

# Multiple deprivation and its impacts on the physical activity of Portuguese children: evidence of a gender gap over and above the overall negative impact

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## Introduction

- Multiple deprivation impacts the neighbourhood availability of healthy living opportunities and several studies concluded that poor areas are characterized by a scarcity of physical activity (PA) facilities.
- Children living in deprived areas face a daily double burden: they tend to be poorer and are subjected to a disadvantageous environment.
- This double disadvantage has been referred as "deprivation amplification" and its consequences for health are supposedly harmful.
- There are some indications that deprivation amplification models are selective, differently affecting different individuals

## Aim of the study

- This study investigates whether the availability of PA facilities varies according area deprivation and how it impacts on children's sports activity (SA), looking for possible variations according to gender



### Funding:

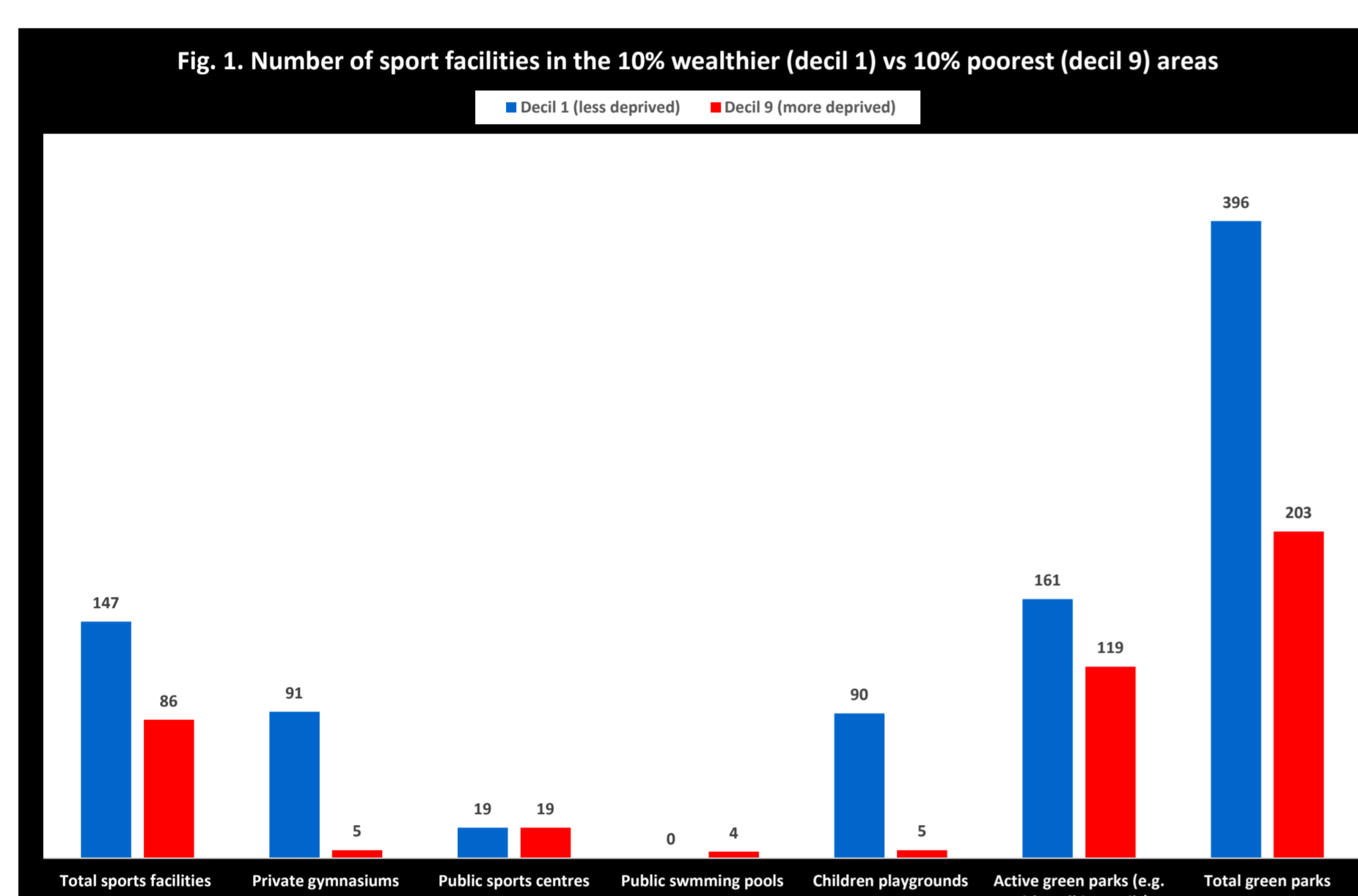
Research relating to this abstract was funded by FCT (PTDC/DTP-SAP/1520/2014)

## Data and methods

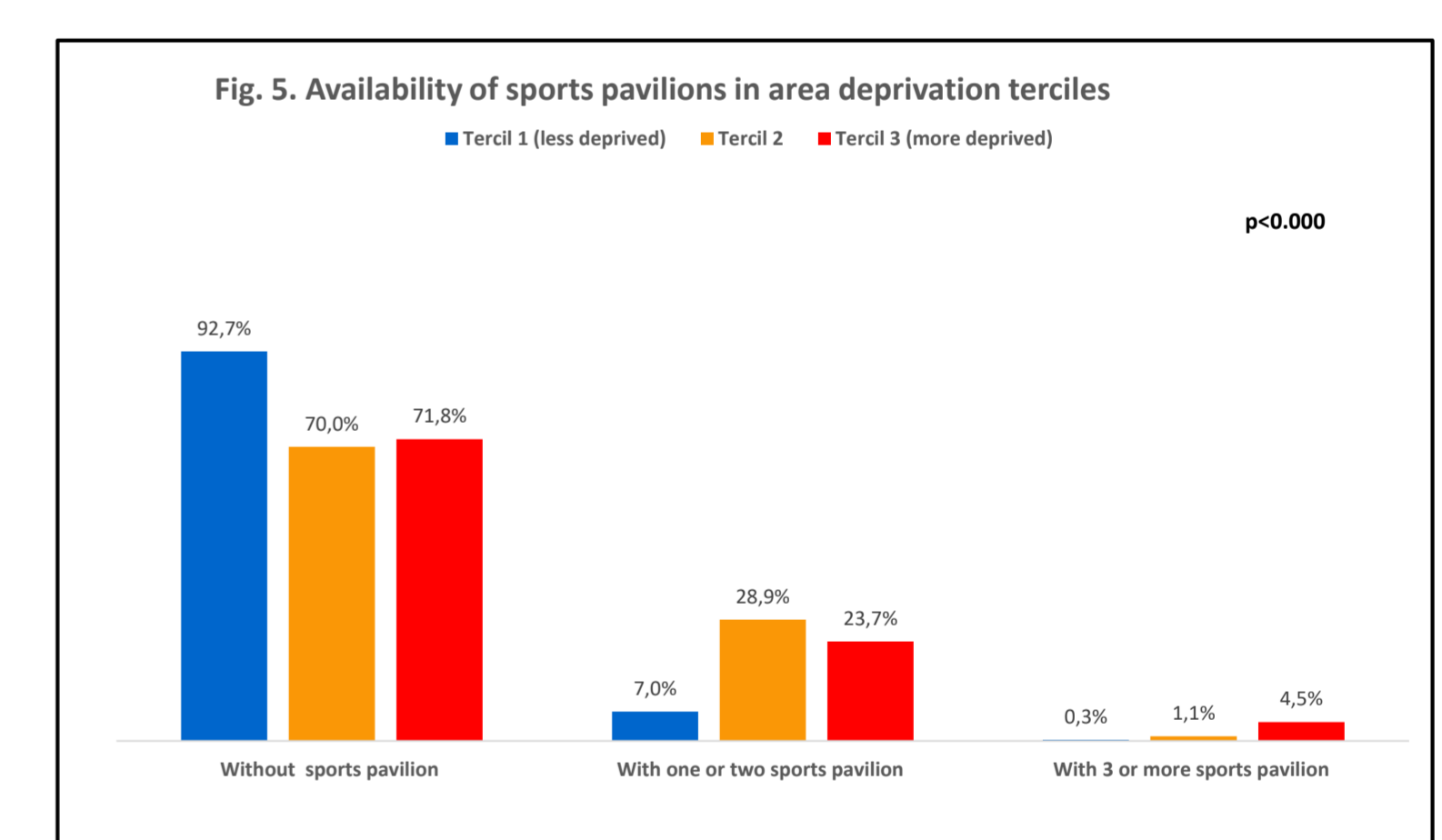
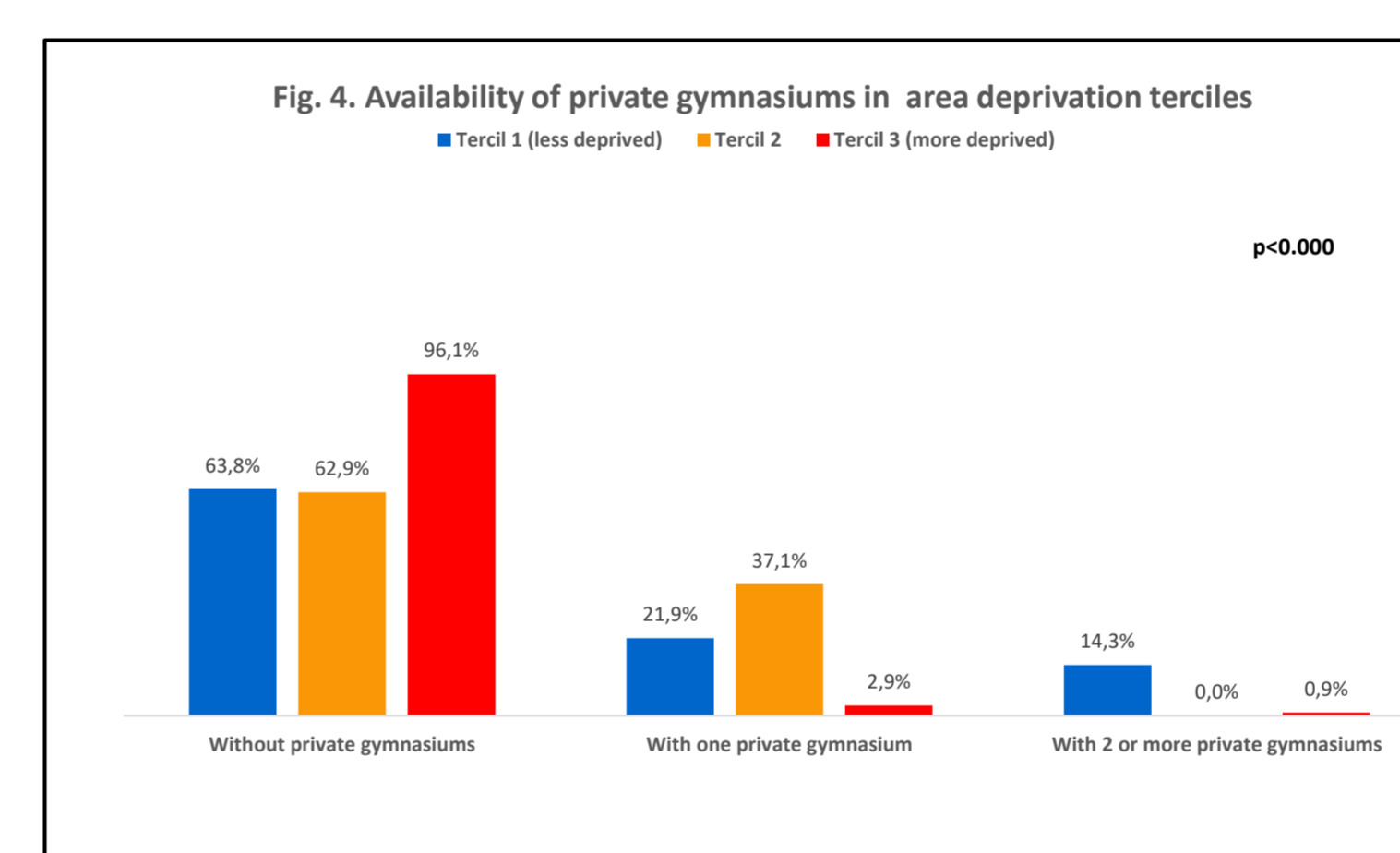
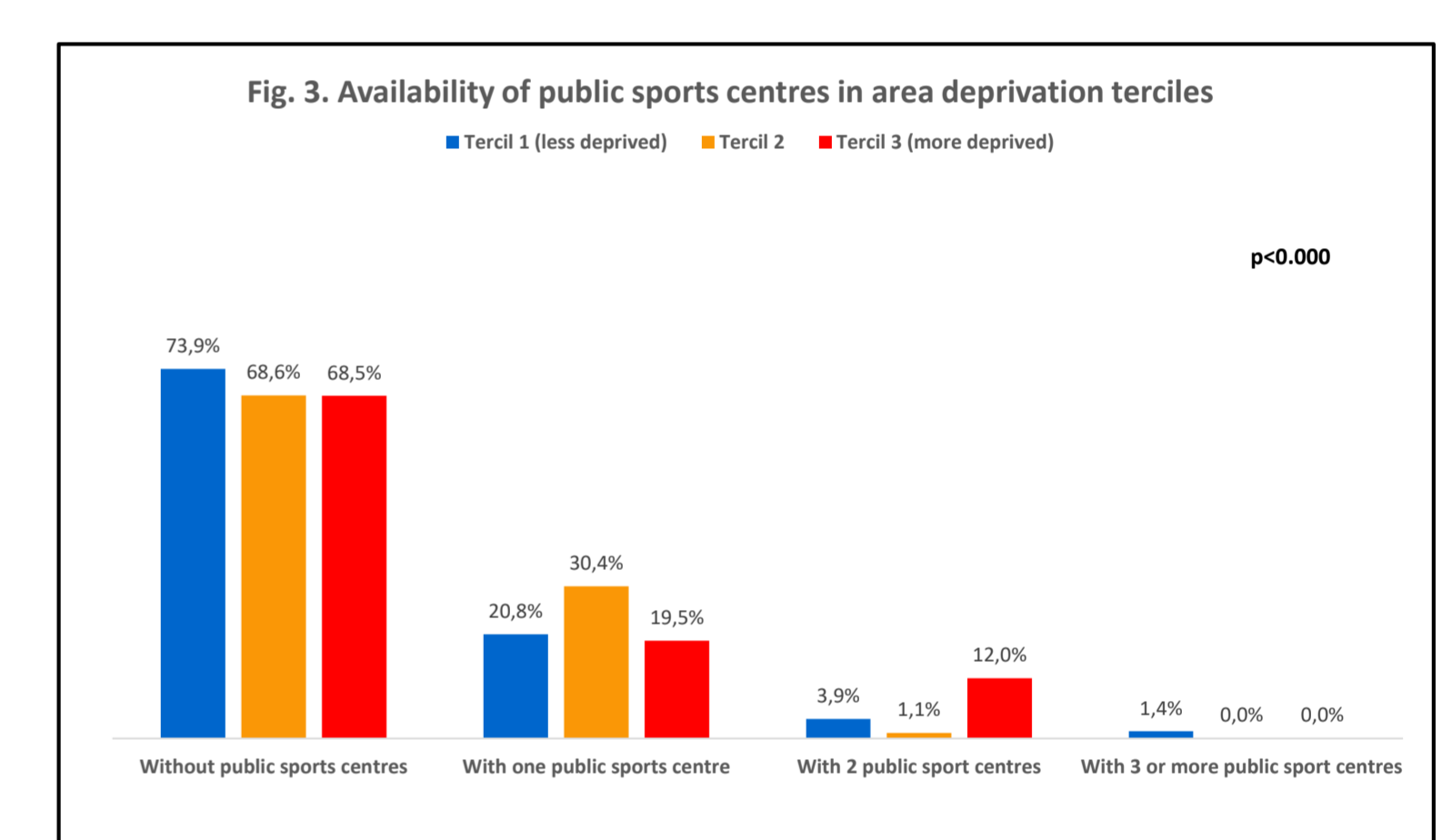
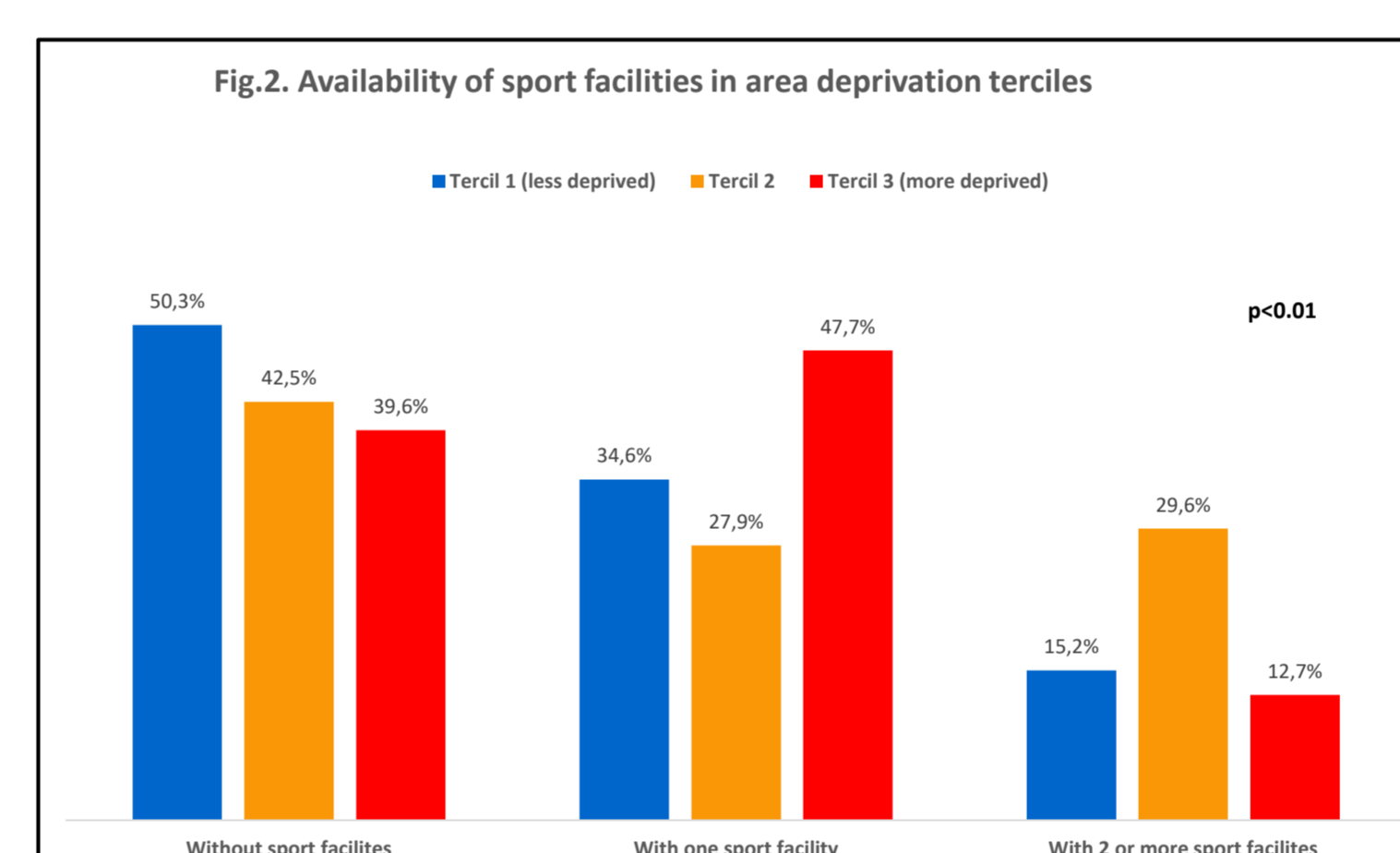
- 944 children aged 3-10 yrs (50,1% males) of private/public schools of Lisbon (March-July 2009) were geocoded at the address level.
- Number of PA facilities within a 0,5 km buffer around each geocoded participants' address were collected and mapped.
- A neighbourhood deprivation index was created through standardizing of three 2011 census variables – unemployed; unskilled employed; overcrowding – and assigned to each children address.
- Availability of PA facilities and levels of children's SA practice/not practice; weekly frequency) by terciles of area deprivation were compared and tested using qui-squared test.
- Statistical analysis was performed with SPSS 21.

## Results

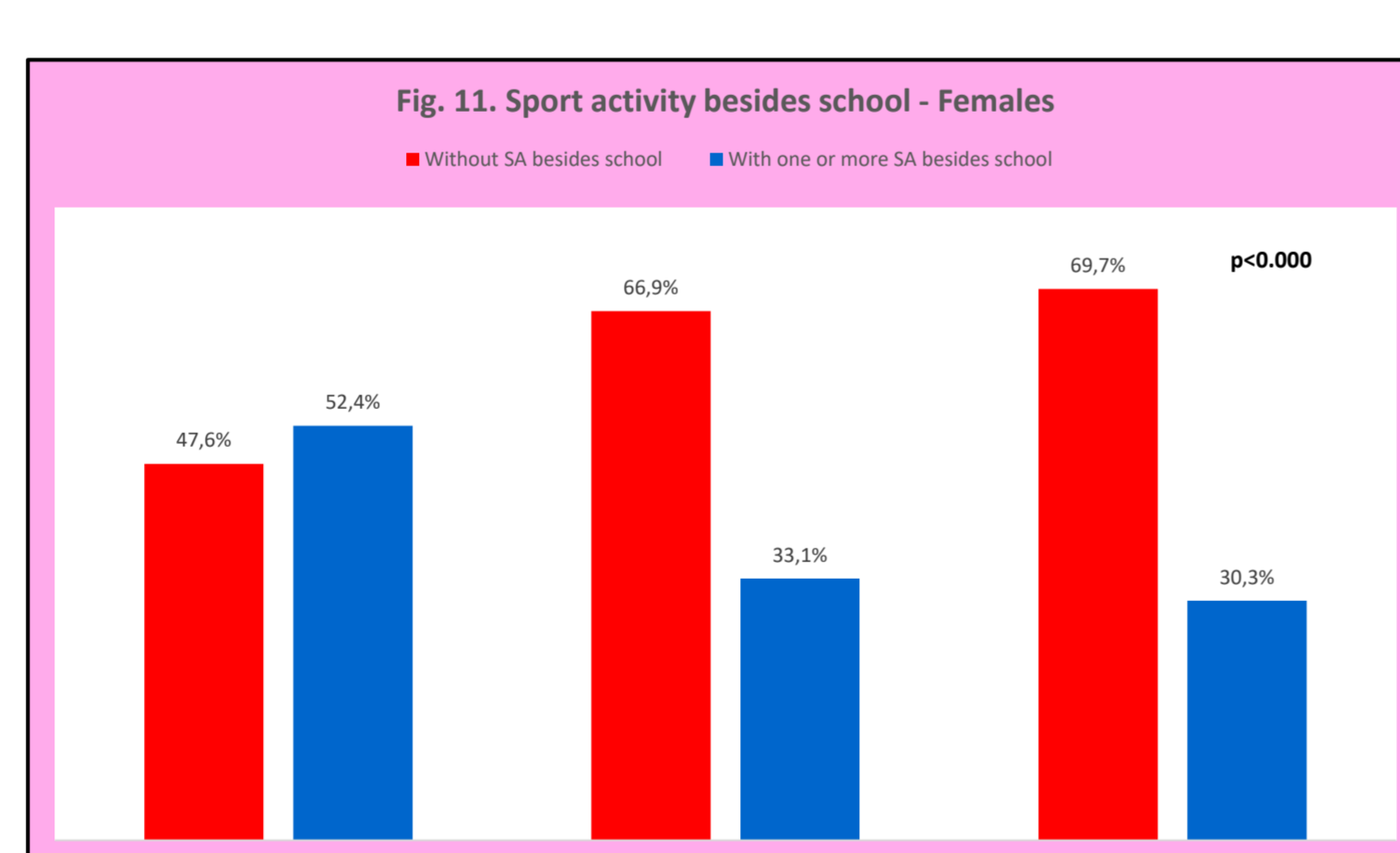
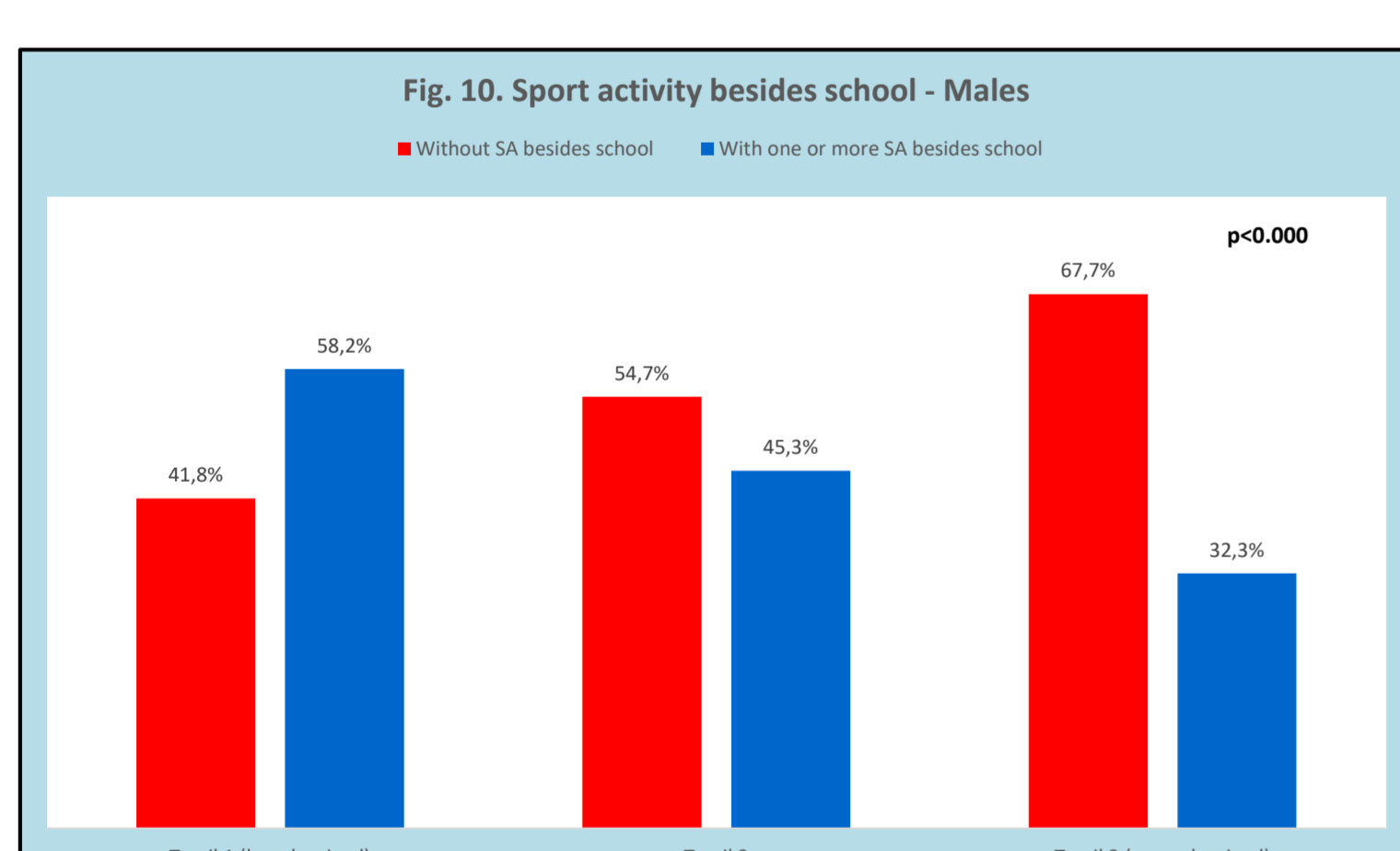
Figure 1 show numbers of selected sport facilities for children living in SE contrasting areas (the 10% richest areas, decil 1/ the 10% poorest areas, decil 9).



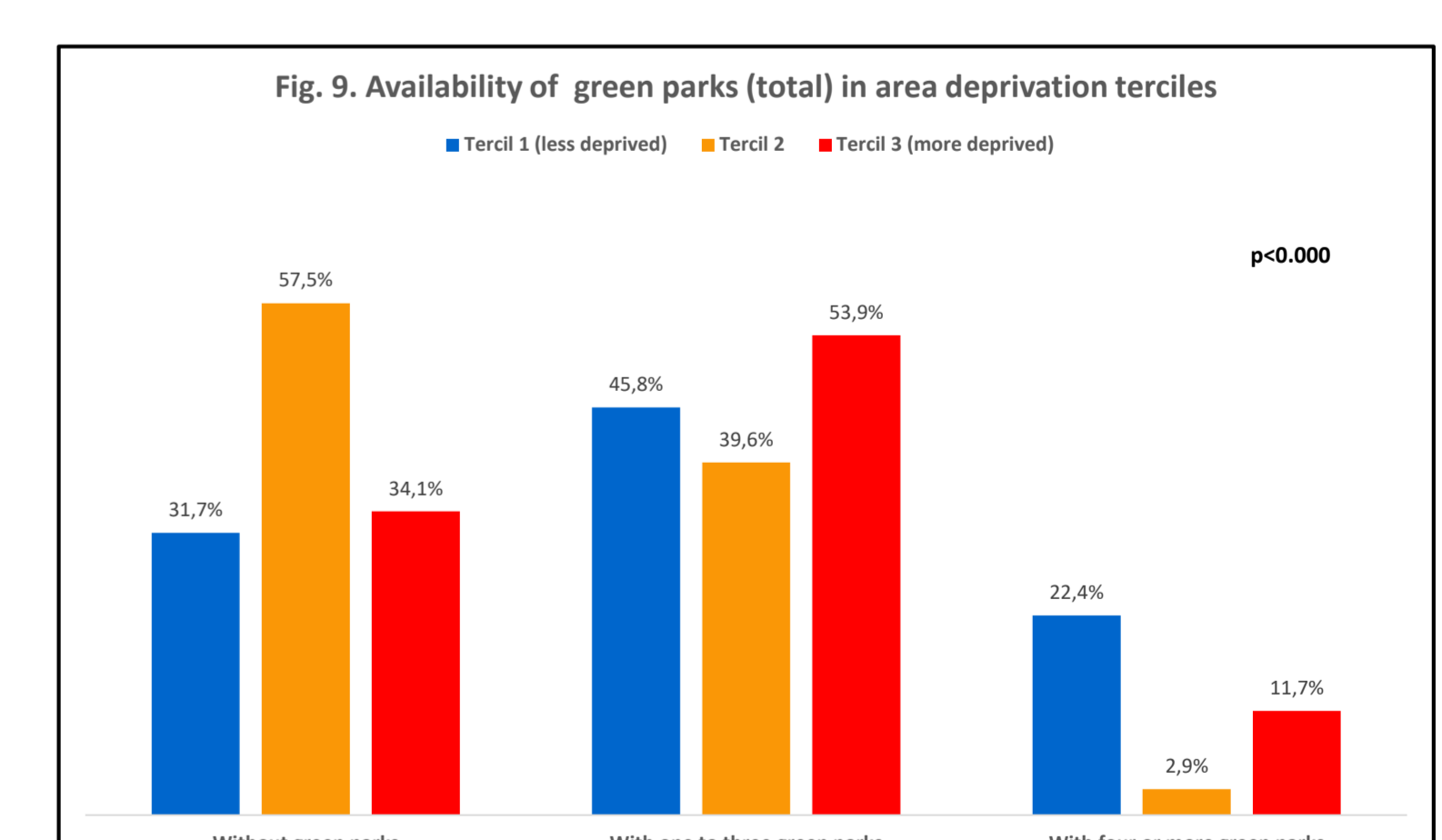
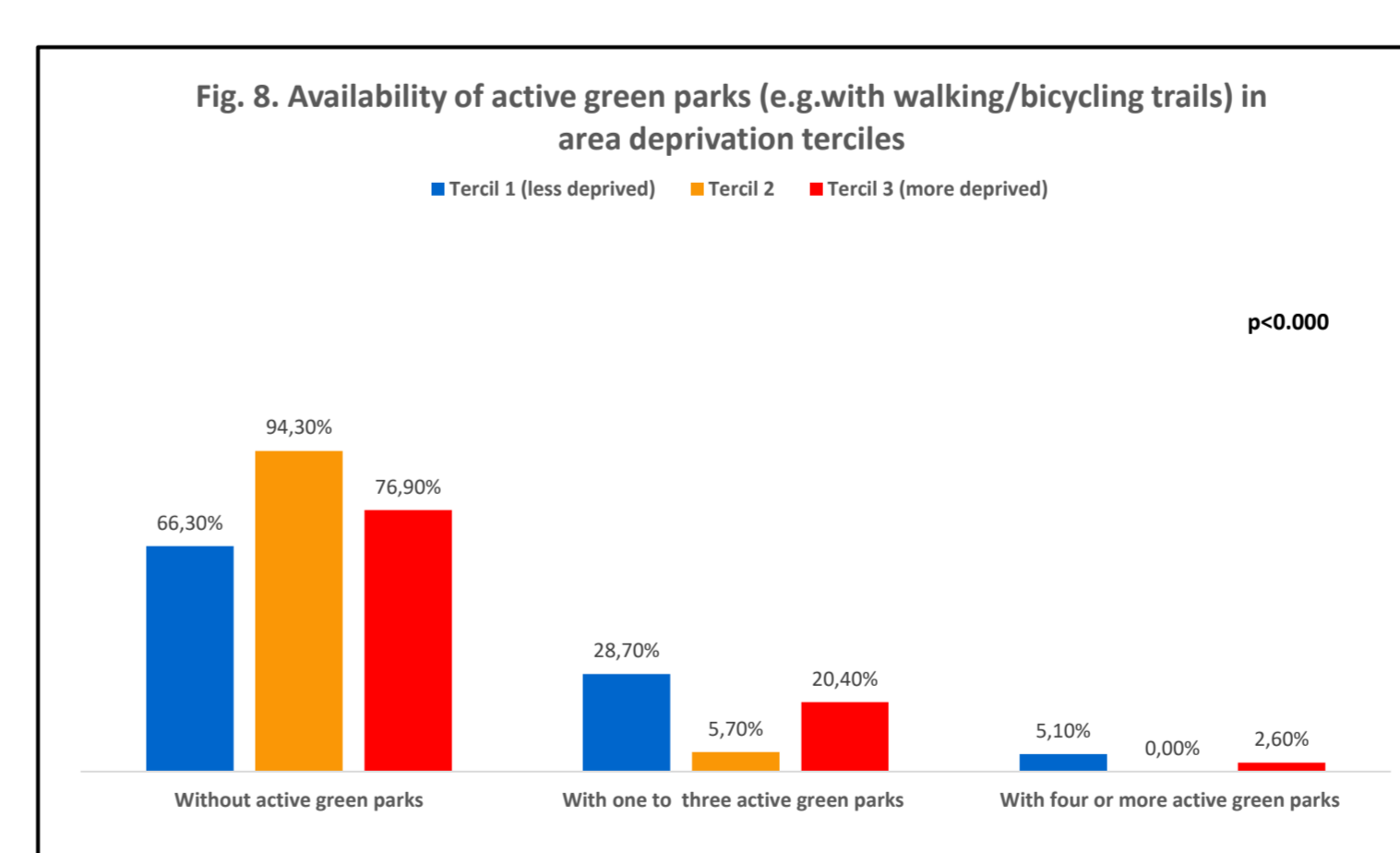
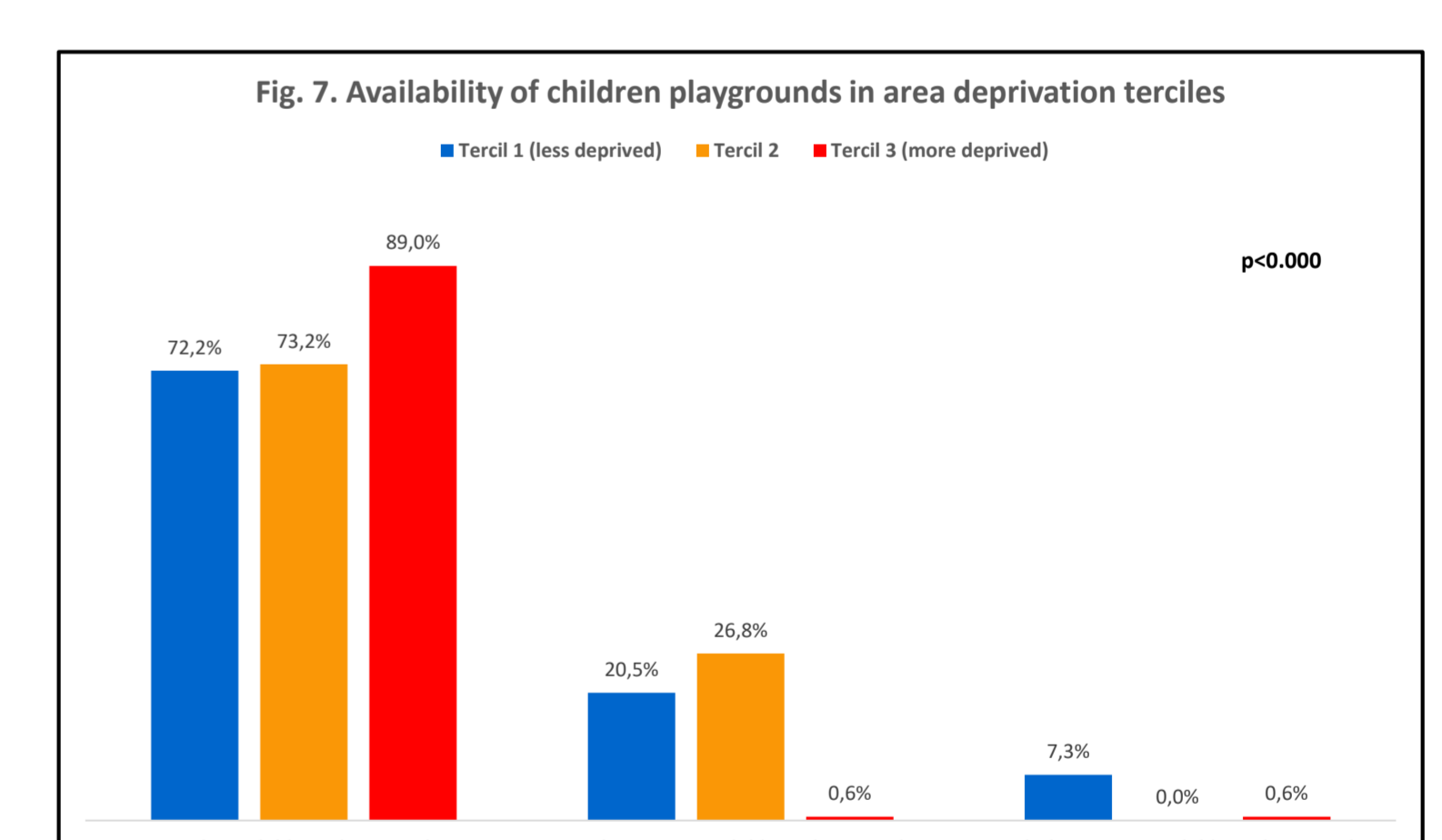
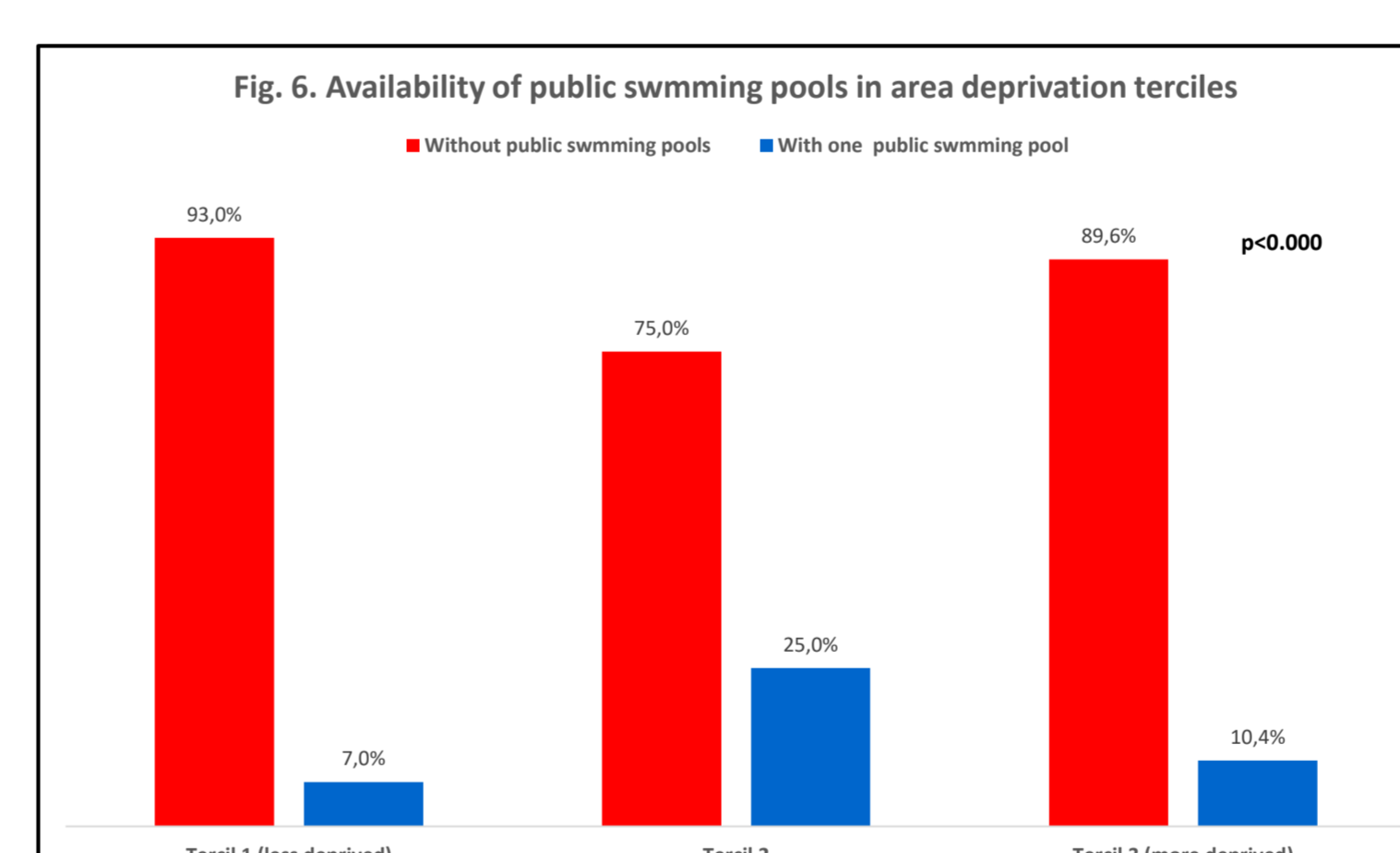
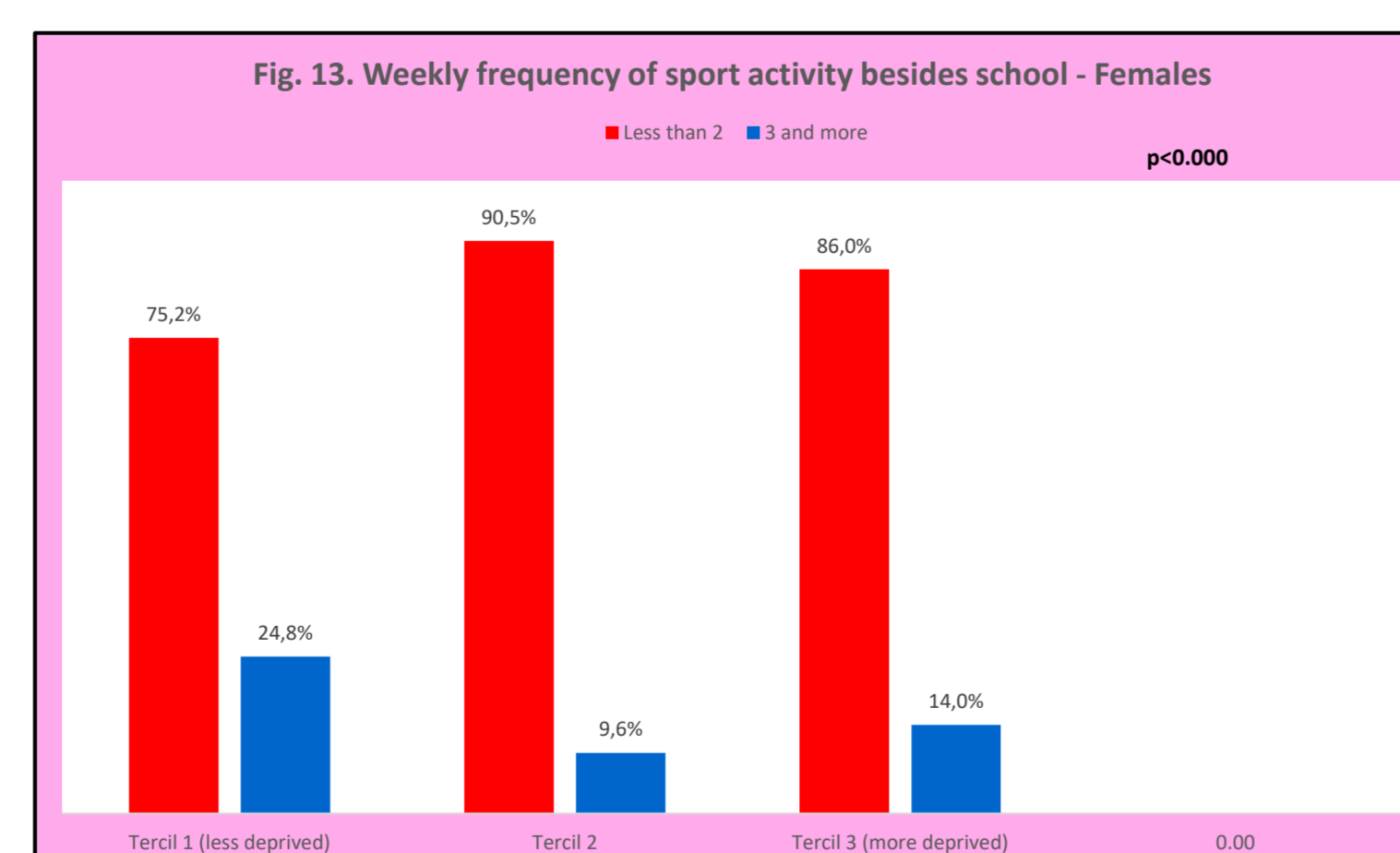
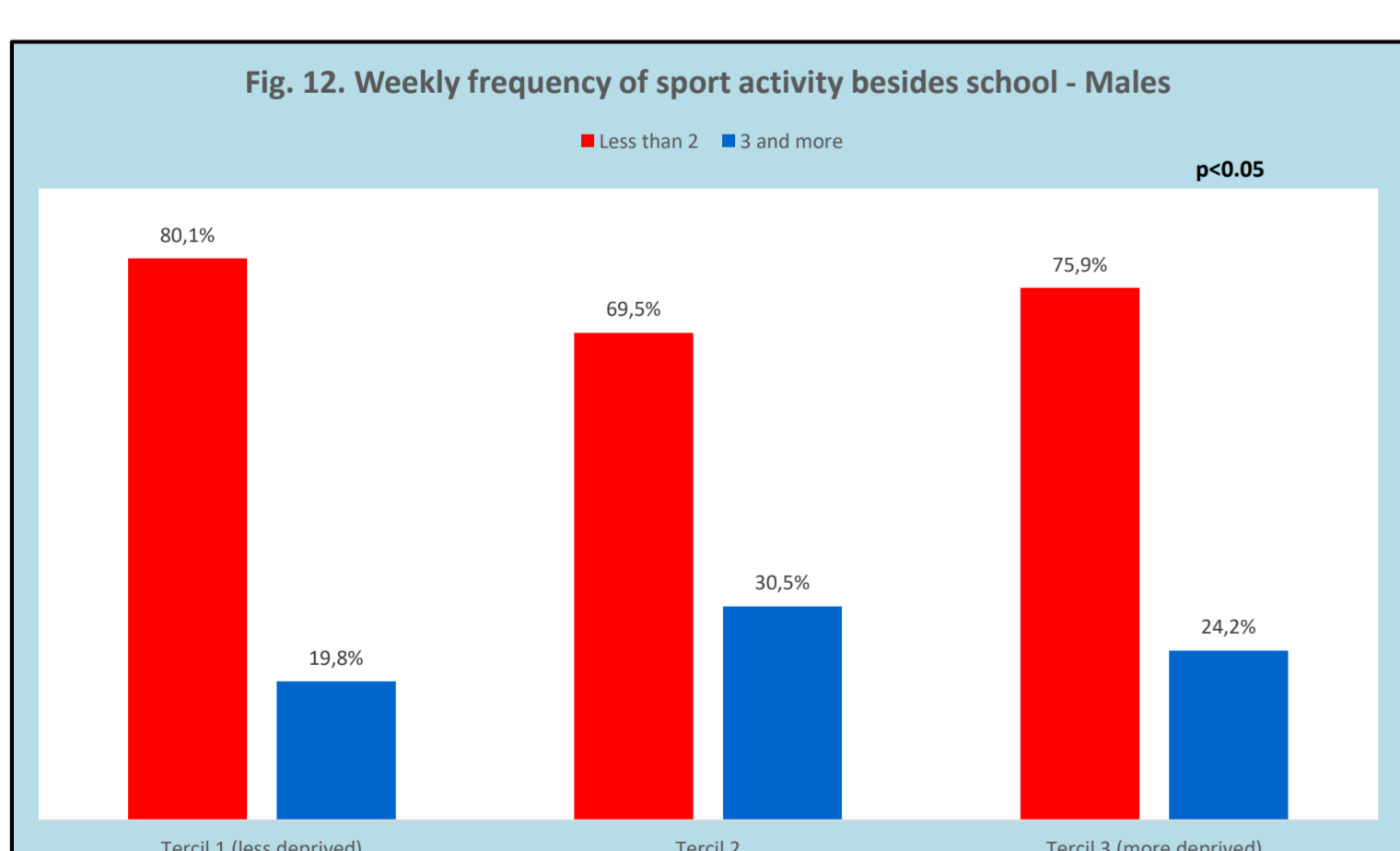
Figures 2 to 9 show the availability of those selected sport facilities for children living in different terciles of area deprivation.



Figures 10 and 11 show the practice of SA besides schools by gender for children living in different terciles of area deprivation



Figures 12 and 13 show the weekly frequency of SA besides school by gender for children living in different terciles of area deprivation



## Conclusions

- Scarcity of PA facilities is worse in deprived areas and may constrain the opportunities for an active living;
- Girls living in poor areas showed both less sports practice and weekly frequency; boys living in poor areas also showed less sports practice, but not less weekly frequency. On the contrary, boys living in poor/middle areas showed the highest SA weekly frequency.
- This difference may be due to differences in the preference of sports and the provision of facilities needed to practice and also to parental attitudes, which probably varies according to children's gender ;
- Increasing opportunities for healthy food choices and physical activity in the most deprived areas is not just a matter of environmental justice but also an opportunity to shape our places in a healthier way. Furthermore, it is a possible way to improve the residents' health.

## References

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