Royal Brompton & Harefield NHS
NHS Foundation Trust

Imperial College London

Can we afford heart failure management in the future?

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Declaration of Interests

- Received research funding and consultancy/speaking fees from ResMed, Servier, St Jude Medical, Medtronic, Boston Scientific, Novartis, Pfizer, Alere, Roche Diagnostics, Bayer

Heart failure, a worldwide burden

26 million

Number of heart failure patients worldwide.[1]

1-2%

Health care expenditure attributed to heart failure in Europe and North America.[2]

74%

Heart failure patients suffering from at least 1 comorbidity: more likely to worsen the patient's overall health status.[3]

1. Ambrosy PA et al. The Global Health and Economic Burden of Hospitalizations for Heart Failure. Lessons Learned From Hospitalized Heart Failure Registries. *J Am Coll Cardiol*. 2014;63:1123–1133. **2.** Cowie MR et al. Improving care for patients with acute heart failure. 2014. Oxford PharmaGenesis. ISBN 978-1-903539-12-5. Available online at: http://www.oxfordhealthpolicyforum.org/reports/acute-heart-failure/improving-care-for-patients-with-acute-heart-failure **3.** van Deursen VM et al. Co-morbidities in patients with heart failure: an analysis of the European Heart Failure Pilot Survey. *Eur J Heart Fail*. 2014;16:103-111.

Main challenges:
heart failure hospitalization

>1 million

Annual hospitalizations in both the United States and Europe[1]

1-4%

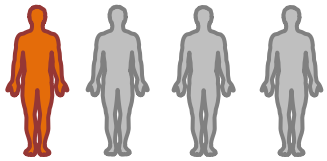
Heart failure hospitalizations as a percentage of total hospital admissions[2]

Up to 9/10 patients

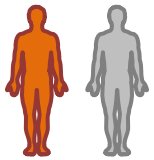
Hospitalized due to worsening chronic heart failure as compared with de novo heart failure[3]

5-10 days

Average length of hospital stay[3]



Almost 1 out of 4 hospitalized patients (24%) are rehospitalized for heart failure within the **30-day post discharge period**[4]



Nearly 1 out of 2 patients (46%) are rehospitalized for heart failure within the **60-day post discharge period**[4]

1. Ambrosy PA et al. The Global Health and Economic Burden of Hospitalizations for Heart Failure. Lessons Learned From Hospitalized Heart Failure Registries. *J Am Coll Cardiol*. 2014;63:1123–1133 **2.** Cowie MR et al. Improving care for patients with acute heart failure. 2014. Oxford PharmaGenesis. ISBN 978-1-903539-12-5. Available online at: http://www.oxfordhealthpolicyforum.org/reports/acute-heart-failure/improving-care-for-patients-with-acute-heart-failure **. 3.** Butler J, Braunwald E, Gheorghiade M. Recognizing worsening chronic heart failure as an entity and an end point in clinical trials. *JAMA*. 2014;312(8):789-90**. 4**. O'Connor CM et al. Causes of death and rehospitalization in patients hospitalized with worsening heart failure and reduce left ventricular ejection fraction: results from efficacy of vasopressin antagonism in heart failure outcome study with tolvaptan (EVEREST) program. *Am*

Heart failure accounts for 1–3% of all US and European hospital admissions

GLOBAL HEART FAILURE AWARENESS PROGRAMME

USA (2007)
2.9%
LOS 5.3d

Norway
(2008)
1.1%

Sweden
(2011)
2.2%
LOS 6.4d

Netherlands
(2010)
1.5%

Poland (2010)
1.9%
LOS 8d

Germany
(2007)
2.0%

Austria
(2010)
1.0%
LOS 7.3d

Switzerland
(2011)
1.1%

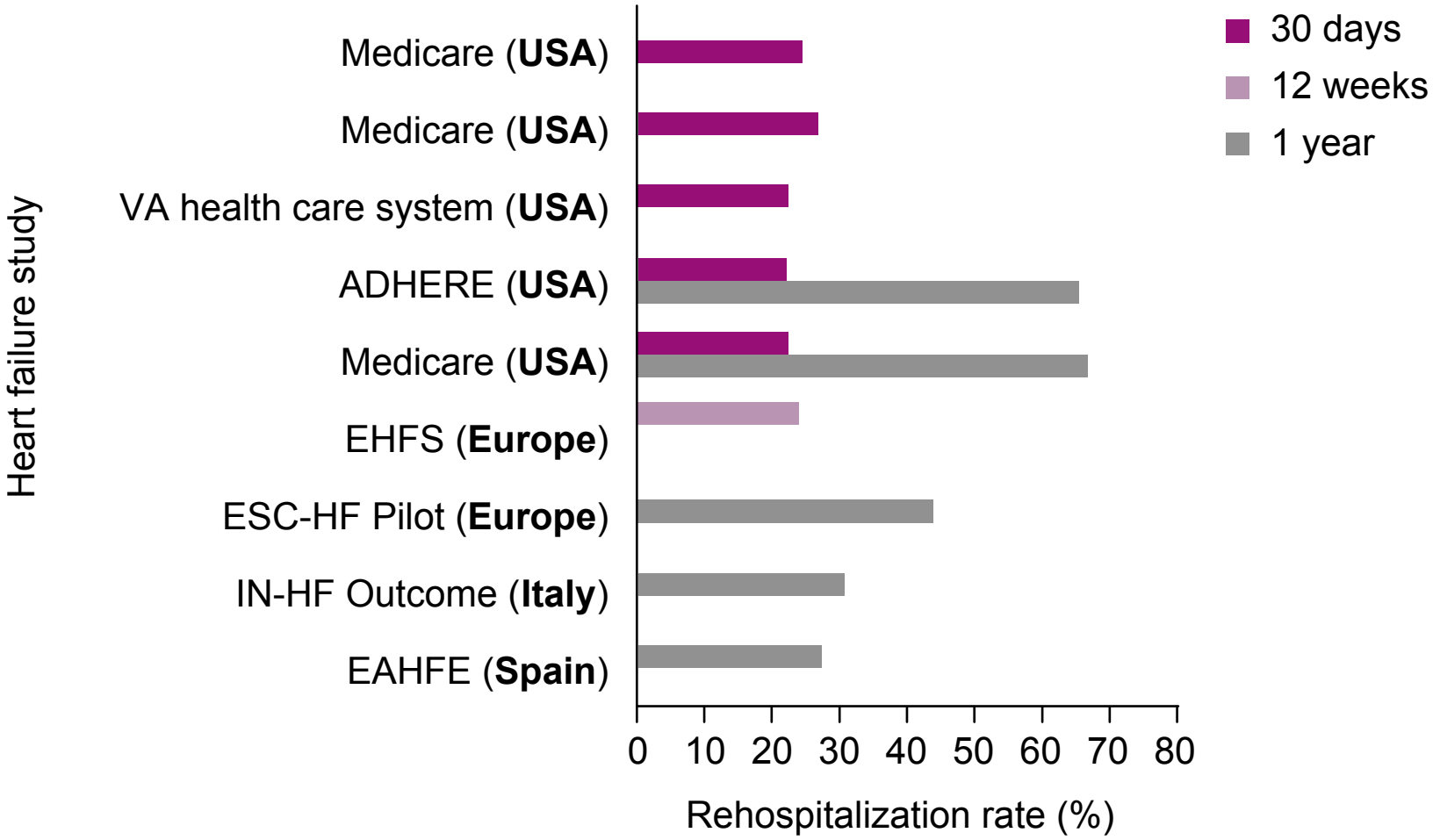
Spain
(2011)
1.8%
LOS 7.5d

France
(2008)
1.1%
LOS 9.9d

England
(2011–12)
0.4%
LOS 7d

High hospital readmission rates of patients with acute heart failure

GLOBAL **HEART FAILURE** AWARENESS PROGRAMME

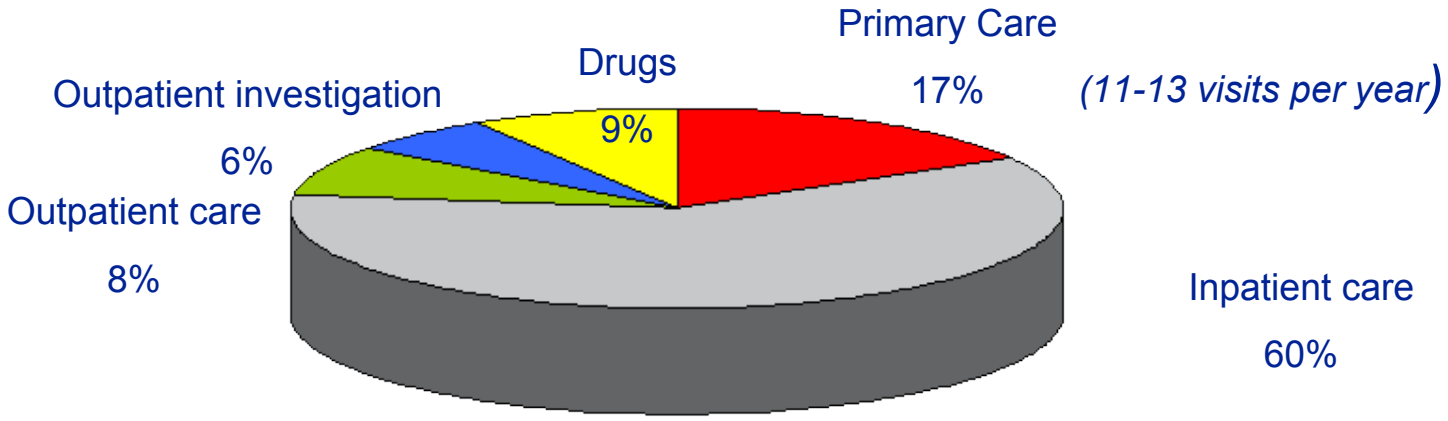


Heart failure: a substantial economic cost to society

GLOBAL HEART FAILURE AWARENESS PROGRAMME

- Heart failure accounts for 1−2% of total healthcare expenditure in Europe and North America
  - Care in hospital makes up most of the cost
  - $39.2 billion in 2010 in the USA
- Typical length of hospital stay is 5–10 days
- Total healthcare costs are estimated to rise by 50–100% in the coming decade

The cost of heart failure is driven by hospitalisation



Total cost > GBP 980 million (1% of annual NHS budget)

British Heart Foundation, 2002 (updated to 2014)

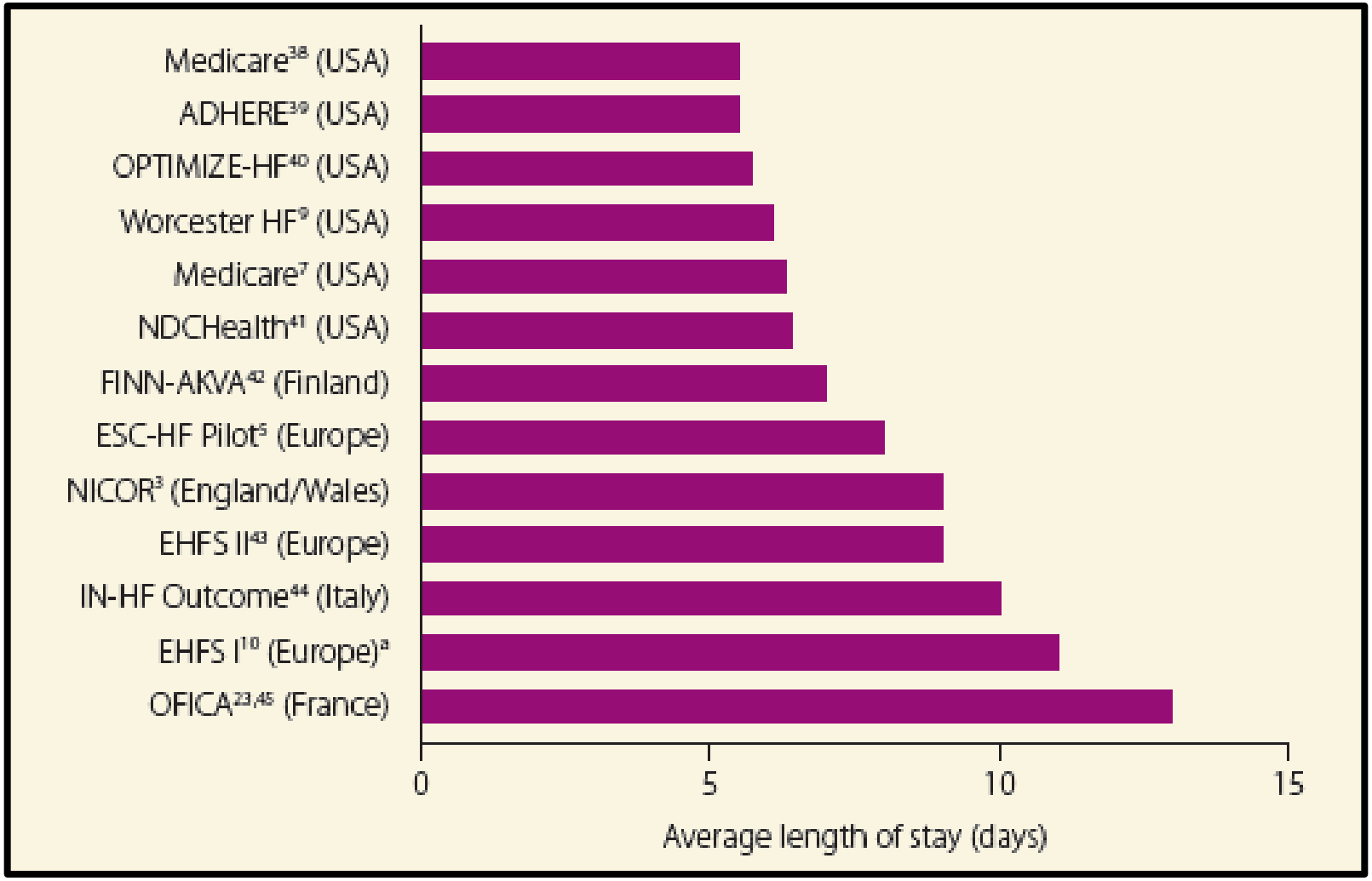
Trends in HF hospitalisation

GLOBAL HEART FAILURE AWARENESS PROGRAMME

Country	Percentage change in number of hospitalizations	Time period	Reference
England	–13.1	2001–02 to 2011–12	HSCIC[22]
France[a]	14.4	2002 to 2008	Pérel *et al.*[23]
Germany	39.8	2000 to 2007	Neumann *et al.*[24]
Netherlands	21.0	2000 to 2010	Statistics Netherlands[25]
Norway	2.4	1999 to 2008	Statistics Norway[26]
Spain	22.3	2000 to 2011	Sistema Nacional de Salud[27]
Sweden	11.4	2001 to 2011	Socialstyrelsen[28]
USA (Medicare)	–19.3	1999–2000 to 2007–08	Chen *et al.*[33]

Data based on total number of hospital admissions (emergency and planned) for a primary diagnosis of heart failure (except for France[a]).
[a]Primary diagnosis, or secondary diagnosis with a primary diagnosis of either hypertensive heart disease or heart and renal disease with heart failure, or pulmonary oedema, or chronic passive congestion of liver.
HSCIC, Health and Social Care Information Centre.

Length of stay for AHF



High hospital readmission rates

GLOBAL HEART FAILURE AWARENESS PROGRAMME

Study	Country/region	Rehospitalization rate (%)	
Medicare[49]	USA	30-day	24.8
Medicare[51]	USA	30-day	26.9
VA health care system[52]	USA	30-day	22.5
ADHERE[8]	USA	30-day 1-year	22.1 65.8
Medicare[50]	USA	30-day 1-year	22.7 67.0
Medicare[38]	USA	6–9-month	60
EHFS I[10]	Europe	12-week	24.2
ESC-HF Pilot[4]	Europe	1-year[a]	43.9
EAHFE[48]	Spain	1-year	27.2
CCU[47]	Italy	6-month	38.1
IN-HF Outcome[46]	Italy	1-year	30.7

Co-morbidity is universal

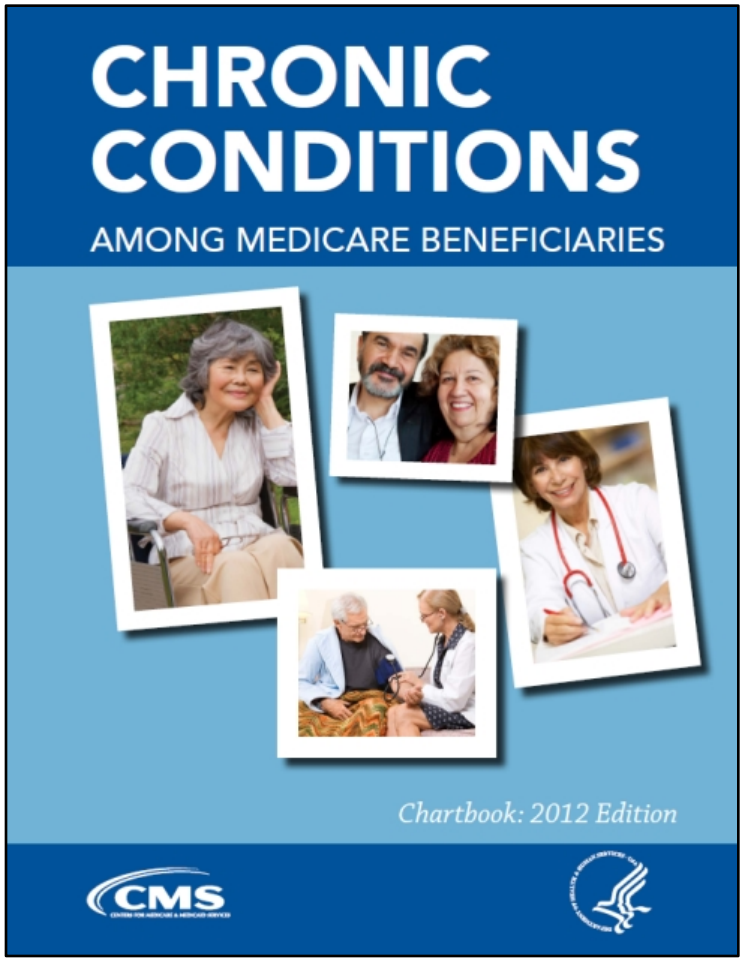
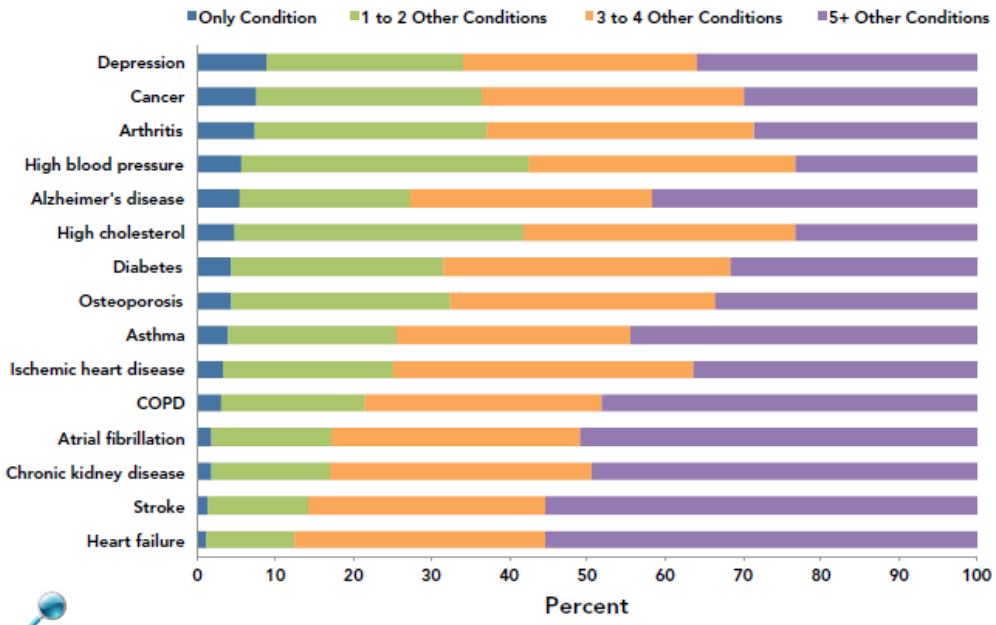


Figure 4.1 *Co-morbidity among Chronic Conditions for Medicare FFS Beneficiaries: 2010*



DATA HIGHLIGHTS:

Six percent of beneficiaries with high blood pressure had no other condition present, while 23% had 5 or more additional conditions.

Stroke and heart failure were highly co-morbid conditions with about 55% of beneficiaries with these conditions having 5 or more additional chronic health conditions.

http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/Downloads/2012Chartbook.pdf

Figure 3.2 *Distribution of Medicare FFS Beneficiaries by Number of Chronic Conditions and Total Medicare Spending: 2010*

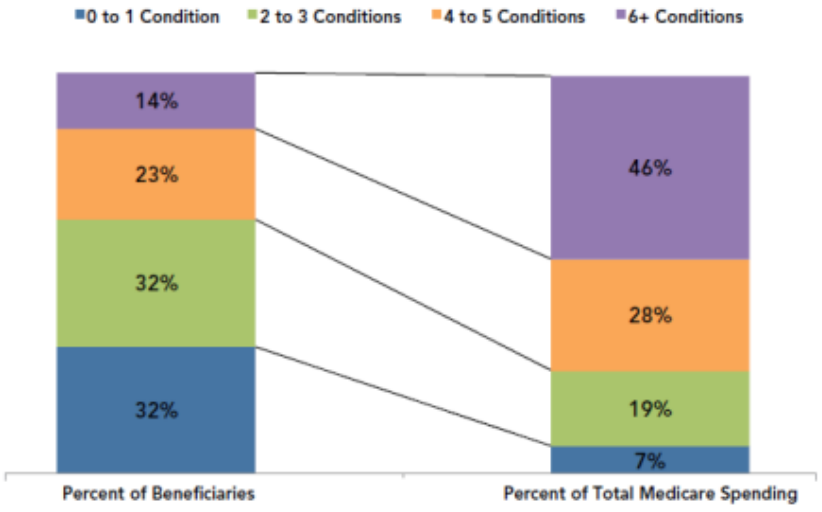
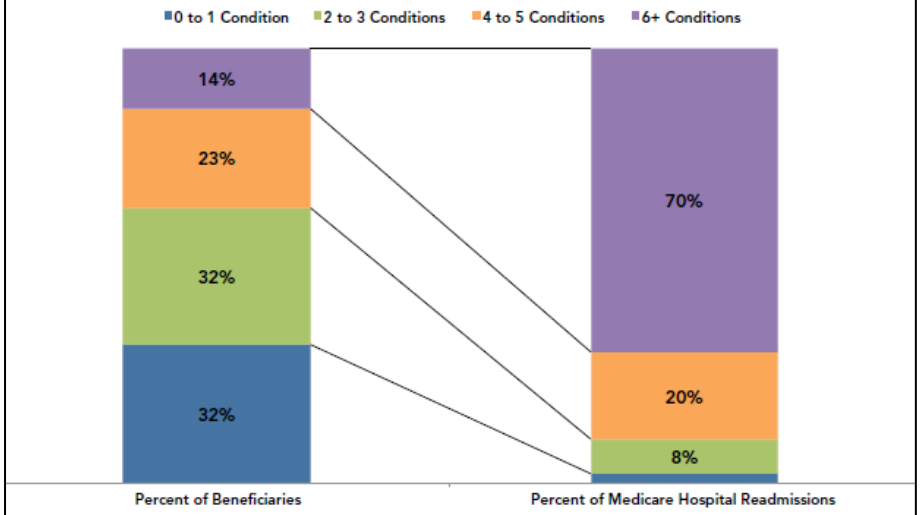


Figure 2.7 *Distribution of Medicare FFS Beneficiaries by Number of Chronic Conditions and Total Medicare Hospital Readmissions: 2010*

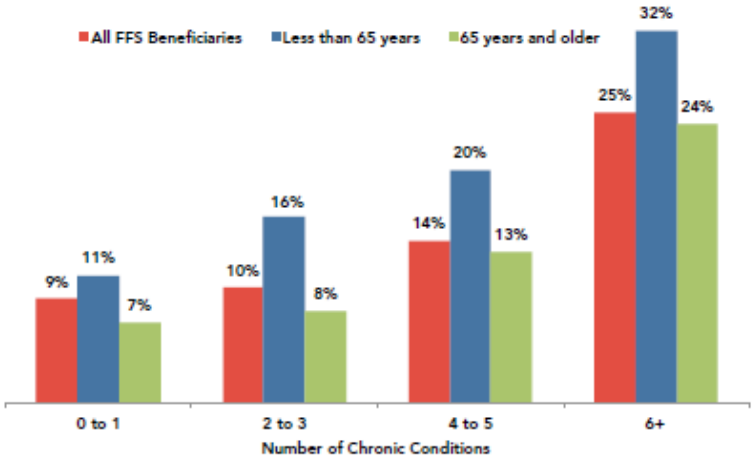


DATA HIGHLIGHTS:

There were 1.9 million Medicare hospital readmissions in 2010. Medicare beneficiaries with two or more chronic conditions accounted for almost all (98%) of these readmissions.

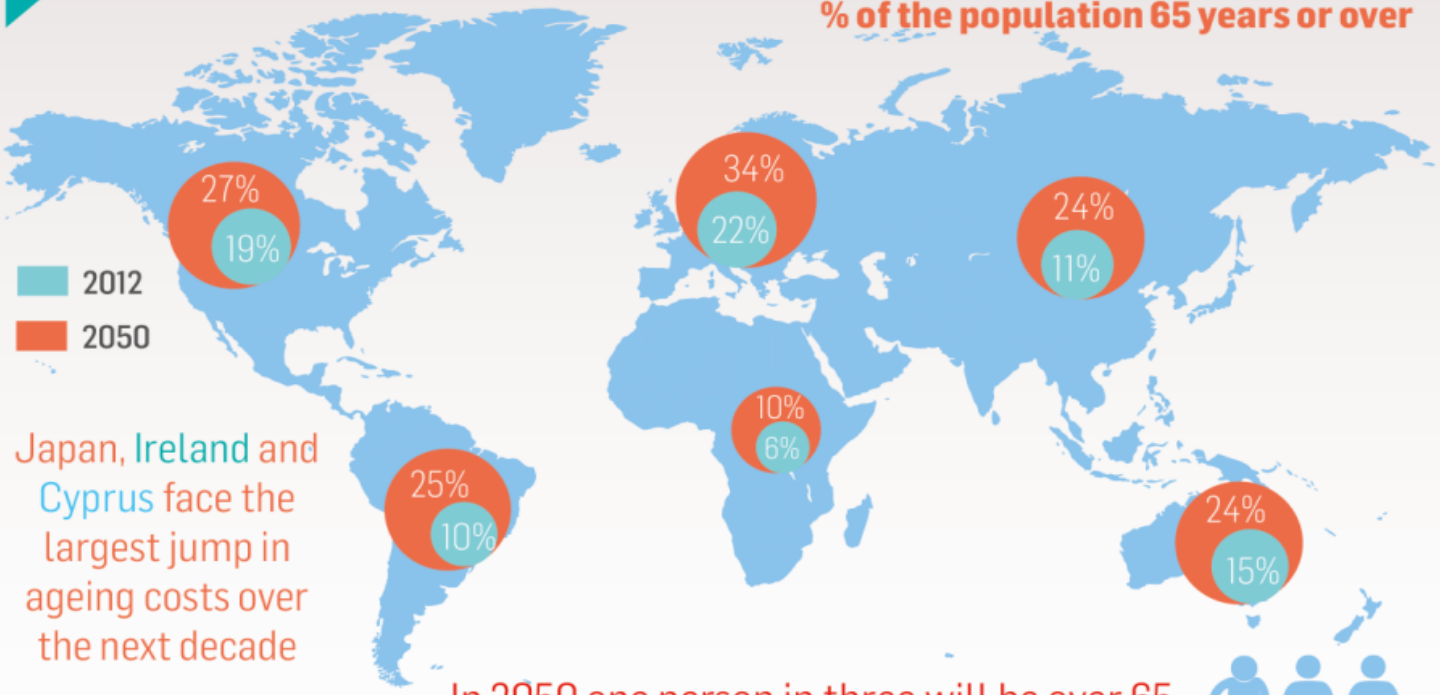
Beneficiaries with 6 or more chronic conditions accounted for a disproportionate share of these readmissions, with the 14% of these beneficiaries accounting for 70% of all Medicare readmissions.

Figure 2.6a *Percentage of Hospital Admissions with a Readmission within 30 days by Number of Chronic Conditions and Age: 2010*

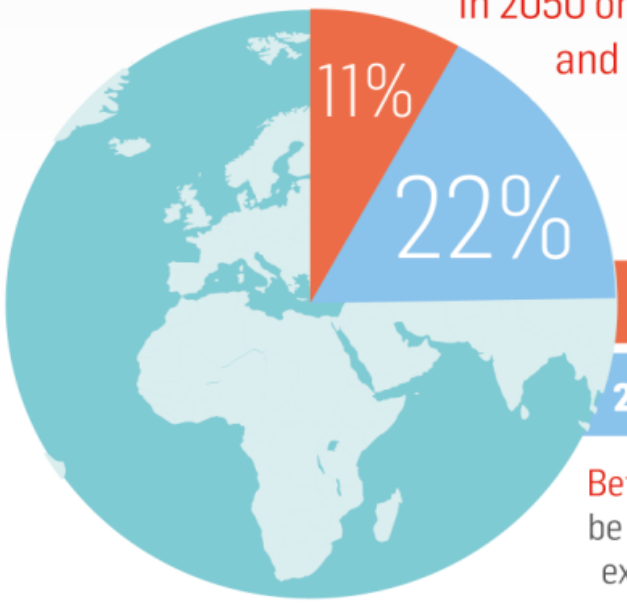


http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/Downloads/2012Chartbook.pdf

THE WORLD'S AGEING POPULATION



Japan, Ireland and Cyprus face the largest jump in ageing costs over the next decade



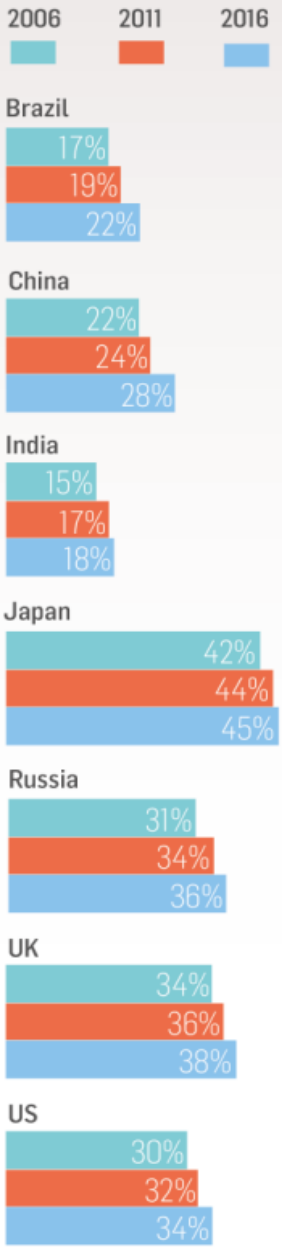
In 2050 one person in three will be over 65 and one person in ten will be over 80

2012 - 11% of the world's 6.9bn people are over 60

2050 - 22% of the world's 9bn people will be over 60

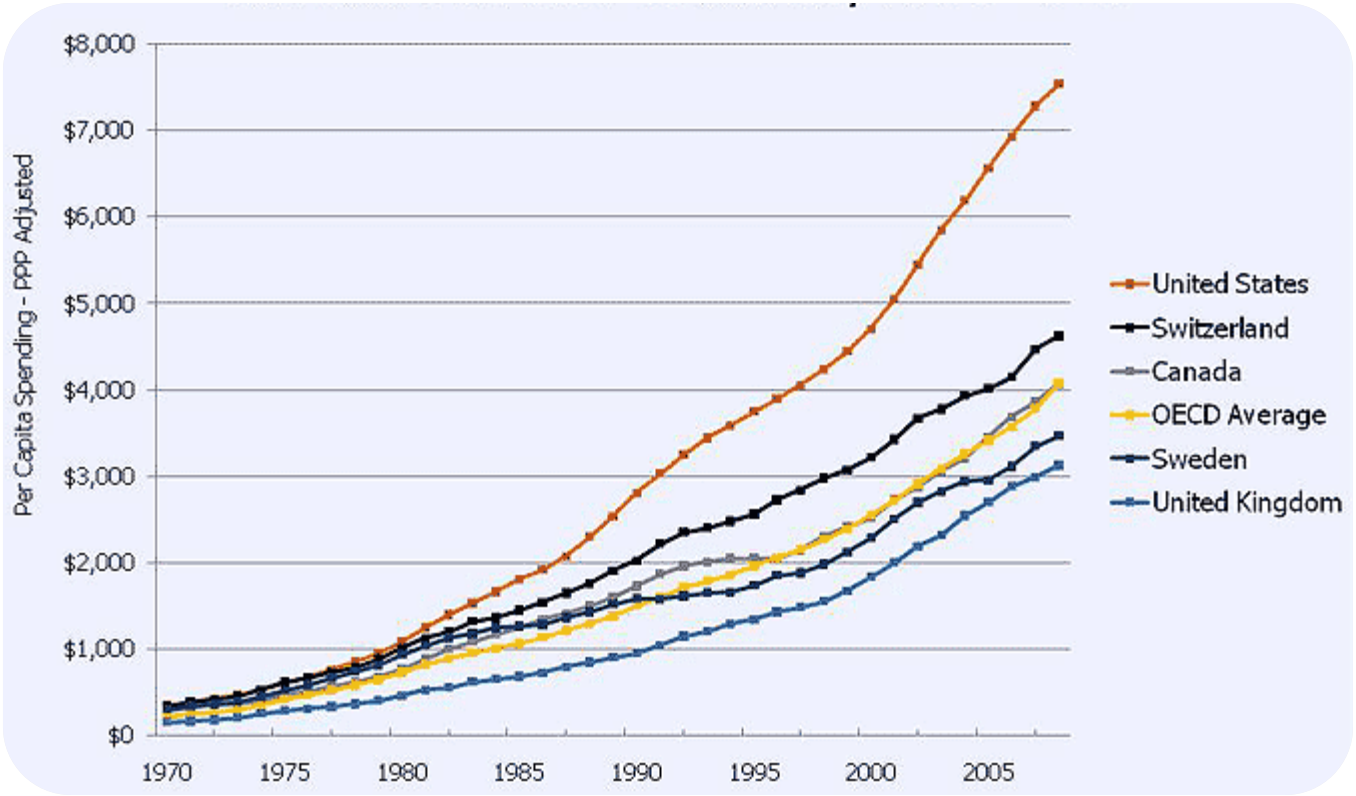
Between now and 2050 the fiscal burden of the crisis will be 10% of the ageing-related costs. The other 90% will be extra spending on pensions, health and long-term care

% of over 50's in overall population



The runaway train.....

GLOBAL HEART FAILURE AWARENESS PROGRAMME

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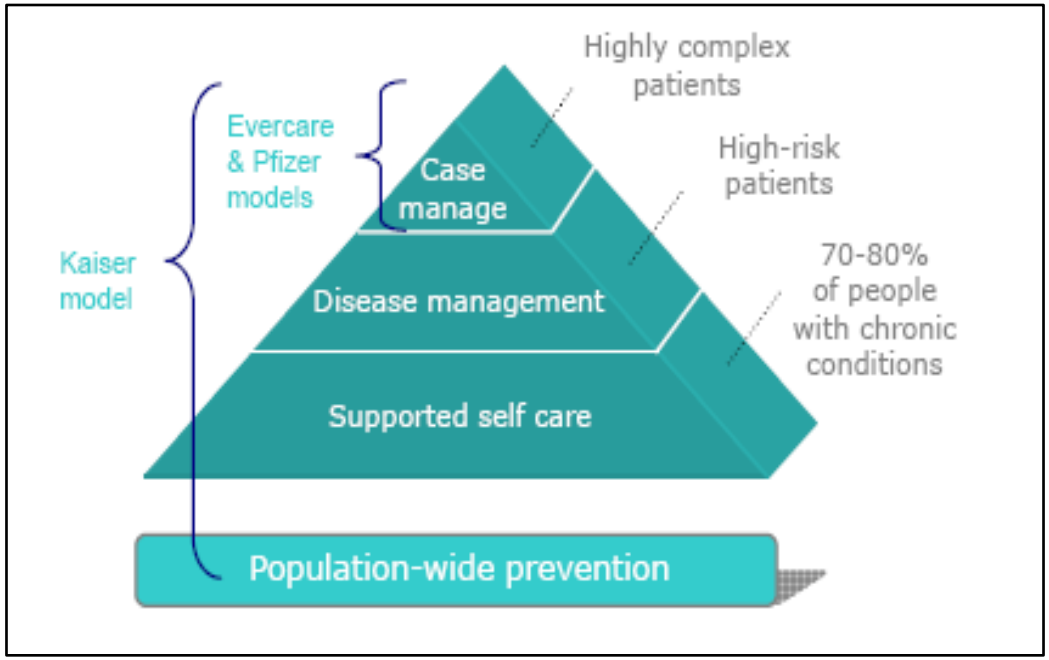
Dr. Obama
Exclusive interview
Where's his prescription?
By Karen Tumulty
Why Congress can't get it right
By Joe Klein
PLUS A one-stop graphic guide
to how a new plan would affect you


OUR NATIONAL DEBT:
15 189 991 127 095
YOUR
128 022
THE NATIONAL DEBT CLOCK


Grim
Reaper
for
Obamacare
Thank You
for
Subsidizing
My Poor
Life Choices
"This is a Big
F**Kin
Deal"

Co-ordinate my care…

GLOBAL HEART FAILURE AWARENESS PROGRAMME



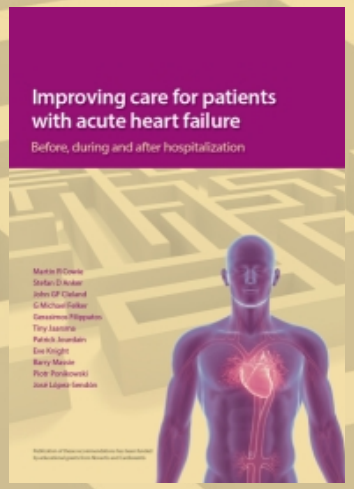
Move towards the Chronic Care Model, with multidisciplinary integrated care, and patients stratified by need, with most complex patients being ‘case managed’

We will have to do things differently...

GLOBAL HEART FAILURE AWARENESS PROGRAMME

Eight policy recommendations

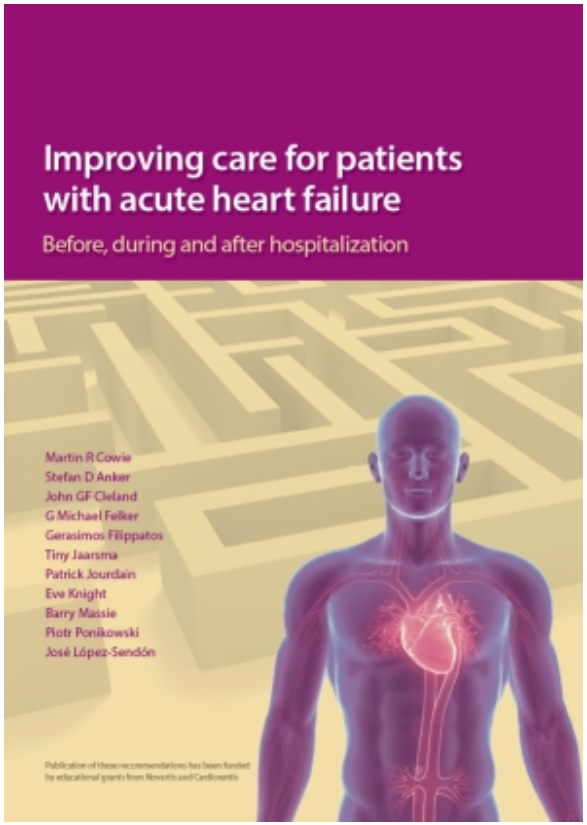
Improving care and preventing deaths of patients with acute heart failure



Policy-makers urged to act on eight recommendations

GLOBAL HEART FAILURE AWARENESS PROGRAMME

- Promote acute heart failure prevention
- Optimize care transitions
- Improve end-of-life care
- Provide equity of care for all patients
- Appoint experts to lead heart failure across disciplines
- Develop and implement better measures of care quality
- Improve patient education and support
- Stimulate research into new therapies



www.oxfordhealthpolicyforum.org/AHFreport

www.escardio.org/communities/HFA/Pages/global-heart-failure-awareness-programme.aspx

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Can [illegible] lure management in the future?

Yes, but.....

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