MEASURING THE ACCESS TO PUBLIC HOSPITALS

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Motivation

Access to public services is an important factor shaping well-being. Accessibility is highly related to spatial characteristics (urban vs rural), and it is responsive to place-based policy interventions.

These measures are relevant for the current work on measuring well-being at the regional level and on the linkages between rural and urban regions.

Objective:

Present the preliminary results regarding the measurement of spatial accessibility to public hospitals in OECD regions (France and Germany).
Accessibility indicators

- **Selected indicators**
  1. Number of hospitals per 1 000 inhabitants
  2. Percentage of population within T – minutes (driving) from the closest hospital facility
  3. Population-weighted average distance to closest hospital

- **Analytical framework:**
  - Potential accessibility
  - Focused on services for which spatial access has important effects on well-being (e.g. Emergencies)
  - International comparability
  - Geographic Information Systems (GIS)
  - OECD TL3 regions
Number of hospitals per 1,000 inhab

**Indicator:**

\[ I = \frac{\text{Number of Hospitals}}{\text{Total population}} \times 1,000 \]

**Characteristics:**

- Easy to compute
- Provides information on the supply of the service
- Do not account for hospitals in neighbouring regions
- Availability rather than accessibility
- Hospitals tend to be located in populated areas...but..
Percentage of population within T – minutes (driving) from the closest hospital facility

**Indicator:**

\[ I_{ij} = \frac{P_{ij}}{TP_i} \]

**Characteristics:**

- Provides information on the potential demand
- Accounts for hospitals in neighbouring regions
- Data demanding
Population-weighted average distance to closest hospital

Indicator: Population density and hospitals

Characteristics:
• Based on Euclidian distance
• Compromise in terms of computation and data inputs
• Accounts for hospitals in neighbouring regions
Population density and access to hospitals in TL3 regions in France, Germany, Italy and United States
Conclusion

• **What have we learn so far?**
  – Building a set of indicators for TL3 region on accessibility to health services is feasible.
  – There are important **data constraints**, hence it is key to focus on those services supplied by hospitals that are the most relevant for local well-being (e.g. emergencies).
  – GIS seems to be the best alternative to build these indicators

• **Next steps**
  – Complement the analysis with additional information on hospitals characteristics (i.e. whether they treat emergencies or not, number of beds, etc)
  – If additional information is available, build indicators accounting for both the supply and demand of the services (e.g. gravity-based indicators)
  – Extend the number of countries
Delegates are invited to discuss:

- The **relevance** of the suggested indicators to build a set of accessibility measures at the regional level for the current work on measuring well-being at the regional level and on the linkages between rural and urban regions.

- The **feasibility** in the collection of the necessary data inputs in their own country.