

Making projections of public Long-Term Care Expenditure for European countries: a proposed methodology and data requirements

Adelina Comas-Herrera, Raphael Wittenberg and
Linda Pickard*

London School of Economics and Political Science

22nd February 2005

* Copyright remains with the authors

Outline

- Definition of Long-Term Care
- Determinants of future LTC Expenditure
- Types of projection models
- A proposed methodology and data requirements
- Lessons from the European Study of Long-Term Care Expenditure (projections for Germany, Italy, Spain and the United Kingdom).

What is long-term care?

- Broad aims of LTC:
 - reduce, lessen consequences of, or compensate for disability, cognitive impairment and loneliness; improve quality of life.
- Services are delivered in:
 - peoples' own homes (family care, home help, meals, nursing care)
 - or in substitute care settings (residential care homes, nursing homes, hospitals)

What is Long-Term Care (cont.)?

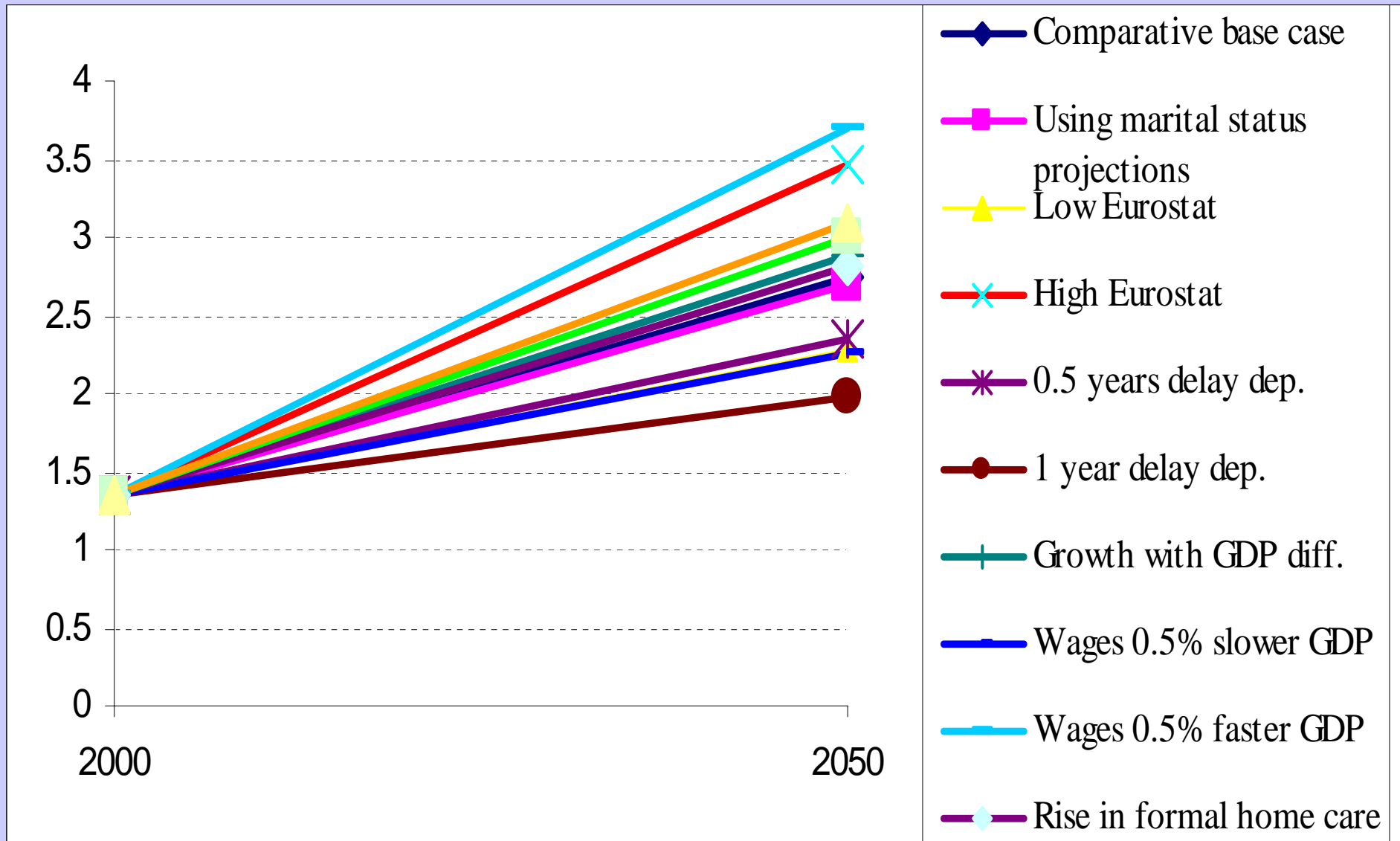
- Support is provided by:
 - Informal carers and formal care providers (public, private and voluntary sector)
- Support is provided in:
 - everyday tasks, including dressing, bathing, shopping, cooking, cleaning, therapy
- Main client group: older people
- Care is labour intensive
 - estimates for the UK and Germany suggest that up to 85% of expenditure is due to staff costs.

Determinants of future LTC expenditure

- Demographic changes.
- Trends in functional dependency/cognitive impairment.
- Availability (and propensity to provide) informal care.
- Structure of the LTC system and patterns of care.
- Financing system.
- Relative price of LTC and other goods and services.
- Economic growth and other macroeconomic factors.
- Values and public expectations about the quality, range and level of care.
- Other factors? Quality/adaptability of housing, pensions...

Funnel of doubt:

Long-term care expenditure in the UK as % of GDP



Types of projection models:

- Time series extrapolations
- Macrosimulation or cell-based
 - The unit of analysis is a group of individuals
 - The degree of complexity/data requirements varies:
 - Expenditure profiles: allow exploration of demographic trends
 - Models that allow the exploration of dependency trends
 - Models that allow exploration of availability of informal care
 - Models that allow the exploration of patterns of care
 - Models that allow the investigation of financing mechanisms
- Microsimulation
 - The unit of analysis is the individual/household, allows analysis of distributional issues

Data and models:

- Microsimulation requirements:
 - Large (and comparable) longitudinal surveys with data on dependency, household characteristics, use of informal care, formal care, education, income and assets.
- Macrosimulation requirements:
 - Simple projections can be done with age/gender expenditure profiles.
 - Various cross-sectional surveys can provide enough information to estimate probabilities of receiving services according to age, gender, dependency, household type, availability of informal care, education, income, assets...
 - But there are possibilities in between.

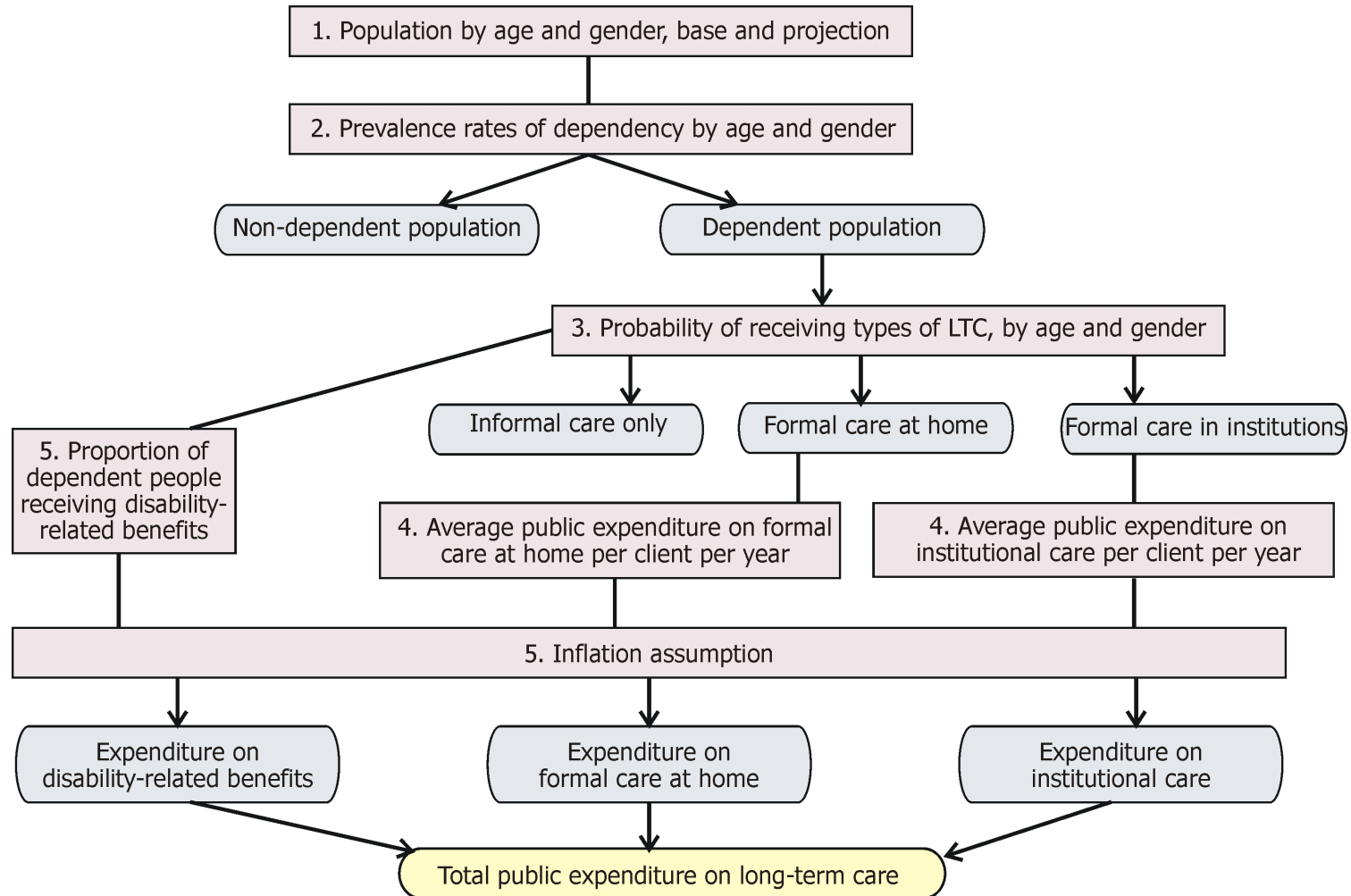
Aims of the methodology proposed:

1. To be able to make projections for as many countries as possible, as comparable as possible.
2. To be able to investigate factors, other than demography, that will affect future long-term care expenditure.
 - Given data constraints, inevitable trade-offs between the number of countries involved and the sophistication of the model.
 - Have to make the most of what we've got!

Proposed method :

1. Split projected population (by age and gender) using prevalence rates of dependency.
 - i. Number of dependent older people.**
2. Split dependent population according to whether they receive formal care at home, in institutions or rely exclusively on informal care.
 - ii. Number of users of formal care at home, in institutions, and dependent people who do not receive formal care.**
3. Multiply number of care users by average public expenditure per user (uprated using inflation assumption).
 - iii. Total public expenditure.**

Proposed Model Structure



Assumptions “built-in”:

- Dependent people who do not receive formal care receive at least some informal care.
- The numbers of people who receive disability-related benefits grows in line with the numbers of people who are dependent.
- The necessary supply of formal care to meet demand will be available provided that prices are sufficient to meet underlying costs.
- Public long-term care expenditure remains constant as a proportion of total long-term care expenditure.

Future scenarios that can be investigated:

- Alternative population projections.
- Variations in age/gender-specific dependency rates.
- Variations in the proportions of dependent people who receive formal care at home, formal care in institutions and informal care.
 - Due to changes in patterns of care
 - Due to changes in the availability of informal care
- Variations in the proportion of dependent people who receive disability benefits.
- Variations in the expenditure per care user (due to changes in intensity, but also to changes in the real cost of a unit of care).

Data requirements

- Numbers of older people by age and gender (base year and projections)
- Dependency rates by age and gender.
- Total number of users of formal care at home, and total related public expenditure.
- Total number of (dependent) residents in LTC institutions, and total related public expenditure.
- Total number of recipients of LTC-related cash benefits, and total public expenditure.

What if data is not available?

- If dependency rates and patterns of care do not change over time, the base case projections will be identical than those obtained with age/gender expenditure profiles.
- So, for countries without comparable dependency or patterns of care data, comparable base case projections can still be carried out.
- The sensitivity to changes in dependency, patterns of care and unit cost assumptions can then be investigated for countries in which data is available.

Lessons from the European Study of Long-Term Care Expenditure and other projects

- It is not the numbers of older people that matters, but the numbers of **dependent** older people.
- The LTC system (and **availability of services**) is a crucial determinant of expenditure.
- The boundaries between health and long-term care services, and between **public and private** expenditure vary across countries and over time.
- Comparability problems and the uncertainty that surrounds projections mean that the real value of projections lies in understanding how **sensitive** they are to changes in assumptions.
- Affordability and labour force participation: higher l.b.f. participation means higher GDP... but that may also require higher LTC expenditure!