CREATING CITY
AMADORA HEALTHY AND ACTIVE

Paula Santana, Rita Santos, Cláudia Costa & Adriana Loureiro
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**Planeamento Urbano Sustentável na Amadora**

Paula Santana, Rita Santos, Cláudia Costa & Adriana Loureiro
Background
• Characteristics of urban space, in its many dimensions
• Practices of Urban Planning

Affect positively or negatively the well-being and health of people

(Barton & Tsourou; 2000)
Health Results
• Individual Factors
  • Age
  • Gender
  • Nationality
  • Education
  • Occupation
  • Physical Activity
  • Body Mass Index
  • ...

Health Results
• Individual Factors
  • Age
  • Gender
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  • ...

• Context Factors
  • Accessibility and use of green spaces and public and private facilities
  • Perception of insecurity
  • Sense of belonging to community
  • Neighborhood relation
  • Life and work conditions
  • ...

Health Results
**Background**

**Urban Planning**

- **Context Factors**
  - Accessibility and use of green spaces and public and private facilities
  - Perception of insecurity
  - Sense of belonging to community
  - Neighborhood relation
  - Life and work conditions
  - ...

- **Individual Factors**
  - Age
  - Gender
  - Nationality
  - Education
  - Occupation
  - Physical Activity
  - Body Mass Index
  - ...

- **Health Results**

**Creating City | Amadora Healthy and Active**

Paula Santana, Rita Santos, Cláudia Costa & Adriana Loureiro
Aim of Urban Planning:
• Improving the quality of life
• Increasing the levels of wellbeing of the population
Aim of Urban Planning:
- Improving the quality of life
- Increasing the levels of wellbeing of the population

Enhancing:
- The role of community
- The effects of neighborhood proximity
Aim of Urban Planning:

- Improving the quality of life
- Increasing the levels of wellbeing of the population

Enhancing:

- The role of community
- The effects of neighborhood proximity

Objectives:

- Organization based on real need and current needs of population
- Adequacy of facilities to the potential user population
- Cost/benefit practices of healthy urban planning
Aim of Urban Planning:
- Improving the quality of life
- Increasing the levels of wellbeing of the population

Enhancing:
- The role of community
- The effects of neighborhood proximity

Objectives:
- Organization based on real need and current needs of population
- Adequacy of facilities to the potential user population
- Cost/benefit practices of healthy urban planning

This requires:
- Assessing the impacts of actions, programs or policies on health
- Identifying the characteristics of context that influence human life
Health Impact Assessment (HIA):

combination of procedures, methods and instruments which systematically assess the potential effects, often unintentional, of policies, plans, programs or projects on the population’s health or on health equity.

World Health Organization
Health Impact Assessment (HIA):

- Essential tool for decision support
  - Analyzes the connections between random events
    - Anticipates the health consequences of different proposals through logical or causal models that link each policy option to a result in health
  - It aims to provide the best information - clear and transparent
    - To the policy-makers
    - To the general public
  - Presupposes the involvement of all people in the process, to better understand the impacts of proposals and options on health
Case Study
Planeamento Urbano Sustentável na Amadora

Paula Santana

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Amadora County

23,3Km² - 175,842 inhab. (2001);
7390 inhab./Km²
→ Amadora County
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→ County of Asymmetries
The best and the worst of material deprivation in Metropolitan Area of Lisbon

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→ **Amadora County**

23,3Km² – 175,842 inhab. (2001); 7,390 inhab./Km²

→ **County of Asymmetries**

The best and the worst of material deprivation in Metropolitan Area of Lisbon

→ **County of fragility**

Shacks, overcrowded living quarters, immigrant population of low-income
→ Influence of the Urban Environment

Health of the Population of Amadora
→ Influence of the Urban Environment

→ Adapt the urban space to the needs of this population

→ Assess the impact of actions
Structure

Methods

Health Impact Assessment

In Conclusion
Methods
1. Questionnaire to the population of Amadora and to the Users of Urban Green Spaces (2006/07)
1. **Questionnaire to the population of Amadora and to the Users of Urban Green Spaces (2006/07)**

- Gender,
- Age,
- Diet,
- Physical Activity,
- Consumption of Tobacco,
- Condition before the Work,
- Education,
- Self-Assessed Health Status,
- Weight and Height (BMI),
- Use of Green Spaces,
- Relationship with neighbours
- Perception of Insecurity
- Like Living in Amadora
1. Questionnaire to the population of Amadora and to the Users of Urban Green Spaces (2006/07)

2. Geographical Information Systems
1. Questionnaire to the population of Amadora and to the Users of Urban Green Spaces (2006/07)

2. Geographical Information Systems

3. **Deprivation Score:** Normalization
1. Questionnaire to the population of Amadora and to the Users of Urban Green Spaces (2006/07)

2. Geographical Information Systems

3. Deprivation Score: Normalization

4. Analysis of Clusters of sociomaterial deprivation
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Sociomaterial Deprivation Clusters
- Opportunity Deprived Cluster
- Most Deprived Cluster
- Intermediate Deprived Cluster
Methods

1. Questionnaire to the population of Amadora and to the Users of Urban Green Spaces (2006/07)

2. Geographical Information Systems

3. Deprivation Score: Normalization

4. Analysis of Clusters of sociomaterial deprivation

5. Regression Logical Binomial Model (building scenarios)
1. Questionnaire to the population of Amadora and to the Users of Urban Green Spaces (2006/07)

2. Geographical Information Systems

3. Deprivation Score: Normalization

4. Analysis of Clusters of sociomaterial deprivation

5. **Regression Logical Binomial Model**  
(building scenarios)

- **Health Impact Assessment:**
  - **Health Changes / Implementation of actions**
    - Green Spaces and Insecurity (perceptions of insecurity)
    - Health Impacts (self-assessed health status)
Stages of Health Impact Assessment:

Fonte: Adapted from York Health Consortium, 2006
Stages of Health Impact Assessment:

1. Identification
Methods

Health Impact Assessment – Steps

Stages of Health Impact Assessment:

1. Identification
2. Survey

Identify the potential of HIA

Determine how HIA should be made
Stages of Health Impact Assessment:

1. Identification
2. Survey
3. Assessment

Methods
Health Impact Assessment – Steps

- Identify the potential of HIA
- Determine how HIA should be made
- Assess the determinants of health with potential impacts
Stages of Health Impact Assessment:

1. Identification
2. Survey
3. Assessment
4. Preparation of Recommendations

- Identify the potential of HIA
- Determine how HIA should be made
- Assess the determinants of health with potential impacts
- Develop recommendations for decision makers

Fonte: Adapted from York Health Consortium, 2006
**Methods**

**Health Impact Assessment – Steps**

- **Identify the potential of HIA**
- **Determine how HIA should be made**
- **Assess the determinants of health with potential impacts**
- **Develop recommendations for decision makers**
- **Encourage the adoption or adaptation of the proposal**

**Stages of Health Impact Assessment:**

1. **Identification**
2. **Survey**
3. **Assessment**
4. **Preparation of Recommendation**
5. **Involvement with policy-makers and population**

Fonte: Adapted from York Health Consoritum, 2006
Stages of Health Impact Assessment:

1. Identification
2. Survey
3. Assessment
4. Preparation of Recommendation
5. Involvement with policy-makers and population
6. Assessment and Monitoring

Methods

Health Impact Assessment – Steps

- Identify the potential of HIA
- Determine how HIA should be made
- Assess the determinants of health with potential impacts
- Develop recommendations for decision makers
- Encourage the adoption or adaptation of the proposal
- Assess and monitor the implementation process

Fonte: Adapted from York Health Consortium, 2006
Health Impact Assessment
Aim

Evaluate the impact of accessibility and quality of the urban green spaces on the health of the residents of Amadora
The HIA is a suitable method for ensuring that health-related aspects are achieved through the planning of urban green spaces.
Using the questionnaires directed at residents and green space users, it is possible to infer the influence of green space use upon the health of the population resident in Amadora.
Health Impact Assessment

Improve Health intervening in the Urban Green Spaces

- Green Structure of **small dimension**
- Low levels of Green Space per capita — **2.3 m² per inhabitant**
- Large **deficit** according to the criteria established by **DGOTDU** — **10 m² per inhabitant**
Amadora Residents Survey:

- **57%** of residents of Amadora use an Urban Green Space on a weekly basis
- **74%** of residents of Amadora attend the Urban Green Space close to their residence;
**Users of Urban Green Spaces (UGS) Survey:**

- **51%** of users have their place of residence in the most deprived *Cluster*.
  - **16%** of population residing in the most deprived cluster live within **>18 min** (walking distance) from an UGS
  - **50%** of users of UGS residing in the most deprived cluster, use the green spaces on a daily basis
What is the impact up on the health status of residents living in the most deprived Cluster of frequent use of green spaces?
What is the impact up on the health status of residents living in the most deprived Cluster, of frequent use of green spaces?
What is the impact up on the health status of residents living in the most deprived Cluster, of frequent use of green spaces?

![Pie chart showing provided cases with 82% Good and Really Good and 18% Less than Good]

Improving of Self-Assessed Health Status
Health Impact Assessment
Improve Health intervening in the Urban Green Spaces

- Restructuring of urban green spaces in order to increase the number of spaces on offer
- Improve some attributes
  - Environmental Quality
  - Security
  - Conservation
  and adapt them to the practice of physical exercise
  - Walking
  - Cycling

Identification
Survey
Assessment
Preparation of Recommendations
Involvement with policy-makers and population
Assessment and Monitoring

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Opportunity:

- Areas of farmland and woodland
  - \(37.8\%\) of the territory in those two classes of land
  - \(48.2\%\) of this area is in environmental risk
Health Impact Assessment

Improve Health intervening in the Urban Green Spaces

- Gardens of proximity
- Urban Yards
- Small forest patches
- Green Corridors
- Etc.

Identification
Survey
Assessment
Preparation of Recommendations
Involvement with policy-makers and population
Assessment and Monitoring
Health Impact Assessment
Improve Health intervening in the Urban Green Spaces

Increase the attraction of the population to the City “center”
Health Impact Assessment
Improve Health intervening in the Urban Green Spaces

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Health Impact Assessment
Improve Health intervening in the Urban Green Spaces

- Increase the attraction of the population to the City “center”
Health Impact Assessment
Improve Health intervening in the Urban Green Spaces

- Informing Amadora County of the results of the assessment of the use of urban green spaces upon the health of residents.
- Proposing alternatives (architecture of new green spaces) and presenting the impact of these upon health, through changed behaviour patterns.
After the implementation of some of the alterations to the structure of urban green spaces, their health effects are measured using new questionnaires directed at the population.
Health Impact Assessment

Improve Health by intervening in the factors of insecurity

Aim

Evaluate the impact of specific environmental quality elements, on the health of residents of Amadora
Residents Survey:

- High levels of perceived insecurity in intermediate deprived Cluster (68% claimed it was the greatest problem experienced).
- Significant correlation between home invasion robberies and feelings of insecurity.
If we change the feelings of neighbourhood insecurity of the individuals living in the **most deprived cluster**... What happens to the **self-assessed health status**?

- **58%** Good and Really Good
- **41.3%** Less than Good
Health Impact Assessment
Improve Health intervening in the factors of insecurity

If we change the feelings of neighbourhood insecurity of the individuals living in the **most deprived cluster**…
What happens to the **self-assessed health status**?

Provided Cases

- Good and Really Good
- Less than Good

Improving the Self-Assessed Health Status
Health Impact Assessment
Improve Health intervening in the factors of insecurity

If we change the feelings of neighbourhood insecurity of the individuals living in the intermediate deprived cluster... What happens to the self-assessed health status?
If we change the feelings of neighbourhood insecurity of the individuals living in the **intermediate deprived cluster**... What happens to the **self-assessed health status**?

![Diagram showing provided cases with 81% Good and Really Good and 19% Less than Good.](image)
In Conclusion
In Conclusion
In Conclusion

Use of Green Spaces
In Conclusion

Use of Green Spaces

Proximity to Residence
In Conclusion

- Use of Green Spaces
- Perceived Neighborhood Insecurity

Proximity to Residence
In Conclusion

Use of Green Spaces

Perceived Neighborhood Insecurity

Proximity to Residence

Problem indicated by the population
In Conclusion

Use of Green Spaces

Proximity to Residence

Perceived Neighborhood Insecurity

Problem indicated by the population

Self-Assessed Health Status
In Conclusion

Use of Green Spaces

Proximity to Residence

Perceived Neighborhood Insecurity

Problem indicated by the population

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Proximity to Residence

Problem indicated by the population

Use of Green Spaces

Perceived Neighborhood Insecurity

Self-Assessed Health Status

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In Conclusion

PREDISPOSITION Factors
- Demographic
- Social structure
- Psychological
...

AVAILABILITY Factors
- Green spaces
- Means of transport (public transport, bicycle, on foot)
...

SECURITY

HEALTH AND WELLBEING

USE of FACILITIES and INFRASTRUCTURES
- Green Spaces
- Public transport
- Cycle paths
- Pedestrian footpaths
- Public space
- Health
- Education
- Recreation/sport
- Social Security
...

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In Conclusion

✓ Healthy Urban Planning

Proposed interventions in urban green spaces (public spaces):

• Increase **safety, accessibility, trust, quality** and **conservation** (attractiveness).
In Conclusion

✓ Healthy Urban Planning

Proposed interventions in urban green spaces (public spaces):

• Increase *safety, accessibility, trust, quality* and *conservation* (attractiveness).

• Improve the *physical and mental health of the population*

• Promote a *healthy lifestyle*:
  - practice of physical activity
  - interaction and community cohesion
Creating safe environments
Improving the Sense of Belonging
Thank you!

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