Syncope Management Units

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Content

- Some slides Lecture 2003- evolved
- Relevance to demographic Changes

- Accreditation in Syncope management
- Statistics – Health Service Utilization

Lecture Syncope Units 2003

Infrastructure for Best Management

Infrastructure for Best Practice - Syncope

- Evaluation is haphazard and unstratified
- Specialties- cardiology, neurology, geriatric, emergency medicine
- Variation – diagnostic tests

  attributable diagnoses

  % unexplained syncope

Infrastructure for Best Practice - Syncope

Italian Series: (older patients)

28 hospitals

Tests

Carotid sinus massage	0 - 58%
Tilt	0 - 50%

Diagnoses

Neurally mediated Syncope	10 - 79%
Pacing Carotid Sinus Syndrome	1 - 25%

Infrastructure for Best Practice - Syncope

If models of care unchanged diagnosis and treatment will remain inadequate

Implementation guidelines inadequate

European Society Cardiology Guidelines on Syncope 2001

Recommended Infrastructure for Best Practice

- Newcastle Model
- Rapid Access
- ‘One Site One Stop’
- Education/Communication Stakeholders
- **-6005 bed days** at variance with peer hospital (2001)

Performance / Activity Newcastle

Sites	Number Episodes	% Emergency	% Elective	Average LoS (days)
13	1249	99	0.5	5
NCL	1105	37	62	2
8	1099	97	3	17

1991

Length of stay 10 vs 2 days

zero vs 62% elective activity

saving 31 acute beds in year

Savings Site 8
£3million

Kenny Age Ageing 02

Setting up a syncope and falls service

Sources of referral- capture at risk

A&E, direct GP, in patients, out patient

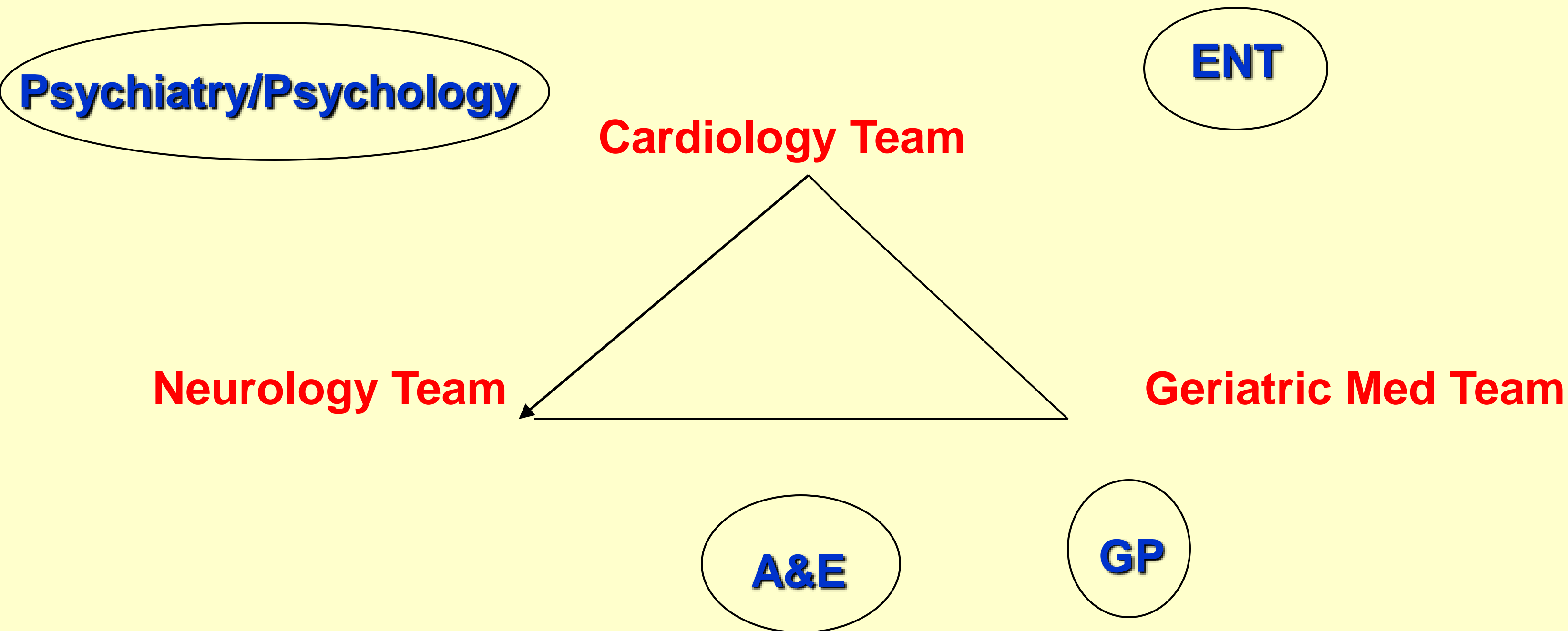
Location A&E, Cardiology

Setting up a syncope and falls service

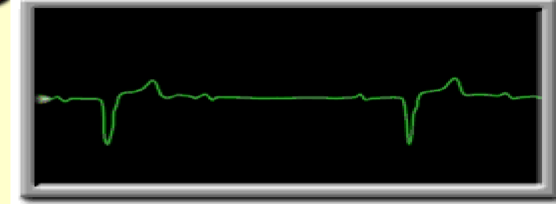
Engage relevant Stakeholders

Specialist team responsible Syncope evaluation and Triage,

Model involve Nurse practitioners, Multidisciplinary Approach

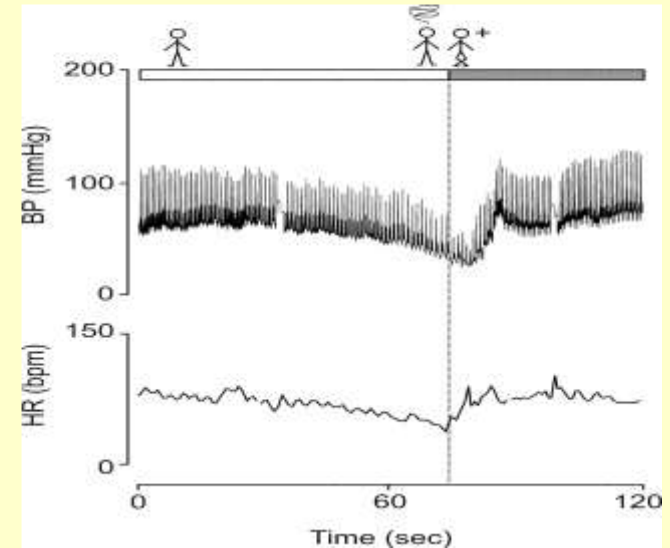


Setting up a falls and syncope unit



Equipment- laboratory, ambulatory

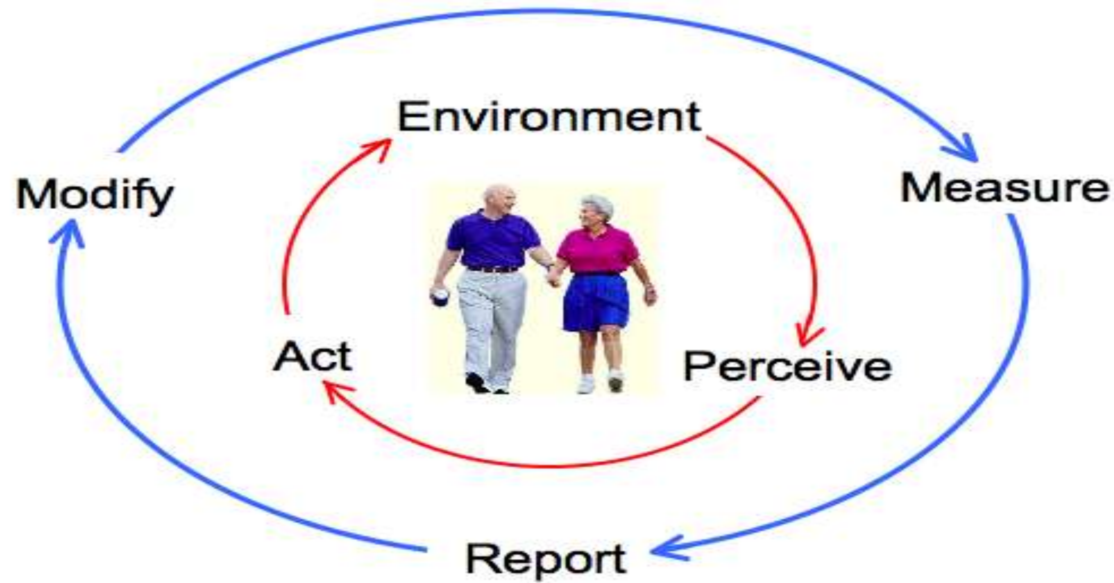
Neurally mediated-HUT



Cardiac

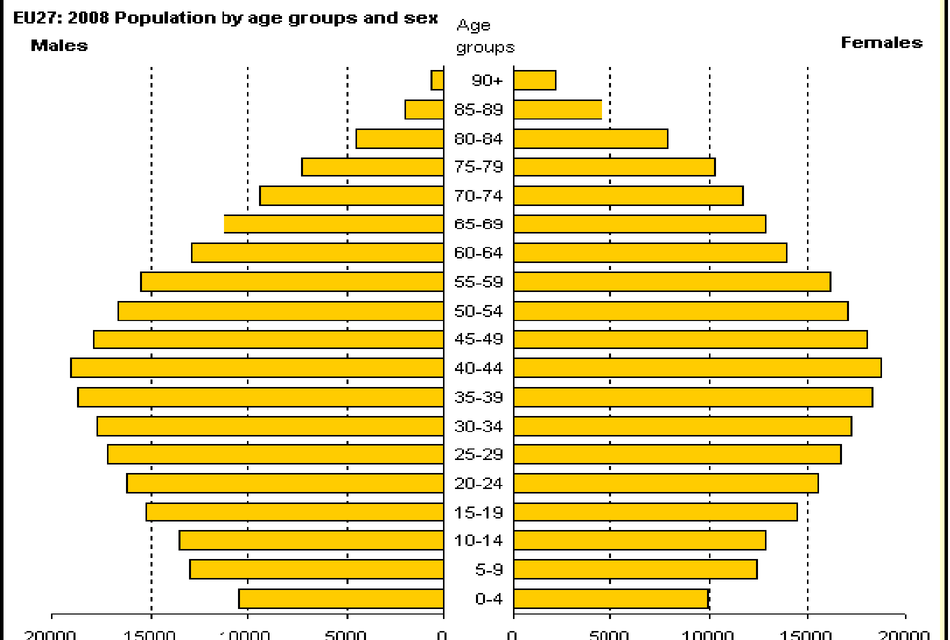
Gait/Balance

Summary 2003



A multidisciplinary rapid access **syncope /falls day case** facility improves **quality of care** by facilitating application of guidelines, and reduces **hospital costs** by minimising number of acute hospital admissions and length of stay.

Syncope Units- relevance to Demographic Changes


EU27: 2008 Population by age groups and sex
Age groups
Males
Females
90+
85-89
80-84
75-79
70-74
65-69
60-64
55-59
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15-19
10-14
5-9
0-4
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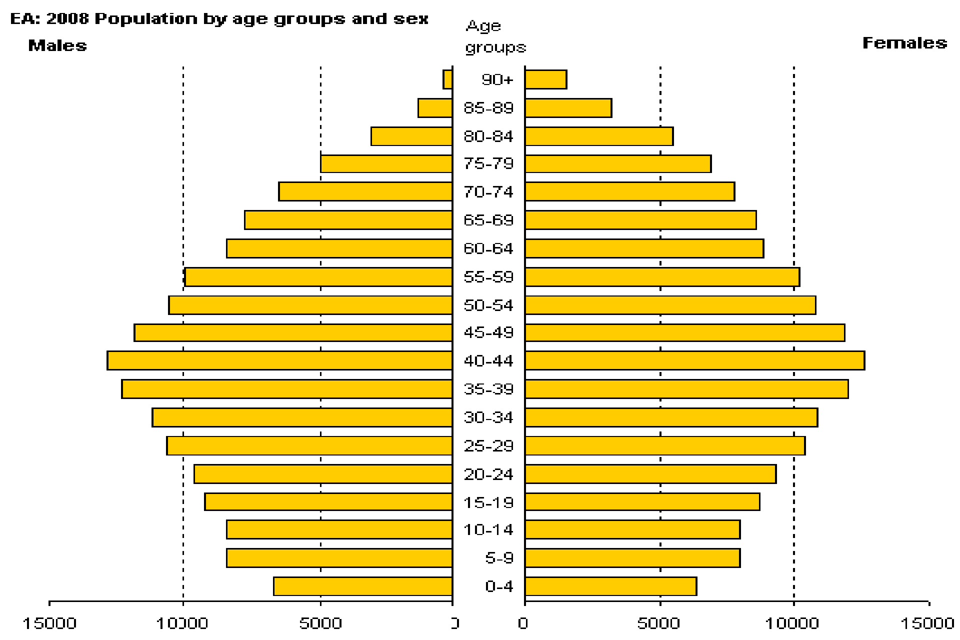
0 5000 10000 15000 20000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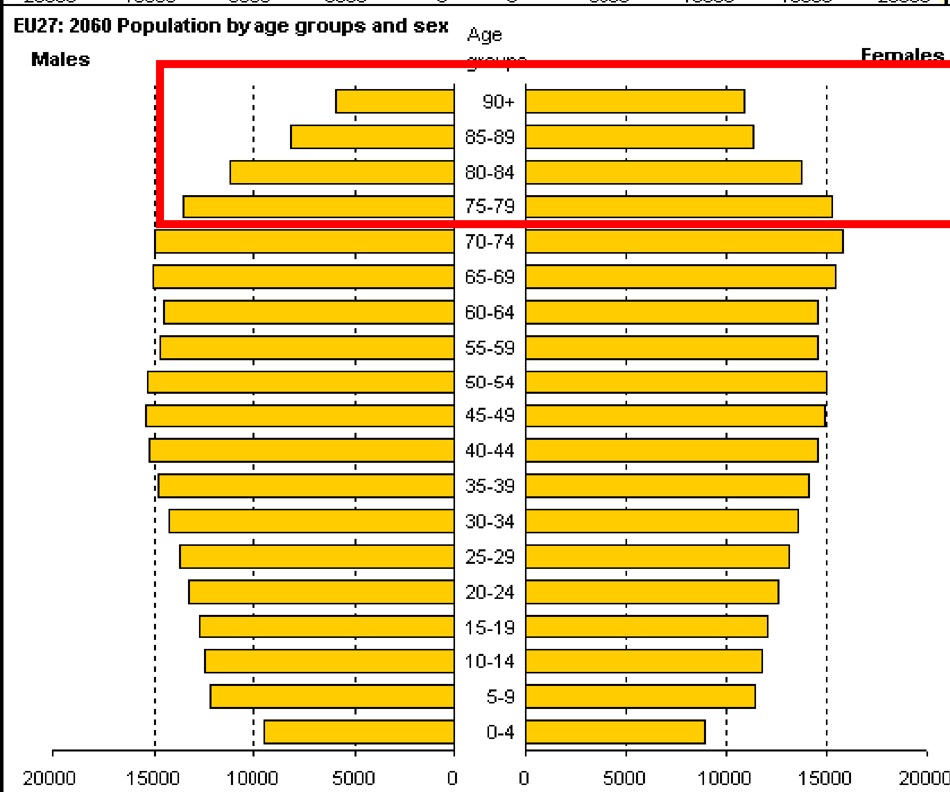
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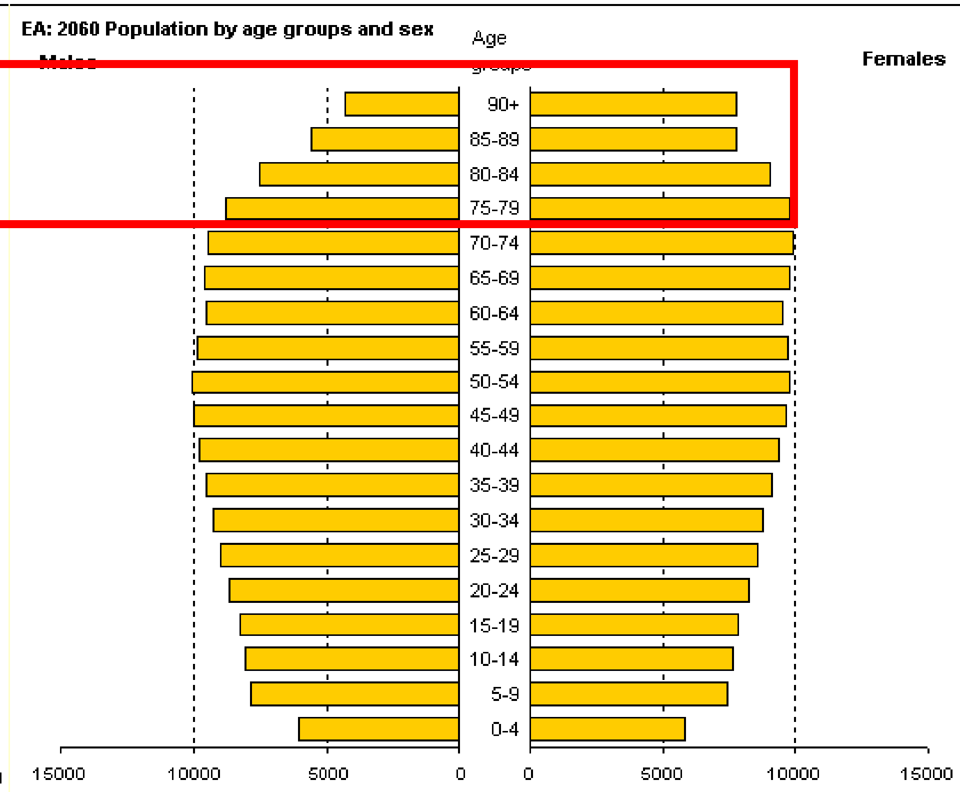
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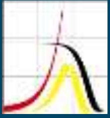


Female life expectancy in the record-holding country from 1840 to the present

50% females born today Live to 100yrs or beyond

Norway
New Zealand
Iceland
Sweden
Japan
The Netherlands
Switzerland
Australia

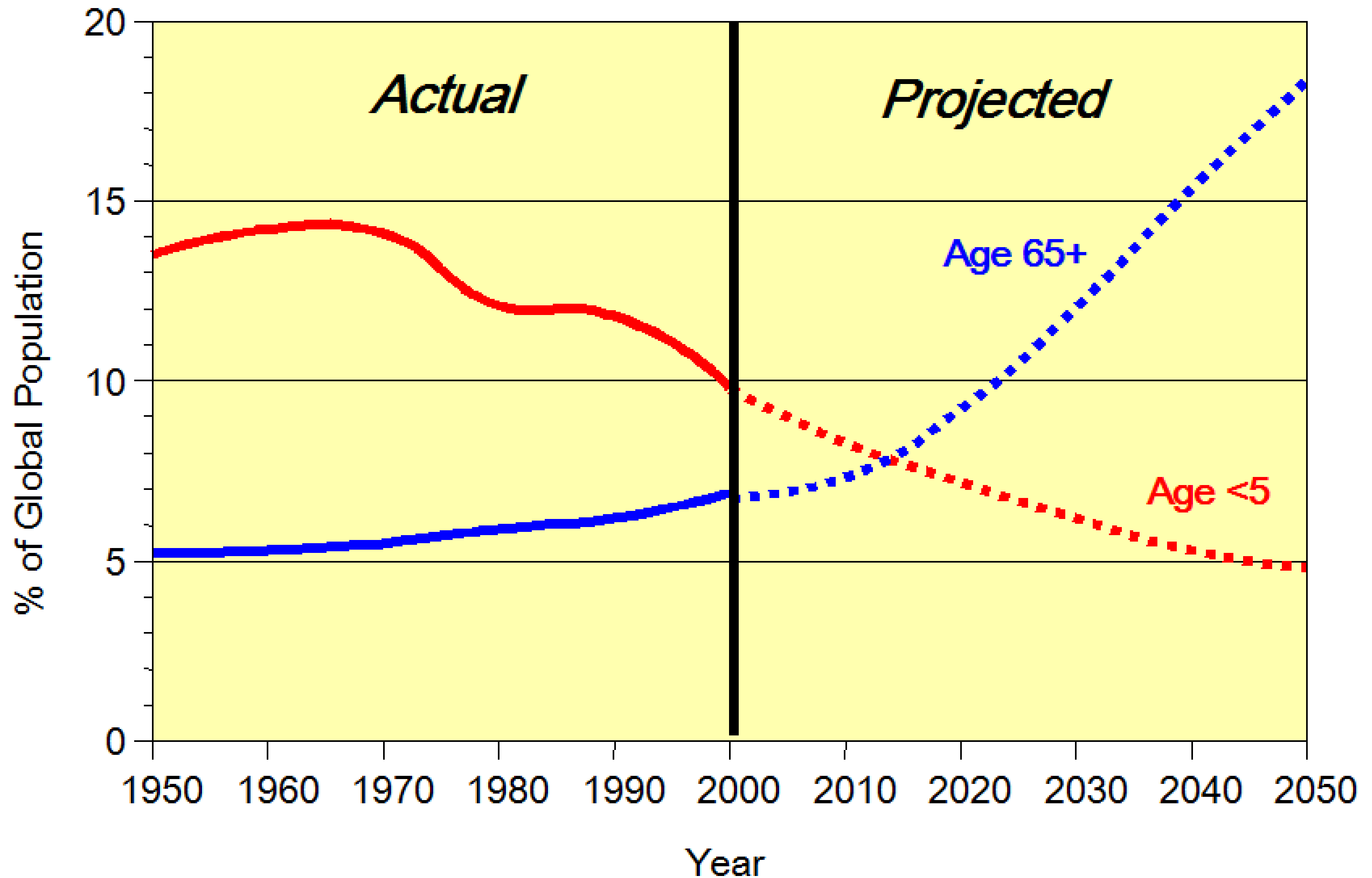
Life-expectancy in years

95
90
85
80
75
70
65
60
55
50
45

1840 1860 1880 1900 1920 1940 1960 1980 2000

Year

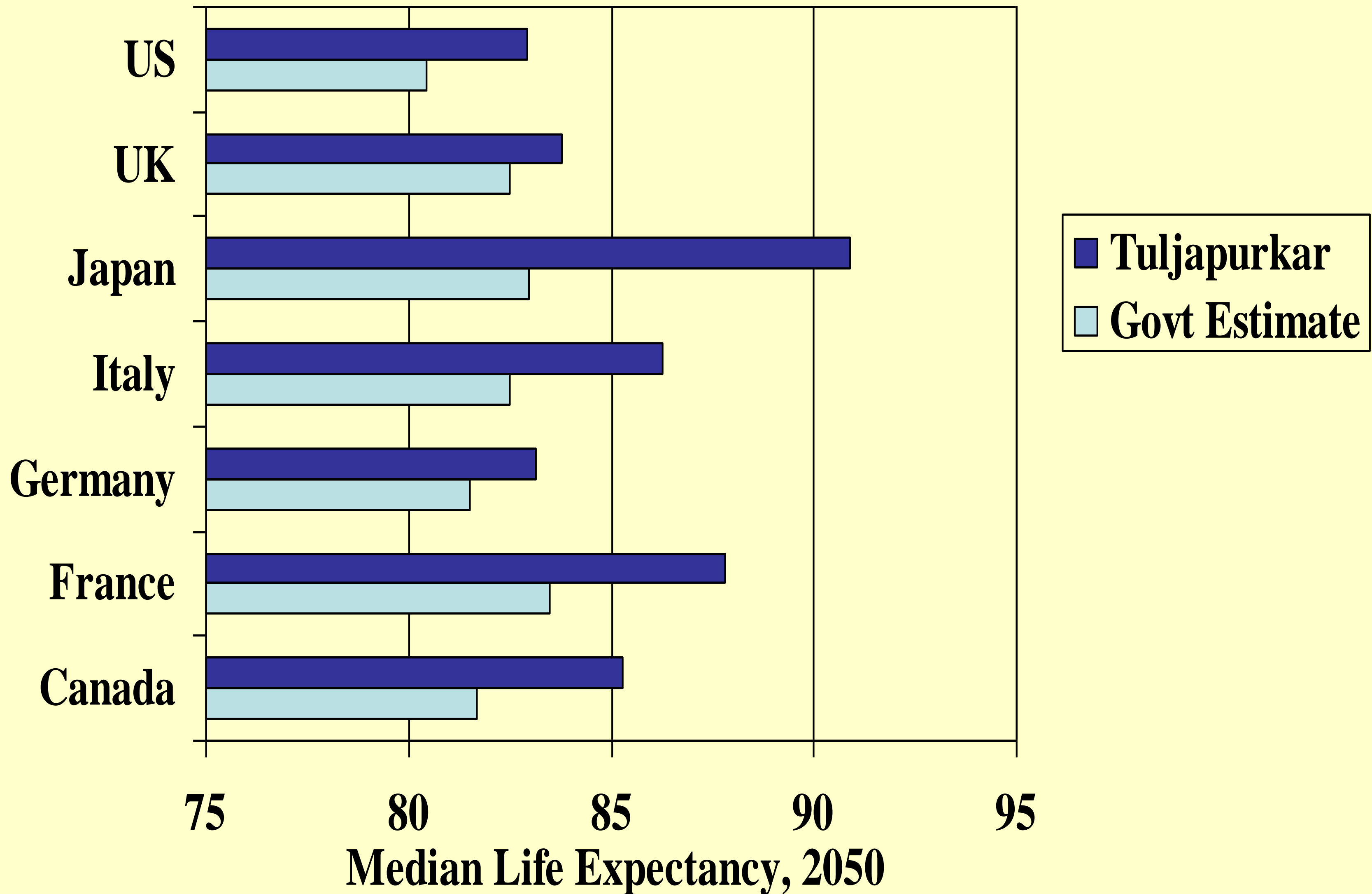
United Nations Projected Percentages of Global Population



Source: World Population Prospects: The 1996 Revision, Annex 2 (low-variant projection). UN Population Division.

By 2030 30% West over 65 years

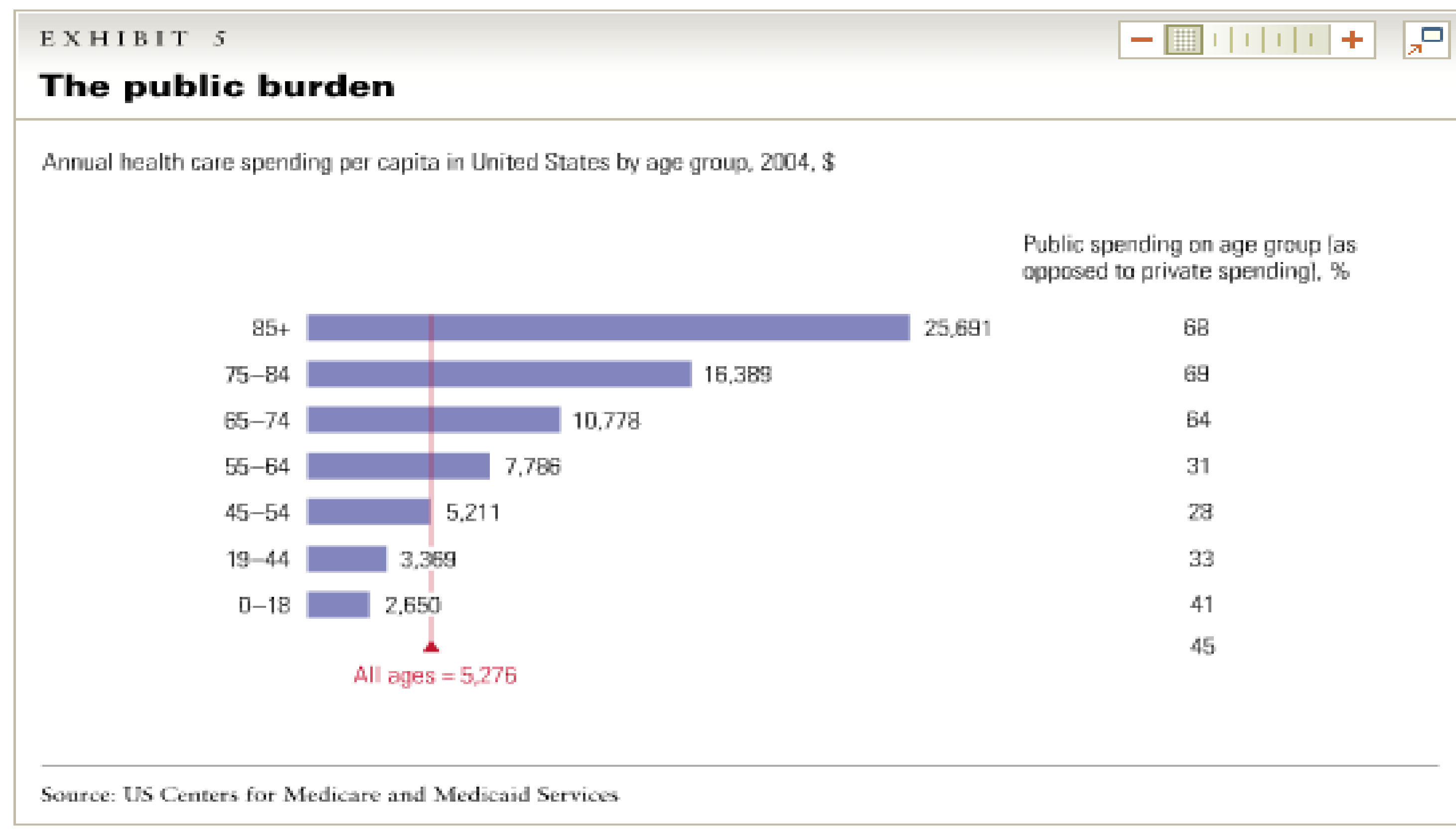
Life Expectancy in G-7 Industrialized Nations, 2050



Source: Shripad Tuljapurkar, Nan Li and Carl Boe. A UNIVERSAL PATTERN OF MORTALITY DECLINE IN THE G-7 COUNTRIES. **Nature** 405: 789-792 (15 June 2000).

The already acute economic pressures healthcare spending places on society will grow

A significant part of an average person's health care spending throughout life occurs in its second half, especially the last two years. In many countries, the tax-financed part of health care represents a massive transfer from young taxpayers to older health care users.



Source: McKinsey Quarterly September 2008

Syncope Management Units

Accreditation in Syncope Management- Adult

Principal **Target Audience**:

Cardiologists, Neurologists, Geriatricians, AMAU Physicians, Emergency Room Physicians, Old Age Psychiatrists, Bioengineers

Professions:

Nursing Staff, Cardiac and Neurology Technicians.

Syncope Management Units

Cardiology:

- The surface electrocardiogram
- Echocardiogram and Syncope
- Cardiac Electrophysiology
- Coronary Angiography
- Cardiac arrhythmias
- Neurally Mediated Syndromes (OH, VVS, CSS/CSH)
- Technologies:

  Ambulatory monitoring Technology (Holter, External and implantable Loop)
  Phasic BP monitoring
  Ambualtory BP
  Cardiac pacing
  Defibrillators

Syncope Management Units

Neurology:

Epilepsy

Parkinsons, Multi System atrophy, Lewy Body Dementia, Pure autonomic Failure

Peripheral Neuropathies

Autonomic Neuropathy/ AFT / HRV/Autoantibody

Neuro-imaging

The EEG

Concussion, Traumatic brain injury,

Syncope Management Units

Geriatric Medicine

- Cognitive function assessment
- Comprehensive assessment
- Falls assessment and management

Psychiatry

- Cognitive behavioural therapies
- Psychtropic medications

Syncope Management Units

- Risk stratification
- Transient Loss of consciousness
- Mx Syncope
- ESC/NICE/AGS&BGS Guidelines:
  Syncope/TLOC/Epilepsy/Falls/Cardiac arrhythmias

? Diploma, MsC; University, RCPI

Web based

UK:

70% hospital beds acute > 65yrs

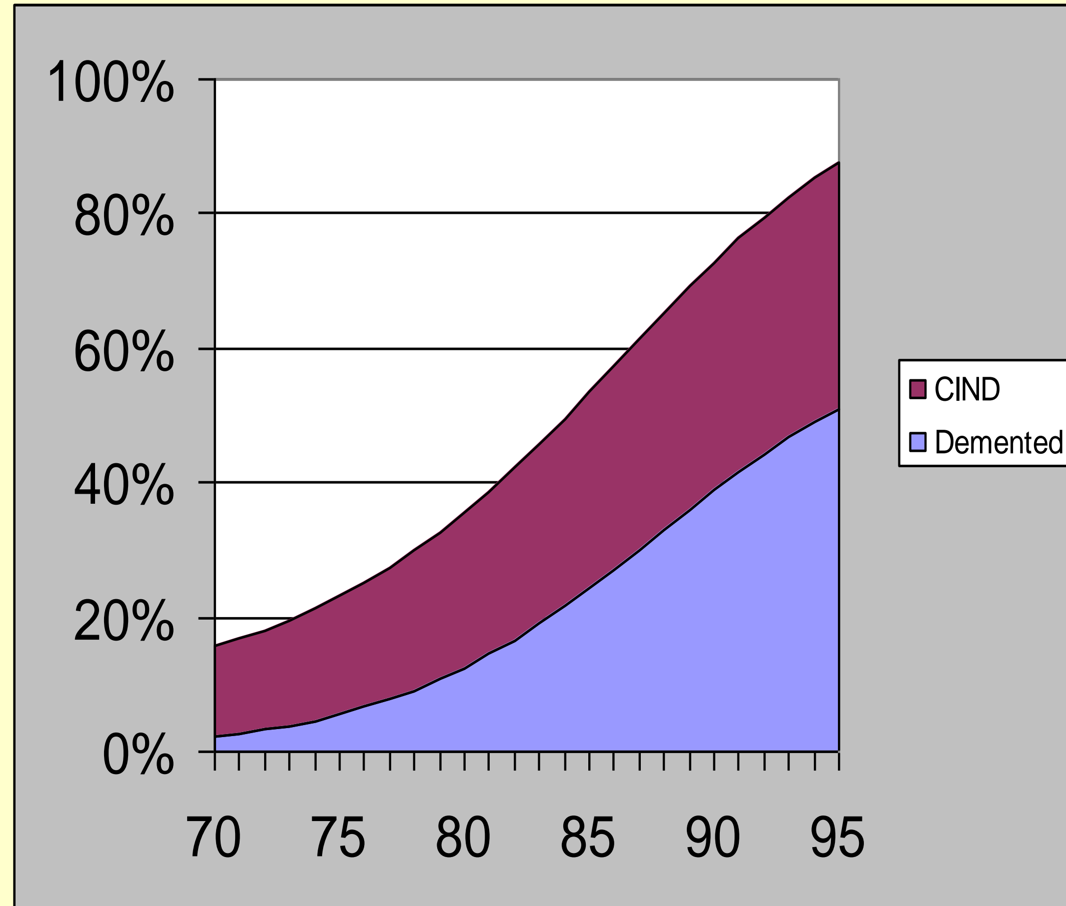
50% admission MCI/Dementia

UK Cost 17 billion to 50 billion/yr 2050

Delay ….

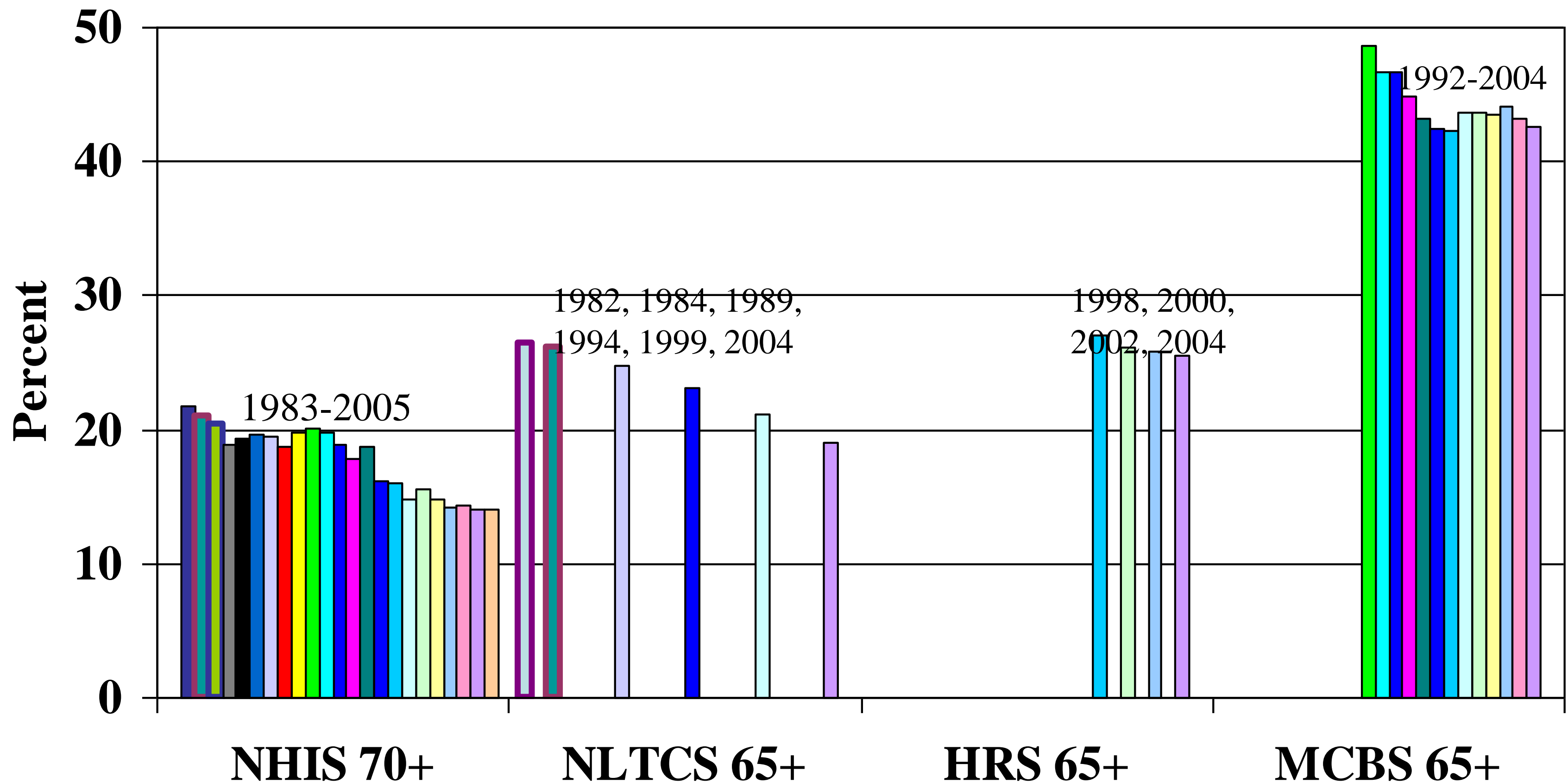
Comas-Herrara 2007

Prevalence of Cognitive Impairment and Dementia, by Age (ADAMS)



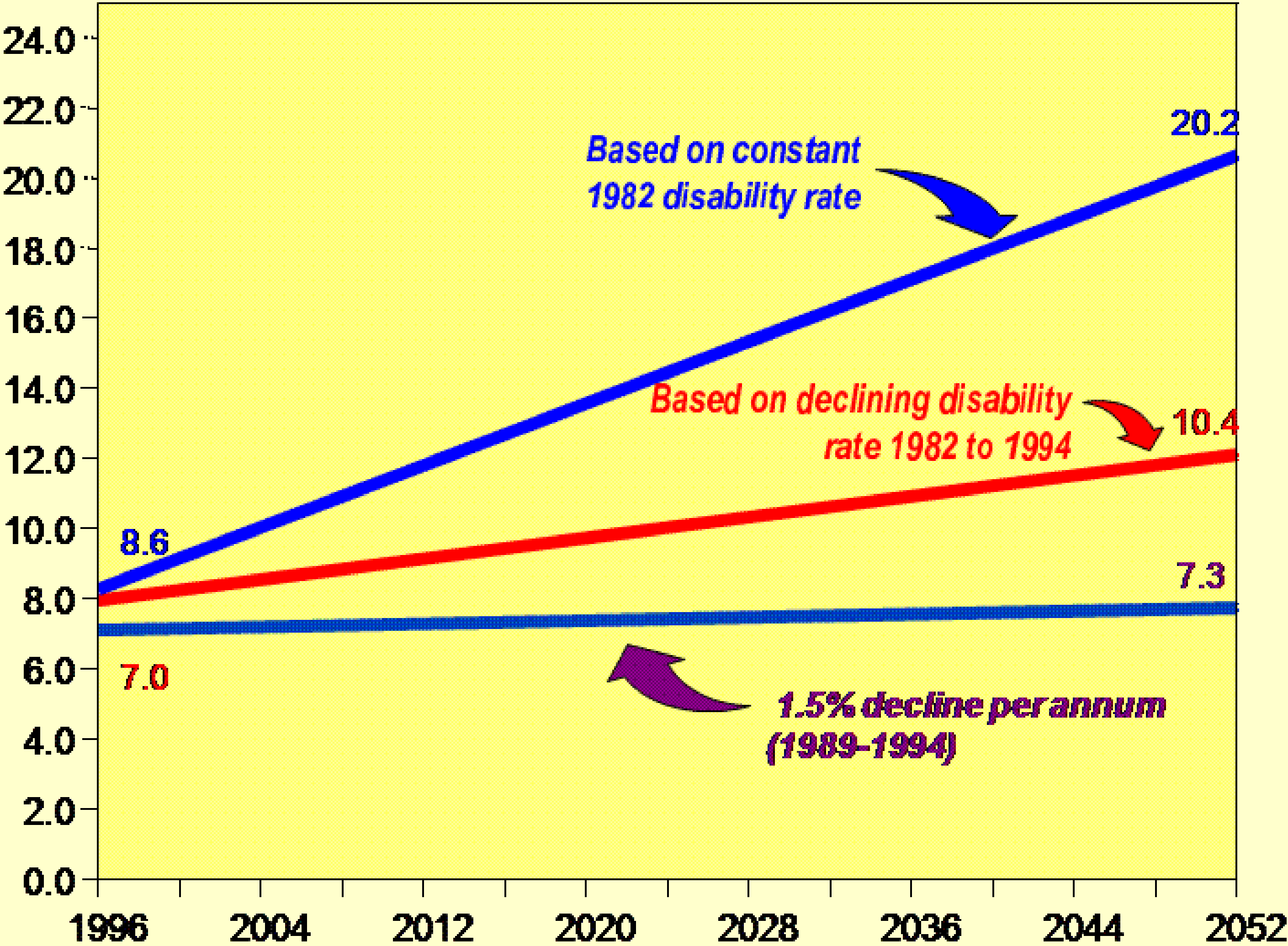
COST UK: Dementia > Stroke + Cancer+ Heart

Trends in Late-Life Disability



Sources: NLTCS, Manton et al. (2006); NHIS, Schoeni, Freedman, Martin (2006);
MCBS, Trends in Health and Aging (2007); and HRS, unpublished tabulations by Freedman, Martin, and Schoeni (2007). All estimates age-adjusted.

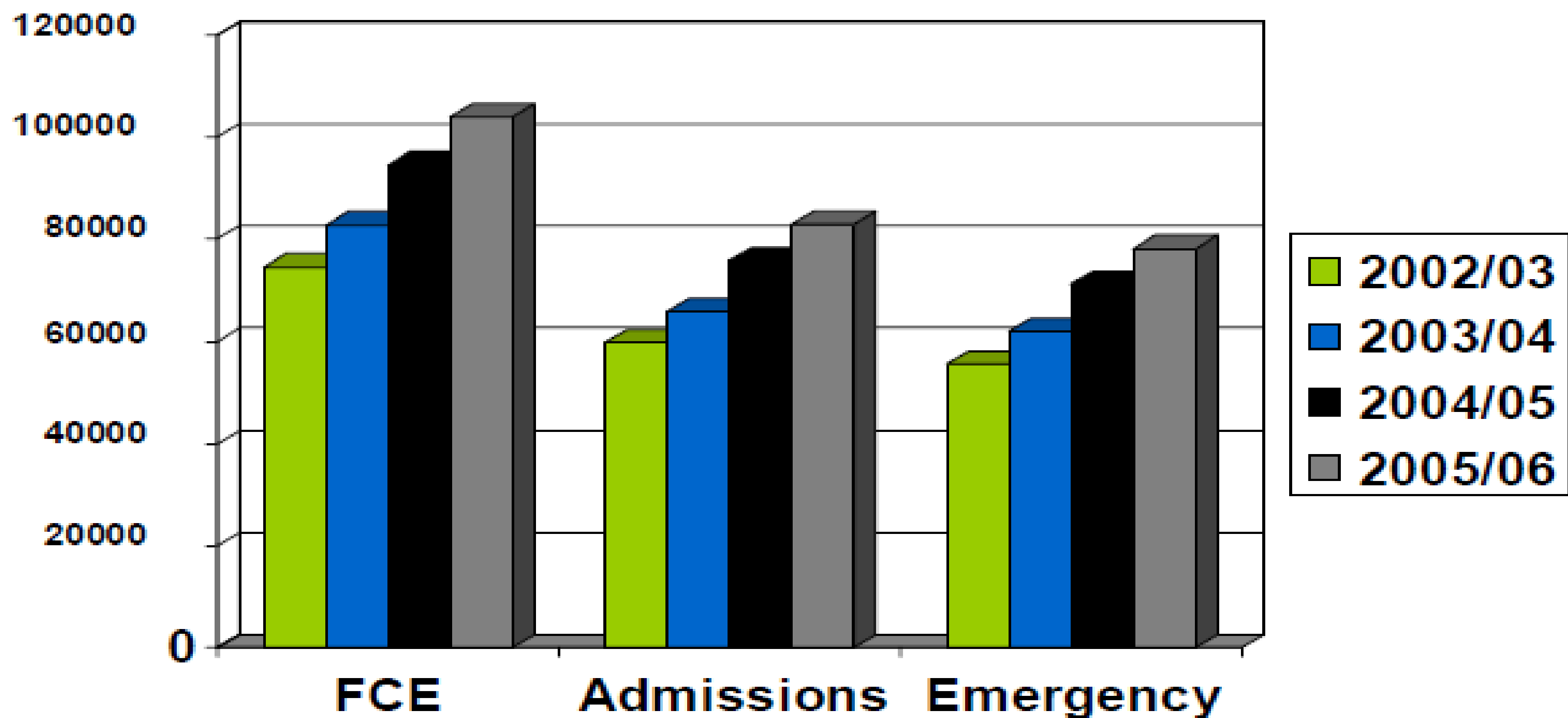
Projections of Number of Disabled Americans Age 65 & Over (in millions)



Source: National Long Term Care Survey 1982-1994 (Kenneth Manton, Ph.D.) Revised November 1999

No ICD-10 codes existed for inherited cardiac conditions which could cause TLoC viz., Long QT syndrome or Brugada Syndrome.

(a) R55 Syncope and Collapse (ICD-10) – Data for England



Abbreviations: FCE=Finished Consultant Episode

Syncope and collapse R55 ICD 10 Data England

Year	Finished Consultant Episodes	Admissions	Emergency	Mean length of stay (days)	Median Episode Duration (days)	Mean Age (years)
2005/06	103825 (↑ 39%*)	82999 (↑ 38.6%*)	78146 (↑ 40.4%*)	3.9 (↓ 36%*)	1	67
2004/05	94486	75850	71311	4.6	1	68
2003/04	82773	65986	61982	5.5	2	68
2002/03	74576	59851	55651	6.1	2	68

*relative to year 2002/03

Syncope and collapse R55 ICD 10 Data England

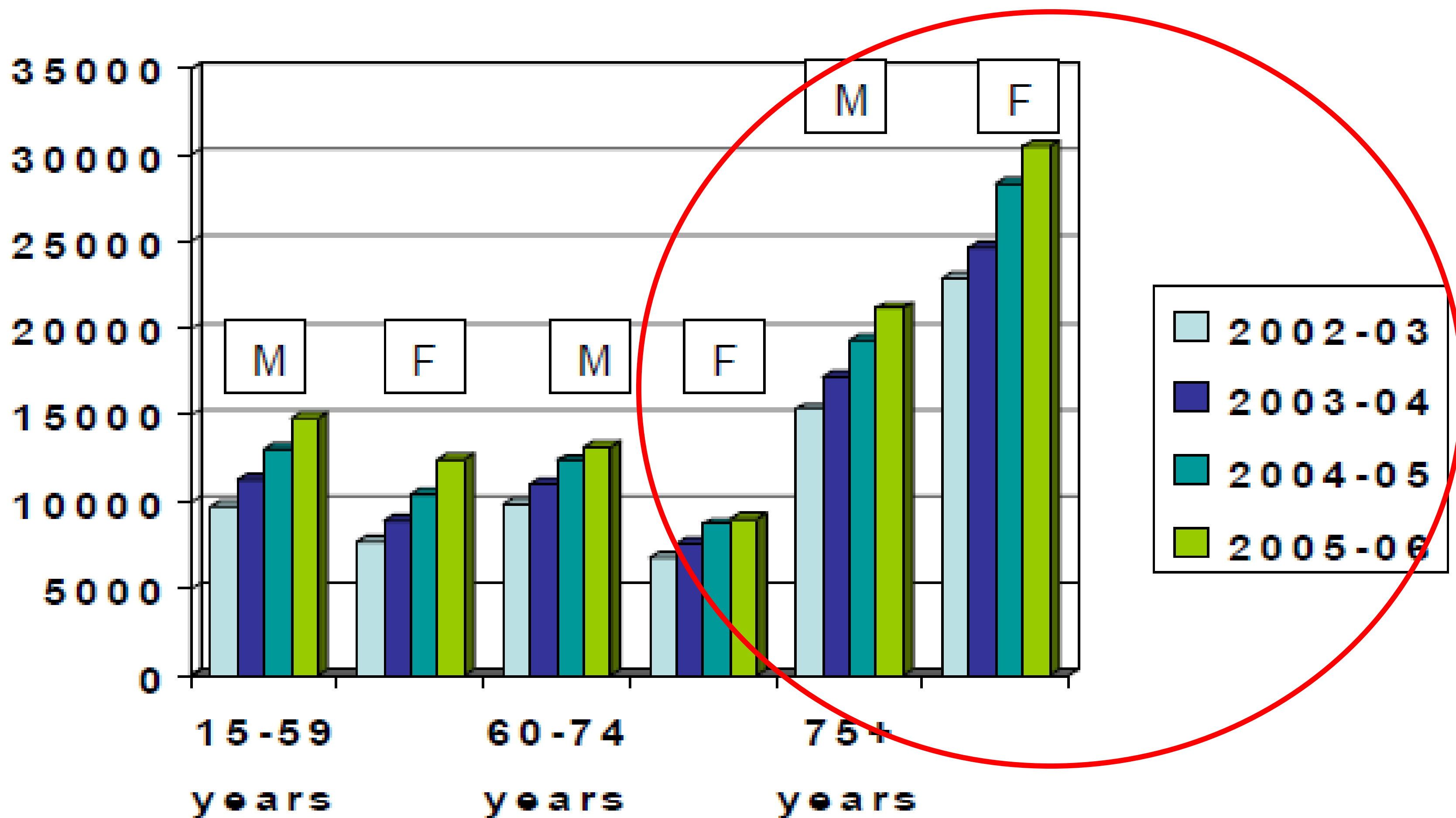
Year	Finished Consultant Episodes					
	15-59 years		60-74 years		75 + years	
	Male	Female	Male	Female	Male	Female
2005/06	14839 (↑ 34.1%)	12413 (↑ 37.8%)	13207 (↑ 25.3%)	9049 (↑ 25.0%)	21175 (↑ 27.4%)	30483 (↑ 24.7%)
2004/05	13032	10461	12397	8716	19321	28376
2003/04	11239	8881	11003	7564	17187	24712
2002/03	9765	7711	9860	6787	15369	22944

*relative to year 2002/03

A further analysis of the data between the years 2002 and 2006 shows that the increase in patient numbers has been across all age groups and in both sexes, with the maximum increase being in women in the 15-59 years age group (37.8%).

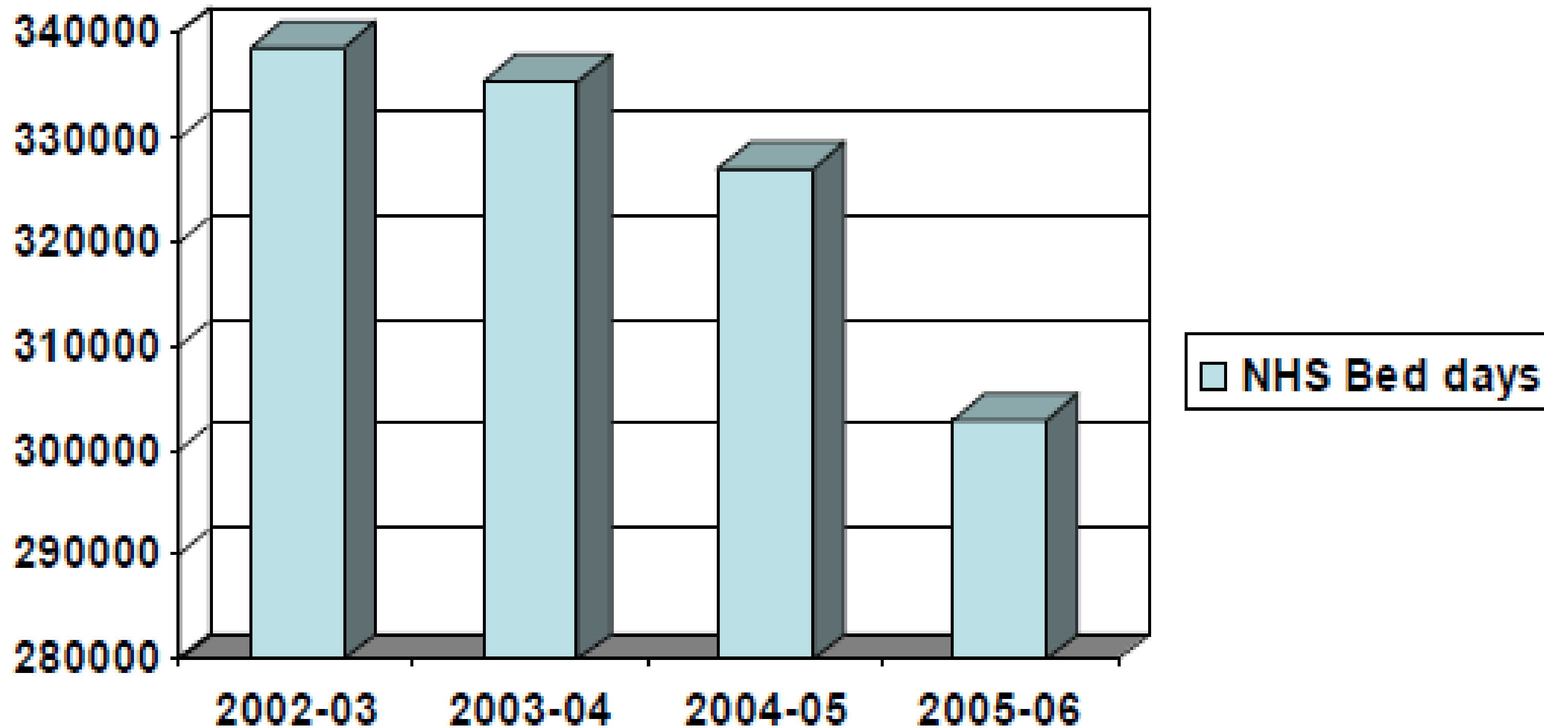
? More aggressive treatment hypertension

Syncope and collapse R55 ICD 10 Data England



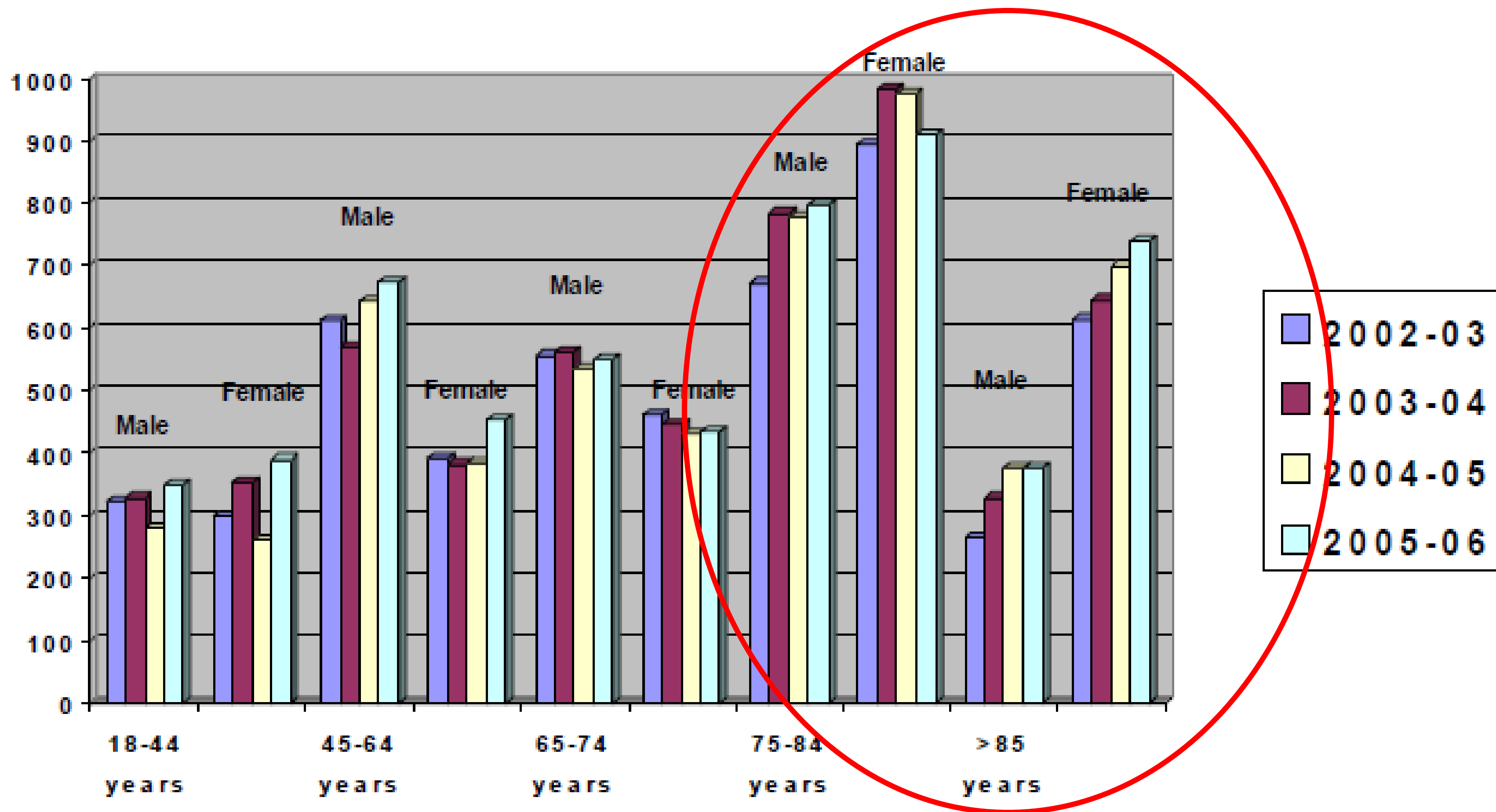
Abbreviations: M=Male, F=Female

Syncope Collapse decrease Bed Days



The number of bed days used for this condition has decreased over the period 2002-2006 as a result of the decrease in the mean length of stay and the median episode duration.

Syncope and Collapse R55 data Wales - age groups



Unlike the data available for England, more detailed age-specific data were available for Wales. These data show that the number of patients presenting with R55 Syncope and Collapse (ICD 10) has increased across all age groups between years 1995 and 2006, with the largest increase being among females over 85 years of age.

No Epilepsy half R55 Syncope Collapse, Trend similar- more emergencies, shorter LOS, patients younger

Year	Finished Consultant Episodes	Admissions	Emergency	Mean length of stay (days)	Median Episode Duration (days)	Mean Age (years)
2005/06	50112 (↑15.2%*)	39871 (↑13.3%*)	34226 (↑15.8%*)	5.0 (↓12.3%*)	1	42
2004/05	45811	36984	31722	5.5	1	41
2003/04	43453	35327	29989	5.5	2	41
2002/03	42473	34580	28818	5.7	2	40

EPILEPSY

Finished Consultant Episodes

Year	Finished Consultant Episodes					
	15-59 years		60-74 years		75 + years	
	Male	Female	Male	Female	Male	Female
2005/06	15090 (↑15.3%*)	11689 (↑18.5%*)	3829 (↑15.6%*)	3006 (↑20.1%*)	2984 (↑16.2%*)	3836 (↑13.5%*)
2004/05	13682	10809	3478	2790	2617	3541
2003/04	12785	10076	3251	2510	2419	3462
2002/03	12088	9531	3230	2403	2502	3320

*relative to 2002/03

Similar to R55 Syncope and Collapse, there has been an increase in patients presenting with epilepsy across all age groups and for both sexes. However, the magnitude of this increase is less so for patients presenting with epilepsy.

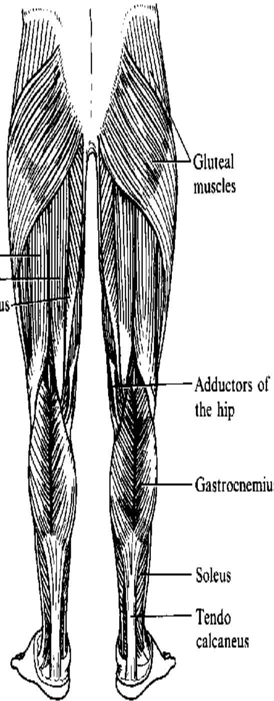
Syncope Management Units

In 2009:
3456 attendences,
1256 new
3 nurses, 2 drs

Extant Practice:	am	pm
Mon	Syncope Clinic	Syncope Clinic
Tues	Syncope Clinic	Syncope Clinic
Wed	Syncope Clinic	Autonomic Fct tests
Thur	Dizziness	Cognitive Fct assessment clinic
Fri	Frail Syncope/Falls	Frail Syncope/Falls

Separate Falls assessment Clinics with cx referral

Environment



Vision

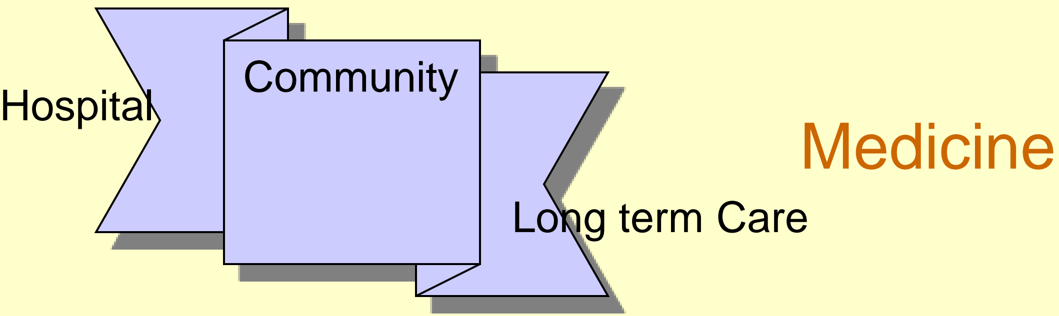
Vestibular

Cardiovascular

Proprioception

Medications

Attention, executive, mood



Medicine

- Geriatric
- General
- Emergency
- Cardiology
- Neurology
- ENT
- Psychiatry
- Renal
- Occupational Therapy
- Physiotherapy
- Nursing
- Psychology
- Bioengineer
- Ethnography
- Policy Makers….

Multidisciplinary

- ***Common,***
- ***Syncope Awareness,***
- ***Falls understanding mechanisms,***
- ***Technology***