Personal characteristics and mobility of people encountering disabling travel situations in France
• Objectives of the study

• Presentation of the surveys used

• Main results to be presented:
  – Medical origin of the situation of handicap
  – Socio-demographic characteristics of hampered people
  – Mobility of hampered people

• Conclusion
Objectives of the study

• To analyze the personnel’s characteristics (medical and socio-demographics) of people feeling hampered to move by themselves outside their home

• To assess practices of mobility among people with travel’s disabilities

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Surveys used

• Two French national surveys, conducted by the National Institute for Statistics and Economic Studies:
  – Handicaps-Disability-Dependency (Handicap-Incapacité-Dépendance HID) – 16945 people interviewed
  – National survey on transportation and travel – 14213 households interviews

• The same question: When you go out of your home, are you bothered by a disability or a health problem?
  – Not bothered
  – Bothered, but can go about on his/her own on all routes
  – Bothered but can go about on his/her own on some routes
  – Cannot go about alone

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The impact of impairments on the travel’s difficulties

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One Logistic regression:

- Dependent variable (binary): discomfort yes/no in travel
- All impairments as explanatory variables.
- Result: all of these impairments (except 2), increase the probability of declaring a discomfort in his travels.
Logistic regressions (36 times – variables significant)

- Dependent variable (binary): discomfort yes/no in travel
- The same explanatory variables (impairments), except one.
- Result: This method allows us to classify the impairments according to their importance in the declared discomfort during travels
The ten impairments, that best explain discomfort in travels:

- Other motor limbs impairments
- Two lower limbs (paraplegia, paralysis, amputation…)
- One leg (paralysis, amputation, fracture…)
- Partially sighted
- Backwardness
- Paralysis of one side of the body (hemiplegia …)
- Trunk impairment
- Motor impairment unspecified
- Loss of intellectual capacities, memory impairment, spatial/temporal disorientation
- Blind
Socio-demographic characteristics of hampered people
Socio-demographics characteristics of hampered people (1)

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Source: Handicaps, Disability and Dependency Survey, 1999, INSEE
Socio-demographics characteristics of hampered people (2)

Source: Handicaps, Disability and Dependency Survey, 1999, INSEE

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### Socio-demographics characteristics of hampered people (3)

Logit model: discomfort yes/no in travel

Explanatory socio-economic variables below:

<table>
<thead>
<tr>
<th>Age:</th>
<th>parameters</th>
<th>Probability &gt; Chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-19 years</td>
<td>-0.8234</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>20-39 years</td>
<td>-0.5419</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>40-59 years</td>
<td>0</td>
<td>Référence</td>
</tr>
<tr>
<td>60-79 years</td>
<td>0.1268</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>80 years and over</td>
<td>1.1372</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender:</th>
<th>parameters</th>
<th>Probability &gt; Chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>0</td>
<td>Référence</td>
</tr>
<tr>
<td>Women</td>
<td>0.1581</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social and occupational group of the reference person</th>
<th>parameters</th>
<th>Probability &gt; Chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>0.0983</td>
<td>0.0806</td>
</tr>
<tr>
<td>Craftsmen, tradesmen</td>
<td>-0.1278</td>
<td>0.0154</td>
</tr>
<tr>
<td>Executives</td>
<td>-0.4185</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Technicians</td>
<td>-0.1385</td>
<td>0.0020</td>
</tr>
<tr>
<td>Employees</td>
<td>0</td>
<td>Référence</td>
</tr>
<tr>
<td>Workers</td>
<td>0.1576</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Other people without job</td>
<td>0.4185</td>
<td>0.0011</td>
</tr>
</tbody>
</table>

Source: Handicaps, Disability and Dependency Survey, 1999, INSEE
Mobility of hampered people
A poorer mobility (1)

Proportion of people who have not moved the day before the survey, according to the level of discomfort

Source: Handicaps, Disability and Dependency Survey, 1999, INSEE

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A poorer mobility (2)

<table>
<thead>
<tr>
<th>Average number of trips (apart from return at home)</th>
<th>Whole population</th>
<th>People hampered in their travels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Bothered but can go about on all routes</td>
</tr>
<tr>
<td></td>
<td>per person</td>
<td>1,12</td>
</tr>
<tr>
<td></td>
<td>per person who moves</td>
<td>1,43</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Handicaps, Disability and Dependency Survey, 1999, INSEE
Different aims

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Source: Handicaps, Disability and Dependency Survey, 1999, INSEE
Different means

Means of transportation by level of discomfort

Source: Handicaps, Disability and Dependency Survey, 1999, INSEE

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The HID and ENT surveys allow us to count and to analyze people encountering disabling travel situations in France:

- 10% of people declare to be disturbed in their travel
- This discomfort in the travel depends on the type of impairment
- Age, sex and socio-professional category of head of household influence the discomfort in travel
- A poorer and different mobility
Thank you for your attention