DISCLOSURE(S)

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Morbidity

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4. Centre de Gérontologie, Hôpital Sainte-Périne, Assistance Publique-Hôpitaux de Paris, France
5. Aging Research Center, Karolinska Institute, Stockholm, Sweden.
6. Osaka University Graduate School of Human Sciences, Clinical Thanatology and Geriatric Behavioral Science, Suita, Osaka, Japan.
8. Université de Montpellier, Inserm, U1198, Montpellier, France.
9. for the “Japanese 5-COOP team” : Yasu Arai; Yasuyuki Gondo; Hirose Nobuyoshi; Yasu Arai; Donald Craig Willcox; Marina Kozono; Yukie Masui; Hiroki Inagaki, Various cities, Japan.
Healthy centenarians?

- Are centenarians people harbouring a subpopulation protected against some diseases like cancer, dementia...

- "Centenarians are the best examples of successful ageing as they have escaped major age-related diseases and have reached the extreme end of human life"
  - Candore et al. 1997

- "Healthy centenarians do not exist, but autonomous do!"
  - Andersen-Ranberg et al. 2001

- Scientific interest as a human model of relative resistance to dementia?
Pooled heart disease
Heart attack, heart failure, atrial fibrillation, HTA

Hypertension 28% FR ⇒ 55% JP
Myocardial infarction 9% DK ⇒ 56% FR
Stroke

j

0

5

10

15

20

25

JP

FR

CH

SE

DK

Percent

Females

Males

Stroke 10% FR and DK ⇒ 19% SE
Diabetes

Percent

<table>
<thead>
<tr>
<th>Country</th>
<th>Females</th>
<th>Males</th>
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<tbody>
<tr>
<td>JP</td>
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<tr>
<td>FR</td>
<td>6</td>
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<td>4.2</td>
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<tr>
<td>DK</td>
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<td>10.8</td>
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Legend:
- Females
- Males
Falls within the last 6 months

![Bar chart showing percentage of falls by gender in different countries (JP, FR, CH, SE, DK).]
Malignant cancer

![Bar chart showing malignant cancer rates by country and gender. JP, FR, CH, SE, and DK are listed on the x-axis. The y-axis represents percent. The chart indicates varying malignant cancer rates among females and males across the specified countries.](chart_image)
Multimorbidity

p = 0.00010
Centenarians living in institution (%)

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<th>Country</th>
<th>Centenarians in Institution (%)</th>
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<td>FR</td>
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Results

Diseases and conditions are common in centenarians

• Falls
• Symptoms
• Cardio-vascular diseases
• Multimorbidity
Results

• More common in FRANCE and SWITZERLAND
  • Heart diseases

• Roughly similar across countries
  • Stroke
  • COPD
  • Diabetes
  • Symptoms
  • Falls
  • Multimorbidity
    • High 5+ diseases in CH

Centenarians are not healthy in terms of disease
Multivariate logistic regression

• Adjusting for sex, education, nursing home residency, ADL limitations, and interview mode

• Japan = reference country

• **HYPERTENSION** significantly lower in France, Sweden and Denmark, and borderline significant in Switzerland.

• **CARDIO-VASCULAR DISEASES** significantly higher in France (OR 4.0), Switzerland (5.0), Sweden (1.6) and Denmark (1.5)

• **FALL** within the last 6 months significantly higher in all countries but small effect sizes (OR: 1.8-2.4).

• **MULTIMORBIDITY** (2+ diseases), **DIABETES** no variation across countries.
Explaining differences and similarities

• True differences?
• True similarities?
• Methodological differences?
Methodology

• Ex-ante harmonized questionnaire
• But interviewers have different backgrounds

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<td>9</td>
<td>3</td>
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Response modes
Response types

Visit

Phone

Mailing only
Conclusion

• Variation in morbidity and symptoms between the 5 countries

• Some of the variations are likely caused by differences in methodology

• However, the 5-COOP study is the first cross-national study on centenarians using an ex-ante harmonized survey questionnaire

• Further studies emphasizing harmonization of methodology are needed