

COMP2332: Enterprise Healthcare Business Process Modelling

Business Process Management Introduction

Time: **Tuesday+ Thursday: 12:50-14:05**

Location: **Masri110**

Section: **1**

HiCure

Excellence in Health Informatics Integrated Curricula

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Business Process Management

- Introduction and Core Concepts
- Motivation
- Core Concepts
- Components
- Life cycle

Healthcare: Issues

- Increasing number of deaths from diseases
- Challenges due to demographic changes
- Longevity in Life Expectancy
- Prevalence of Chronic diseases
- Medical Errors

Healthcare: Human Errors

- **Human Errors:**

- 44,000 to 98,000 die in US annually from medical errors

- at 44,000, would rank as 8th leading cause of death

- car accidents: 43,458

- breast cancer: 42,297

- AIDS: 16,516

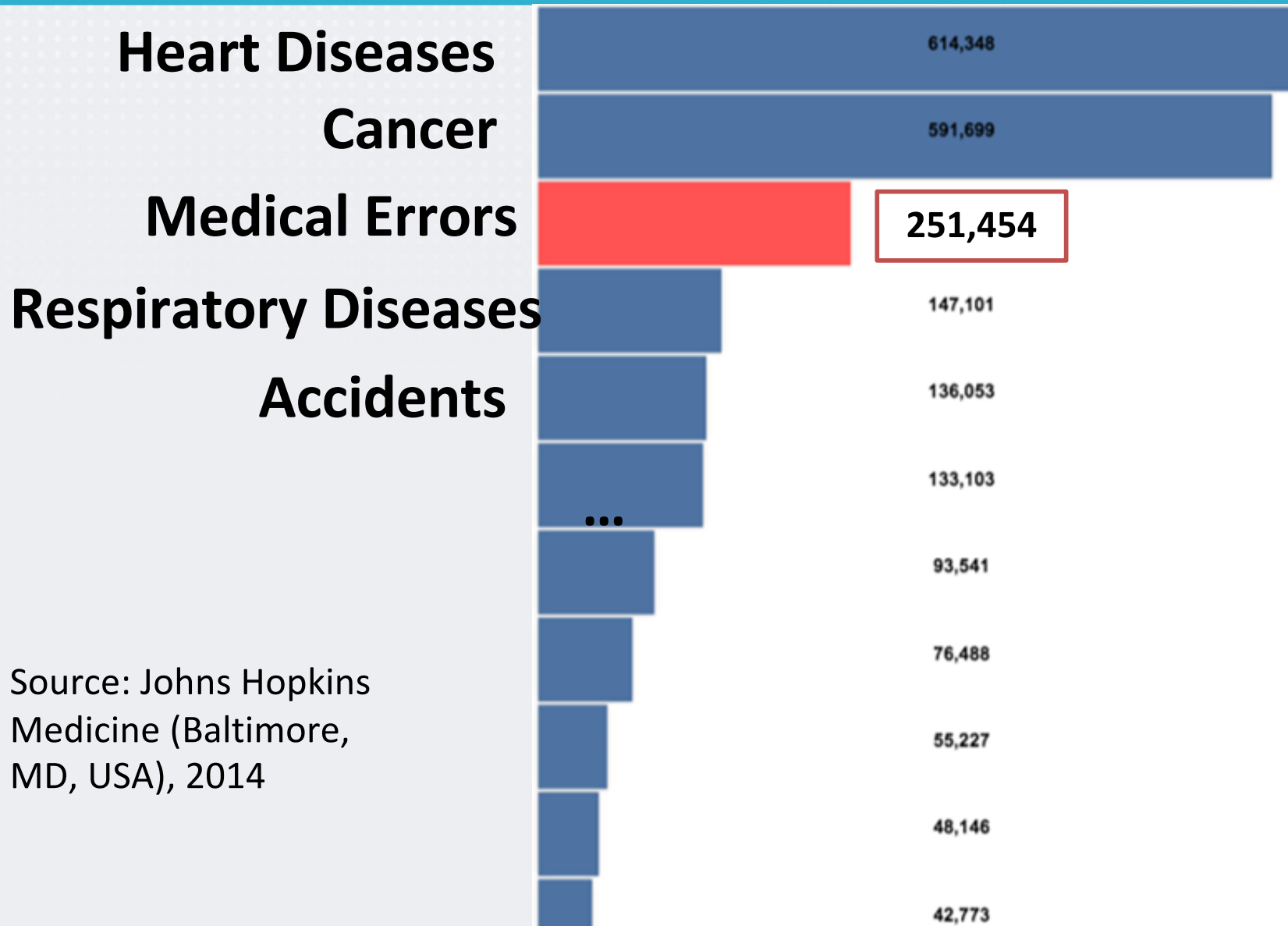
- 7000 deaths from medication errors alone

(IOM Report, 1999)

Medication errors: in the US, 80,000 people died in 2004.
(i.e. 8th cause of death)

(IOM Report, **2004**)

Deaths Due to Disease



Source: Johns Hopkins
Medicine (Baltimore,
MD, USA), 2014

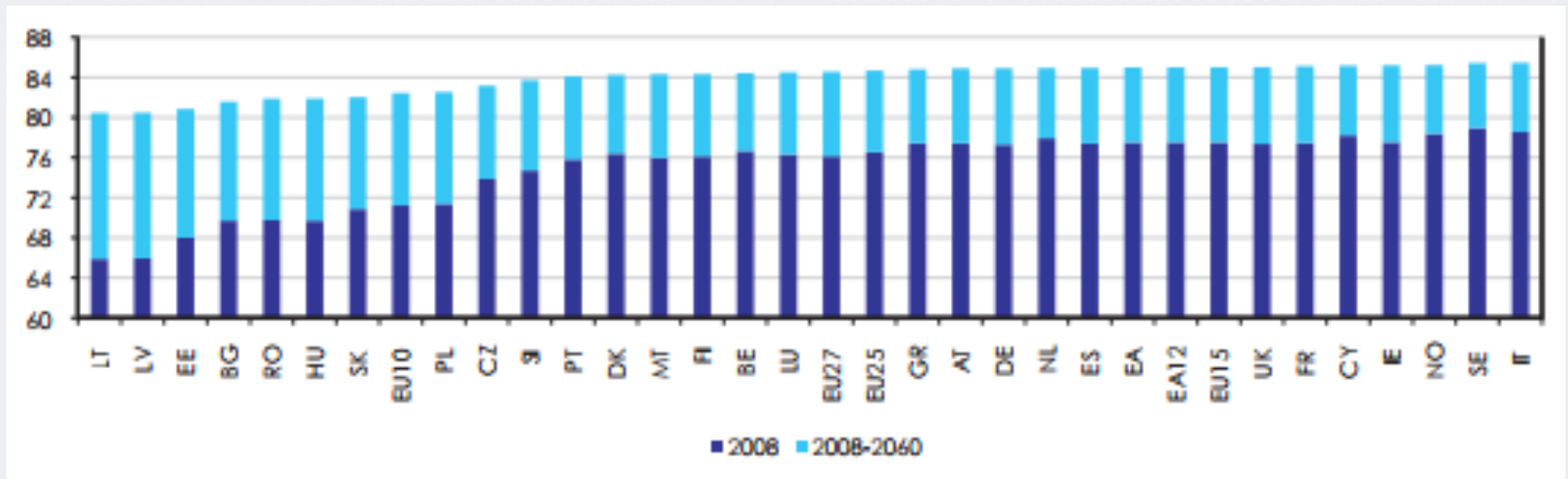
The Demography is Changing

Demographic projection Demographic change is transforming the World and EU:

1. longer lives
 2. low fertility and
 3. inward migration
- are its key aspects.

The extent and speed of population ageing depend on future trends in these three factors.

Life Expectancy in Europe



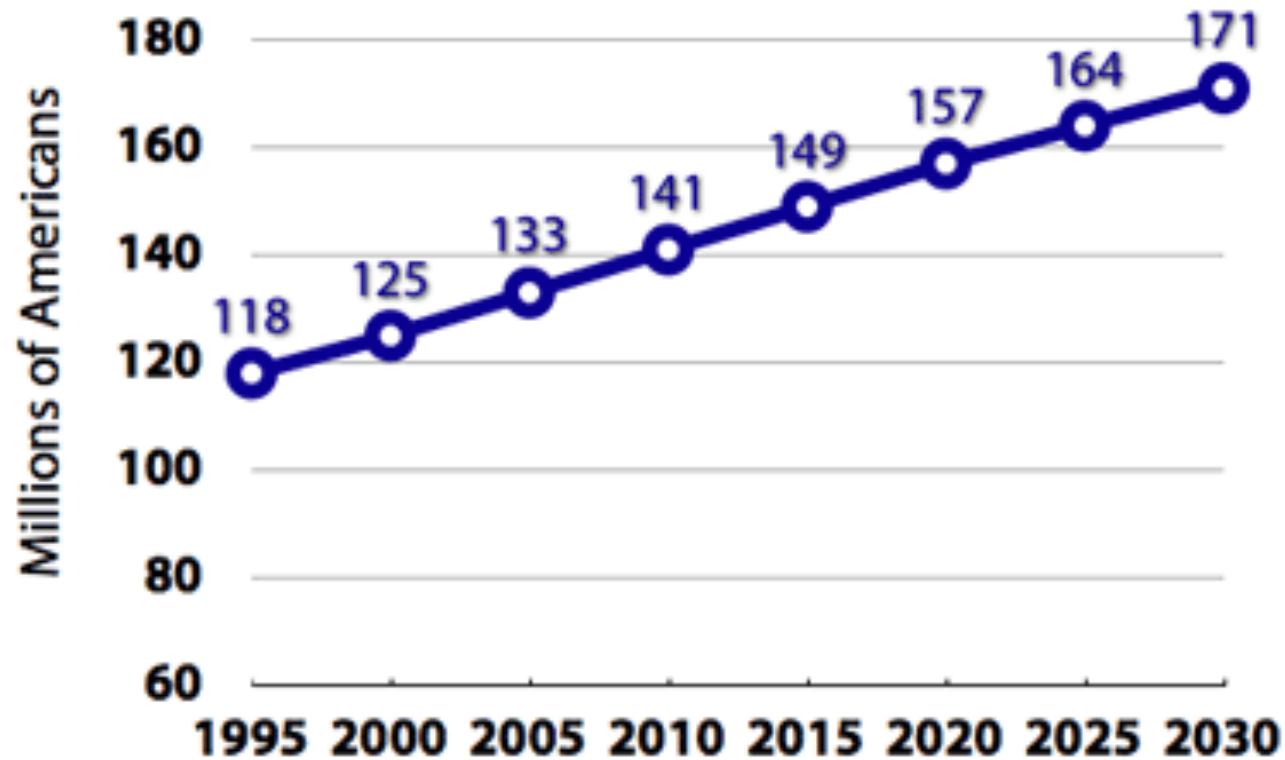
Source: Eurostat

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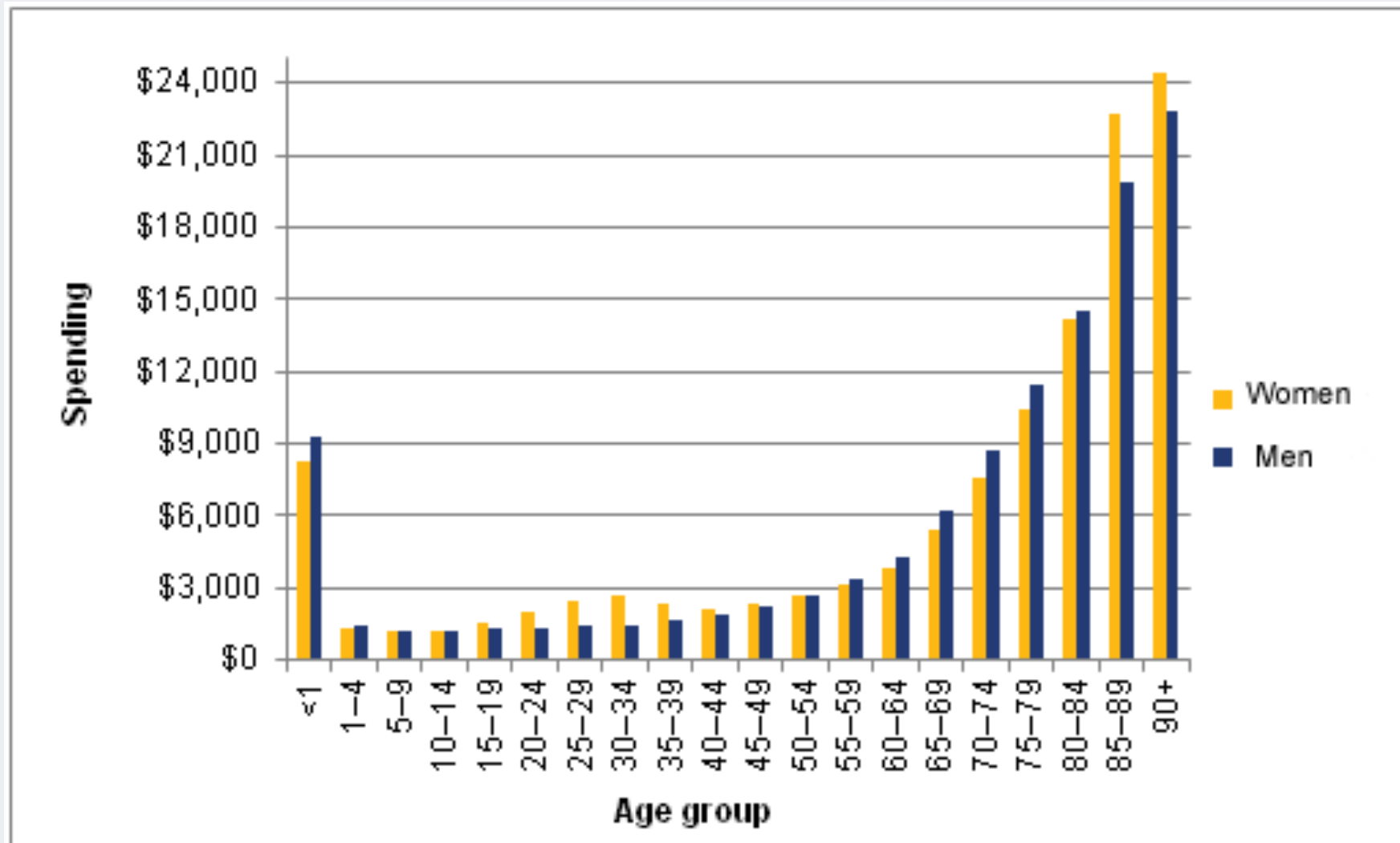
Implications

Prevalence of Chronic Disease in the U.S.



Source: Wu, Shin-Yi *et al.* 2000. Projection of Chronic Illness Prevalence and Cost Inflation. RAND Corporation.

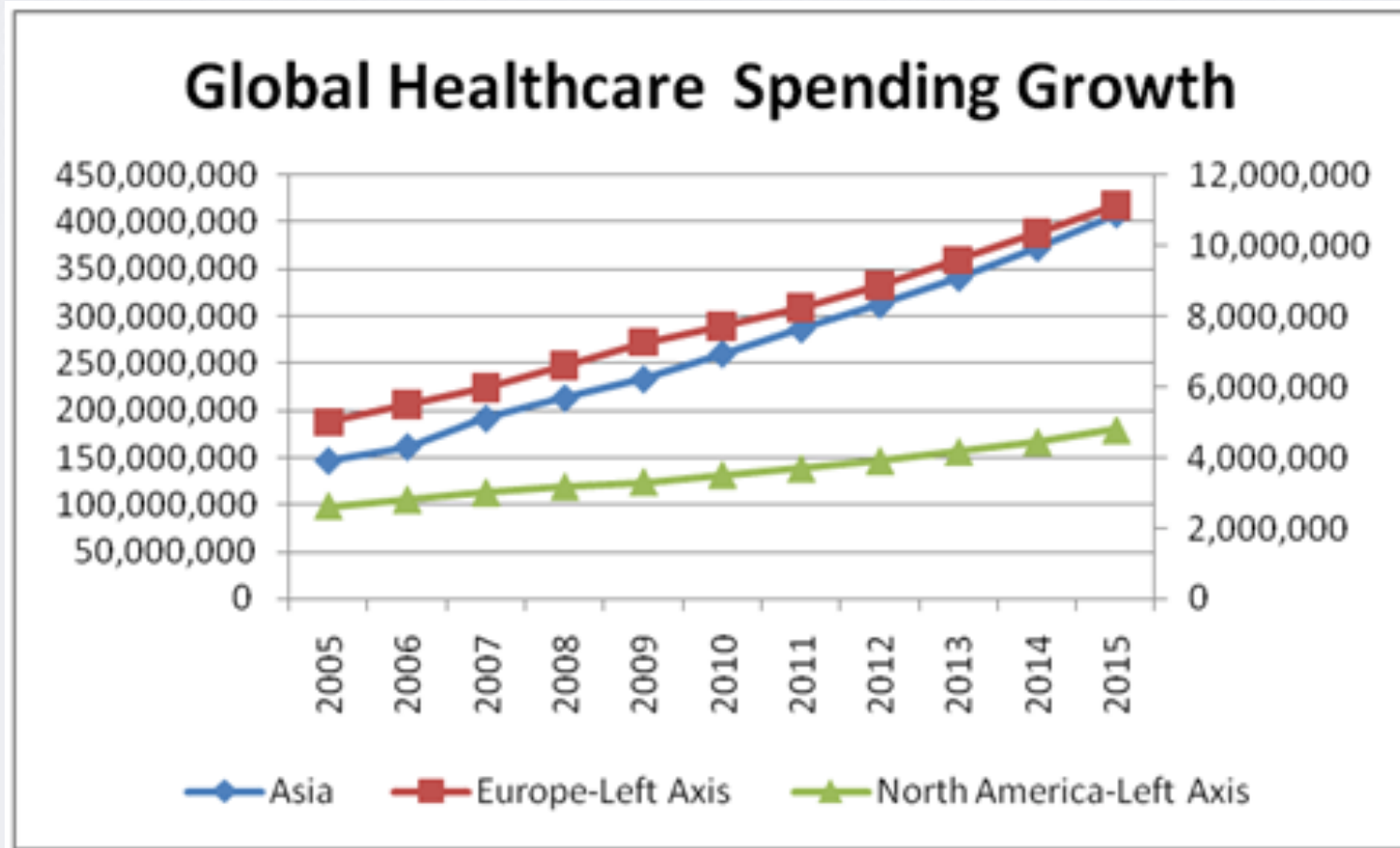
The Healthcare Costs by age group



Source: Consumer Driven Healthcare – How it stands for the Payers? Available in <http://www.nalashaa.com/consumer-driven-healthcare-stands-payers/>

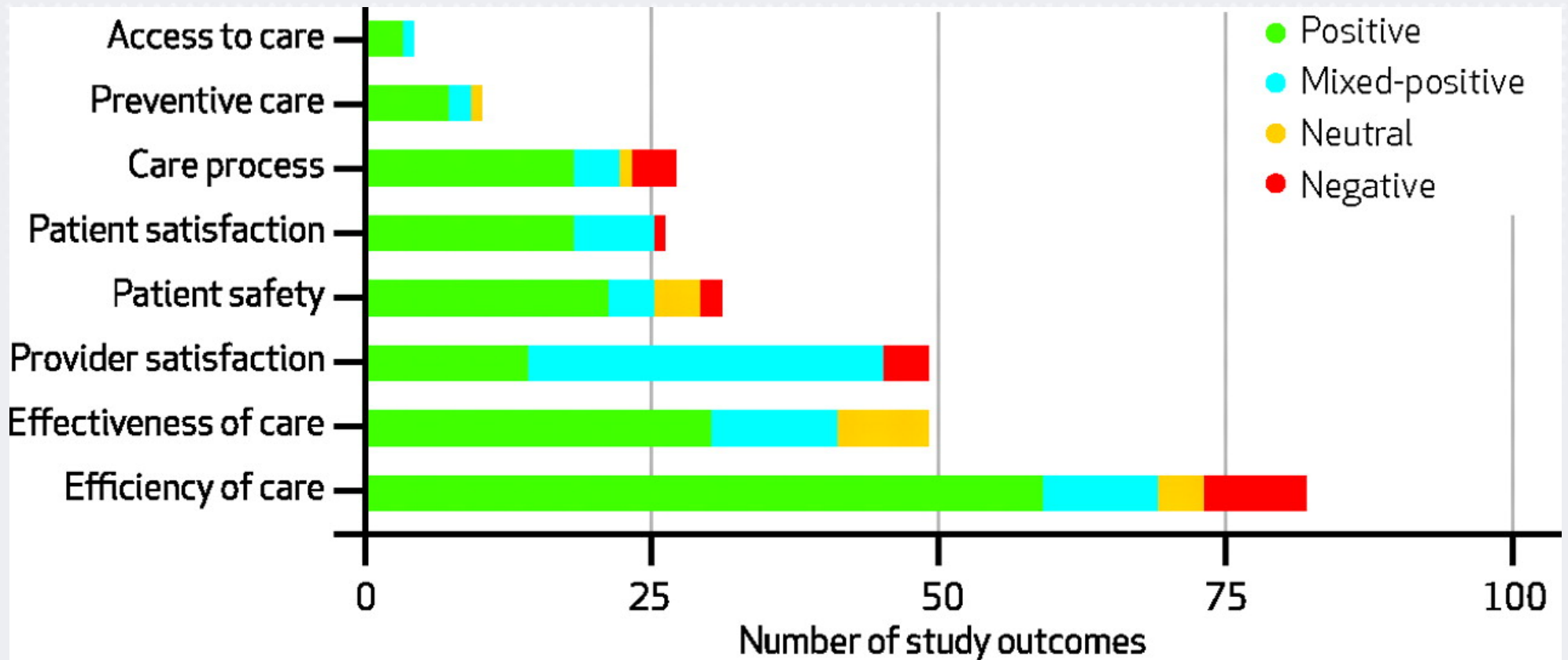
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Global Healthcare Costs



Source: IHS Global Insight Study Shows Slow Growth for European Drug Sales through 2015

Healthcare: Areas for Improvements



Evaluations Of Outcome Measures Of Health Information Technology, By Type And Rating.

Melinda Beeuwkes Buntin et al. Health Aff 2011;30:464-471