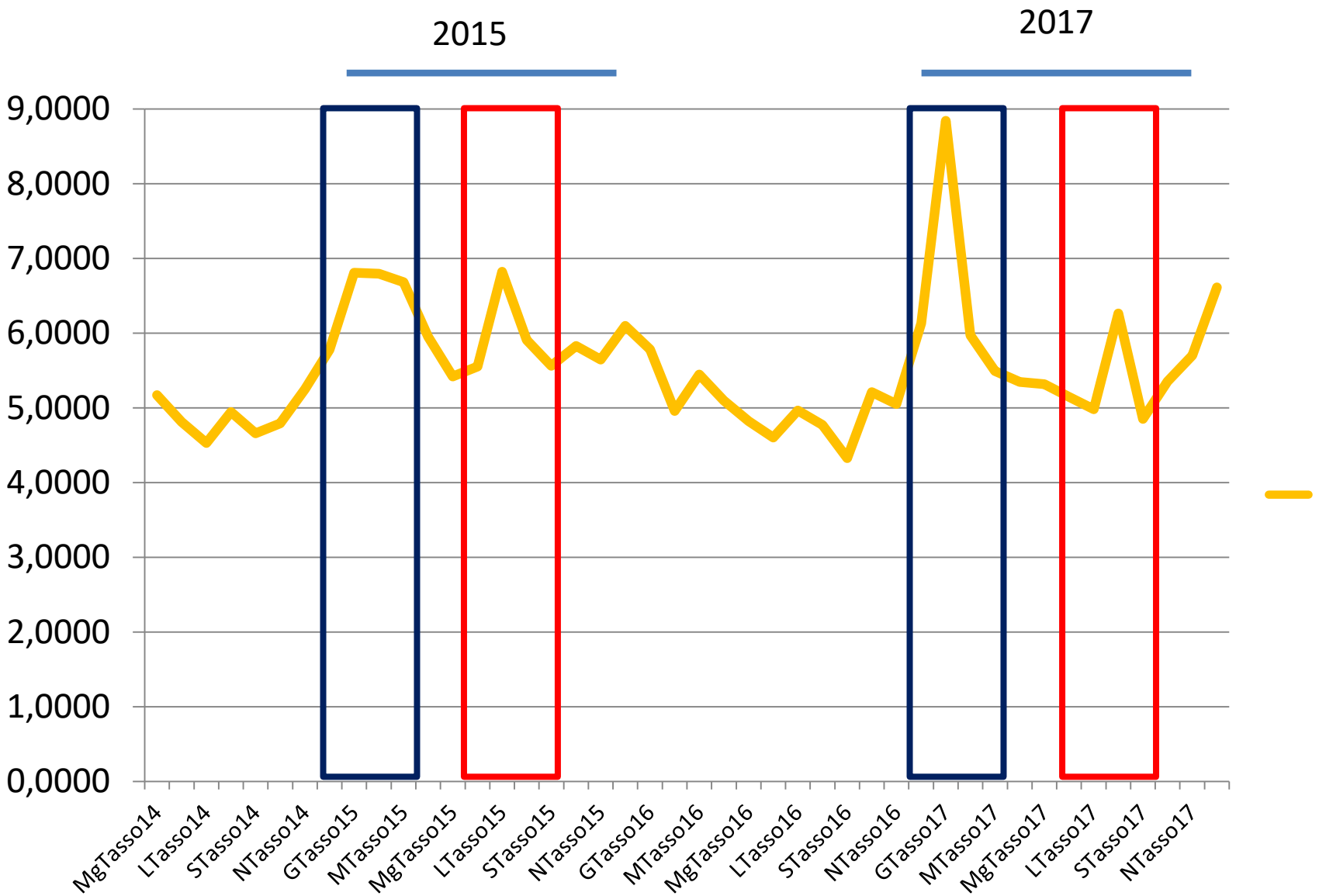


(*) 2012-2014 definitivi, 2015 dati provvisori gennaio-settembre e stime ottobre-dicembre

- The heat wave that hit Europe in the summer of 2003 caused more than 20,000 unexpected deaths
- In Italy, about 7,000 unexpected deaths were recorded, of which 92% were elderly living alone.
- In 2015 a similar phenomenon was observed despite attempts at prevention

Over-75 years old citizens' mortality (‰) in Rome by month (mid 2014-2017)

Data source: Statistical Office of the Municipality of Rome



Methods

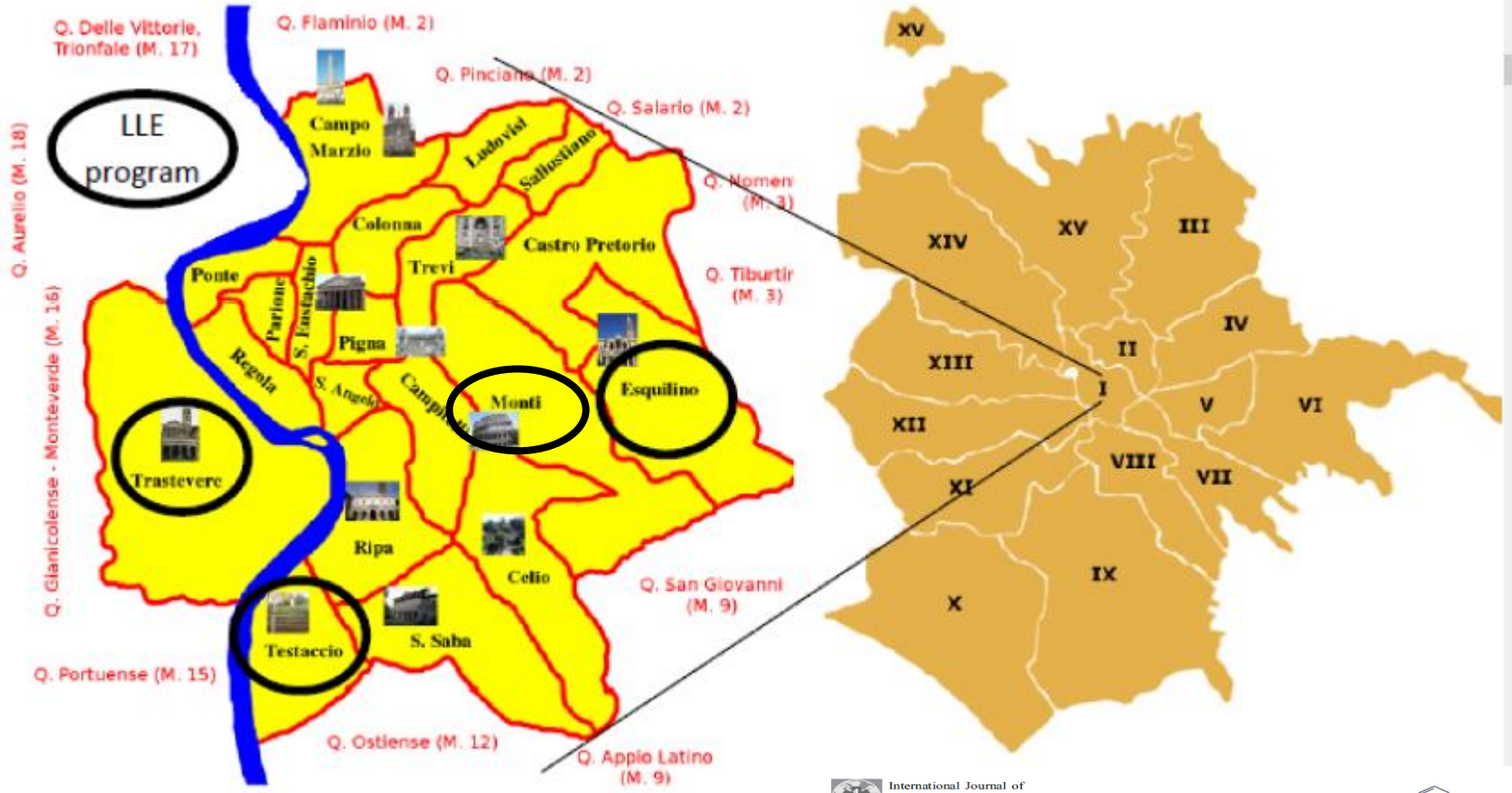
- Study design: **quasi-experimental retroprospective cohort study**
  - Intervention group: over-75 years old citizens living in urban areas where the a Community-based Active Monitoring Program (CAMP) **is operative**
  - Control Groups: over-75 years old citizens living in urban areas where CAMP is **NOT operative**

- **Data Sources**
  - Standard mortality data flow provided by the municipality of Rome
  - CAMP data base

- **Outcomes**
  - Mortality from 1st June to 30th September 2017

- **Statistic analysis**
  - Parametric and non –parametric test to assess the differences between quantitative variables. Chi-Square test to assess qualitative variables. univariate and multivariate analysis to assess statistic inferences

Rome 1° administrative districts: the Urban Areas where the program is operative



International Journal of Environmental Research and Public Health

MDPI

Article

Social Interventions to Prevent Heat-Related Mortality in the Older Adult in Rome, Italy: A Quasi-Experimental Study

Giuseppe Liotta [1,*], Maria Chiara Inzerilli [2,3], Leonardo Palombi [1], Olga Madaro [2,4], Stefano Orlando [1], Paola Scarcella [1], Daniela Betti [2] and Maria Cristina Marazzi [5]

COMUNITÀ DI SANT'EGIDIO
Viva gli Anziani!

The “Long Live the Elderly!” program

A Community-based pro-Active Monitoring Programme (CAMP). covering the **whole year** and “seeking” over 74-year olds in critical moments through:

1. Awareness campaigns
2. Phone calls
3. Home care visits
4. Social contact office

- To Prevent social isolation and its consequences among elderly people over 74 years of age
- To Detect individuals who are frail among this population
- To Establish a support network focused on frail individuals
- To help the elderly face critical events. such as heat waves. colds. falls

Summer mortality rate according to the intervention

GROUP	Population	2017 summer deaths	2017 summer mortality rate	CL 95%
Cases	6906	157	22.7‰	14– 38‰
Control	4174	103	24.7‰	2 – 50‰
			Moses Test <0.001	

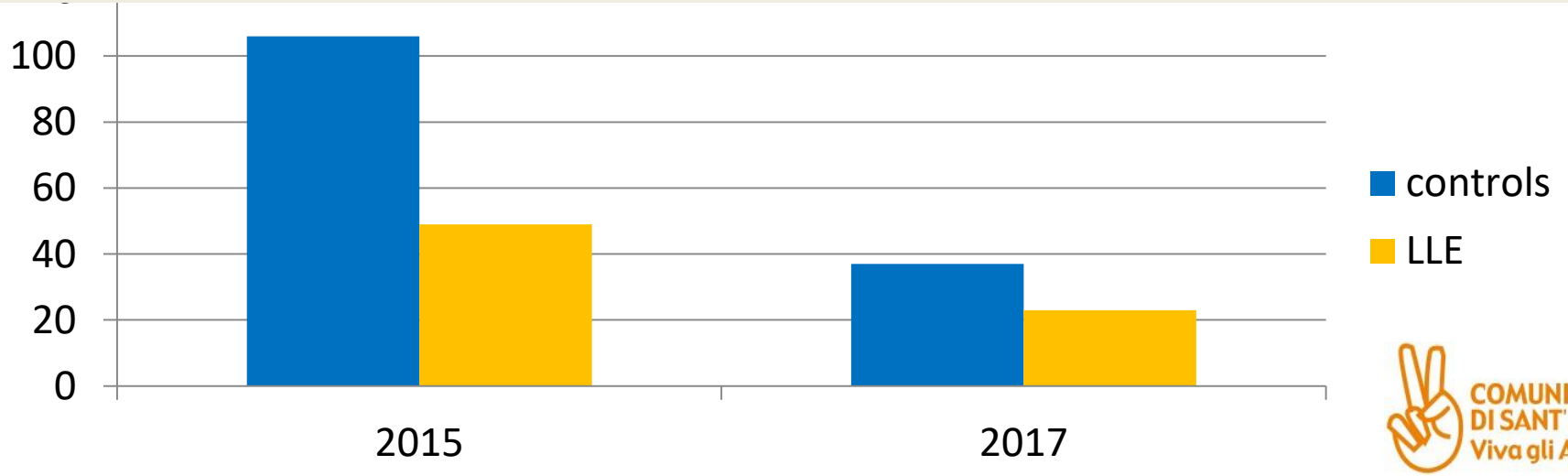
GROUP	Population	2015 summer deaths	2015 summer mortality rate	CL 95%
Cases	6483	167	25.7‰	23-29‰
Control	5724	169	29.6‰	17– 43‰
			Moses Test <0.001	

COMUNITÀ DI SANT'EGIDIO
Viva gli Anziani!

% increase of 2017 summer mortality compared with 2016
(weigthed by summer 2017 population per urban area)

GROUP	Population	% increase of summer mortality	CL 95%
Cases	6906	23.8%	11.0 – 36.6%
Control	4174	37.6%	18.4 – 56.8%
			Moses Test <0.001

2016-2017 summer increase of mortality
(comparison with 2014-2015 summer increase of mortality)



COMUNITÀ DI SANT'EGIDIO
Viva gli Anziani!

COMUNITÀ DI SANT'EGIDIO
Viva gli Anziani!

Impact of CAMP on 2017 summer mortality, adjusted for the share of over-90 population, and pre-summer mortality

Multivariable Linear Regression weigthed for the 2017 population per urban areas

	Non standardized Coefficient		Standardized coefficient	t	Sign.	95%% CL	
	B	Std Error	Beta			Lower	Upper
(Costante)	-37.836	1.363		-27.753	0.000	-40.508	-35.163
over-90 population (%)	-47.889	0.732	-0.558	-65.413	0.000	-49.324	-46.454
Intervention	-45.377	0.460	-0.945	-98.610	0.000	-46.279	-44.475
Pre summer mortality (Oct 2016-May 2017)	0.833	0.009	0.979	95.030	0.000	0.815	0.850

One-year hospital admissions: rates and determinants

Ann Ig 2018; 30: 378-386 doi:10.7416/ai.2018.2237

Impact of social care on Hospital Admissions in a sample of community-dwelling older adults: results of a quasi-experimental study

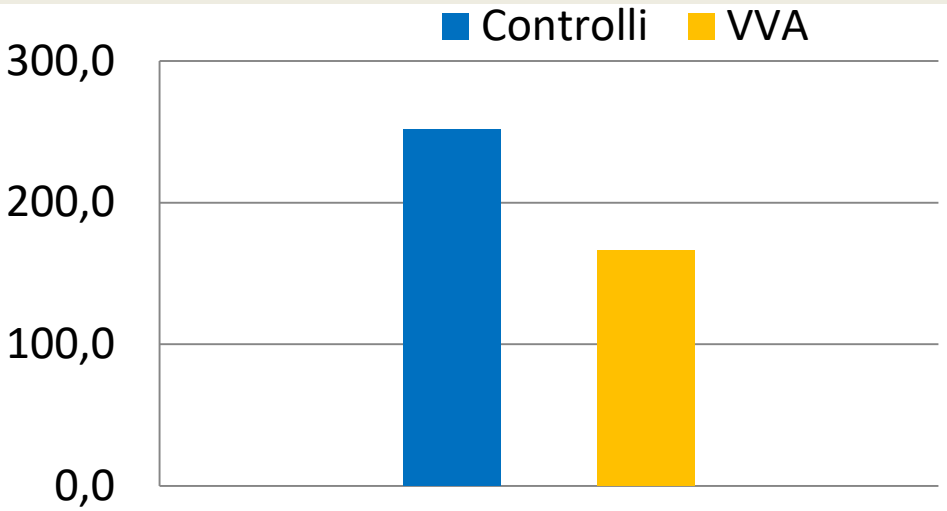
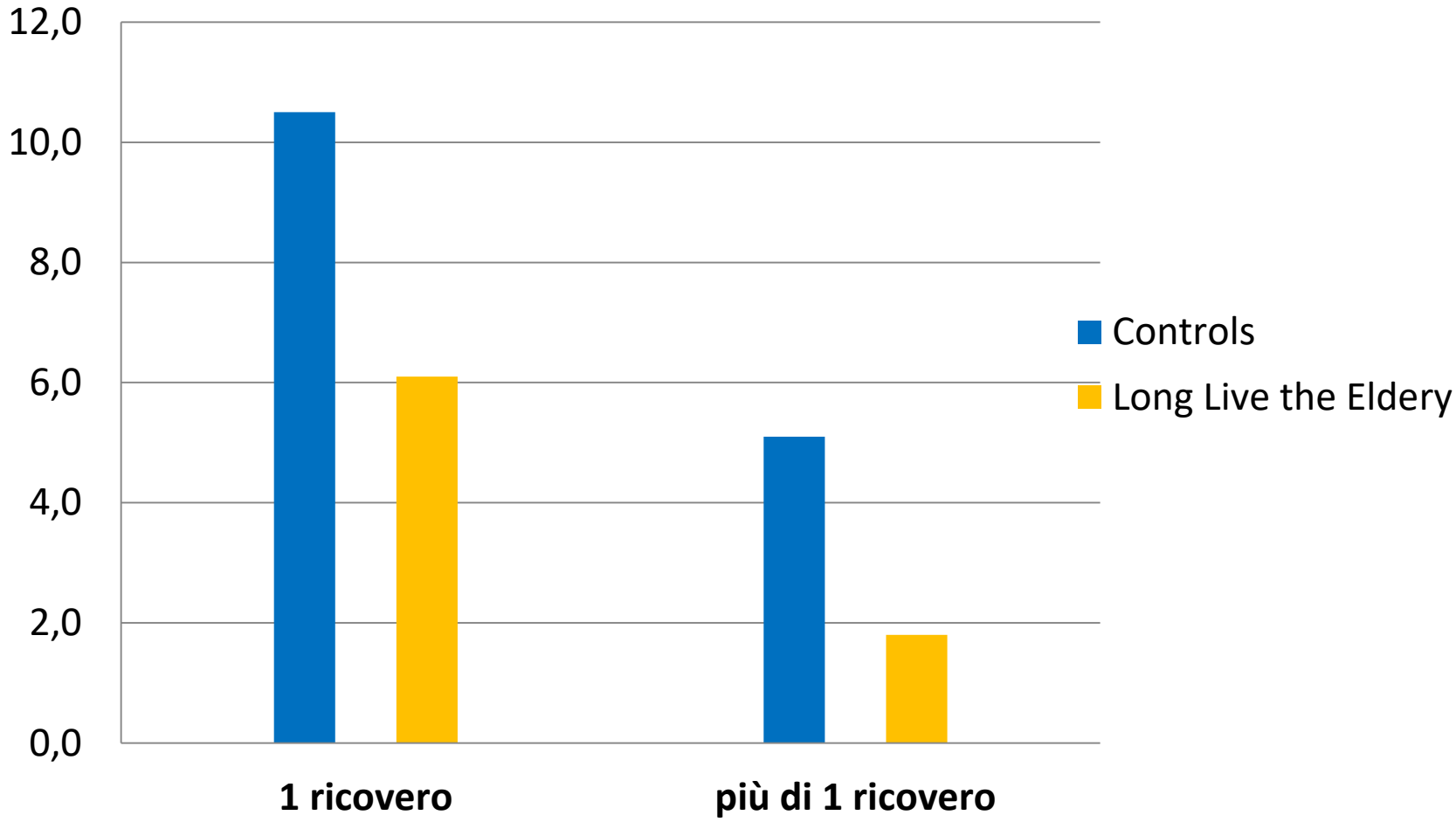


Table 5 - Multivariate Linear Regression. Dependent variable: hospital admission rate per 1000 observation/year

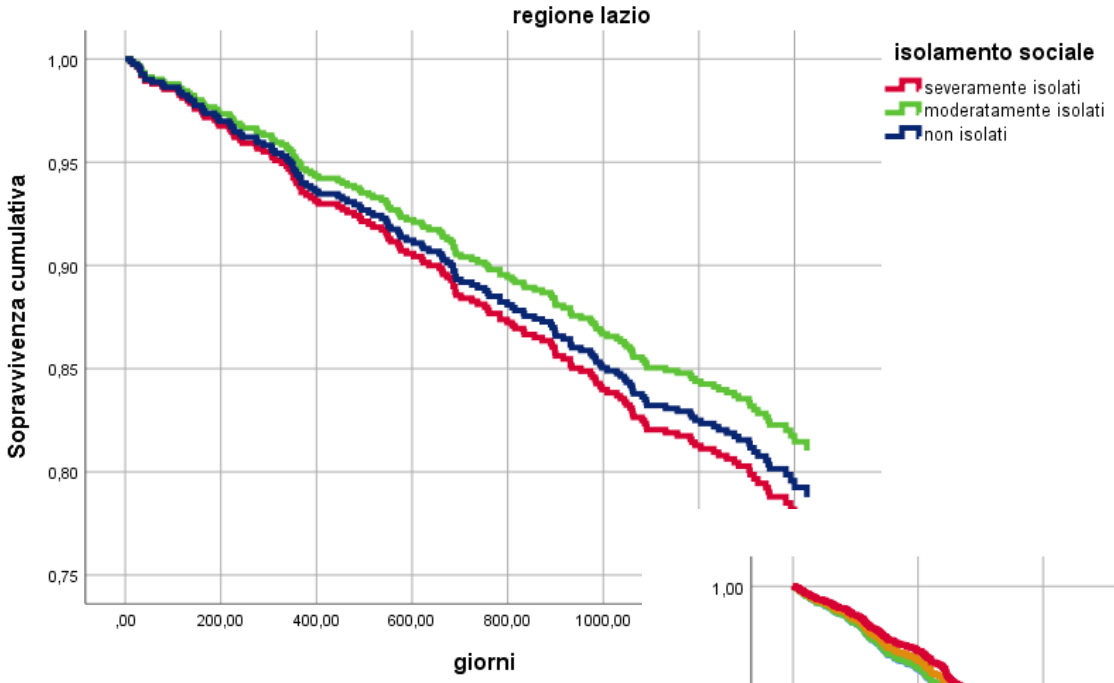
	Non Standardized Coefficent		Standardized Coefficent	Sign.	95.0% CL	
	B	Std Error.	Beta		Lower	Upper
Constant	-1.082	0.436		0.013	-1.938	-0.226
Intervention[a]	-0.108	0.043	-0.131	0.013	-0.192	-0.023
Age[b]	0.018	0.006	0.171	0.002	0.007	0.030
Gender[c]	0.008	0.038	0.011	0.830	-0.066	0.082
SFGE Score[b]	0.008	0.073	0.005	0.916	-0.136	0.152

COMUNITÀ DI SANT'EGIDIO
Viva gli Anziani!

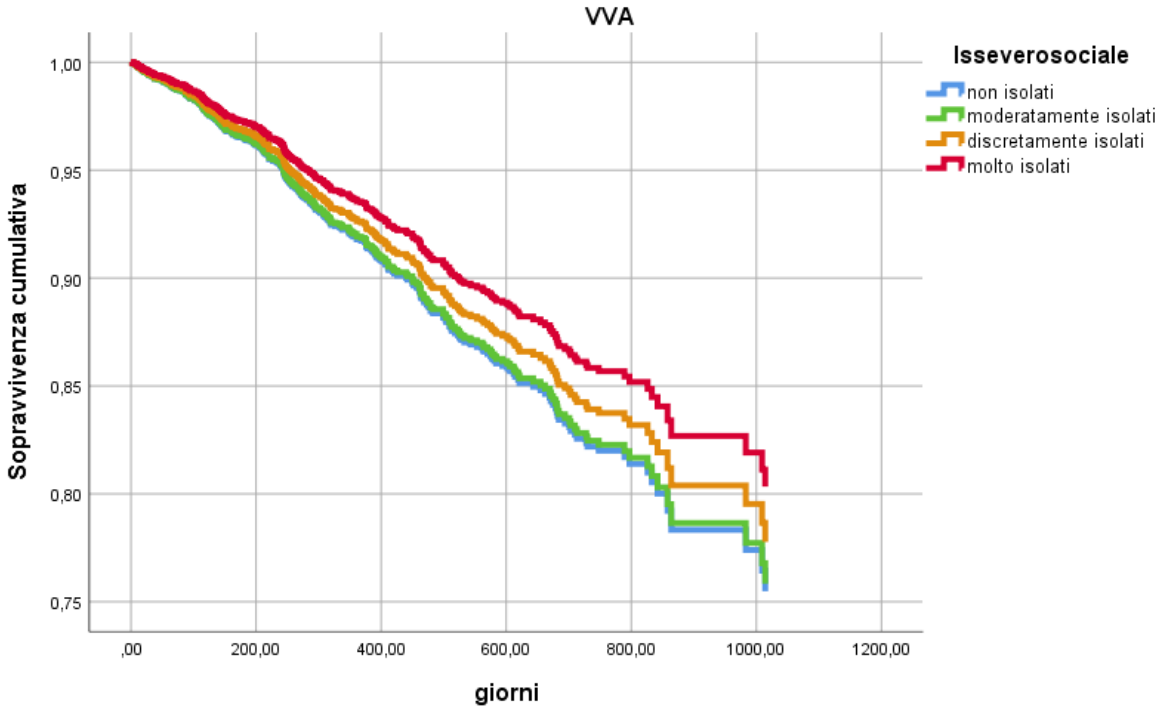
One-year hospital admissions



Survival according to social isolation adjusted for age, gender, comorbidity and disability - 2018



COMUNITÀ DI SANT'EGIDIO
Viva gli Anziani!



Conclusion

- A social intervention program seems to be able to limit unexpected mortality of older adults living in urban areas during an heat wave
- The result is consistent across two heat waves in different years and across different populations
- It is likely that social isolation plays a major role in mediating the impact of extreme climate events on a population with high prevalence of frailty
- Considering the increase occurrences of extreme climate events in our country, an increased attention to the frail population, which suffers more than others from this events, should be implemented
- Hospital admission rates seems to be positively impactedby the same program
- **Bio-Psycho-Social assessment of frailty seems to be much more effective to manage frailty than Psycho-Physical one**