

New economics for health practitioners



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Unite/CPHVA Annual Professional Conference 2010 Healthy Family, Healthy Child; Harrogate International Centre, October 2010

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Structure

- Economics and health: traditional perspective?
- Trends in the new economics of health
 - Impacts of health actions beyond health care system
 - Increased focus on wellbeing, promotion and prevention
 - Looking at ways to incentivise people to change behaviours
- Economic arguments for health visitors to tackle post natal depression: an illustration



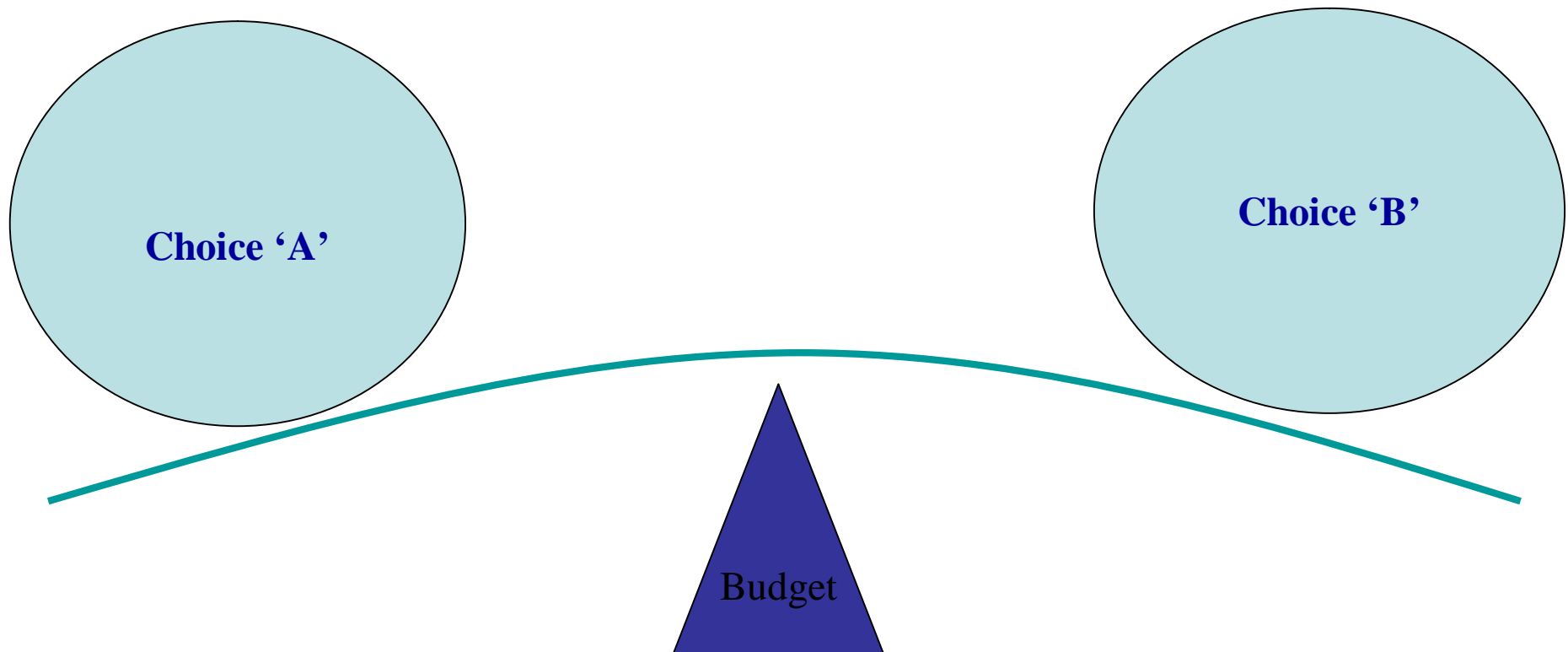
Economics and health: a traditional perspective

Economics is about choice

Resources are always constrained;

How can we best spend public monies to maximise benefit to society

Be mindful of potential consequences for fairness and equity



Economic evaluation

The effectiveness question:

**Does this intervention
work?**

The economic question:

Is it worth it?

Two Basic Needs: (A) Costs and Outcomes; (B) 2+ Alternatives

Costs for
intervention Z

Outcomes (e.g.
Quality of Life
Years (QALYs) for
intervention Z

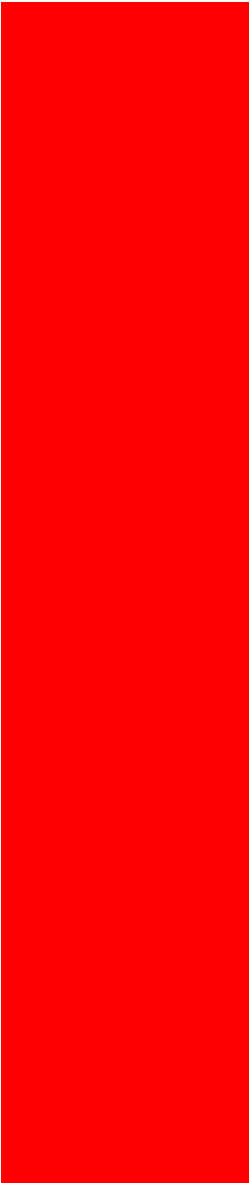
Costs for
intervention X

Outcomes (e.g.
Quality of Life
Years (QALYs) for
intervention X

Cost per QALY threshold
circa £30,000; Mindful of
budgetary impact

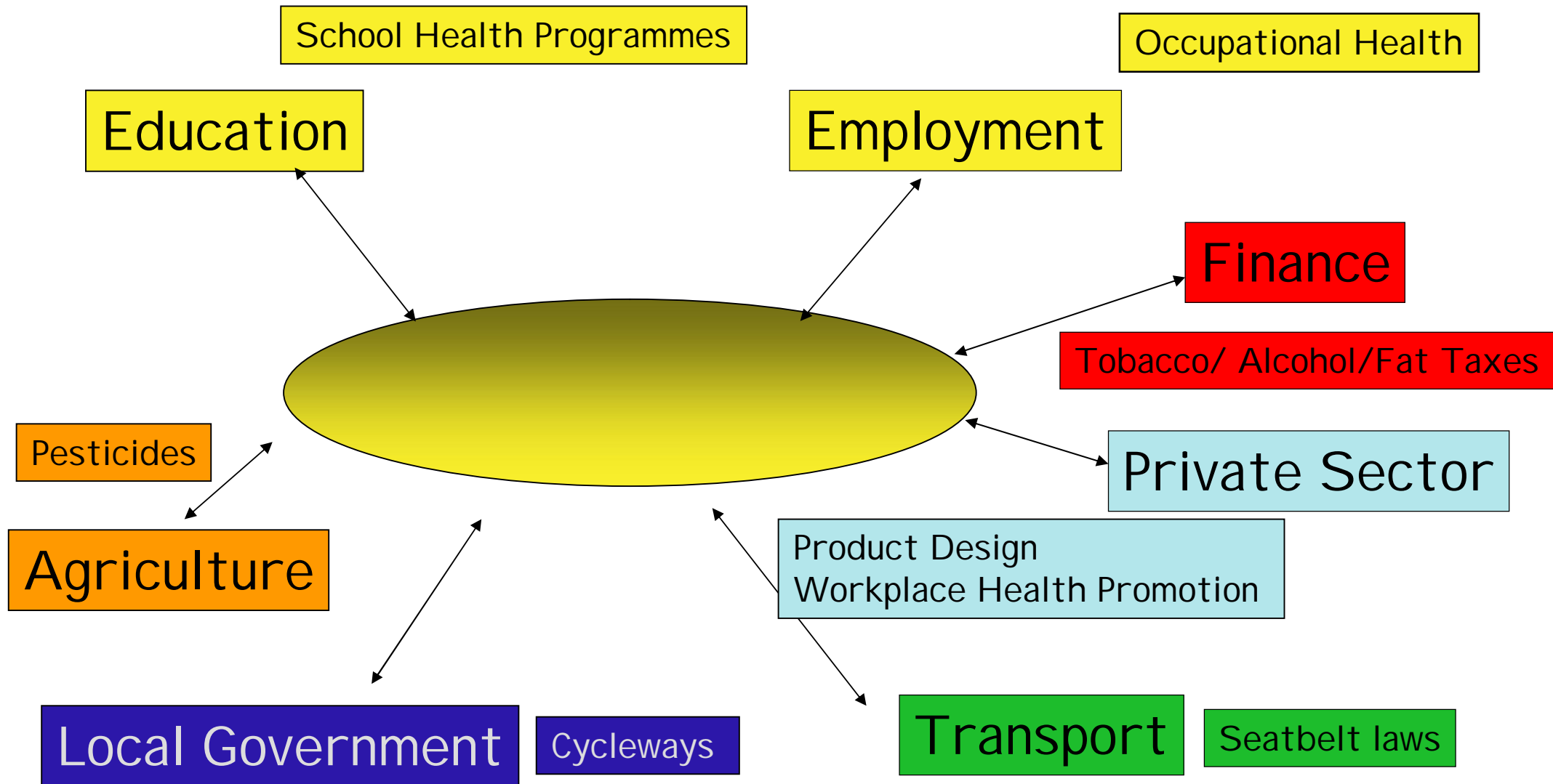


Economics and health: a new perspective



Economics and health: impacts beyond the health sector

Health/ non-Health Sector Interfaces

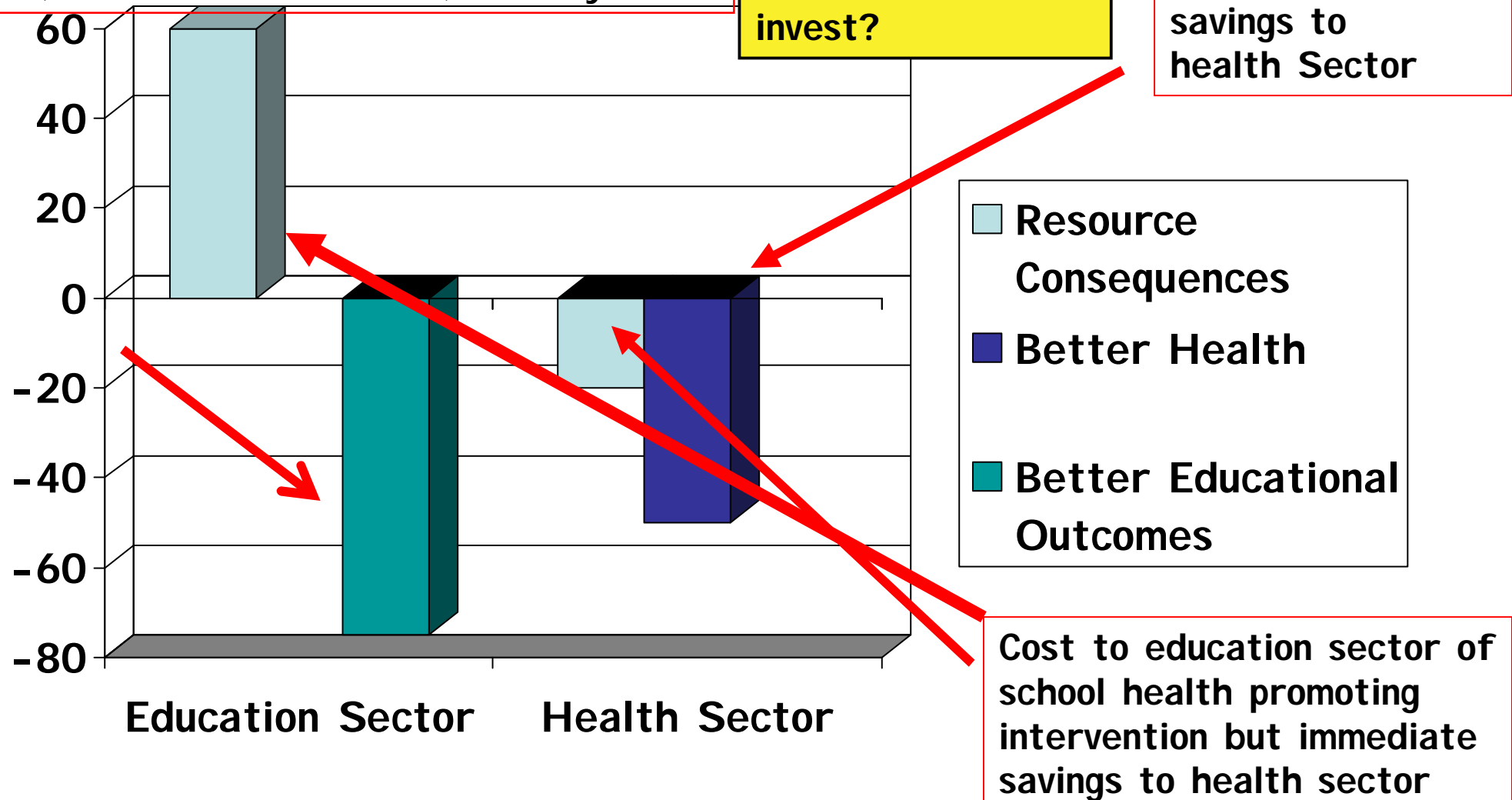


Consider impacts across sectors

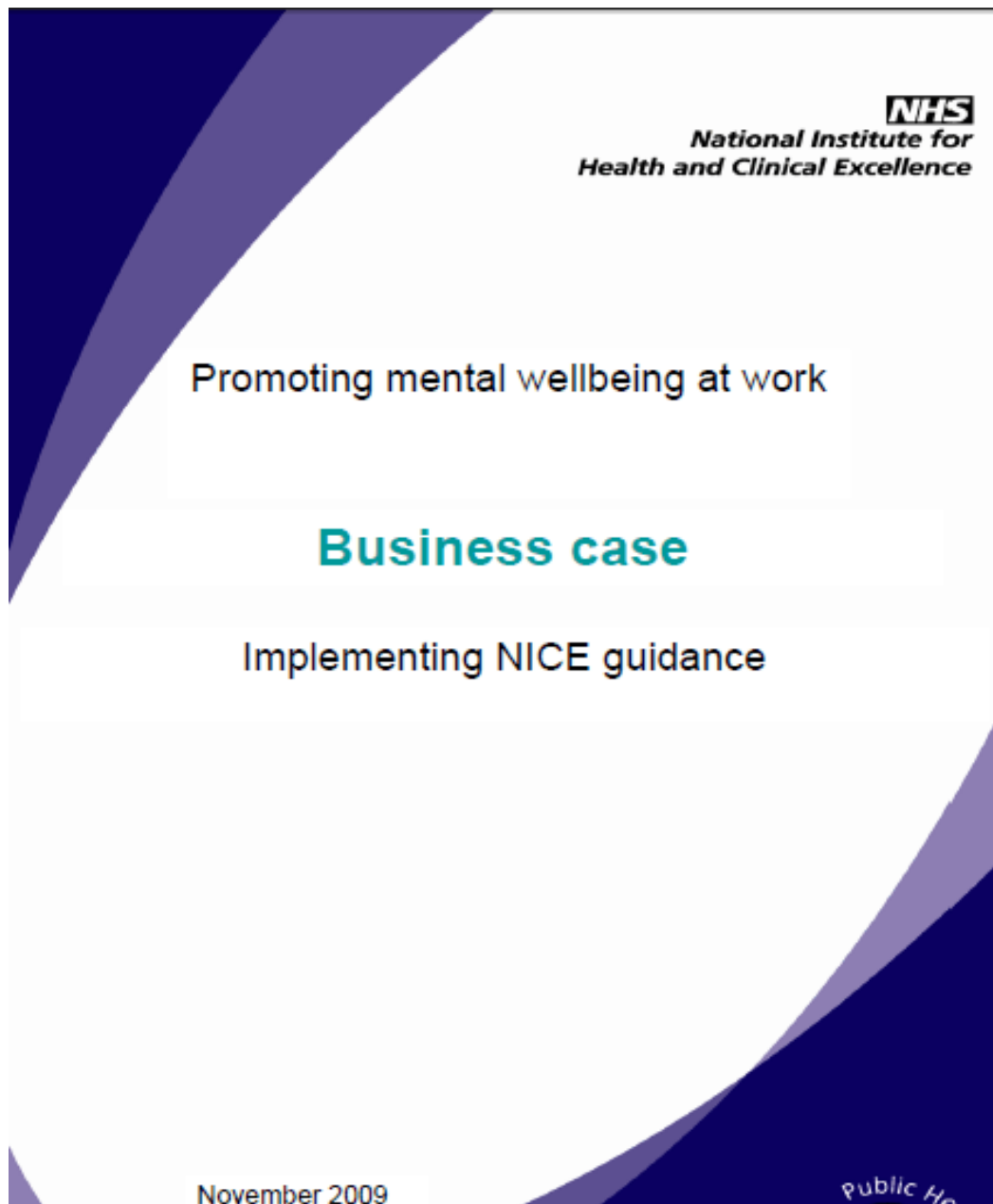
Identify impacts to education sector. Reduced disruption; teacher absenteeism; truancy

So why should education sector invest?

Longer term savings to health Sector



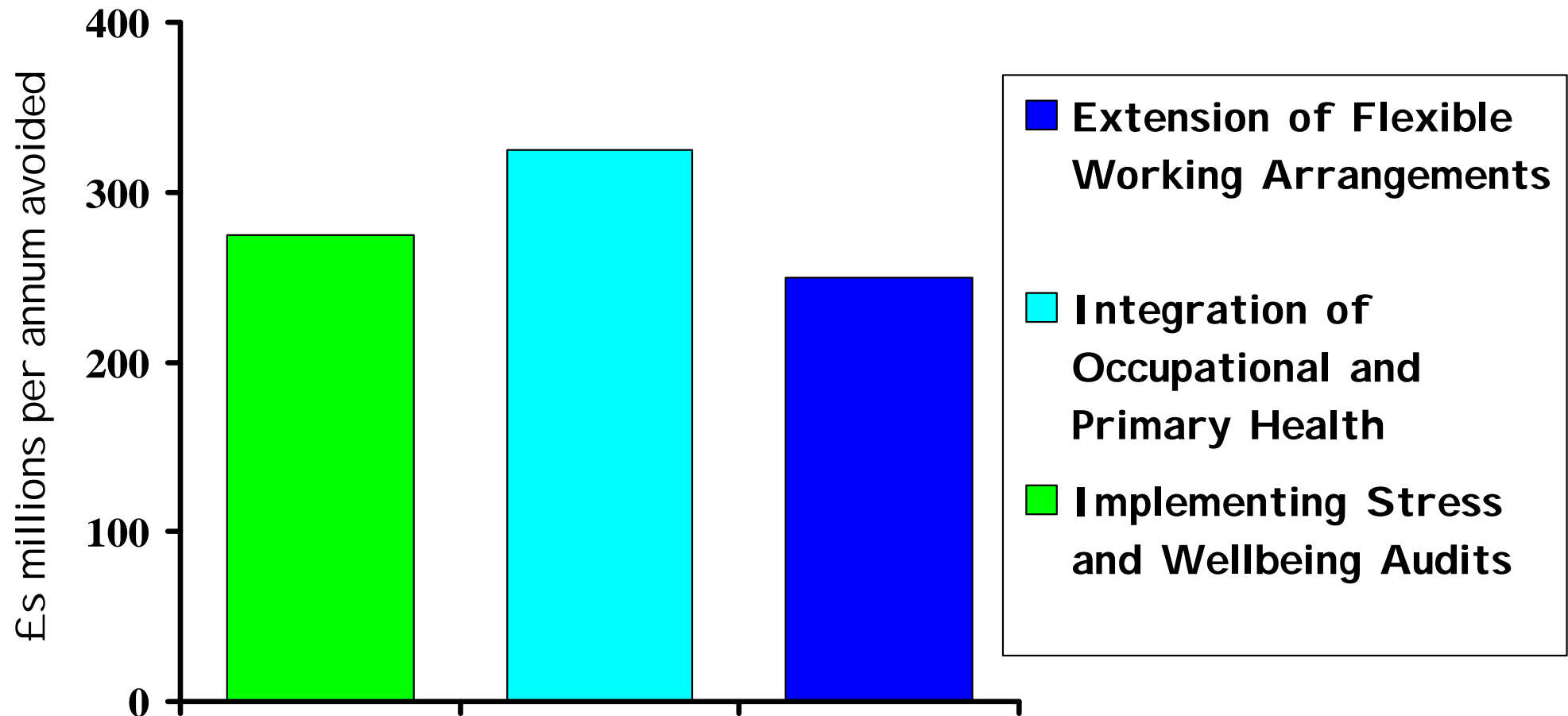
Making the business case can help

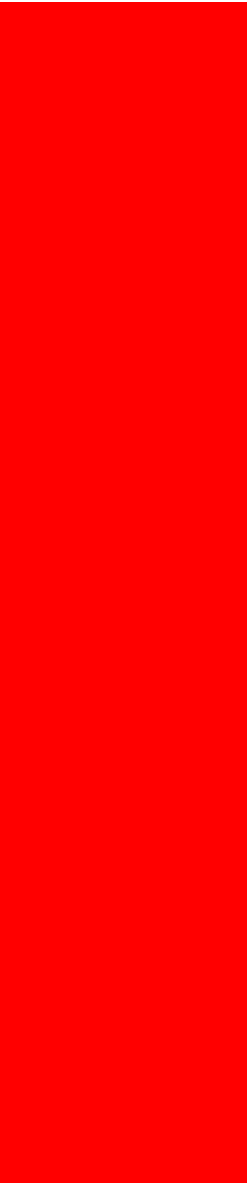


- If mental illness costs employers £28.3 billion per annum in 2009
- Prevention and early identification of problems, should save employers at least 30% **£8 billion per annum**
- For 1,000 employee company annual costs can be **reduced by £250,000**

Foresight: Mental Capital & Wellbeing

Tentative analysis of the economic case for some interventions



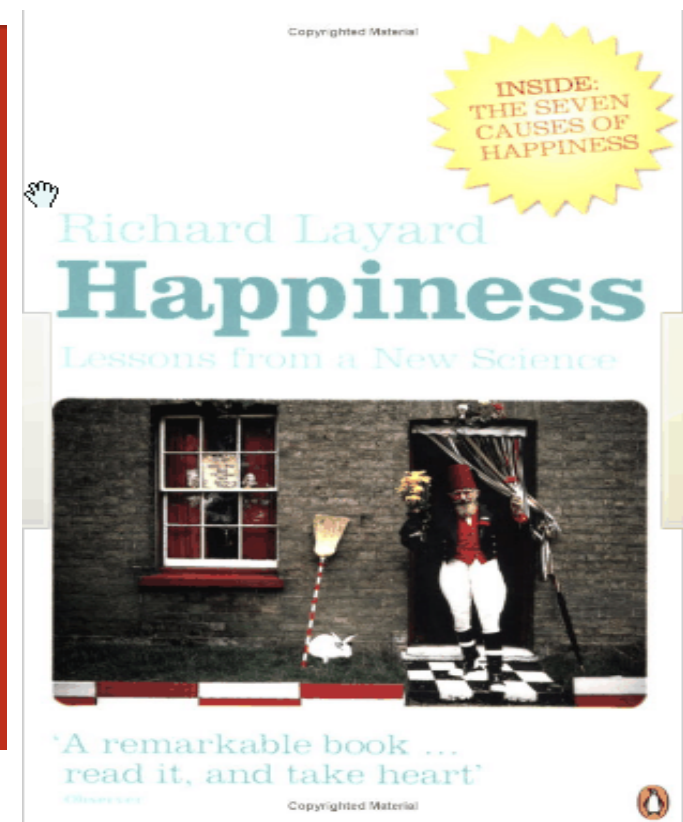
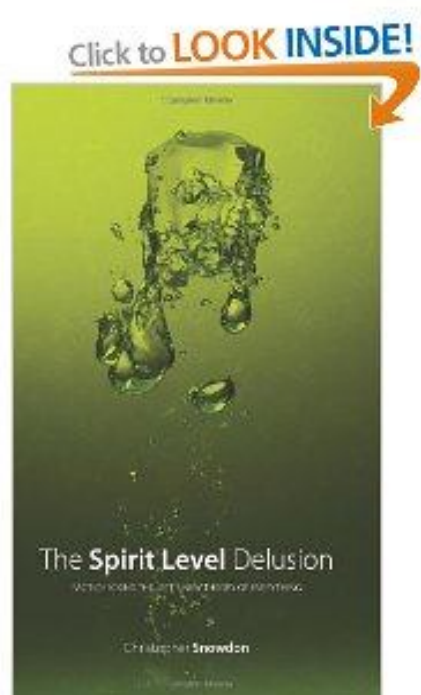


**Economics and
wellbeing, disease
prevention and
health promotion**

The economic benefits of wellbeing

- Traditional focus on tackling disease.
- Health assumed to be 'absence of illness'
- Wellbeing goes beyond absence of illness
- Better wellbeing potentially can reduce risk of mental health problems
- Potentially has benefits for social cohesiveness; altruism; innovation
- All of this has potential economic benefits

Wellbeing and satisfaction with life



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economics as if people
and the planet mattered



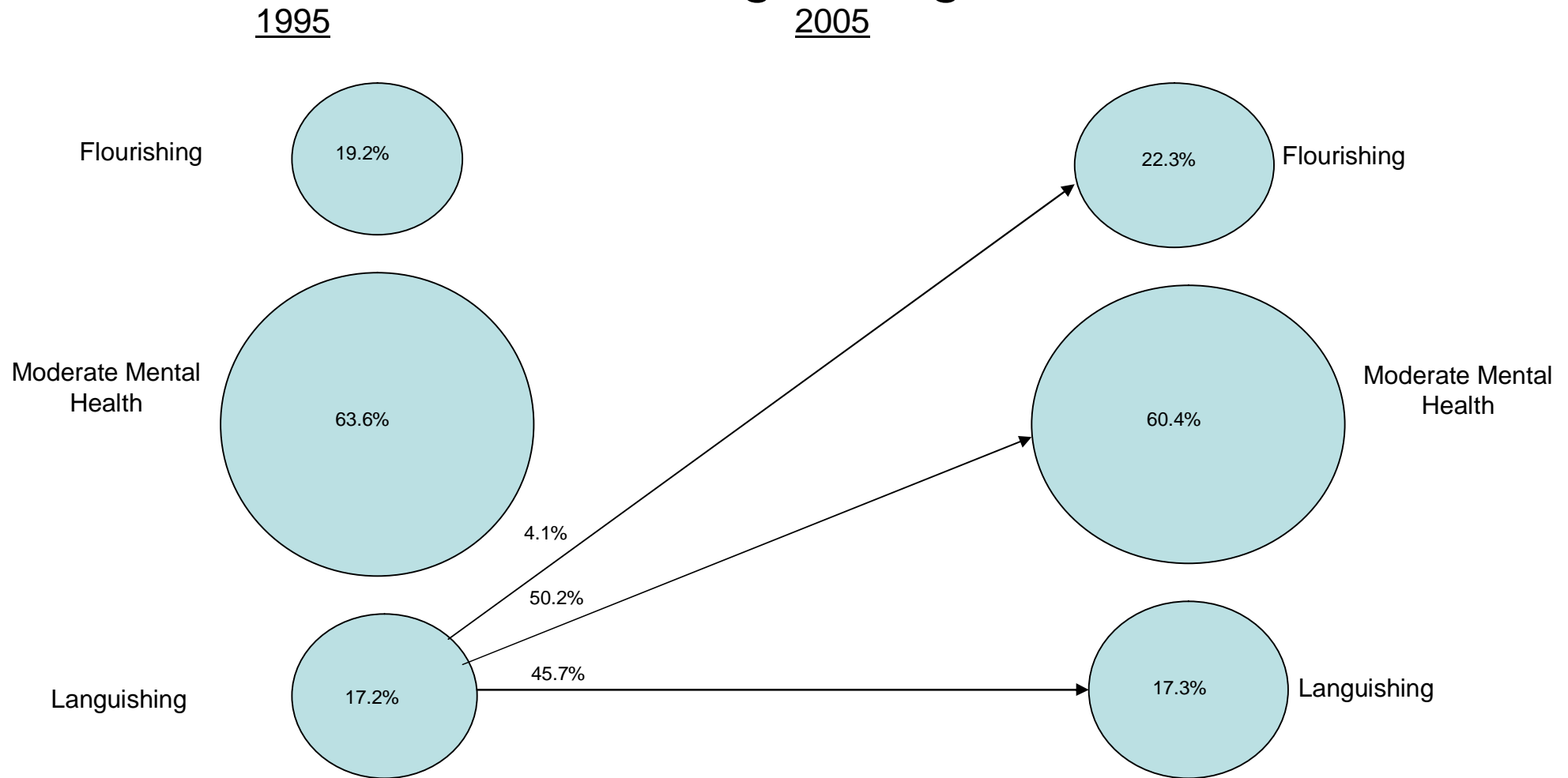
Mental Health Continuum



Keyes, 2005

Change in Adults' Mental Health Status: Destinations and Origins

Languishing



Keyes, 2007



**Early interventions
to promote health
and wellbeing**

Early intervention

Poor mental health status in childhood has long term consequences

Reduced chances of employment

Reduced chances of high education

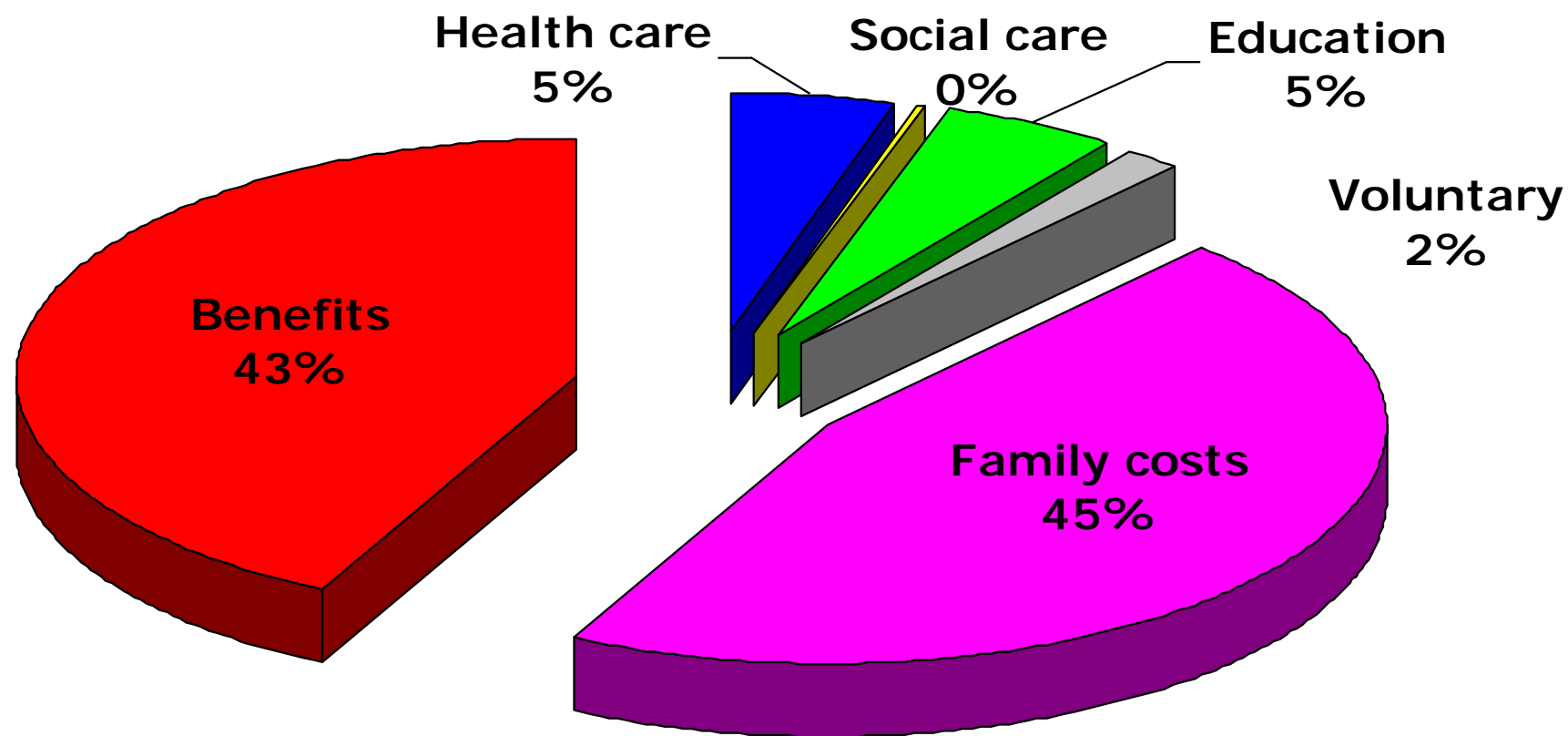
Increased risk of criminal system contact

Increasing evidence of effective and cost effective educational and psychosocial interventions to help promote better mental health in infancy and childhood (and also foster better education outcomes)

Christchurch Health and Development Study

	Conduct Problems (7-9 Years)				p ¹
	Group 1 (1-50%)	Group 2 (51-80%)	Group 3 (81-95%)	Group 4 (96-100%)	
<u>Education/Employment</u>					
% No educational/vocational qualifications	5.8	14.4	22.2	52.1	<.0001
% Attained University degree by age 25	36.2	19.8	10.9	0.0	<.0001
% Unemployed 12 months or longer (21-25 years)	6.8	8.5	15.0	17.4	<.001
% Welfare dependent (25 years)	8.5	12.0	14.3	32.6	<.0001
Mean gross income (\$NZ) past 12 months (25 years)	28,590	27,000	24,090	20,560	<.005
N	497	283	147	46	

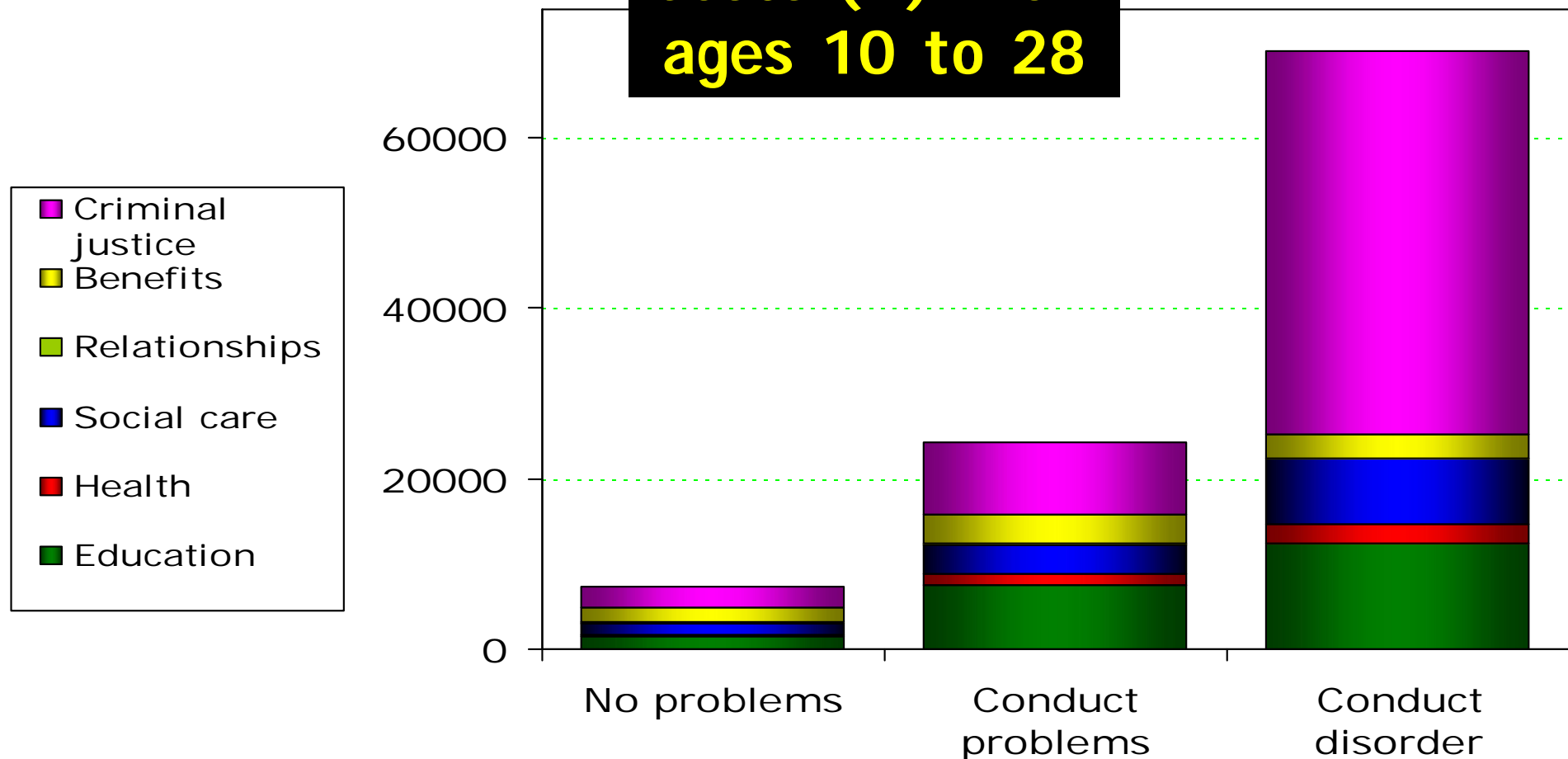
Costs - young children with persistent antisocial behaviour



Total cost excluding benefits averaged £5,960 per child per year, at 2000/01 prices (benefits = £4307)

Costs in early adulthood linked to childhood antisocial behaviour

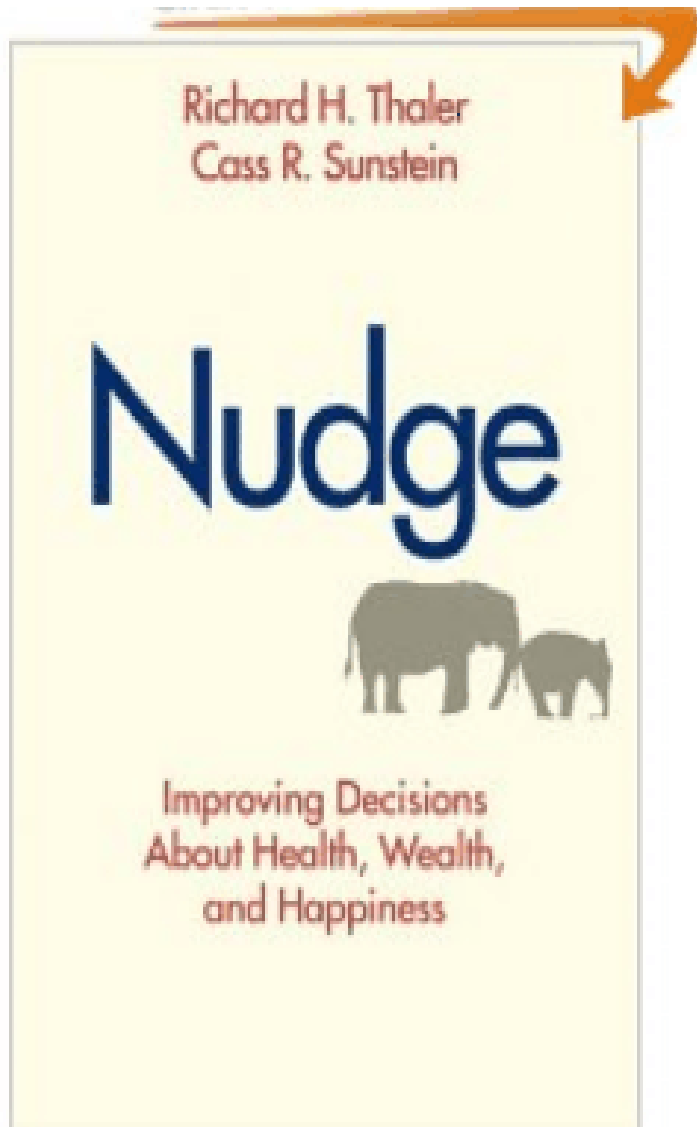
**Costs (£) from
ages 10 to 28**



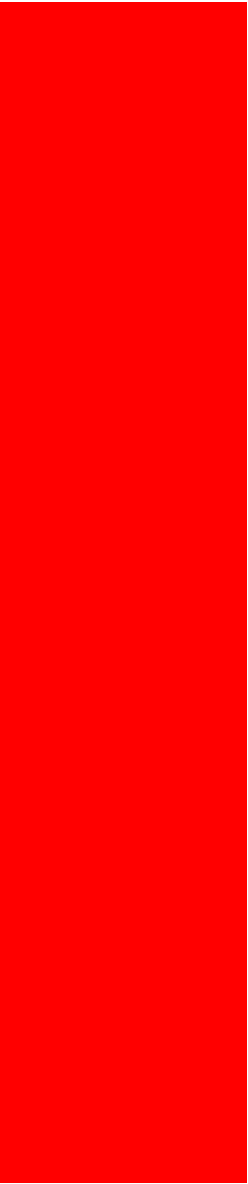


Understanding motivation to change

Incentivising people to change Nudge picture



- Looking at ways in which to help motivate change
- Traditionally economics assumed rational behaviour
- Behaviours more complex
- Can individuals be nudged towards healthier behaviours
- How to ensure that this doesn't widen inequalities in society
- Economists beginning to look at cost effectiveness of different approaches to engagement with health promoting interventions



The value of tackling post-natal depression: an illustrative analysis

Impacts of maternal depression - immediate and longer term

- Sadness, withdrawal and focus on negative aspects of life
- ... generally poor maternal **quality of life**
- Interference with **parenting role**
- Disrupted **employment**; hence lower **income**
- Need for often long-term and perhaps costly **health care** interventions
- Poor **child development** → → → →

Adverse effects on children

- More difficulties managing babies' crying
- Impairments in **mother-infant interaction**
- Higher rates of **emotional problems** as children approach school age
- ... and higher rates of **behavioural problems** too
- Poorer **cognitive** development (...perhaps)
- In adolescence – a higher risk of **mood and anxiety disorders**

Health visitors can help women with postnatal depression

HVs are effective in identifying PND and referring on to GPs or others [Review by Elkan et al. *Health Tech Assessment* 2000]

HVs trained to identify and psychologically treat (CBT/person-centred) – effective in reducing symptoms [Jane Morrell et al *BMJ* 2009]

Preventive counselling begun antenatally for women at high risk, plus postnatal support and counselling up to 8 weeks reduces duration of symptoms [Peter Cooper, Lynne Murr-ray et al *BJPsychiatry* 2003 and elsewhere]

2 Economic Modelling studies

Objective: To evaluate the cost effectiveness of early detection and subsequent treatment of postnatal depression (PND) by HVs, as compared to detection and treatment in their absence

Outcomes: Maternal mental health

- Impact on maternal employment rates

- Impacts on lifetime opportunities of children as adults

Data: Identifying and treating PND, adverse consequences of PND; and employment rates from previous literature

- Cost data from NHS sources, NICE estimates

- Long term outcomes data from 1970 Birth Cohort Study to age 30; and Inner London Longitudinal Study to age 2

Still conservative ...

Does not look at :

- **health benefits to children** – in both childhood and adulthood (except as reflected in earnings)
...
- ... and reduced **health care and other service** use in childhood and later (eg CJS, special education, ...)
- impacts on **fathers and grandchildren**
- any effects of **enhanced training** for health visitors (including in psychological therapies)

Preliminary results

(interim ... work in progress)

- PND costs at least £45m per year in England & Wales
- After one year cost per QALY gained to mother alone with universal screening and treatment £4,657
- Cost to a PCT of around £640,000 to provide service
- Likely to be cost saving after two years because of employment improvements
- When considering long term improvements in child employment outcomes, each £1 invested likely to generate a return of £3

Take home messages

Economics in the health sector is moving beyond illness alone

Promoting better wellbeing / prevention of illness potentially have significant economic payoffs

Many potential payoffs beyond health sector (e.g. employment and education)

One key area where new economics can play role is to promote action in the early years of life

CPHVA members are one group with a key role to play