

Revising the European Standard Population

Head of Vital Events branch

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Content of presentation

- Why do we use European Age Standardisation Rates (EASRs)?
- Why is the European Standard Population (ESP) changing?
- How will it affect our figures?
- When will this happen?

Why do we use European Age Standardisation Rates?

- Crude rate = $\frac{\text{number of deaths}}{\text{population}}$
- BUT
 - Some countries have a higher percentage of young people
 - Some have more old people
 - It can be misleading to compare their crude mortality rates
 - You'd expect the country with the older population to have higher mortality
- You want to examine whether the difference in mortality is due to something other than the age structure

European Age Standardised Rates (EASRs)

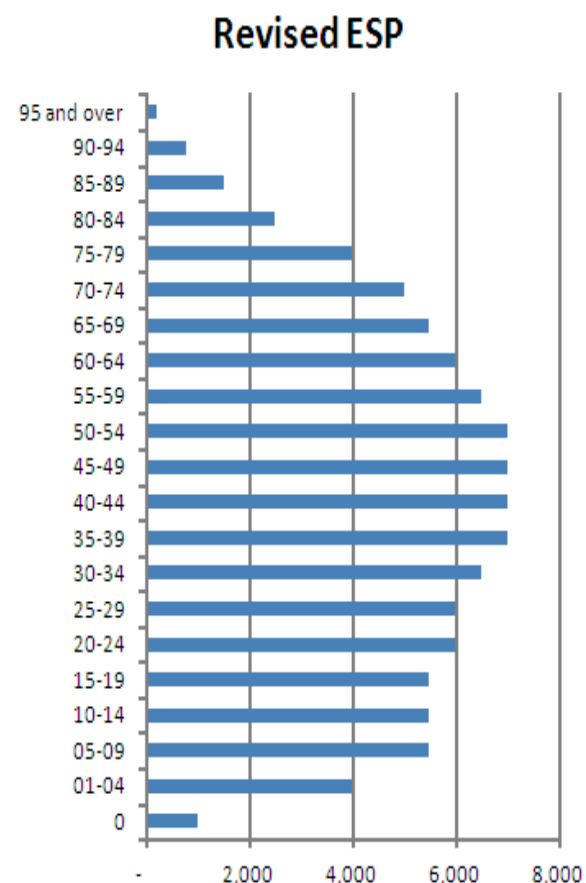
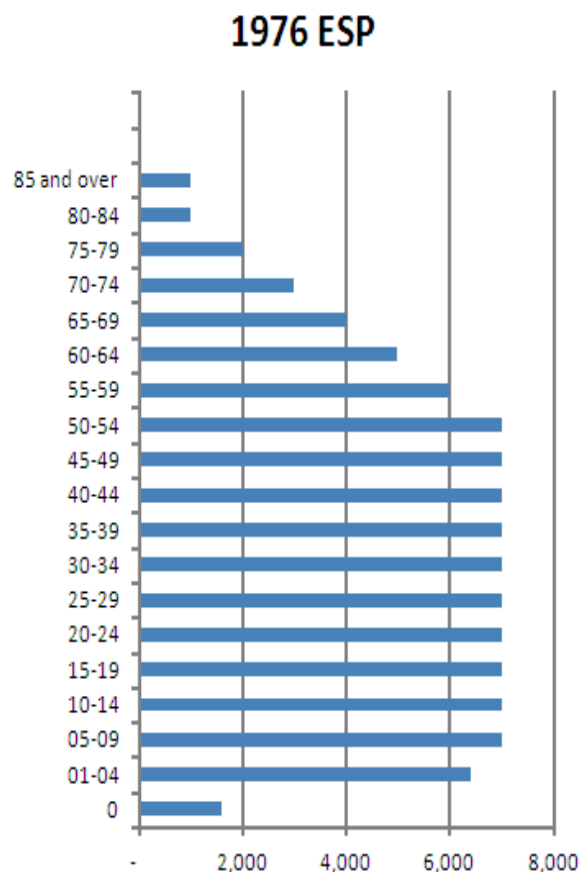
- Age standardisation allows you to look at how many people in Scotland would die if the number of people in each age group in Scotland was the same as in the standard population.
- If we also do this for other countries, you can compare figures to see whether the death rate is higher or lower in Scotland than in other countries.
- It can also be used for comparing results over time within Scotland by removing the impact of our ageing population.
- It can also be used to compare areas within Scotland (Local Authorities, Health Boards etc.)

Why is the European Standard Population (ESP) Changing?

- The current ESP dates back to 1976
- Although it is an artificial population, it has been agreed by European Union (EU) member states that it should better reflect the population structure of the EU today.
- The new 2013 ESP is based on an average of member states' population projections for 2011-2030
- We need to adopt the new ESP if we want to be able to continue to compare our mortality stats with other countries

What the Changes look like

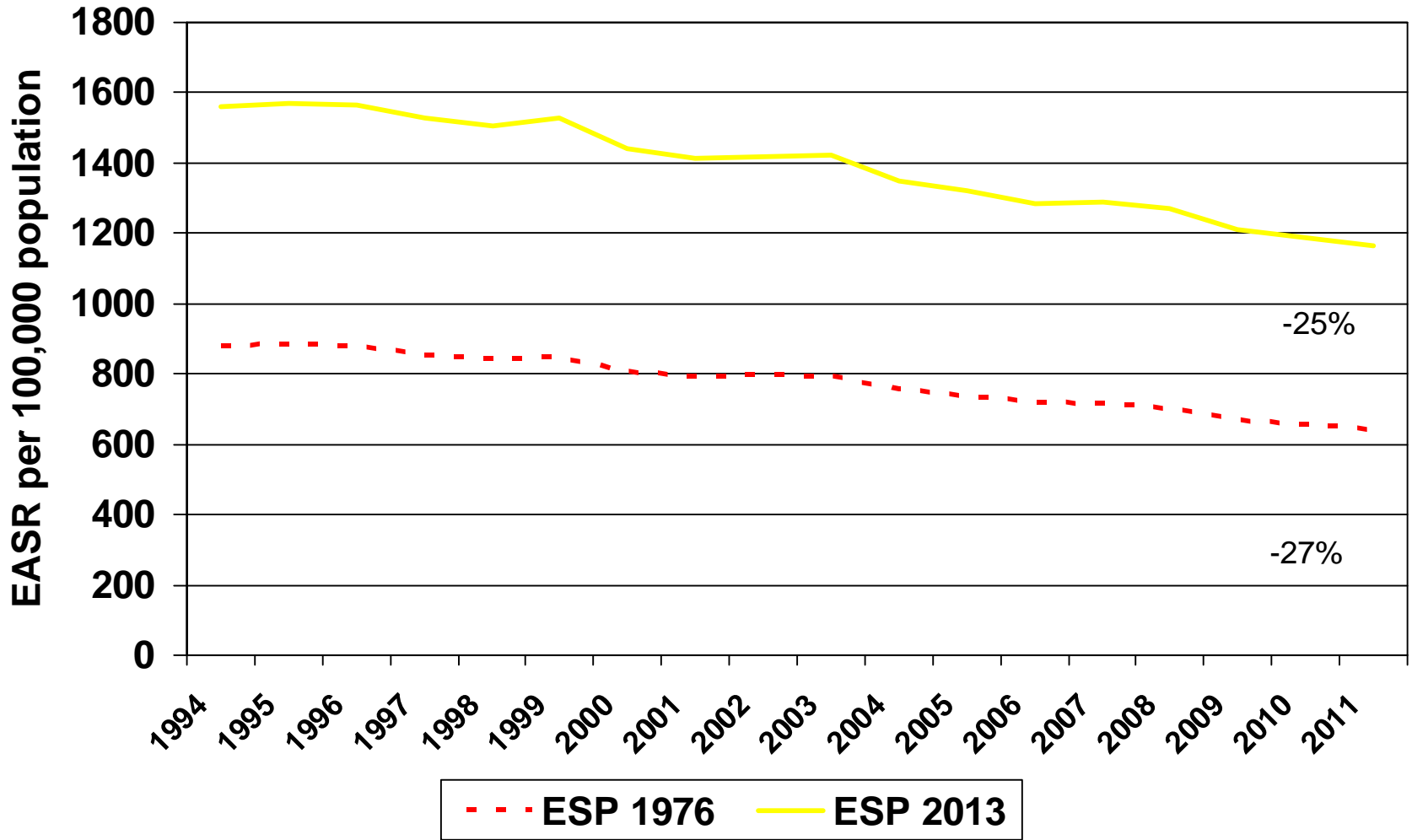
Age group	1976 ESP	Age group	Revised ESP
0	1,600	0	1,000
01-04	6,400	01-04	4,000
05-09	7,000	05-09	5,500
10-14	7,000	10-14	5,500
15-19	7,000	15-19	5,500
20-24	7,000	20-24	6,000
25-29	7,000	25-29	6,000
30-34	7,000	30-34	6,500
35-39	7,000	35-39	7,000
40-44	7,000	40-44	7,000
45-49	7,000	45-49	7,000
50-54	7,000	50-54	7,000
55-59	6,000	55-59	6,500
60-64	5,000	60-64	6,000
65-69	4,000	65-69	5,500
70-74	3,000	70-74	5,000
75-79	2,000	75-79	4,000
80-84	1,000	80-84	2,500
85 and over	1,000	85-89	1,500
		90-94	800
		95 and over	200
Total	100,000	Total	100,000



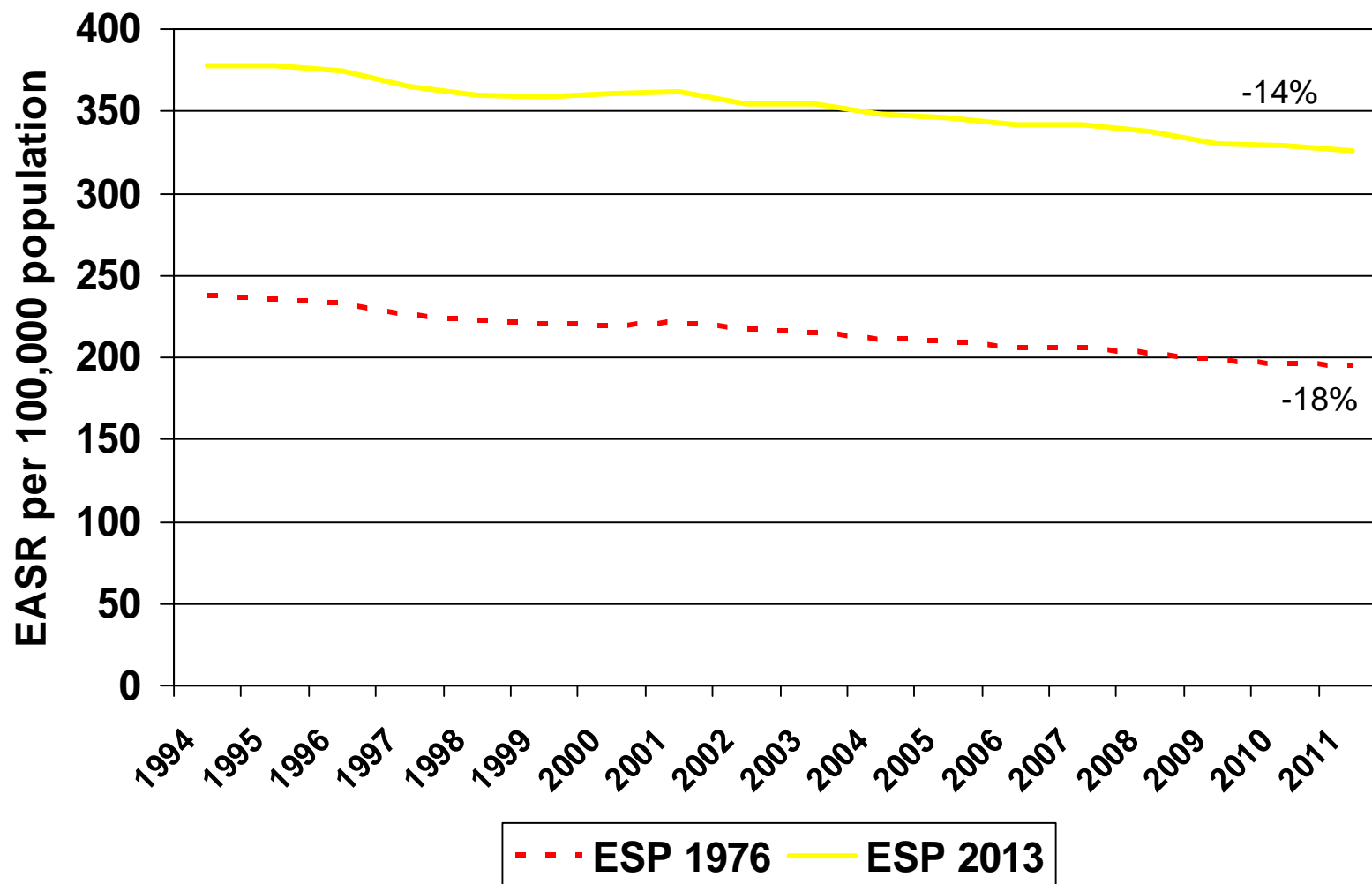
How will it affect our figures?

- Points to note:
 - The following examples do not take into account the rebased population estimates for 2002-2010 which are published next month
 - The 2013 European Standard Population has an upper age category of 95+ but these calculations have combined 90-94 and 95+ together due to the availability of population data

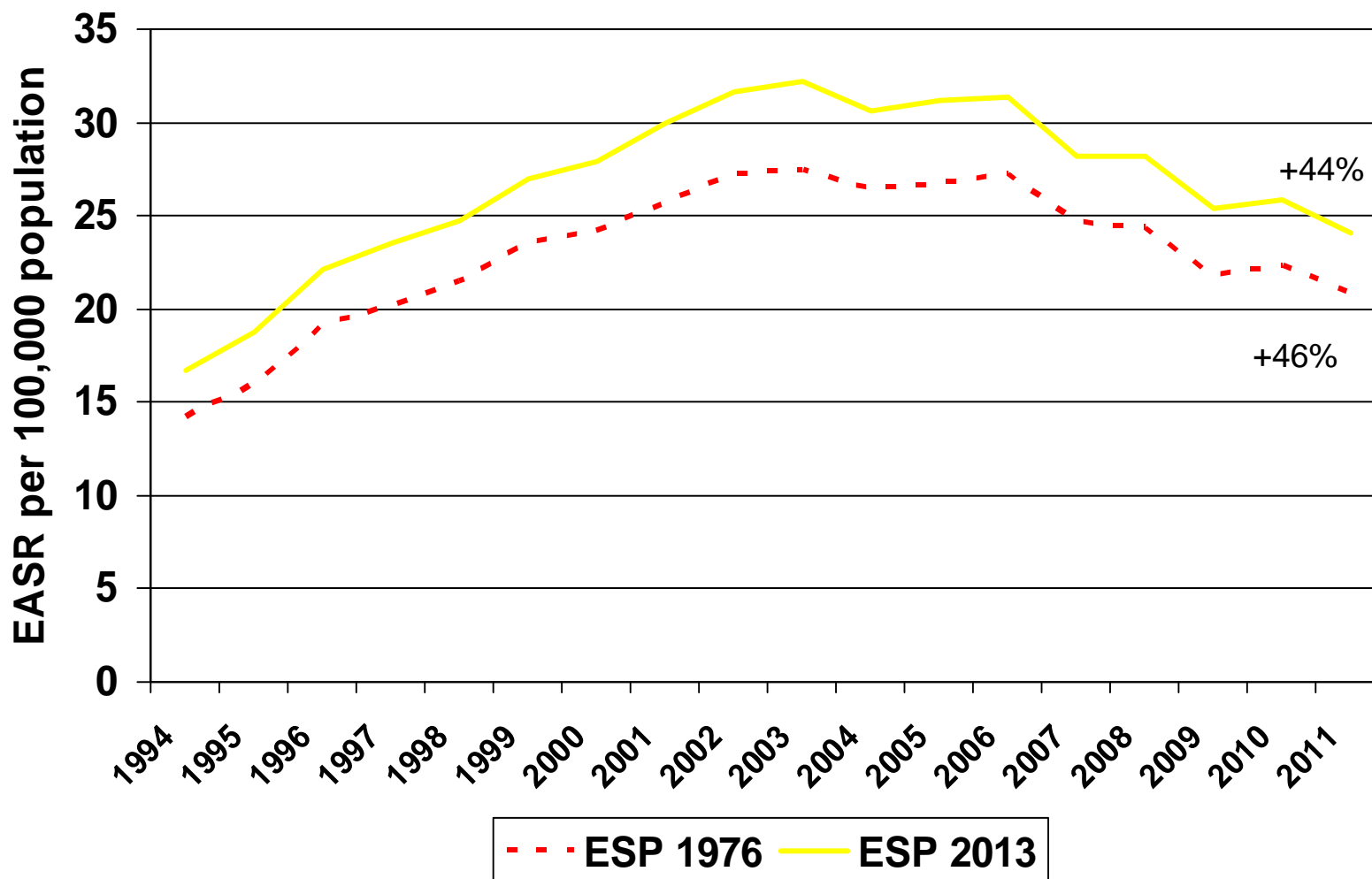
All Cause Mortality (all ages), 1994 - 2011



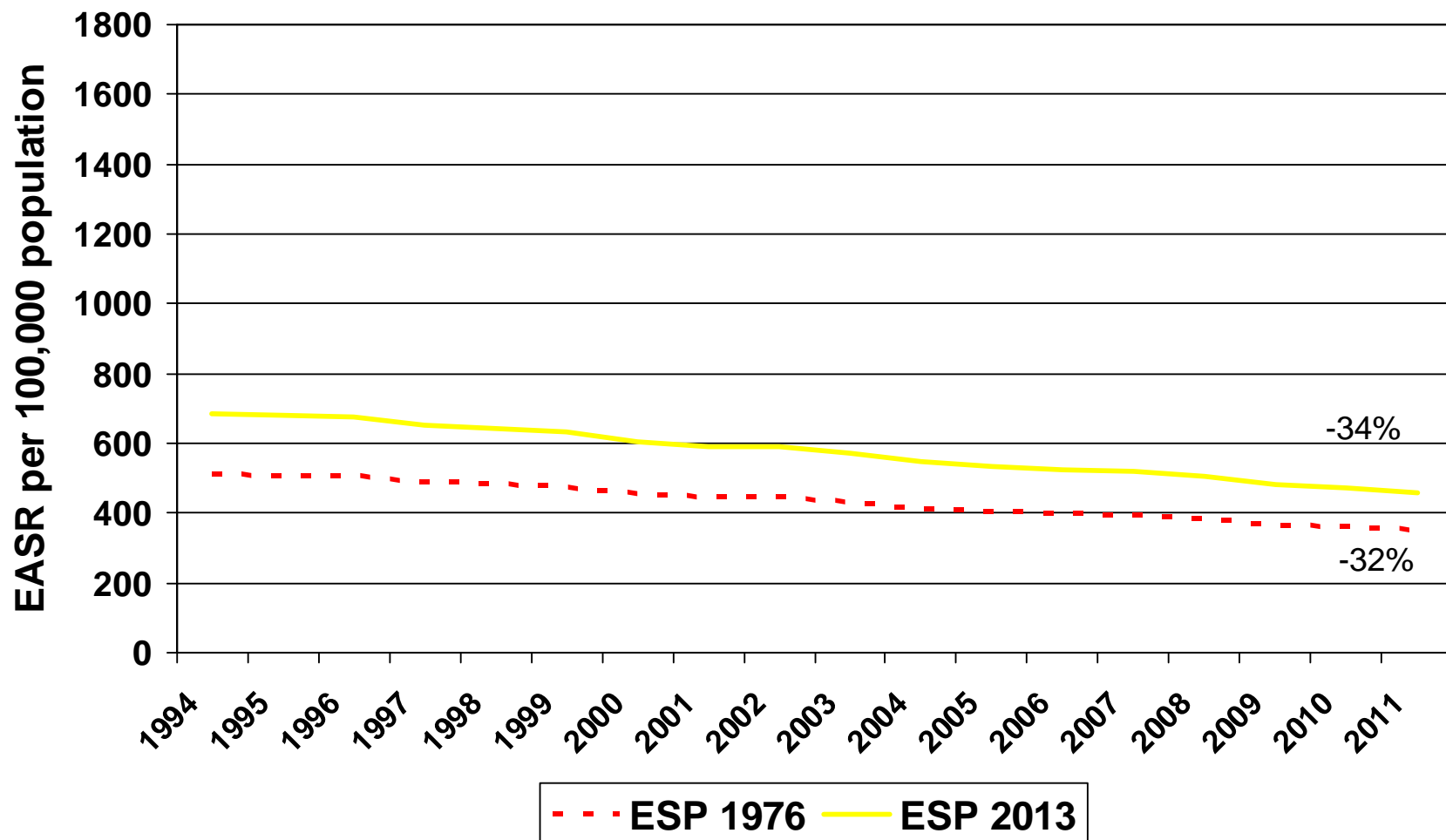
Cancer Mortality (all ages), 1994 - 2011



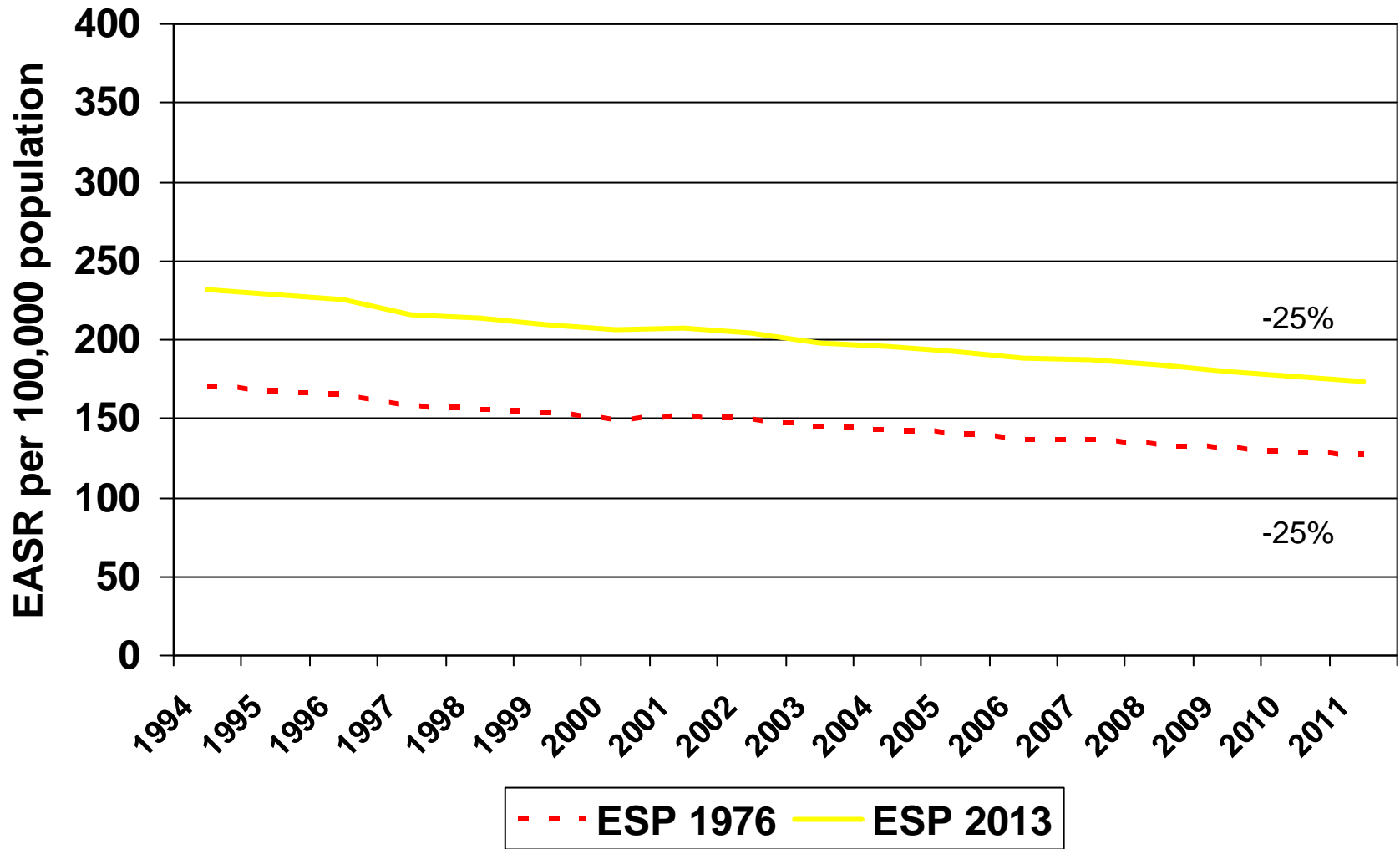
Alcohol-related Mortality (all ages), 1994 - 2011



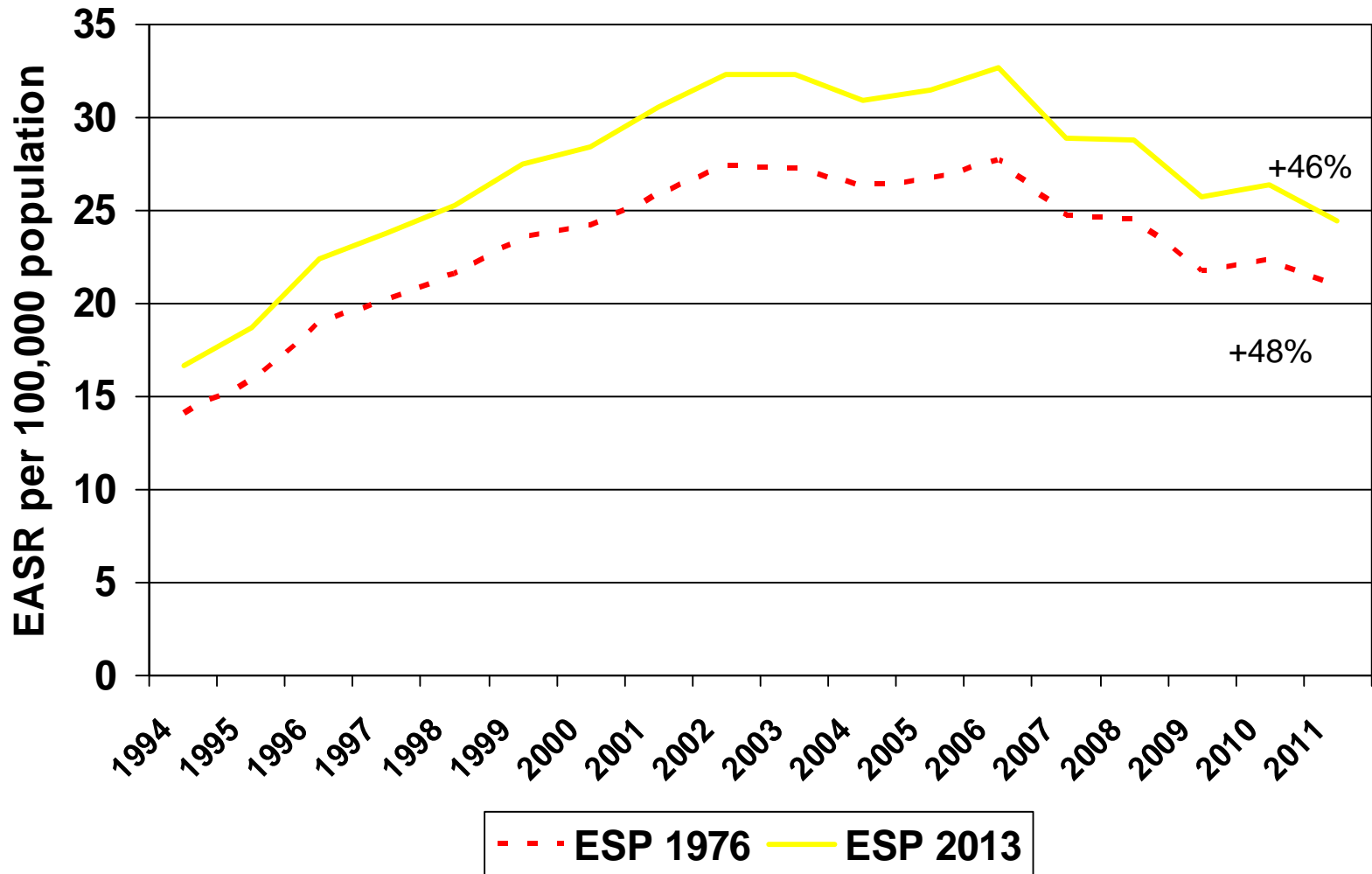
All Cause Mortality (under 75), 1994 - 2011



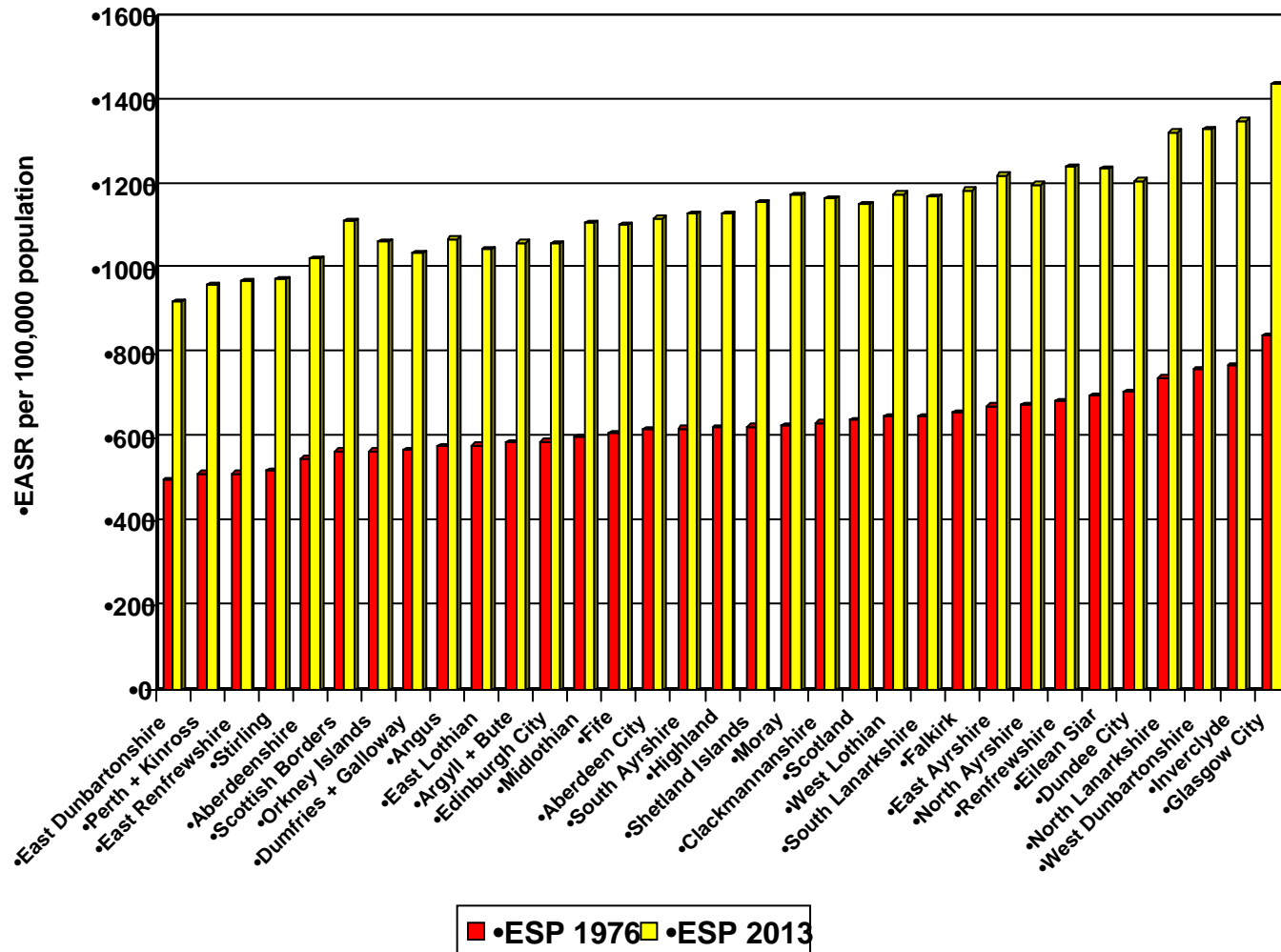
Cancer Mortality (under 75), 1994 - 2011



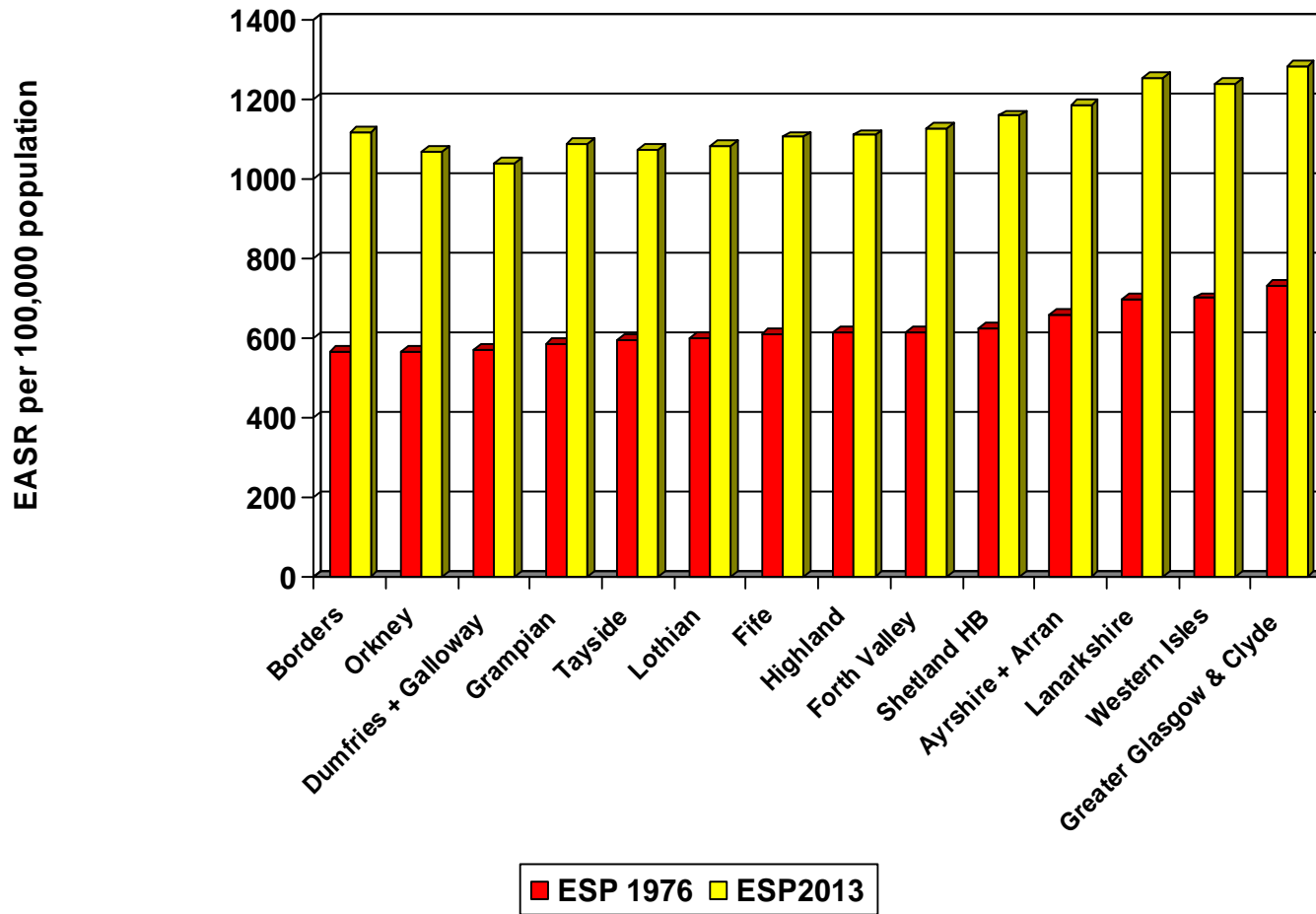
Alcohol-related Mortality (under 75), 1994 - 2011



•All Cause Mortality (all ages), by Local Authority, 2011



All Cause Mortality (all ages), by Health Board, 2011



Summary of impact

- Marked upward shift in rates
- More striking for all age mortality than for under 75 mortality
- More impact on diseases which affect the elderly (e.g. cancer) than those which affect younger people (e.g. alcohol-related)
- Despite marked shift in levels, trends and percentage changes over time show little difference
- Very little changes in the ranking of areas (Local Authorities or Health Boards)

When will this happen?

- Office for National Statistics (ONS) Consultation ended on 3 Oct 2013
 - Timing of introduction
 - How far back to revise time series
- We are not bound by what ONS decides but there are advantages to aligning with ONS for comparability purposes
- Not likely to be before April 2014 but may be later

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