

# Area deprivation, sport facilities, children's sport activity – analysing harmful interactions in Lisbon, Portugal

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## Introduction

- Chronic diseases has been linked to physical inactivity and inappropriate behaviours.
- Research on health-related behaviours has expanded to analyse environmental influences that create opportunities or constrains to people daily choices.
- Physical activity (PA) landscapes vary with socioeconomic (SE) levels and SE deprivation has emerged as a factor of neighbourhood vulnerability.
- Physical activity and health can be improved by healthy neighbourhoods characterized by high availability of sport and recreation facilities.

## Aim of the study

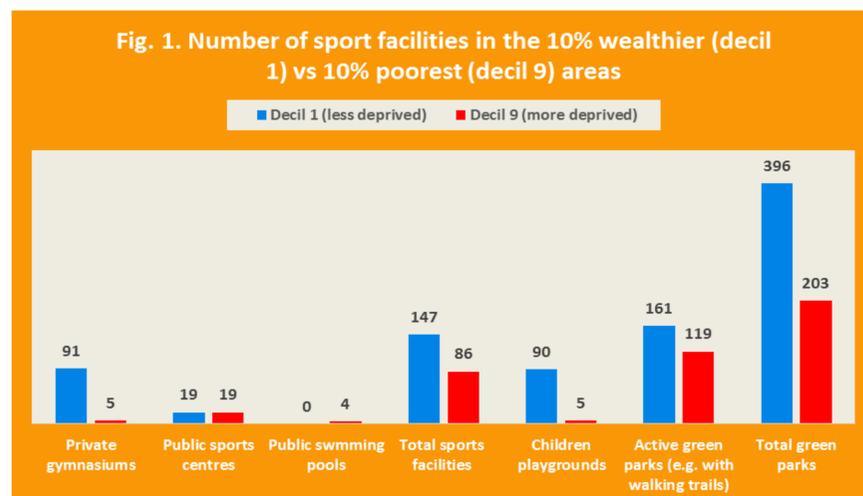
- This study investigated whether the availability and accessibility of PA facilities vary to children living in SE contrasting areas of Lisbon and how it impacts on children's sports activity

## Data and methods

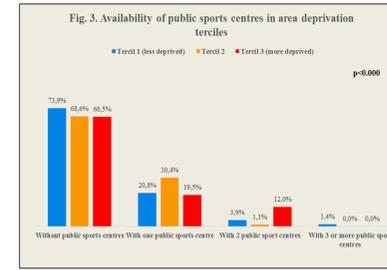
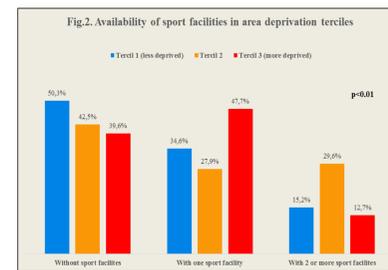
- Data on 944 children aged 3-10 years (50,1% males) studying on private and public schools of Lisbon were collected between March and July 2009.
- Children were geocoded at the address level using a Geographic Information System (GIS).
- Number of PA facilities (e.g. parks, green areas, swimming pools, sport centres, playgrounds) within a 0,5 km buffer zone 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.
- Data on children's SA was obtained through a questionnaire filled by their parents (practice/not practice and weekly frequency)
- Availability of PA facilities and levels of children's sports activity in terciles of area deprivation were compared and tested using qui-squared test.
- Statistical analysis was performed with SPSS 21.

## Results

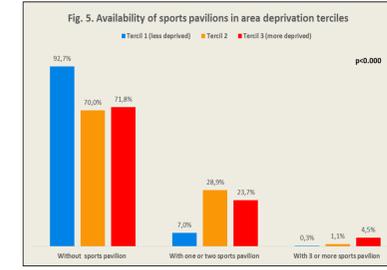
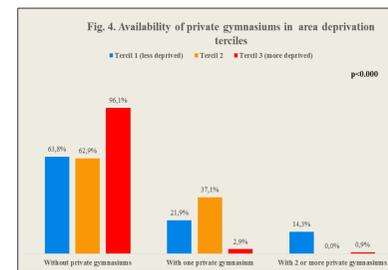
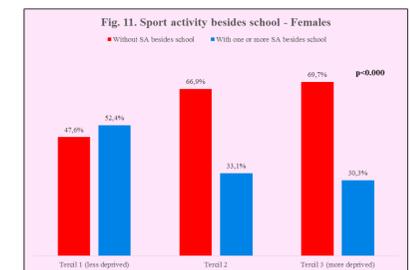
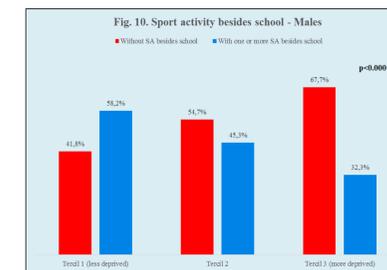
- Figure 1 shows the total number of selected sport facilities for children living in SE contrasting areas (the 10% richest areas, decil 1; and the 10% poorest areas, decil 9).



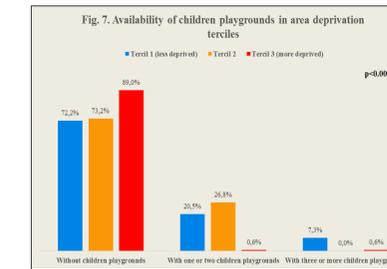
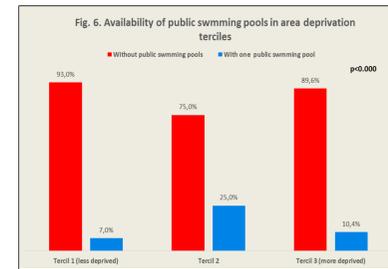
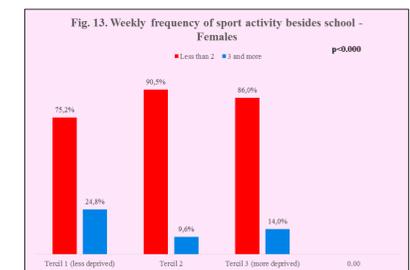
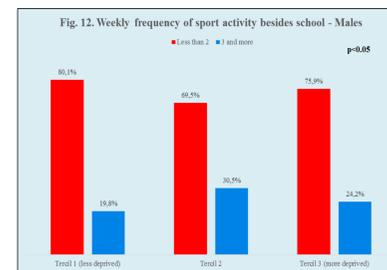
Figures 2 to 9 show the availability of those selected sport facilities for children living in different terciles of area deprivation



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



Figures 12 and 13 show the weekly frequency on sport activity besides school



## 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.

## Implications for Practice and Policy

- Interventions that address the local environment, making it more adequate to children's needs, could be a strategy for increasing PA levels;
- Planning policies should tackling gender inequities considering that girls are less active, more sensitive to environmental availability of PA facilities and are probably facing a process of environmental discrimination.

## References

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