# UnHealthy Housing 2002

# As Safe as Houses ?

## Accident and fire risk in the home

Legal Research Institute, University of Warwick

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**Dr Richard Moore**

Legal Research Institute, University of Warwick

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Visiting Fellow, University of Warwick

# Contents of talk  (based on analysis of safety and fire hazards for HHSRS statistics)

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14-18: Accident rates and outcomes by housing type

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12-14: The range of sample sizes for safety hazards

15-19: Accident rates and outcomes for vulnerable groups

14-18: Accident rates and outcomes by housing type

18-21: Summary of problems, recommendations and goals

# 1. Accidents in the home compared to those at work and on the road (1995)

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- At Work

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- At Work
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# 1. Accidents in the home compared to those at work and on the road (1995)

- At Work
- On the Road
- In the Home

# 1. Accidents in the home compared to those at work and on the road (1995)

| | Killed | Injured |
|---|---|---|
| At Work | | |
| On the Road | | |
| In the Home | | |

# 1. Accidents in the home compared to those at work and on the road (1995)

| | Killed | Injured |
|---|---|---|
| At Work | 376 | 1,500,000 |
| On the Road | | |
| In the Home | | |

# 1. Accidents in the home compared to those at work and on the road (1995)

| | Killed | Injured |
|---|---|---|
| At Work | 376 | 1,500,000 |
| On the Road | 3,598 | 316,704 |
| In the Home | | |

# 1. Accidents in the home compared to those at work and on the road (1995)

| | Killed | Injured |
|---|---|---|
| At Work | 376 | 1,500,000 |
| On the Road | 3,598 | 316,704 |
| In the Home | 4,066 | 2,700,000 |

# 2. Accident related hazards and statistics required for each hazard

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Accident related hazards:-

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Accident related hazards:-

- Falls on level

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Accident related hazards:-

- Falls on level
- Falls on stairs

# 2. Accident related hazards and statistics required for each hazard

Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels

# 2. Accident related hazards and statistics required for each hazard

Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc

# 2. Accident related hazards and statistics required for each hazard

Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc
- Hot surfaces & materials

# 2. Accident related hazards and statistics required for each hazard

Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc
- Hot surfaces & materials
- Electrical hazards

# 2. Accident related hazards and statistics required for each hazard

Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc
- Hot surfaces & materials
- Electrical hazards
- Fire hazards

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Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc
- Hot surfaces & materials
- Electrical hazards
- Fire hazards
- Uncombusted fuel gas

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Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc
- Hot surfaces & materials
- Electrical hazards
- Fire hazards
- Uncombusted fuel gas
- Structural failure

# 2. Accident related hazards and statistics required for each hazard

Accident related hazards:-

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- Falls on stairs
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- Electrical hazards
- Fire hazards
- Uncombusted fuel gas
- Structural failure
- Explosions

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- Explosions
- Entrapment or collision

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- Entrapment or collision
- Poor ergonomics

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- Poor ergonomics

For each hazard determine:-

# 2. Accident related hazards and statistics required for each hazard

Accident related hazards:-

- Falls on level
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- Hot surfaces & materials
- Electrical hazards
- Fire hazards
- Uncombusted fuel gas
- Structural failure
- Explosions
- Entrapment or collision
- Poor ergonomics

For each hazard determine:-

1) Annual likelihood of accident

# 2. Accident related hazards and statistics required for each hazard

## Accident related hazards:-

- Falls on level
- Falls on stairs
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- Electrical hazards
- Fire hazards
- Uncombusted fuel gas
- Structural failure
- Explosions
- Entrapment or collision
- Poor ergonomics

## For each hazard determine:-

1) Annual likelihood of accident
   - I in 1000 etc

# 2. Accident related hazards and statistics required for each hazard

## Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc
- Hot surfaces & materials
- Electrical hazards
- Fire hazards
- Uncombusted fuel gas
- Structural failure
- Explosions
- Entrapment or collision
- Poor ergonomics

## For each hazard determine:-

1) Annual likelihood of accident
   - I in 1000 etc
2) Av. spread of health outcomes

# 2. Accident related hazards and statistics required for each hazard

## Accident related hazards:-

- Falls on level
- Falls on stairs
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- Hot surfaces & materials
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- Fire hazards
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- Explosions
- Entrapment or collision
- Poor ergonomics

## For each hazard determine:-

1) Annual likelihood of accident
   - 1 in 1000 etc
2) Av. spread of health outcomes
   - % Class I - fatal

# 2. Accident related hazards and statistics required for each hazard

## Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc
- Hot surfaces & materials
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- Uncombusted fuel gas
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- Explosions
- Entrapment or collision
- Poor ergonomics

## For each hazard determine:-

1) Annual likelihood of accident
   - 1 in 1000 etc
2) Av. spread of health outcomes
   - % Class I - fatal
   - % Class 2 - severe

# 2. Accident related hazards and statistics required for each hazard

## Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
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## For each hazard determine:-

1) Annual likelihood of accident
   - I in 1000 etc
2) Av. spread of health outcomes
   - % Class I - fatal
   - % Class 2 - severe
   - % Class 3 - serious

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## For each hazard determine:-

1) Annual likelihood of accident
   - 1 in 1000 etc
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   - % Class I - fatal
   - % Class 2 - severe
   - % Class 3 - serious
   - % Class 4 - moderate

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- Falls on stairs
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- Falls related to baths etc
- Hot surfaces & materials
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## For each hazard determine:-

1) Annual likelihood of accident
   - I in 1000 etc
2) Av. spread of health outcomes
   - % Class I - fatal
   - % Class 2 - severe
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   - % Class 4 - moderate

## Breakdown statistics by:-

# 2. Accident related hazards and statistics required for each hazard

## Accident related hazards:-

- Falls on level
- Falls on stairs
- Falls between levels
- Falls related to baths etc
- Hot surfaces & materials
- Electrical hazards
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## For each hazard determine:-

1) Annual likelihood of accident
   - I in 1000 etc
2) Av. spread of health outcomes
   - % Class I - fatal
   - % Class 2 - severe
   - % Class 3 - serious
   - % Class 4 - moderate

## Breakdown statistics by:-

- Age of victim

# 2. Accident related hazards and statistics required for each hazard

## Accident related hazards:-

- Falls on level
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- Falls related to baths etc
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- Explosions
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## For each hazard determine:-

1) Annual likelihood of accident
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   - % Class I - fatal
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## Breakdown statistics by:-

- Age of victim
- Age & type of housing

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- Falls on level
- Falls on stairs
- Falls between levels
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   - 1 in 1000 etc
2) Av. spread of health outcomes
   - % Class I - fatal
   - % Class 2 - severe
   - % Class 3 - serious
   - % Class 4 - moderate

## Breakdown statistics by:-

- Age of victim
- Age & type of housing

# 3. Examples of health outcomes by category relevant to accidents in the home

# 3. Examples of health outcomes by category relevant to accidents in the home

Class I – Extreme

# 3. Examples of health outcomes by category relevant to accidents in the home

Class I – Extreme

Class II – Severe

# 3. Examples of health outcomes by category relevant to accidents in the home

Class I – Extreme

Class II – Severe

Class III – Serious

# 3. Examples of health outcomes by category relevant to accidents in the home

Class I – Extreme

Class II – Severe

Class III – Serious

Class IV - Moderate

# 3. Examples of health outcomes by category relevant to accidents in the home

Class I – Extreme

- **Death**
  **Permanently unconscious**
  **Near total paralysis**
  **80% burn injuries**

Class II – Severe

Class III – Serious

Class IV - Moderate

# 3. Examples of health outcomes by category relevant to accidents in the home

Class I – Extreme

- **Death**
  **Permanently unconscious**
  **Near total paralysis**
  **80% burn injuries**

Class II – Severe

- **Loss of hand or foot**
  **Unconscious for days**
  **Very severe fractures**
  **Very severe burns**

Class III – Serious

Class IV - Moderate

# 3. Examples of health outcomes by category relevant to accidents in the home

| | |
|---|---|
| Class I – Extreme | • **Death**<br>**Permanently unconscious**<br>**Near total paralysis**<br>**80% burn injuries** |
| Class II – Severe | • **Loss of hand or foot**<br>**Unconscious for days**<br>**Very severe fractures**<br>**Very severe burns** |
| Class III – Serious | • **Loss of finger**<br>**Severe concussion**<br>**Serious puncture wound**<br>**Severe burns to hands** |
| Class IV - Moderate | |

# 3. Examples of health outcomes by category relevant to accidents in the home

| | |
|---|---|
| Class I – Extreme | • **Death**<br>**Permanently unconscious**<br>**Near total paralysis**<br>**80% burn injuries** |
| Class II – Severe | • **Loss of hand or foot**<br>**Unconscious for days**<br>**Very severe fractures**<br>**Very severe burns** |
| Class III – Serious | • **Loss of finger**<br>**Severe concussion**<br>**Serious puncture wound**<br>**Severe burns to hands** |
| Class IV - Moderate | • **Broken finger**<br>**Slight concussion**<br>**Severe bruising**<br>**10% burns** |

# 4. Main data sources used in estimating accident risk in housing in England & Wales

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97-99 Accident data by postcode

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**Mortality data (**Coroners records)

# 4. Main data sources used in estimating accident risk in housing in England & Wales

97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents

# 4. Main data sources used in estimating accident risk in housing in England & Wales

97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident

# 4. Main data sources used in estimating accident risk in housing in England & Wales

97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

# 4. Main data sources used in estimating accident risk in housing in England & Wales

97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

# 4. Main data sources used in estimating accident risk in housing in England & Wales

97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents

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## 97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident

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- Age of victim

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- Age of victim

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- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

# 4. Main data sources used in estimating accident risk in housing in England & Wales

97-99 Accident data by postcode  Postcoded population data

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

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- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

Postcoded population data

**CACI data/EHCS/OU ward est.**

# 4. Main data sources used in estimating accident risk in housing in England & Wales

## 97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

## Postcoded population data

**CACI data/EHCS/OU ward est.**

- Number of persons

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## 97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

## Postcoded population data

**CACI data/EHCS/OU ward est.**

- Number of persons
- Age of persons

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- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

## Postcoded population data

**CACI data/EHCS/OU ward est.**

- Number of persons
- Age of persons

## Housing data by postcode

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## 97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

## Postcoded population data

**CACI data/EHCS/OU ward est.**

- Number of persons
- Age of persons

## Housing data by postcode

**RESIDATA** (from ISL)

# 4. Main data sources used in estimating accident risk in housing in England & Wales

## 97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

## Postcoded population data

**CACI data/EHCS/OU ward est.**

- Number of persons
- Age of persons

## Housing data by postcode

**RESIDATA** (from ISL)

- Number of addresses

# 4. Main data sources used in estimating accident risk in housing in England & Wales

## 97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

## Postcoded population data

**CACI data/EHCS/OU ward est.**

- Number of persons
- Age of persons

## Housing data by postcode

**RESIDATA** (from ISL)

- Number of addresses
- Dominant age of housing

# 4. Main data sources used in estimating accident risk in housing in England & Wales

## 97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

## Postcoded population data

**CACI data/EHCS/OU ward est.**

- Number of persons
- Age of persons

## Housing data by postcode

**RESIDATA** (from ISL)

- Number of addresses
- Dominant age of housing
- Dominant type of housing

# 4. Main data sources used in estimating accident risk in housing in England & Wales

## 97-99 Accident data by postcode

**Mortality data (**Coroners records)

- Number of fatal accidents
- Cause of accident
- Age of victim

**Home Accident Surveillance System**

- Number of non-fatal accidents
- Type of accident
- Age of victim
- Data relevant to class of harm

## Postcoded population data

**CACI data/EHCS/OU ward est.**

- Number of persons
- Age of persons

## Housing data by postcode

**RESIDATA** (from ISL)

- Number of addresses
- Dominant age of housing
- Dominant type of housing
- Average property value

# 5. Main data sources used in estimating fire risk in housing in England & Wales

# 5. Main data sources used in estimating fire risk in housing in England & Wales

1997-99 Fire data by postcode

# 5. Main data sources used in estimating fire risk in housing in England & Wales

1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

# 5. Main data sources used in estimating fire risk in housing in England & Wales

1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents
- Age of victim

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents
- Age of victim
- Data relevant to class of harm

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents
- Age of victim
- Data relevant to class of harm

**BCS & EHCS data** (not used)

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents
- Age of victim
- Data relevant to class of harm

**BCS & EHCS data** (not used)

**Brigade class of harm data**

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## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents
- Age of victim
- Data relevant to class of harm

**BCS & EHCS data** (not used)

**Brigade class of harm data**

- Type of injury (10 categories)

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents
- Age of victim
- Data relevant to class of harm

**BCS & EHCS data** (not used)

**Brigade class of harm data**

- Type of injury (10 categories)
- Causes of injury (24 categories)

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents
- Age of victim
- Data relevant to class of harm

**BCS & EHCS data** (not used)

**Brigade class of harm data**

- Type of injury (10 categories)
- Causes of injury (24 categories)
- Fatal or non-fatal

# 5. Main data sources used in estimating fire risk in housing in England & Wales

## 1997-99 Fire data by postcode

**Attended fires (**Brigade returns)

- Number of  fatalities & injuries
- Age of victims
- Data relevant to class of harm

**HASS fire cases** (17% attended)

- Number of non-fatal accidents
- Age of victim
- Data relevant to class of harm

**BCS & EHCS data** (not used)

**Brigade class of harm data**

- Type of injury (10 categories)
- Causes of injury (24 categories)
- Fatal or non-fatal

**HASS class of harm data**

# 5. Main data sources used in estimating fire risk in housing in England & Wales

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- Type of injury (10 categories)
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- Body part injured (54 categories)

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- Hospital outcome

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**HASS class of harm data**

- Type of injury (65 categories)
- Body part injured (54 categories)
- Hospital outcome
- Number of inpatient days

# 6. Annual fatal falls 97-99 by type and place of fall - before and after reallocating missing data

- ‘Other fatal falls’ include :- From ladder or scaffolding;  into hole or other open surface; from bed or chair; from one level to another unspecified; on the level – pushing.

# 6. Annual fatal falls 97-99 by type and place of fall - before and after reallocating missing data

| Place of fatal fall | Fall on stairs | Fall on level | Fall between levels | Falls in bath/ shower | Other fatal falls 1 | Fall-origin NK |
|---|---|---|---|---|---|---|
| Home | 471.7 | 44.0 | 43.0 | 51.7 | 79.0 | 616.7 |
| Resid. Institution | 27.7 | 13.0 | 6.3 | 3.3 | 45.3 | 255.7 |
| Public/work/place | 43.7 | 32.3 | 40.0 | 129.7 | 58.7 | 203.3 |
| Place NK | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 7.7 |
| All Residential | 998.6 | 131.6 | 105.7 | 110.5 | 317.6 | Pro-rata |

- 'Other fatal falls' include :- From ladder or scaffolding; into hole or other open surface; from bed or chair; from one level to another unspecified; on the level – pushing.

# 7. Annual number and rate of fatal falls on stairs/step by age of victim and location

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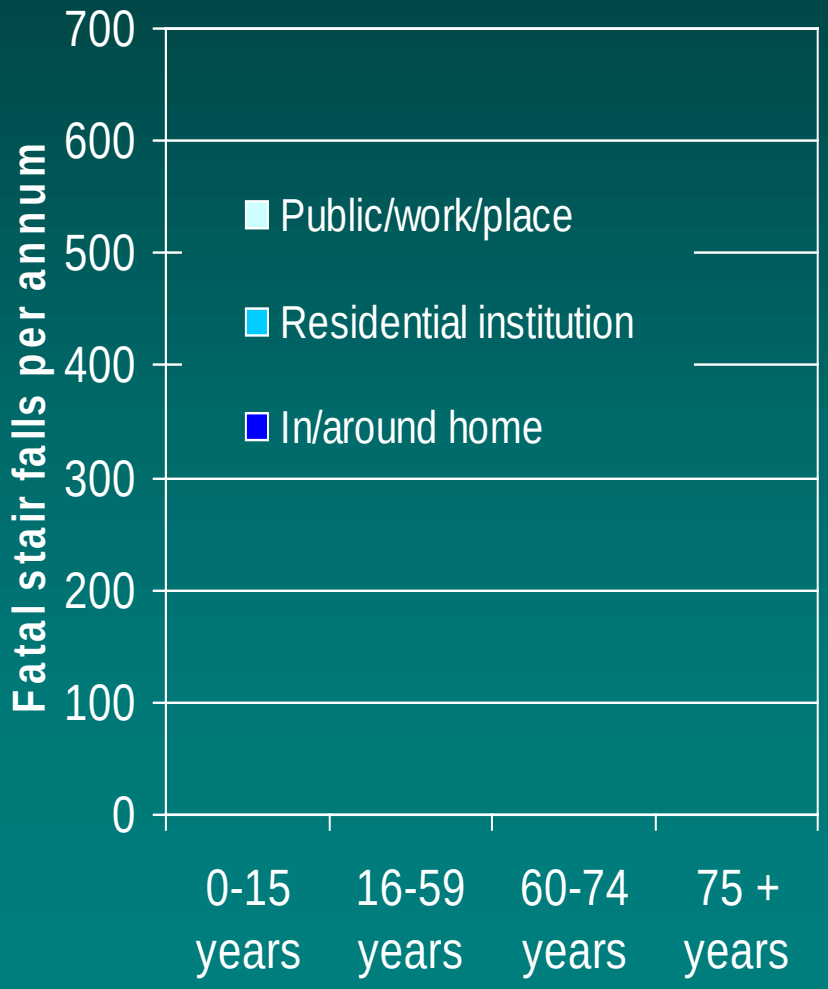

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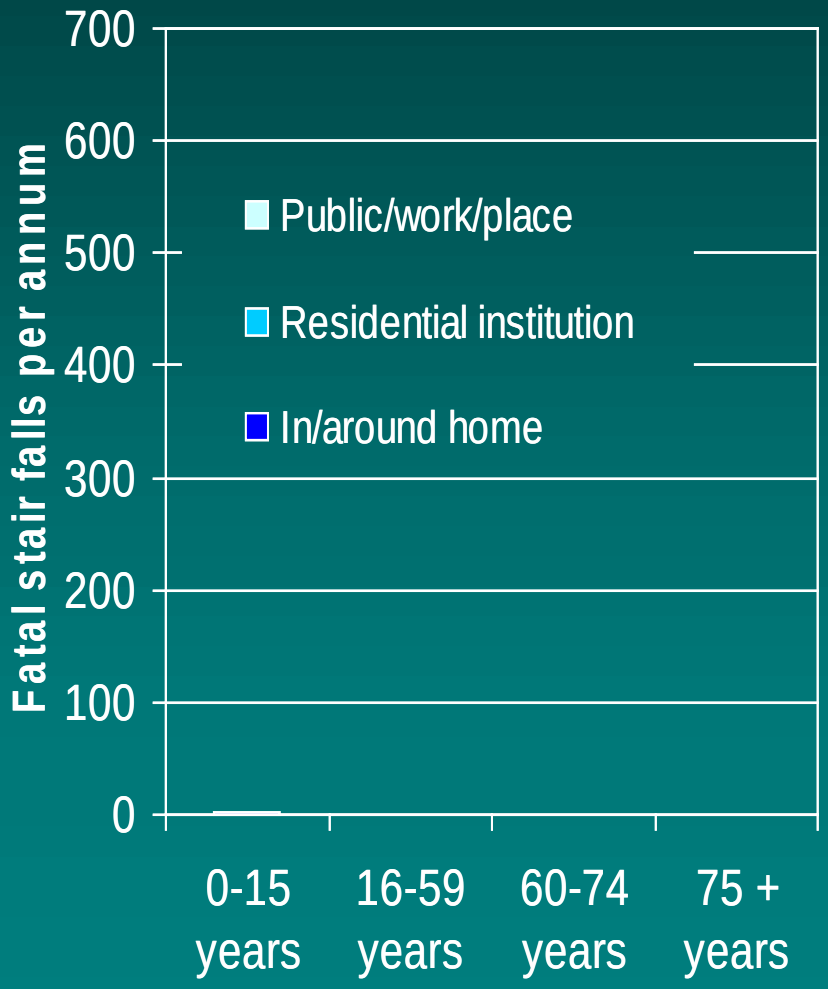

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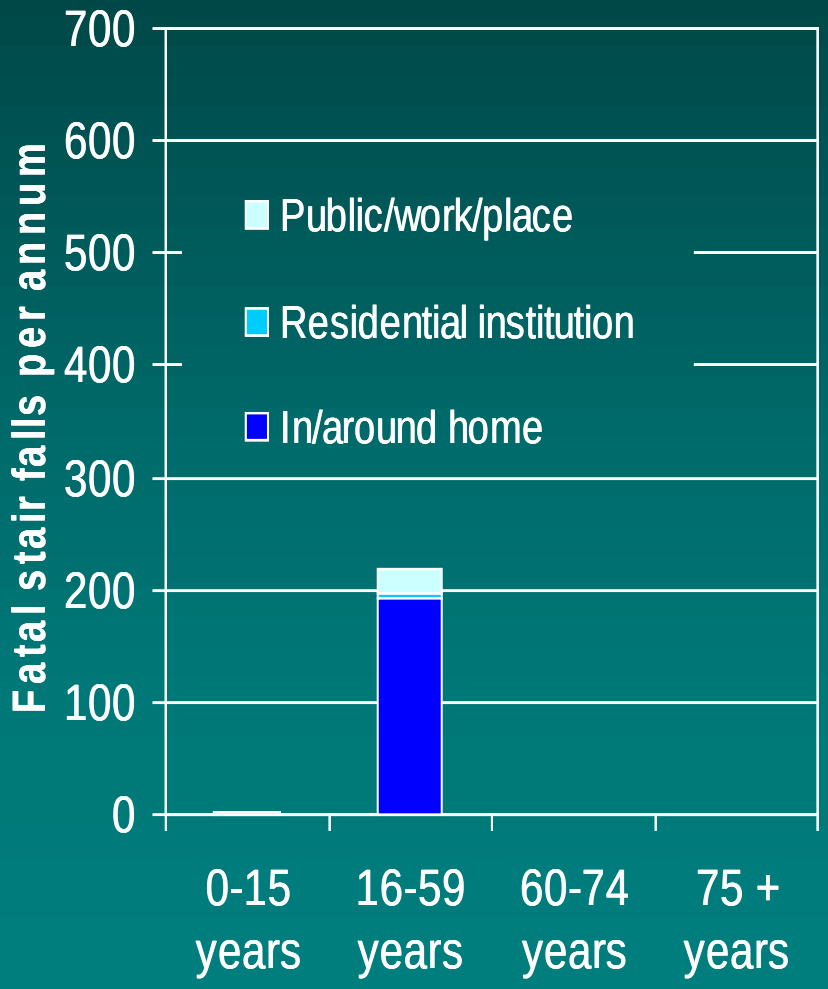

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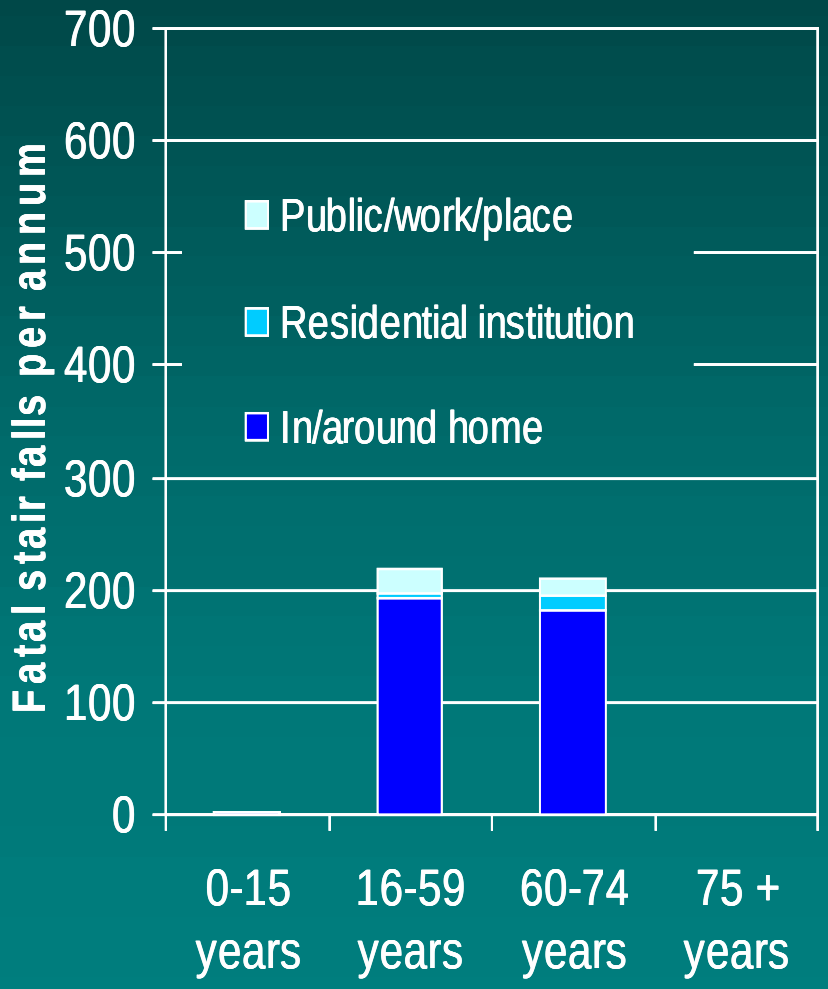

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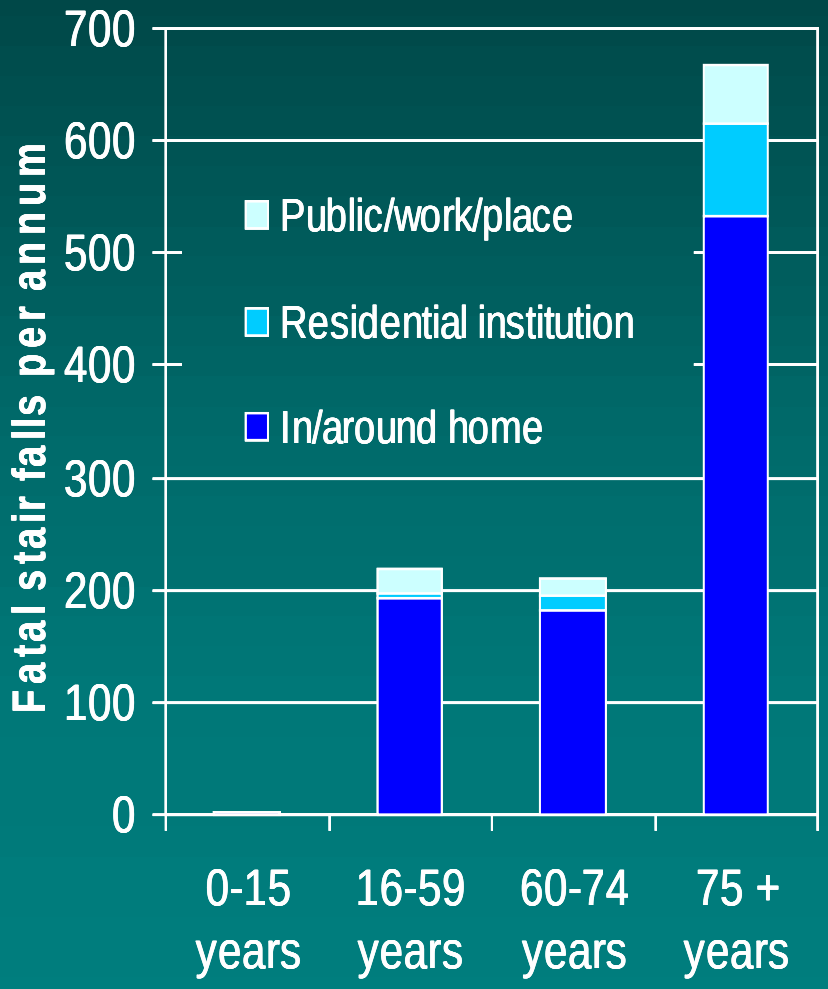

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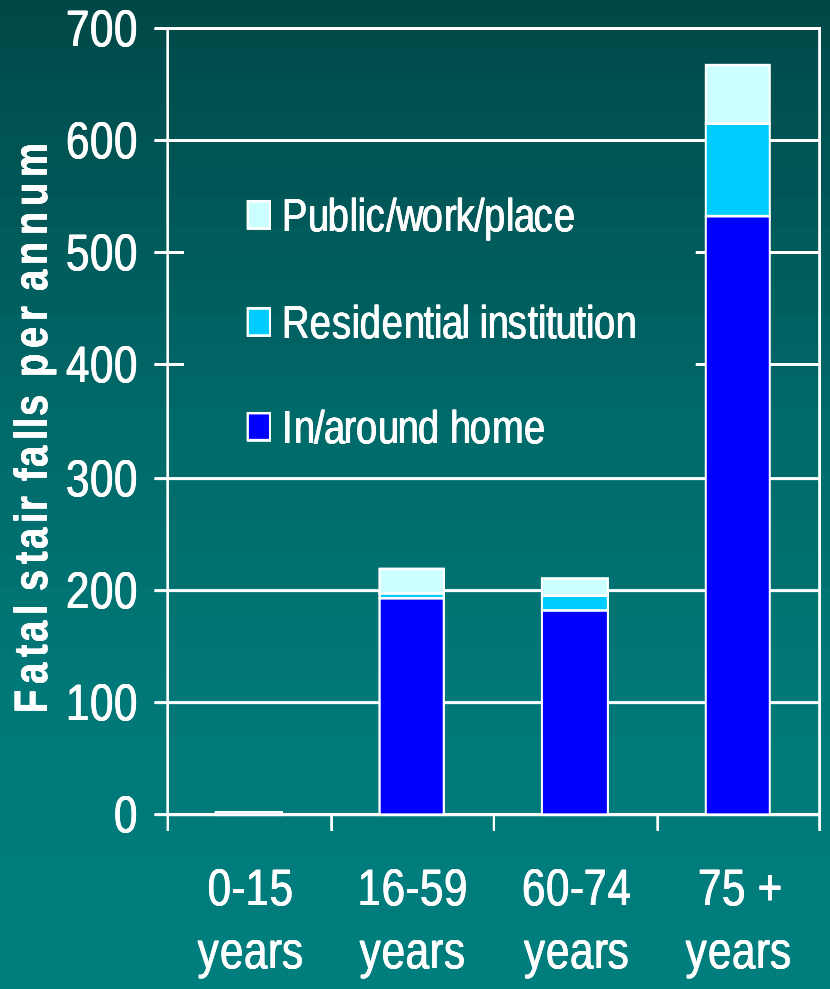


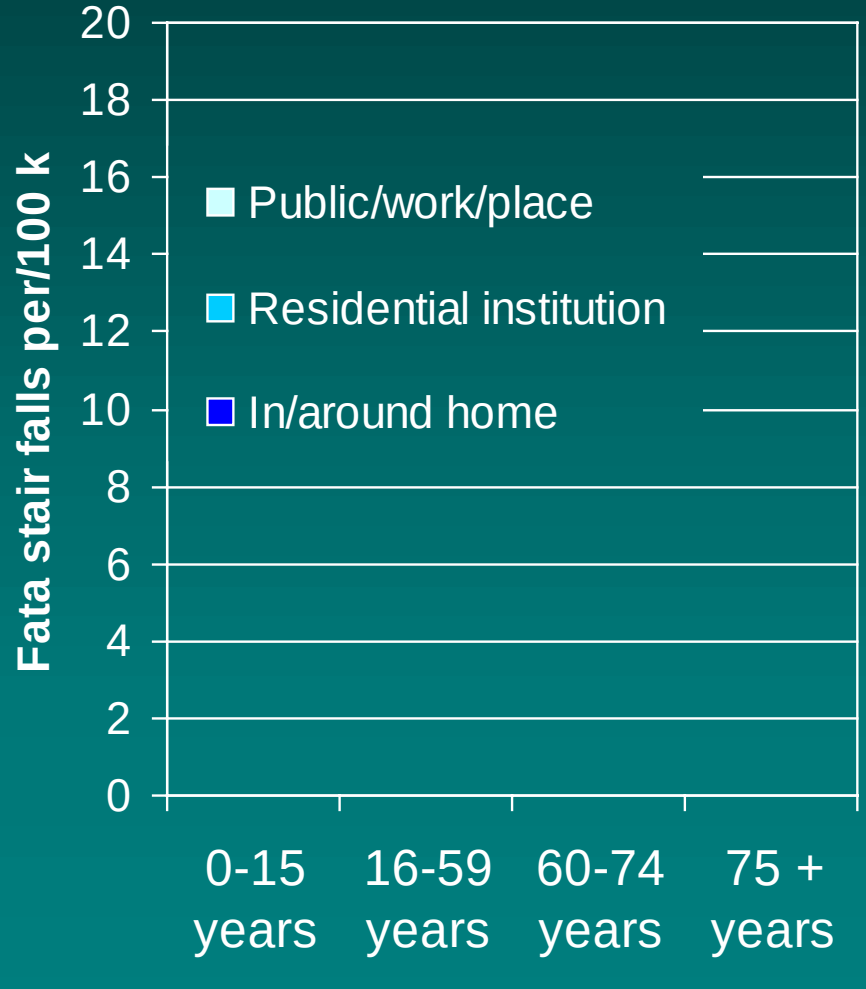

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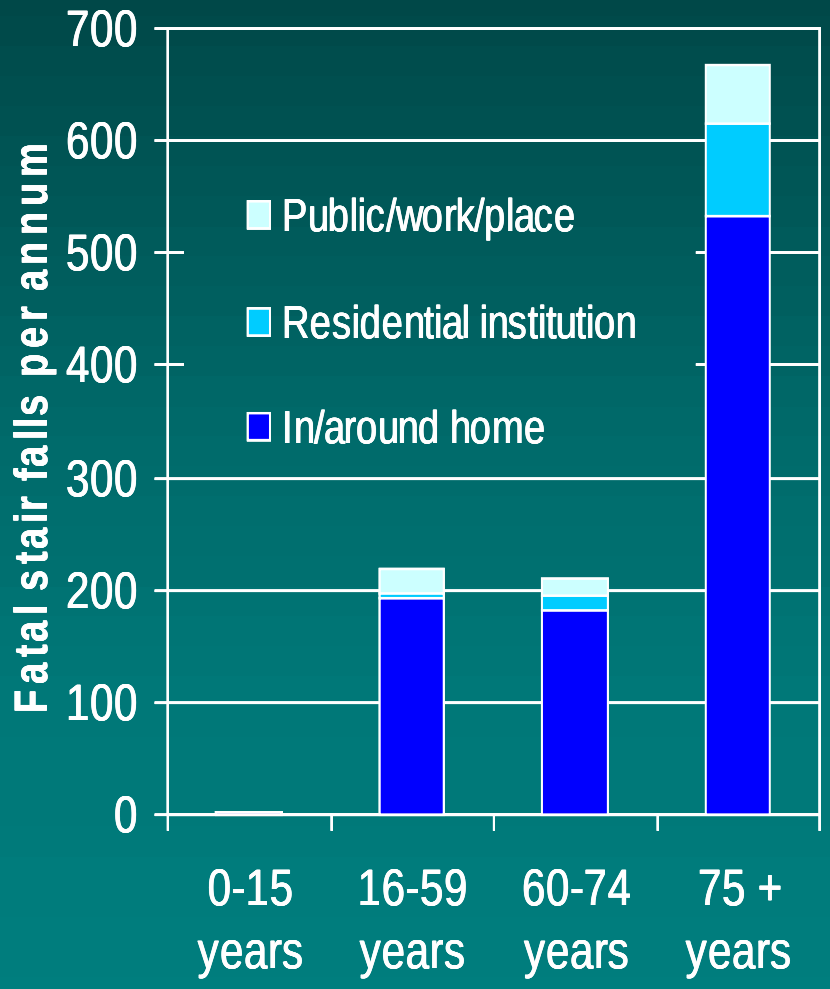


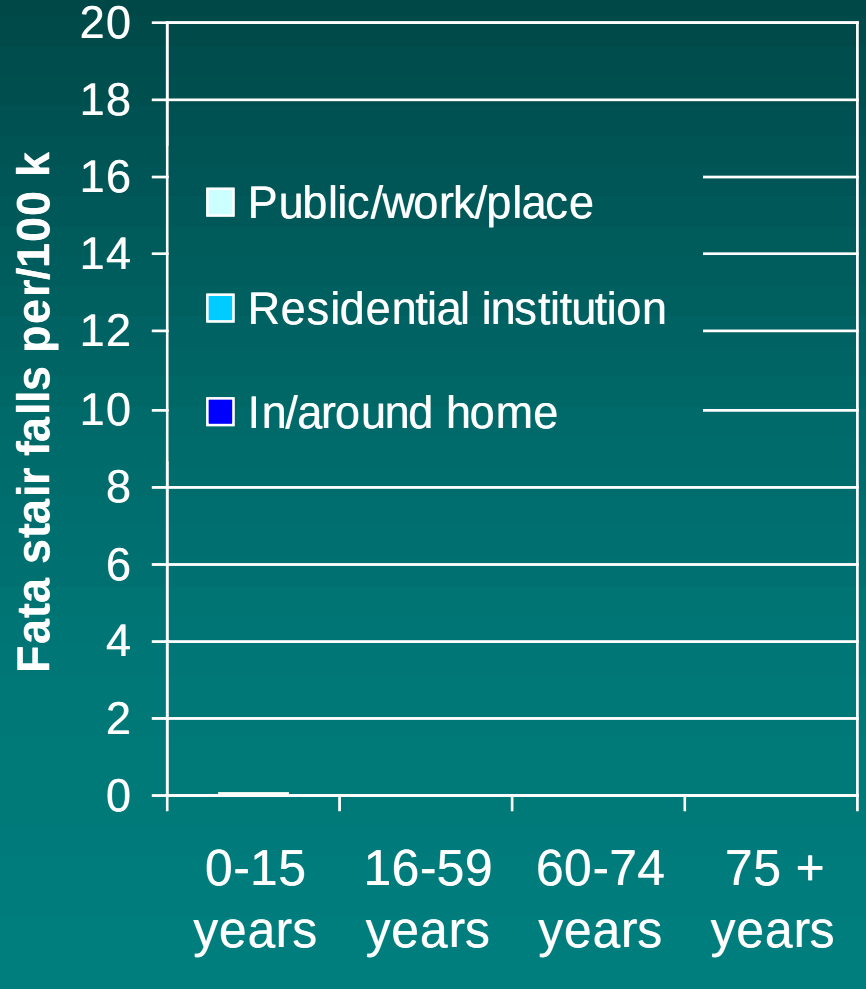

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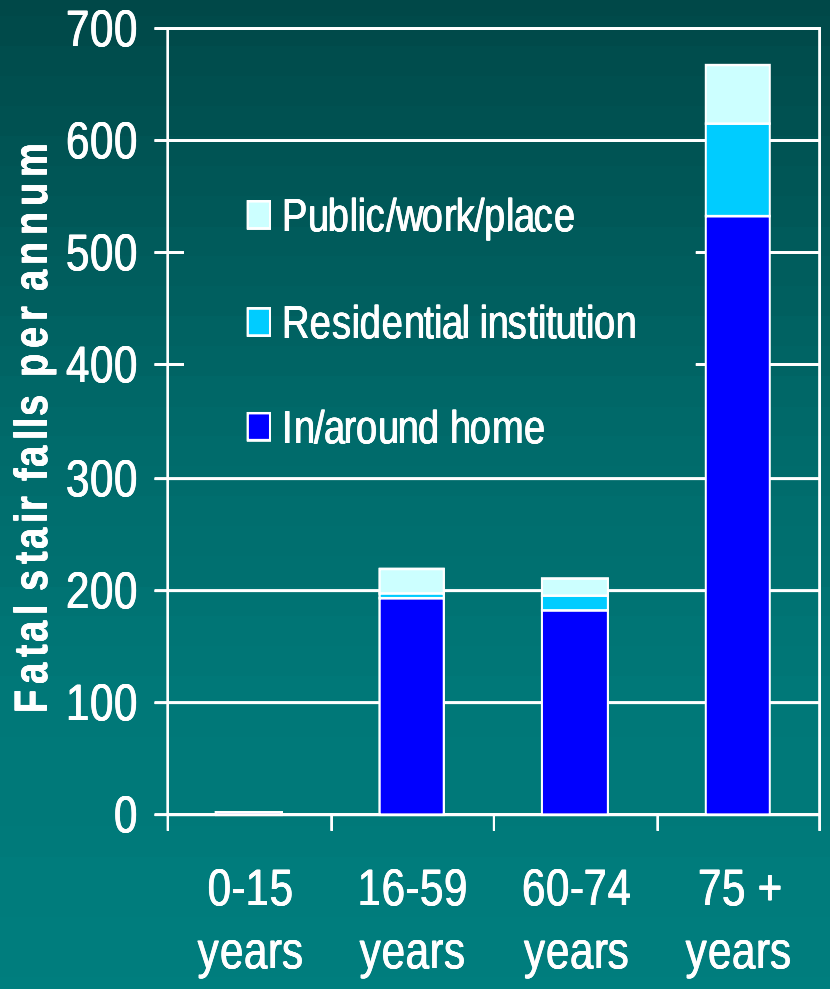


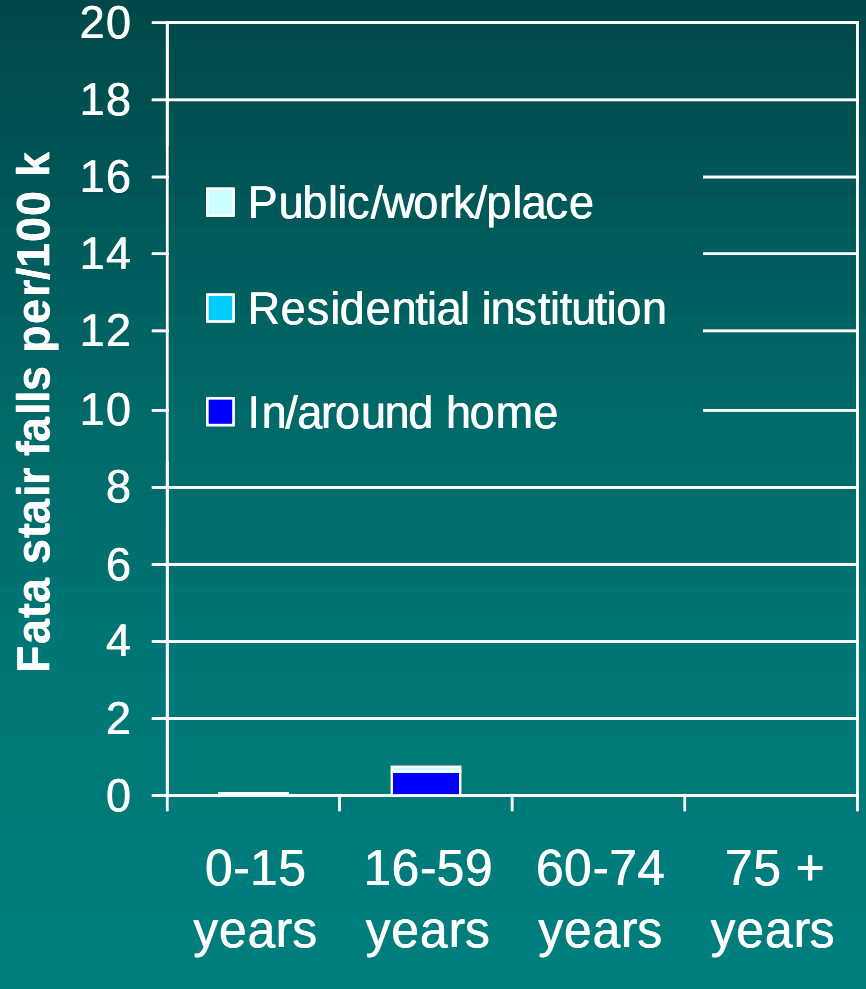

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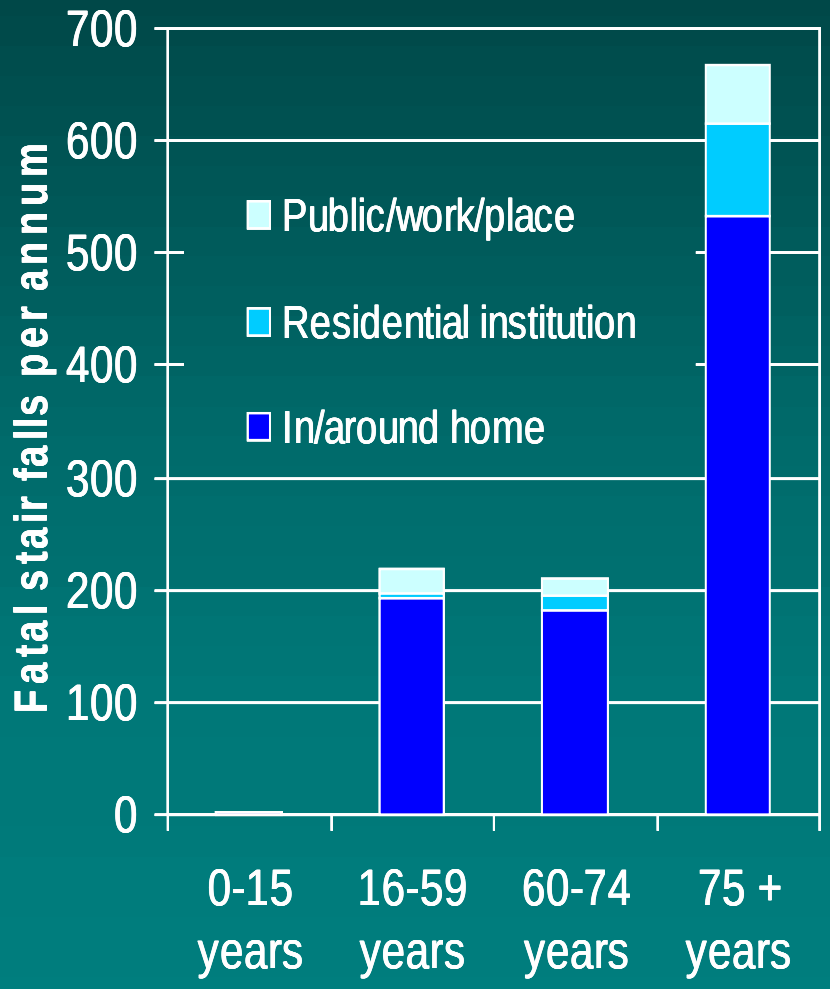


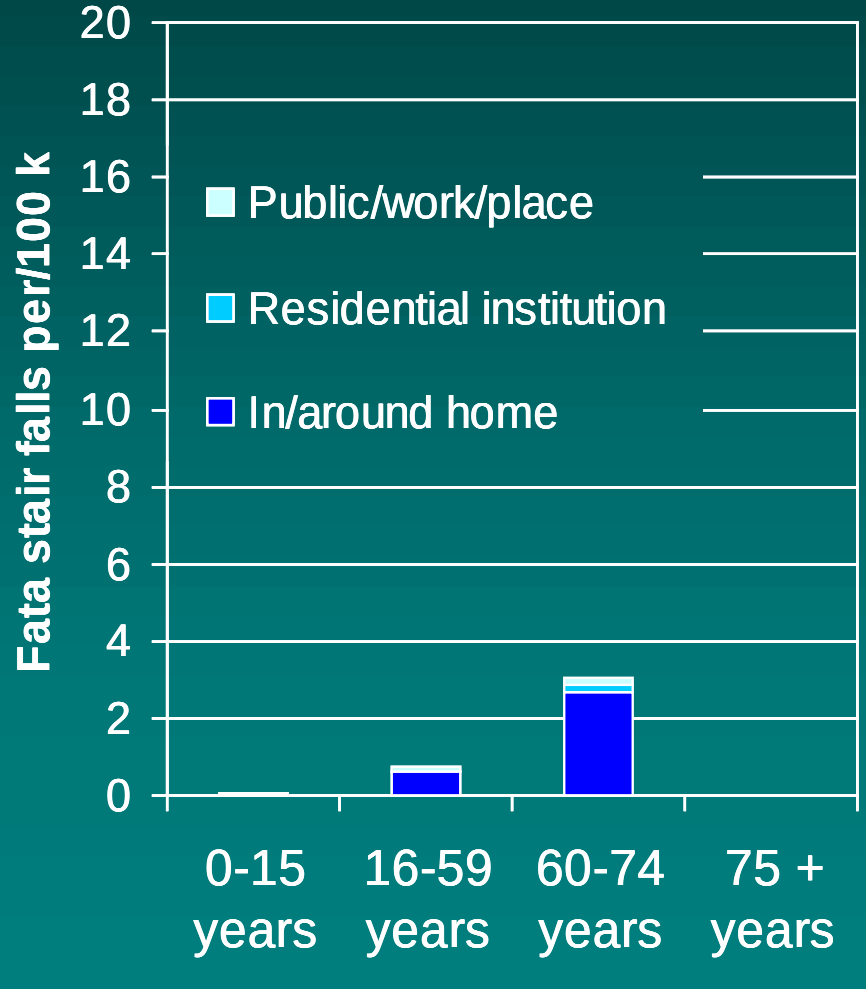

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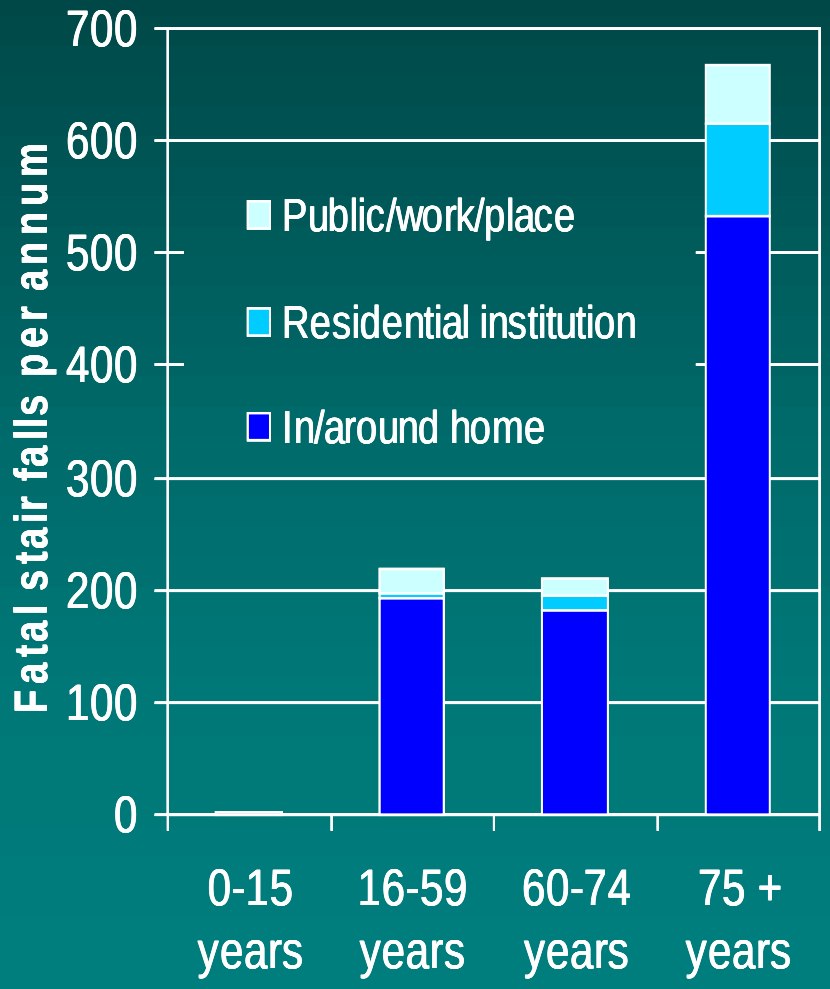
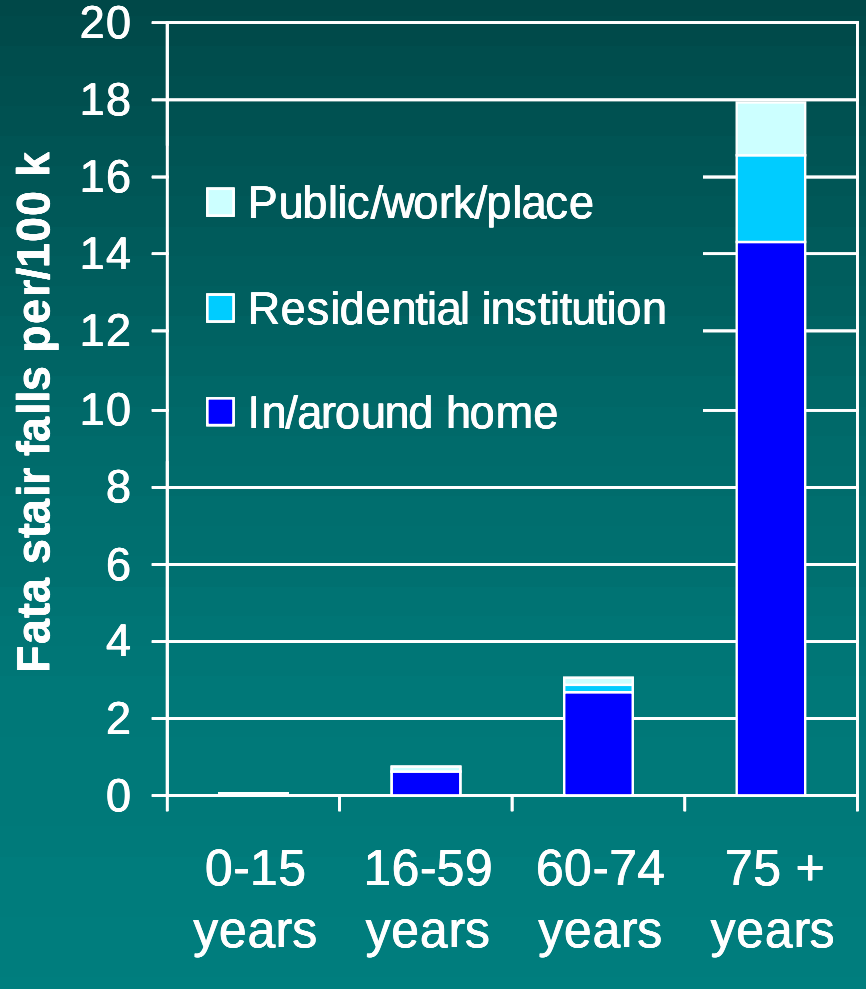
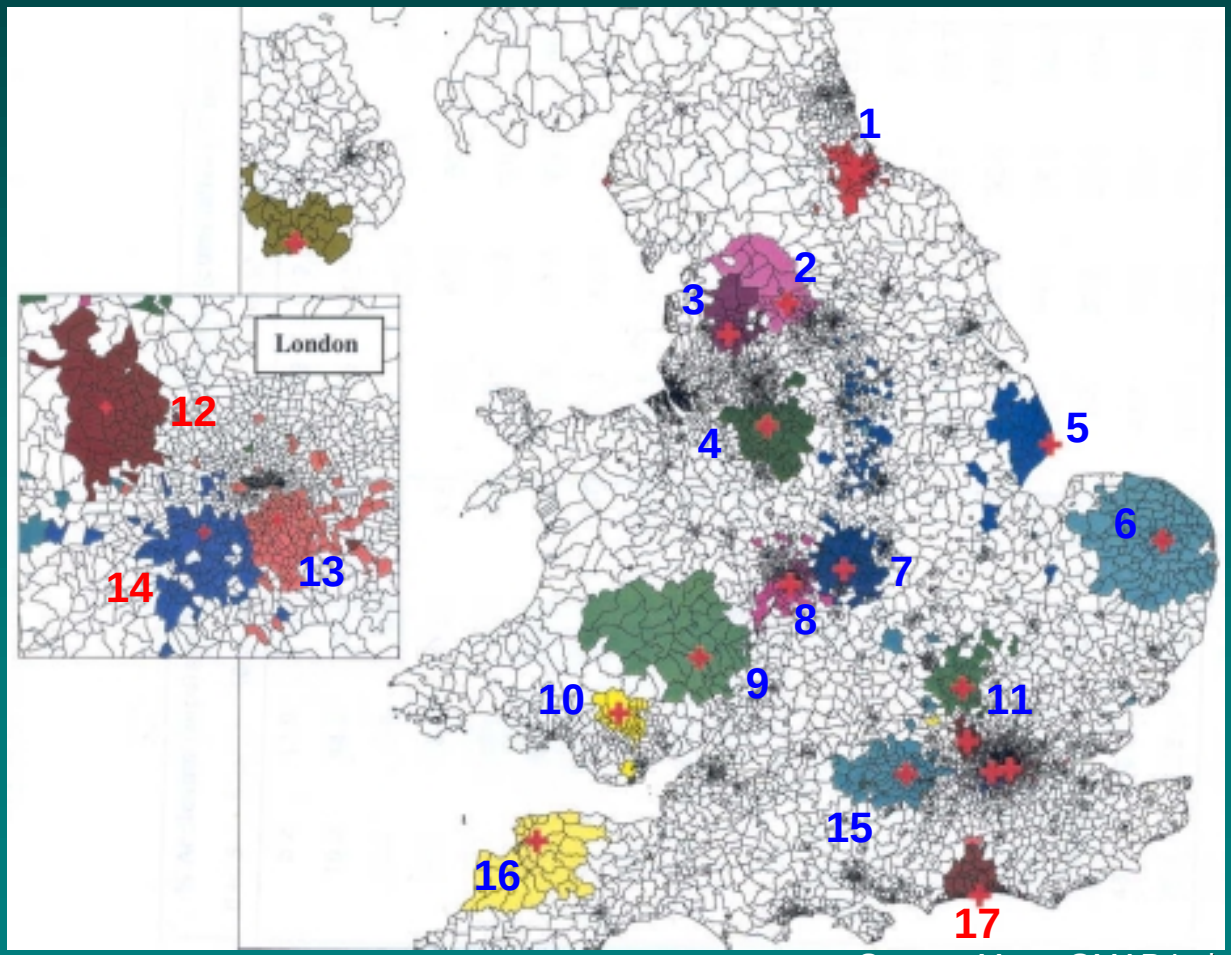


# 8. HASS hospital catchment areas in England & Wales (Listed North to South, excl. St Helier, Sutton)

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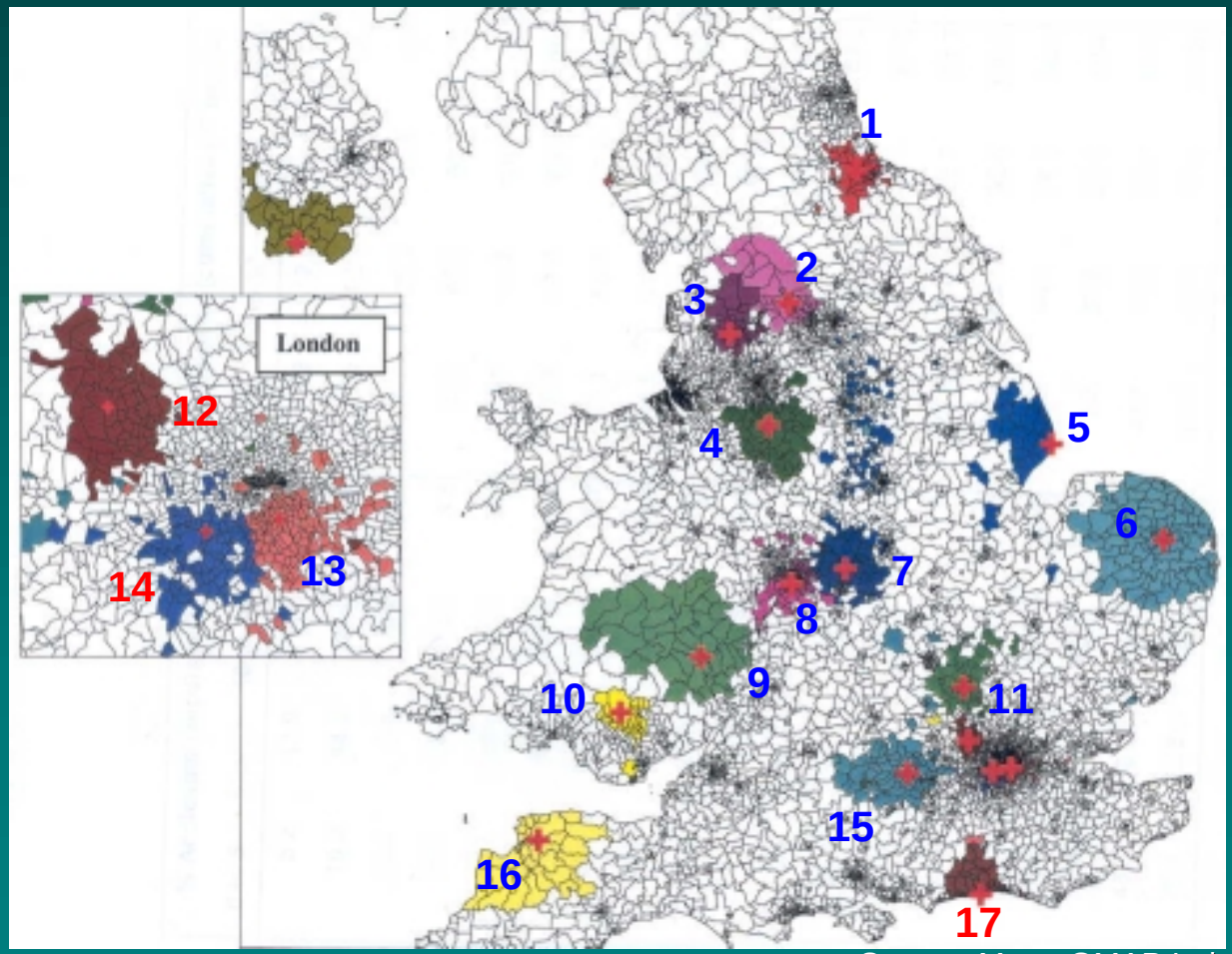


Source: Map - GMAP Ltd

1 North Tees, Stockton

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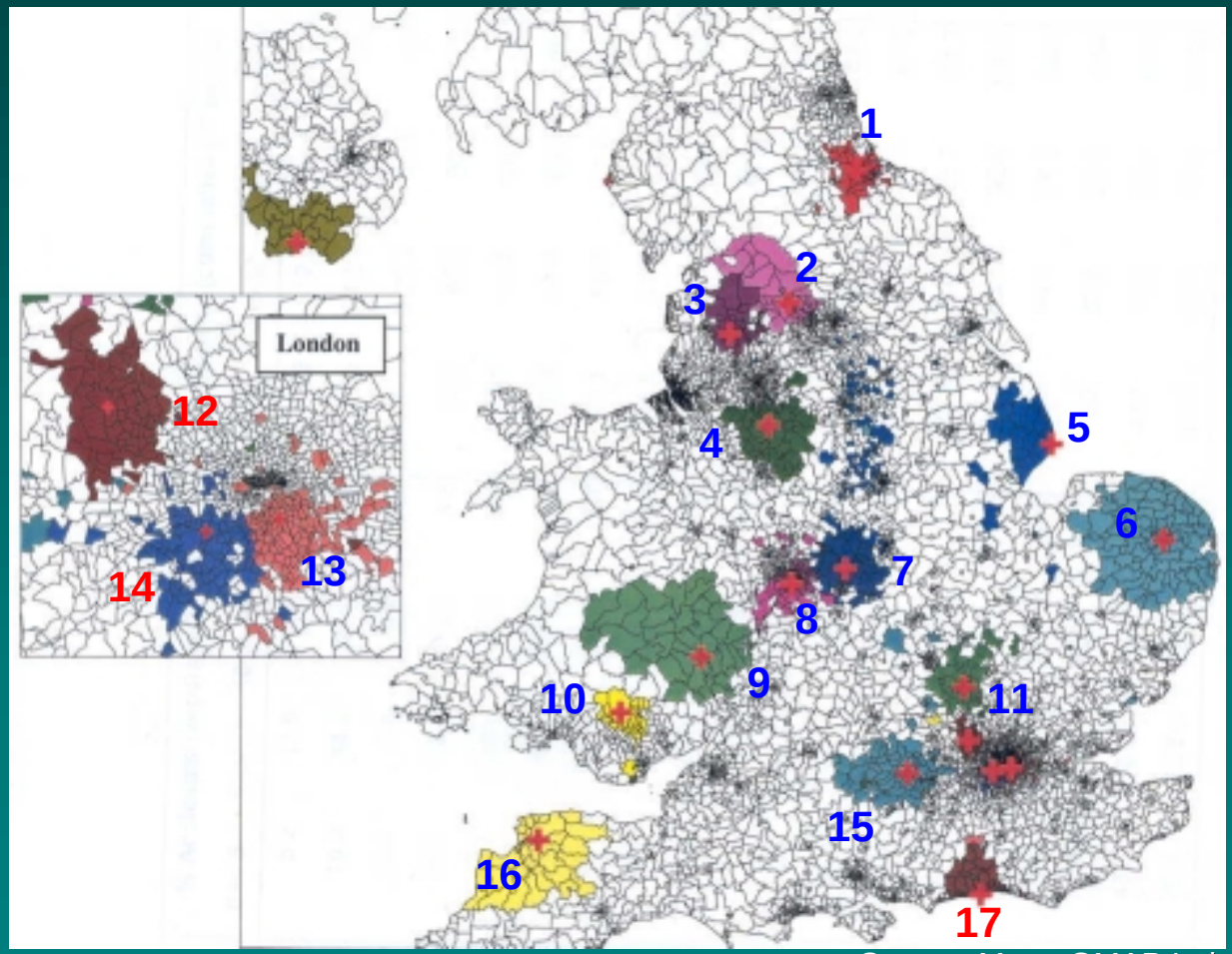


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1 North Tees, Stockton

2 Airedale, Keighley

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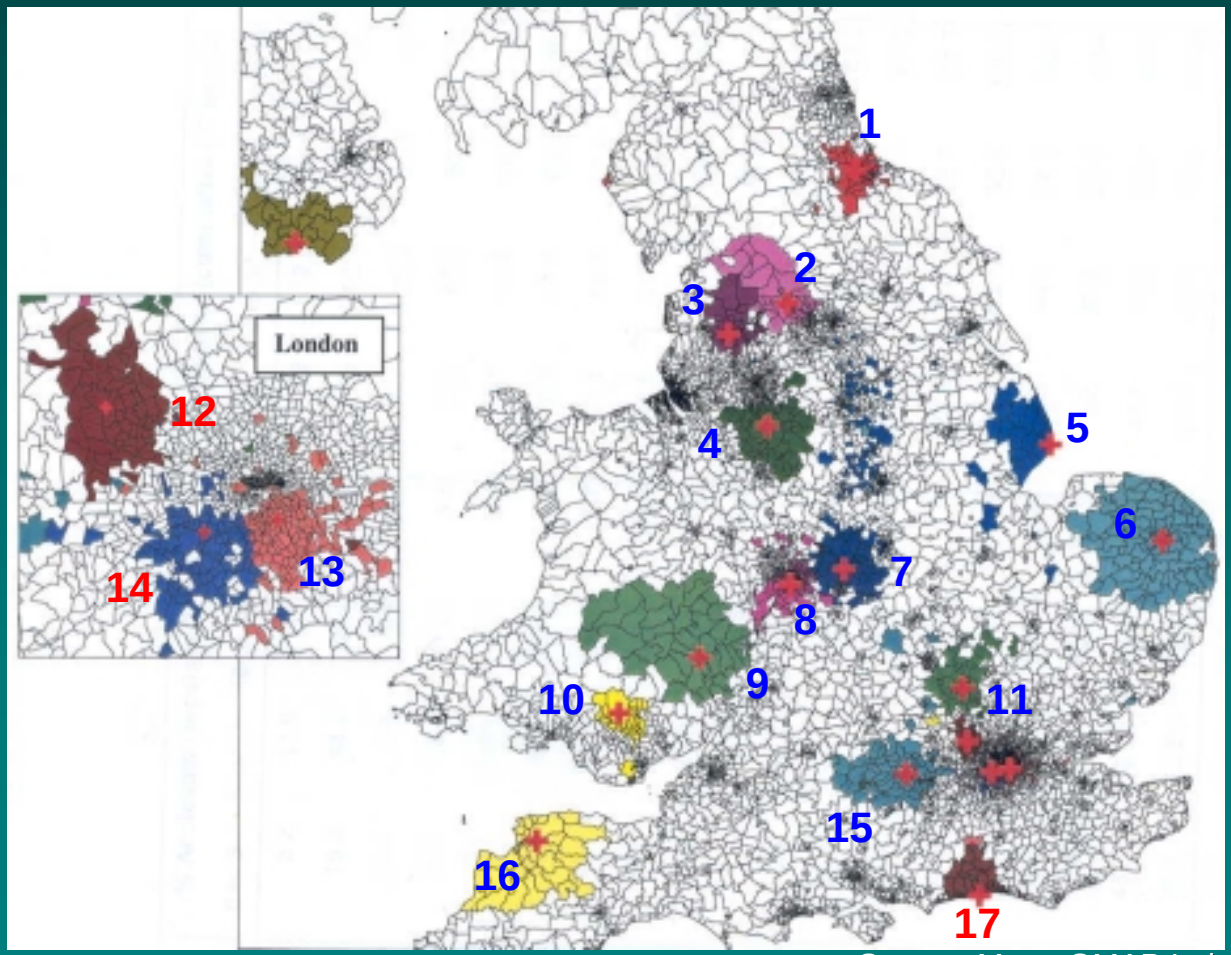


Source: Map - GMAP Ltd

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2 Airedale, Keighley
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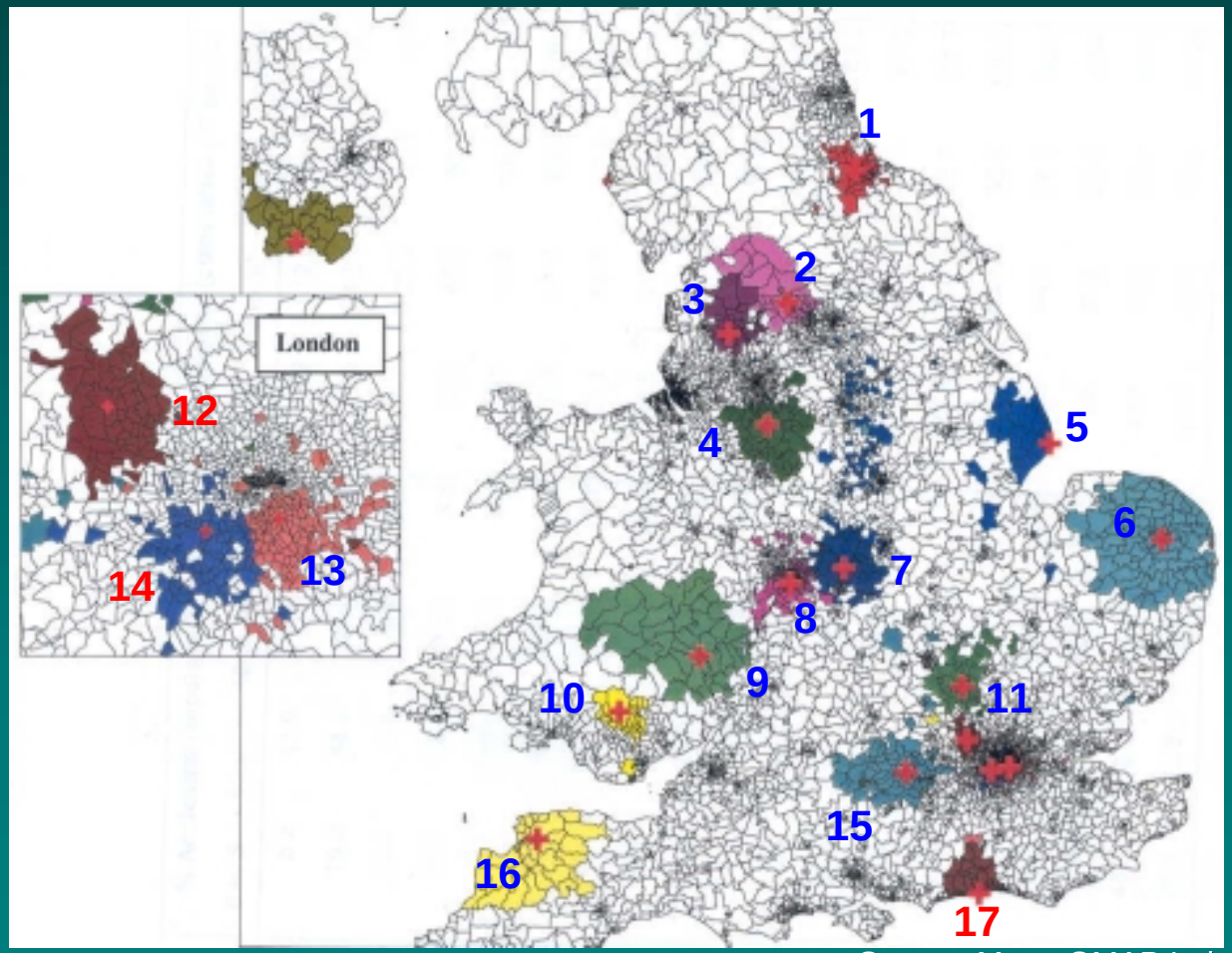


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1 North Tees, Stockton
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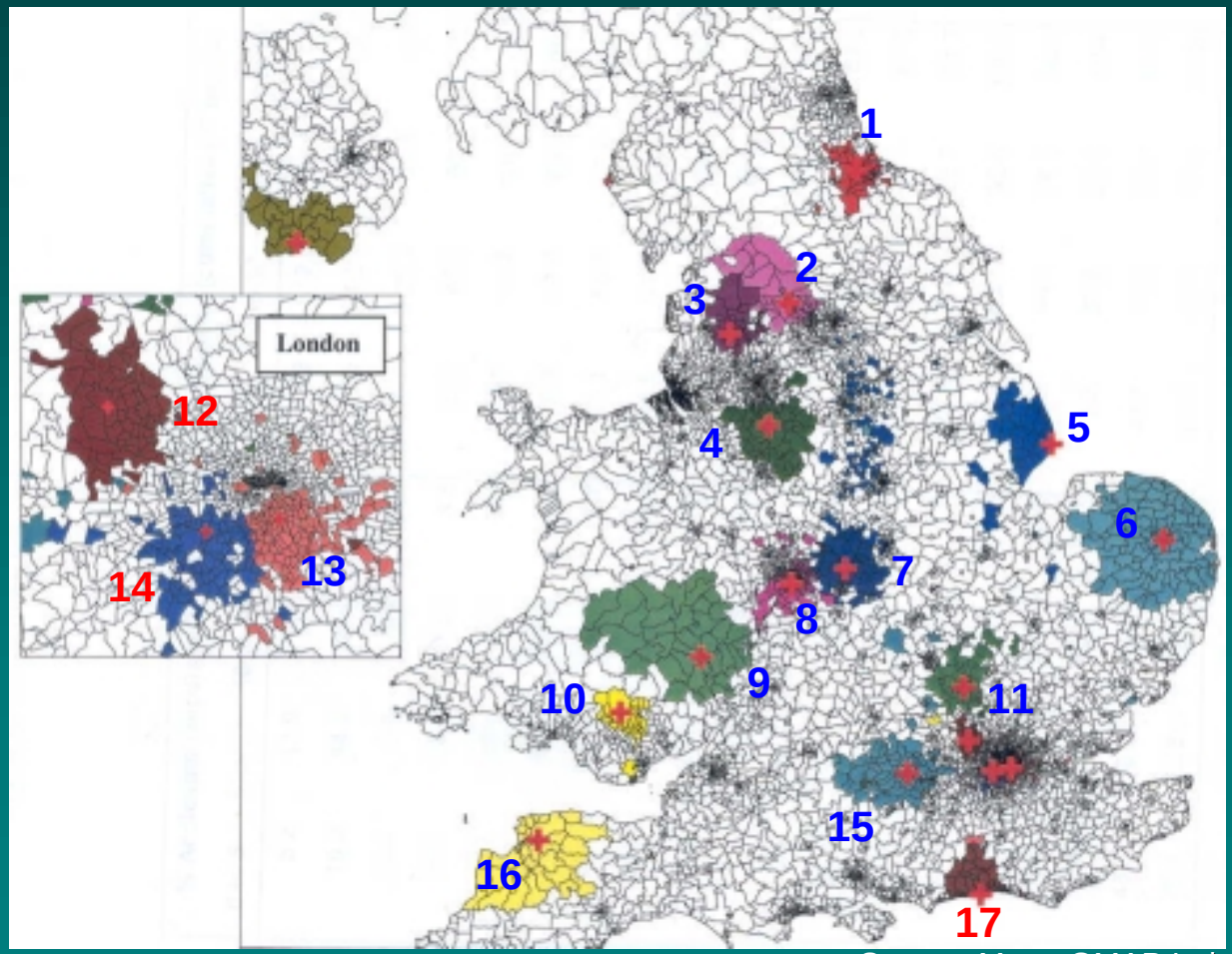


1 North Tees, Stockton
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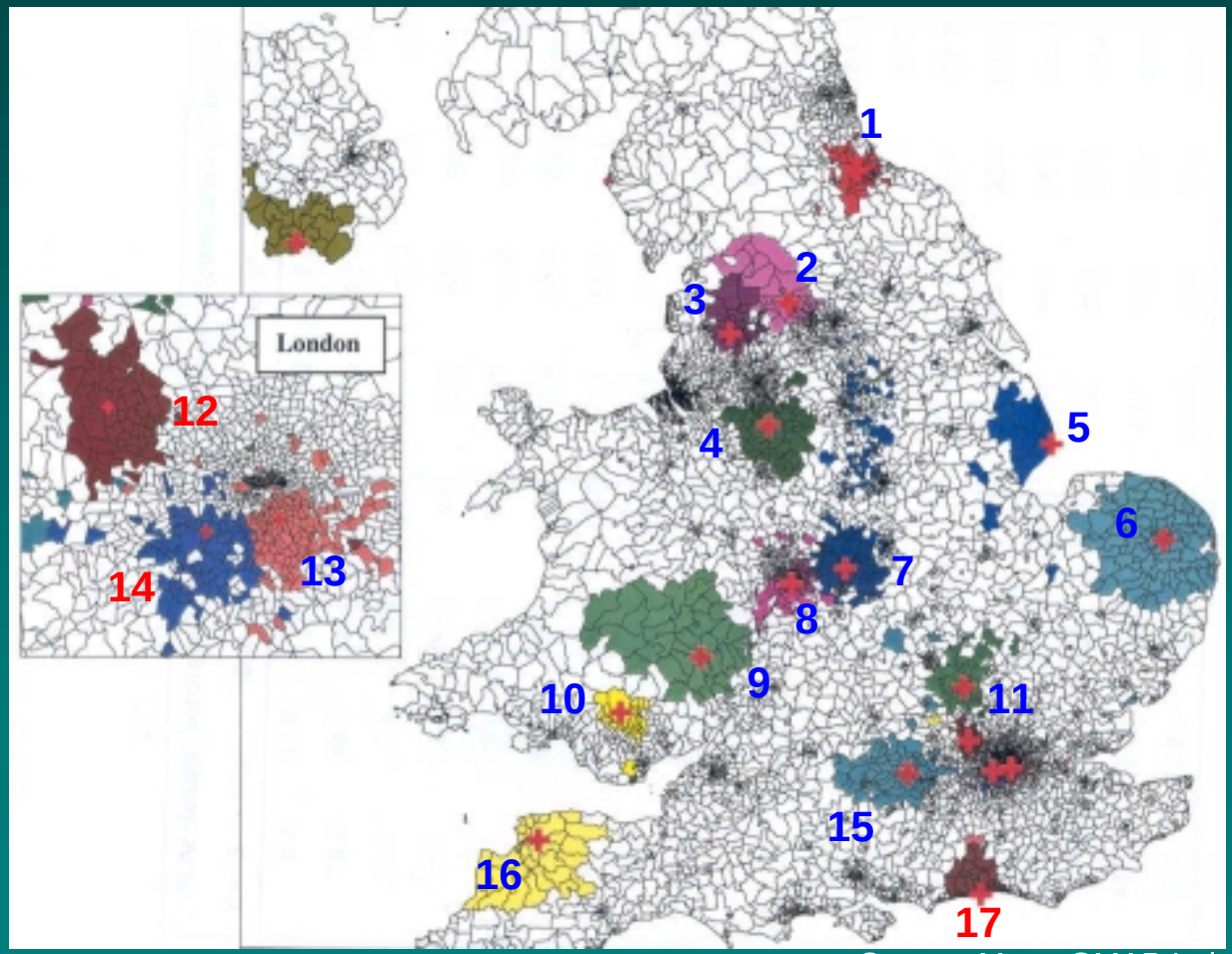


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1 North Tees, Stockton
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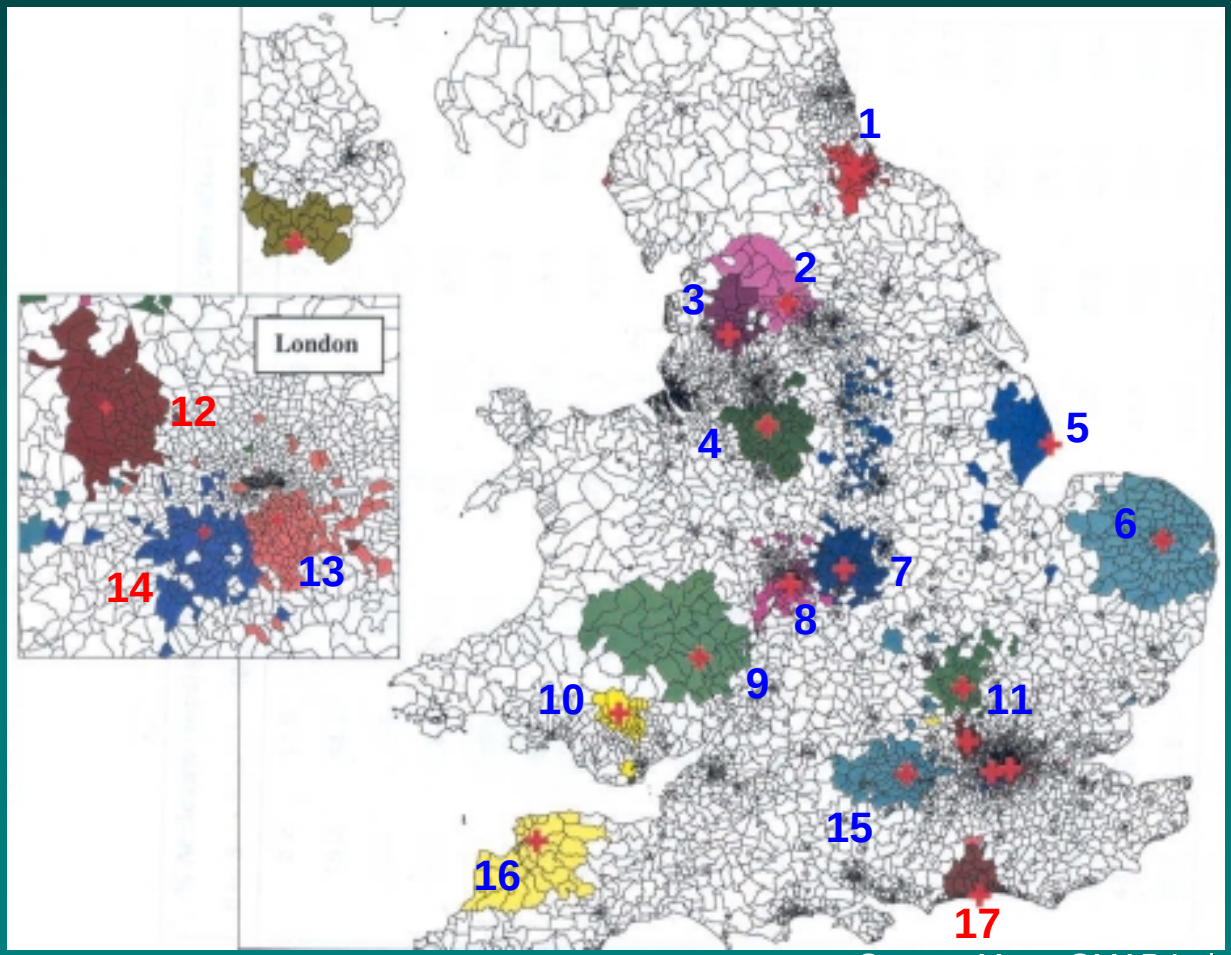


Source: Map - GMAP Ltd

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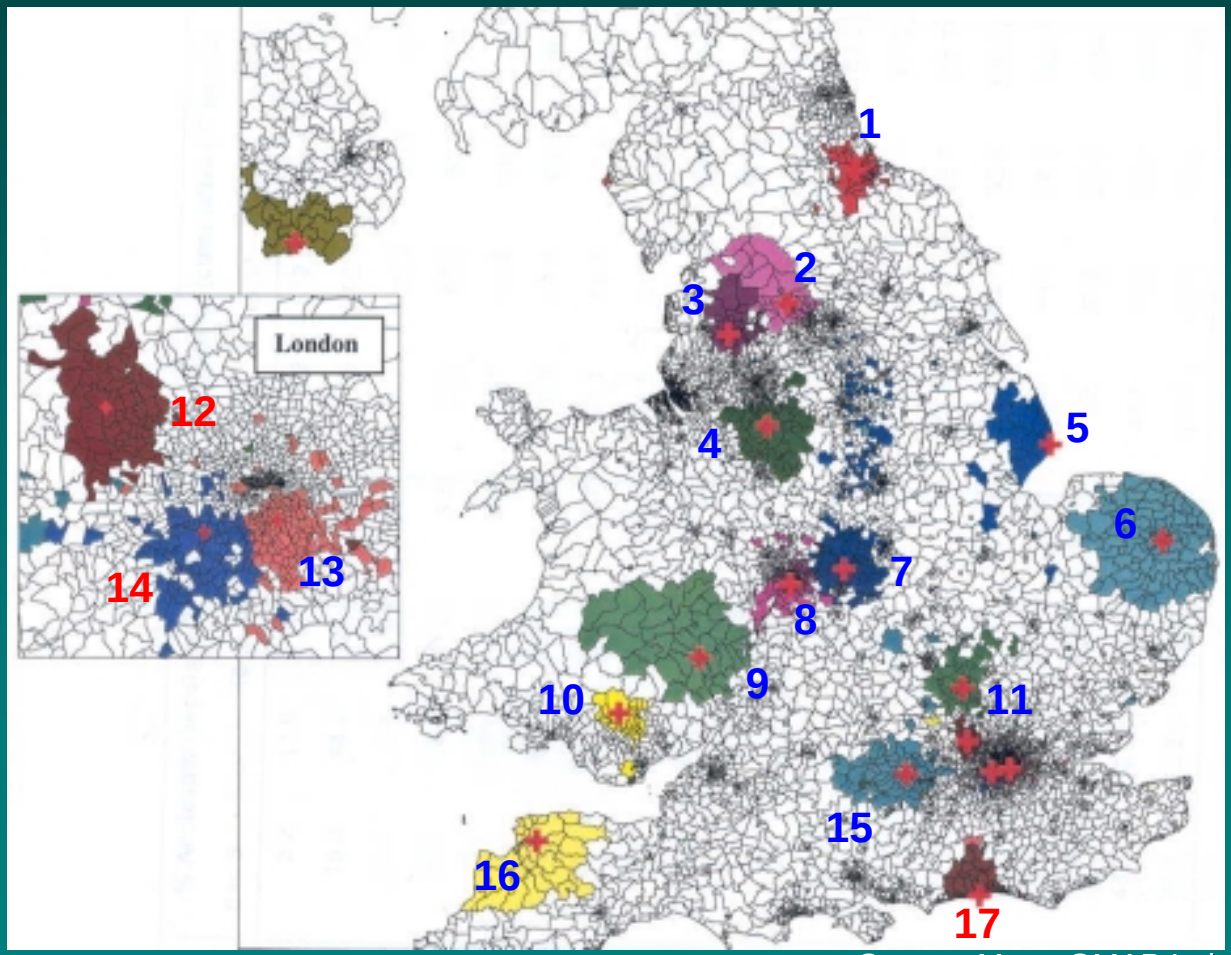


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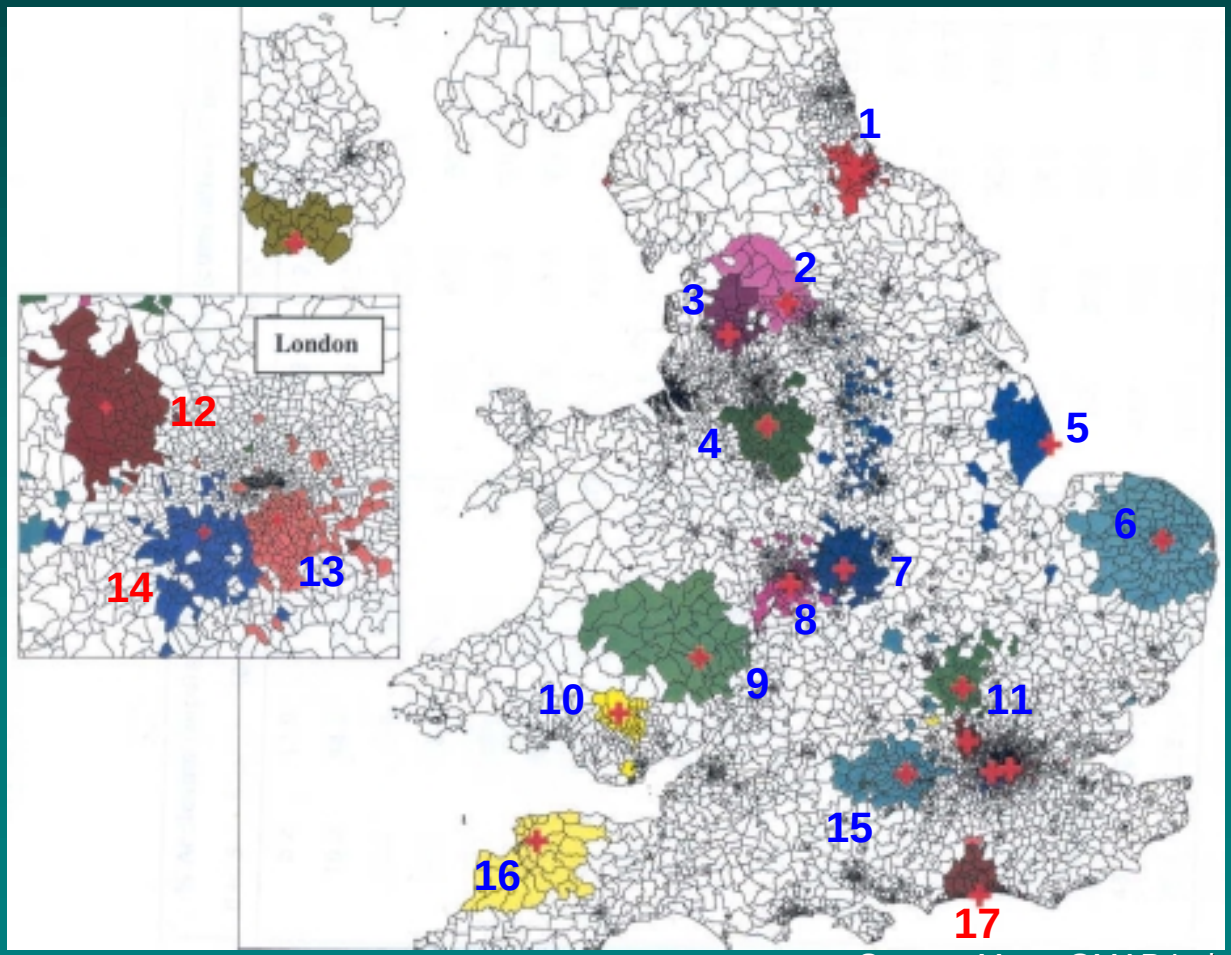


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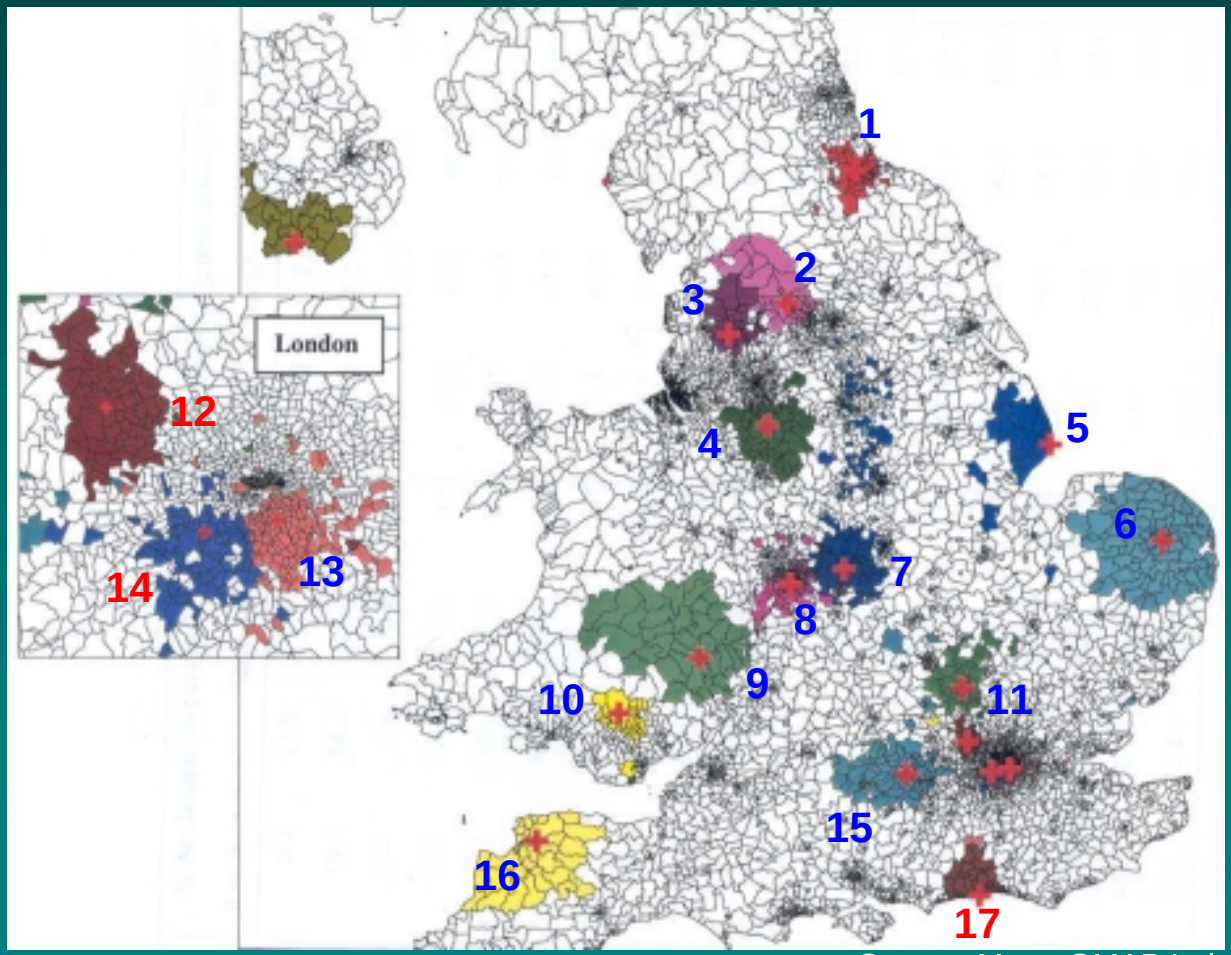


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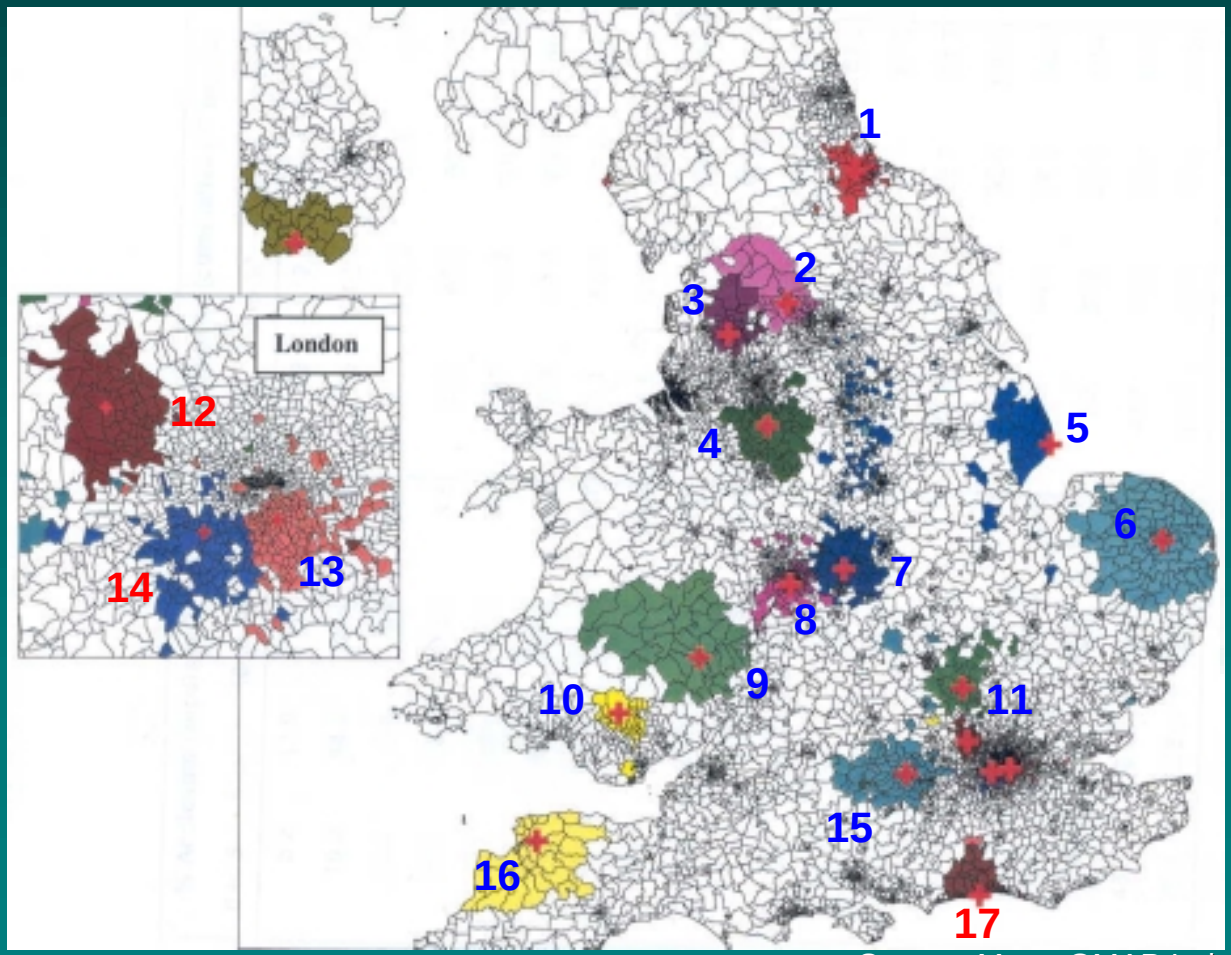


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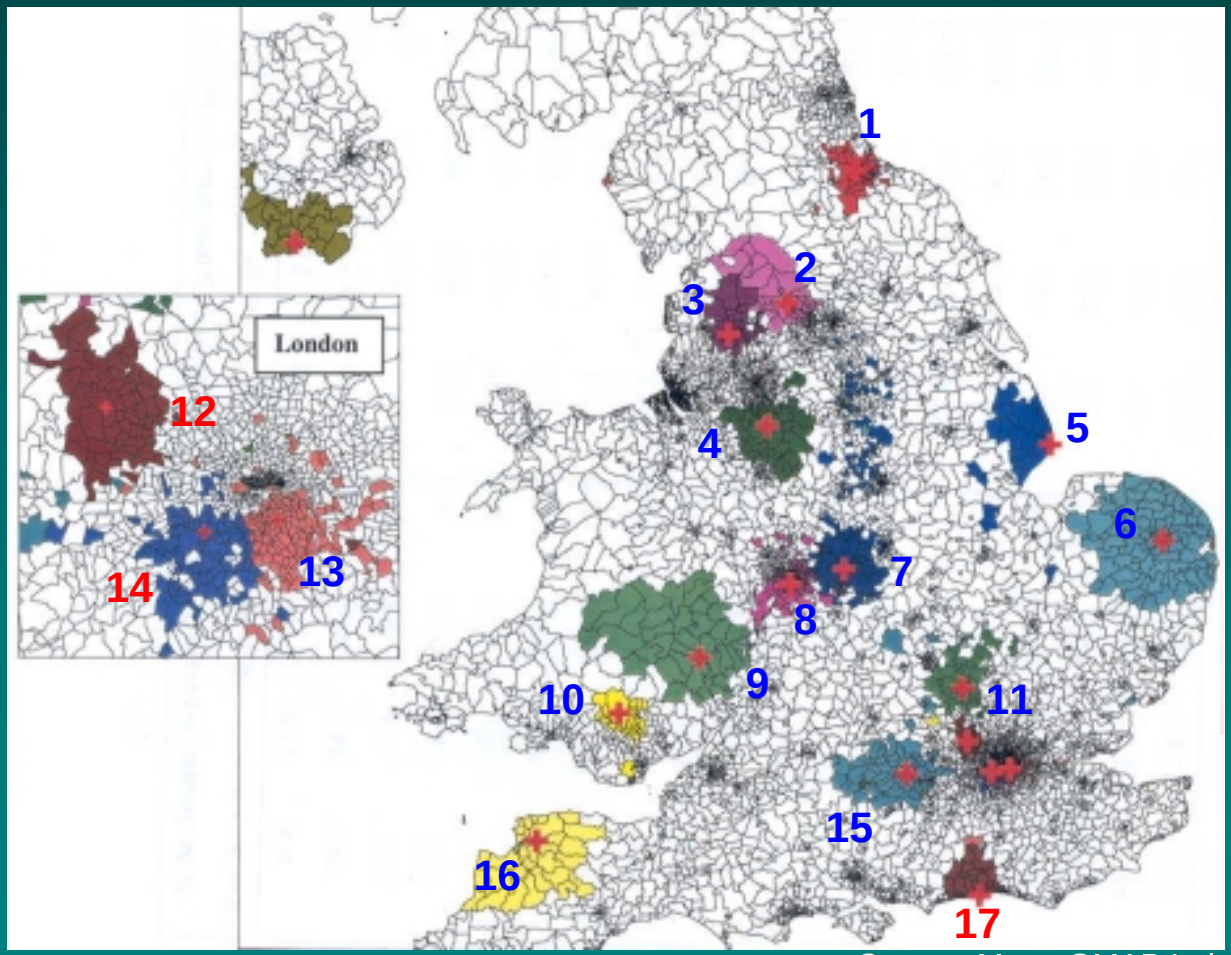


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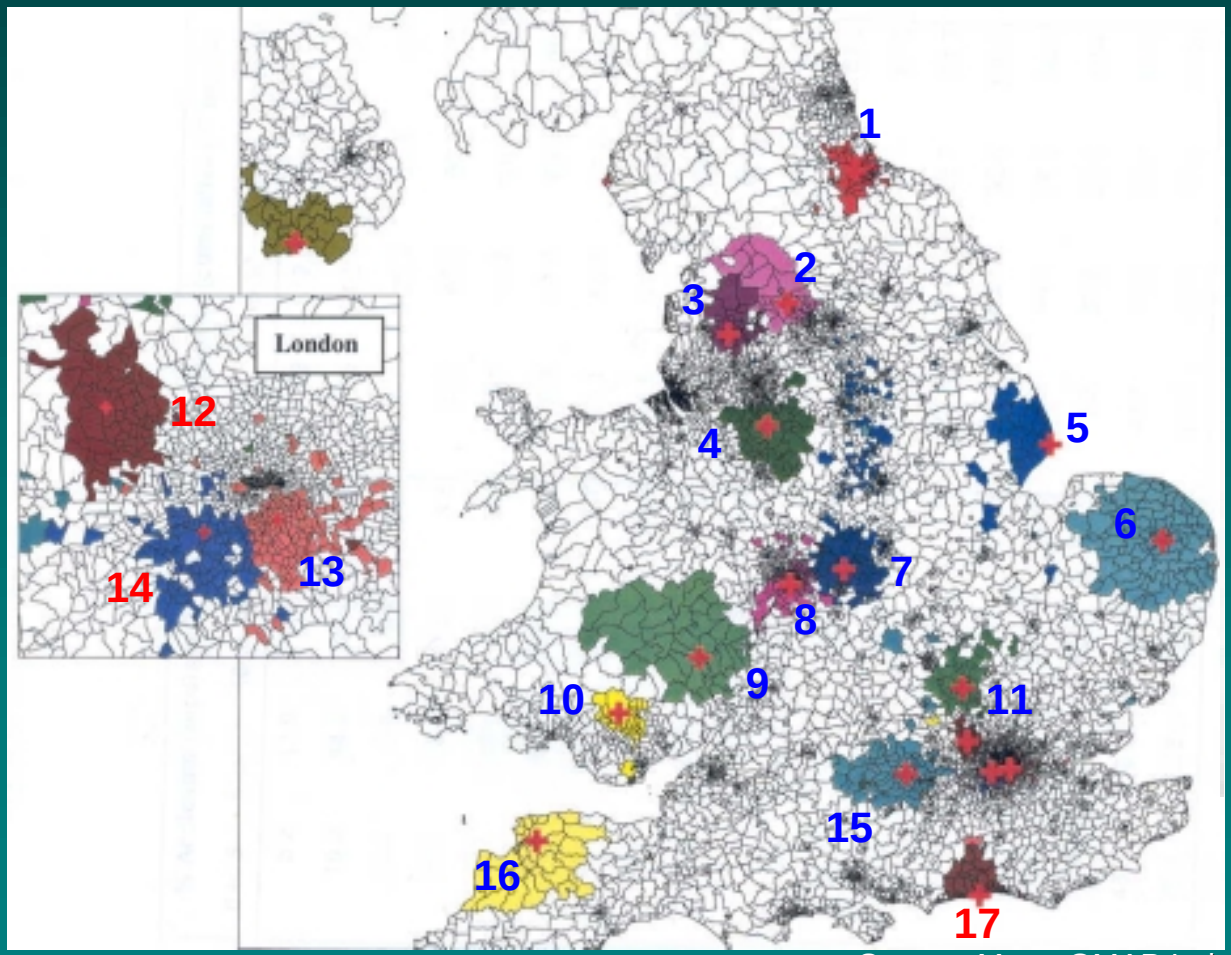


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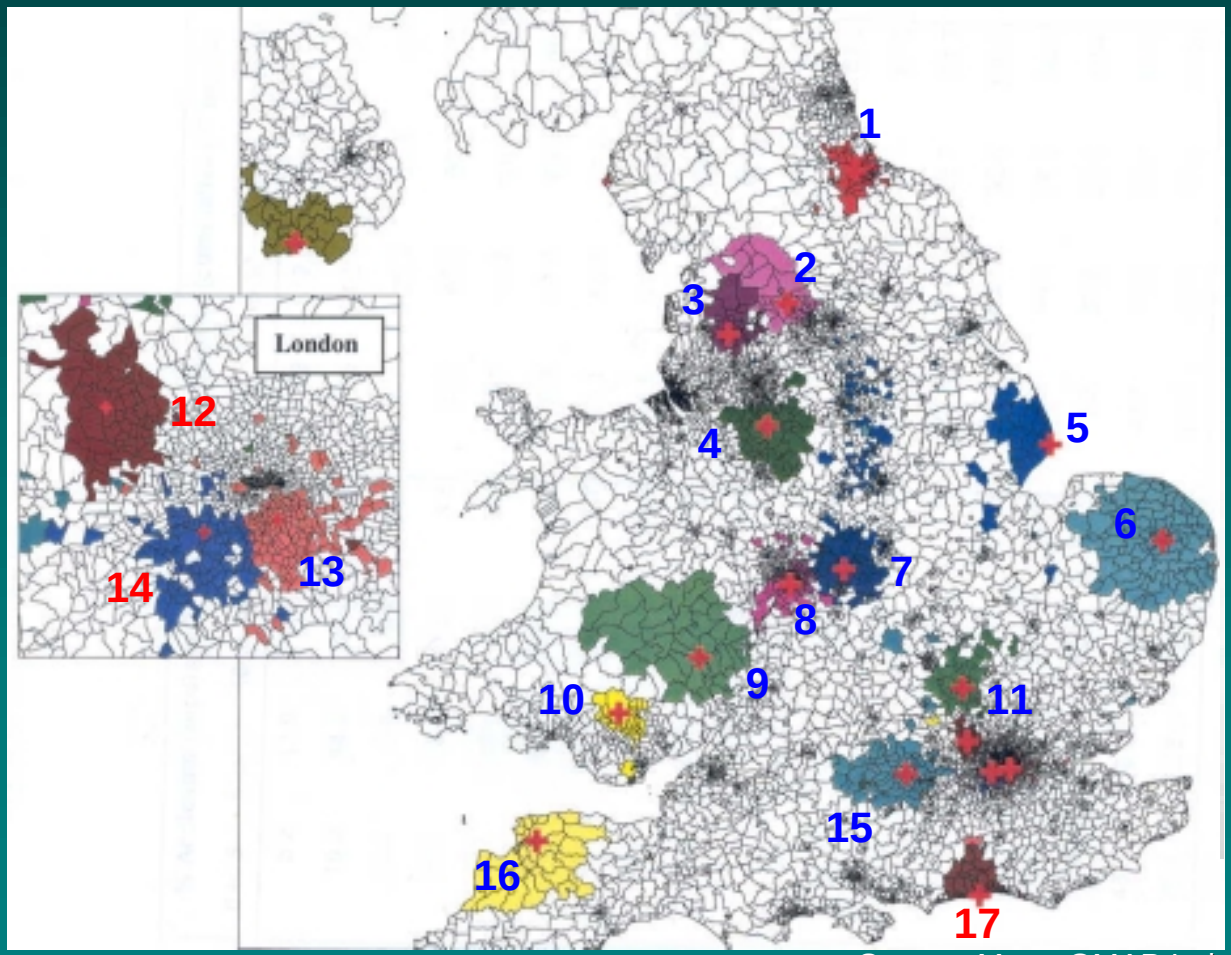


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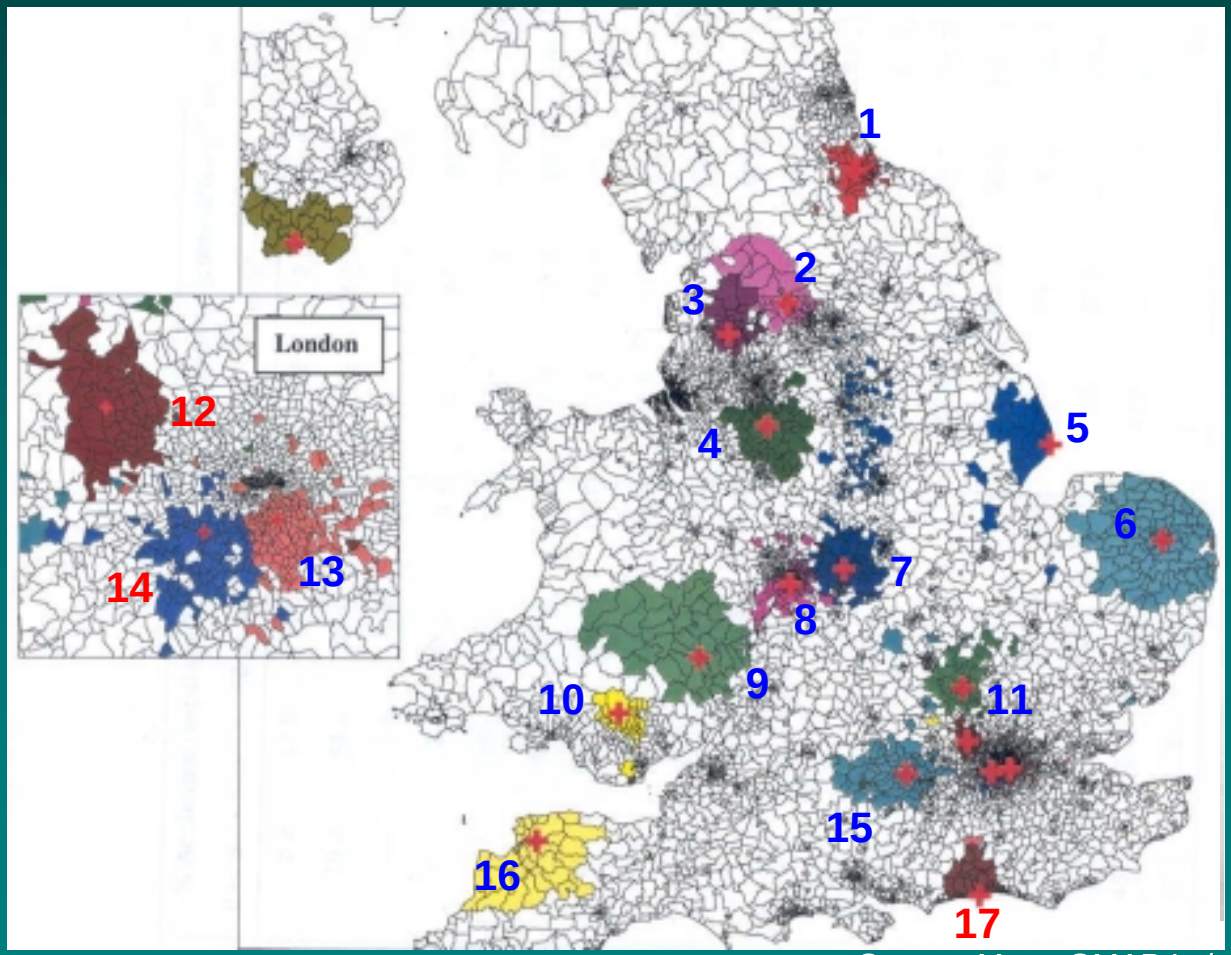


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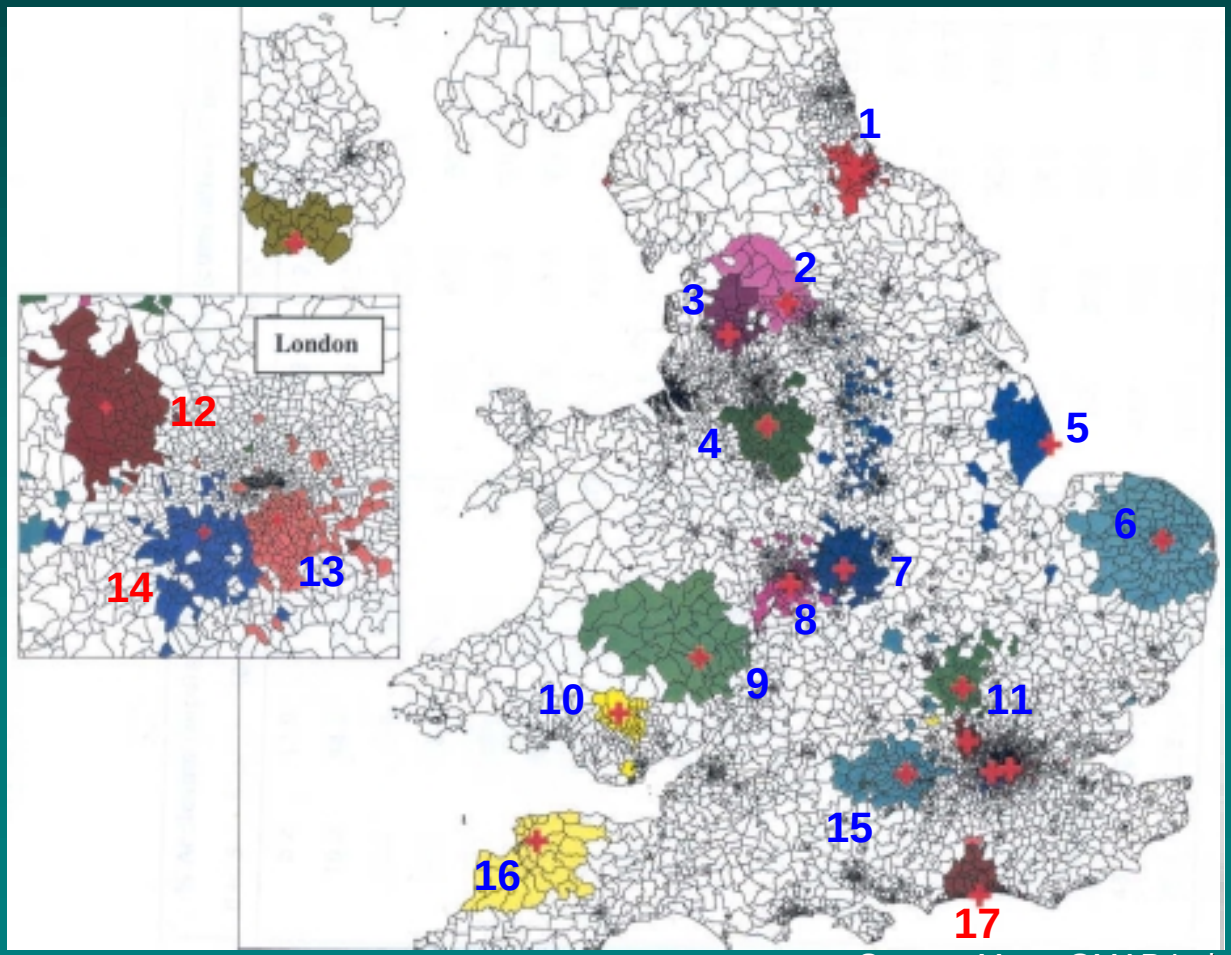


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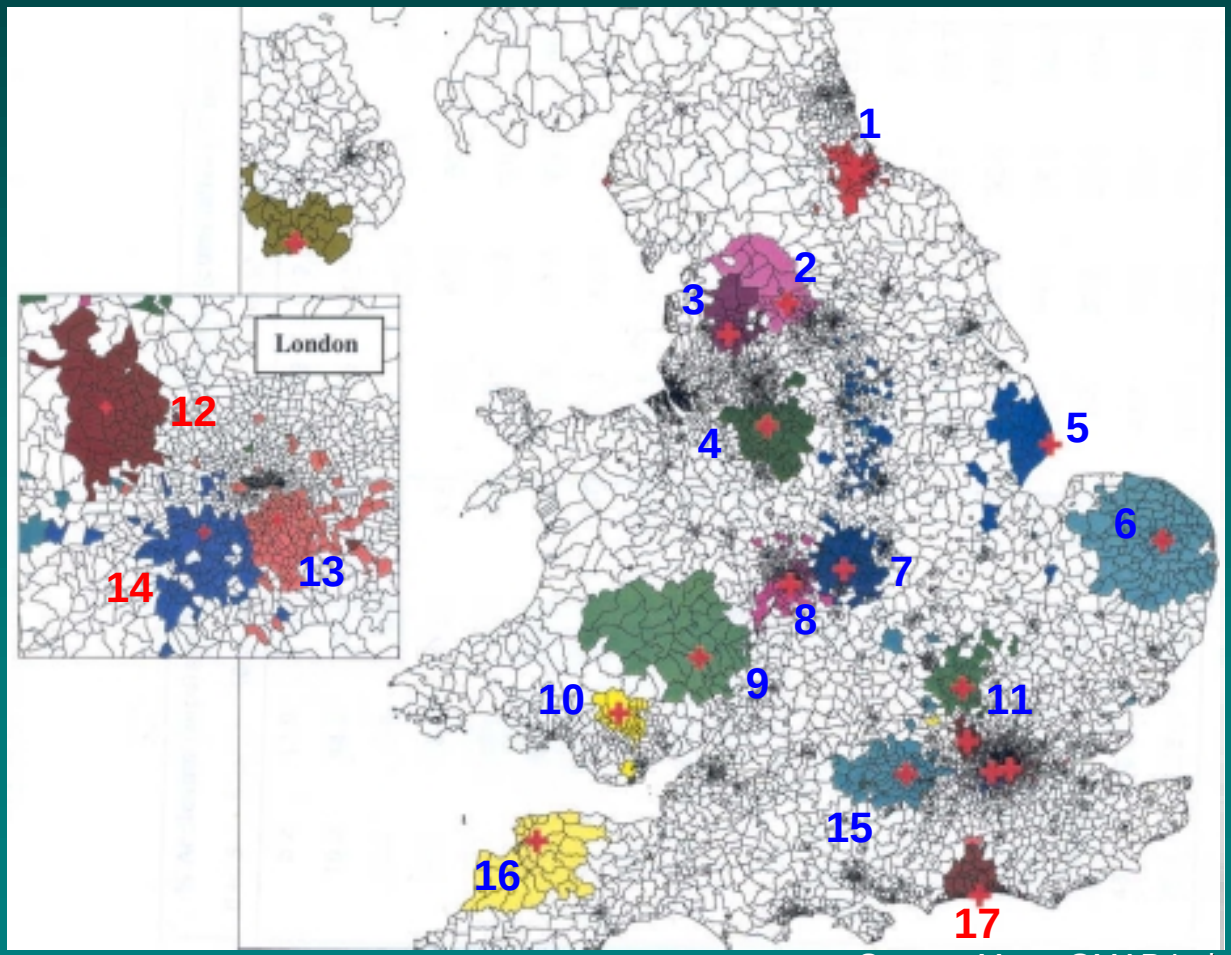


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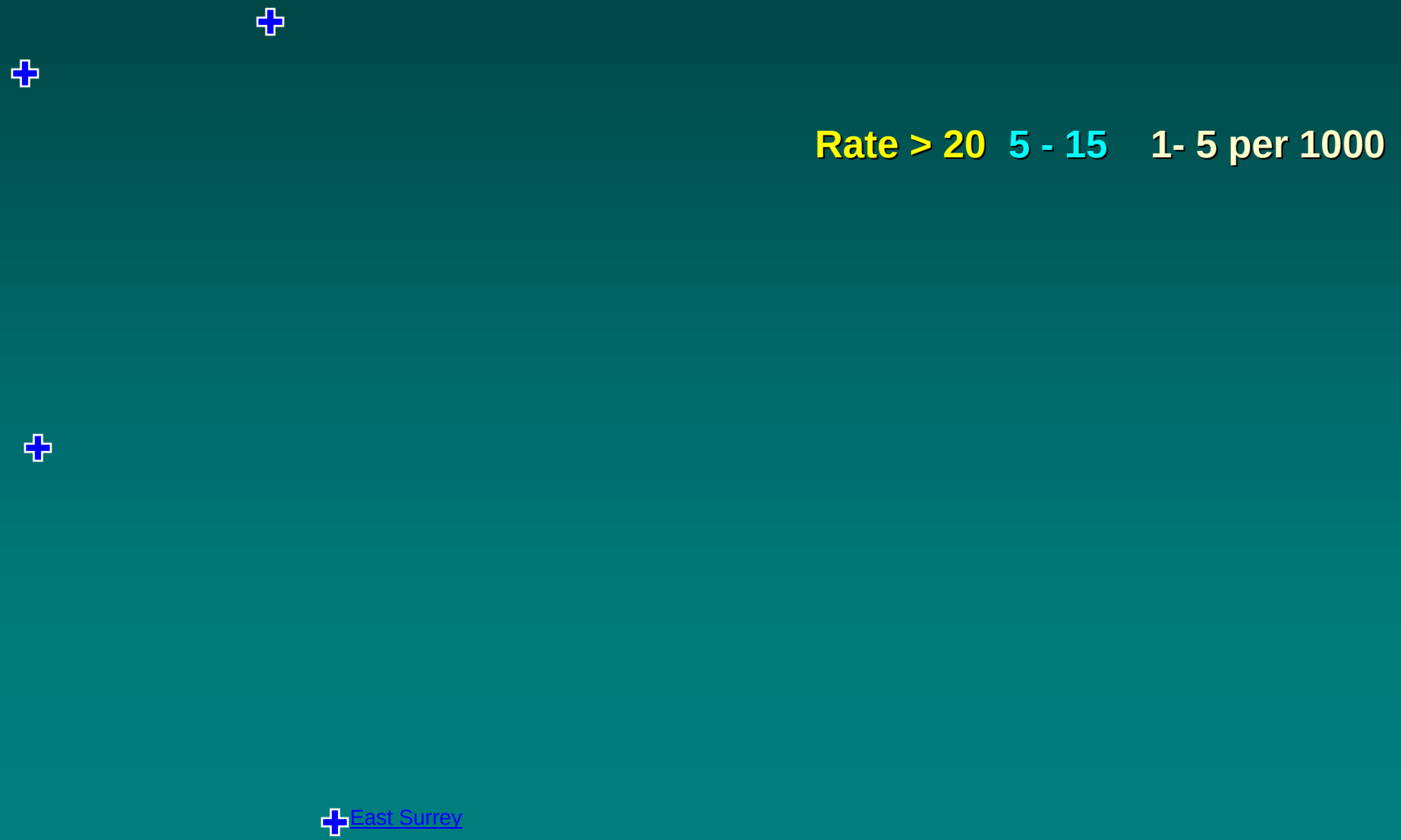
11 Luton and Dunstable
12 Mt Vernon Hillingdon (to 98)
13 Kings College, London SE5
14 Queen Marys, SW15 (to 98)
15 Royal Berks, Reading
16 North Devon, Barnstable
17 Worthing Hospital (1998 on)

# 9. Accident rates in core, intermediate & outer catchment areas of St Helier hospital, Sutton



# 9. Accident rates in core, intermediate & outer catchment areas of St Helier hospital, Sutton

**Rate > 20  5 - 15  1- 5 per 1000**

# 9. Accident rates in core, intermediate & outer catchment areas of St Helier hospital, Sutton

St Georges
Kingston
Mayday
St Helier
Epsom
East Surrey
SUTTON
SM
EPSOM
CROYDON
Banstead
Coulsdon
Purley
Kenley
Tadworth
Walton on the Hill
Headley
Coombe
Nutfield
Redhill
M25
A217
A23
A240
A2022
A2043
A2216
A236
A237
A235
A2022
A2023
A2022
A2022
A2022

# 9. Accident rates in core, intermediate & outer catchment areas of St Helier hospital, Sutton

**Rate > 20  5 - 15  1- 5 per 1000**

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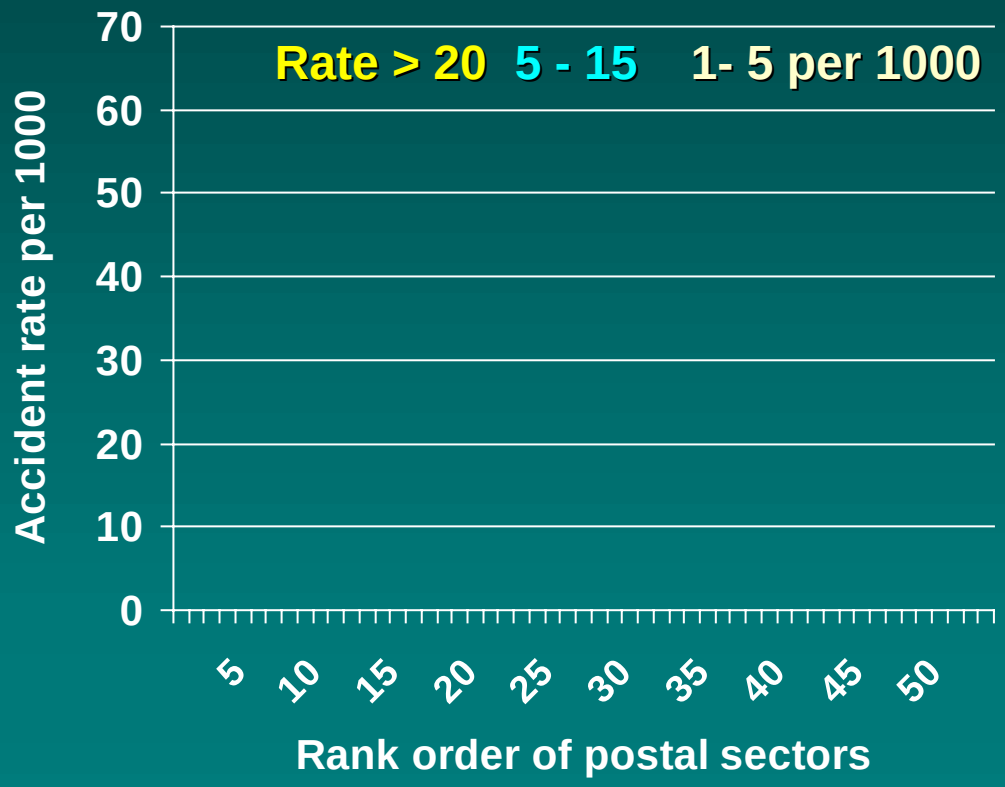
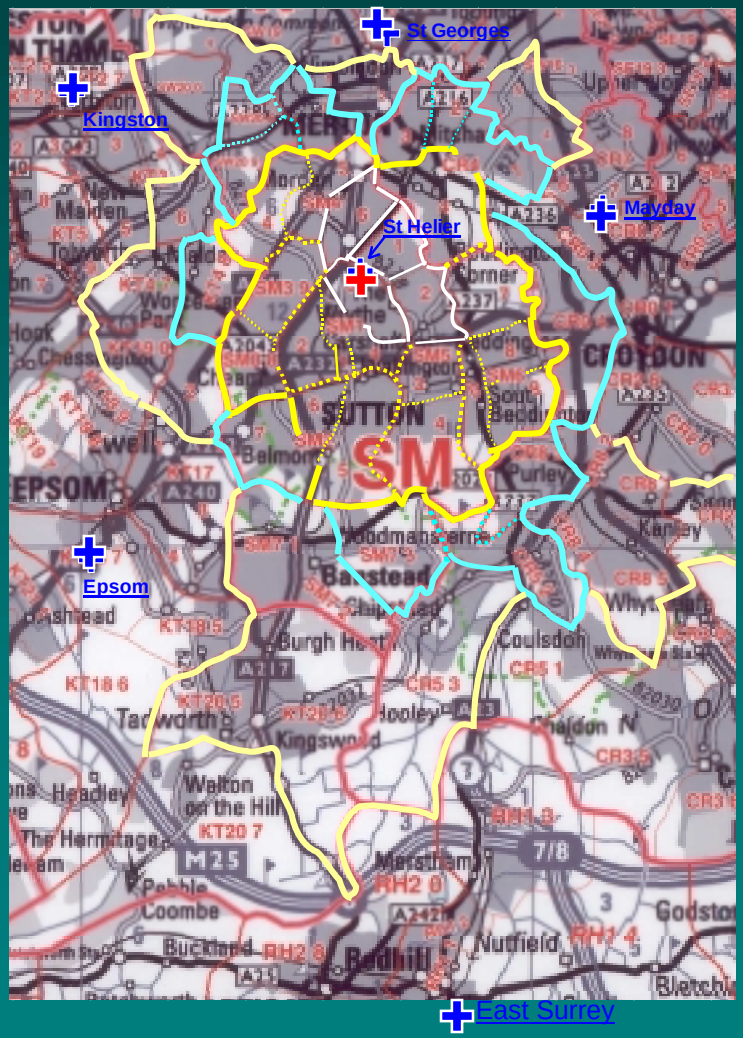
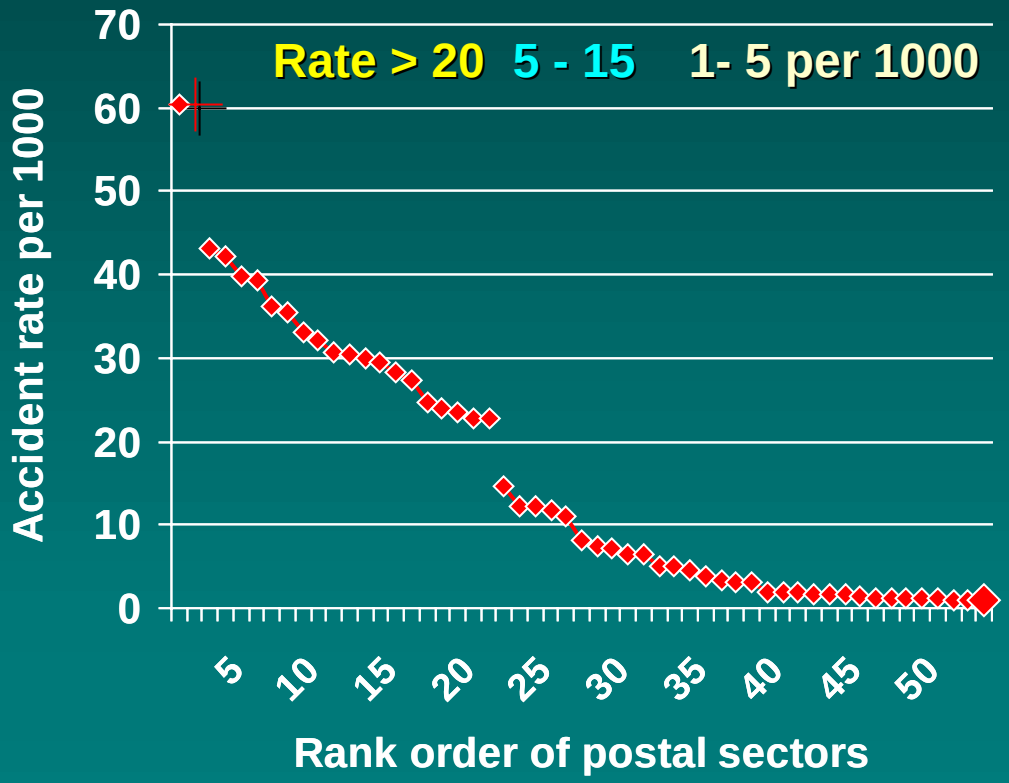



Legal Research Institute, University of Warwick

# 9. Accident rates in core, intermediate & outer catchment areas of St Helier hospital, Sutton




Legal Research Institute, University of Warwick

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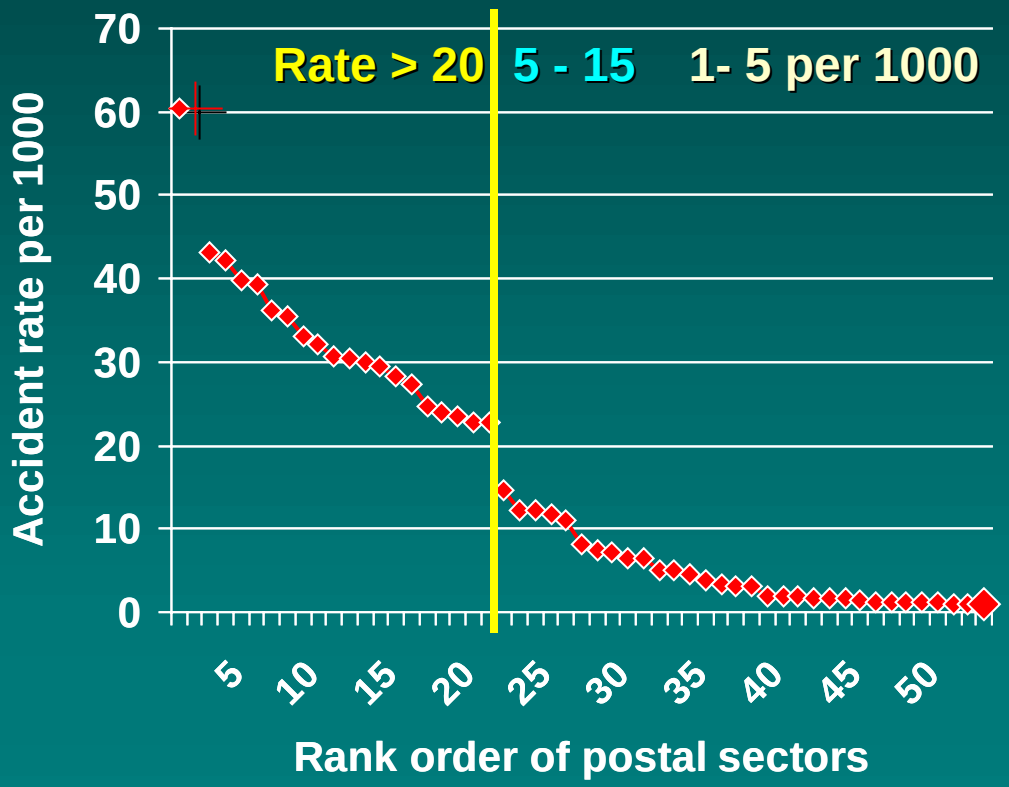


Legal Research Institute, University of Warwick

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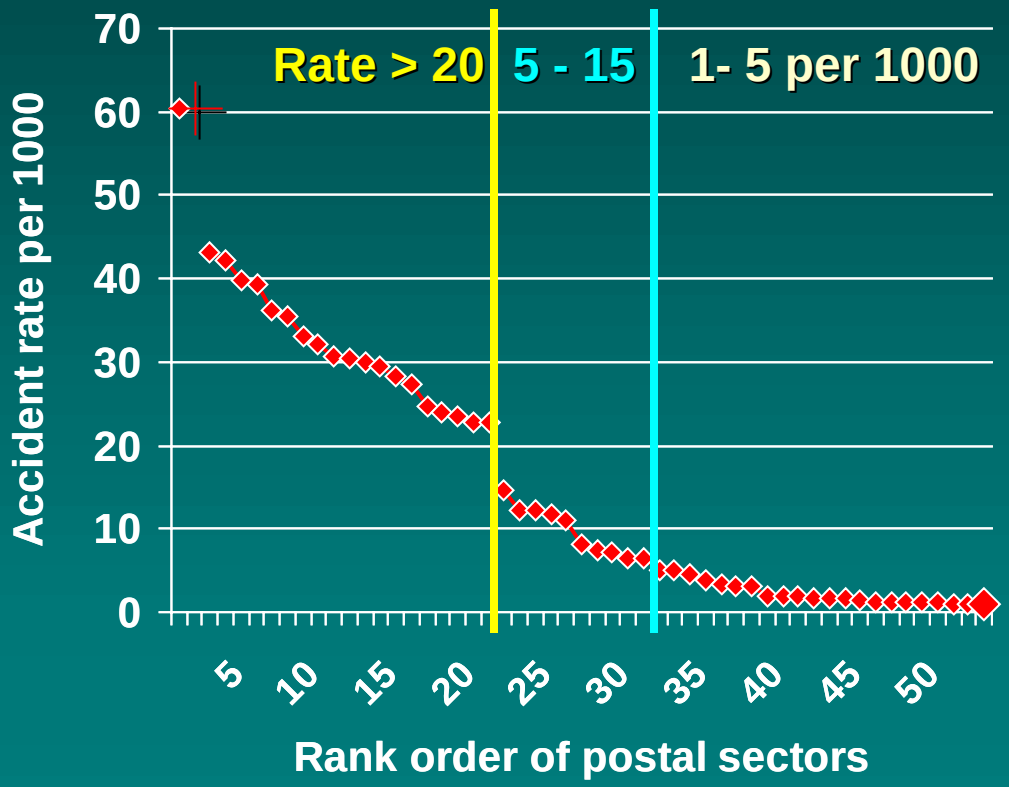


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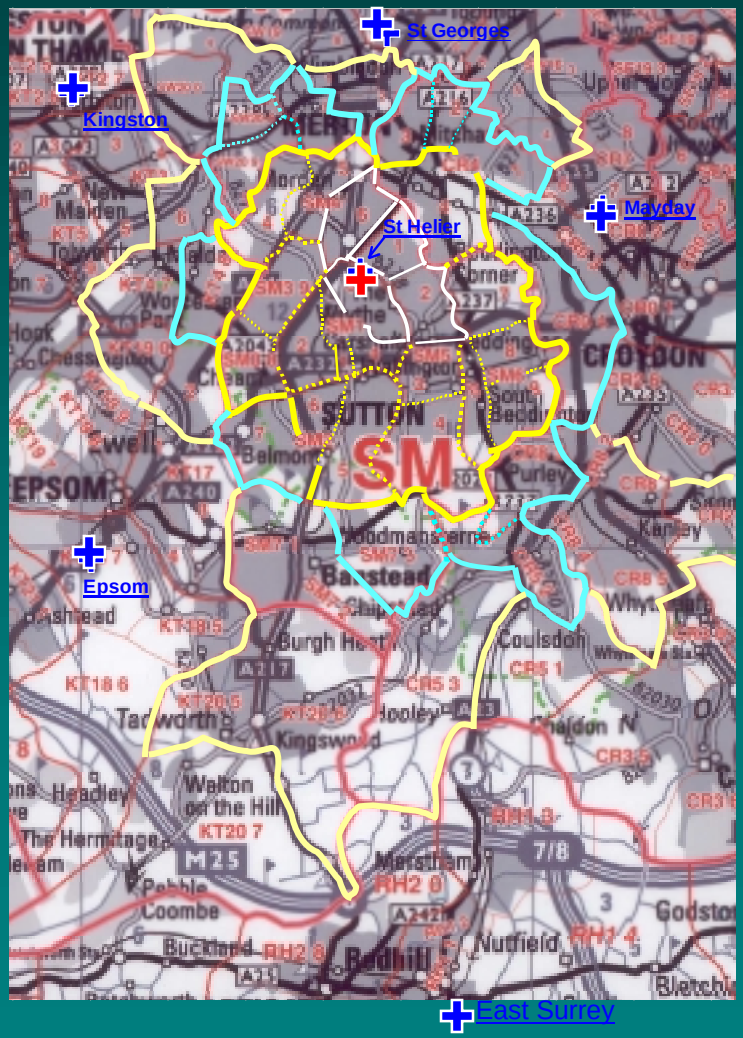
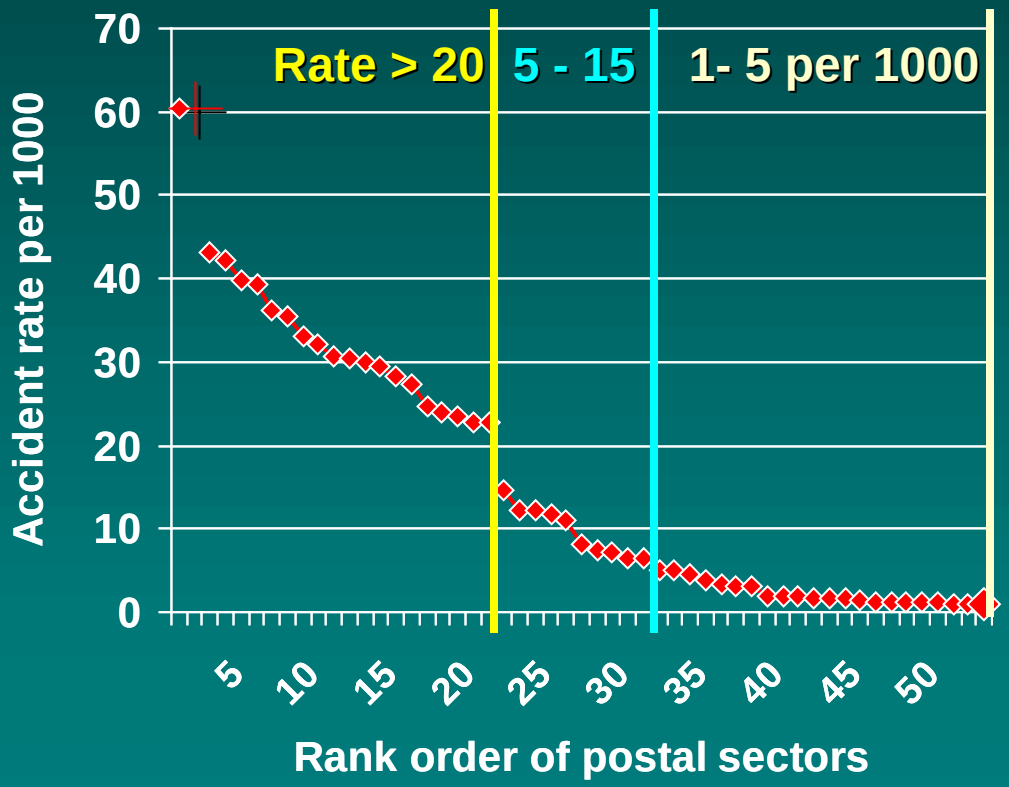
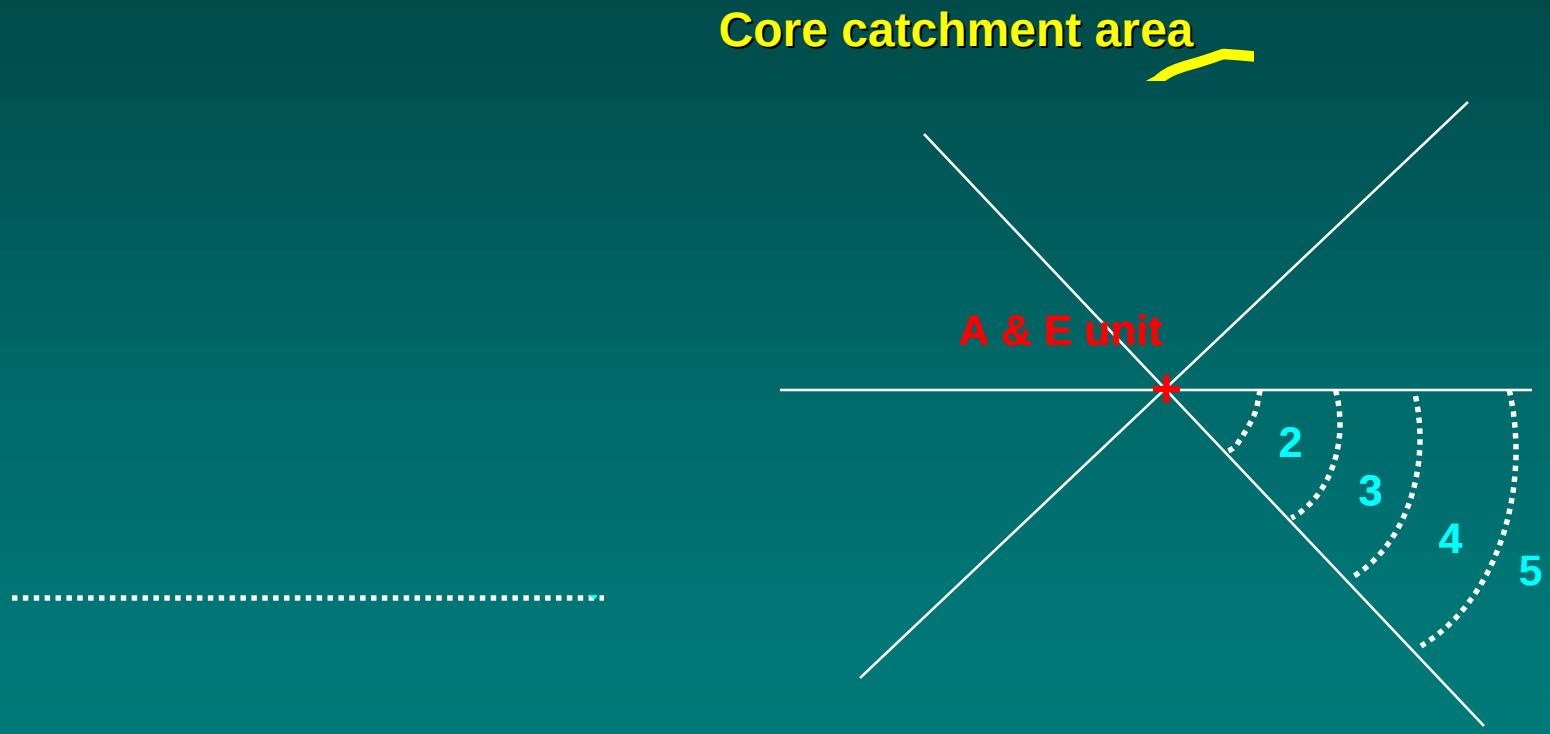



Legal Research Institute, University of Warwick

# 10. Determination of Zones for relative distance of accident from hospital A & E unit



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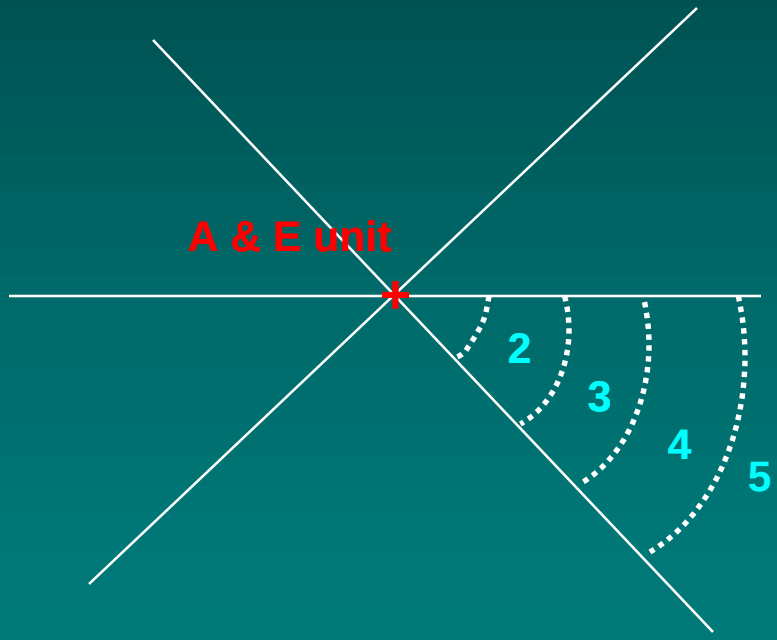
**Core catchment area**

**Selly Oak A & E unit  B29 6JG**



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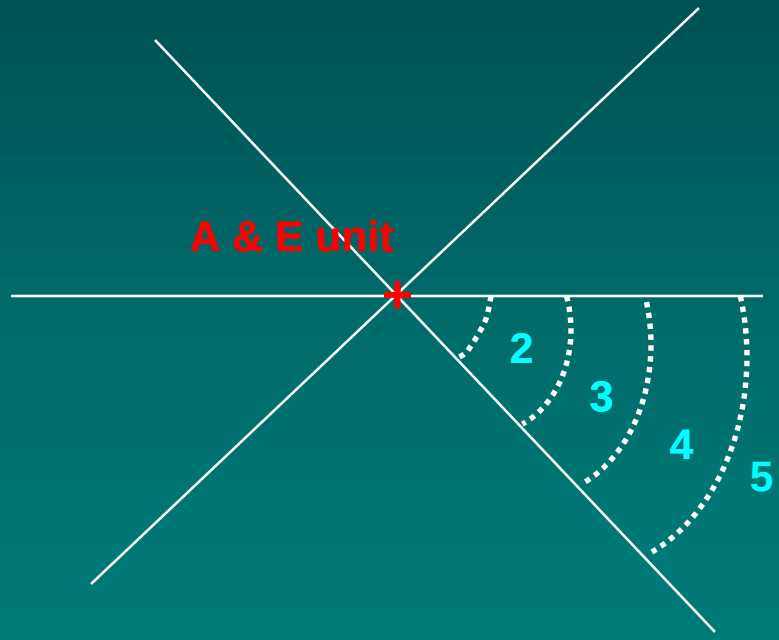
**Core catchment area**

**Selly Oak A & E unit  B29 6JG**

**Grid ref: 404236E  282261N**



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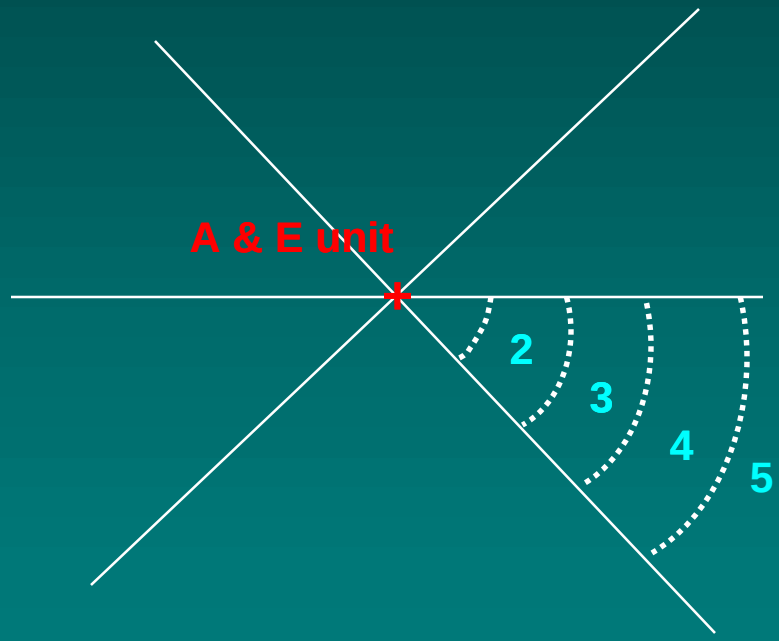

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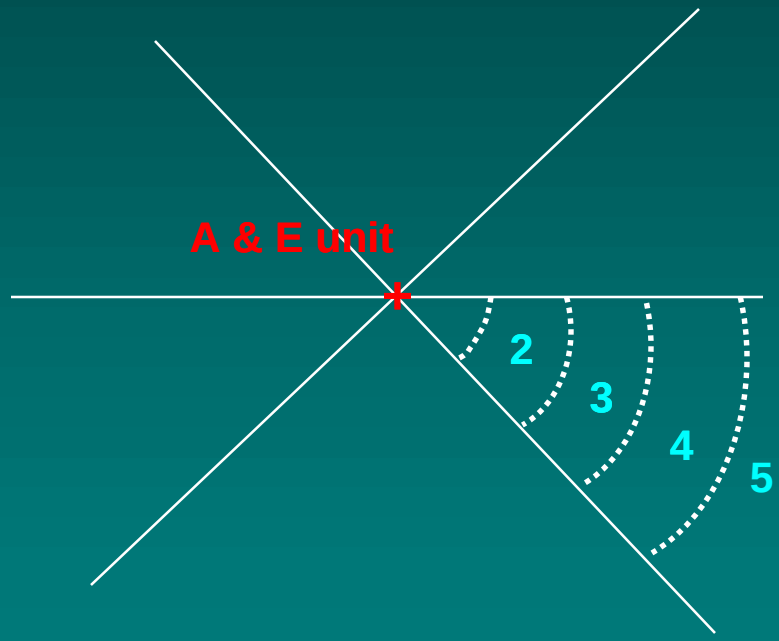

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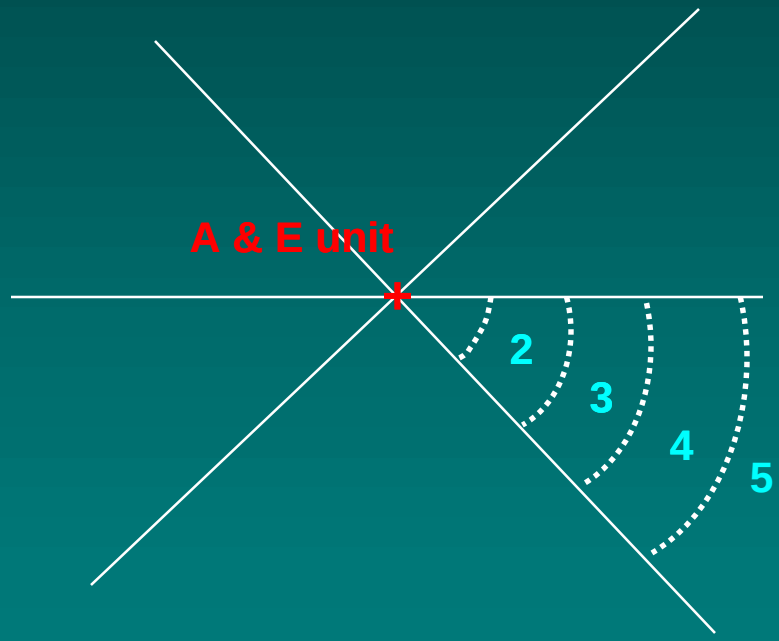


**Accident in B13 0JP**

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**Core catchment area**

**Selly Oak A & E unit B29 6JG**

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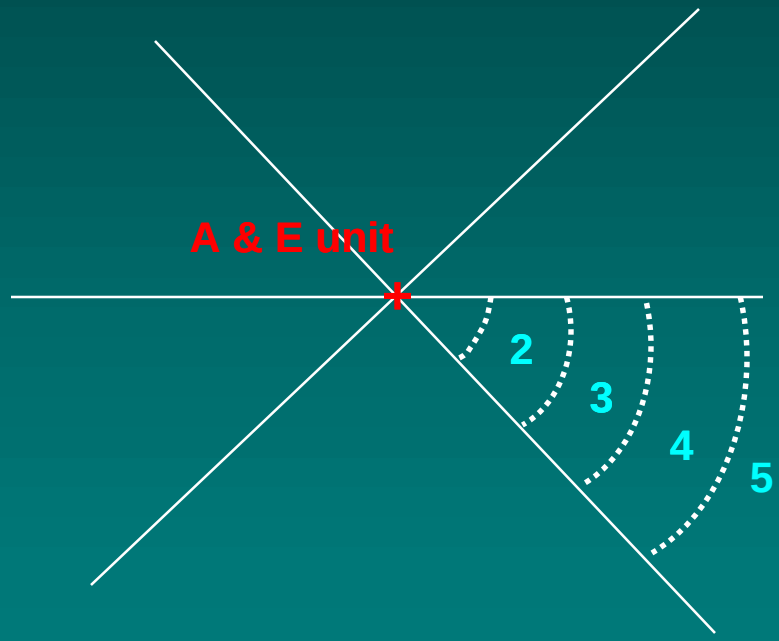


**Accident in B13 0JP**

**408660E 280245N**

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**Selly Oak A & E unit B29 6JG**

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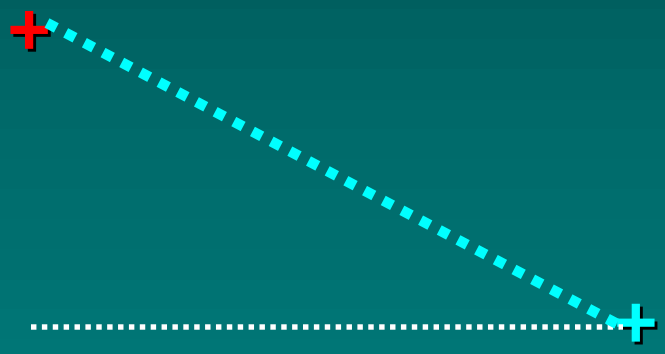
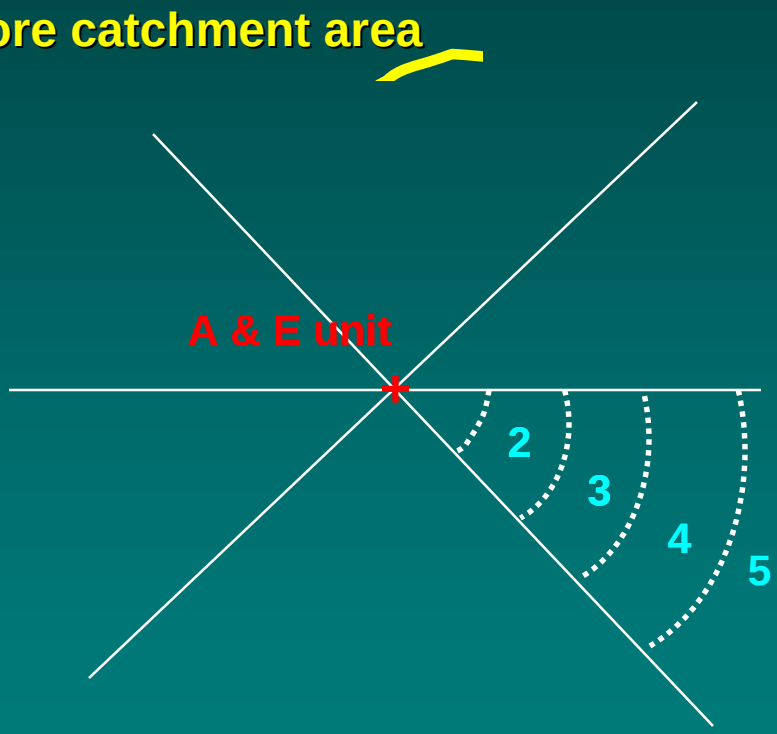


**Accident in B13 0JP**

**408660E 280245N**



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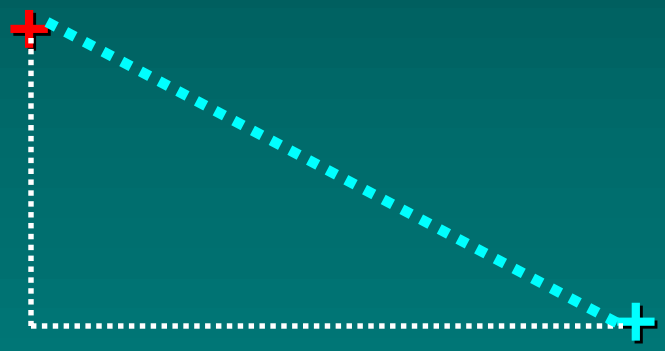
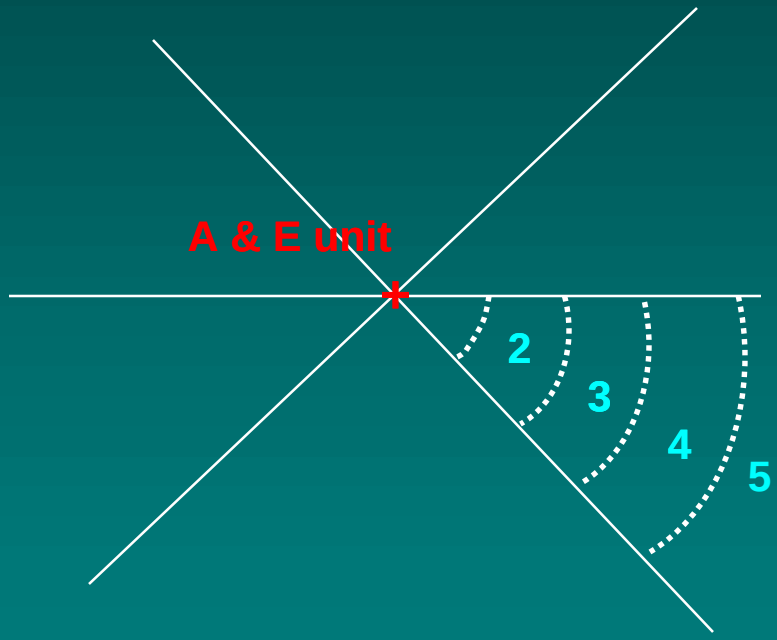


**Accident in B13 0JP**

**408660E 280245N**

**Core catchment area**



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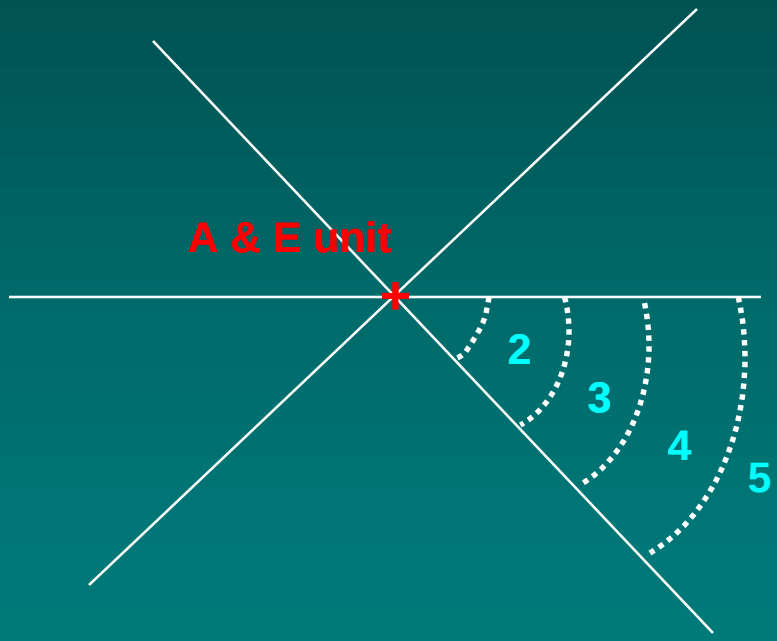

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**Accident in B13 0JP**

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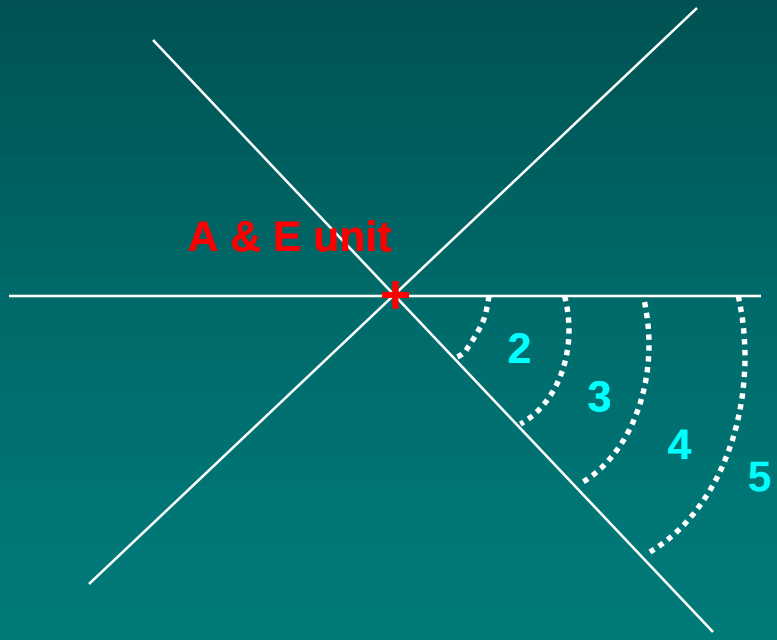

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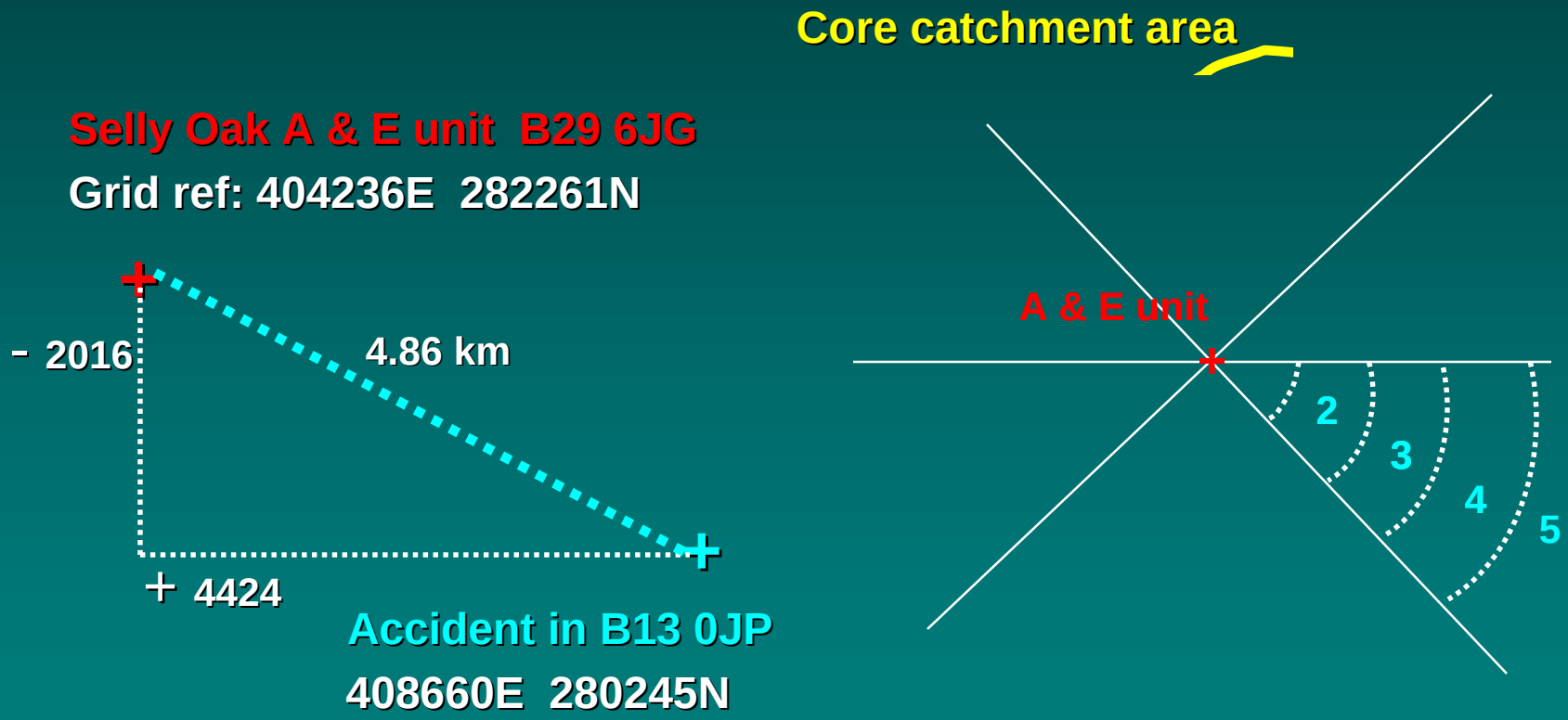

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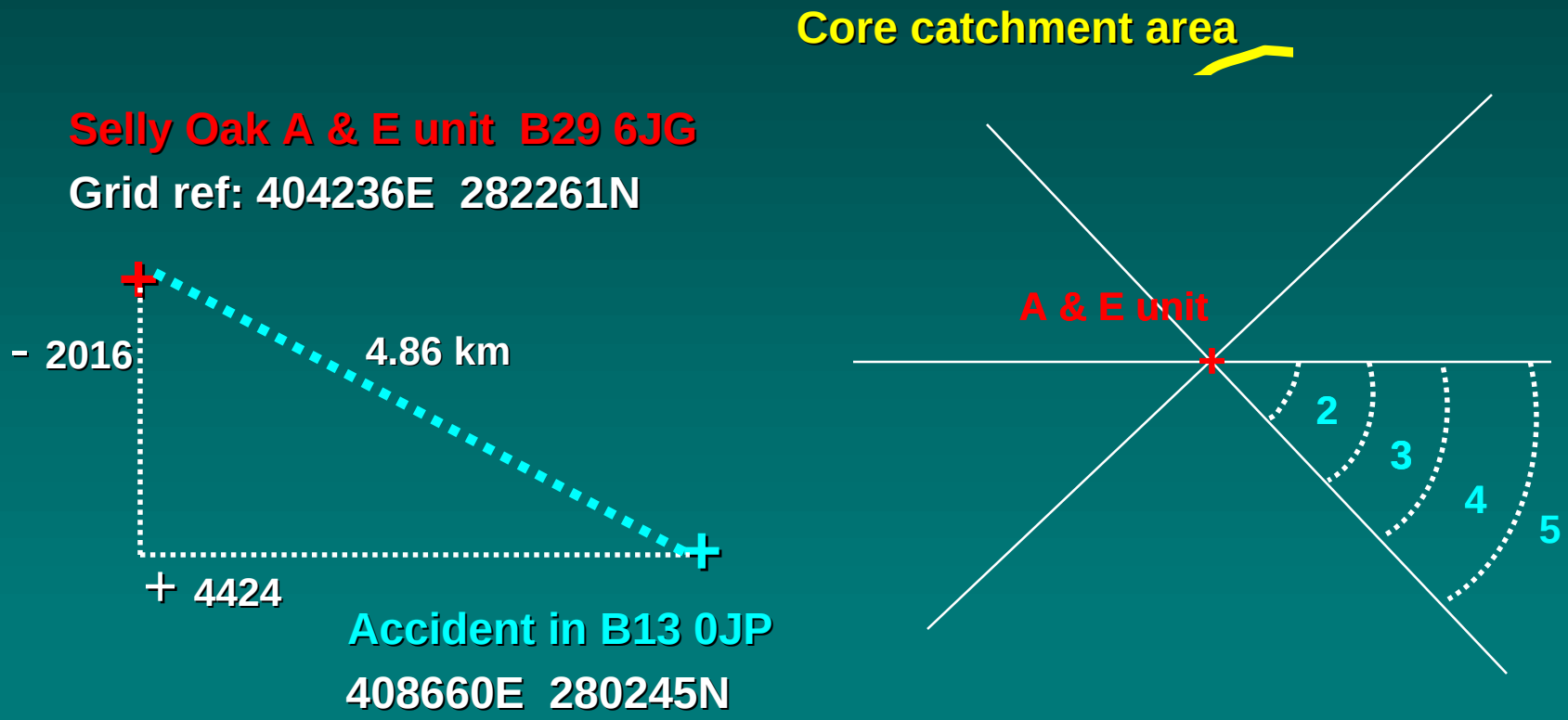

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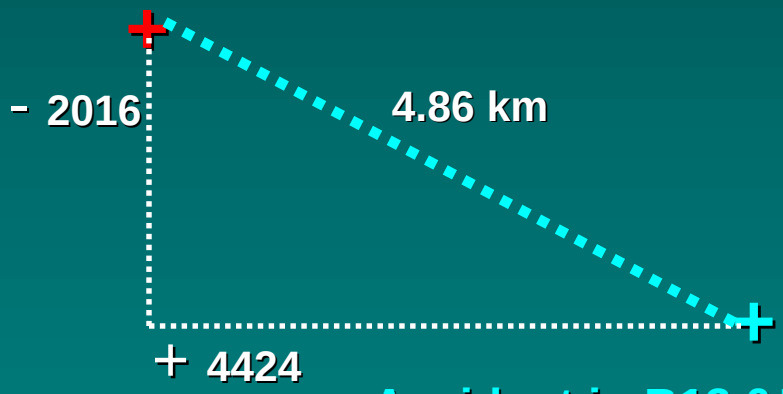
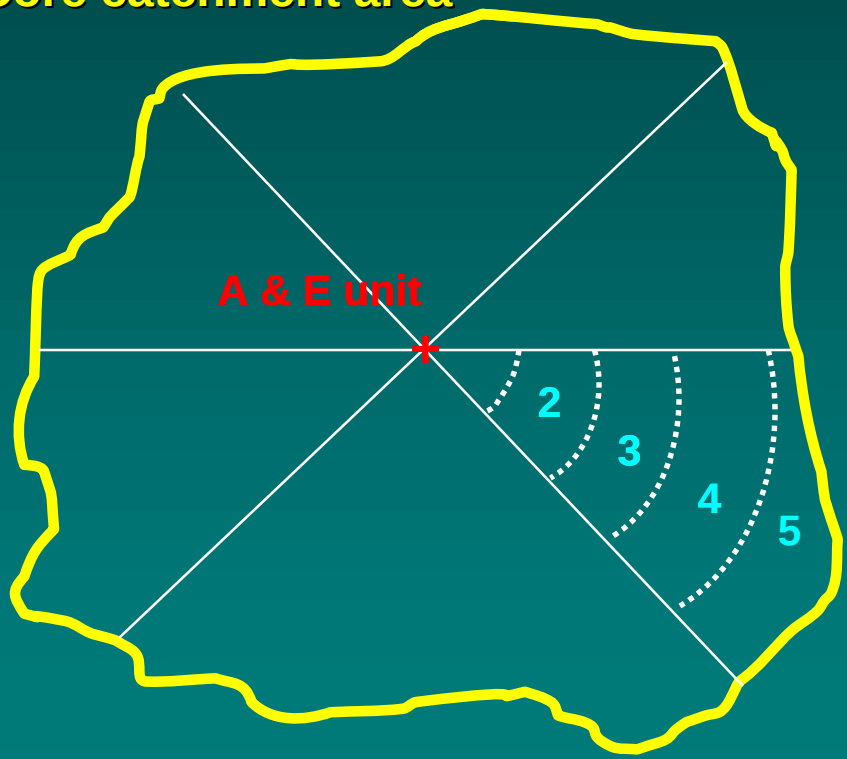



**Accident in B13 0JP**

**408660E 280245N**

**Core catchment area**



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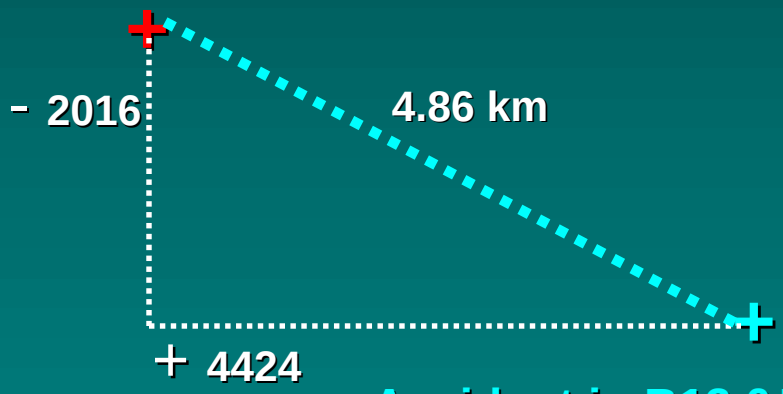


**Accident in B13 0JP**

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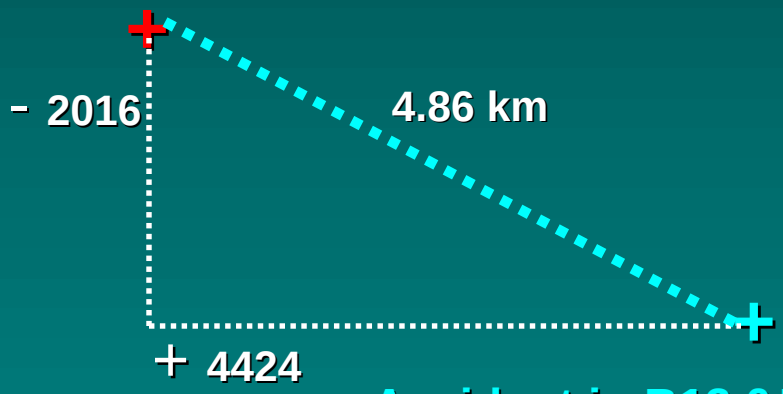


**Accident in B13 0JP**

**408660E 280245N**

**Core catchment area**

# 11. Reduction in accident admissions with distance from hospital by age of person

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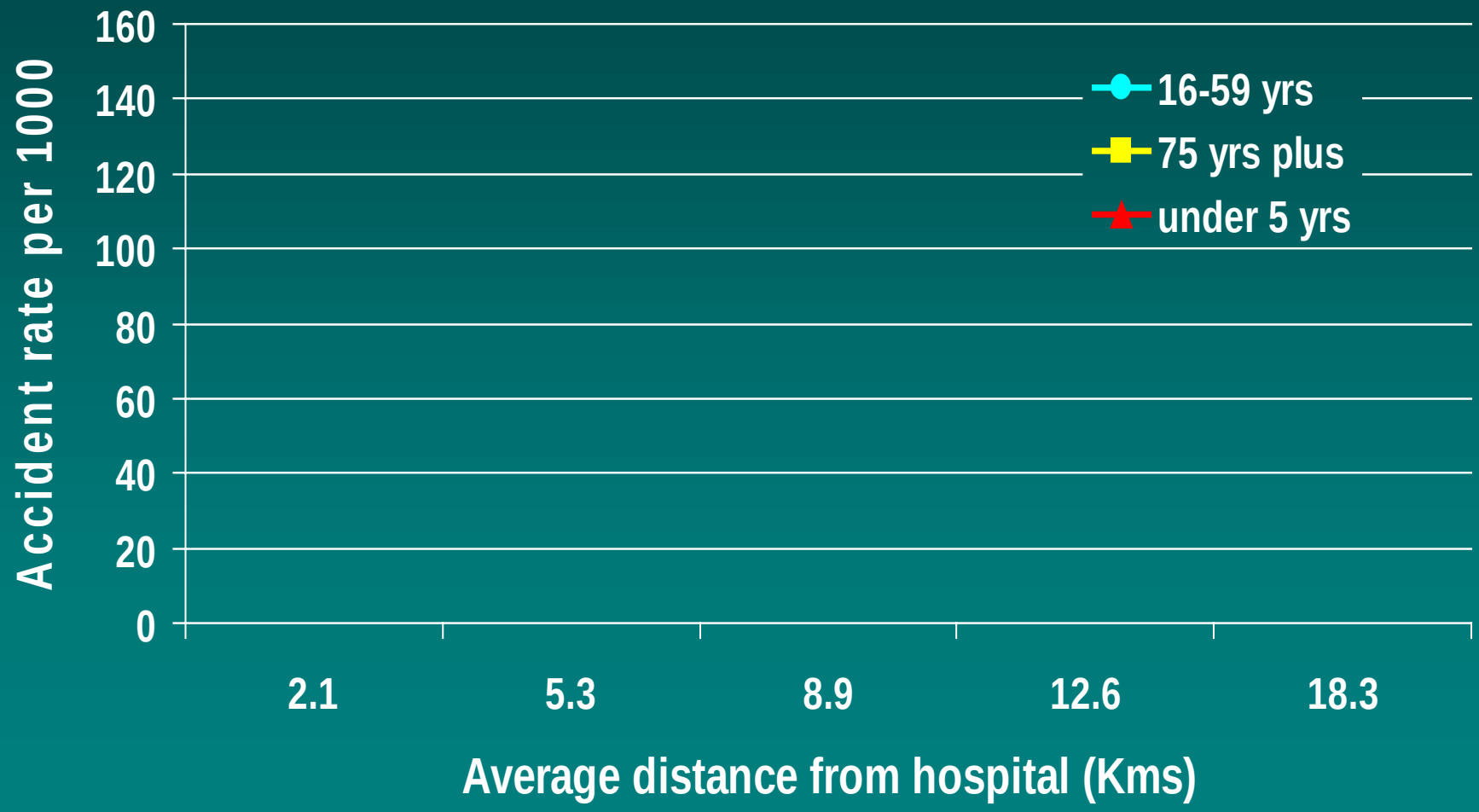


Legal Research Institute, University of Warwick

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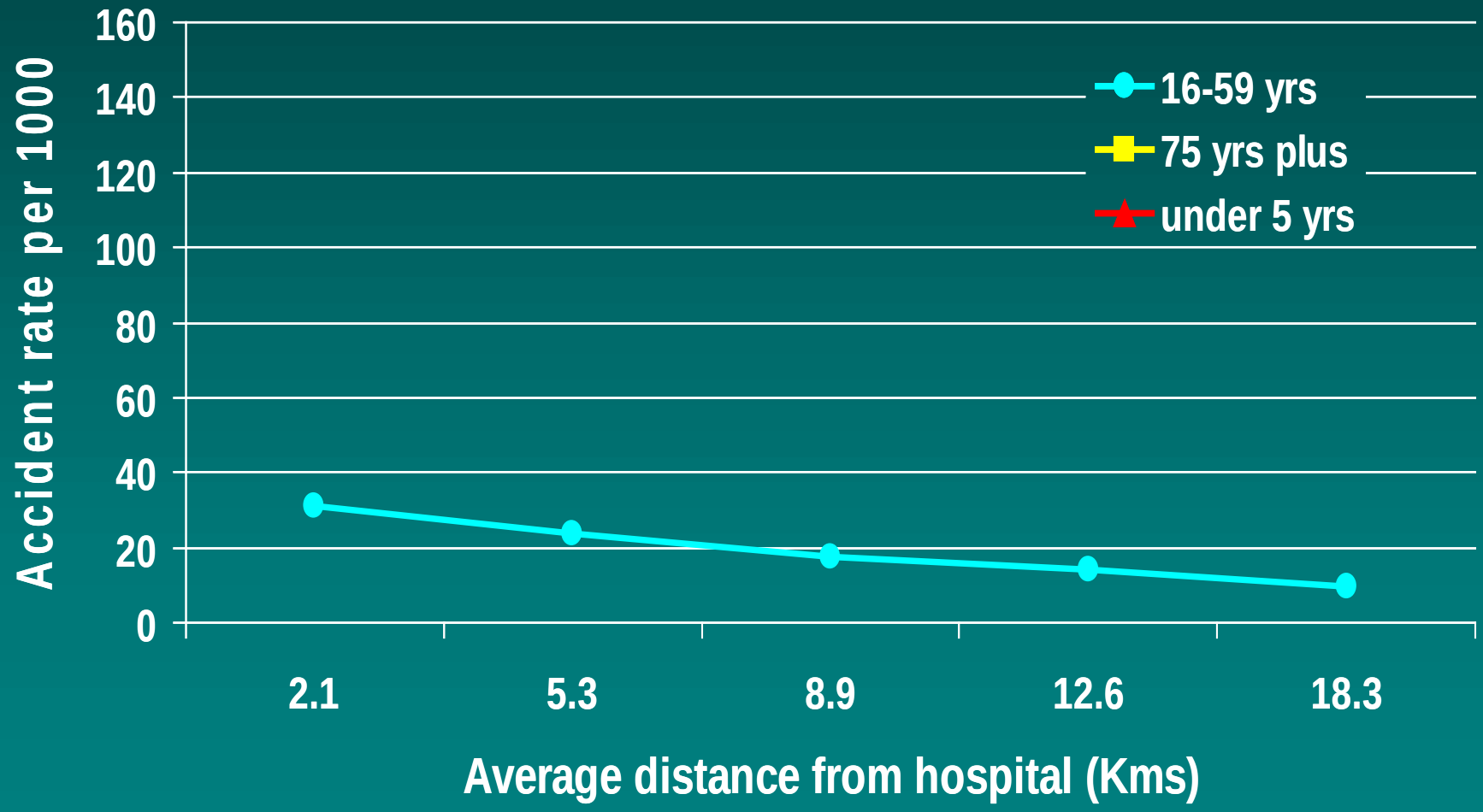


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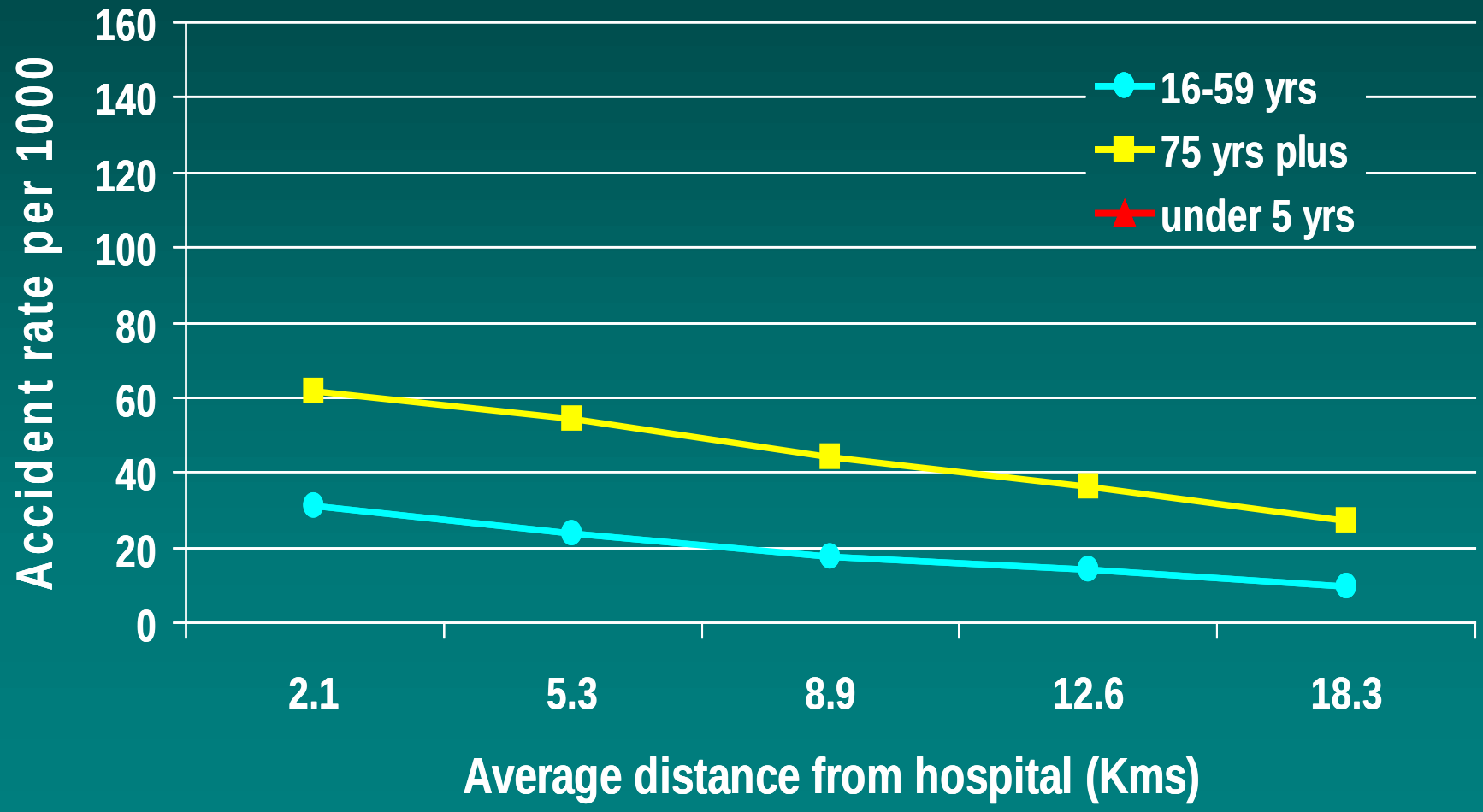


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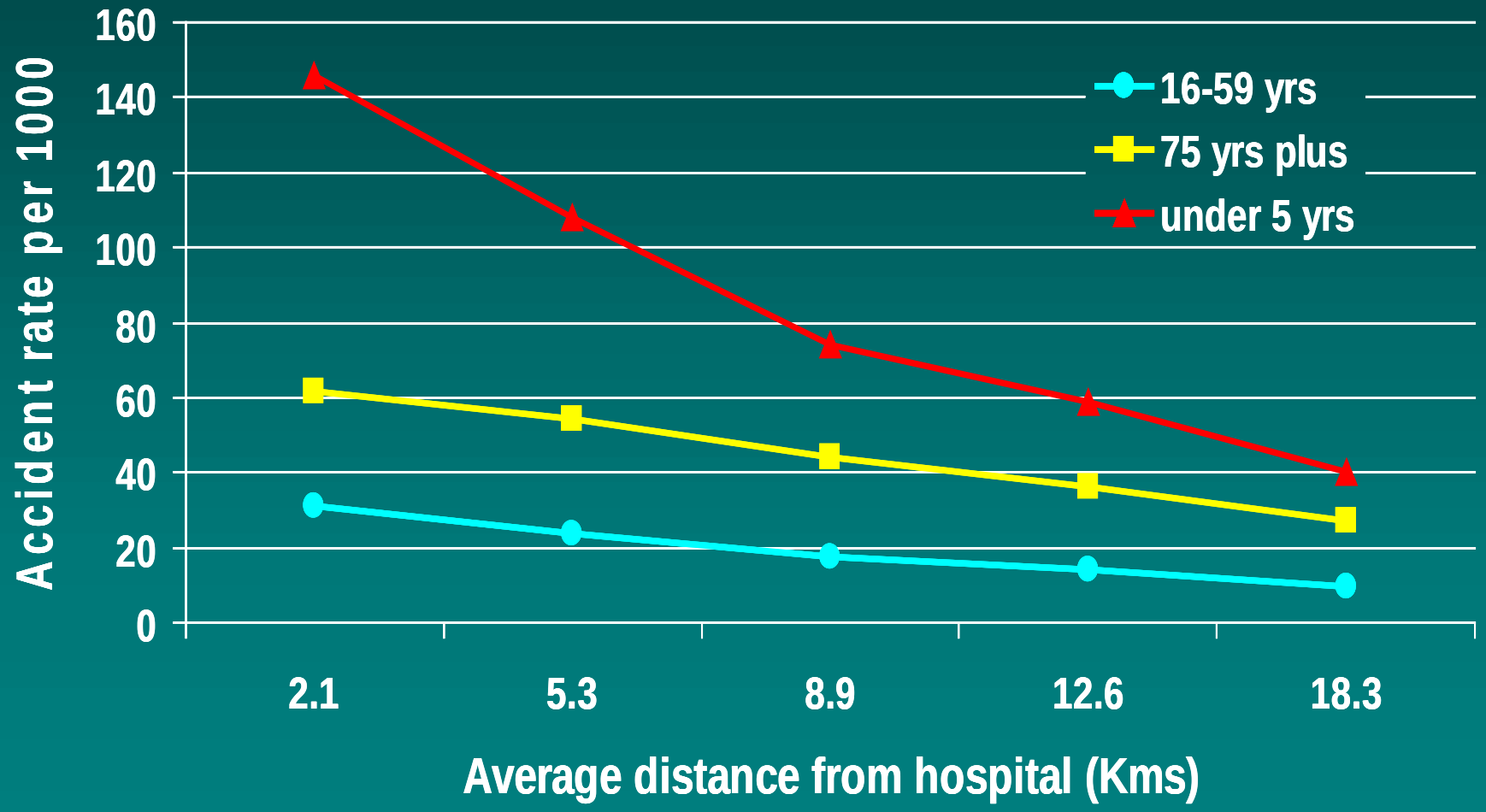


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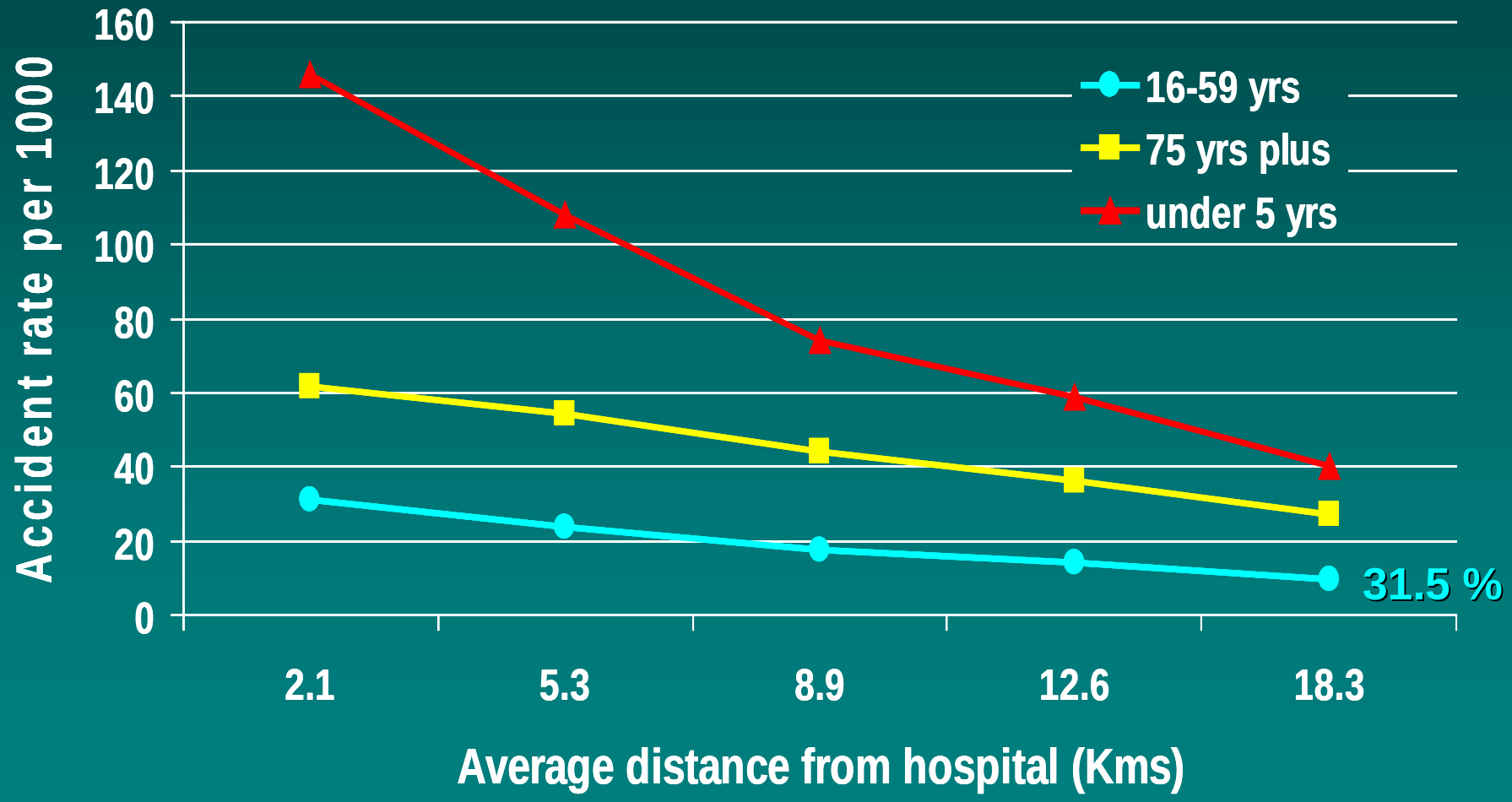


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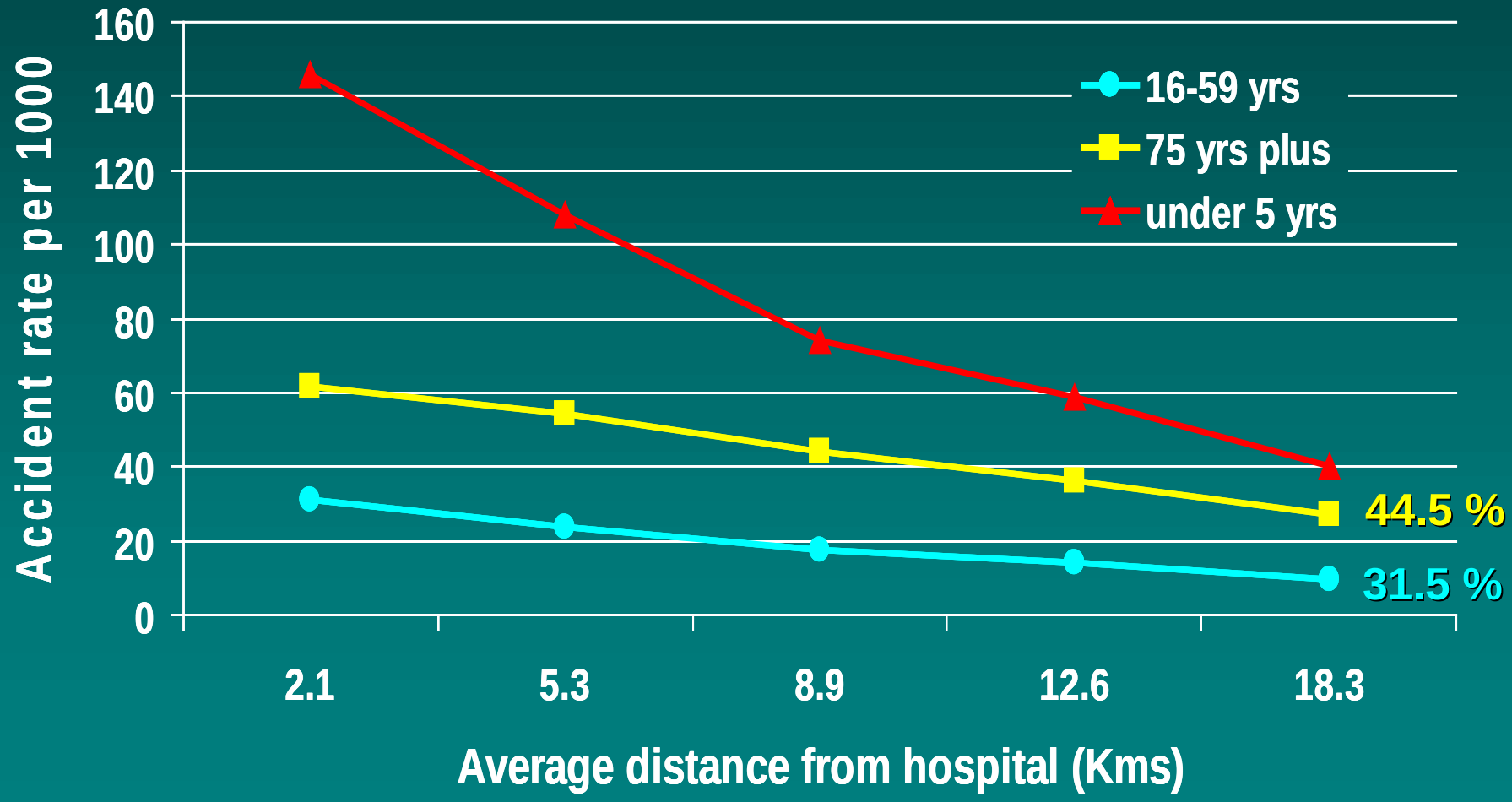


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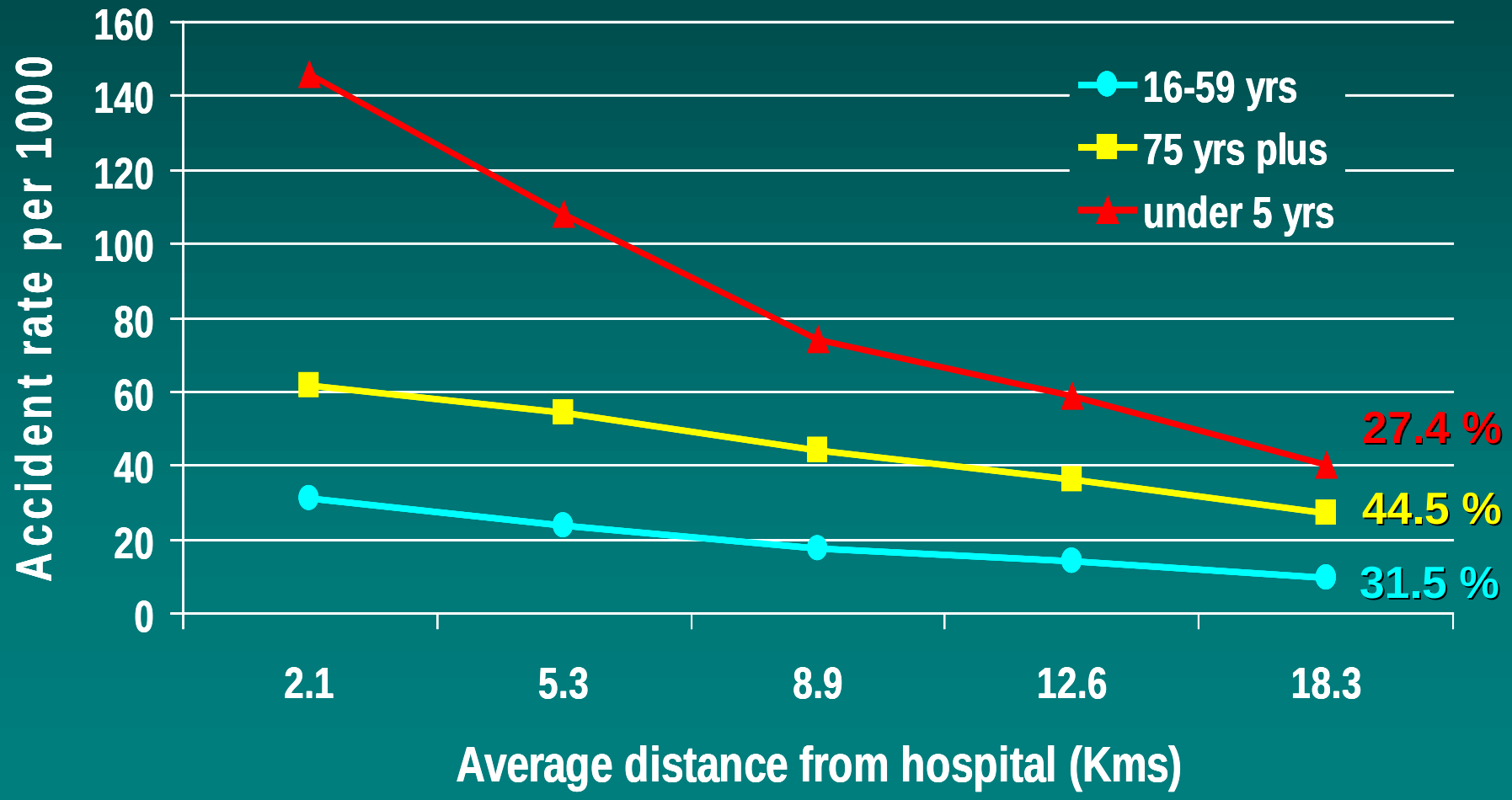


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# 12. Reduction in accident admissions with distance from hospital by property value

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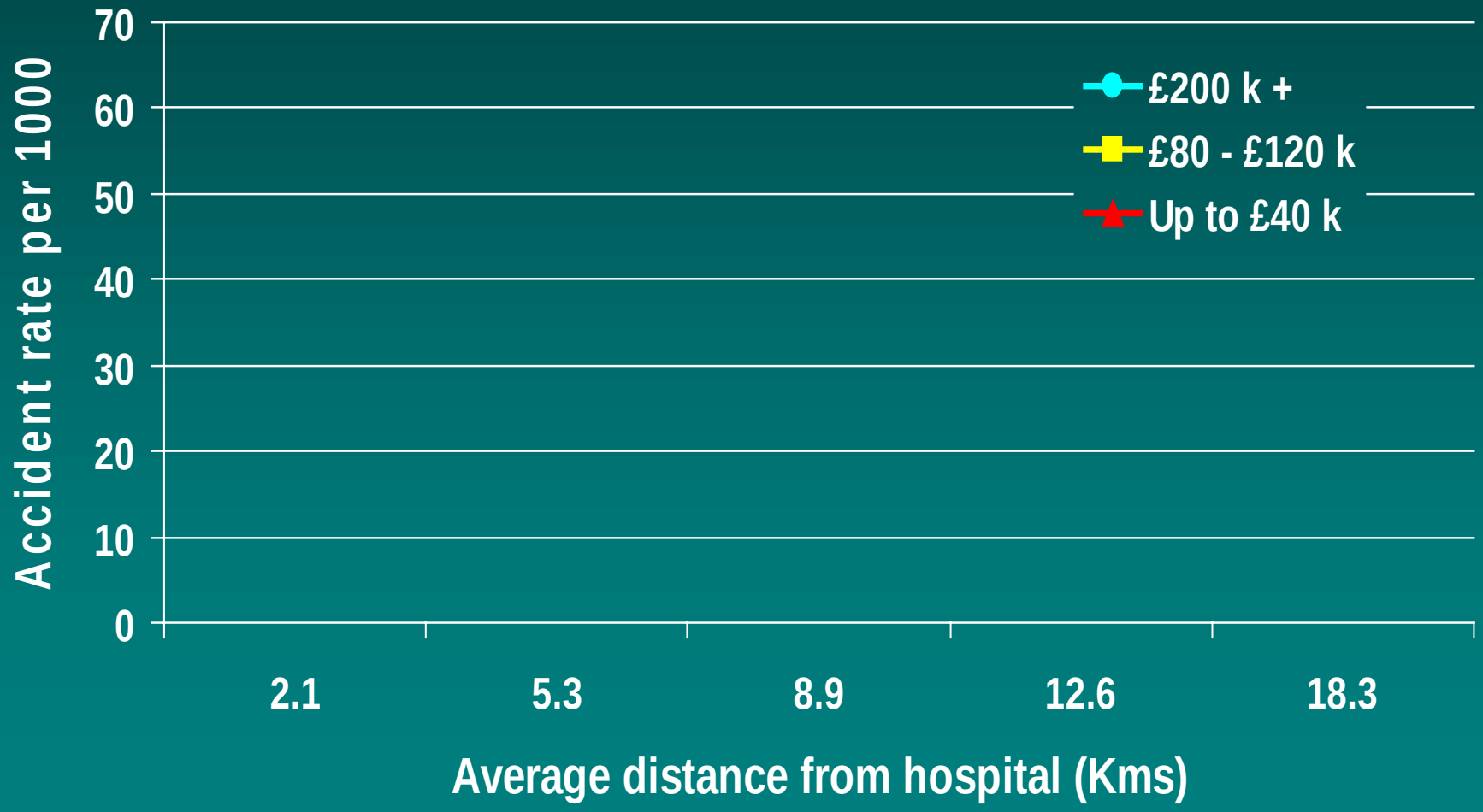


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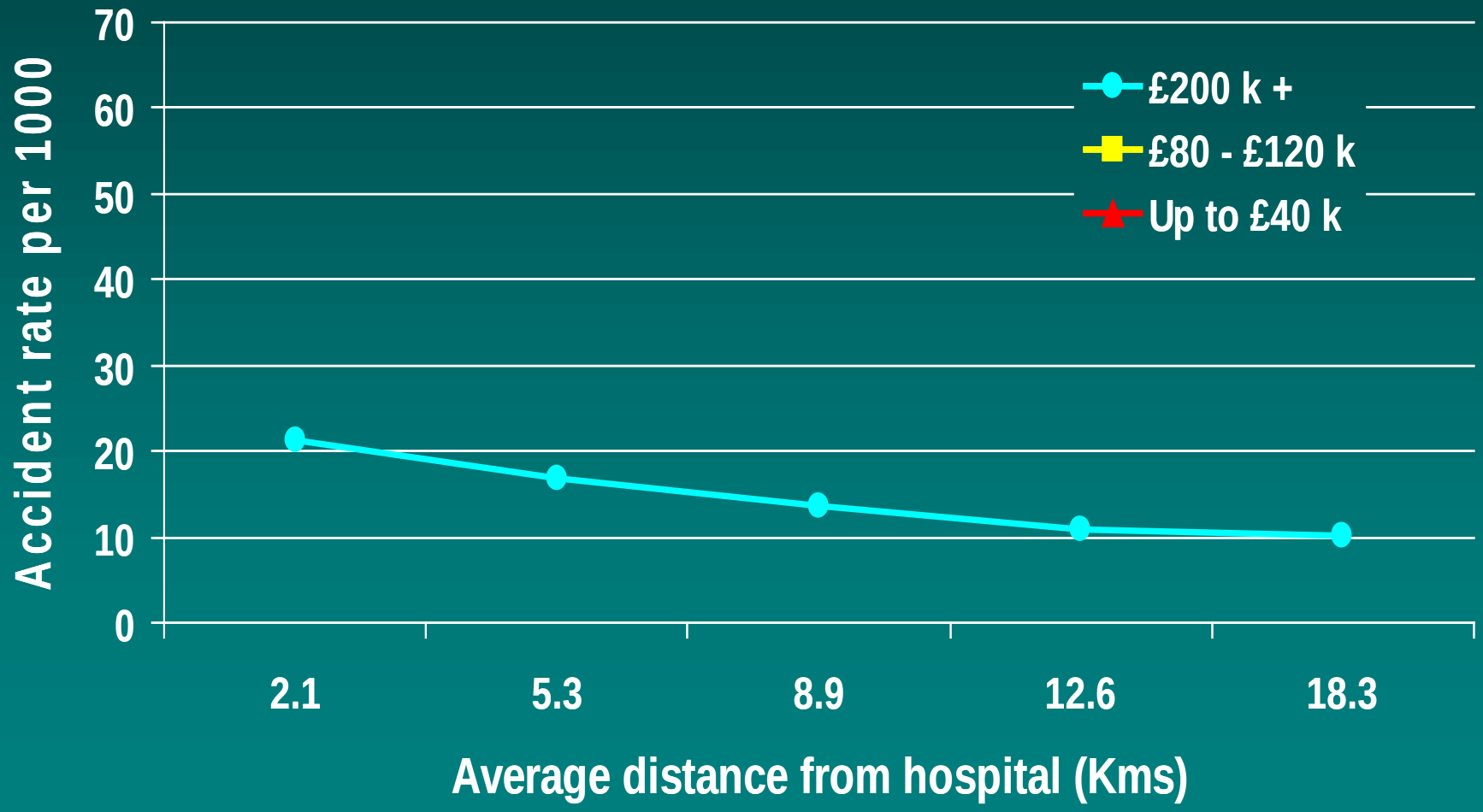


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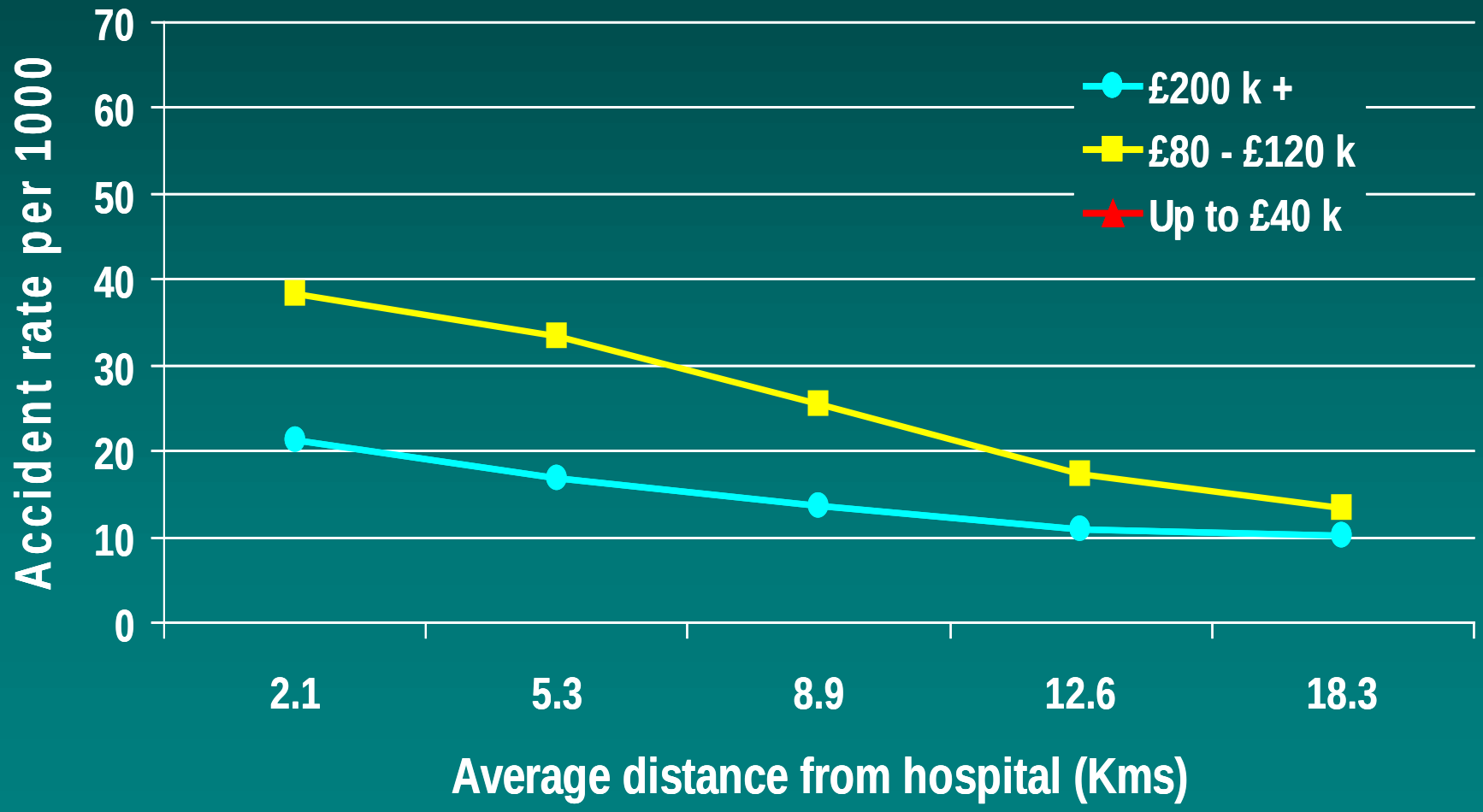


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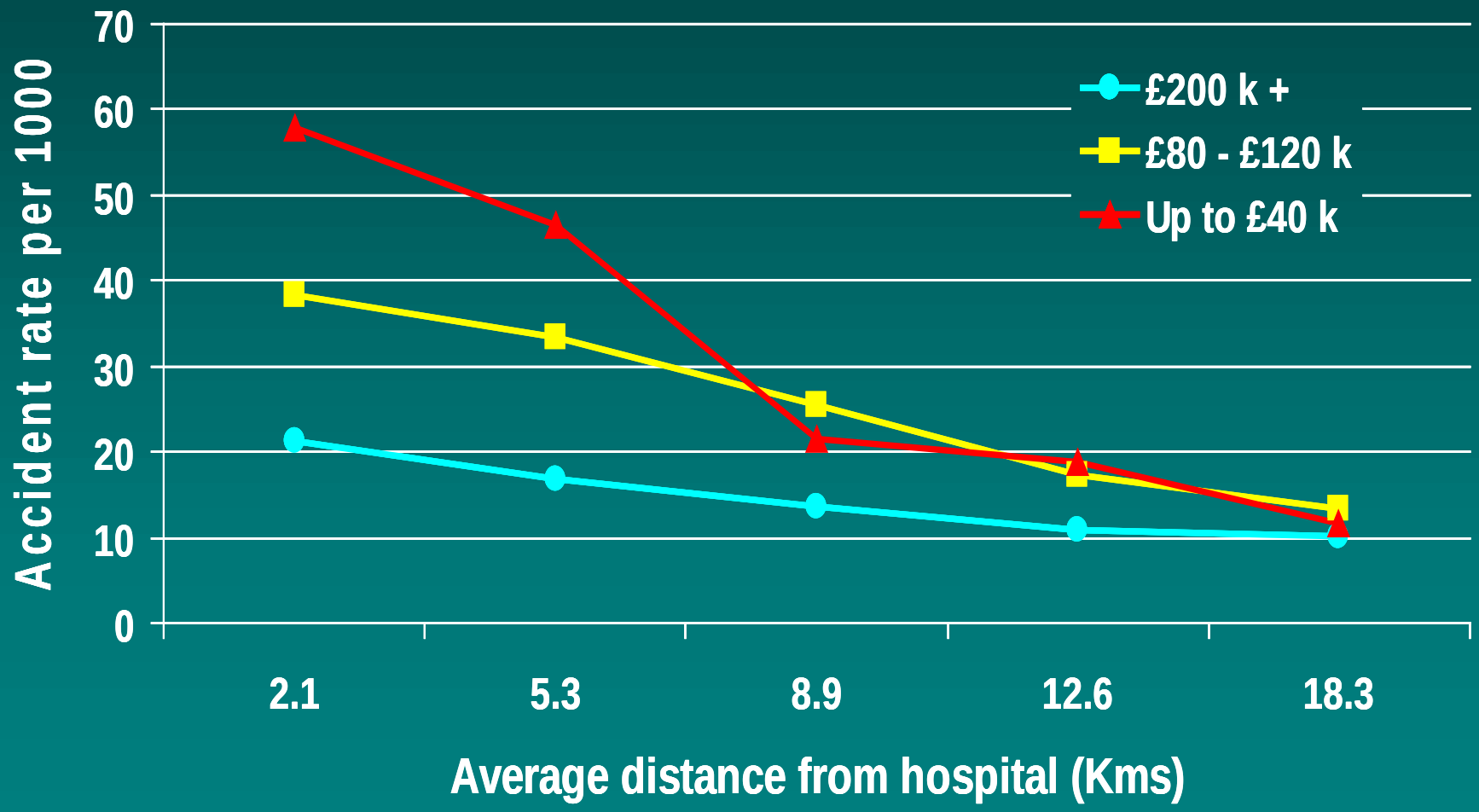


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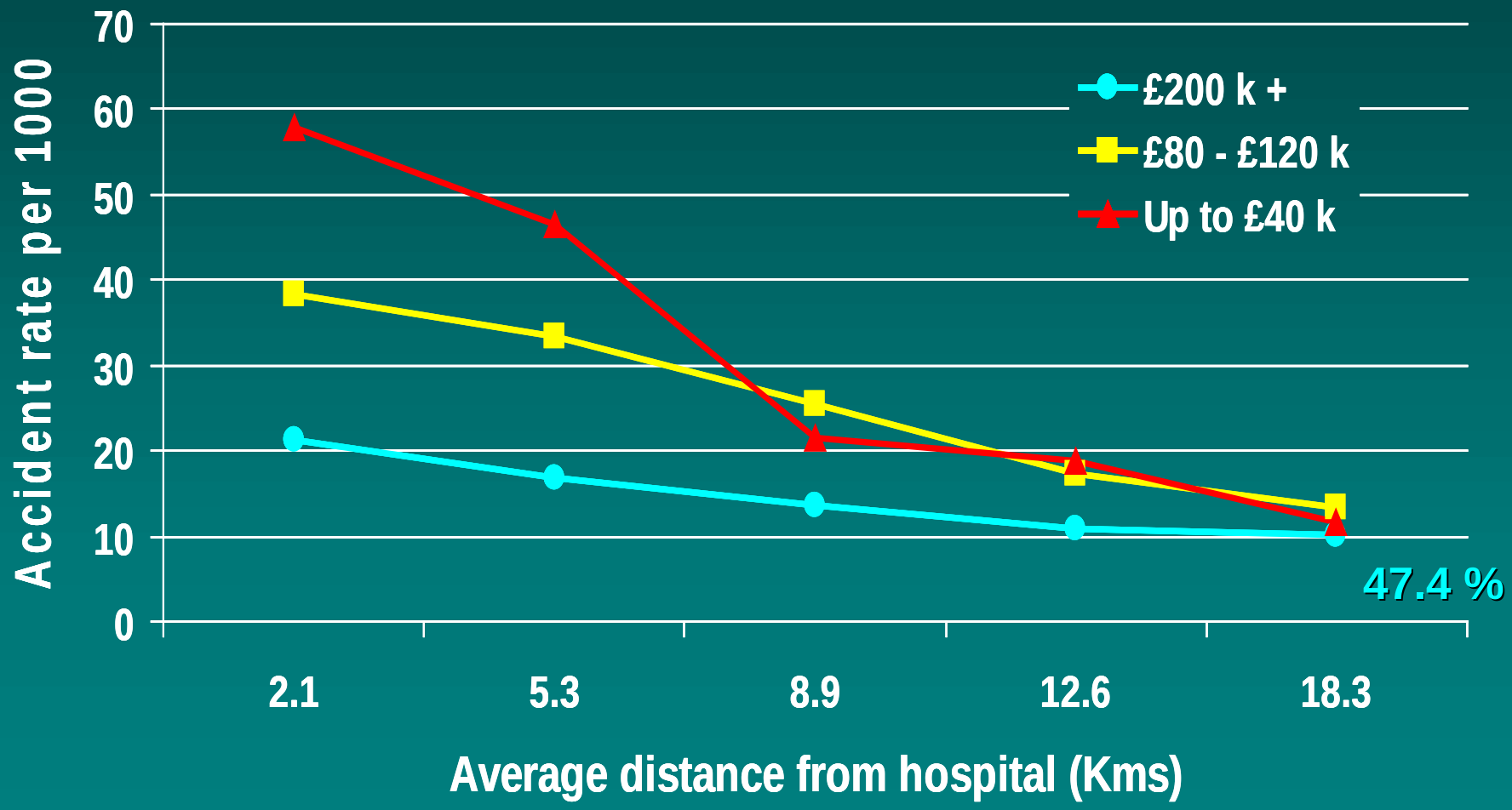


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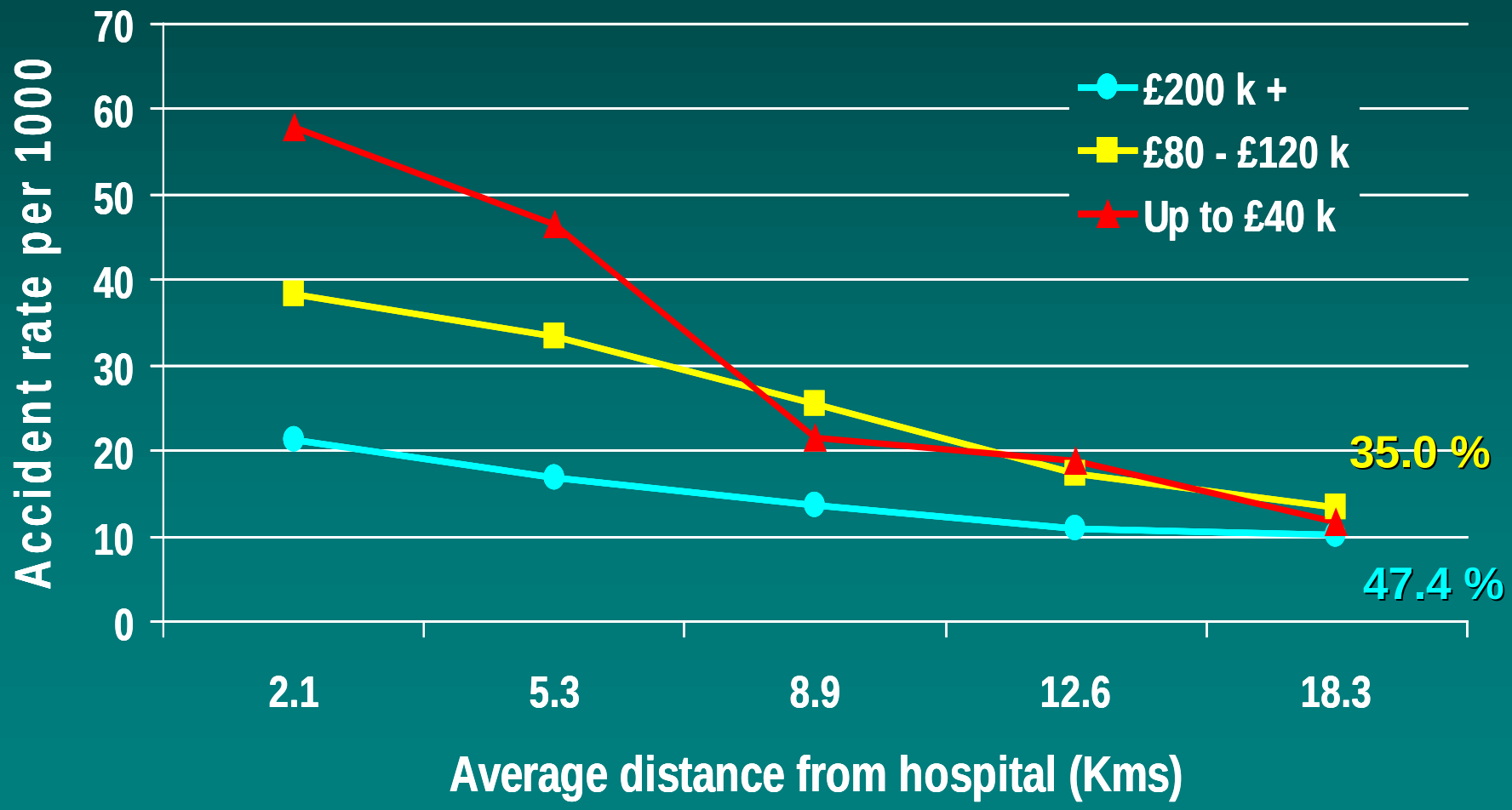


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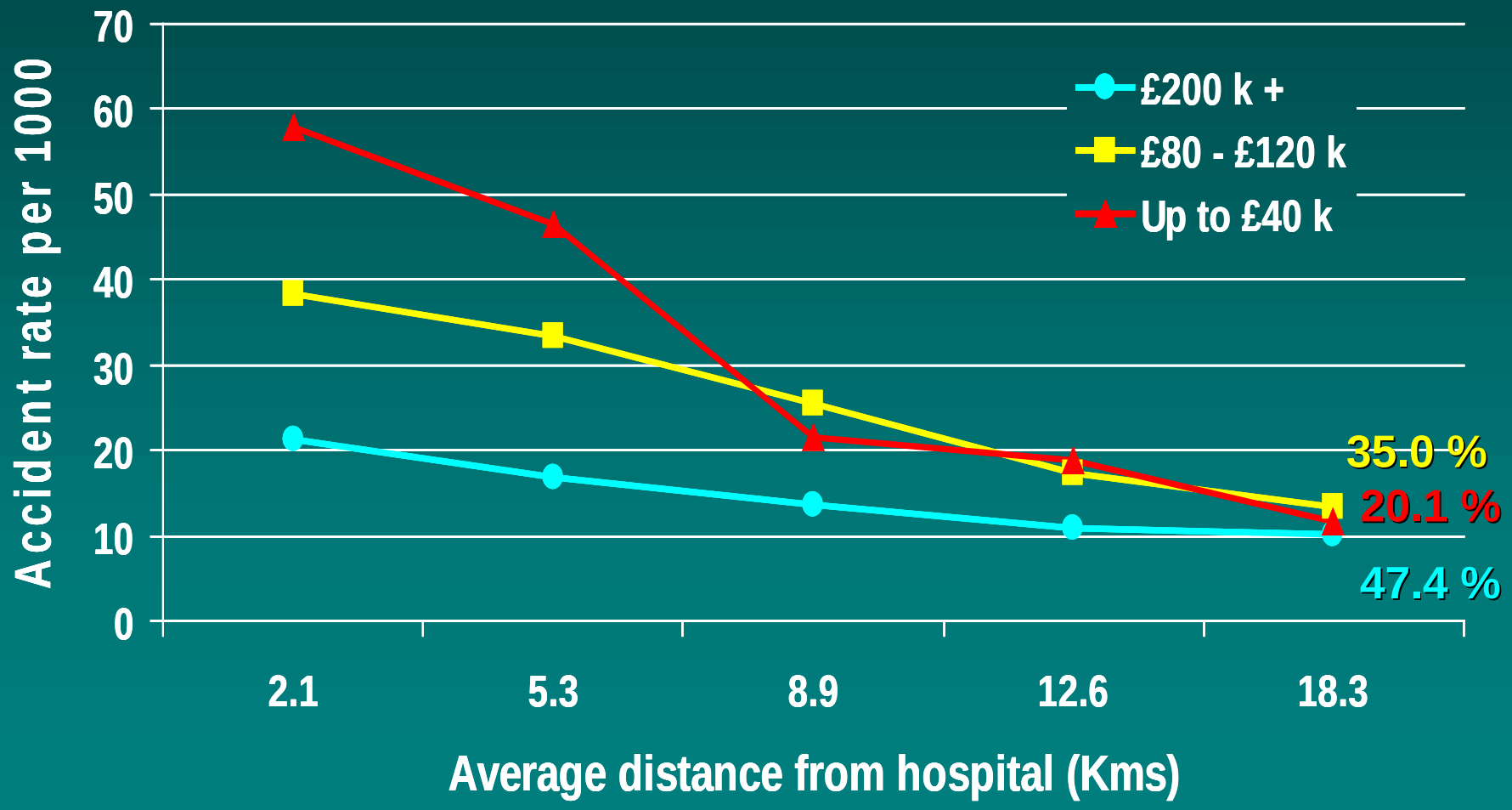


Legal Research Institute, University of Warwick

# 13. Postcode samples providing housing and population, fatal and non-accident data, 1997/99

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| | |
|---|---|
| 1) 87 thousand (k) postcodes<br>In HASS catchments<br>With housing & popn. data<br>• Fatal accident data<br>• Non-fatal accident data | 3) 1,112 k postcodes<br>Outside HASS areas<br>With housing & popn. data<br>• Fatal accident data<br>• Some non-fatal accidents |
| 2) 19 k postcodes<br>In HASS catchments<br>Without housing & popn. data<br>• (Fatality data not used)<br>• Non-fatal accident data | 4) 319 k postcodes<br>Outside HASS areas<br>Without housing & popn. data<br>• (Fatality data not used)<br>• Some non-fatal accidents |

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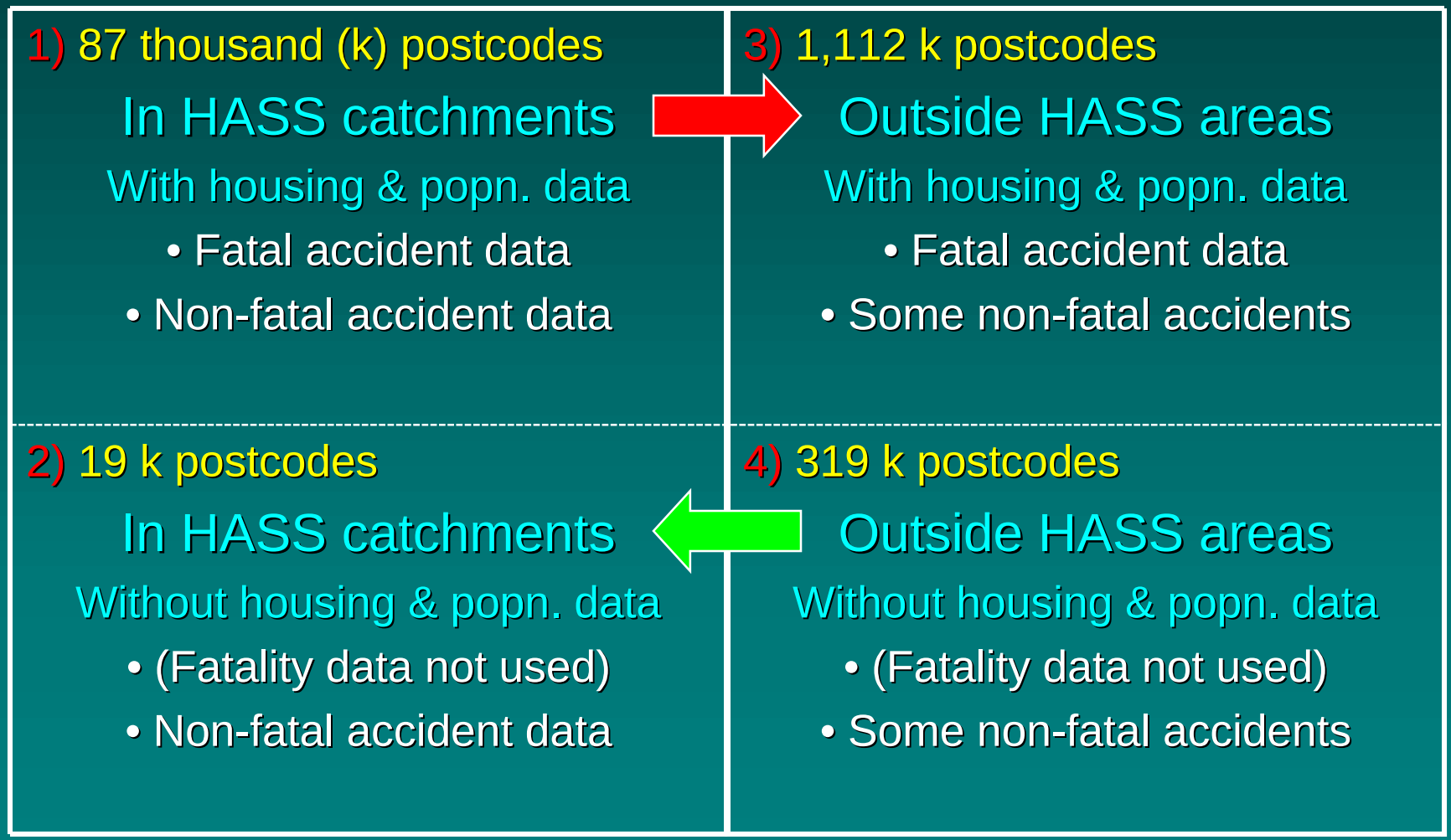
| 2) 19 k postcodes<br>In HASS catchments<br>Without housing & popn. data<br>• (Fatality data not used)<br>• Non-fatal accident data | 4) 319 k postcodes<br>Outside HASS areas<br>Without housing & popn. data<br>• (Fatality data not used)<br>• Some non-fatal accidents |

# 13. Postcode samples providing housing and population, fatal and non-accident data, 1997/99



# 14. Corrected 3 yr samples for fatal & non-fatal falls on the level and base populations

| Age group | Sample population mortality | 1997-99 Class I nos | Catchment population HASS | 1997-99 Class II nos | Class III nos | Class IV nos |
|---|---|---|---|---|---|---|
| < 5 yrs | 3,106,749 | 0 | 272,196 | 14 | 439 | 10,710 |
| 5 -15 yrs | 7,144,841 | 1 | 608,889 | 7 | 693 | 8,082 |
| 16-59 yrs | 30,309,016 | 23 | 2,554,552 | 68 | 1,823 | 14,836 |
| 60 yrs + | 10,523,347 | 403 | 865,952 | 2,548 | 6,156 | 17,209 |
| All ages | 51,083,953 | 427 | 4,301,589 | 2,637 | 9,110 | 50,837 |

- Number of fatal & non-fatal falls "on same level (slip/trip/stumble)“ in and around the home, including falls at porch/thresholds where so coded - corrected for missing data. Includes such falls in communal homes.

# 15. Corrected 3 yr samples for fatal & non-fatal electrocutions and base populations

| Age group | Sample population mortality | 1997-99 Class I nos | Catchment population HASS | 1997-99 Class II nos | Class III nos | Class IV nos |
|---|---|---|---|---|---|---|
| < 5 yrs | 3,106,749 | 3 | 272,196 | 4 | 26 | 19 |
| 5 -15 yrs | 7,144,841 | 3 | 608,889 | 3 | 35 | 27 |
| 16-59 yrs | 30,309,016 | 36 | 2,554,552 | 15 | 172 | 118 |
| 60 yrs + | 10,523,347 | 11 | 865,952 | 2 | 18 | 7 |
| | 51,083,953 | 53 | 4,301,589 | 24 | 251 | 171 |

- Number of fatal & non-fatal falls "on same level (slip/trip/stumble)“ in and around the home, including falls at porch/thresholds where so coded. Includes such falls in communal homes.

# 16: Rate (x/1000/yr) and severity of reported falls on all stairs/steps by age of victim

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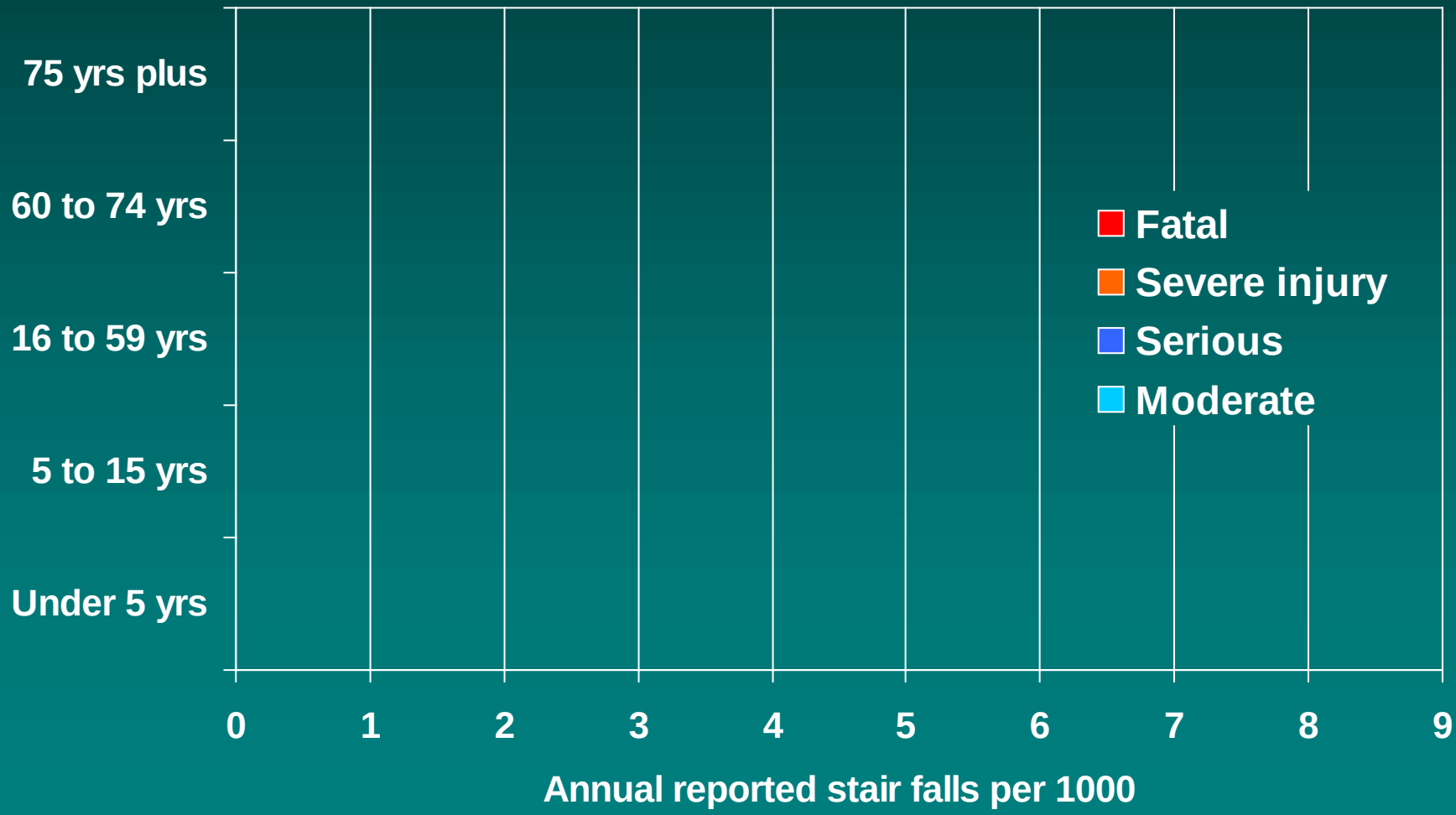

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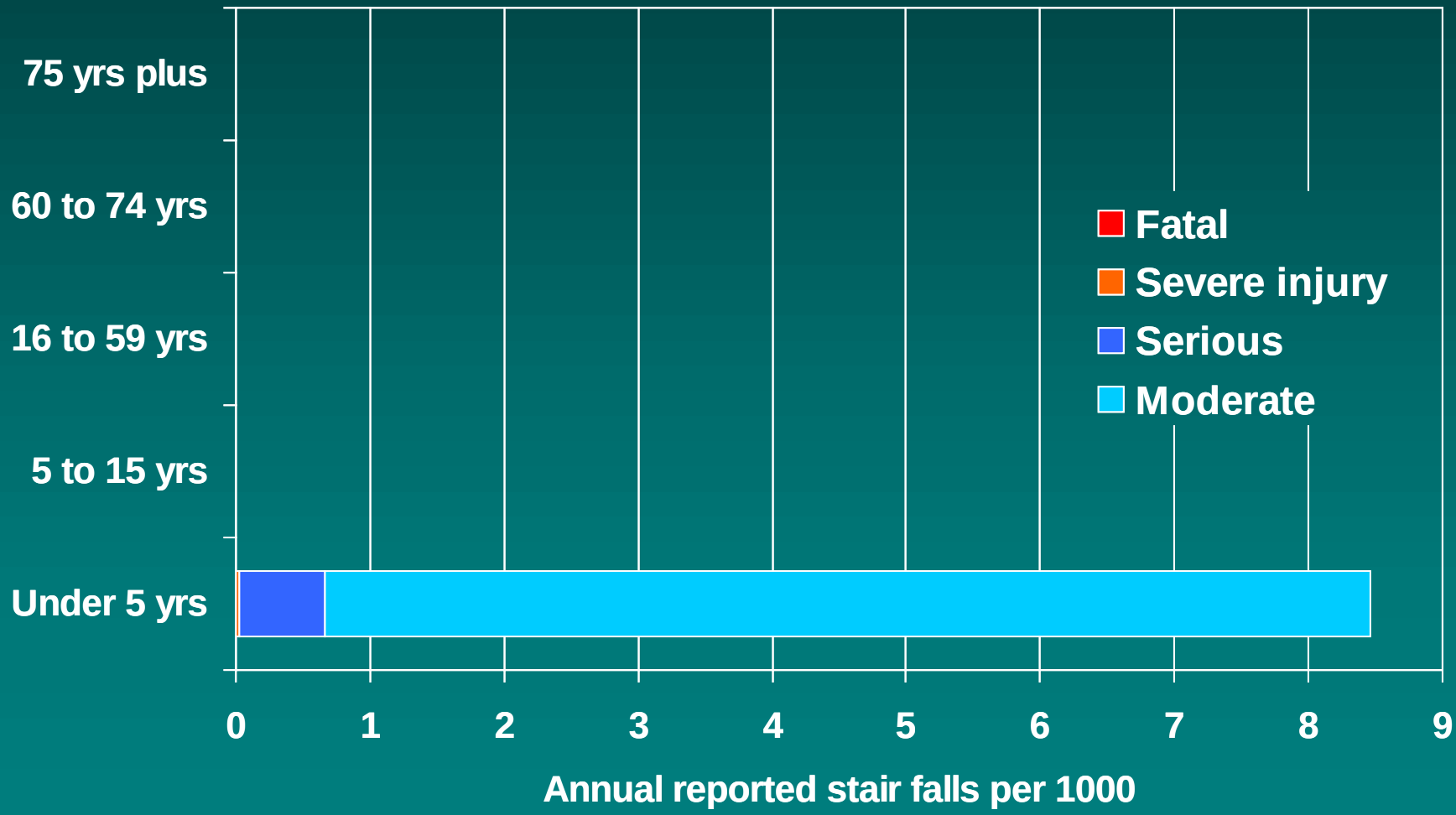

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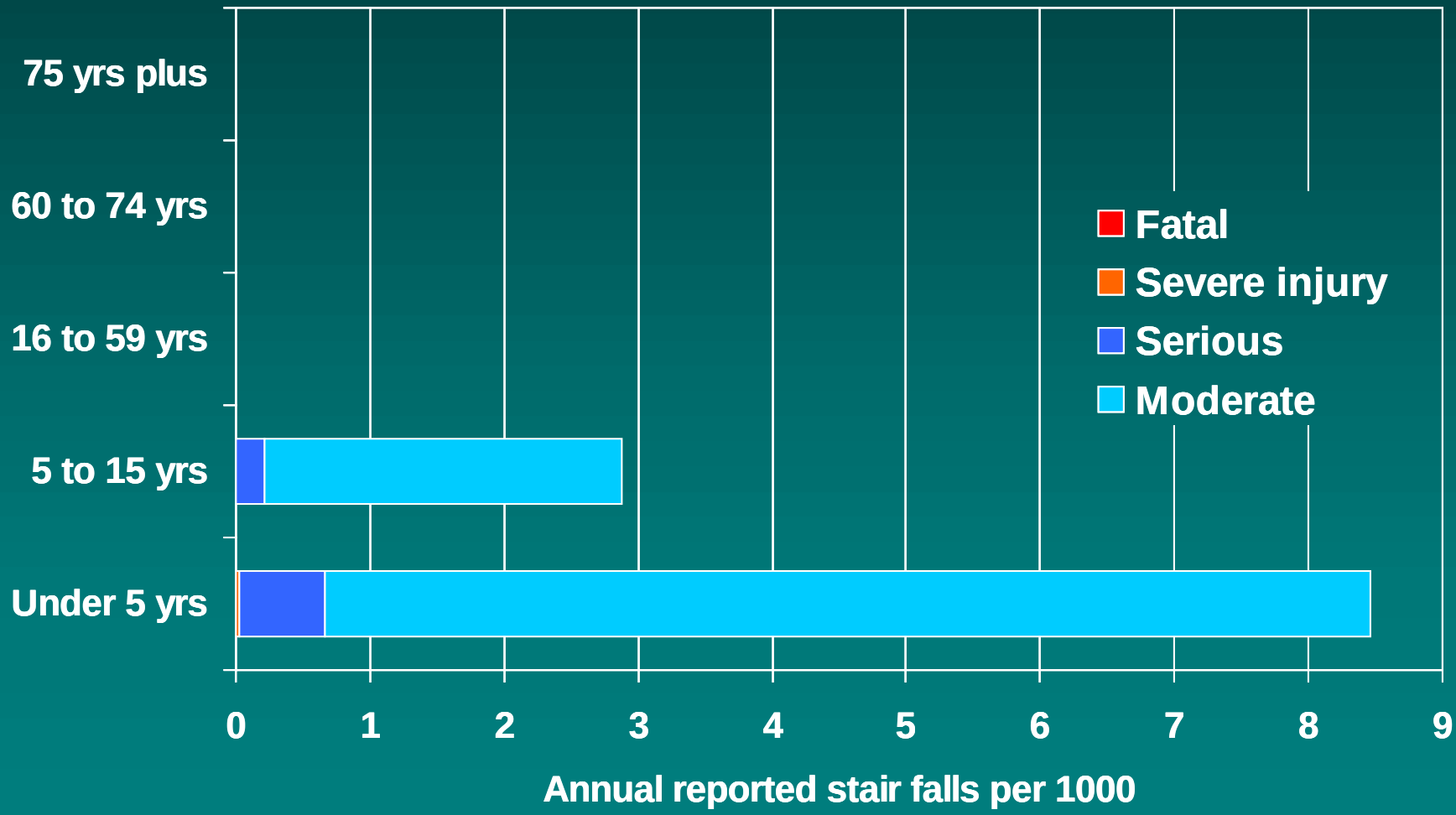

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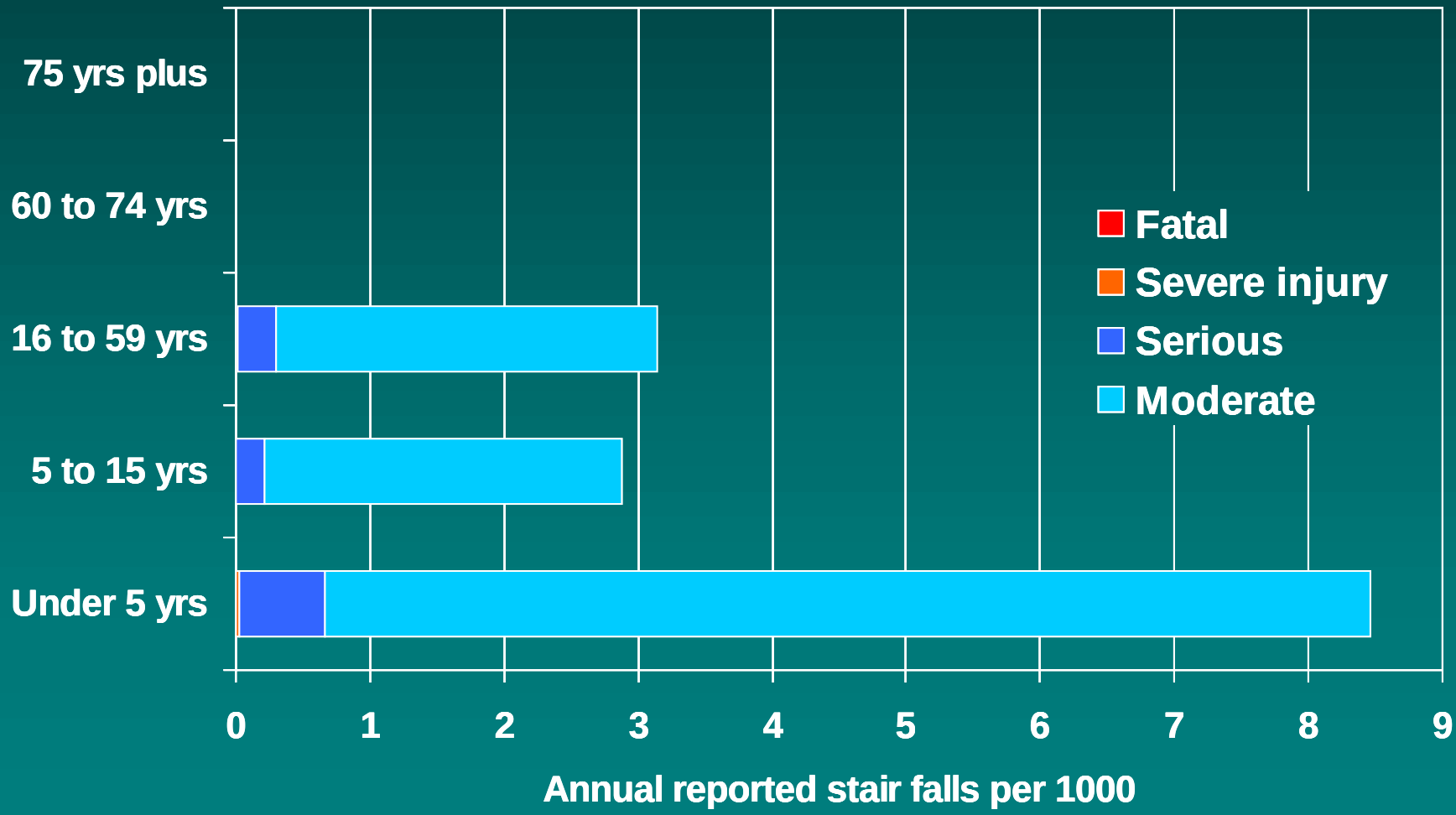
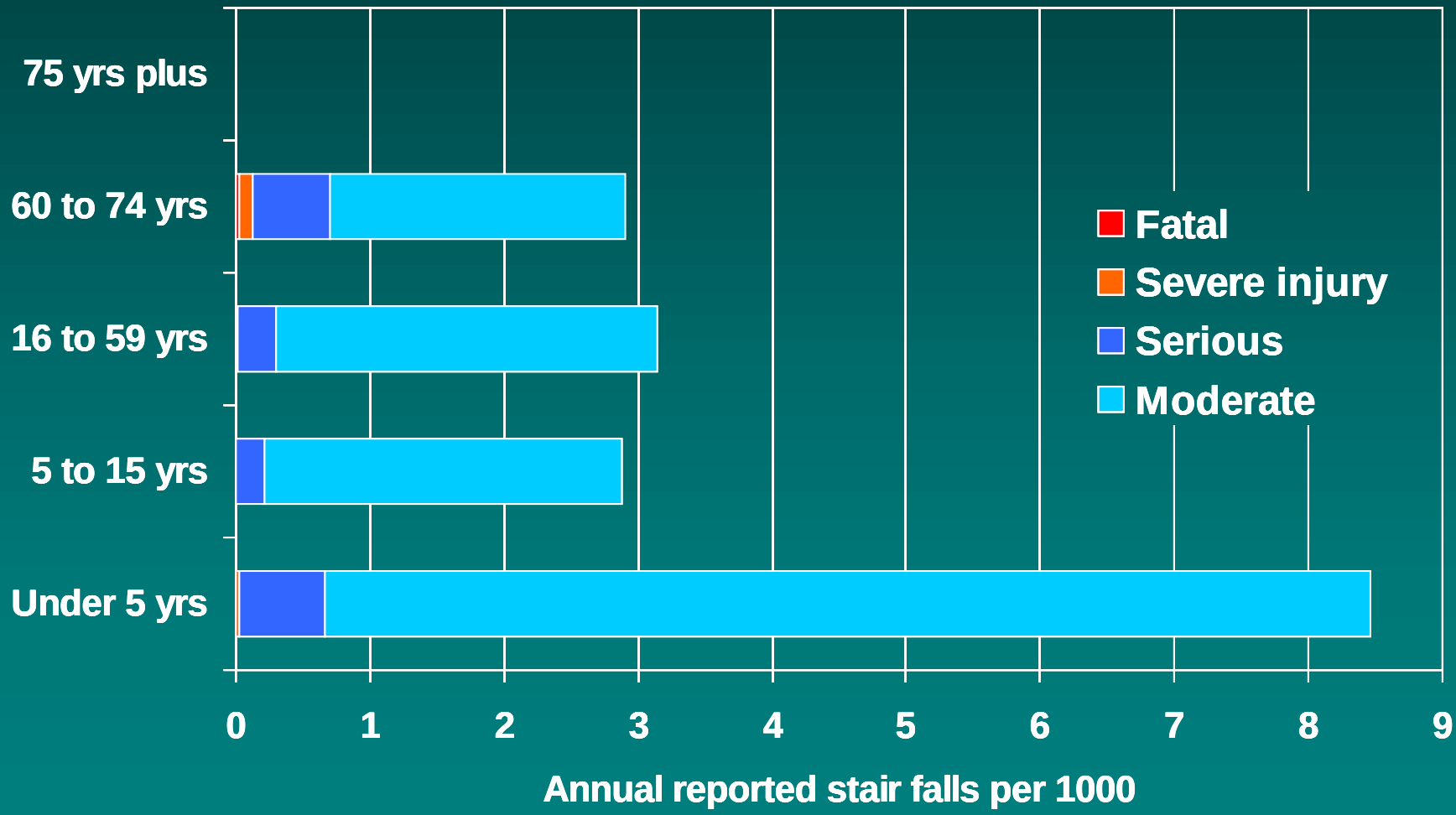


# 16: Rate (x/1000/yr) and severity of reported falls on all stairs/steps by age of victim



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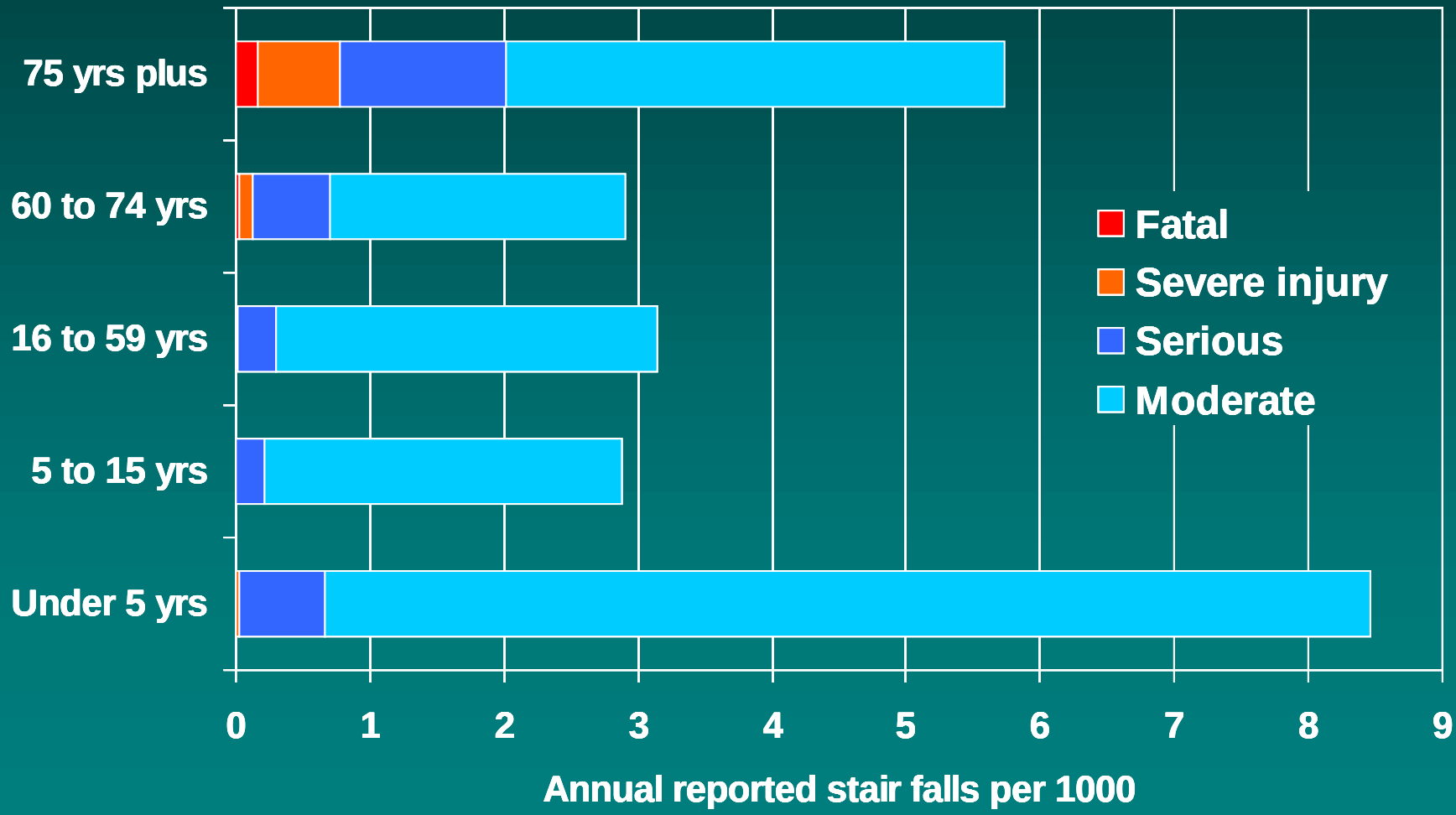

# 17. Average weighted score for severity of falls on all stairs/steps by age of victim

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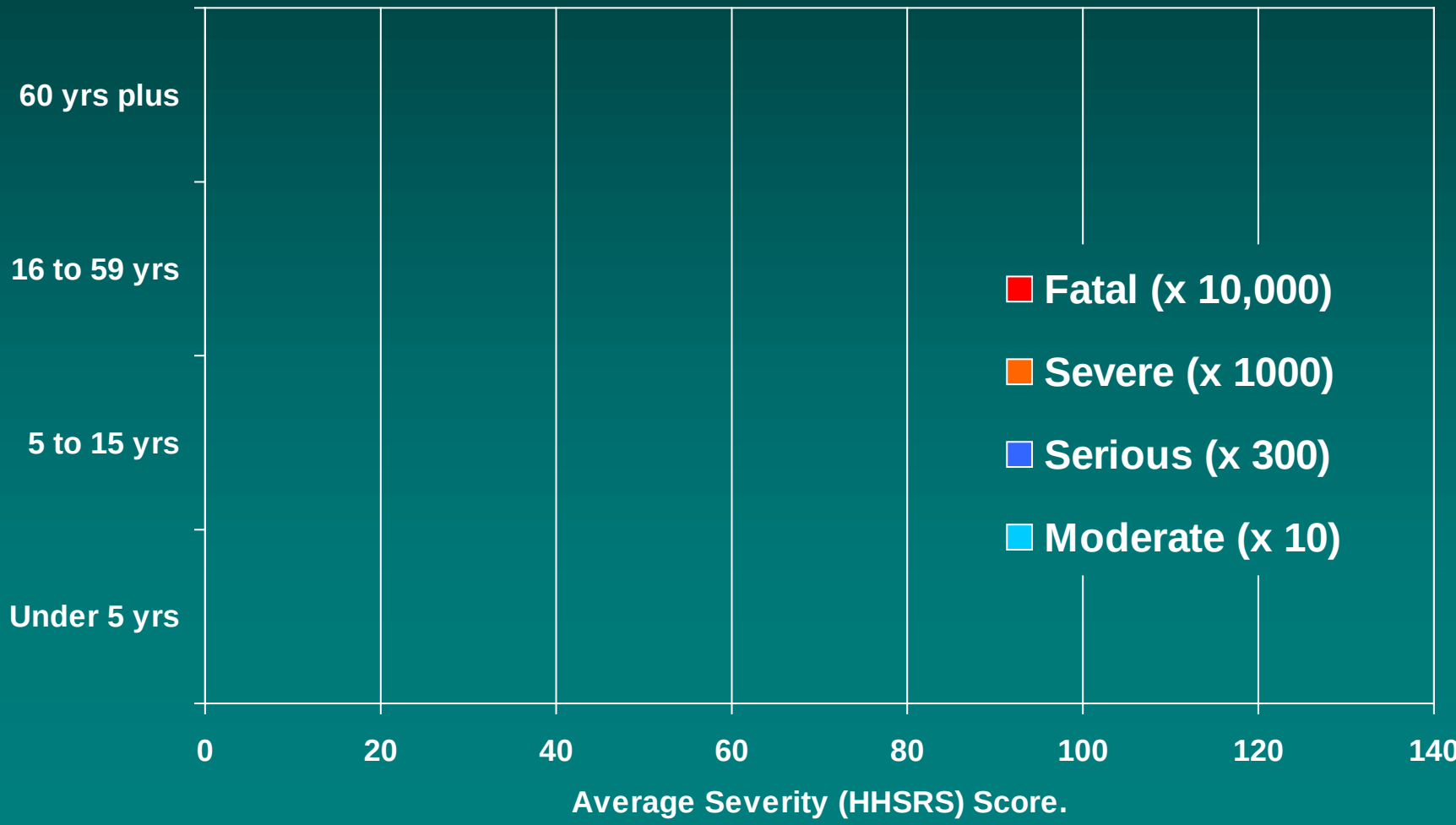

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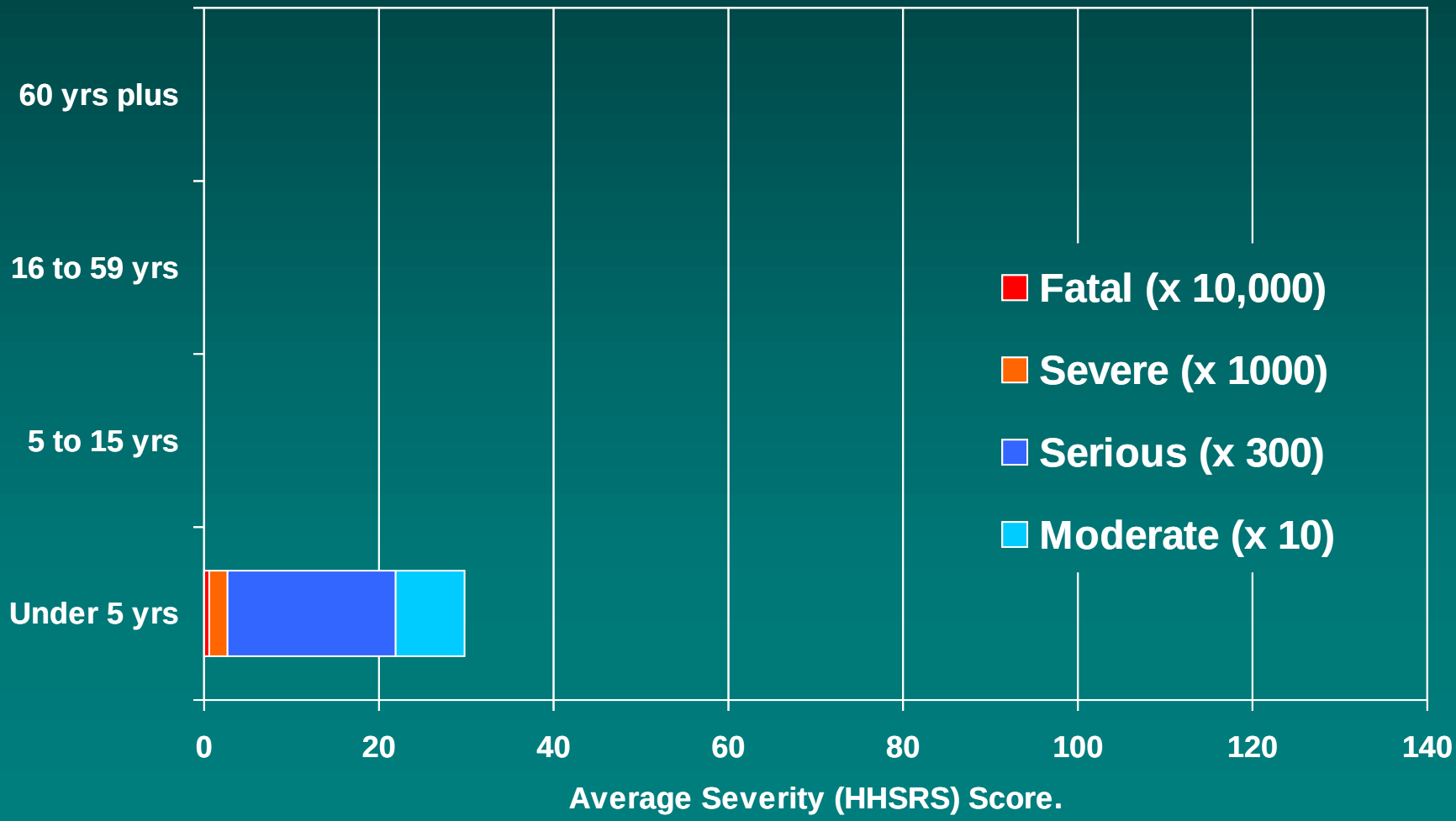

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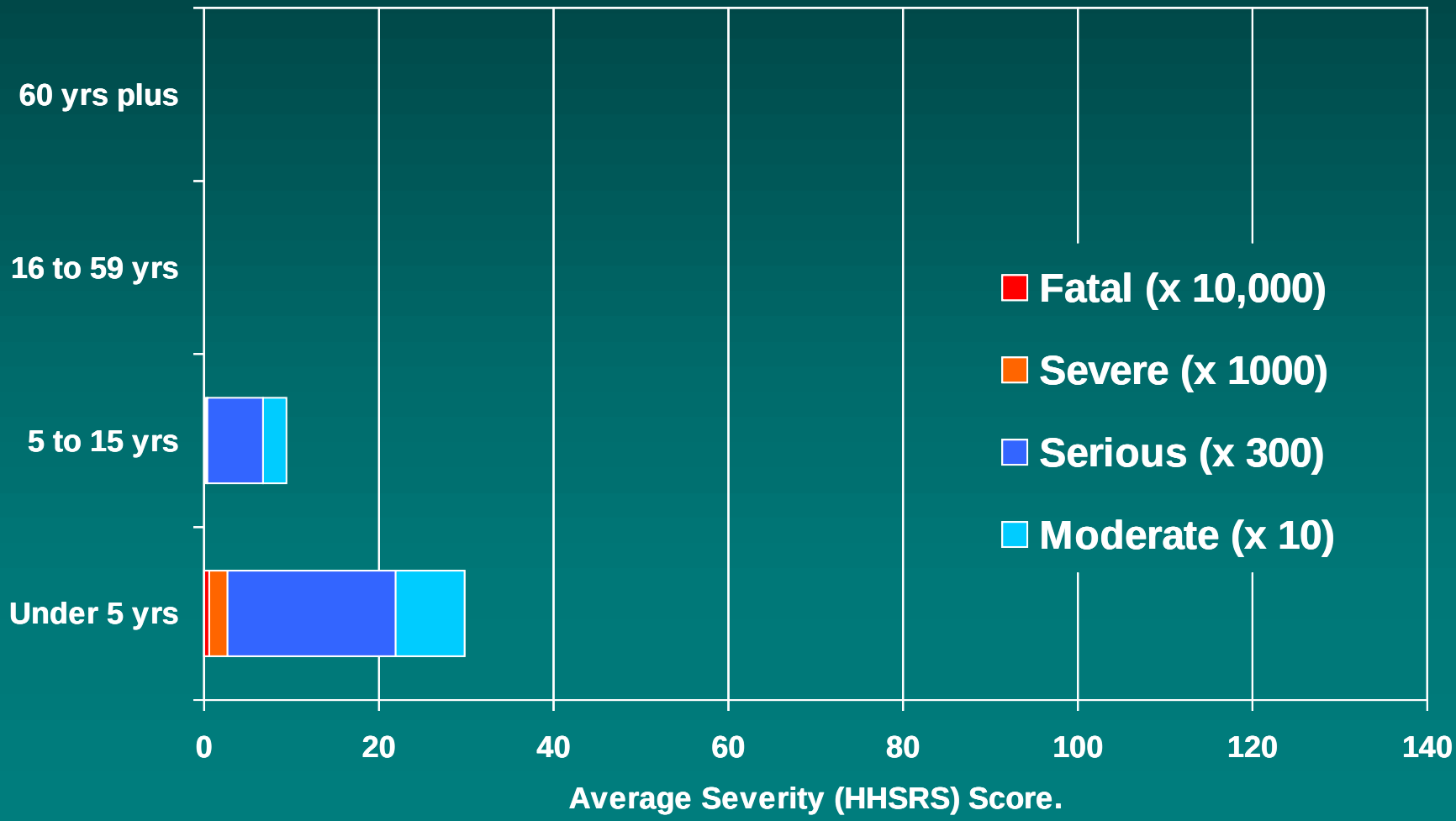

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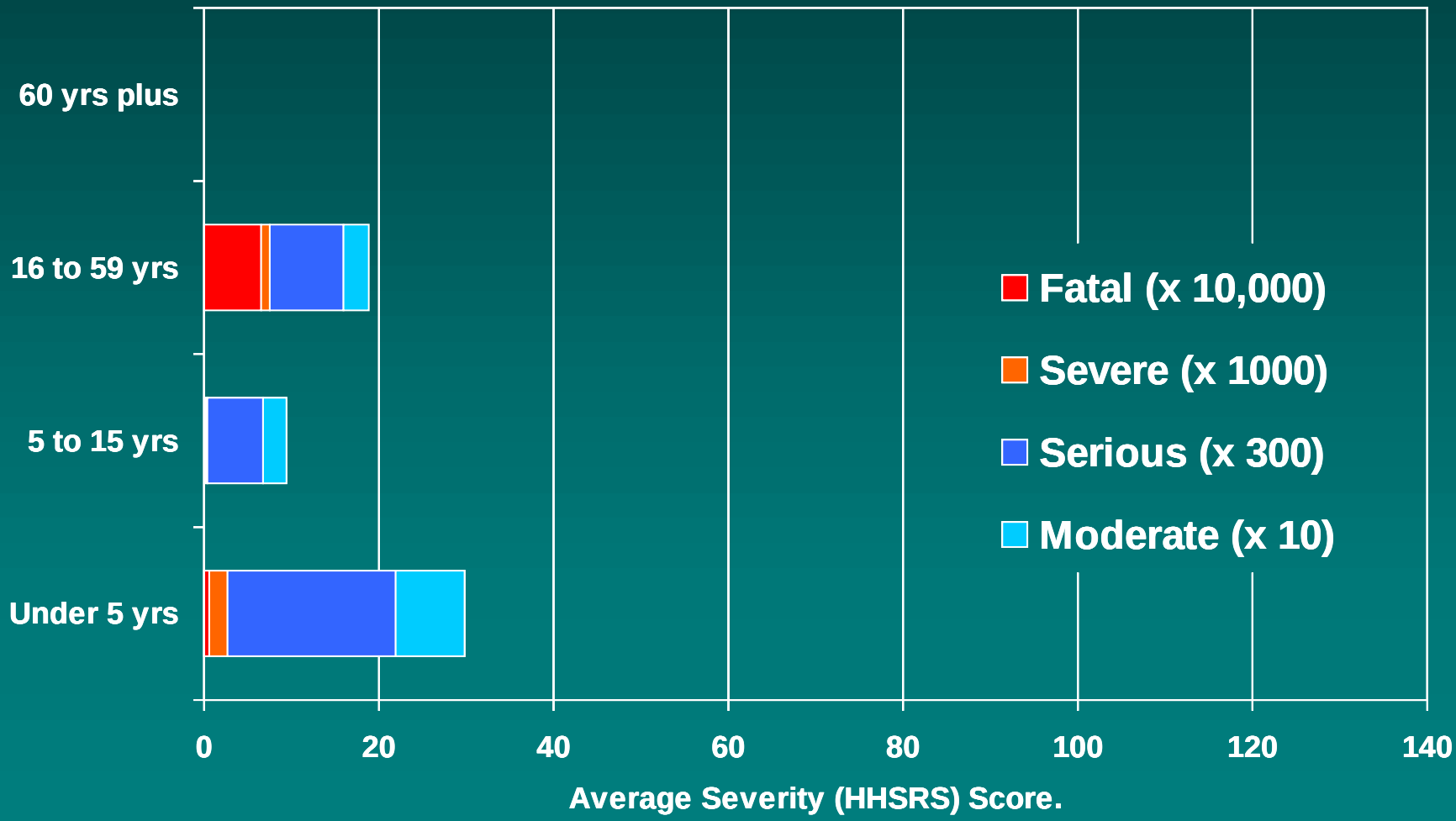

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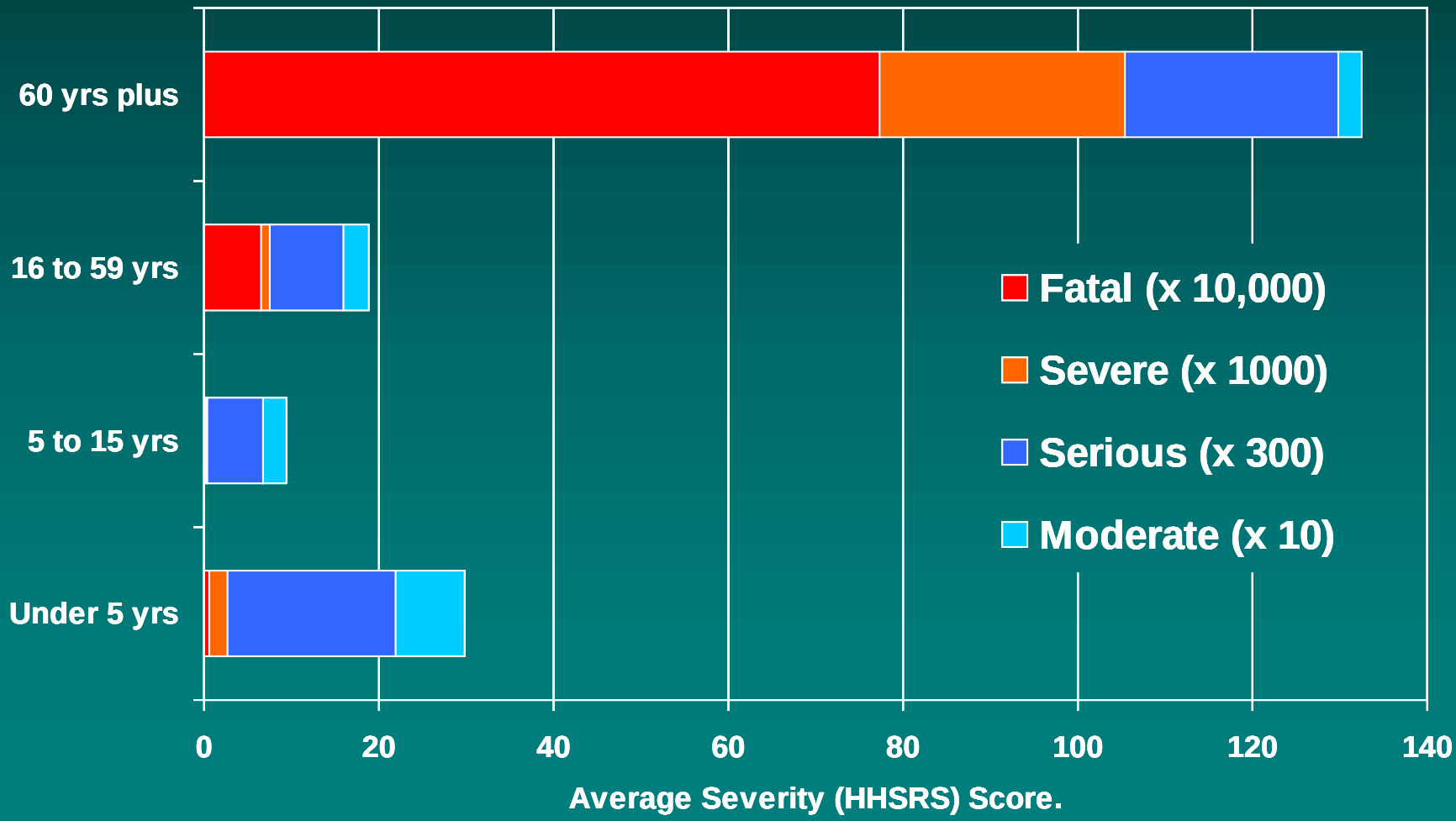

# 18: Fall rate, health outcomes & av. HHSRS score for vulnerable groups by types of fall

| Type of fall | Age of victim | Falls per 100,000 | % fatal falls | % severe or serious | Av. HHSRS score |
|---|---|---|---|---|---|
| Falls on level | < 5 yrs | 1,368.0 | 0.00 | 4.1 | 31 |
| | 60 yrs + | 999.0 | 0.13 | 33.6 | 189 |
| Fall on stairs | < 5 yrs | 847.5 | 0.01 | 7.9 | 30 |
| | 60 yrs + | 392.2 | 1.97 | 27.9 | 133 |
| Falls in bath (+ & - drowning) | < 5 yrs | 36.7 | 1.25 | 3.5 | 5.3 |
| | 60 yrs + | 24.6 | 1.85 | 15.2 | 6.4 |
| Falls from windows etc | < 5 yrs | 59.1 | 0.19 | 12.3 | 4.5 |
| | 60 yrs + | 8.8 | 5.28 | 19.7 | 5.4 |

# 19. Rates, health outcomes & av. HHSRS scores where accidents or fatalities frequent

| Type of hazard | Age of victim | Accidents per 100 k | % fatal accident | % severe or serious | Av. HHSRS score |
|---|---|---|---|---|---|
| Entrapment | < 5 yrs | 2,564.1 | 0.00 | 4.1 | 57 |
| & collision | 60 yrs + | 489.2 | 0.01 | 13.4 | 32 |
| Hot surfaces | < 5 yrs | 550.7 | 0.01 | 20.4 | 45 |
| & materials | 60 yrs + | 41.7 | 0.24 | 22.2 | 5 |
| Fire hazards | < 5 yrs | 30.6 | 1.96 | 46.1 | 11 |
| | 60 yrs + | 21.0 | 6.96 | 29.9 | 17 |
| Explosion | < 5 yrs | 1.5 | 4.33 | 29.4 | 0.8 |
| hazards | 60 yrs + | 1.3 | 21.5 | 22.0 | 2.9 |

# 20. Rates, health outcomes & av. HHSRS scores for infrequent accidents

| Type of hazard | Age of victim | Accidents per 100 k | % fatal accident | % severe or serious | Av. HHSRS score |
|---|---|---|---|---|---|
| Electrical | < 5 yrs | 5.9 | 0.54 | 61.0 | 1.7 |
| hazards | 60 yrs + | 1.1 | 3.19 | 71.7 | 0.6 |
| Structural | < 5 yrs | 22.0 | 0.34 | 7.4 | 1.4 |
| failure | 60 yrs + | 6.6 | 0.91 | 15.8 | 1.0 |
| Uncombusted | < 5 yrs | 4.8 | 0.45 | 49.8 | 0.9 |
| fuel gas | 60 yrs + | 0.5 | 6.92 | 46.5 | 0.5 |
| Poor | 16-59 yr | 9.1 | 0.00 | 8.8 | 0.3 |
| ergonomics | 60 yrs + | 7.7 | 0.00 | 20.3 | 0.6 |

# 21. Fall rate, health outcomes & av. HHSRS score for persons most affected by types of fall

| Type of fall | Age & type of home | Falls per 1000 | % fatal falls | % severe & serious | HHSRS Av. score |
|---|---|---|---|---|---|
| Falls on level | 1946-79 house | 6.60 | 0.18 | 42.0 | 161 |
| | Pre 1920 flat | 11.52 | 0.10 | 32.9 | 258 |
| Fall on stairs | 1980 + flat | 2.44 | 2.61 | 24.6 | 93 |
| | Pre 1920 flat | 4.67 | 3.87 | 27.3 | 249 |
| Falls in bath (+&- drowning) | 1980 + flat | 0.67 | 0.00 | 9.1 | 2 |
| | 1920 - 45 flat | 1.47 | 4.72 | 31.8 | 33 |
| Falls between levels | 1980 + house | 0.47 | 0.00 | 16.7 | 2.7 |
| | 1946-79 house | 0.79 | 0.24 | 13.4 | 7.5 |

# 22. STAIRS: Average HHSRS scores for falls on stairs/ steps by persons > 60 yrs by housing type

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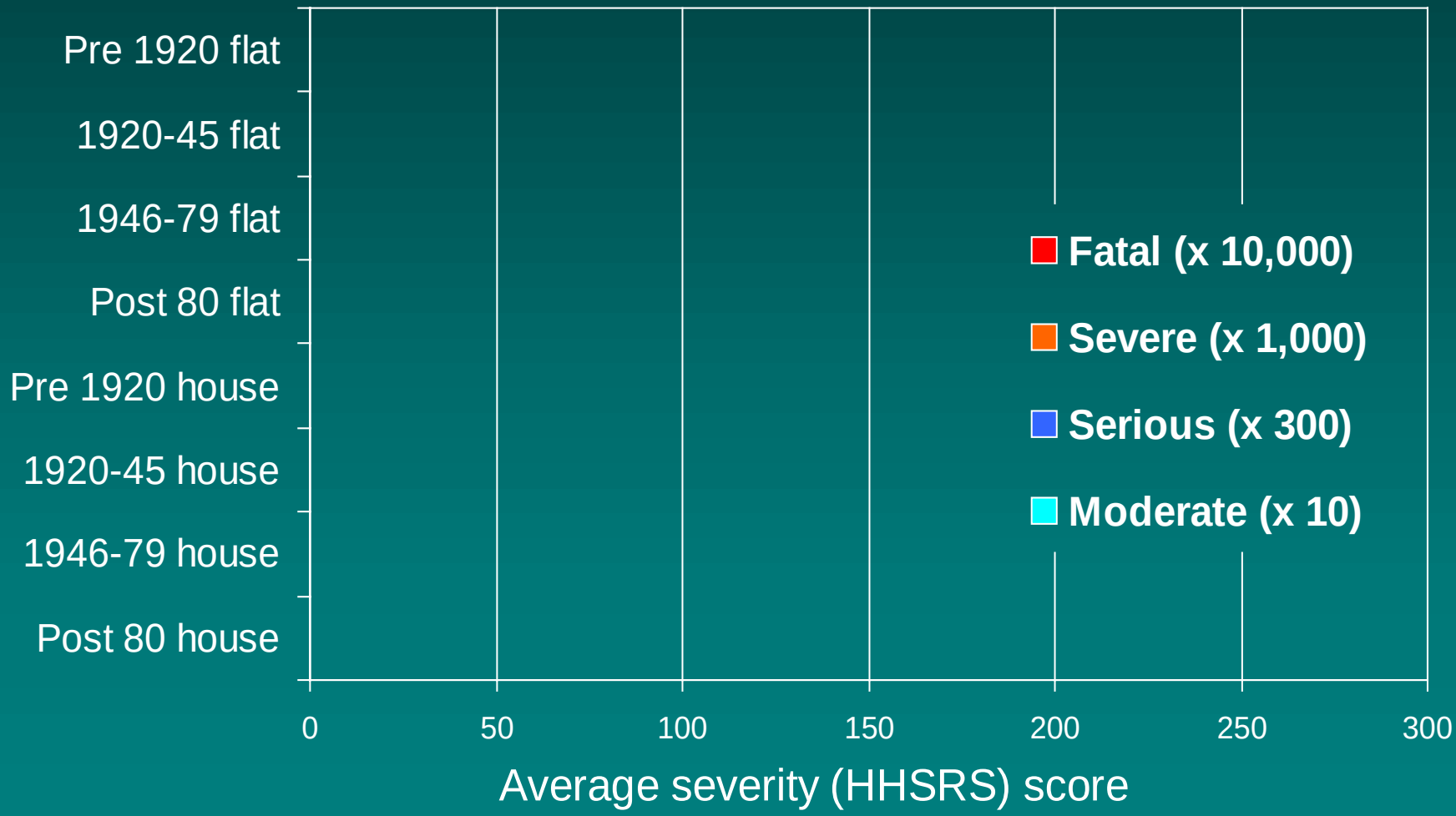

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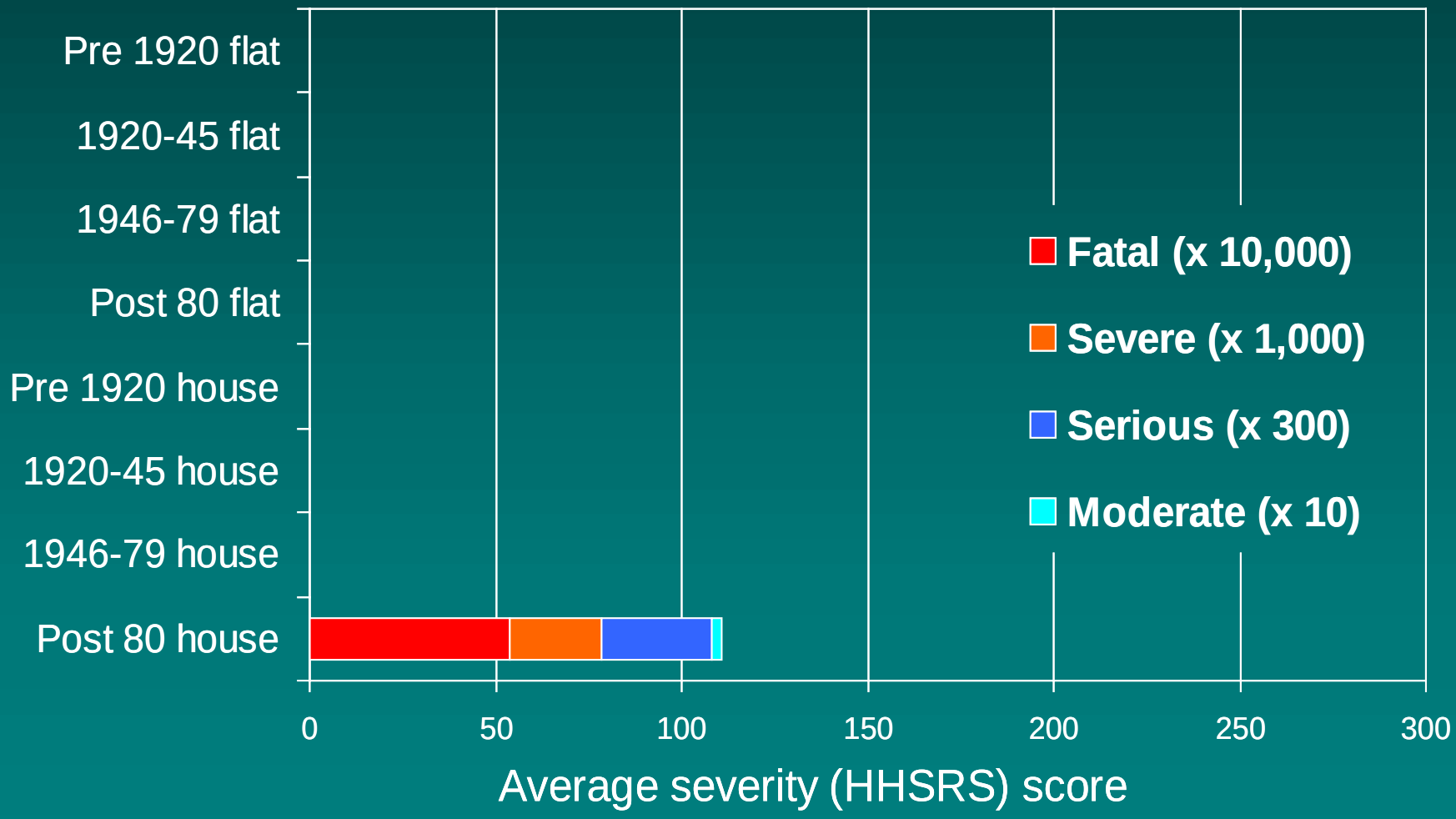

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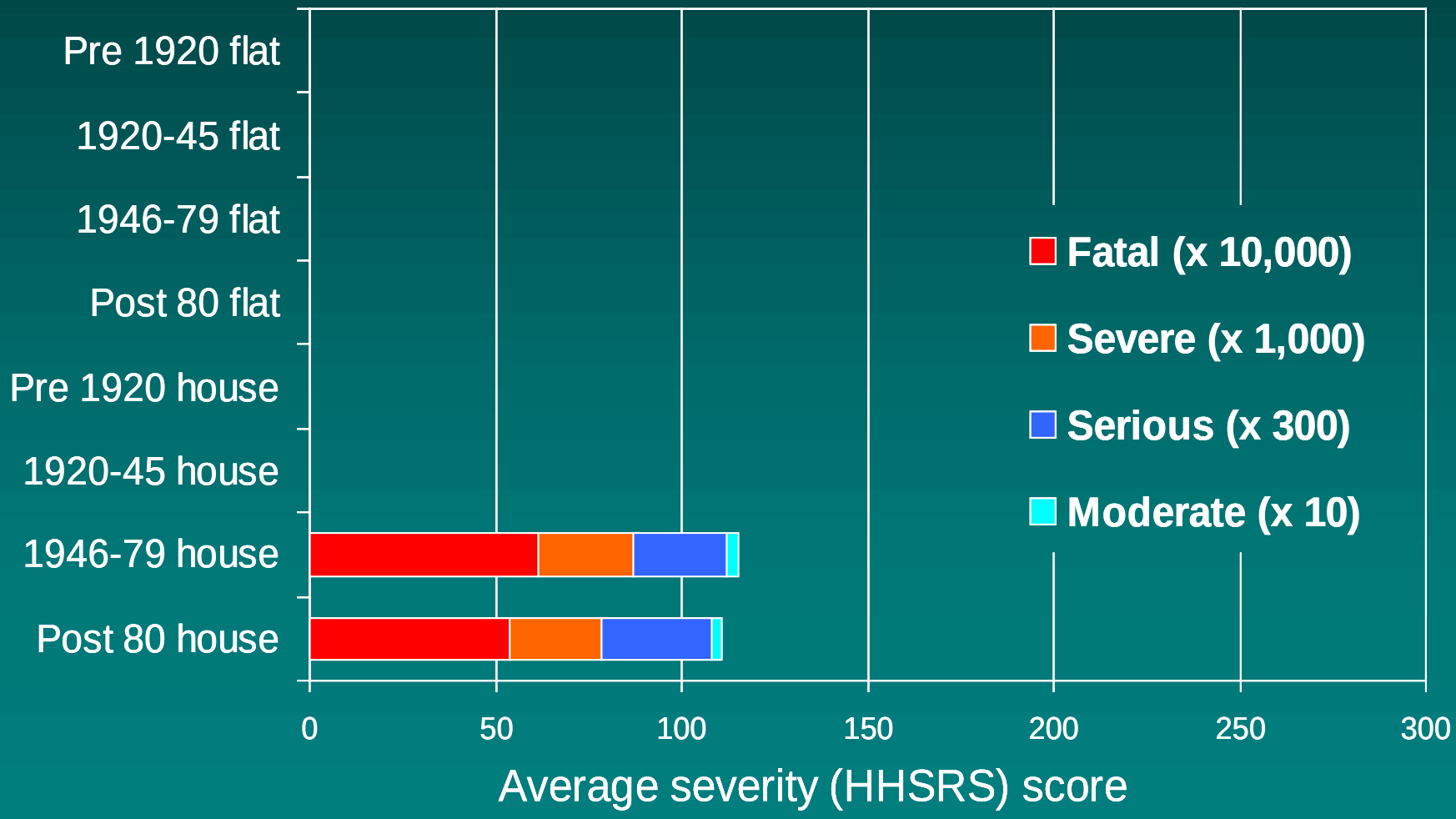

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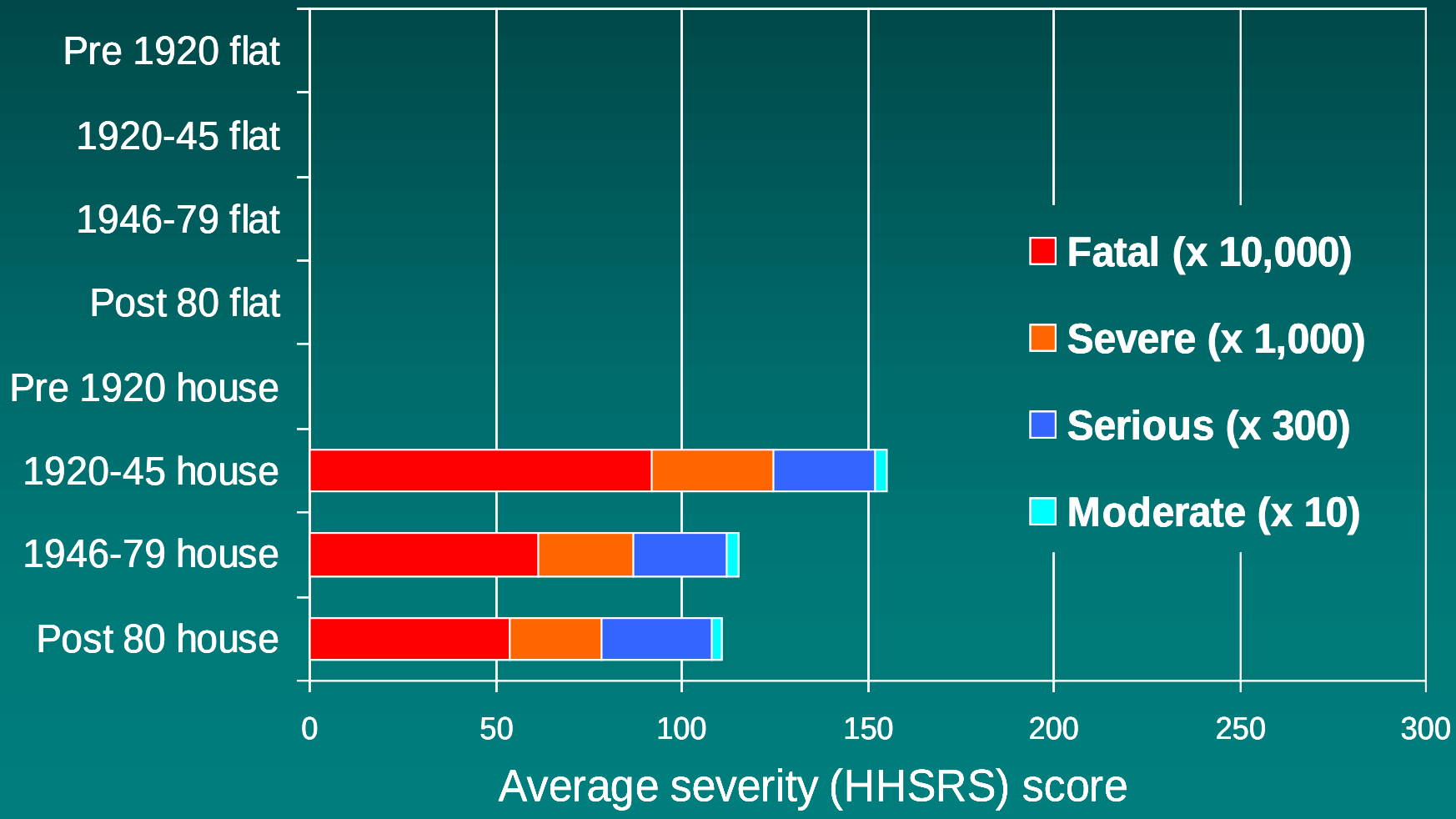

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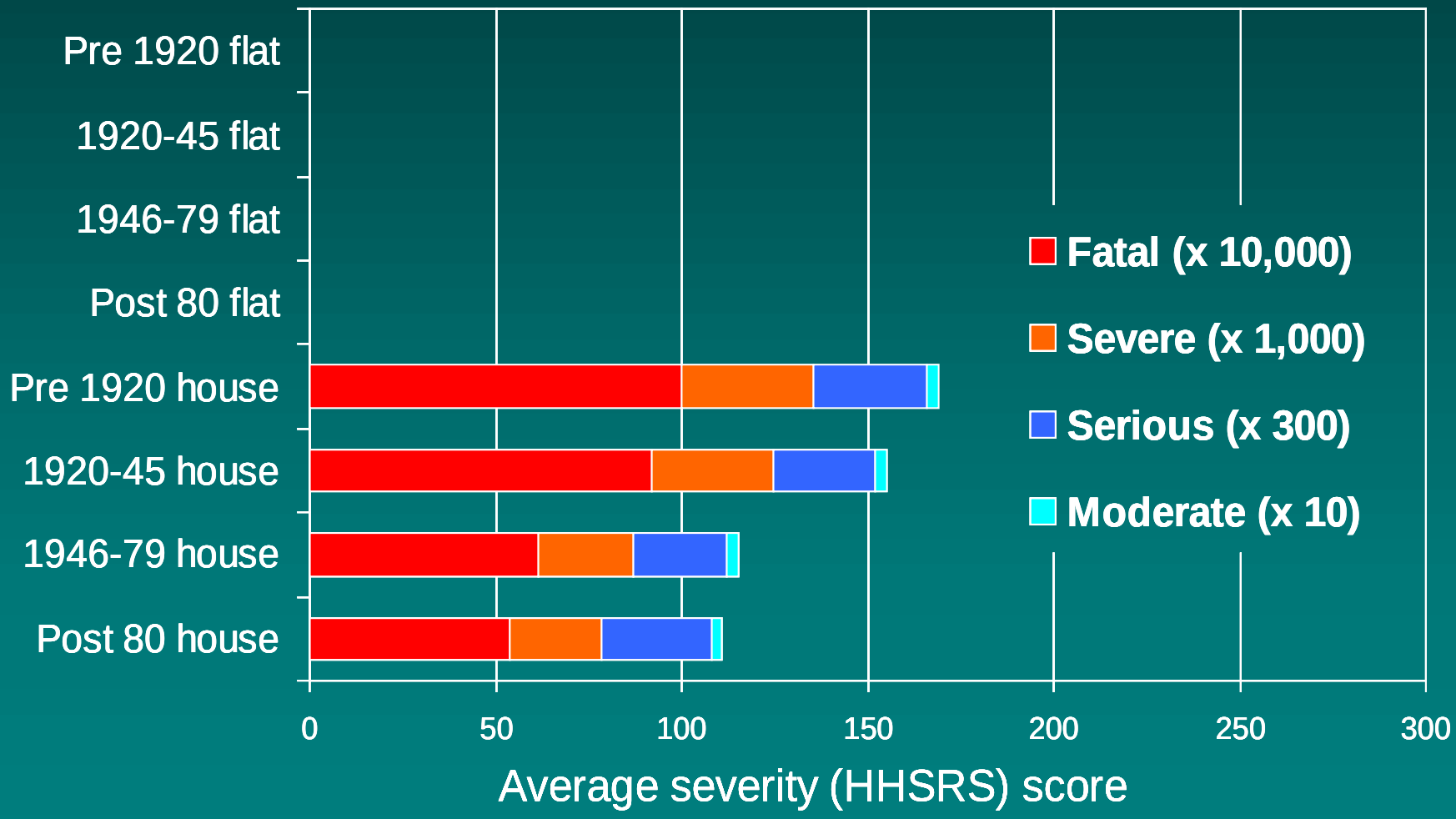

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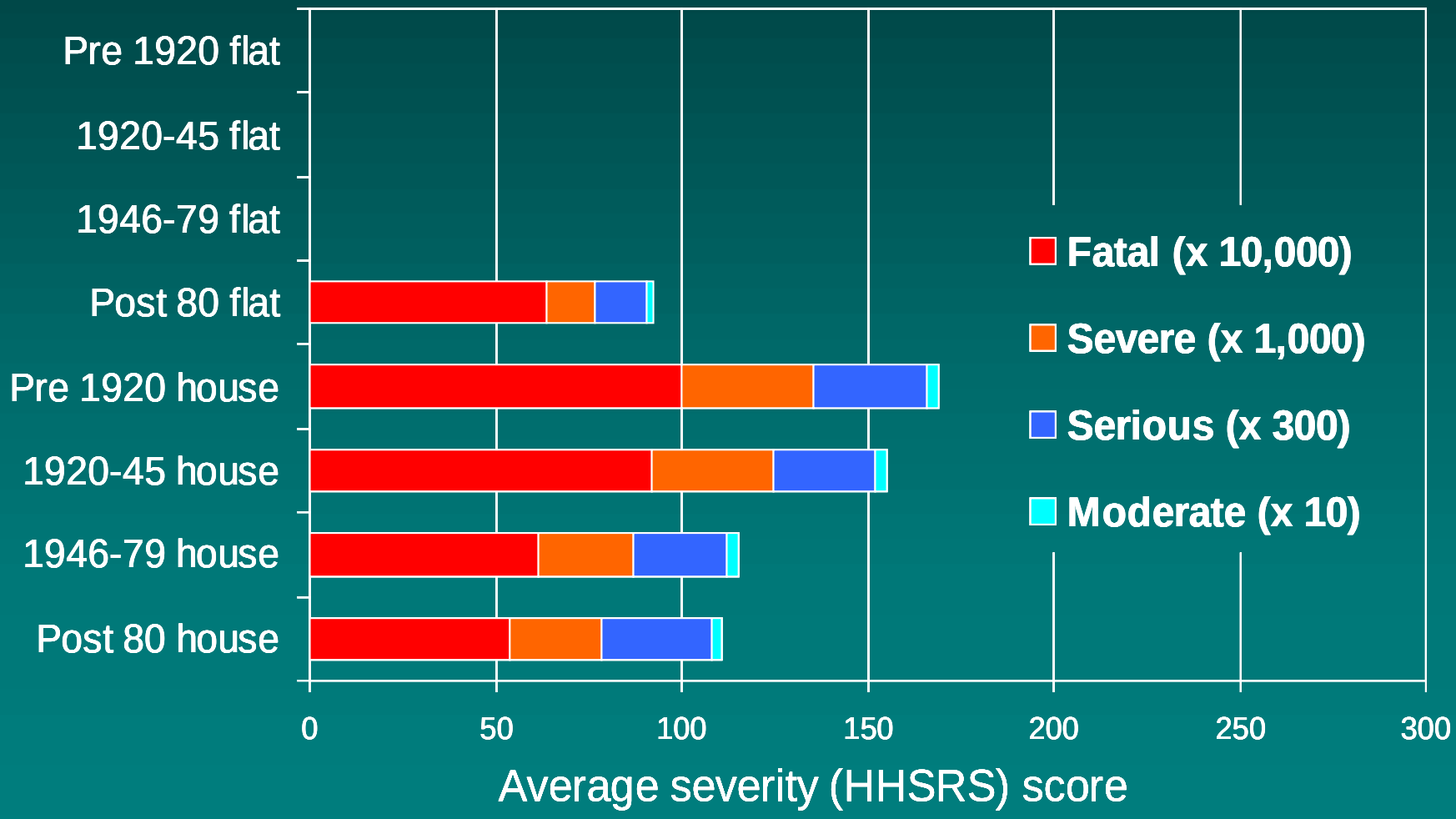

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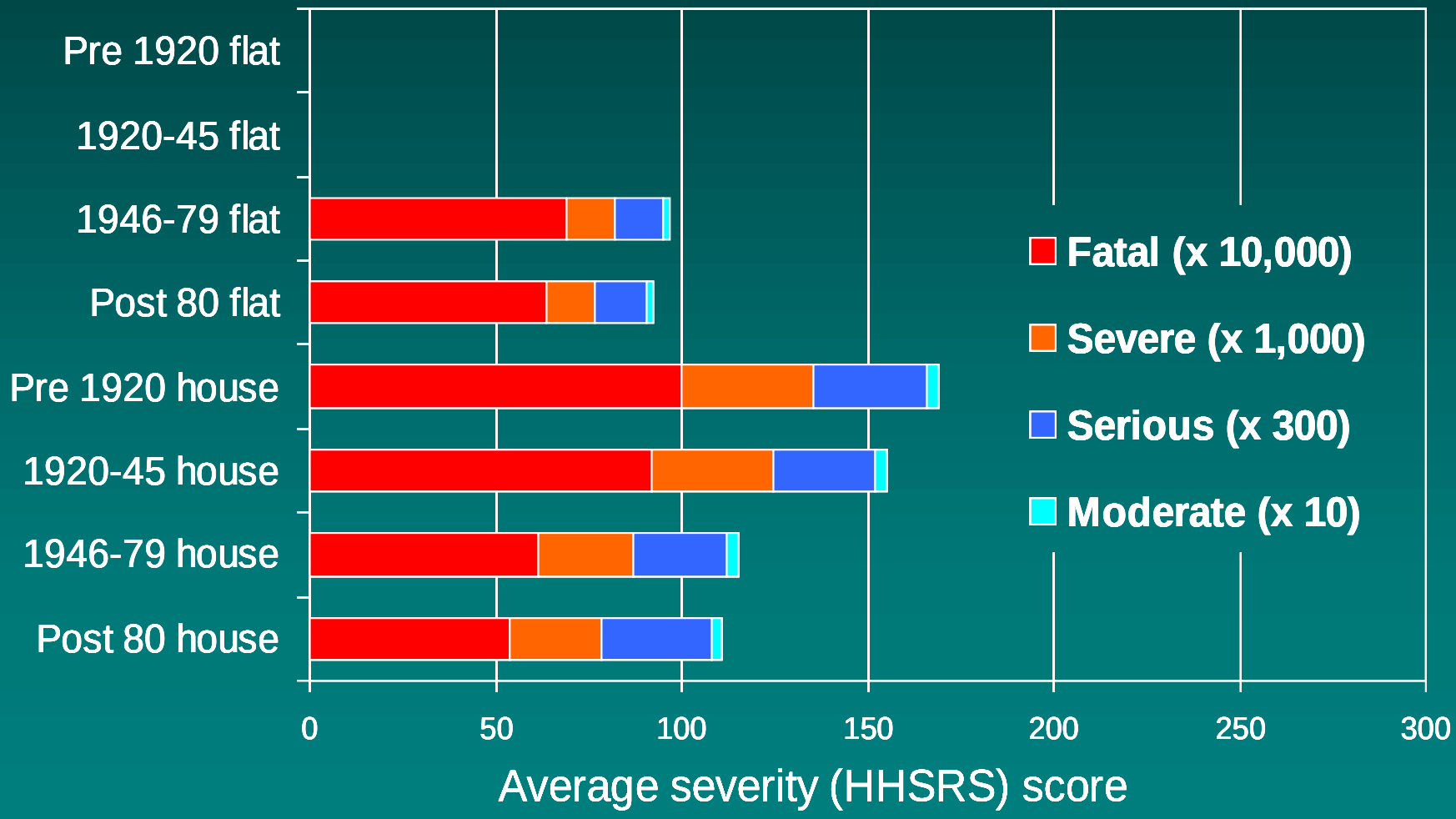

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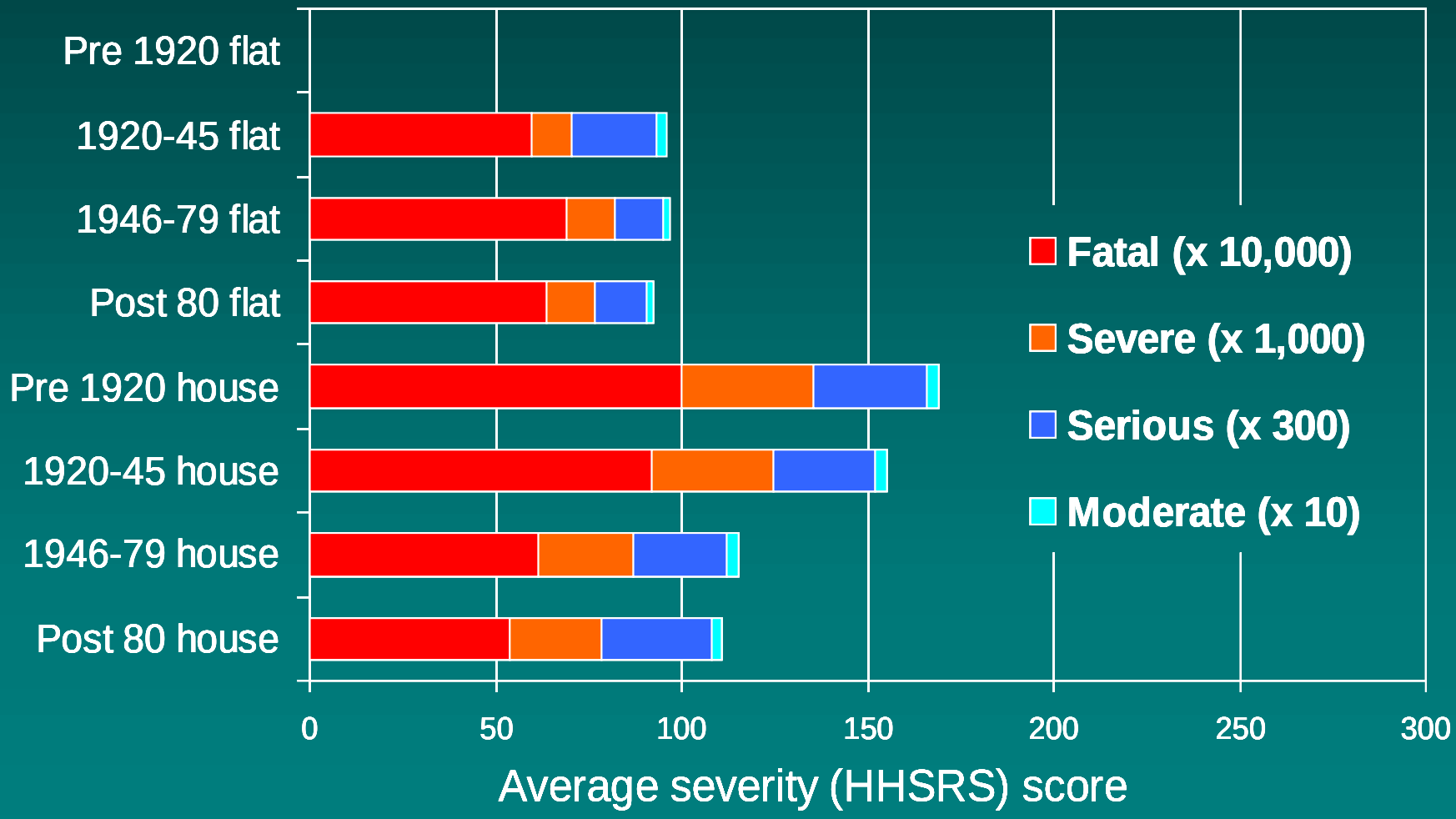

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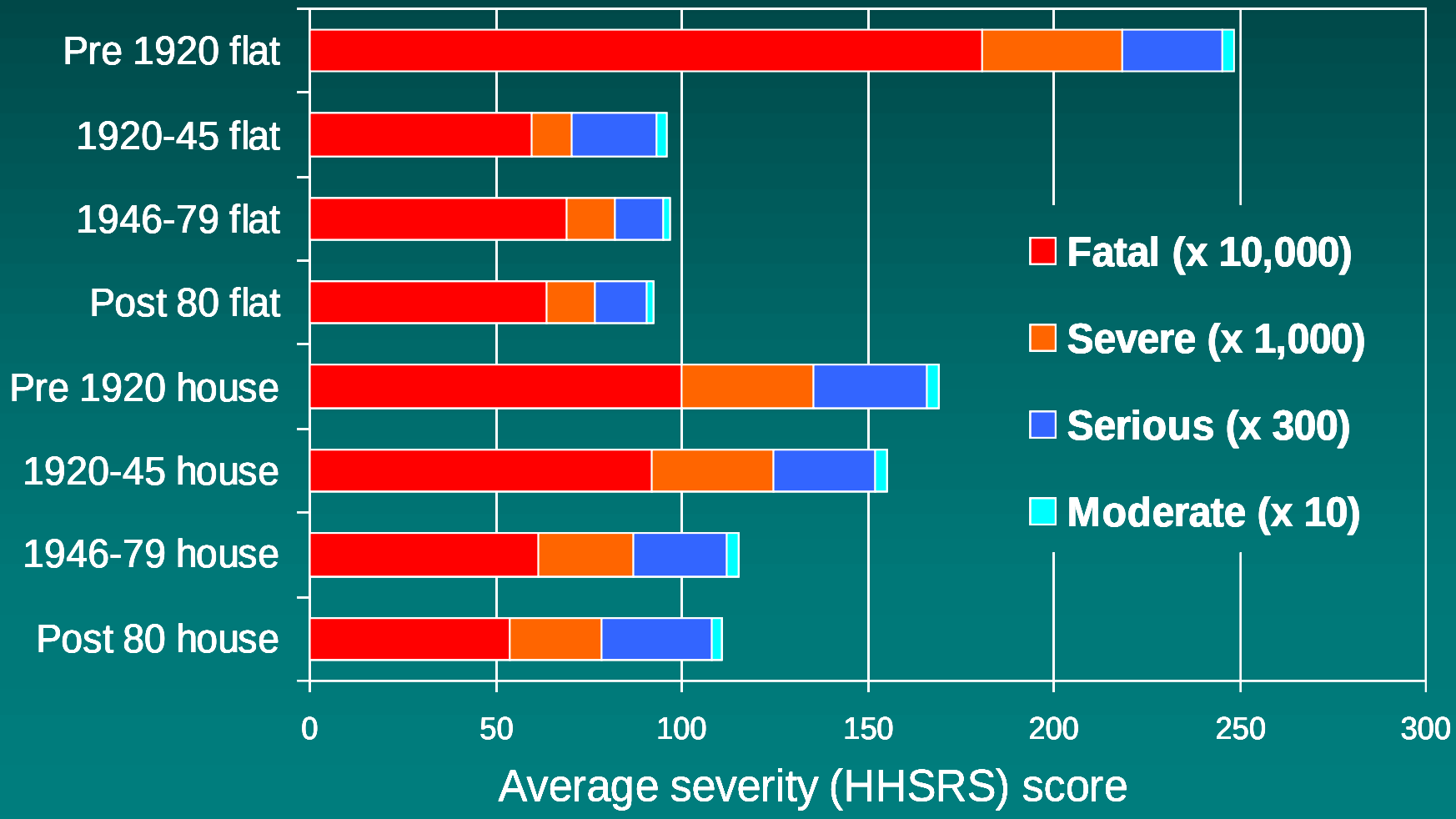

# 23. FIRE: Average HHSRS scores for fire hazards for persons > 60 yrs by housing type

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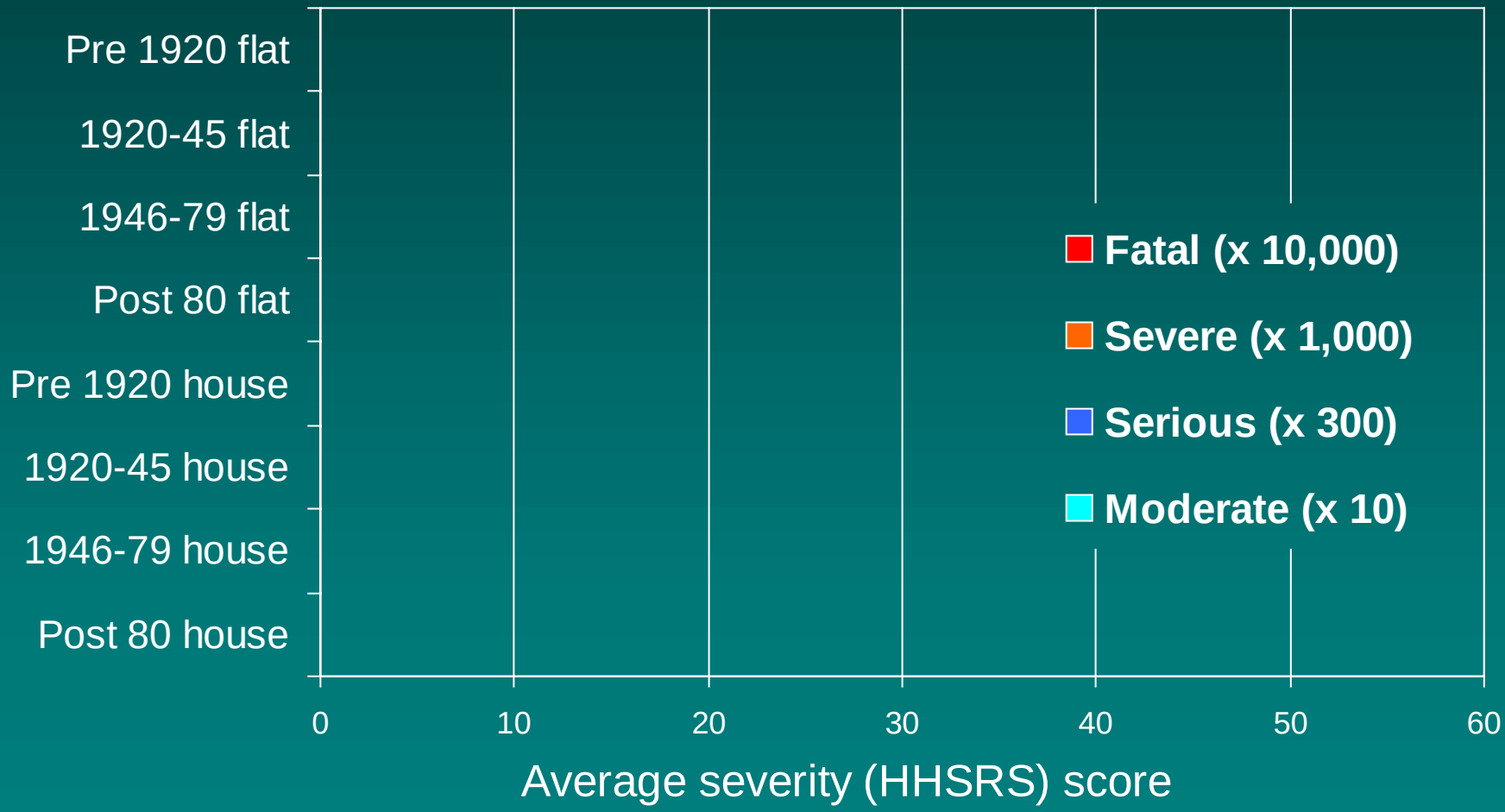

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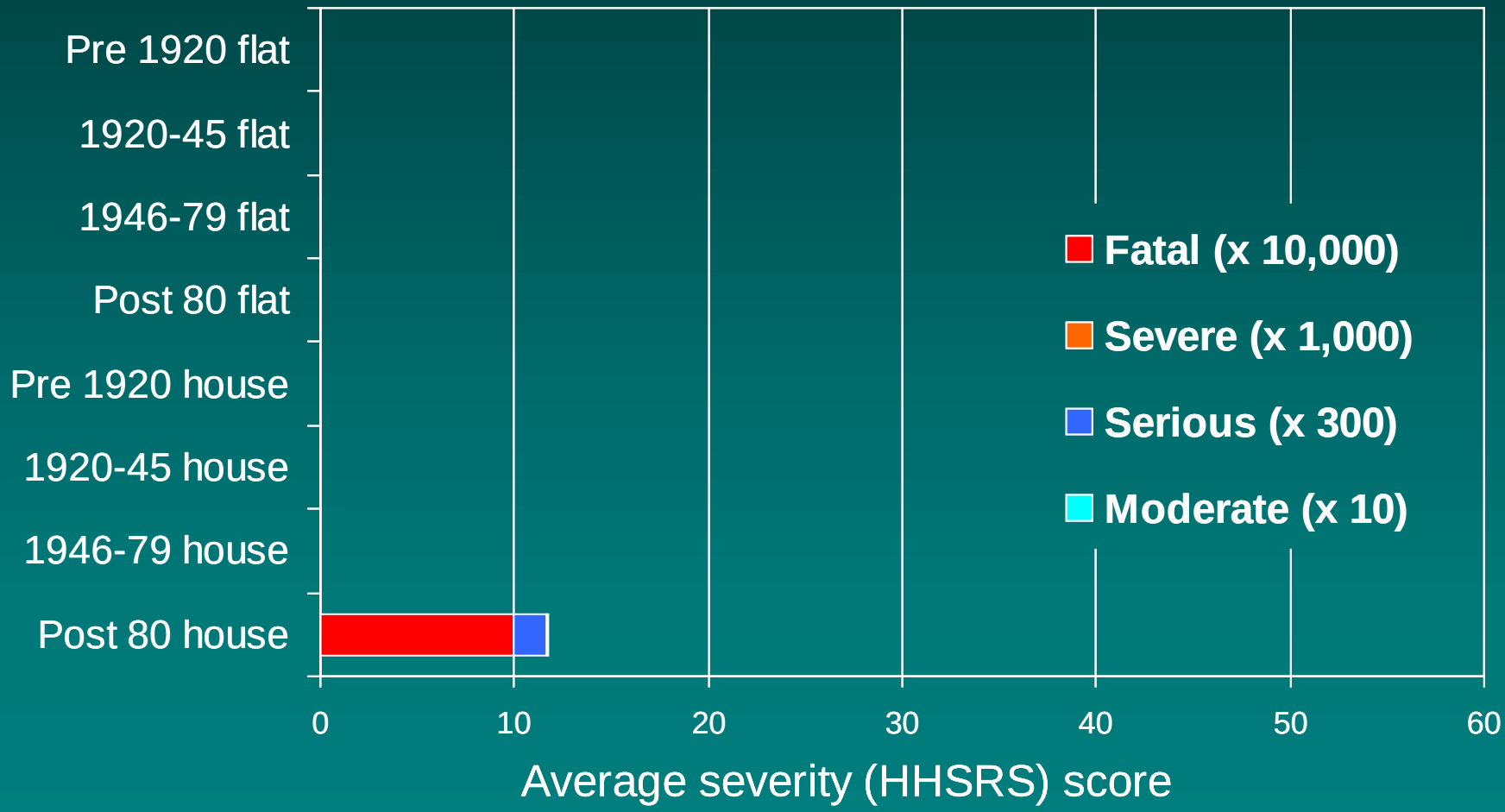

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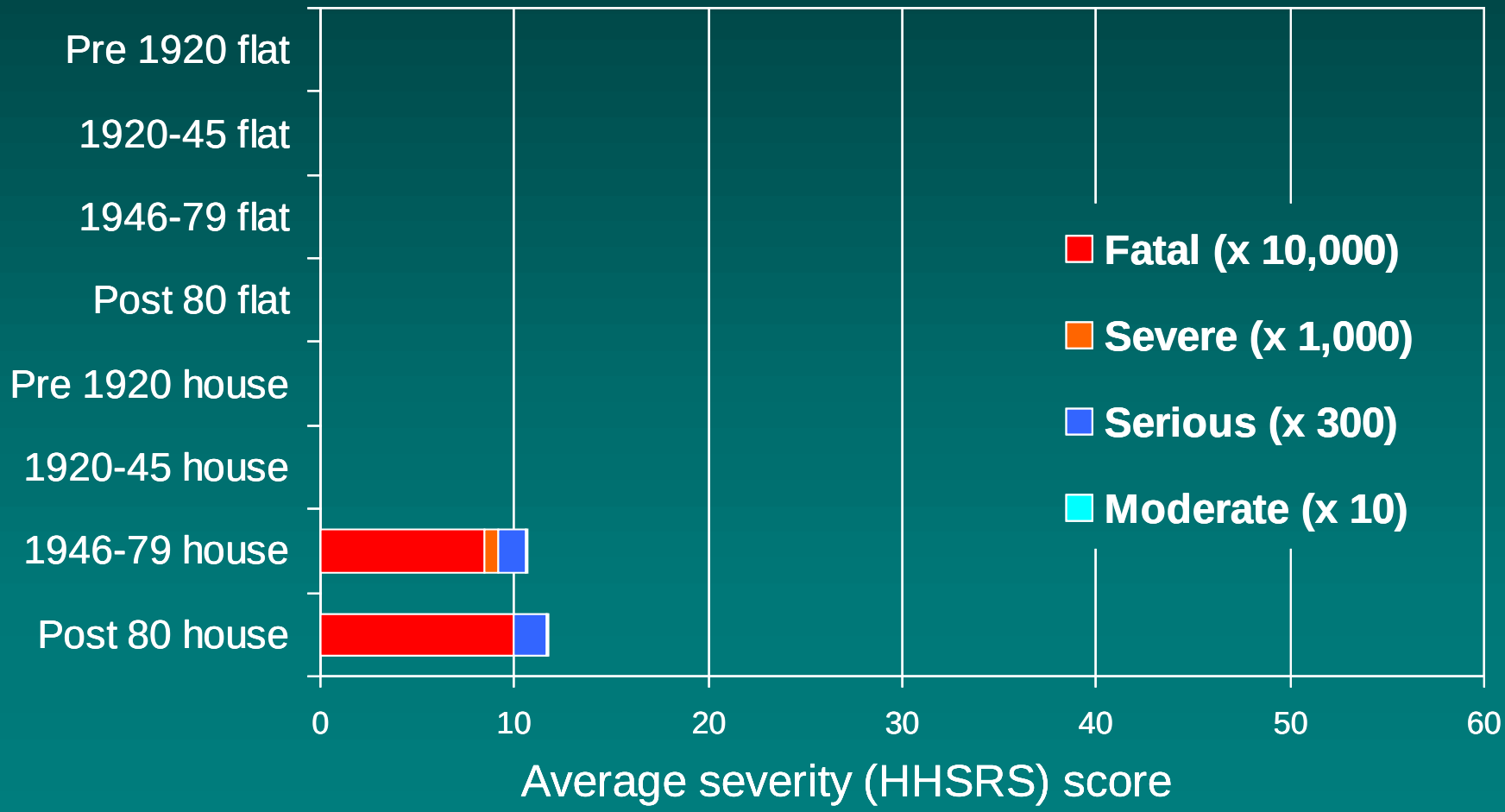

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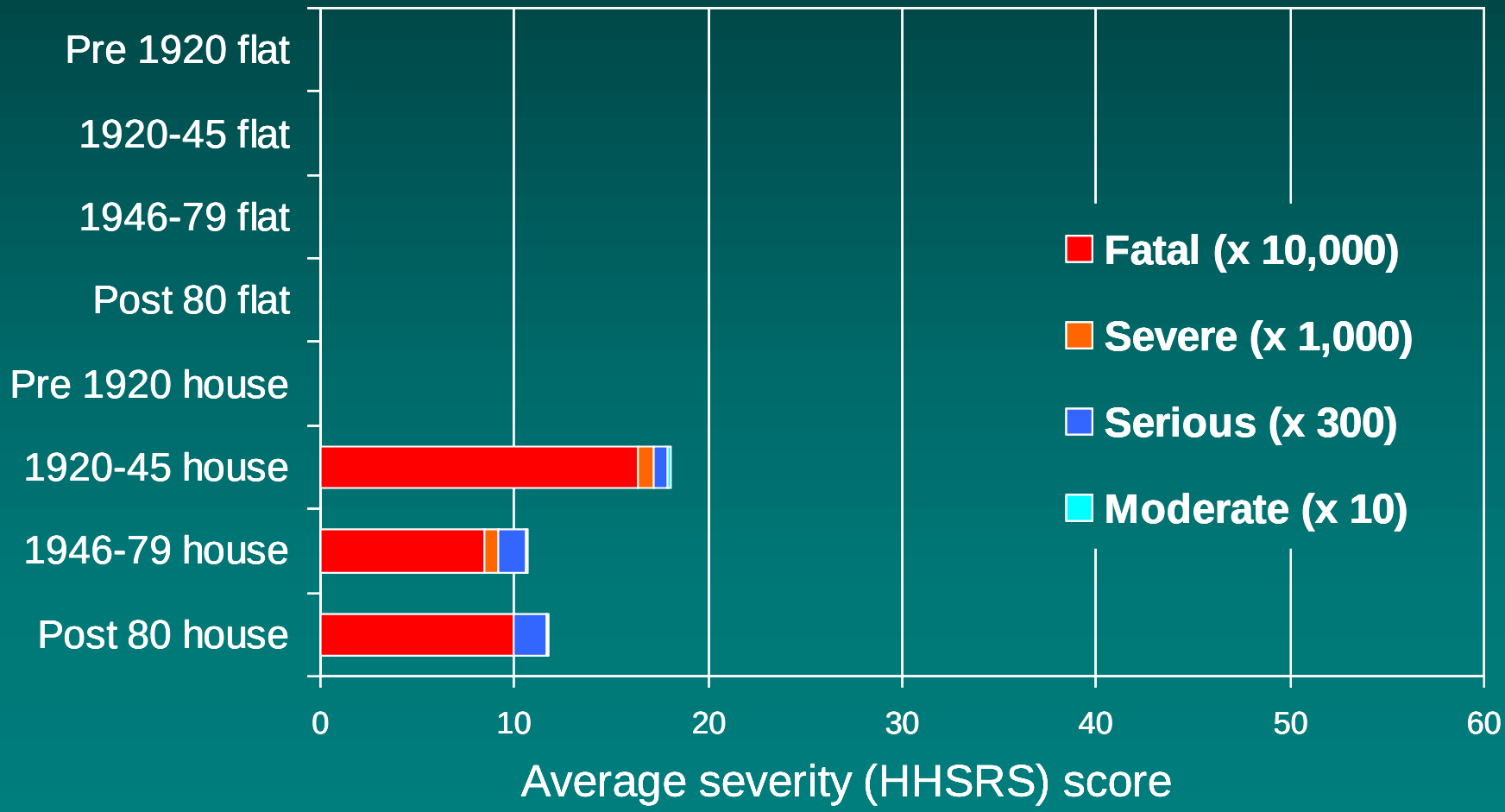

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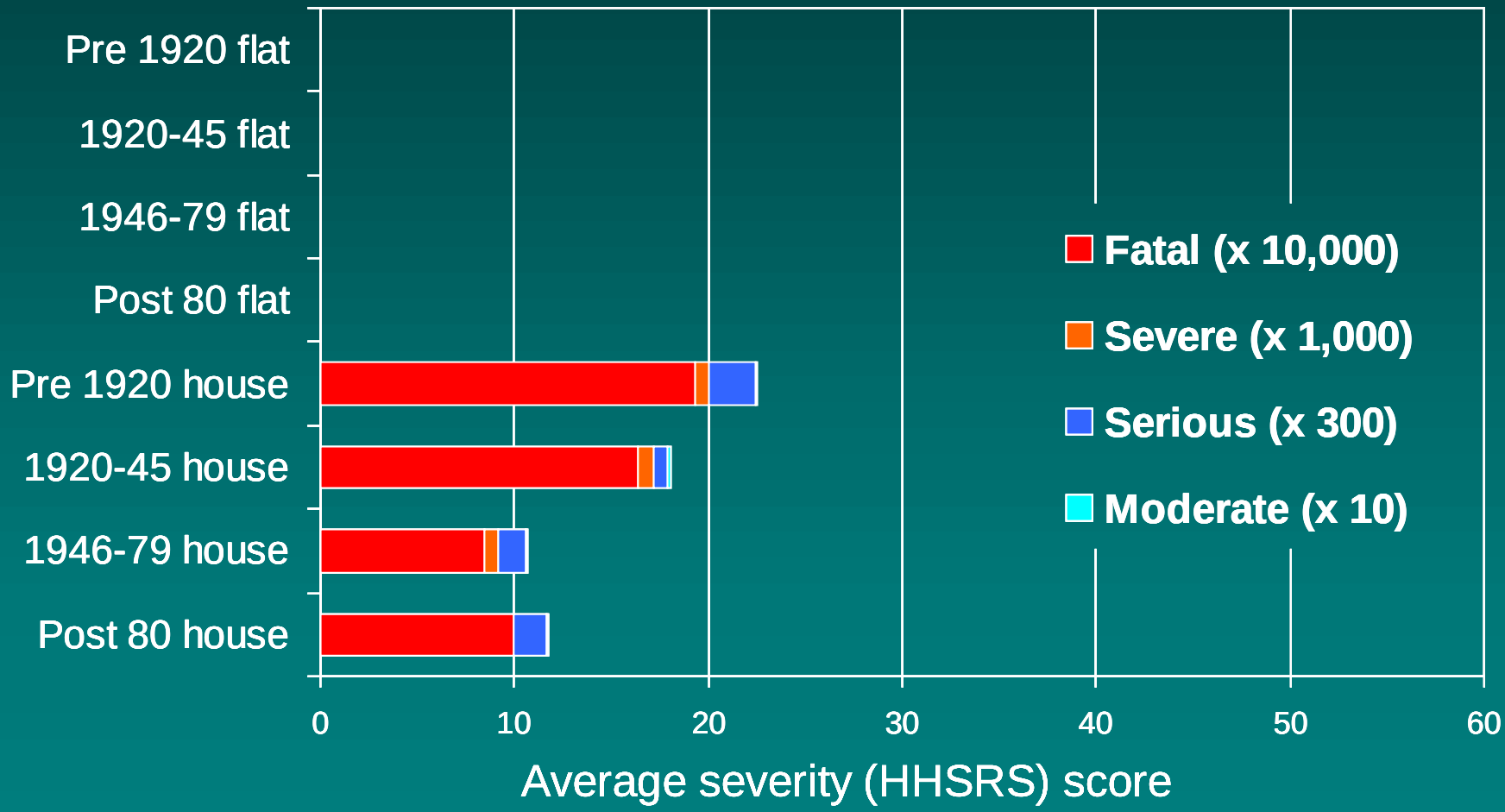

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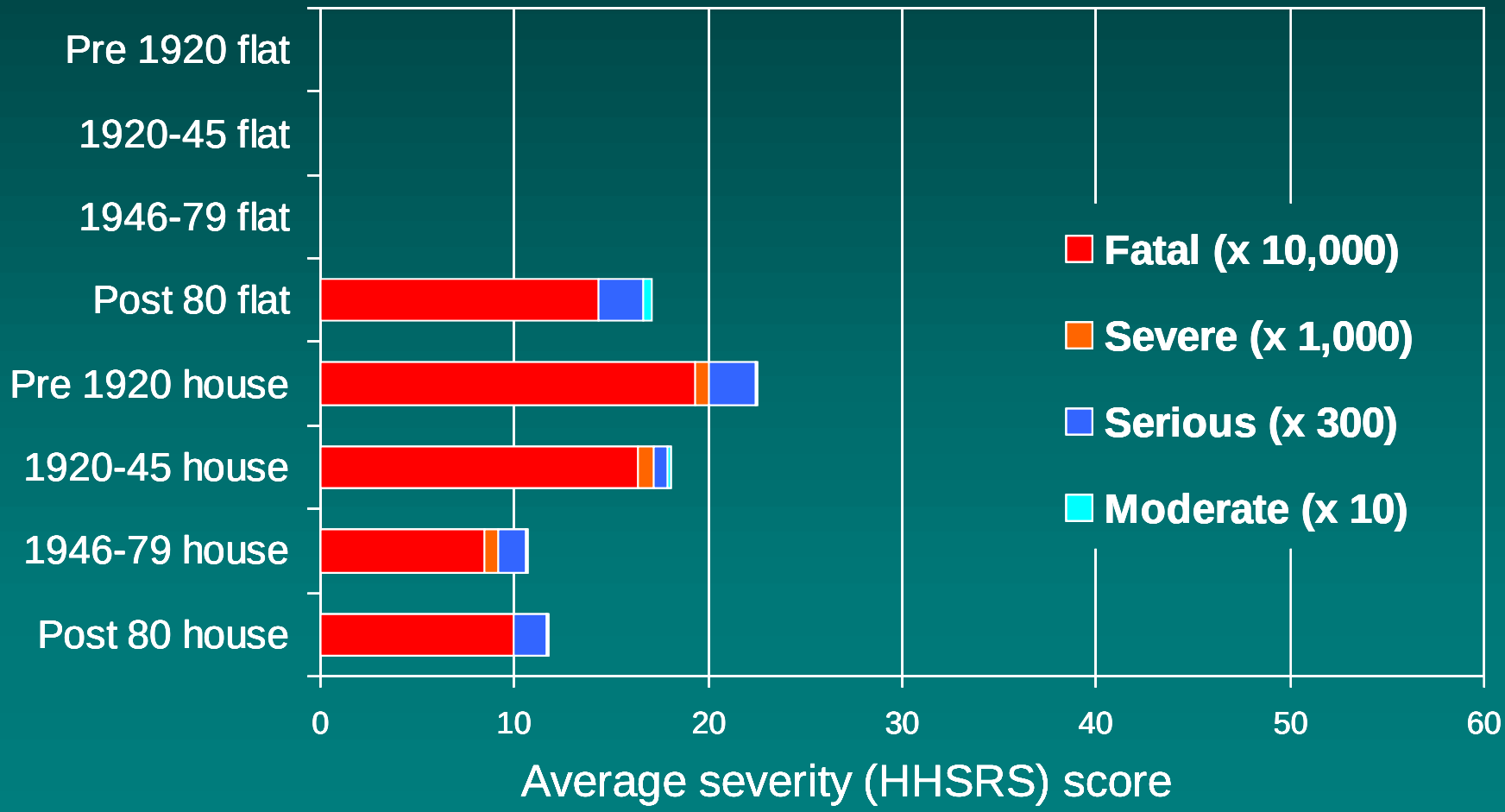

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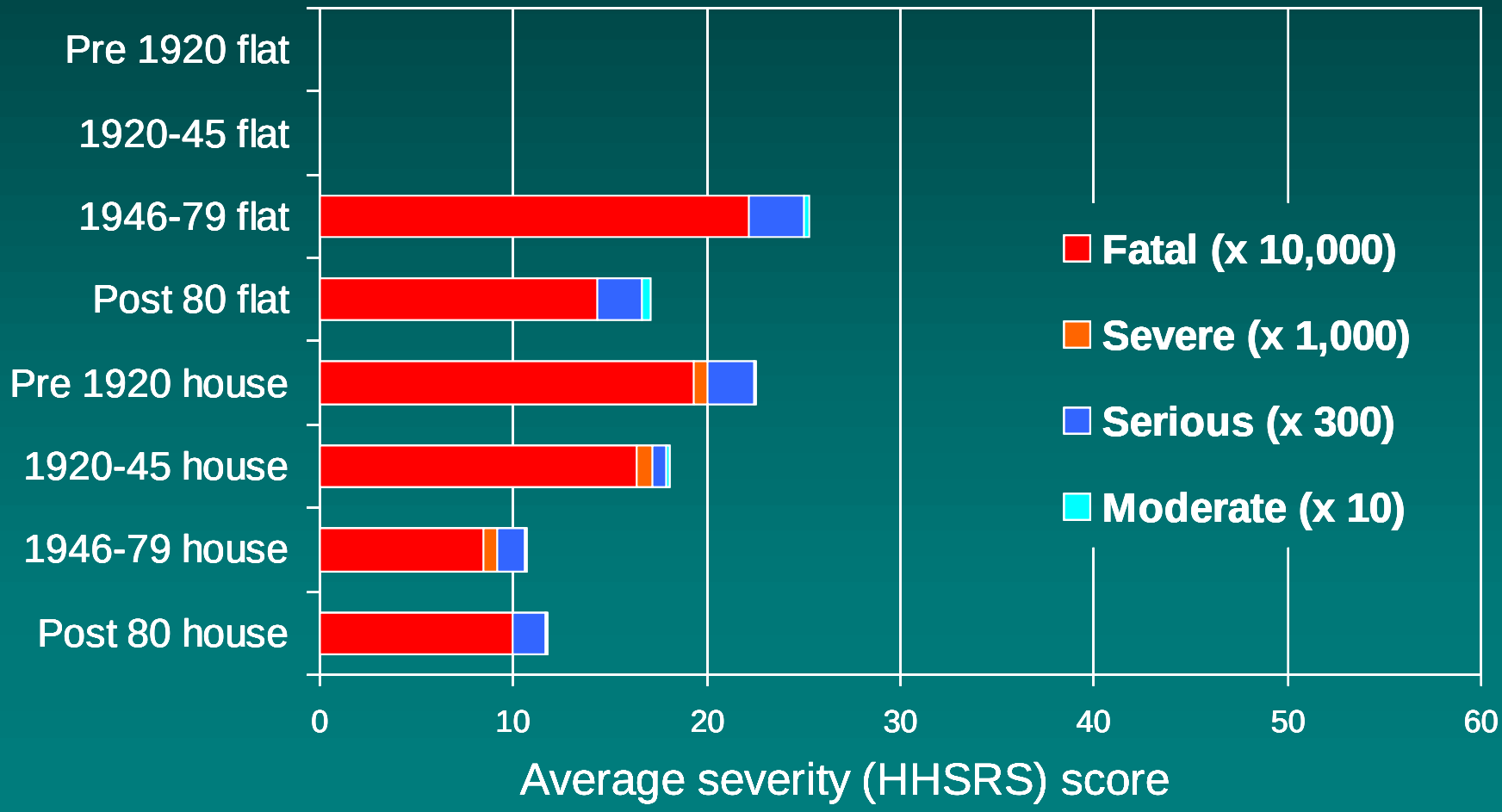

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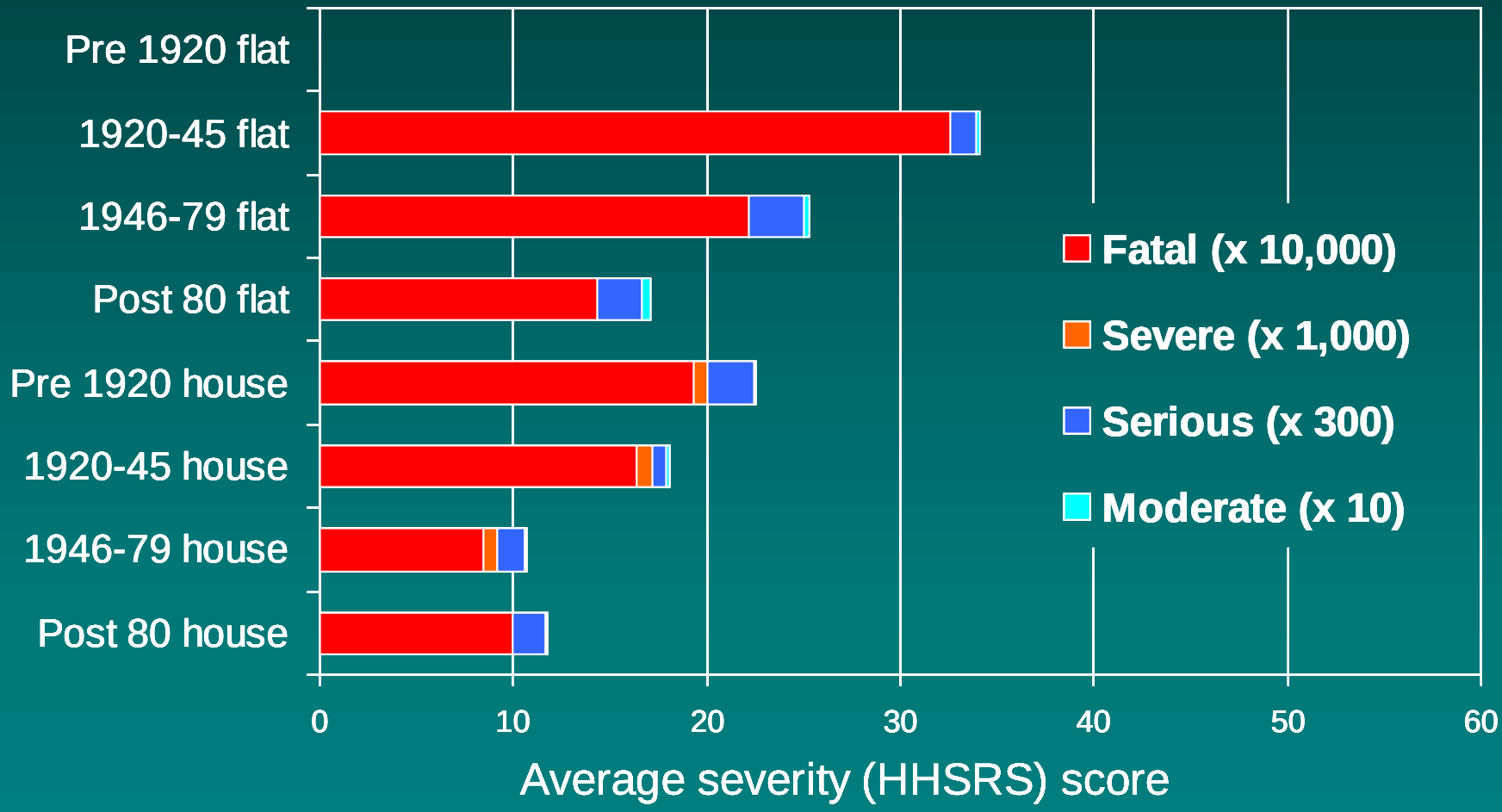

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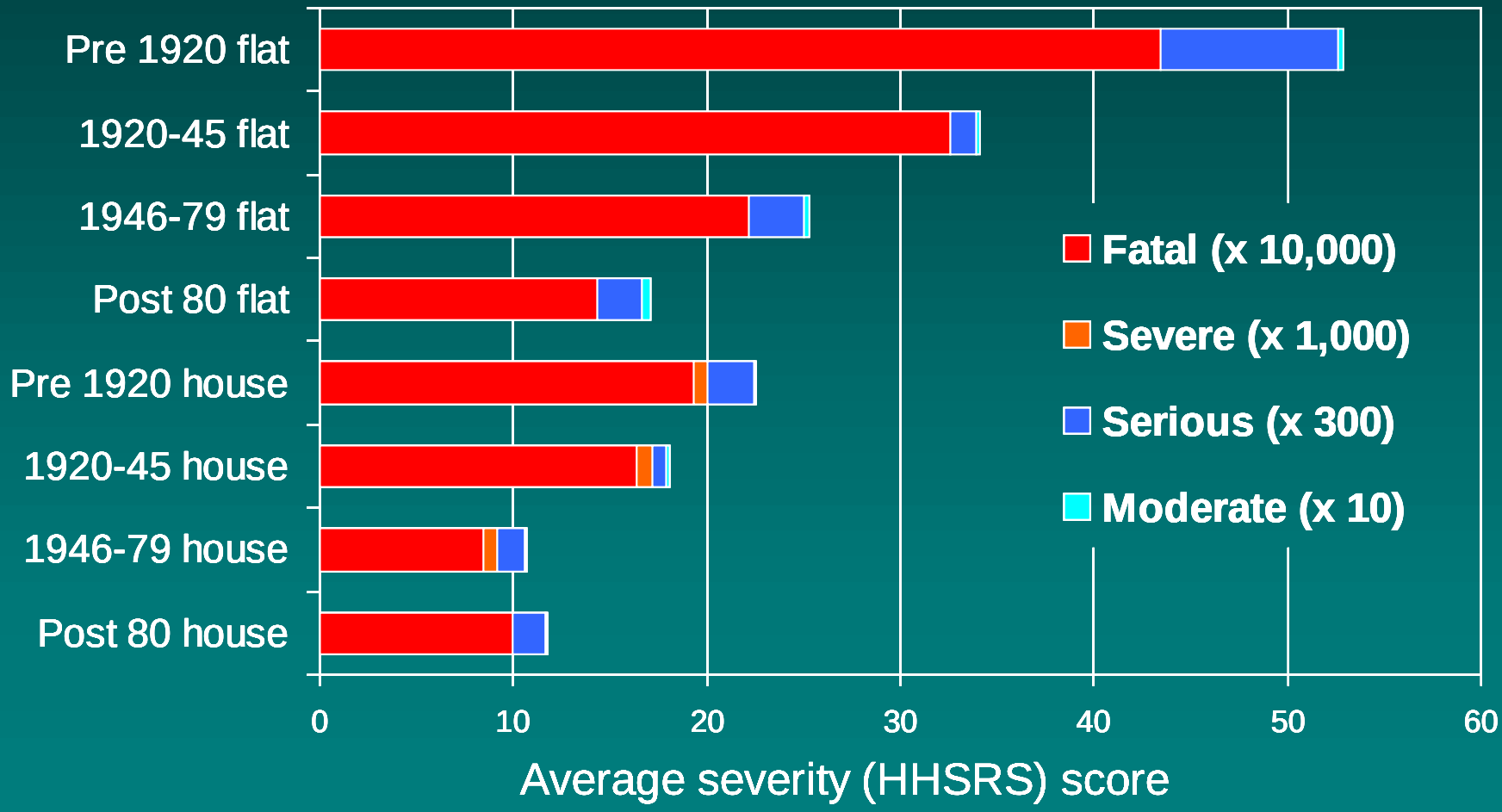

# 24. FIRE: Average HHSRS scores for death and injury of vulnerable group by type of home

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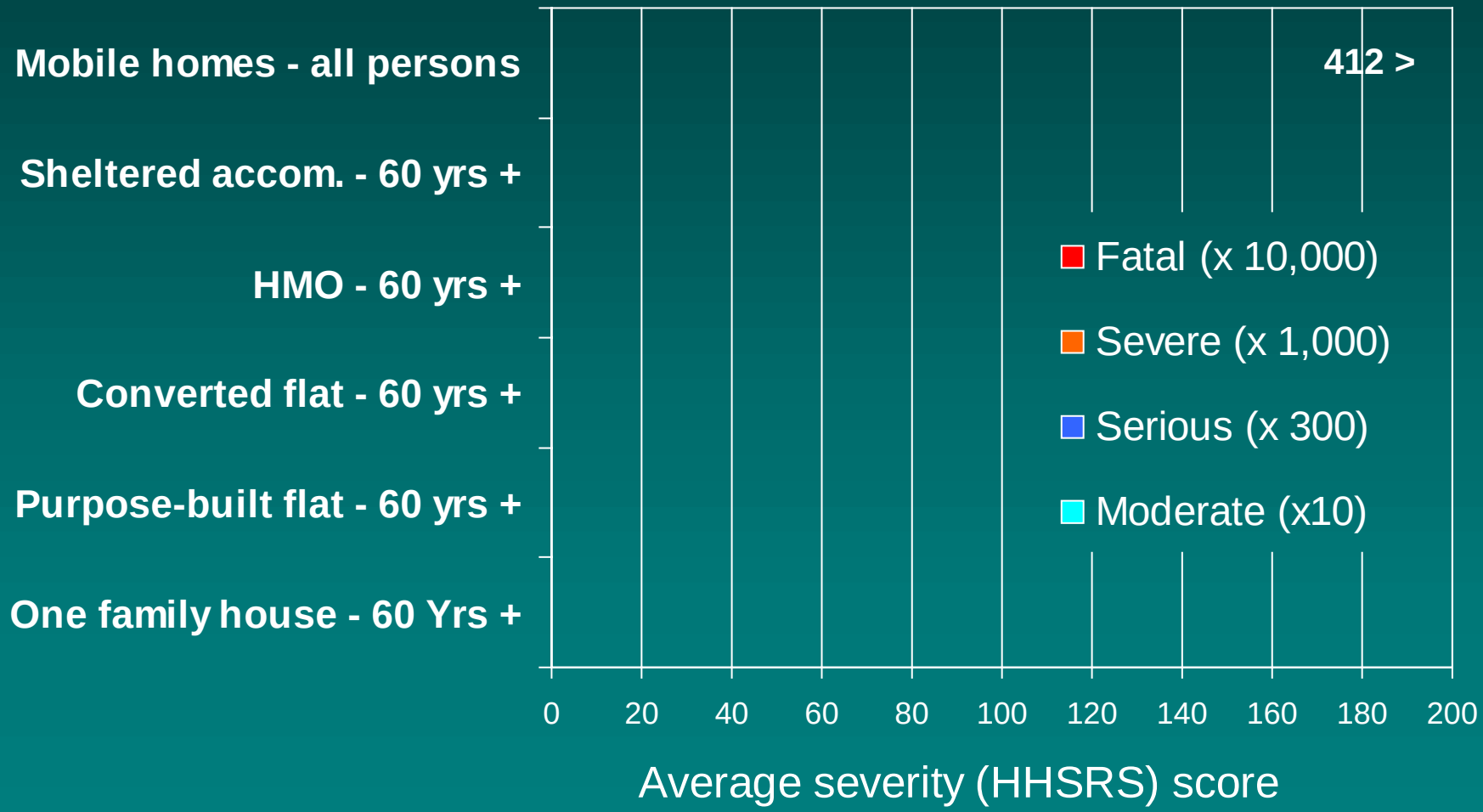

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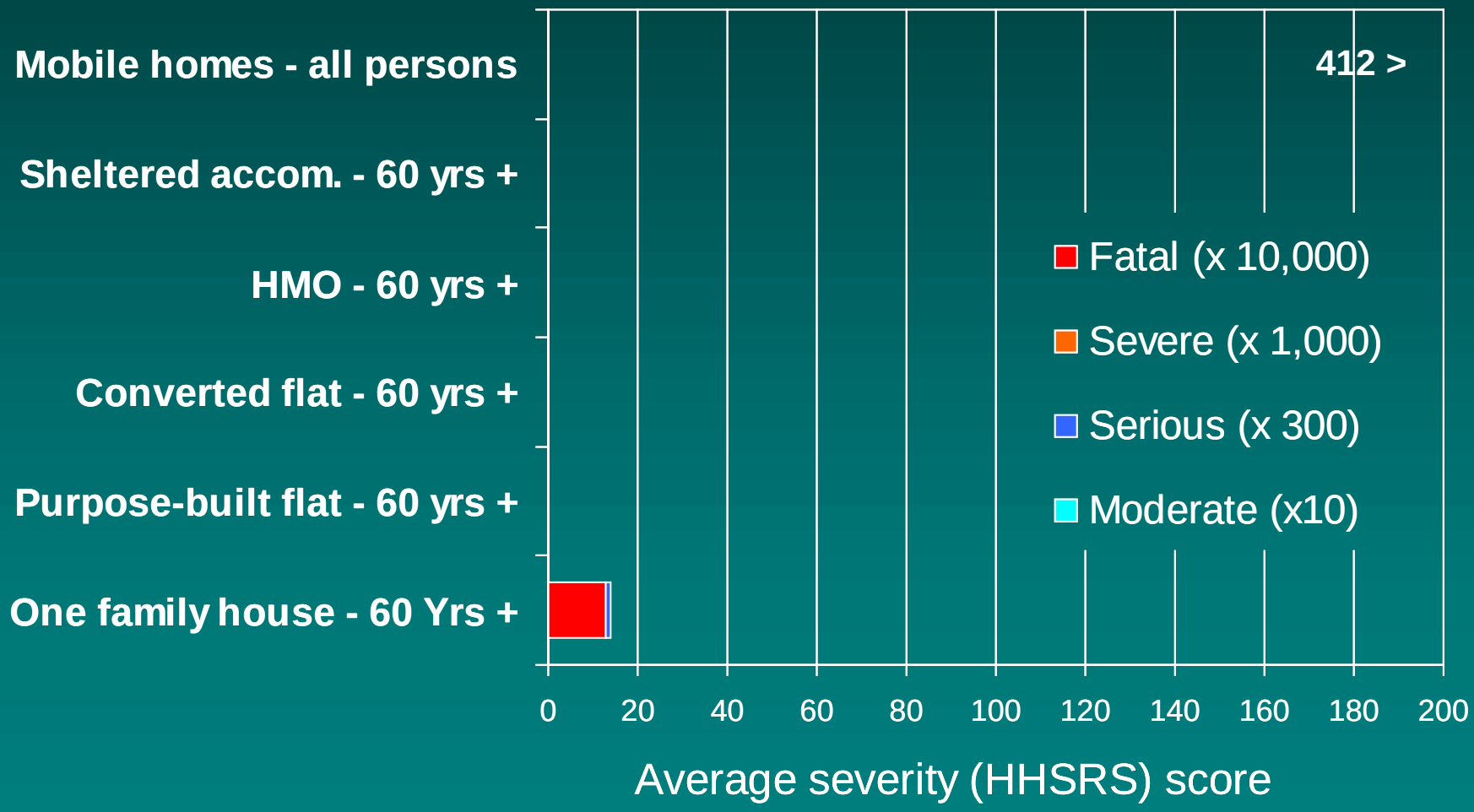

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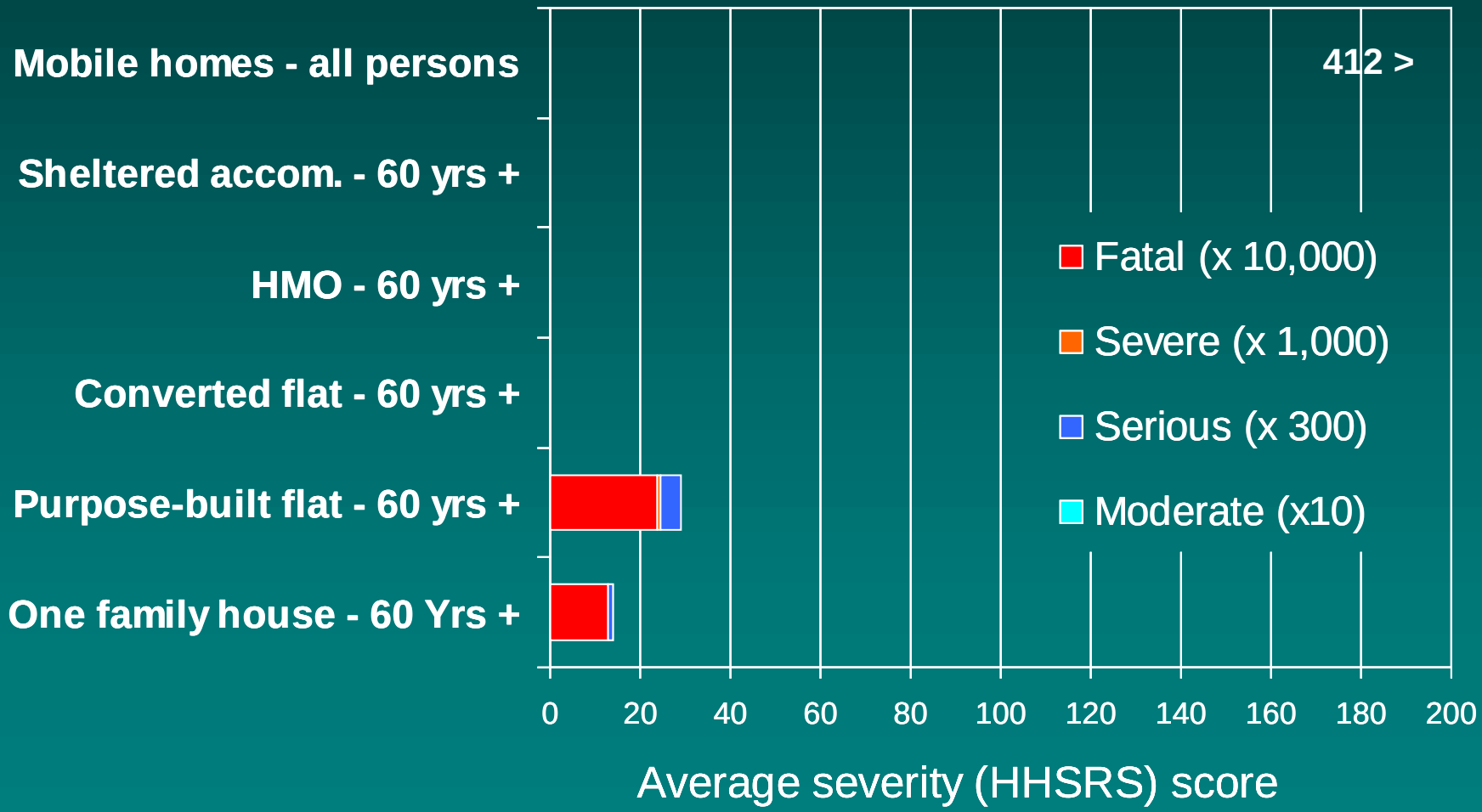

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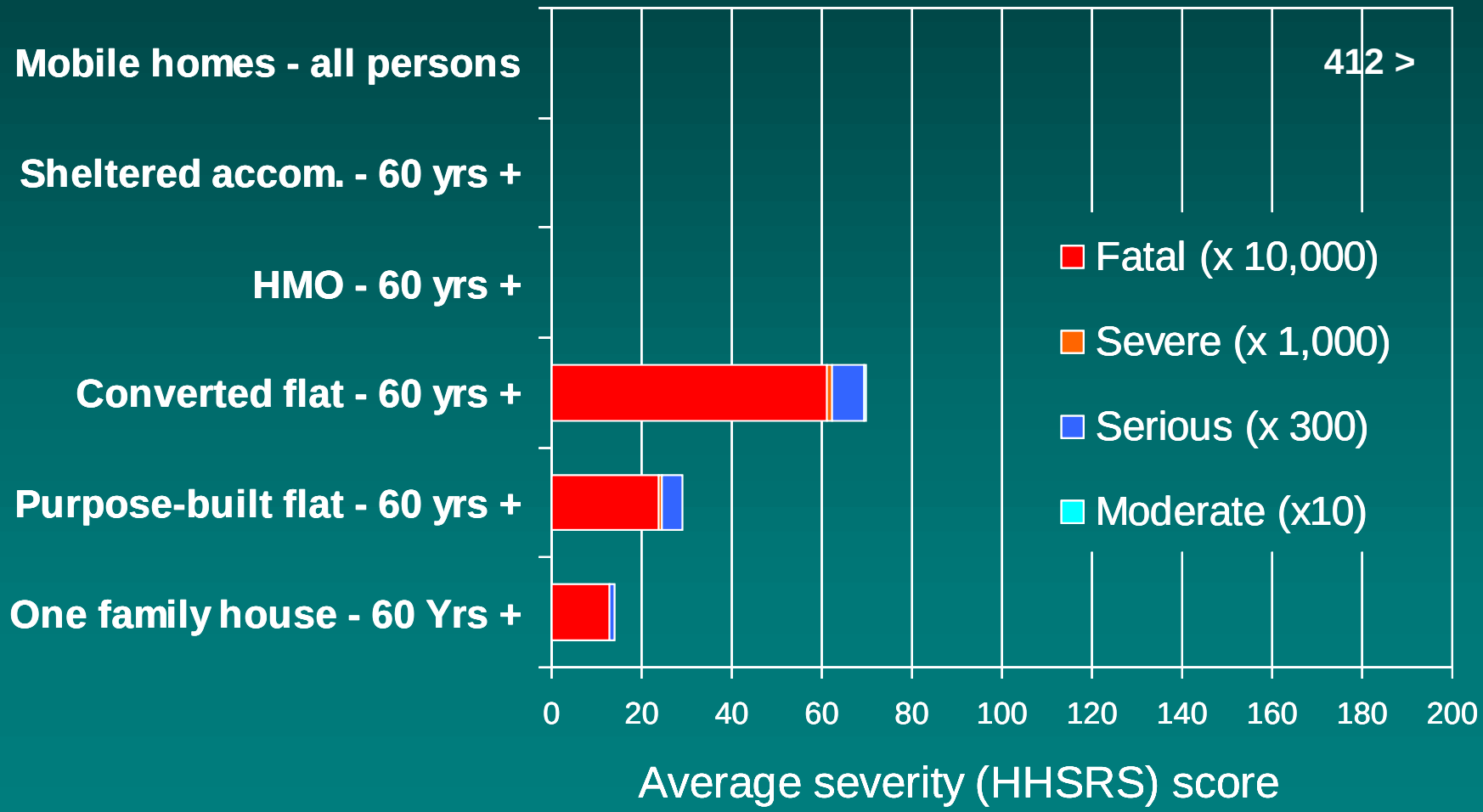

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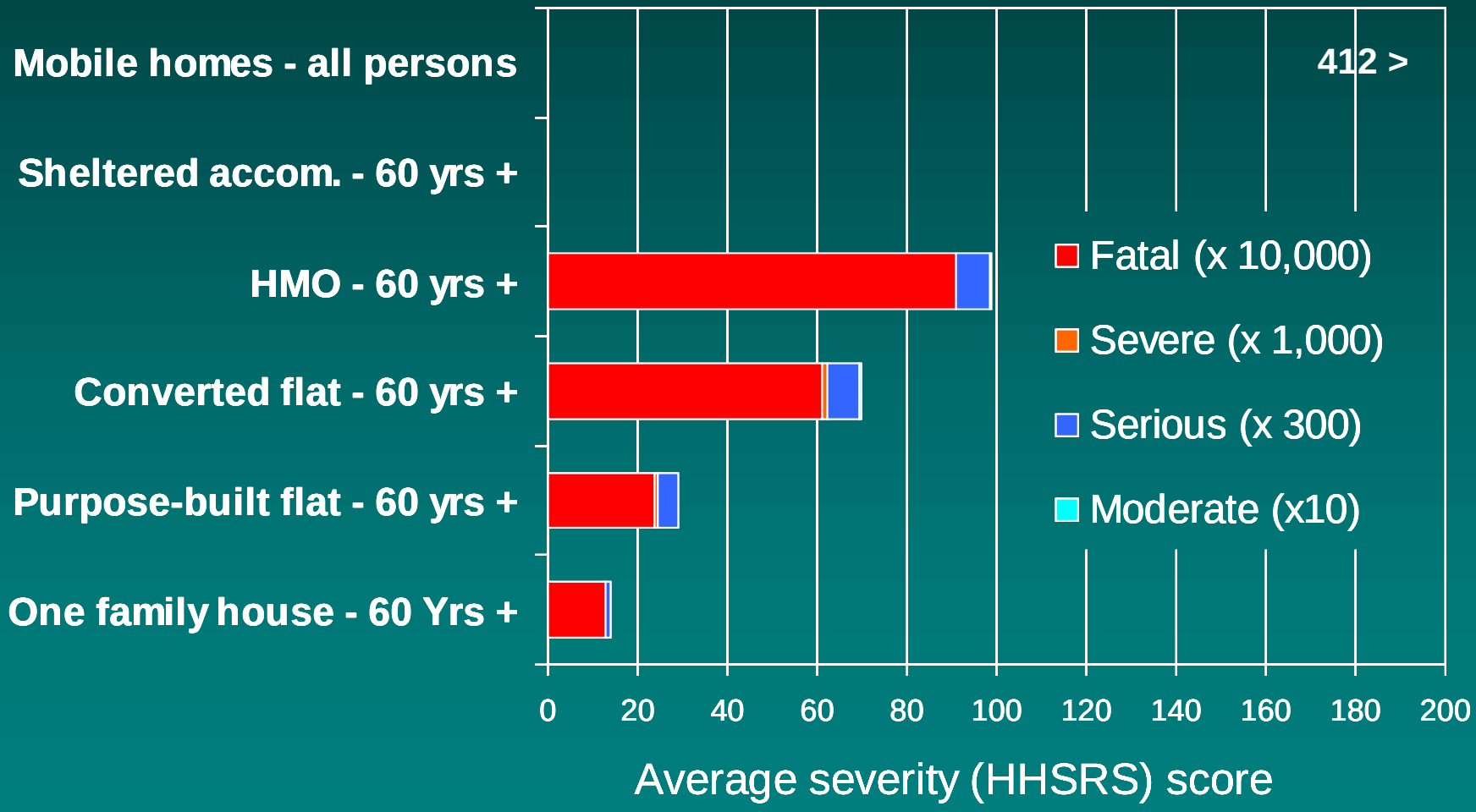

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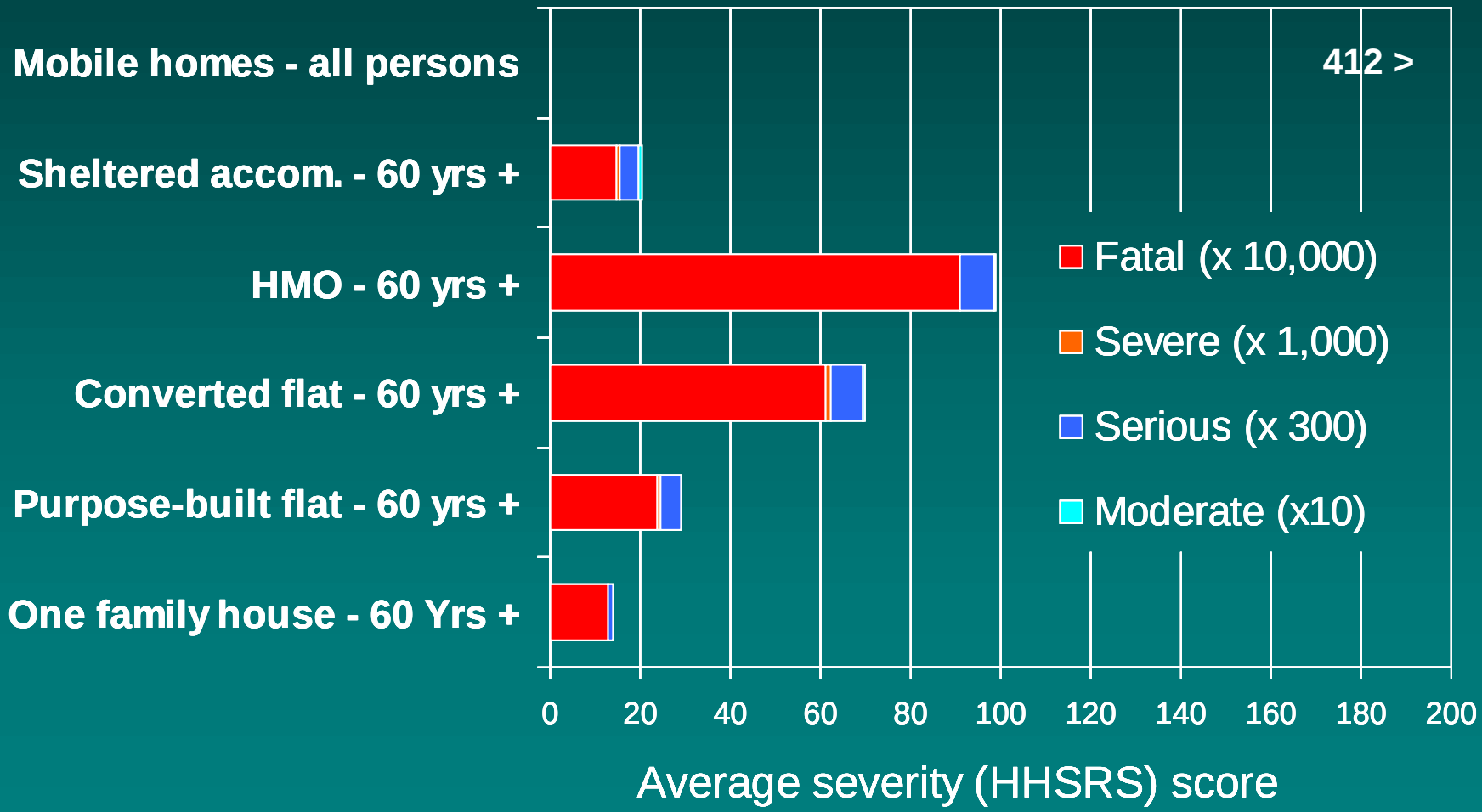

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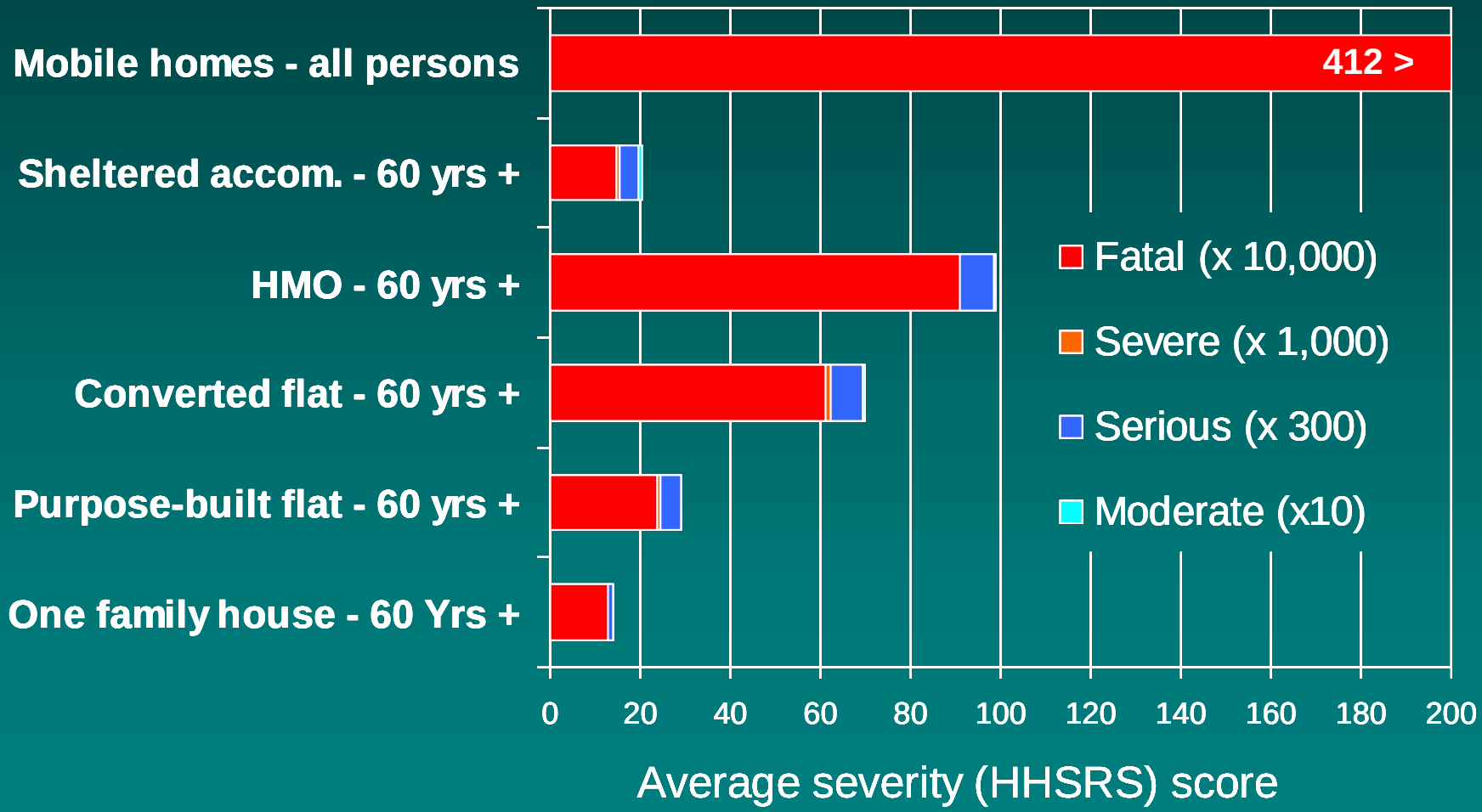

# 25. Percentage of each dwelling type unfit or defective under existing standard

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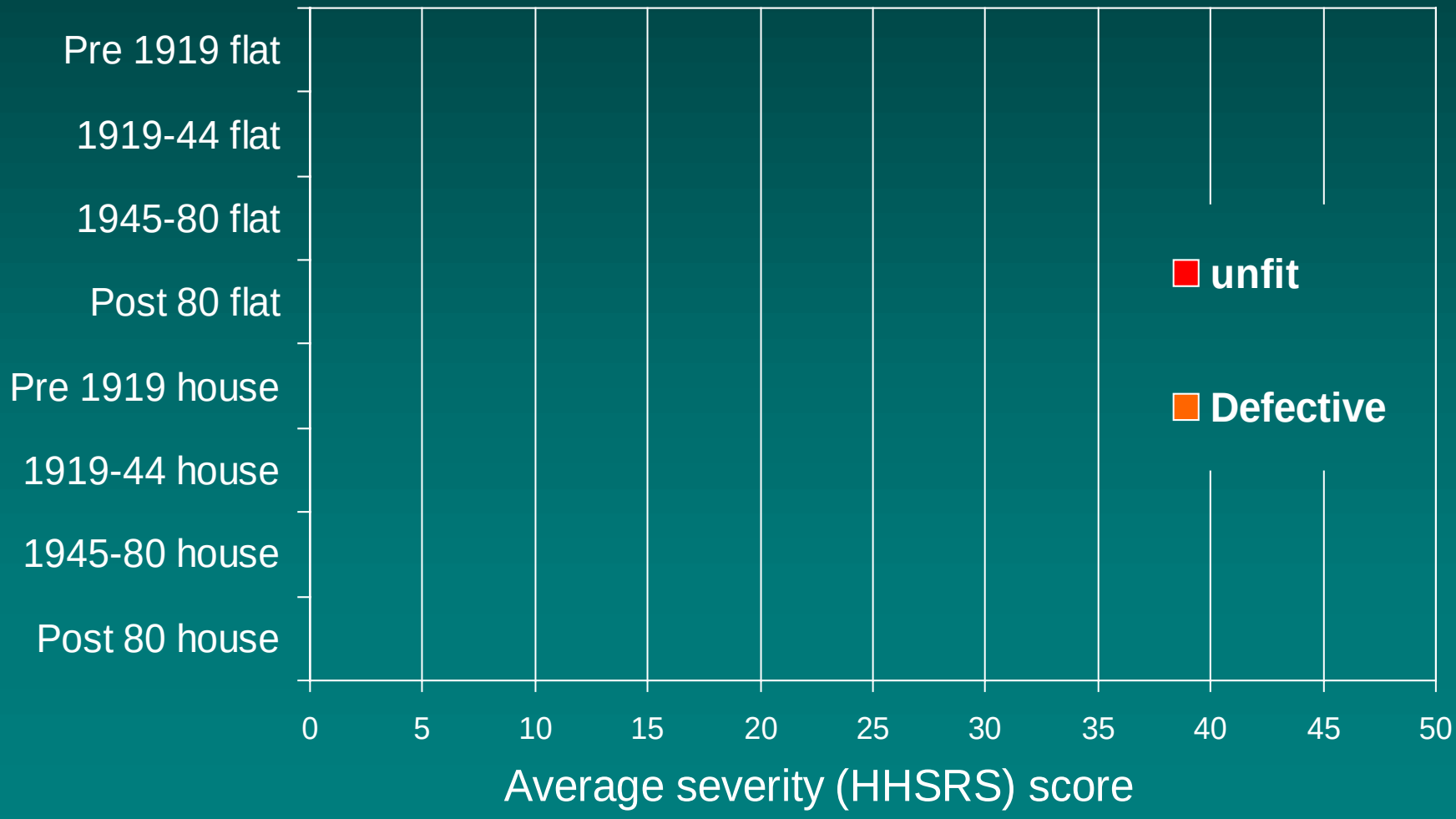

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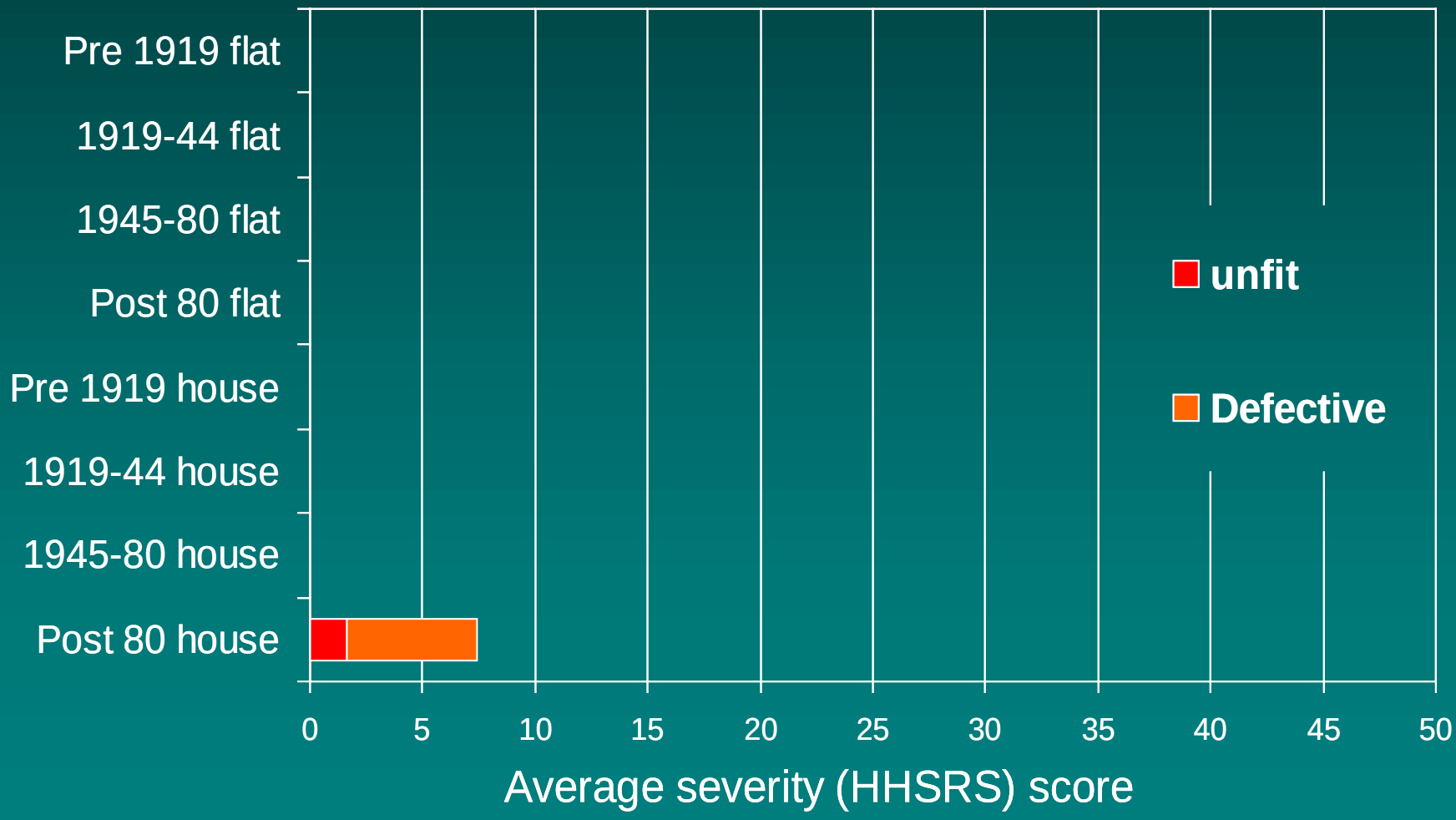

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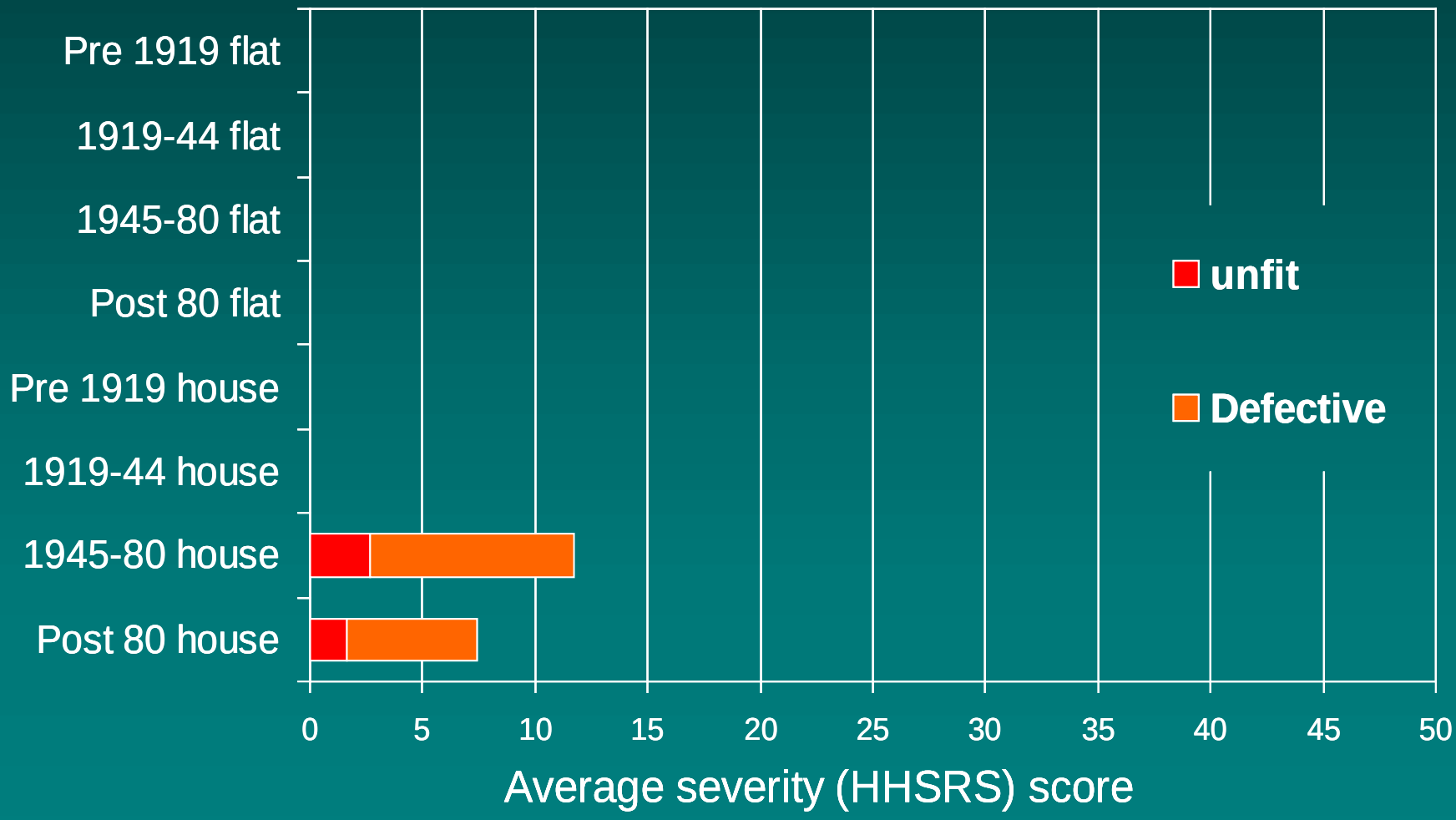

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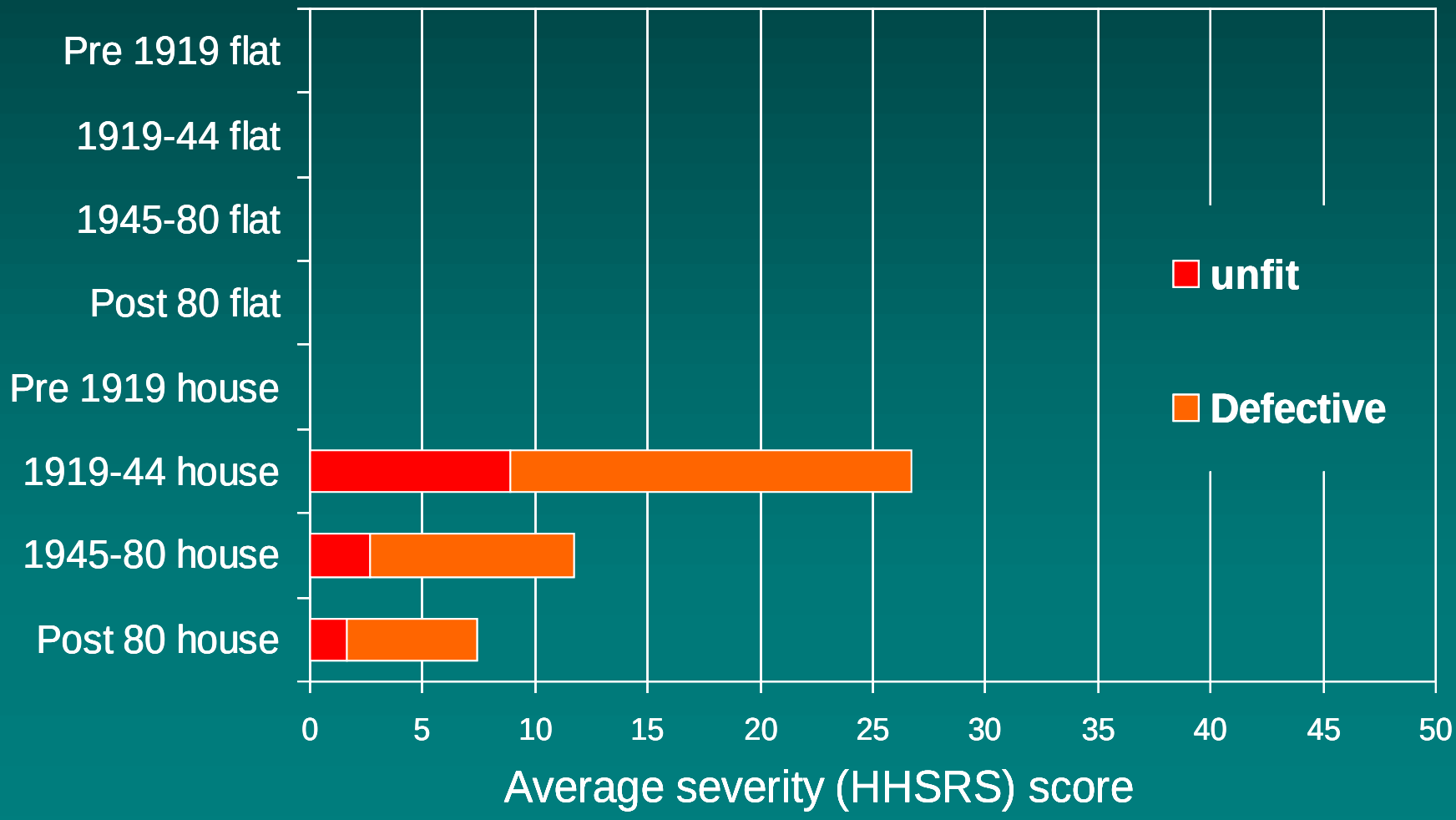

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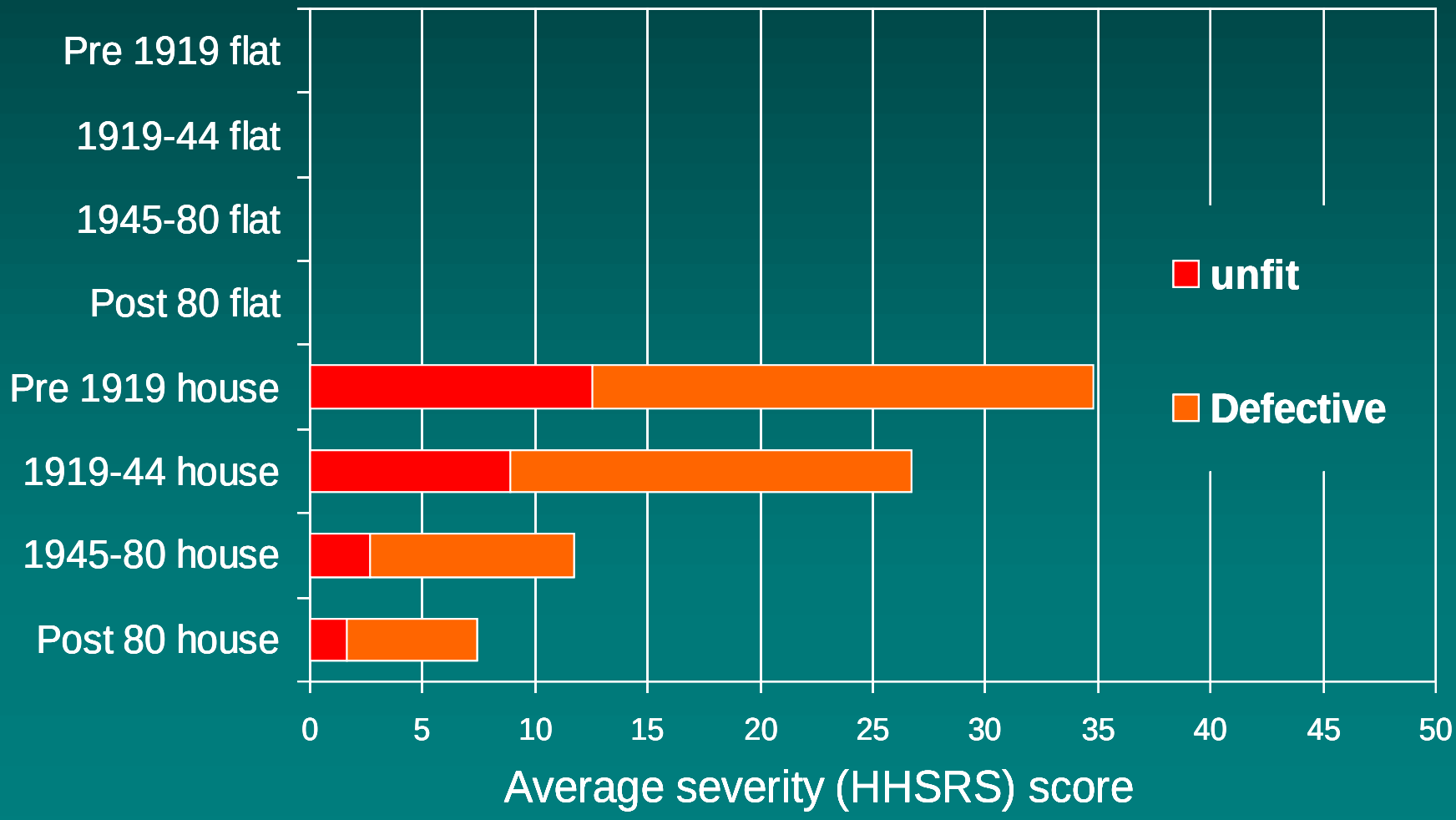

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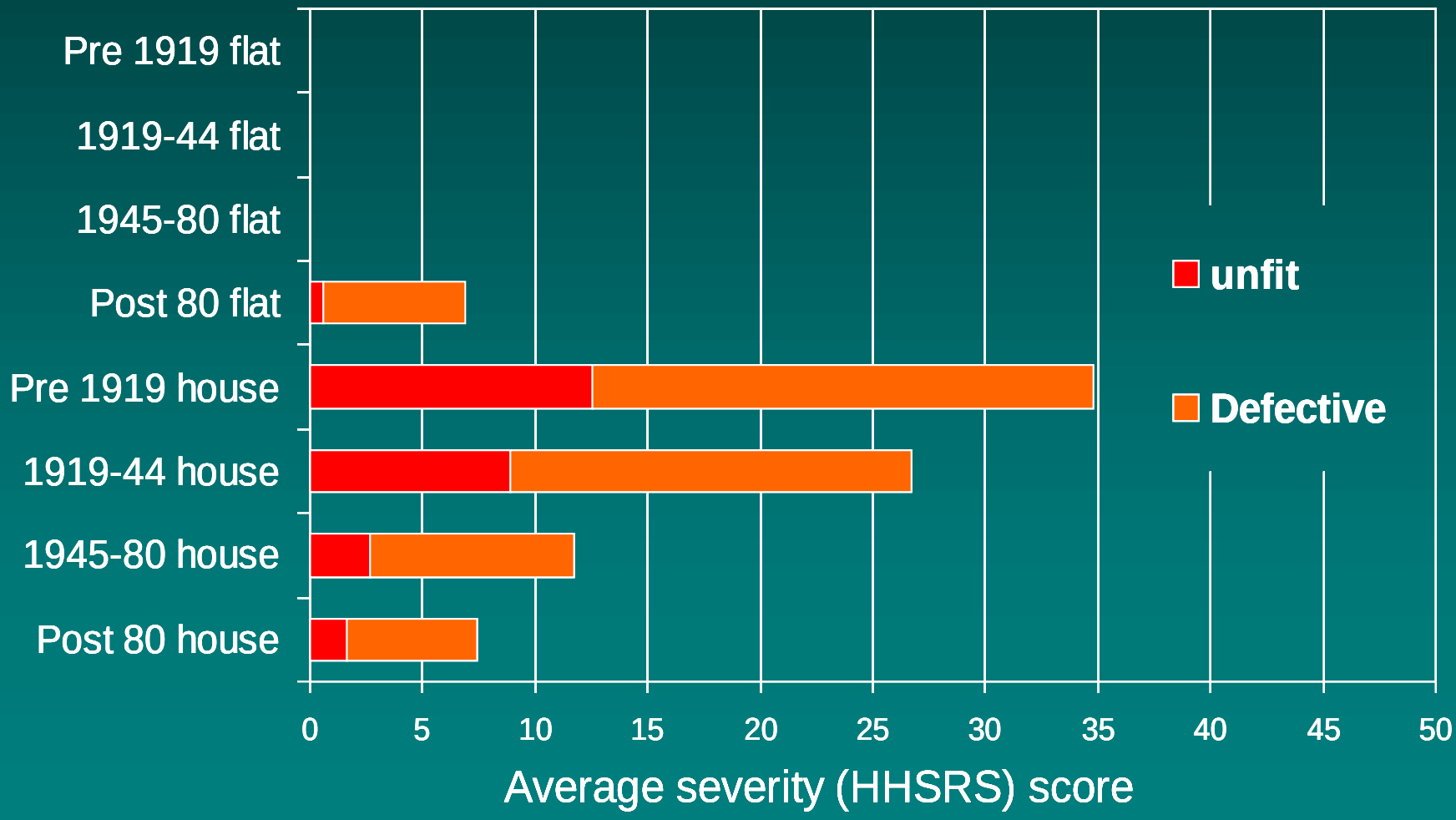

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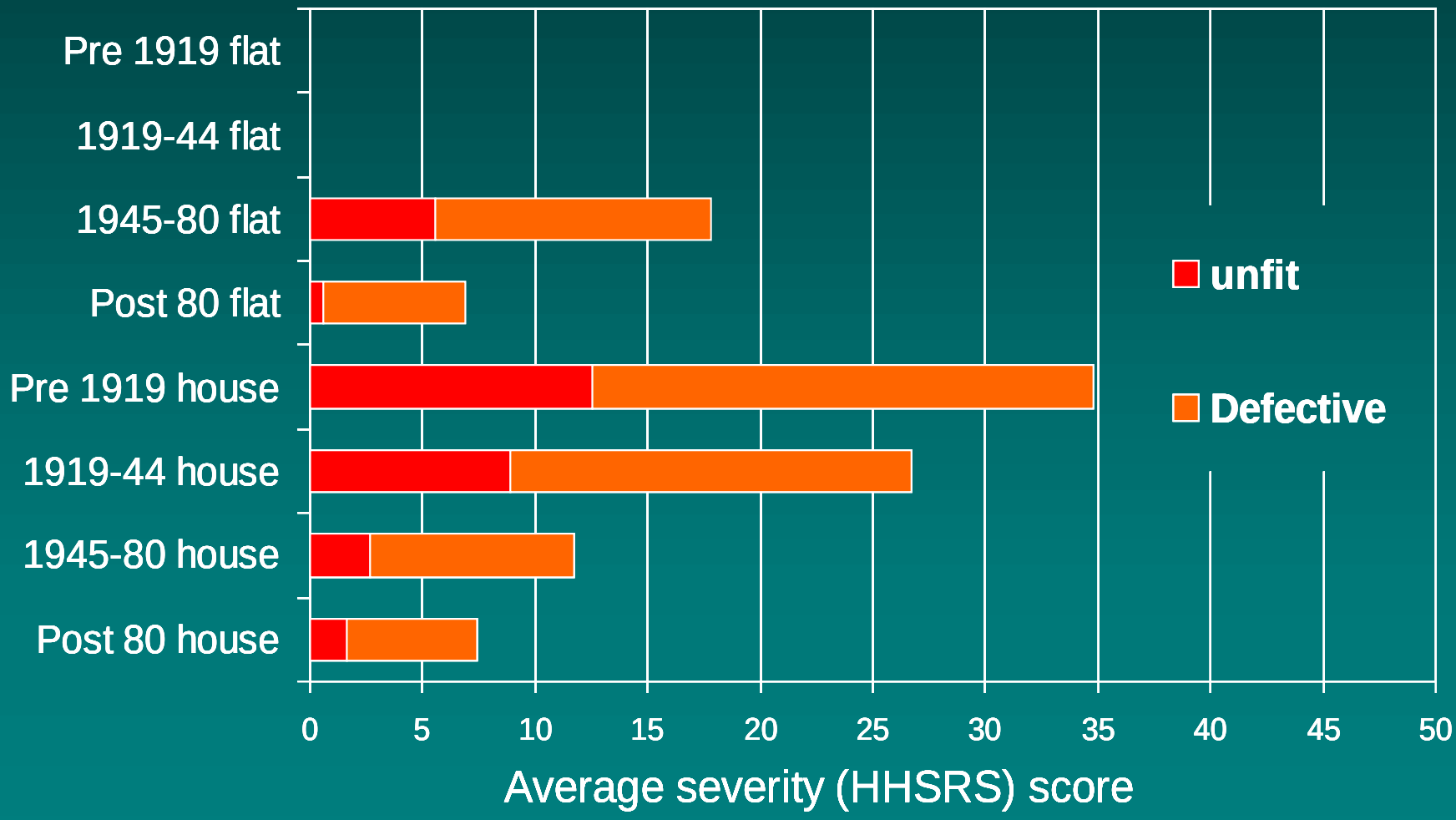

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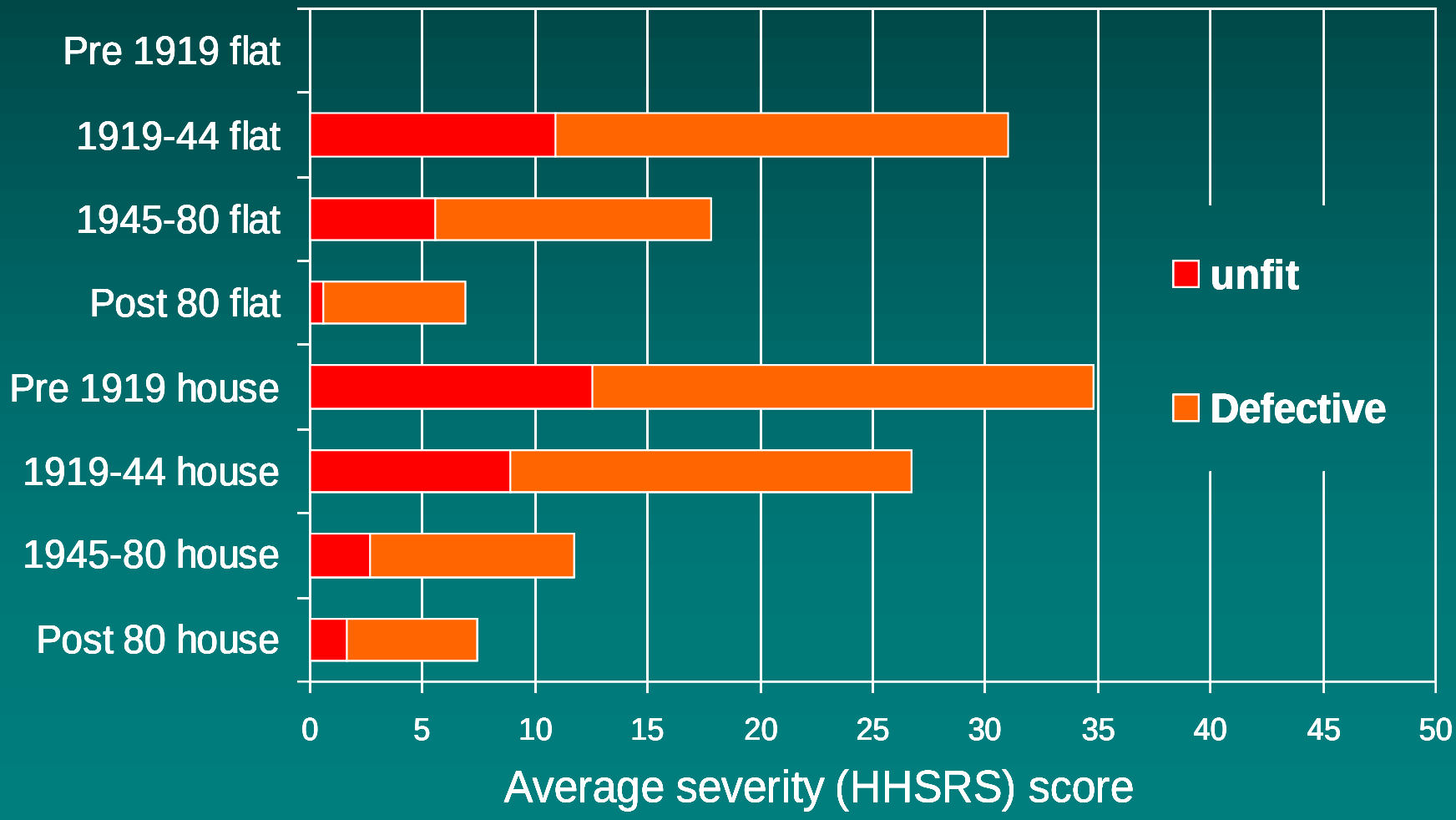

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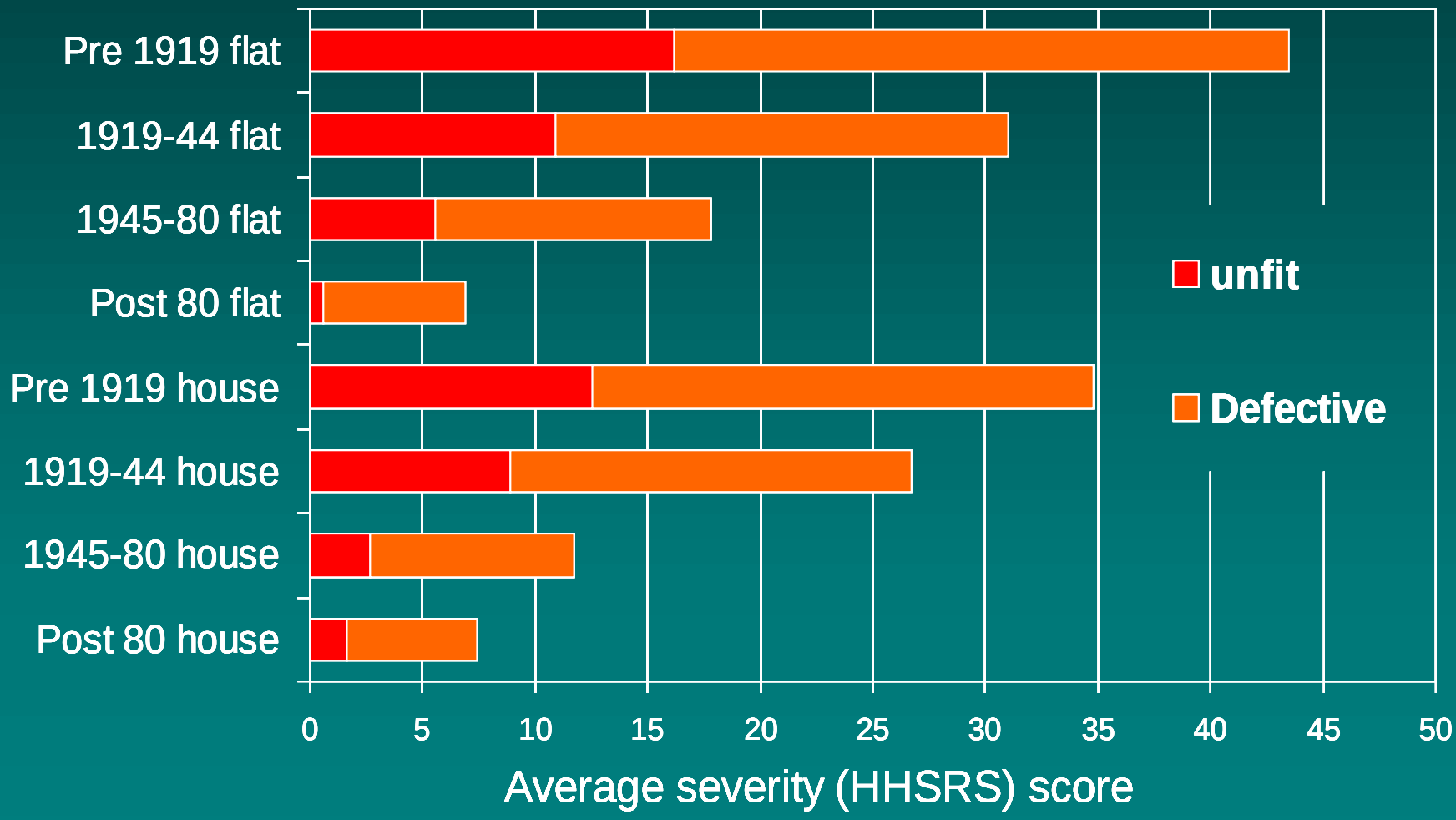

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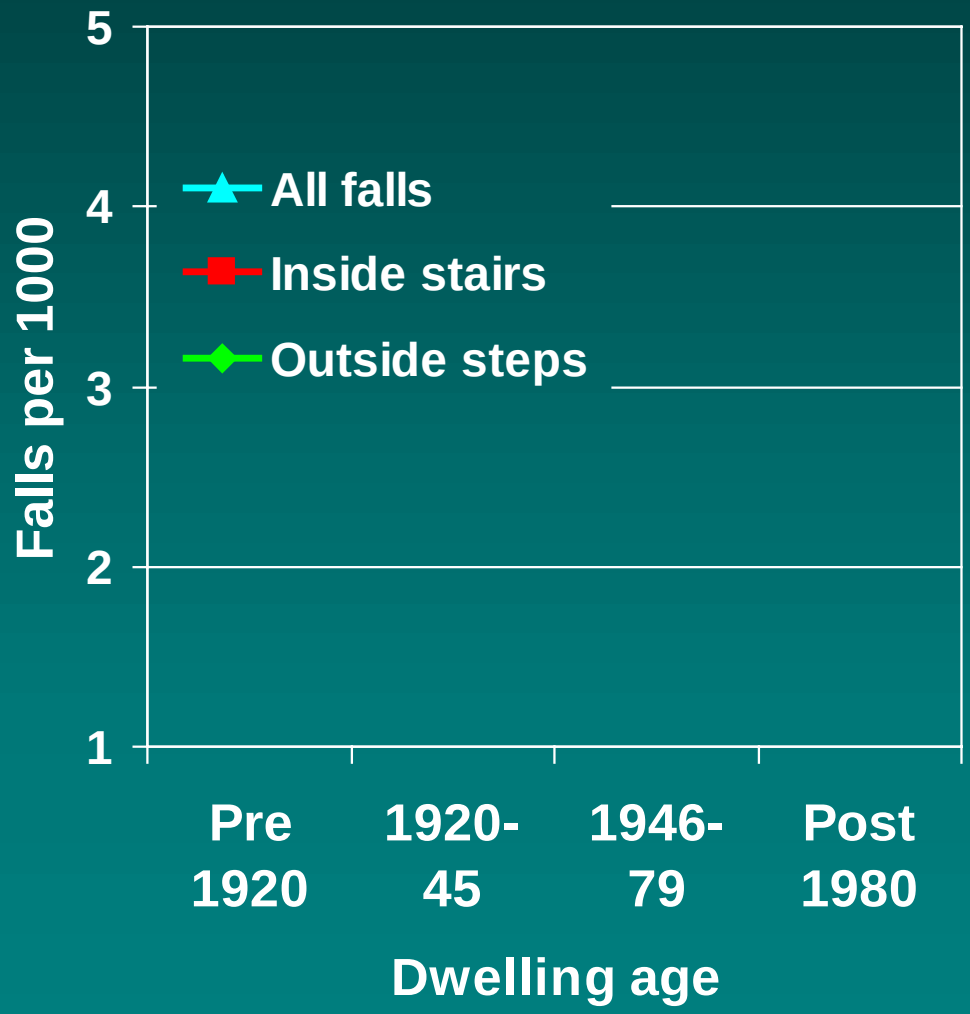

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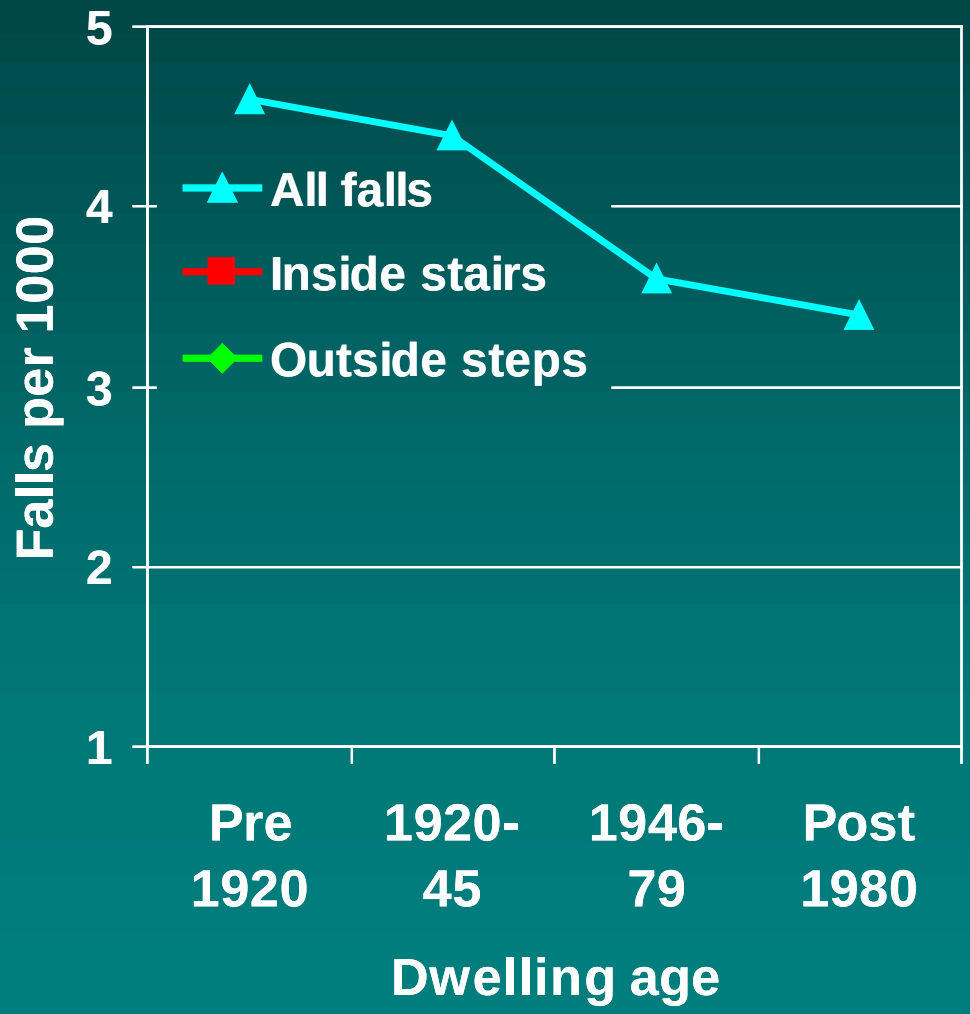

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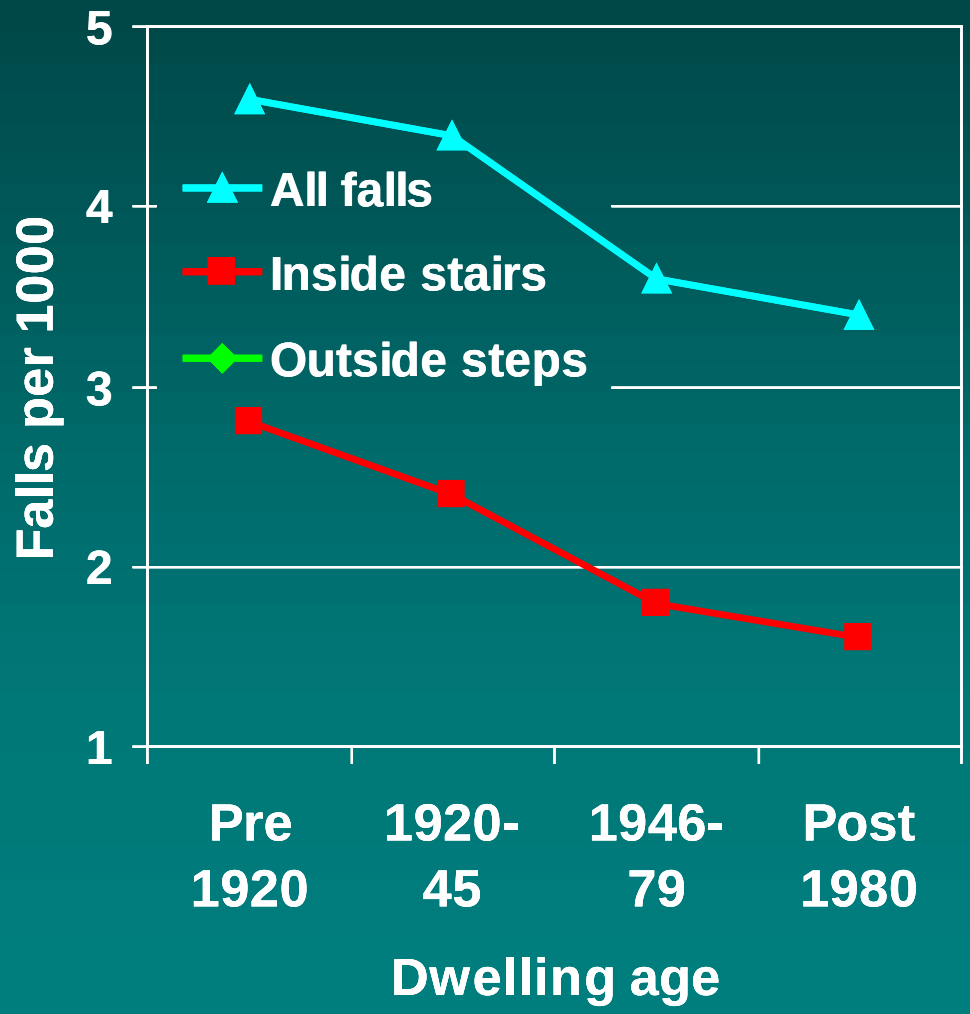

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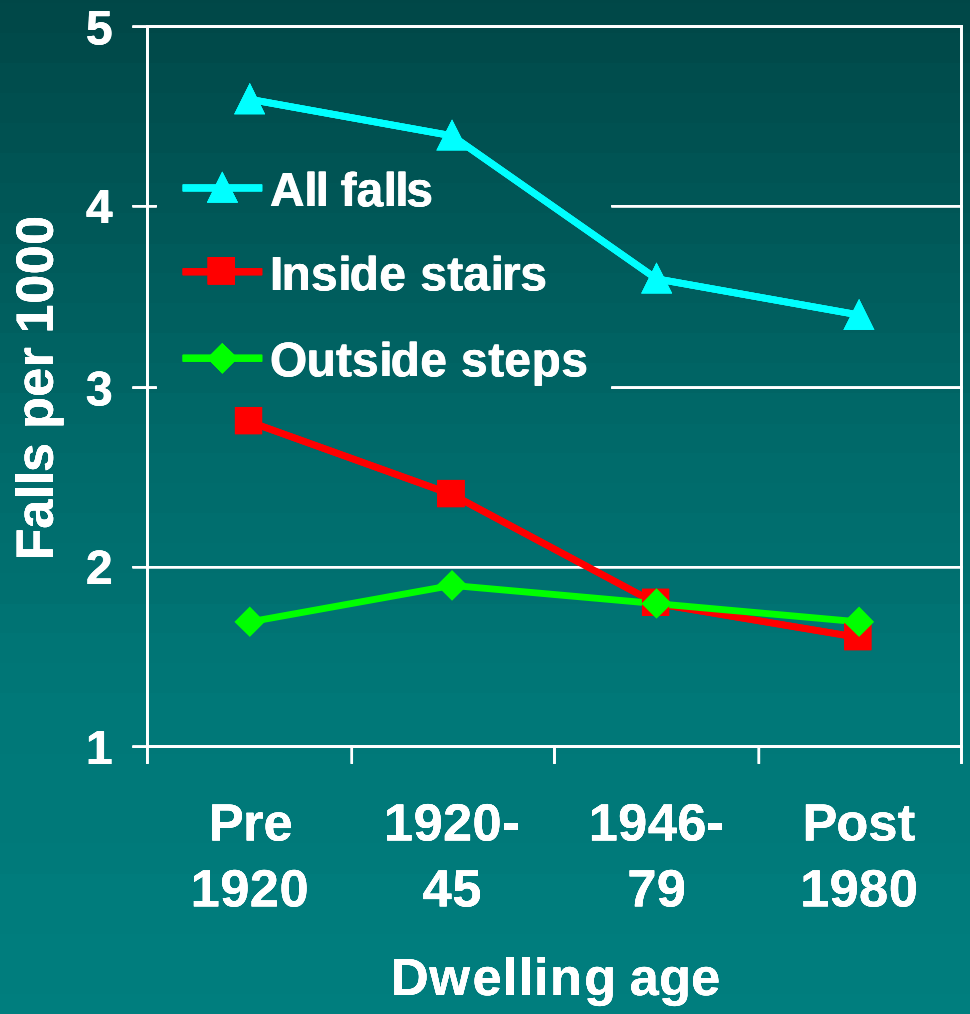

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Predict consequent accident/health savings

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Confirm with actual accident figures after improvements/advice

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