Making health services fit for an ageing population. Are we on the right track

David Oliver

University of Alberta Hospital 13 Sep 2013
Perfect storm/burning platform (England)

- Twin challenge of demography and flat funding
- Dementia strategy
- Equality Act
- Dilnot Review on long term care funding
- Emergency care crisis
- Series of damning reports on poor basic care/dignity
- And on safety/preventable mortality in hospital
- n.b. Robert Francis Inquiries and Keogh Mortality Reviews
- Government push on integrated services
Right care, right place, right time: How can we improve health and care for vulnerable older people?

Staying healthy for longer

How can the NHS better focus on prevention and managing long-term conditions?

Out of hours

How do we ensure a safe and consistent service?

Named clinician

Should we have a single, named contact to coordinate an individual's care?

Choice and control

How can we better support patient choice?

Improving access

How can we make it easier to book appointments and get advice?

Joining up services

How do we encourage sharing of information and support coordination of care?
The Silver Book

QUALITY CARE FOR OLDER PEOPLE WITH URGENT & EMERGENCY CARE NEEDS
Out this week. RCP Future Hospital Report
To discuss

• **I**: The success story of population ageing

• **II**: What that means for health and wellbeing
  • A balanced view

• **III**: Implications for health and care services
  • Older people with complex needs as “core business”

• **IV**: Are our services “age proof and fit for purpose”?
  • Quality

• **V**: How we need to change
  • Don’t have time to get heavily into solutions but hope to start dialogue
Just to say...

- I will focus on England, as it's where I work
  - Similarities and differences v Canada
- But Canadian ageing demography similar
- Not qualified to comment on Albertan Healthcare but you are
- I am interested to see how much resonance these issues have for you
- Slides available to all
- List of key references via Joan Kravic
  - Joan.Kravic@ualberta.ca
- I always try to answer emails and will give ad.
I: The success story of population ageing
Mortality by major cause, in men and women (all ages). England and Wales, 1911-2010*
Figure 14: Age-specific death rates from coronary heart disease (CHD) in men aged 35+, 1968 to 2008, UK

Source: BHF Coronary Heart Disease Statistics
‘rectangularisation’ to ‘elongation’

Number over 80 has doubled in past two decades (See BMJ 2010 “oldest old double”)

Source: mortality.org, originally ONS

Around 18% of all deaths were before 65 in 2006 – the same proportion as in 1991
By 2030 men aged 65 will live on average to 88 and women to 91

51% more over 65, 101% more over 85

AGE-GENDER PYRAMID FOR THE REGISTERED INDIAN AND TOTAL CANADIAN* POPULATIONS, CANADA, 2009 AND 2014 (MEDIUM GROWTH SCENARIO)

House of Lords “Ready for Ageing”

*By 2030 there will be....*

- 51% more people aged 65 and over in England\(^1\) in 2030 compared to 2010

- 101% more people aged 85 and over in England in 2030 compared to 2010\(^2\)

- 10.7 million people in Great Britain can currently expect inadequate retirement incomes\(^3\)

- over 50% more people with three or more long-term conditions in England by 2018 compared to 2008\(^4\)

- over 80% more people aged 65 and over with dementia (moderate or severe cognitive impairment) in England and Wales by 2030 compared to 2010\(^5\)
Demand for unpaid care provided by families and friends:

- There are already twice as many unpaid carers—nearly 6.4 million—as there are paid staff in the health and social care systems combined.\textsuperscript{261}

- The numbers of older people with disabilities receiving informal care would need to nearly double over the next 20 years if the probability of receiving care is to remain constant—but it is not clear that the supply of informal care will rise to keep pace with demand. Demand for informal care provided by adults to their parents is projected to rise by over 50\% between 2007 and 2032, whereas the supply of this care is projected to rise by only 20\%.\textsuperscript{262}

- By 2017 we will reach a “tipping point” for care when the numbers of older people needing care will outstrip the numbers of working age family members currently available to meet that demand.\textsuperscript{263}
II: Implications for population health and wellbeing
Perceptions and stereotypes of ageing.


• “It is commonly believed that older people lead a rather gloomy existence characterised by social isolation, neglect from their family, beset with health problems and suffering considerable emotional stress” ...Most pernicious is the assumption of “passivity and dependence”...with older people “Incapable of running their own lives and as passive recipients of services”

• Healthcare workers are drawn from society and may bring these attitudes with them
Healthy Active Ageing

• Don’t have time to get into all the evidence
  • It’s in the reference list

• But...we know from cohorts and cross sections
  • Most older people self-report high happiness
  • Low rates of isolation and loneliness
  • High to good satisfaction with health
  • No life-limiting LTC
  • Not dependent or institutionalised
  • Net contribution through work, volunteering, caring
  • Overall health probably improving within cohort

• They value wider biopsychosocial factors

• We need to stop catastrophizing and falsely polarised representations of ageing
“Seventy is the new Sixty” but Inequalities persist

Source data: Health Statistics Quarterly 50, summer 2011, ONS

Figure 17: Life Expectancy with Disability (LEWD) and Disability Free Life Expectancy (DFLE) for men and women at age 65, by Index of Multiple Deprivation (IMD) 2007 quintile, England, 2006–08
Multimorbidity increases with age (Scottish School of Primary Care Barnett et al Lancet May 2012)

- The majority of over-65s have 2 or more conditions, and the majority of over-75s have 3 or more conditions
- More people have 2 or more conditions than only have 1
Multiple co-morbidity

*(Scottish School of Primary Care Barnett Lancet 2012)*

<table>
<thead>
<tr>
<th>Condition</th>
<th>% of patients with this condition</th>
<th>% who also have this condition (% = % of all patients with the condition)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronary heart disease</td>
<td>CHD (4.7%)</td>
<td>52</td>
</tr>
<tr>
<td>Heart failure</td>
<td>Hypertension (13.4%)</td>
<td>14</td>
</tr>
<tr>
<td>Stroke/TIA</td>
<td>Heart failure (1.1%)</td>
<td>13</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Stroke/TIA (2.1%)</td>
<td>22</td>
</tr>
<tr>
<td>COPD</td>
<td>Diabetes (4.3%)</td>
<td>13</td>
</tr>
<tr>
<td>Cancer</td>
<td>COPD (3.2%)</td>
<td>8</td>
</tr>
<tr>
<td>Painful condition</td>
<td>Cancer (2.5%)</td>
<td>24</td>
</tr>
<tr>
<td>Depression</td>
<td>Painful condition (17.2%)</td>
<td>17</td>
</tr>
<tr>
<td>Schizophrenia/bipolar</td>
<td>Depression (8.2%)</td>
<td>14</td>
</tr>
<tr>
<td>Dementia</td>
<td>Schizophrenia/bipolar (0.7%)</td>
<td>14</td>
</tr>
<tr>
<td>Any other condition</td>
<td>Dementia (0.7%)</td>
<td>17</td>
</tr>
<tr>
<td>Any other condition</td>
<td>Any other condition (30.5%)</td>
<td>71</td>
</tr>
</tbody>
</table>

E.g. Only 18% with COPD just have COPD
Figure 4: The consensus* estimates of the population prevalence of late onset dementia in men and women aged 65+, UK, 2007

Figure 7: Prevalence of mobility problems* in men and women aged 65+, England 2005

Source: HSE 2005. Copyright © 2011, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.
Reported prevalence of disability clearly rises with age. We also need to understand how the severity of disability varies with age.

**Disability distribution over age**

- **Individuals without a disability, including limiting long standing illness**
- **Individuals with a disability, including limiting long standing illness**

Source: Family Resources Survey 2007
**Panel 1: Frequent clinical presentations of frailty**

**Non-specific**
Extreme fatigue, unexplained weight loss, and frequent infections.

**Falls**
Balance and gait impairment are major features of frailty, and are important risk factors for falls. A so-called hot fall is related to a minor illness that reduces postural balance below a crucial threshold necessary to maintain gait integrity. Spontaneous falls occur in more severe frailty when vital postural systems (vision, balance, and strength) are no longer consistent with safe navigation through undemanding environments. Spontaneous falls are typically repeated and are closely associated with the psychological reaction of fear of further falls that causes the patient to develop severely impaired mobility.

**Delirium**
Delirium (sometimes called acute confusion) is characterised by the rapid onset of fluctuating confusion and impaired awareness. Delirium is related to reduced integrity of brain function and is independently associated with adverse outcomes. Roughly 30% of elderly people admitted to hospital will develop delirium, and the point prevalence estimate for delirium for patients in long-term care is 15%.

**Fluctuating disability**
Fluctuating disability is day-to-day instability, resulting in patients with "good", independent days, and "bad" days on which (professional) care is often needed.
**Figure 1: Vulnerability of frail elderly people to a sudden change in health status after a minor illness**

The green line represents a fit elderly individual who, after a minor stressor event such as an infection, has a small deterioration in function and then returns to homoeostasis. The red line represents a frail elderly individual who, after a similar stressor event, undergoes a larger deterioration, which may manifest as functional dependency, and who does not return to baseline homoeostasis. The horizontal dashed line represents the cutoff between dependent and independent.
Stages of Frailty

- Healthy Aging
- Chronic Vulnerability
- Acute Illness
- Recovery

Health Status vs. Illness Stage

Chronic loss of capacity

Acute loss of capacity

Fried 1999
Figure 3  Annual cost* by age and service area for Torbay (population 145,000), 2010/11

*Costs of primary care and prescribing are not included
Source: Torbay Care Trust (reproduced with permission)
People with long-term conditions have high health service use (55% of all GP appointments, 68% of outpatient and A&E appointments and 77% of inpatient bed days and therefore 69% total health spend.

People with limiting LTCs are the most intensive users of the most expensive services

Over 65s in hospital (England)

(DH analysis of HES data)

- 60% admissions
- 70% bed days
- 85% delayed transfers
- 65% emergency readmissions
- 75% deaths in hospital
- 25% bed days are in over 85s
- The older you are, the longer you stay and more likely you are to be moved
- 77% of adult bed days are in people with life-limiting LTC
High intensity users of hospital services have overlap of physical and social vulnerabilities.
Modern Hospital Casemix

• 1 in 4 adult beds occupied by someone with dementia (stay an average 7 days longer)
• Delirium affects 1 in 4 patients over 65
• Urinary incontinence 1 in 4 over 65
• 1 in 4 over 65 have evidence of malnutrition
• Falls and falls injuries account for more bed days than MI and Stroke Combined
• Falls = 35% safety incidents (median age 82)
• Hip fracture is a good example
  – Median Age 84, 12 month mortality 20-30%, 1 in 3 have dementia, 1 in 3 suffer delirium, 1 in 3 never return to former residence, 1 in 4 from care homes
“our hospitals are struggling to cope with the challenges of an ageing population and rising hospital admissions” RCP 2012 (See also future hospitals work)

- “A fewer third general and acute hospital beds than 25 years ago but last decade has seen 37% increase in emergency admissions with biggest increase in over 75s”
- “Hospitals have coped by reducing length of stay but this fall has flattened and is now increasing for over 85s”
- “2/3 of patients admitted to hospital are over 65 and many have dementia, frailty or complex needs….buildings, services and staff are not equipped to deal with them”
Individual health and social care event timeline over a three-year period

This figure shows all contacts that one individual person had with all health and social care services over a three year period.

<table>
<thead>
<tr>
<th>Service</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>High intensity social care service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other social care service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social care assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient - discharge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient - admission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;E visit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outpatient visit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP visit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How well do we cope with multimorbidity?

• “when we design services for people with one thing wrong at once but people with many things wrong turn up, the fault lies not with the users but with the system, but all too often we label these patients as inappropriate and present them as a problem”

• Rockwood K 2005 Age Ageing

• “Systems designed to treat occasional episodes of care for normally healthy people are being used to deliver care for people who have complex and long term conditions. The result is often that they are passed from silo to silo without the system having ability to co-ordinate different providers”

• S Dorrell MP (Chair Parliamentary Health Select Cttee 2011)
Understanding and improving transitions of older people: a user and carer centred approach

- Poor communication between services
- Lack of adequate assessment and planning prior to transition
- Inadequate notice of/preparation for transition between services
- Inadequate consultation and involvement
- Over-reliance on informal support
- Inattention to the special needs of particularly vulnerable groups
- An increased risk of premature transition and/or transition to inappropriate care settings due to service pressures and inter-agency tensions.
Older people with complex needs are “core business”

• We have to get with the programme
To address the challenges of funding, demography and quality

• We need to focus on older people
• Follow the money
• Improve efficiency within each organisation
• Ensure older people (and therefore resources and skills) are in the right setting at the right time
• Deal with inefficiencies at hand offs and transitions
• Deal with “double running” “death by assessment”
• End “projectitis” and “pilotitis”
• Provide more integrated services
  – Meso, Macro, Micro
• Get all systems up to level of higher performers
Addressing the triple challenge...

• “Invert the triangle” of care or “Shift to Left”
• Focus on prevention, wellbeing and anticipatory care not buildings and reaction to illness
• Prevention = l2y, 2y, 3y
• Change public perceptions and behaviour
• Professional, Clinical Leadership
• Change the way we work to deliver what services and patients want and make care more person-centred
Audit commission value for money at health and social care interface 2011
From Kings Fund report 2012 on Emergency Bed use in Older People

Figure 2 Needs-weighted emergency bed days per person over 65, per annum, national distribution
Audit commission value for money at health and social care interface 2011
Delayed transfers of care from acute hospitals.

Number of Delayed Days during the month by reason

- A) Awaiting completion of assessment
- B) Awaiting public funding
- C) Awaiting further non-acute
- Dii) Awaiting nursing home placement or availability
- Di) Awaiting residential home placement or availability
- E) Awaiting care package in own home
- F) Awaiting community equipment and adaptations
- G) Patient or family choice
- H) Disputes
- I) Housing – patients not covered by NHS and Community Care Act
Figure 1: The vicious circle, Audit Commission (1997, 2000)

- Admissions to hospital are increasing
- Pressures on hospital beds are increasing
- People are being discharged sooner
- There is less money available for preventative services
- There is increasing use of expensive residential and nursing home care
- There are insufficient rehabilitation services
The hospital bed: on its way out?
John Appleby examines trends in the number of hospital beds and wonders how low we can go

John Appleby chief economist
King’s Fund, London, UK

Figures

Fig 1 Hospital beds by type: English NHS: 1979-80 to 2011-12

1979-2012
All beds

59%
Fig 1 Emergency admissions to NHS hospitals in England, 2000-11
EMERGENCY READMISSIONS: ENGLAND 1999-00 to 2009-10

Fastest Rise is in Over 75s
We have a vision for the next three years.
All standards and **timings** are for discussion and development

Frail Elderly Pathway – Care standards (time based)

**Support older people at home**

**Enhanced support at home**

**Manage Crisis Effectively**

**Specialist acute input**

**Manage step down from acute effectively**

**Enhanced support at home**

**Support Older People at Home**

---

**Home**

**Crisis**

**Acute**

**Trf of care**

**Home**

**Standards to be developed**

**Std 1.** All patients in crisis will be assessed within **2 hrs** of a request for an assessment*

**Std 2.** All patients in crisis will start to receive a package of enhanced support at home within **XX hrs** of the need being identified

**Std 3.** All patients in crisis will be transferred to an Intermediate Care bed within **YY hrs** of the need being identified

**Std 4.** On arrival at hospital, all patients will be assessed* before they leave ED/MAU

**Std 5.** All patients in hospital will be assessed* using the CGA approach before they are discharged

**Std 6.** All patients will be transferred to the most appropriate care setting within **12 hrs** of being declared ‘medically fit for discharge’ / ready for transfer to next care setting

---

*All assessments are carried out using a Comprehensive Geriatric Assessment (CGA) approach*
V: Are services age proof and fit for purpose?
Quality in services for older people
Oliver D et al Kings Fund (in press)

• **Outcomes**
  • Consistent application of *evidence-based interventions* known to achieve these outcomes

• **Safety** and avoiding *harm*
  • Most high volume safety incidents affect older people
  • Loss of function, delirium etc as harms?

• **Experience**
  • Dignified, person-centred care with choice, information, control, communication, involvement etc

• **Efficiency**
  • Minimising unwarranted variation – “best as good as rest”
  • Reducing inefficiencies at transitions and interfaces
  • Reducing duplication, and “death by assessment”

• Free of ageism and *age-discrimination*
  • Whilst encouraging *appropriate adjustment and differentiation* to allow for different needs of some groups of older people

• **Continuity/co-ordination/integration**

• **Access and responsiveness**

• **Right service and skills in right place at right time**
VI: How we need to change

No Silver Bullet
But it *can* and *has* delivered
How to get better

• Education, training, skills, revalidation, regulation
• Focus from/support for leaders at all levels
• Outcome indicators, financial instruments/incentives standards and open data
• Ensure adequate capacity/workforce
• Full involvement of older people and carers
  – Own care and treatment
  – Service design, education, training, feedback
• Sustained focus on prevention, LTC, anticipatory care, Care Co-ordination
• Change offer from primary care
• Rapid, credible response in crisis
• Equitable access to healthcare (e.g. nursing homes)
• Combat ageism/discrimination
• Adequate assessment and diagnosis in frail/complex
• Focus on rehabilitation/discharge planning
Ten interdependent domains in “end to end” pathway for older people

1. Healthy active ageing, wellbeing, independence ageing in place
2. Living well with single or stable LTCs
3. Living well with complex co-morbidities, frailty
4. Rapid support in crisis as close to home as possible
5. Good acute care from front to back door
6. Good discharge planning and early post-discharge support
7. Re-enablement after acute illness or injury and loss of function
8. Minimising long-term care use. Providing high quality healthcare inputs and compassionate personalised care in care homes
9. Planning for end of life care with adequate, choice, control, palliation and ability to die at home at the end
10. Continuity, co-ordination and integration

Oliver D, Foot C Kings Fund in Press
Motherhood and apple pie?

• Absolutely not
• We can improve quality and outcomes
• We are just too slow to disseminate and adopt change and learn from best practice
• Loads more where this came from but I will show one or two quick examples from UK
Health Foundation Improving Patient Flow in Sheffield 2013

Outcome measure: 34% increase in discharge day 0/1
Outcome measure: Bed occupancy reduced by over 60 beds
Health Foundation Sheffield

Balance measure:
No change in readmissions
National Audit of antipsychotics in dementia 2012 [DH]
National Hip Fracture Database Reports
2008 - 2011

Hip fracture treatment: trends over time
April 2008 – March 2011

- Bone therapy or assessment
- Falls assessment
- Surgery within 48 hours
- Surgery within 36 hours
- Pre-operative assessment by geriatrician
- Mortality at 30 days

% of patients
Trend in 30 day mortality: April 2008 to March 2011
Torbay Integrated Care Project [Kings Fund]

• Health and social care teams that serve localities of 25-40,000
• Teams are aligned with GP practices in these localities and support GPs care for Mrs Smith
• Care coordinators were an important innovation
• A single budget is used flexibly with NHS funds being used to increase social care support to help people remain at home
• A long term commitment to integration of care driven by a focus on the needs of Mrs Smith
Torbay’s results

• The daily average number of occupied beds fell from 750 in 1998/99 to 502 in 2009/10
• Emergency bed day use in the population aged 65 and over is the lowest in the region at 1920 per 1000 population
• Emergency bed day use for people aged 75 and over fell by 24 per cent between 2003 and 2008 and by 32 per cent for people aged 85 and over
• Delayed transfers of care from hospital have been reduced to a negligible number
• Bed occupancy < 80% [Unheard of in England]
Torbay’s results (2)

- Since 2007/08, Torbay Care Trust has been financially responsible for 144 fewer people aged over 65 in residential and nursing homes.
- There has been a corresponding increase in the use of home-care services, some of which are now being targeted on preventive low-level support.
- The use of Direct Payments is one of the best in the region.
- In 2010, the Care Quality Commission judged Torbay to be ‘performing well’.
RCP Future Hospitals Commission

• 1. Fundamental standards of care must always be met
• 2. Patient experience is valued as much as clinical effectiveness
• 3. Responsibility for each patient’s care is clear, coordinated and communicated
• 4. Patients have effective, timely access to care
• 5. Patients do not use wards without over-riding clinical justification
RCP Future Hospitals Commission

• 6. Robust arrangements for transfers of care
• 7. Good communication with and about patients the norm
• 8. Care is designed to facilitate self-care and health promotion
• 9. Services tailored to meet the needs of vulnerable patients with complex needs
• 10. All patients have personalised care plan reflecting individual needs, choice, control
• 11. Staff supported to deliver safe, compassionate care and quality
More generalism, more geriatricians, more skills for all in geriatrics, recognition of multidisciplinarity, interface working
Current Training of UK Geriatricians
May alter with “shape of medical training” review
General Medical Council: accreditation, revalidation, registration, regulation

- Part-time working/job-sharing/flexible training supported.
- European working time directive on total hours/rest periods etc

Medical School (4-6 years)
- F1 year (1 year)
- F2 year (1 year)

Core Medical Training (2 years)

Certificate of completion of training (CCT) (Dual Accreditation in Geriatrics and General Medicine)

Potential for “out of programme” Research training to doc/postdoc

Selection

Full registration

Higher specialist training (5 Years). Several hospitals in a deanery region

Consultant Appointment

Selection

Certifi cate of completion of training (CCT) (Dual Accreditation in Geriatrics and General Medicine)

Option for extra year for stroke

Specialist/GP register (to retirement 65 (67 soon)

SASG (specialty doctors)

Provisional registration

Full registration

MRCP Exam (2 stage – written then clinical)

Speciality Certification Exam (Exit)

Annual re-validation and recertification via appraisal and CPD. Not exam

Overseas applicants can enter Foundation or CMT

Formal Supervision, Electronic Portfolio Work-Based Assessments, Annual Sign off at each stage

Annual re-validation and recertification via appraisal and CPD. Not exam

Potential for “out of programme” Research training to doc/postdoc

Selection

Selection

Certificate of completion of training (CCT) (Dual Accreditation in Geriatrics and General Medicine)

Option for extra year for stroke

Specialist/GP register (to retirement 65 (67 soon)

SASG (specialty doctors)

Provisional registration

Full registration

MRCP Exam (2 stage – written then clinical)

Speciality Certification Exam (Exit)

Annual re-validation and recertification via appraisal and CPD. Not exam

Overseas applicants can enter Foundation or CMT

Formal Supervision, Electronic Portfolio Work-Based Assessments, Annual Sign off at each stage
Table 2: Number of specialty trainees (2010)\textsuperscript{xxiii}

<table>
<thead>
<tr>
<th>Specialties with most trainees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaesthetics</td>
<td>3,765</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>3,097</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>2,113</td>
</tr>
<tr>
<td>General Surgery</td>
<td>1,370</td>
</tr>
<tr>
<td>Trauma and Orthopaedic Surgery</td>
<td>1,216</td>
</tr>
<tr>
<td>Clinical Radiology</td>
<td>1,100</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>958</td>
</tr>
<tr>
<td>General Psychiatry</td>
<td>949</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>697</td>
</tr>
<tr>
<td>Cardiology</td>
<td>691</td>
</tr>
</tbody>
</table>
Thankyou.
David.Oliver@royalberkshire.nhs.uk