

WellCARE Roadmap comparative microsimulation

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Organisation

- Care need y/n
- Care need hours
- Institutionalization / Nursing homes
- Home care
- Pricing
- Simulation Analysis
- Required NTA/NTTA data

Care Need y/n

- Based on (I)ADL
- Available covariates: age, sex, education, partner; mortality by education
- Suggested by UB: GALI transition model based on SILC; Issues
 - SILC: top coded 80+, not covering institutionalized
 - Correlated with (I)ADL, but wider concept: 1/3 with severe GALI have no (I)ADLs / do not need care. Not available for Canada
 - No transition model available yet
 - Transition models require mortality by GALI
- Suggestion: 2 steps
 - (a) Model based on (I)ADL prevalence (like in IMA presentation AT)
 - (b) Introduce transitions based on (I)ADLs (see OECD)

Quantification of care needs: Hours

- Based on (I)ADL: mapping hours by (I)ADL
 - (I)ADLs developed to identify care needs
 - Literature: Barczyk & Kredler - regression based (+age, frailty)
 - Administrative: e.g. Austrian allowance system
- (I)ADL as base for identifying care gaps:
 - OECD (based on SHARE)
 - Literature: e.g. Albuquerque 2022: need and unmet need LTC, SHARE

Institutionalisation / Nursing Homes

- Prevalence of institutionalization (NH) a main difference between countries
- In Barczyk & Kredler coverage is main explanation of differences in observed care hours in community for given (I)ADLs (selection NH by frailty; ignores other factors: having a partner; price tag & cost sharing)
- Modeling
 - Under-coverage in SHARE; no coverage in other comparative microdata
 - Barczyk & Kredler: Number (I)ADLs, age, country; suggest using probability of NH as covariate for estimating required care hours
 - Desirable additional covariates: presence of partner; SEC, means?
 - Supply: scenarios

Home care

- Data restrictions: hours known for receipt of care only for formal and by others (not in HH) in SHARE – hours by partner to be determined indirectly
- Models: (covariates ideally incl: intensity needs, partner, (number) children)
 - Care mix: Partner, Others, Formal mobile care
 - Hours of Others “as today” adjusted to changing volume supplied; Supply of Others via NTTA by age, sex, education, labor status; initial adjustment supply/receipt. NTTA care received = care given (society)
 - Formal hours “as today”; supply scenario based
 - Partner: hours indirect; total needs – hours by Others and Formal; NTTA care received = care given within family (couple)
 - Gap: “observed” if no partner; (+model h partner does/can not match?)

Pricing

- Nursing homes
 - Range of standards and costs, access requirements
 - NTA: public / private consumption; public transfers
 - Barczyk & Kredler approach: hours equivalent community care
- Informal
 - NTTA hourly rates approaches
 - Public compensation: allowances – NTA treatment?
- Formal: per h; public / private consumption; public transfers

Simulation Analysis

- Nursing homes
 - Likelihood as today -> additional places required
 - Changing supply -> change number/composition in community
- Informal Care of “Others”
 - Supply as today -> change in likelihood/h of receipt
 - Receipt as today -> required additional supply -> LF adjustments
- Formal home care
 - Receipt as today -> additional h required
 - Changing supply -> change in gap / h by partner
- Partner
 - Takes rest -> increase in (distribution) h compared today
 - Limitations -> change individual gap
- Care gap -> total care gap, who is affected → Feedback → →
- Change costs, NTA, NTTA, ... -> economic consequences → Feedback → →

Requited NTA/NTTA Parameters

- Hours of care to elderly (65+) other than partner (Required for adjusting receipt to supply a/o model required labor status changes to match demand)
 - Likelihood to care by age, sex, education, labor status (not/parttime/fulltime)
 - Hours of care (those giving care) by age, sex, education, labor status (not/parttime/fulltime)
- NTA – People in NH
 - Public & private consumption of care, public transfers
- NTA – People in community
 - Per h public home-care: public & private consumption of care
 - By care need / eligibility: public transfers
- Total taxes & social contributions (proxy for financing public care) by age, sex, education, labor status,

Required models

- Need for care: limitations by (I)ADL
- “Ideal” Hours of care needed: mapped by (I)ADL, age: exploration Spain and Austria; Med. Lit; Essex support in mapping
- Probability nursing home: decision; ranking: for reweighting 65+ age sex
- Care mix if no partner: mix; hours others – formal – gap; SHARE
- Care mix if partner: mix; hours others – formal – part of gap filled by partner
- Care of “Others” to persons 65+: Response to increase of care needs:
Likelihood: to be care giver – LF – part-time