



Go **Red**
for women



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Plan

- CVD in Women
- Menopause and CVD
- Solutions

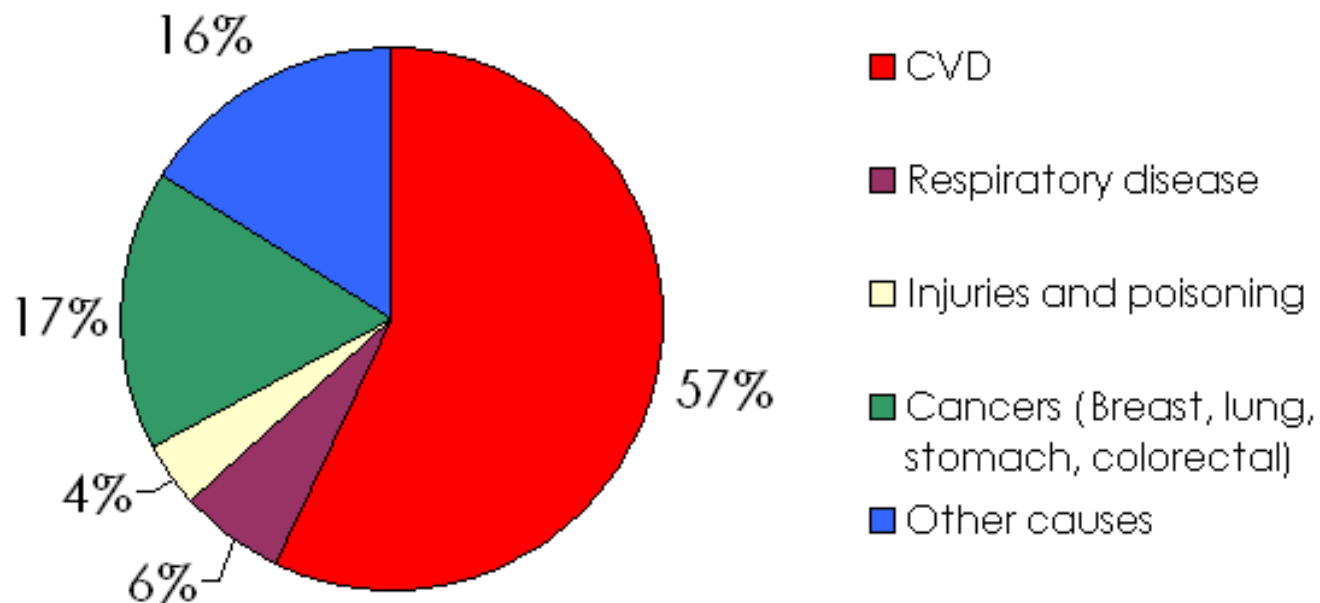


What is CVD?

- Narrowing or blockage of blood vessels
- Angina – narrowing of coronary vessels
- Heart attack – blockage of blood vessels to heart
- Stroke – blockage of blood vessels to part of the brain
- Peripheral vascular disease – blockage/narrowing of vessels to limbs

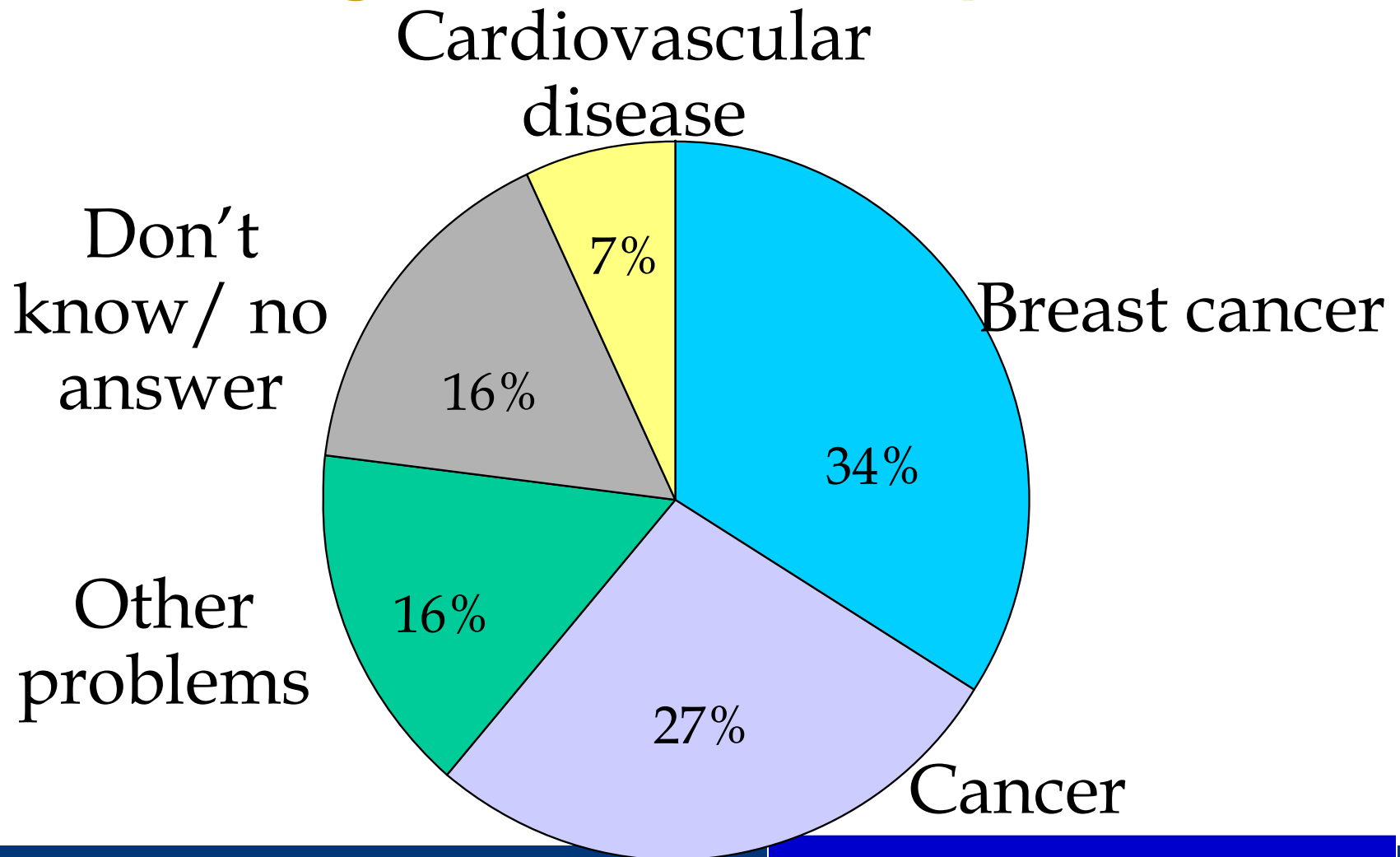


Causes of death in European women WHO 2004





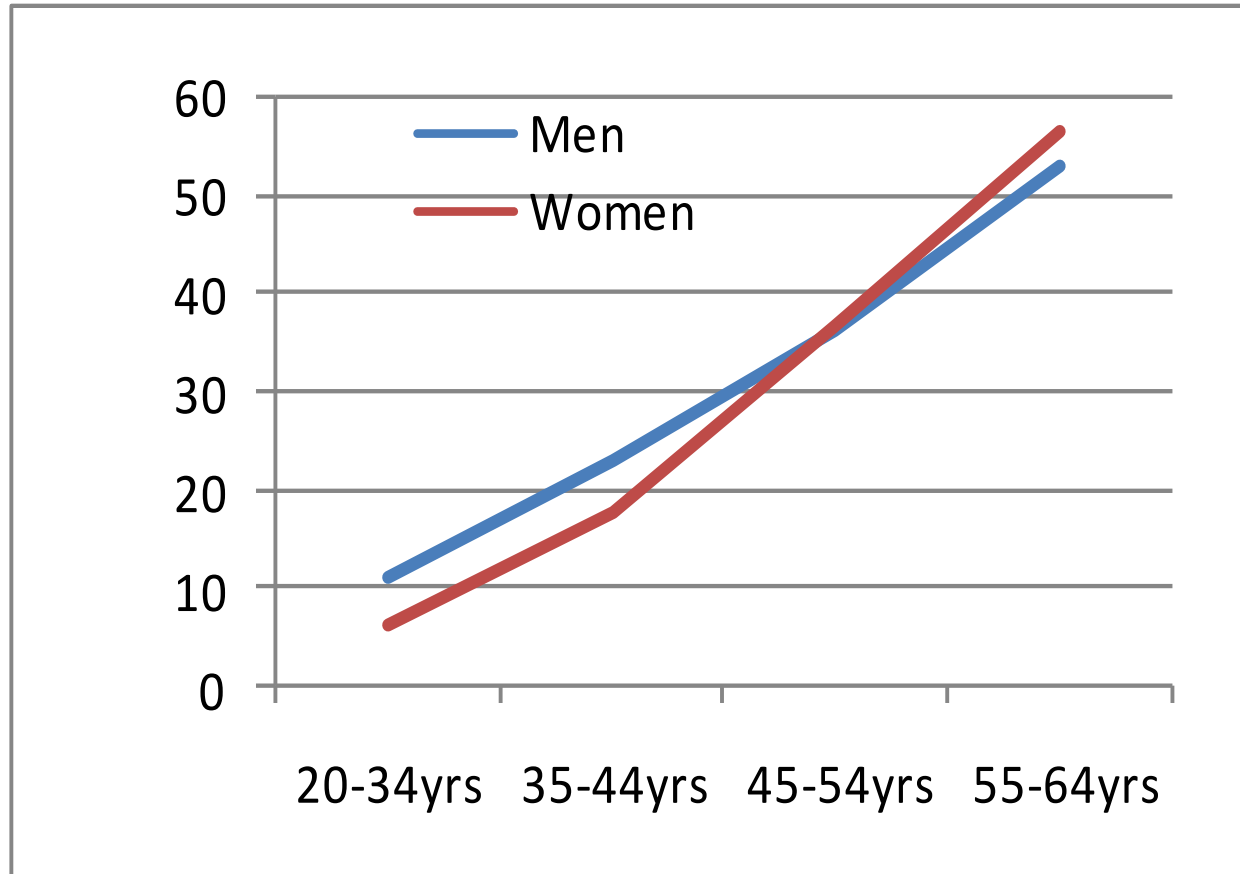
Women's perceptions of their greatest health problems





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CVD in women





Death from CVD

- Europe, stats from 2005
- 43% of men
- 57% of women



Symptoms of CVD in women

- Different from those in men
- Angina can be mistaken for indigestion or heartburn
- MI symptoms can include overwhelming fatigue, shortness of breath, nausea, or indigestion



Other problems

- Often present late
- Other medical problems
- Poorly represented in trials
- Less interventions
- Worse prognosis following MI:
 - 38% women die in 1 year, 25% men
 - In 6 years, further MI in 35% women, 18% men



Demographics

1850

- Age of **menopause** - 45 yrs.
- Life expectancy - 45 yrs.

2010

- Age of **menopause** - 51-52 yrs. (premature if under 45 yrs + doubles risk of CVD later in life & increases risk of osteoporosis)
- Life expectancy - 85yrs. (sadly many women do not enjoy good quality of life due to chronic disease like CVD + osteoporosis - often preventable)
- Today > 30% life = postmenopausal

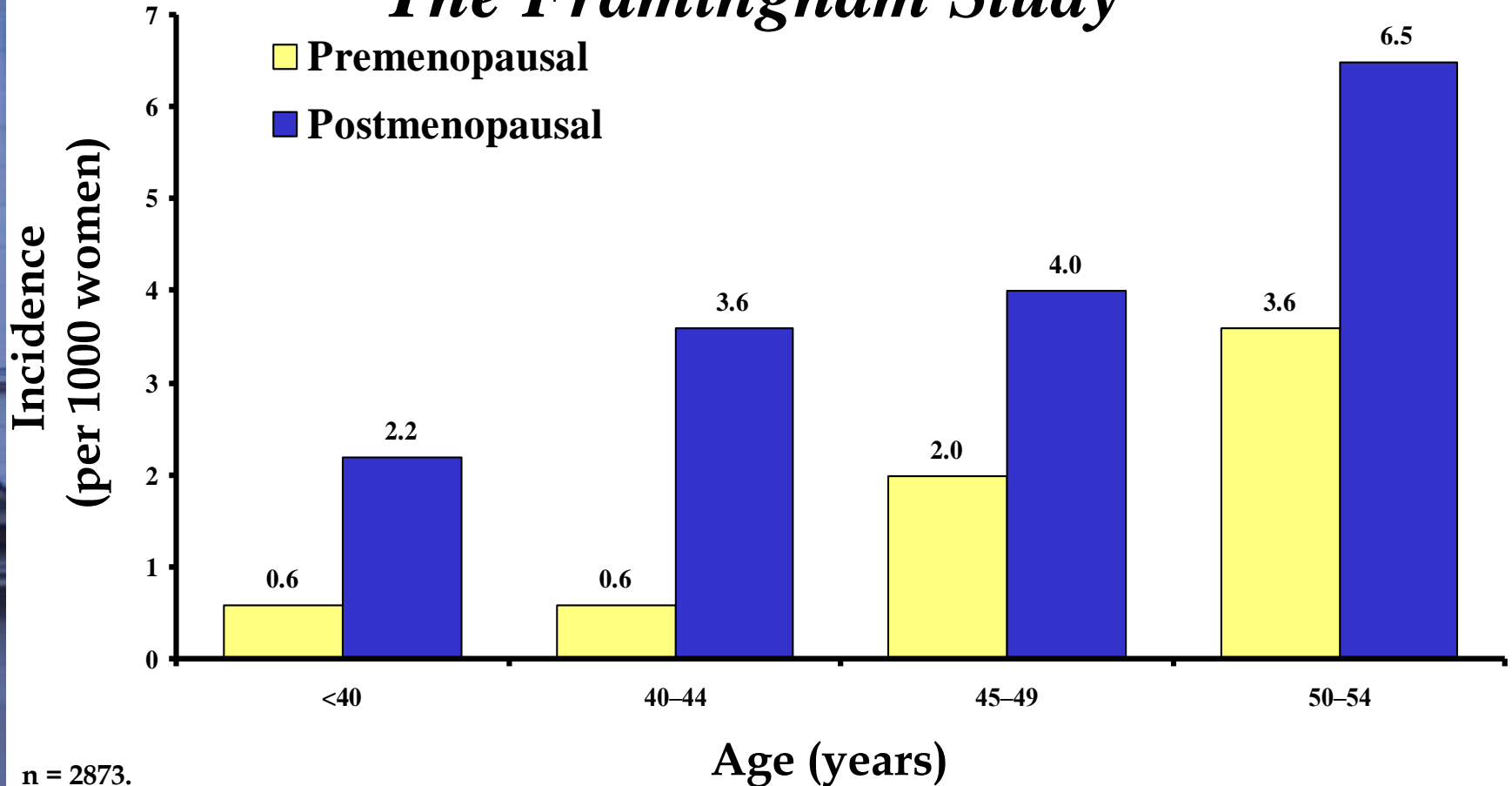


Menopause stages

- Early (vasomotor - flushing & night sweats, insomnia, psychological)
- Intermediate (bladder & gynae problems vaginal dryness)
- Long term health problems – (silent)
- CVD & osteoporosis



Incidence of CVD: Relation to Menopause Status *The Framingham Study*



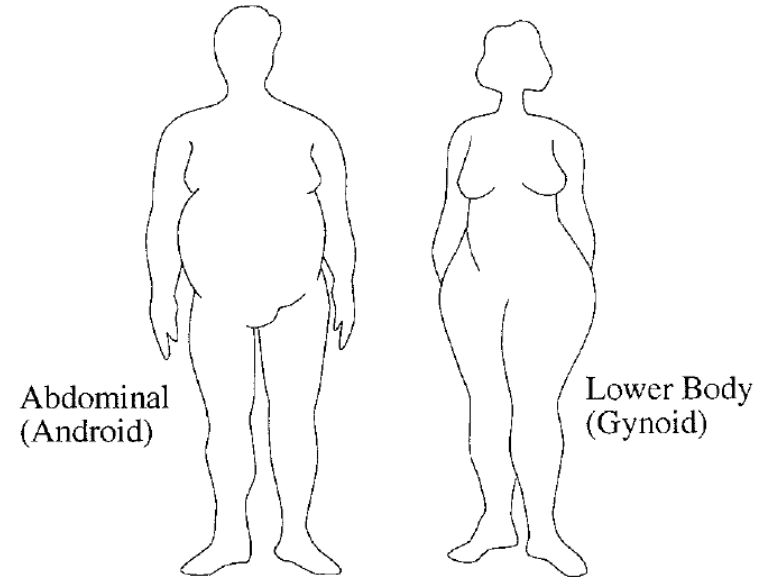
n = 2873.

Kannel WB, et al. *Ann Intern Med.* 1976;85:447-52.



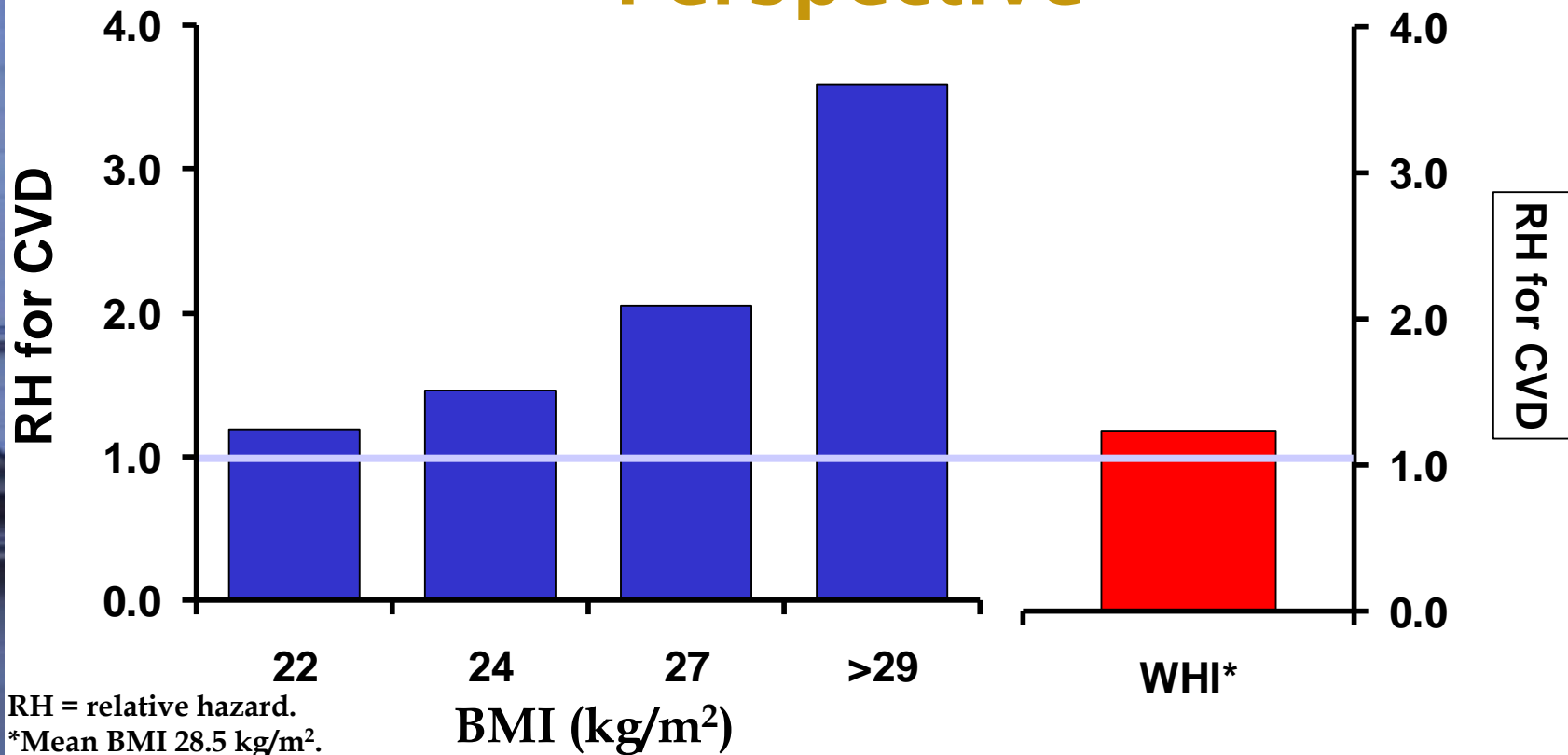
Effect of Oestrogen Lack- (how the menopause causes increased risk of cvd)

- Change in BMI, fat distribution
- Inc LDL cholesterol (10-20%)
- Decreased HDL
- Increase TGs
- Blood pressure
- Glucose/insulin metabolism
- 4 fold increased risk CVD
- Premature menopause – (early lack of female hormones) 53% inc risk CHD (this is a possible marker of future cvd)





The Effect of Body Mass on the Risk of CHD: Putting the WHI Results in Perspective



RH = relative hazard.

*Mean BMI 28.5 kg/m².

BMI data from Willett WC, et al. *JAMA*. 1995;273:461-5.

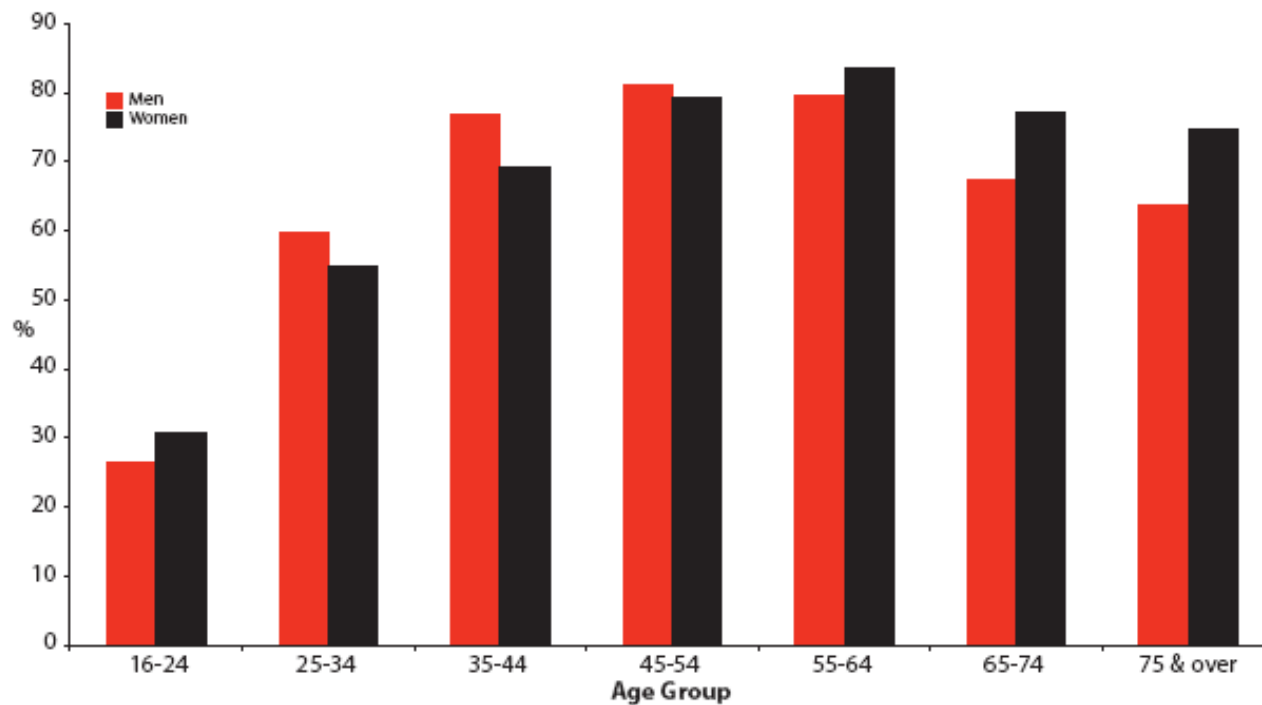
WHI data from Manson JE, et al. *N Engl J Med*. 2003;349:523-34.



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Raised cholesterol

Fig 10.1 *Percentage of adults with blood cholesterol levels of 5.0 mmol/l and above, 2003, England*





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European survey

- Only 1/3 women associated CVD with menopause
- Only 1/4 associated raised cholesterol with menopause
- Only 8% women 45 – 65 had been advised to have cholesterol level checked
- Only 15% HCPs aware that women equal risk as men



So?

- Women's lives are being lost unnecessarily because of low awareness of the role menopause plays in increasing the risk of CVD (by doctors & women)
- **80%** of CVD could be prevented by diet & lifestyle changes
- Lowering cholesterol by 10% can reduce CVD risk by 20%
- In 2003, the estimated cost of CVD to the European Union's economy was 169 billion euros



Modifiable & Non Modifiable Risk Factors

- Smoking (women < 55 have 7 fold increase in risk)
- BMI (waist – hip ratio) should be <25
- Lack of exercise(regular exercise reduces CVD + OP and increases mental + physical wellbeing)
- Hypertension (may need medication)
- Cholesterol (LIFESTYLE CHANGES , possibly medication)
- Stress
- Diabetes – doubles risk CVD in men, trebles risk in women
- Metabolic syndrome (combination of abd obesity, abnormal lipids, blood pressure + insulin resistance)
- **Non Modifiable** - Ethnicity , Age , Family history (premature death in male < 55yrs / female <65yrs)

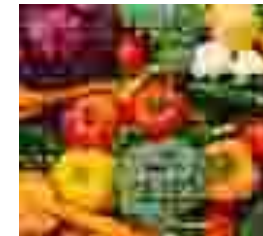


So...can we do better ?

- Need for increased awareness
- See onset of menopausal symptoms as “wake up call”
- Think beyond symptoms (Menopause is never over)
- Long term health – heart as well as bones
- WHO – 80% CVD can be prevented by diet and lifestyle changes
- Premature menopause (greatly increases risk of CVD & osteoporosis)



Promoting a heart healthy lifestyle



good for everybody



Solutions

- ▣ Every woman: (should be heart aware)
 - Have a health check up with her GP (even if she has been very careful and feels well)
 - This should include personal and family history detailing own health problems
 - age at menopause (especially if < 45 years)
 - history of PCOS , history of pre eclampsia
 - diabetes
 - metabolic syndrome
 - blood pressure
 - renal & thyroid disease
 - Family history of heart disease
 - Identify modifiable risk factors & work on them to improve factors like high cholesterol blood pressure and weight



Examination to include

- BP
- Weight (BMI)
- Breasts
- Blood tests
 - Lipids (cholesterol)
 - Blood sugar
 - Thyroid
 - Liver & kidney function.
 - Clotting screen if indicated



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What about HRT?

- Should be good!
- Favourable effects on W/H ratio, lipids, vascular function, atheroma formation
- Conflicting findings – from various trials outcome of new trials awaited
- **CONTRAINDICATED** for –
- Recent heart attack/poorly controlled angina
- Recent blood clot
- Womb or breast cancer
- Pregnancy
- Undiagnosed vaginal bleeding
- Uncontrolled bp
- Active liver disease



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Timing of HRT in WHI

CE + MPA			
Years since menopause	Hazard ratio	No of events	No of women
< 10	0.88	-4	5,494
10-19	1.23	7	6,041
>20	1.66	30	3,653



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Timing of HRT in WHI

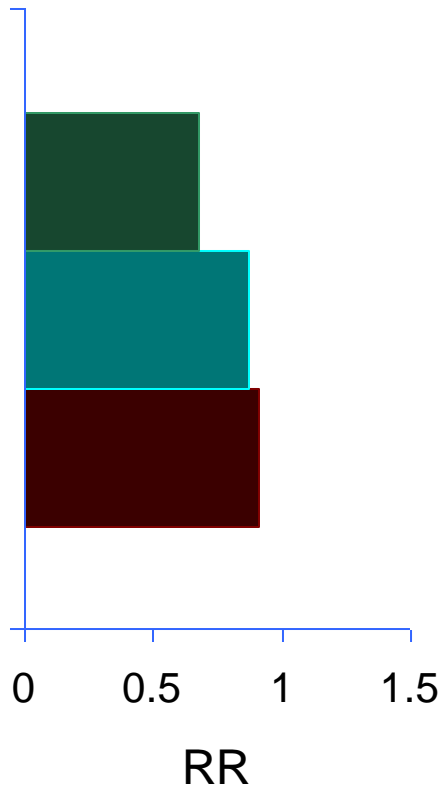
CE			
Years since menopause	Hazard ratio	No of events	No of women
<10	0.48	-14	1,643
10-19	0.96	-1	2,963
>20	1.12	7	4,550



Does the timing of HRT matter?

- Meta-analysis of 23 trials
- 39,049 participants
- Odds ratio for CHD differed with age at enrolment
 - Under 60 - 0.68 – 32% reduction (significant)
 - Over 60 - 1.03

CHD: PRIMARY PREVENTION

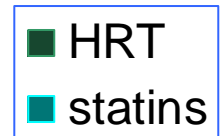
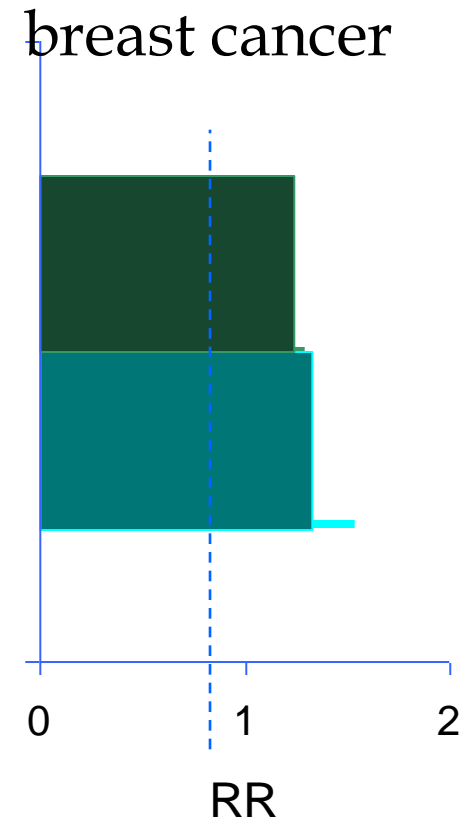
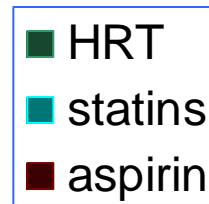
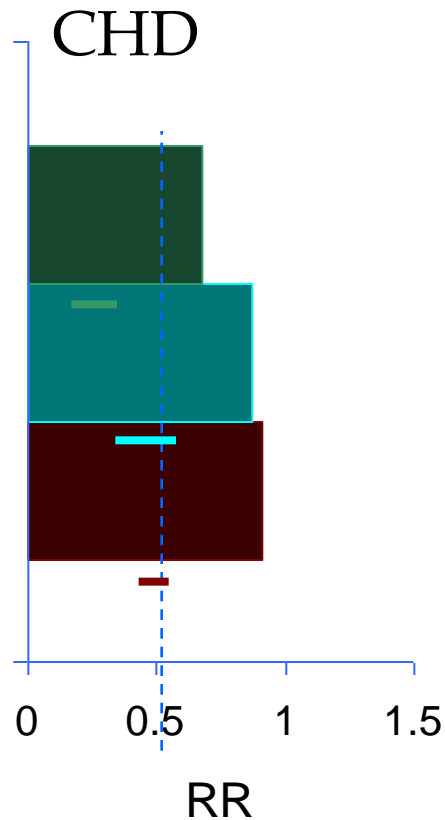


CHD

- ▣ low-dose aspirin reduces CVA risk
- ▣ no reduction in CHD risk with low-dose aspirin
- ▣ no reduction in CHD mortality with statins
- ▣ reduction in CHD risk with HRT



BENEFITS AND RISKS: WOMEN





Summary—HRT and CVD

- Window of opportunity
- Best if started within 6 years of menopause and/or before age 60
- Increased benefit with longer use
- Results of further studies on timing, types and routes awaited
- Similar risks to other commonly used drugs



Take Home Messages

- Use of HT at the menopause will have different effects from HT started 10 to 15 years later
- No data to suggest change of indications for HT at the menopause
- Increasing evidence that progestogen reduces estrogen benefit / adds to risks



Risk from ERT according to age





Estrogen and Stroke: a case for low-dose estrogen

- Low doses may confer protection while higher doses may increase risk
- Risks may be lower with transdermal
- Thrombogenic effects
- C-reactive Protein

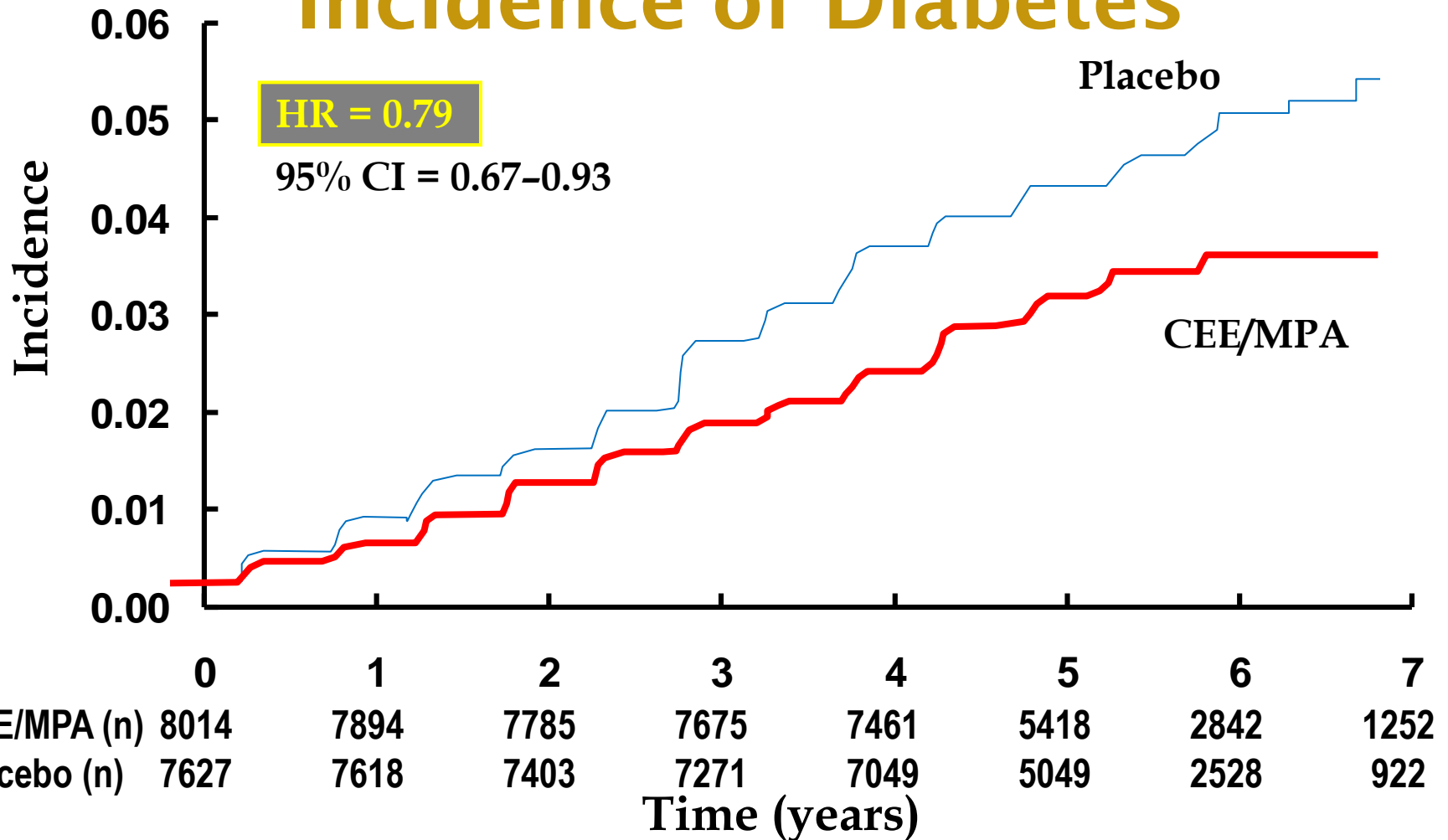


VTE

- Consistent finding of increased risk with HRT, randomised and observational
- Mostly in 1st year
- Greater risk with combined HRT cf oestrogen only
- Likely reduced risk with transdermal HRT
- Consider other risk factors (especially previous clot or family history of clotting)



WHI CEE/MPA Study: Incidence of Diabetes



Margolis KL, et al. *Diabetologia*. 2004;47:1175-87.



Interesting facts re breast cancer

- More than 2-3 units of alcohol per day increases risk x 1.5
- Postmenopausal obesity x 1.6
- Late first pregnancy (more than age 30) x 1.9
- More than 5 years of HRT x 1.35



Time to move on...

- The menopause and growing older are inevitable, developing chronic poor health is NOT





Knowledge is the key to prevention

- It is not just a male disease
- More women than men die from CVD after middle age
- Menopause has a negative effect on CVD
- Lifestyle has profound effect on weight, BP and cholesterol
- Small changes can yield major long term benefits



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Thank you



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