Agreeing Priorities and Delivering Outcomes

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Resources are scarce!

• In general
  – Demand outstrips supply
  – Resources should be allocated to where they provide the greatest benefit

• In health and social care
  – Demand is increasing
    • expectations/technology/demography
  – Supply (‘need’) is decreasing
    • financial crisis/demography
Resource Allocation Mechanisms

• Market
  – In theory, competitive markets allocate resources efficiently

• Public sector
  – What does efficient allocation mean when consumers cannot express their preferences through the market?
  – Progressive (most help to least well-off)
  – What incentives does public sector supply set up?
  – Provider ‘capture’
What does this mean for CHP planning?

- Have to be aware of upcoming “pressure points”
- Design mechanisms which anticipate how these will affect the aggregate of resources available and how these should be allocated to maximise the welfare of client groups:
  - This presentation focuses on four “pressure points”
    - Demography
    - Finance
    - Housing
    - Workforce
- Then focuses on one of the main drivers of resource allocation - costs
Demography – General Context

• Scotland has ageing population
• Faster than England, but much less fast than some other developed countries
• Age-specific migration leads to concentration of younger people in urban environments, older people in more rural settings
• Changing age structure suggests supply of unpaid care will diminish relative to demand
• Fertility decline and postponement of child-bearing has implications for care of older people
Demography – Tayside Projected Population
Demography – Age Distribution

Tayside Projected Population by Age

- 85+
- 75-84
- 65-74
- 55-59
- 45-54
- 35-44
- 30-34
- 25-29
- 16-24
- 0-15

Year: 2009, 2014, 2031
Demography - Ageing in P&K, Tayside

Share of Scottish Population

- All Ages P&K
- All Ages Tayside
- Age 65+ P&K
- Age 65+ Tayside

Year:
- 2006
- 2011
- 2016
- 2021
- 2026
- 2031
Demography – Gender Balance

Projected Elderly Population by Gender Perth & Kinross

Population Aged 65+ (000s)

- Females
- Males

Demography – “Oldest Old”

Tayside Population Aged Over 75

- 2009: 40,000
- 2014: 50,000
- 2031: 70,000
Demography - Households

Tayside - Household Projections

- 3+ person all adult
- 2+ adult 1+ children
- 1 adult, 2+ children
- 1 adult, 1 child
- 2 adults
- 1 adult female
- 1 adult male
Life expectancy (LE) and healthy life expectancy (HLE) at birth, by NHS board area in Scotland.

Source: abridged life tables (see technical report), using GROS mid-year population estimates and death registrations (by year of registration) and 2001 Census self-assessed health (reported as good/very good).
Costs – Age Distribution of Unpaid Carers and Care Receivers

![Graph showing the age distribution of unpaid carers and care receivers. The graph displays two lines representing care givers and care receivers across different age groups. The age groups are 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, and 85+. The graph indicates that the proportion of care givers peaks in the 45-49 age group, while the proportion of care receivers increases steadily from the 16-19 age group onwards, reaching its highest in the 85+ age group.]
Finance – General Context

- Longest recession since Great Depression
- Decline in output of 6 per cent
- Public debt substituted for private debt to maintain demand
- Current levels of public debt completely unsustainable
- Significant increases in taxes, cuts in spending after next election
**Finance – Declining Budgets**

![Bar Chart: UK Tax Receipts and Borrowing (£bn)](chart)

- **Source:** Budget 2009
Finance - Public Sector Deficits

Source: OECD Nov 2009.
Finance – The Irish Budget

Public Service salaries will be reduced as follows:

5% on the first €30,000 of salary
7.5% on the next €40,000 of salary
10% on the next €55,000 of salary

For high earners, reduction in pay of:
8 per cent for those with salaries from €125,000 to €165,000;
12 per cent for those earning between €165,000 to €200,000; and
15 per cent for those earning €200,000 or more.
Finance – Culture of Growth in Scotland

<table>
<thead>
<tr>
<th>Year</th>
<th>Health (£m)</th>
<th>Share</th>
<th>Local Government (£m)</th>
<th>Share</th>
<th>Scottish Government (£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-03</td>
<td>£6,785</td>
<td>32%</td>
<td>£7,687</td>
<td>37%</td>
<td>£20,971</td>
</tr>
<tr>
<td>2003-04</td>
<td>£7,169</td>
<td>31%</td>
<td>£8,600</td>
<td>37%</td>
<td>£23,441</td>
</tr>
<tr>
<td>2004-05</td>
<td>£8,178</td>
<td>32%</td>
<td>£9,378</td>
<td>36%</td>
<td>£25,703</td>
</tr>
<tr>
<td>2005-06</td>
<td>£8,868</td>
<td>32%</td>
<td>£9,857</td>
<td>36%</td>
<td>£27,706</td>
</tr>
<tr>
<td>2006-07</td>
<td>£9,356</td>
<td>32%</td>
<td>£10,111</td>
<td>35%</td>
<td>£29,156</td>
</tr>
<tr>
<td>2007-08</td>
<td>£10,139</td>
<td>31%</td>
<td>£10,482</td>
<td>32%</td>
<td>£32,419</td>
</tr>
<tr>
<td>2008-09</td>
<td>£10,599</td>
<td>32%</td>
<td>£11,168</td>
<td>34%</td>
<td>£33,111</td>
</tr>
<tr>
<td>2009-10</td>
<td>£11,084</td>
<td>32%</td>
<td>£11,763</td>
<td>34%</td>
<td>£34,754</td>
</tr>
<tr>
<td>2010-11</td>
<td>£11,348</td>
<td>32%</td>
<td>£11,885</td>
<td>34%</td>
<td>£35,030</td>
</tr>
</tbody>
</table>
IFS/King’s Fund analysis of three possible funding futures for the English NHS from 2011/12 to 2016/17:
– ‘tepid’ (annual real increases of 2 per cent for the first three years, increasing to 3 per cent for the final three years)
– ‘cold’ (zero real change, which is the lowest level of funding compatible with a pledge made by the Conservative Party)
– ‘arctic’ (annual real reductions of 2 per cent for the first three years, falling to 1 per cent for the final three years).
Implications for other spending departments. Over the next spending review period – 2011/12 2013/14 – the budget across all spending departments, including the NHS, could reduce in real terms by an average of 2.3 per cent per year. However, if the NHS were to be protected to a greater or lesser degree, other departments could face greater cuts.
General Context - Housing

- Cost of housing one of the largest cost element in household budgets
- Main source of wealth among UK households
- Housing resources very unequally distributed
- Benefits paid to those who cannot pay for housing services from income
- Housing may not be suitable for home care provision
- Care home stock fairly static – but providers in difficulty
Housing – Tenure by Age Group

Tenure by Age Group, Scotland and RUK

Percent

Age Group

Owned outright or mortgaged - RUK
Owned outright or mortgaged - Scotland
Rented - RUK
Rented - Scotland
Housing – Value of Property

Distribution of Dwellings by Council Tax Band

Percent of Dwellings

Band A | Band B | Band C | Band D | Band E | Band F | Band G | Band H

0% | 5% | 10% | 15% | 20% | 25% | 30% | 35%

Perth & Kinross

Scotland
Housing – Need for Care

Age distribution of clients receiving housing support 2007-08

P&K accounts for 1.37% of Housing Support Clients and 2.74% of Adult Scottish Population
Housing – Type of Accommodation

Type of Accommodation of Clients Receiving Housing Support

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Perth and Kinross</th>
<th>Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeless</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Mainstream housing</td>
<td>15%</td>
<td>30%</td>
</tr>
<tr>
<td>Special Housing</td>
<td>45%</td>
<td>50%</td>
</tr>
<tr>
<td>Sheltered housing</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Supported accommodation</td>
<td>5%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Housing – Floor of Main Living Accommodation by Age

Floor of Main Living Accommodation

<table>
<thead>
<tr>
<th>Age Band</th>
<th>Percent of Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-65</td>
<td>100</td>
</tr>
<tr>
<td>66-75</td>
<td>100</td>
</tr>
<tr>
<td>76-85</td>
<td>100</td>
</tr>
<tr>
<td>85+</td>
<td>100</td>
</tr>
</tbody>
</table>

Legend:
- 10th-19th floor
- 4th-9th floor
- 3rd floor
- 2nd floor
- 1st floor
- grd flr/str level
- basement or semi
Housing – Care Homes

Care Home Residents

Scotlands

Perth and Kinross

Q3 Q1 Q3 Q1 Q3 Q1 Q3 Q1 Q3 Q1 Q3 Q1 Q3
2002 2003 2004 2005 2006 2007 2008 2009
Housing – Crisis in Private Care Homes

- Four Seasons is not the only operator in trouble in the nursing home and disabled residential care sector. The businesses - many of them private equity-owned - which look after some of Britain's most vulnerable people, are struggling in the face of the credit crisis and some are teetering on the brink of bankruptcy.
- Richard Stokoe, head of PR at the Local Government Association, which represents local authorities, admitted local councils are getting tough. "We're not paying out as generously as we did because we don't have the money any more."
- But Green hit out at local authorities, saying cuts will harm private providers who have improved nursing home standards. "They have been squeezing providers for several years and it will impede people's ability to develop services," he said.
- "Some companies may withdraw from market, precipitating a postcode lottery. And the local councils sit like Caesar's wife, above suspicion. When local authorities were providers [in the 1980s] they provided low-quality, high-cost and inflexible standards of care."
- Industry experts also blame rising staff costs. Most care home employees are on minimum wage and minimum holiday entitlements. But minimum wage has been rising and could go up further while the Government has increased statutory holiday entitlements.
- Source: Daily Telegraph
Housing – Weekly Hours of Care at Home

![Graph showing weekly hours of care at home in Scotland and Perth and Kinross from Q2 2005 to Q3 2009.](image)
General Context - Workforce

- Nursing/care workforce very large
- Largely female
- Somewhat older than rest of workforce
- Nurses – short hours, relatively well-paid, low turnover
- Care assistants – short hours, poorly paid, high turnover
## Nursing and Care Assistant Workforce

<table>
<thead>
<tr>
<th>Employed 2005-09</th>
<th>RUK</th>
<th>Scotland</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>24,617,000</td>
<td>2,263,000</td>
<td>26,880,000</td>
</tr>
<tr>
<td>Nurses</td>
<td>464,000</td>
<td>59,000</td>
<td>523,000</td>
</tr>
<tr>
<td>Care Assistants</td>
<td>543,000</td>
<td>90,000</td>
<td>633,000</td>
</tr>
<tr>
<td>Total</td>
<td>25,623,000</td>
<td>2,412,000</td>
<td>28,035,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>As percent of total</th>
<th>RUK</th>
<th>Scotland</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>96.1</td>
<td>93.8</td>
<td>95.9</td>
</tr>
<tr>
<td>Nurses</td>
<td>1.8</td>
<td>2.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Care Assistants</td>
<td>2.1</td>
<td>3.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Labour Force Survey
## Workforce - Gender

### Percentage of Workforce by Gender

<table>
<thead>
<tr>
<th></th>
<th>UK</th>
<th></th>
<th>Scotland</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>male</td>
<td>female</td>
<td>male</td>
<td>female</td>
</tr>
<tr>
<td>Other</td>
<td>53.6</td>
<td>46.4</td>
<td>52.8</td>
<td>47.2</td>
</tr>
<tr>
<td>Nurses</td>
<td>10.19</td>
<td>89.81</td>
<td>10.4</td>
<td>89.7</td>
</tr>
<tr>
<td>Care Assistants</td>
<td>13.07</td>
<td>86.93</td>
<td>14.9</td>
<td>85.1</td>
</tr>
<tr>
<td>Total</td>
<td>51.8</td>
<td>48.2</td>
<td>50.6</td>
<td>49.4</td>
</tr>
</tbody>
</table>

Source: Labour Force Survey
# Workforce - Age

<table>
<thead>
<tr>
<th>Average Age 2005-09</th>
<th>RUK</th>
<th>Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>40.7</td>
<td>40.5</td>
</tr>
<tr>
<td>Nurses</td>
<td>42.3</td>
<td>42.1</td>
</tr>
<tr>
<td>Care Assistants</td>
<td>43.1</td>
<td>41.3</td>
</tr>
<tr>
<td>Total</td>
<td>40.8</td>
<td>40.5</td>
</tr>
</tbody>
</table>

Source: Labour Force Survey
Workforce - Tenure

Length of Time with Current Employer

- Less than 3 months
- 3 months but less than 6 months
- 6 months but less than 1 year
- 1 year but less than 2 years
- 2 years but less than 5 years
- 5 years but less than 10 years
- 10 years but less than 20 years
- 20 years or more

Percent

Other
Nurses
Care Assistants
# Workforce – Hours and Pay

<table>
<thead>
<tr>
<th></th>
<th>Weekly Wages (£)</th>
<th>Weekly Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UK</td>
<td>Scotland</td>
</tr>
<tr>
<td>Other</td>
<td>426.5</td>
<td>408.5</td>
</tr>
<tr>
<td>Nurses</td>
<td>420.5</td>
<td>427.3</td>
</tr>
<tr>
<td>Care Assistants</td>
<td>221.5</td>
<td>233.6</td>
</tr>
</tbody>
</table>

Source: Labour Force Survey
General Context - Costs

• Highly complex
• Wide variation in costs between health boards and local authorities
Costs - Resource Flows in Care Services for Older People

Demography → Population “at Risk” → Health Expectancy

Demand:
- Hotel Services
- Personal Care
- Nursing Care

Supply:
- Informal Care → Care at Home → Care Home → NHS Long-stay

Funding:
- Self Funding
- LA Clients
- Means Test
- Assessment
- Local Authorities
- Department of Work and Pensions
- Scottish Government
- Financial Products
- Household Assets/Income
- National Health Service
- UK Government

Resource Transfer?
Costs - Hospitalisation

NHS Operating Costs 2008-09

- Capital Expenditure
- Operating Expenditure

Health Board

- Ayrshire & Arran
- Borders
- Dumfries & Galloway
- Fife
- Forth Valley
- Grampian
- Greater Glasgow & Clyde
- Highland
- Lanarkshire
- Lothian
- Orkney
- Shetland
- Tayside
- Western Isles

£ Per Head
Costs – Delayed Discharge - interaction between health and social care

![Graph showing the interaction between delayed discharges and weeks waited.](image)
Modelling Costs

- Microsimulation – individual experiences
- Events – start, duration, intensity
- Individuals drawn randomly from population
- Helps answer “what if” questions
Costs – Modelling Life Expectancy

Increased life expectancy
Shift curve to the left

Graph showing the relationship between life expectancy and time, with a shift to the left indicating increased life expectancy.
Types of Care Costs/Benefits

/* Care Assistant costs */
CareAssistantWageRate = 6.23
CareAssistantHoursNH = 20.5
CareAssistOnCosts = 0.23

/* Nursing Costs */
NurseWageRate = 11.45
NurseHoursNH = 7.5
NurseOnCosts = 0.241

/* Other Non-Staff costs */
Maintenance_capital_expenditure = 19
Repairs_and_maintenance = 11
Contract_maint_of_equipment = 3
Food = 23
Utilities = 22
Handyman_and_gardening = 7
Insurance = 5
Medical_supplies = 3
Registration_fees = 3
Recruitment = 2
Direct_training_expenses = 2
Continence_products = 4
Other_non_staff_current_exp = 6
Land = 43
Buildings_and_equipment = 153

/* Benefits */
Attendance_Allowance_Higher = 70.35
Attendance_Allowance_Lower = 47.10
Costs – Prevalence of Late Onset Dementia

The diagram illustrates the prevalence of late onset dementia across different age groups and genders. It shows a significant increase in prevalence with increasing age, particularly among individuals aged 90 and above. The data indicates a higher prevalence among females compared to males, especially in the age groups 90-94 and 95+. This suggests that older age and female gender are factors that contribute to the higher prevalence of late onset dementia.
Costs – Numbers of Clients

Numbers

- Severe in Care Home
- Moderate in Care Home
- No Dementia in Care Home
- Severe with Home Care
- Moderate with Home Care
- Mild
- Personal Care at home
Costs – Clients by Local Authority

Numbers by LA 2014

[Diagram showing numbers by LA 2014 with different categories and colors for care home types: Severe in Care Home, Moderate in Care Home, No Dementia in Care Home, Severe with Home Care, Moderate with Home Care, Personal Care at Home.]
Costs – Consistent With Prevalence, Life Expectancy and Unit Costs (Scotland)