

Analysis of potential hospital bed days savings achieved by Fracture Liaison Services in New Zealand

An analysis commissioned by the Accident Compensation Corporation (ACC) in early 2024 sought to estimate the number of hospital bed days that could be saved over a five-year period through universal access to world-class Fracture Liaison Services (FLS) across New Zealand. Based on conservative assumptions, the analysis suggested that FLS would save 57,764 bed days over five years.

Also in 2024, colleagues at the Royal Osteoporosis Society in the UK undertook an [analysis](#) to estimate potential bed day savings attributable to FLS in the UK. Their analysis concluded that 750,000 hospital bed days would be saved by universal access to FLS in the UK over five years. On a per capita basis this figure is within 0.7% of the estimate of 57,764 bed days saved in New Zealand over the same period. This close alignment serves as an independent validation of the modelling undertaken in New Zealand.

The assumptions used to inform the bed days analysis in New Zealand are as follows.

Fixed assumption included:

- Cumulative secondary fracture rates:
 - 18.08% for any fracture over 5 years
 - 5.44% for hip fracture over 5 years

A sensitivity analysis was conducted that included the following variable assumptions:

- Caseload: 22,300 fragility fractures during the year 1st July 2024 to 30th June 2025
 - Most Likely – 15% increased over 5 years
 - Low End – 5.3% increase over 5 years
 - High End – 30% increase over 5 years
- Fracture Liaison Service Efficacy:
 - Most Likely – 40% reduction of hip fractures
 - Low End – 30% reduction of hip fractures
 - High End – 50% reduction of hip fractures
 - Most likely – 30% reduction of other fragility fractures
 - Low End – 20% reduction of other fractures
 - High End – 40% reduction of other fracture.