MACROECONOMIC AND DEMOGRAPHIC DRIVERS OF PUBLIC HOSPITAL EXPENDITURE

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DEMOGRAPHIC SCENARIOS

THESE SCENARIOS PROVIDE INPUTS FOR MODELLING THE DEMOGRAPHIC DRIVERS OF HOSPITAL CARE EXPENDITURE

BACKGROUND

- Ireland's demographic context is unusual in the EU
  - Experienced more rapid population growth (31% vs. 6% in EU between 1996 & 2016)
  - Younger demographic structure (e.g. 13% aged 65+ vs. 19% in EU in 2016)

- However the population is ageing
  - Between 1996-2016: 64% increase in pop. aged 80+
  - And continued ageing expected over the projection horizon

DEMOGRAPHIC MODELLING - APPROACH

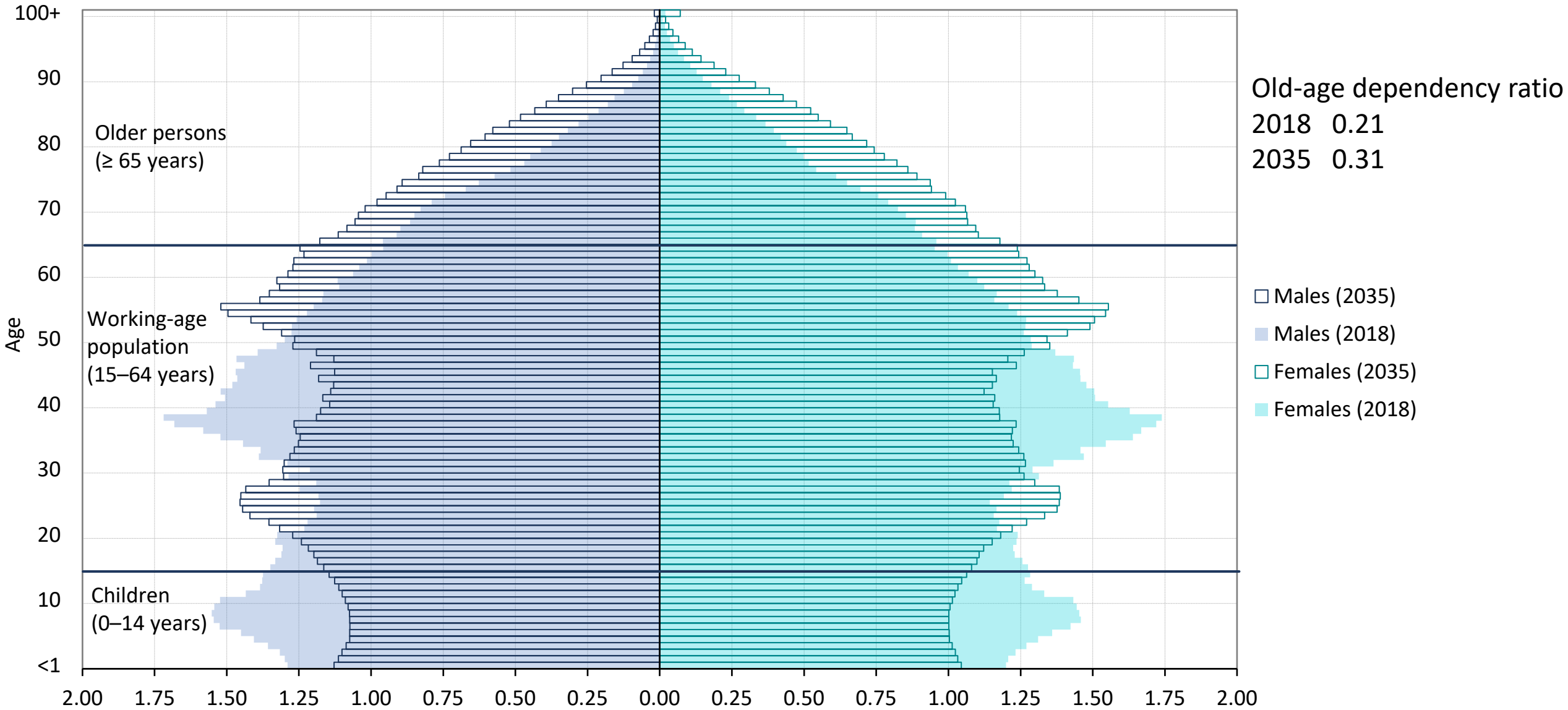
- Cohort-component model (in-house model)
  - Combine assumptions around fertility, mortality, and migration to generate population projections by sex and single year of age for each year
  - Mortality rates adjusted in short-term to take account of deaths associated with COVID-19

- Migration is the key driver of total population change in Ireland
  - Migration flows are very sensitive to economic conditions

KEY ASSUMPTIONS UNDERPINNING DEMOGRAPHIC SCENARIOS

	Central Scenario	High Population Scenario	Low Population Scenario
Mortality			
Life expectancy at birth to increase from 79.5 (83.4) years for males (females) to:	83.5 (86.5) years for males (females) in 2035	83.8 (86.7) years for males (females) in 2035	83.2 (86.2) years for males (females) in 2035
Migration			
Net immigration:	≈ +5,000 p.a. until 2022; +10,000 p.a. over long term	≈ +17,000 p.a. until 2022; +25,000 p.a. over long term	≈ -3,000 p.a. until 2022; +5,000 p.a. over long term
Fertility			
Total fertility rate:	Unchanged at 1.72	Rises to 1.96 by 2026 and remains constant thereafter	Declines to 1.6 by 2035

AGE STRUCTURE (CENTRAL SCENARIO)



SUMMARY OF DEMOGRAPHIC SCENARIOS

- Pop. to increase from 4.9m in 2018 to 5.4m in 2035 in Central Scenario
  - Increase of 0.6% p.a.
- Population of 5.8m (5.2m) in 2035 in High (Low) Population Scenarios
  - Increase of 1% p.a. (0.4% p.a.) in High (Low) Population Scenarios
  - Migration is key driver of differences in scenarios
- The number of older persons is set to increase
  - Population aged 65+: 1 in 7 now. By 2035: 1 in 5
- Central scenario total growth between 2018 and 2035:
  - Total: 11%; aged 65+: 61%; aged 80+: 105%

MACROECONOMIC SCENARIOS

THESE SCENARIOS PROVIDE INPUTS FOR MODELLING THE NON-DEMOGRAPHIC DRIVERS OF HOSPITAL CARE EXPENDITURE

BACKGROUND

- Pandemic is a public health shock that is having adverse economic impacts
  - Not a traditional economic shock
  - While the economy has suffered a massive shock affecting key aggregates such as consumption, the traded (export) sector has been relatively much less impacted

- Economic outlook is extremely uncertain
  - Depends on the development of the virus; the severity of continued and/or new containment measures; the success of measures in controlling the virus; rollout of an effective vaccine; the behavioural response of consumers and firms as more normal activity resumes….

OVERVIEW OF APPROACH

- Examine two alternative macroeconomic scenarios, *Recovery and Delayed Recovery*
  - Our approach is to replicate the economic shock(s) associated with COVID-19 in our macro-model COSMO and to model potential recovery paths for the economy
  - The main channels we focus on are production, employment, consumption, investment and a weaker global environment
  - However the timing and speed of any recovery is difficult to evaluate because of the extraordinary nature of the shock and the unknown factors mentioned earlier

OVERVIEW OF SCENARIOS

- *Recovery Scenario*
  - Some rebound in production and employment in the non-traded (domestic) sector in the short run and activity returns to where it otherwise would have been by 2023
- *Delayed Recovery Scenario*
  - Recovery in non-traded sector pushed back by a year
  - Incorporates scarring (some losses in employment and output are permanent)

SCENARIOS – BROAD OVERVIEW

- In both scenarios, economic growth is severely curtailed in the short-run
- Over the medium term (out to 2025), the economy grows strongly as the effects of the pandemic wane and some lost ground is made up, then the economy reverts back to trend growth
- Over the period 2019-2035, real GDP growth in both scenarios is expected to average around 3.7% p.a.

SCENARIOS – INPUTS INTO EXPENDITURE MODELLING

- In HIPPOCRATES, projections of the pay component of unit costs are based on projections for nominal wage growth in the government sector
  - Projected to be 2.5% p.a. in the Recovery and 2.2% p.a. in the Delayed Recovery Scenario
    - These projections are consistent with long-run historical wage developments in the health sector
  - Report also considers a public sector 'pay freeze' sensitivity

- In HIPPOCRATES, projections of the non-pay (non-drug) component of unit costs are based on the projected inflation rates
  - Projected to be 1.6% p.a. in the Recovery and 1.4% p.a. in the Delayed Recovery Scenario