

#### Climate change and the elderly in the Nordic region – Developing vulnerability indicators in the CARAVAN project

Hanna Mela Finnish Environment Institute (SYKE)





# Vulnerability to climate change as a function of exposure, sensitivity and adaptive capacity

- Choosing key indicators for each
- This presentation concentrates on indicators of adaptive capacity





# Choosing exposure and sensitivity indicators for the elderly

- Identification of key climate and weather events to which the elderly are sensitive, (e.g. heatwaves, freeze-thaw conditions)
- Representation of how climate change will affect the frequency and intensity of these key events (indicators of exposure)





# Choosing indicators of adaptive capacity for the elderly

A sample of key indicators of adaptive capacity (demographic, health-related, social, economic)

- Selection of indicators based on a literature review: (identifying key issues affecting vulnerability of the elderly) and availability of data on a municipality scale in all three countries
- List of potential candidates: other indicators to be considered, feedback and ideas welcome





## Challenges related to data availability and consistency

- Different statistical categories by age 67-/65-
- Not all data is available at municipality level in all three countries

 Consistency: do the indicators mean the same in different countries? → challenges for data normalisation and comparison across the Nordic region, important to recognise when interpreting the results





#### **Demographic indicators**

### • Share of the elderly over total municipal population (current and projected for 2030)

#### **Health-related indicators**

• Share of elderly receiving regular home care and home nursery

#### **Social indicators**

• Share of elderly living alone

#### **Economic indicators**

• Share of elderly receiving social assistance

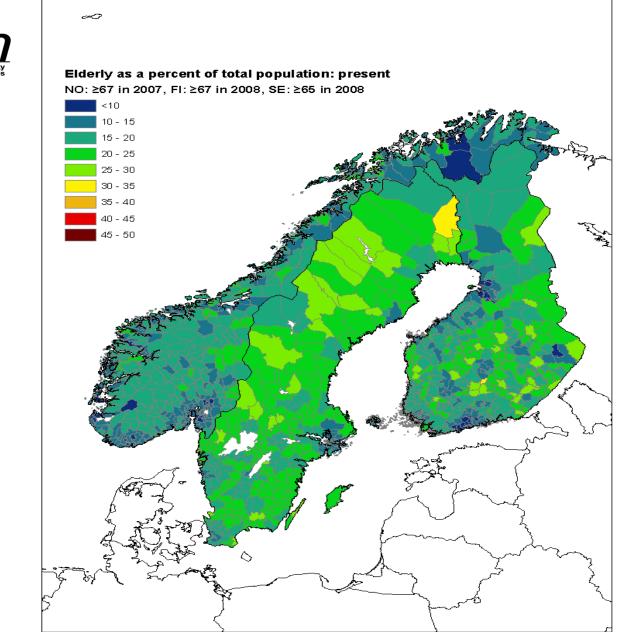




### Preliminary adaptive capacity maps for the elderly in the Nordic region, by indicator:

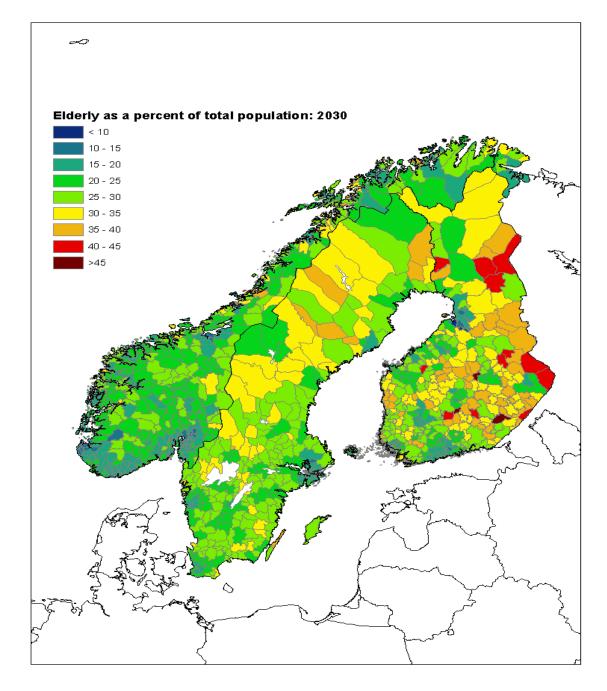






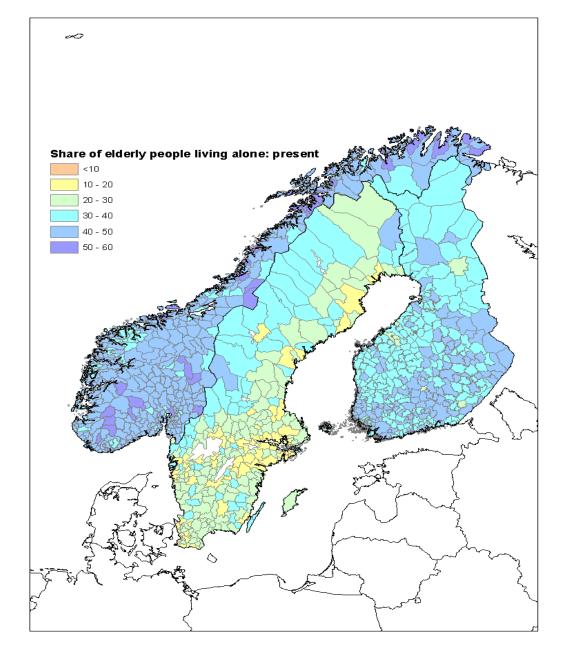








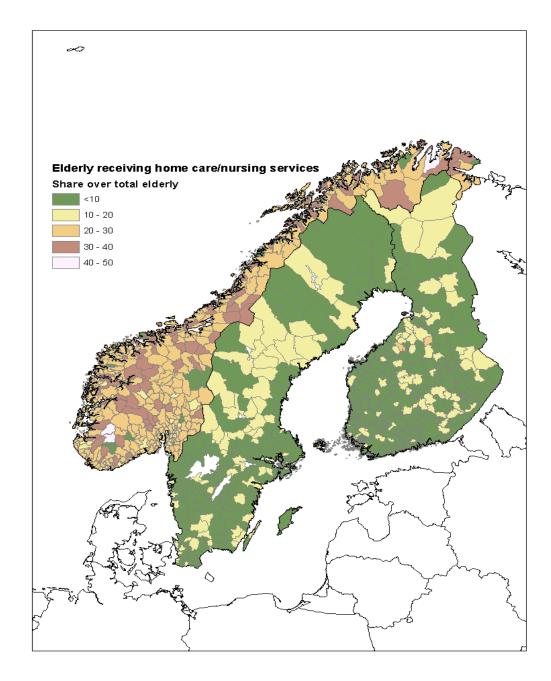




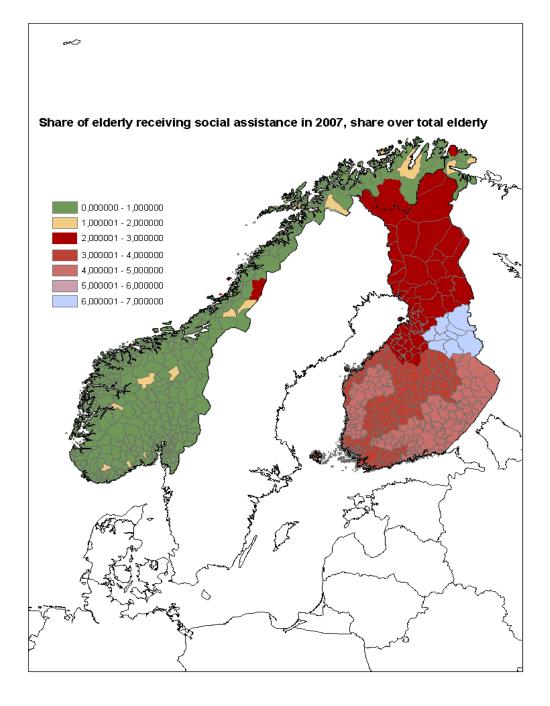
















#### **Questions to be answered:**

- What kind of data is needed for developing other indicators on the vulnerability of the elderly?
- What are the key exposure and sensitive indicators for the elderly?
- How do we develop a composite index of vulnerability?
- How to deal with the data inconsistencies between the countries?
- What do the results tell about the vulnerability of the elderly in the Nordic region?
- What could be the implications of the results on policy-making?





### Thank you!

