

## **Mental Wellbeing:**

what is it, why does it matter and how  
do we measure it?

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Professor of Public Health

**What does mental wellbeing  
look like ?**

**FEELING GOOD  
AND  
FUNCTIONING WELL**

# Functioning well

Psychological WB; Eudemonic WB; Flourishing

Self acceptance

POSITIVE RELATIONS WITH OTHERS

Autonomy

Agency

Purpose in life

Personal growth and development

# Feeling good

Subjective; WB Hedonic

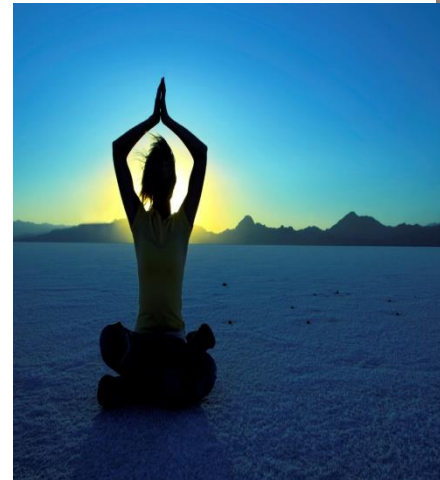
- Life satisfaction
- Happiness



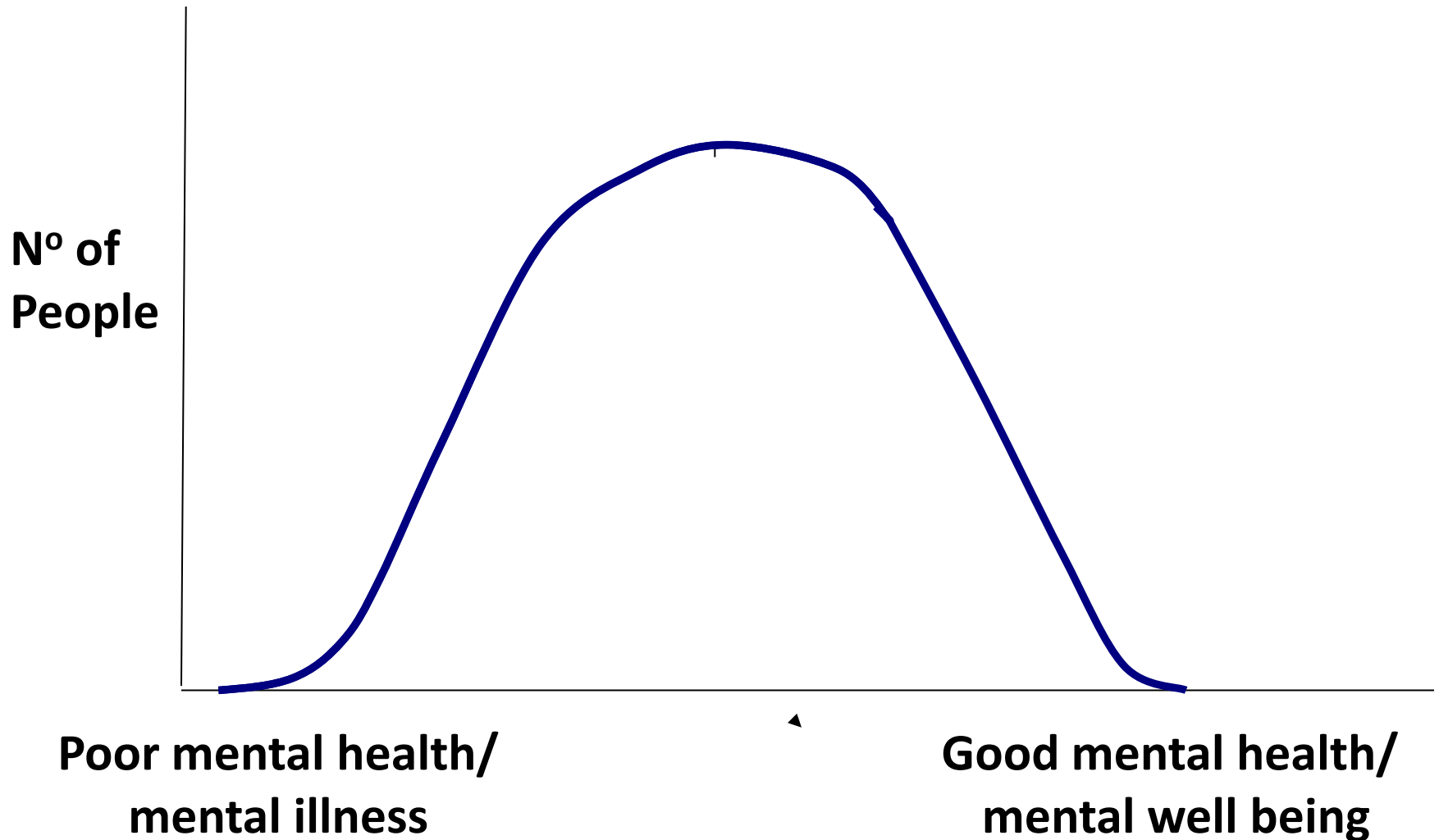
# Spiritual wellbeing

Salovey 1990

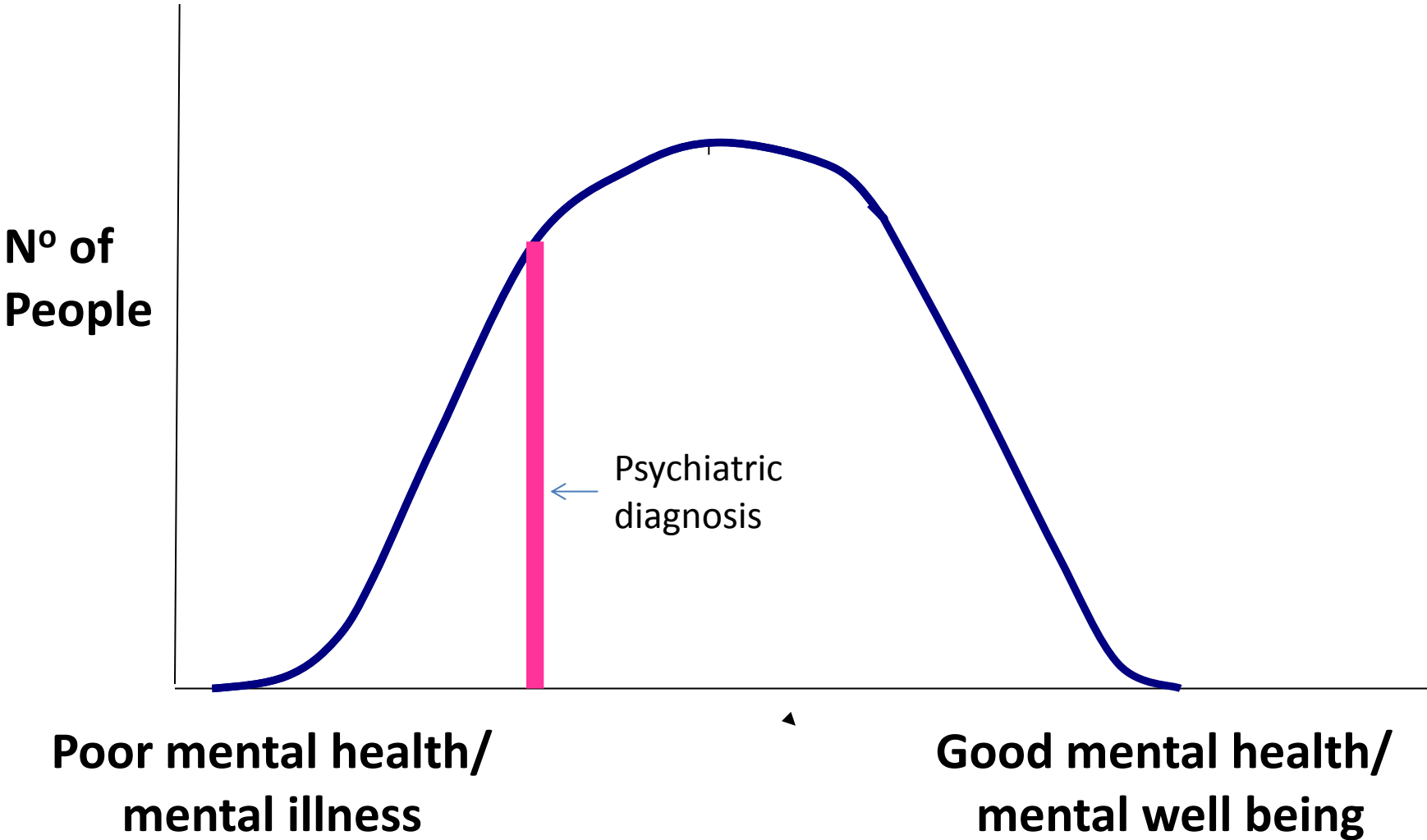
- Practicing a religion
- Going to church
- Belief in the divine
- Sense of purpose
- Connectedness



# Mental Health Continuum



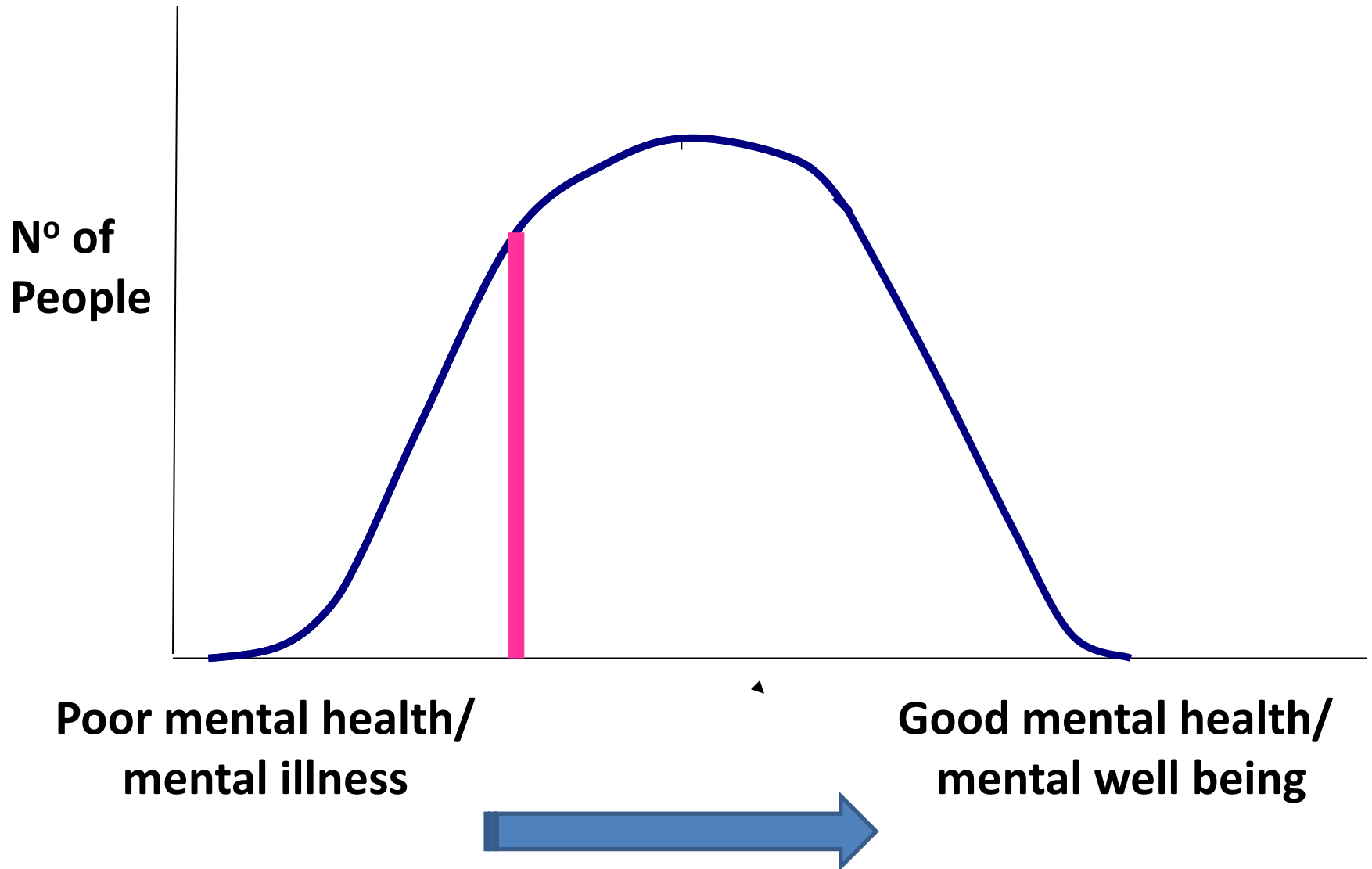
# Distribution of Mental Health



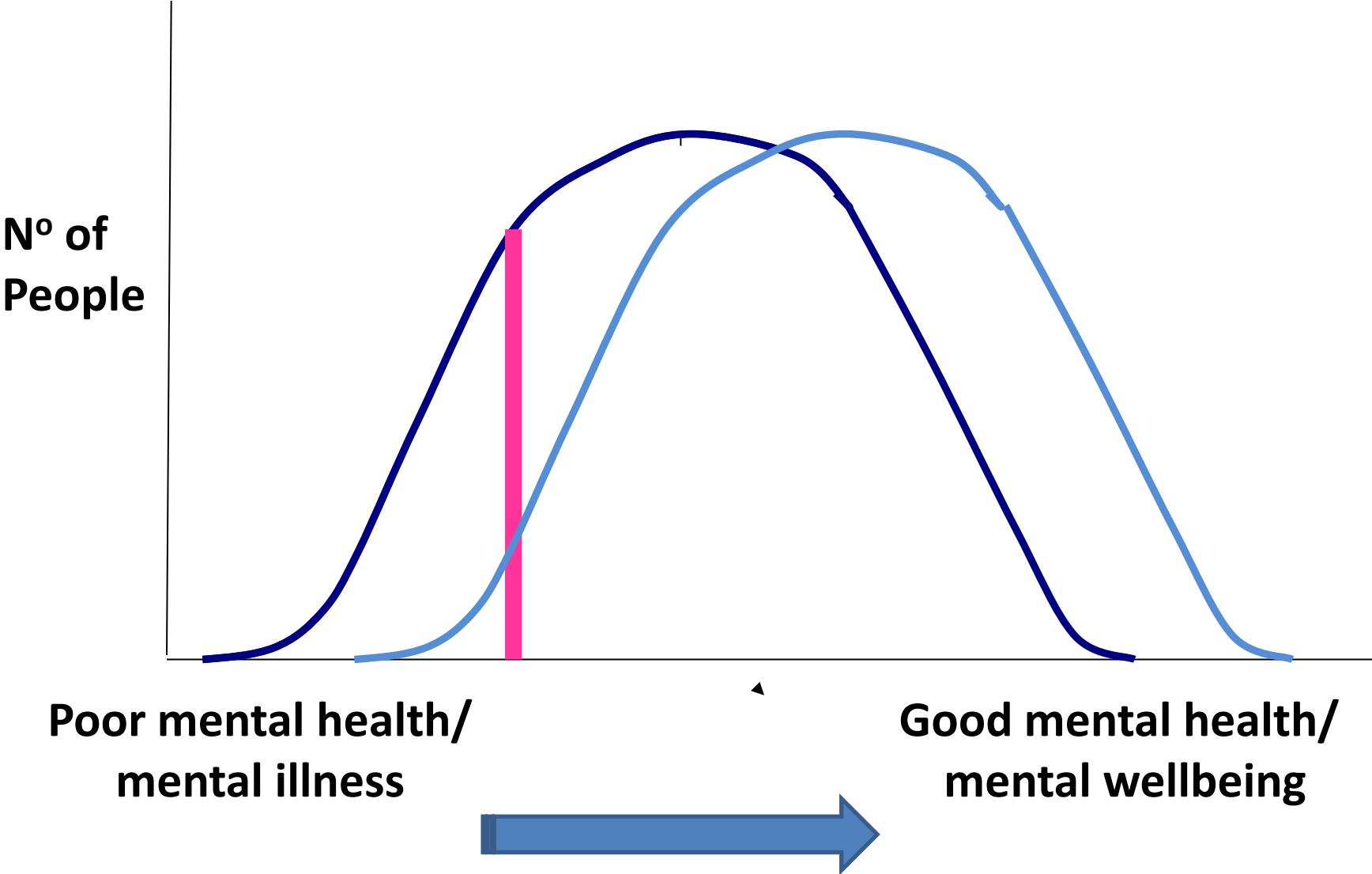


# Distribution of Mental Health

## Geoffrey Rose Argument

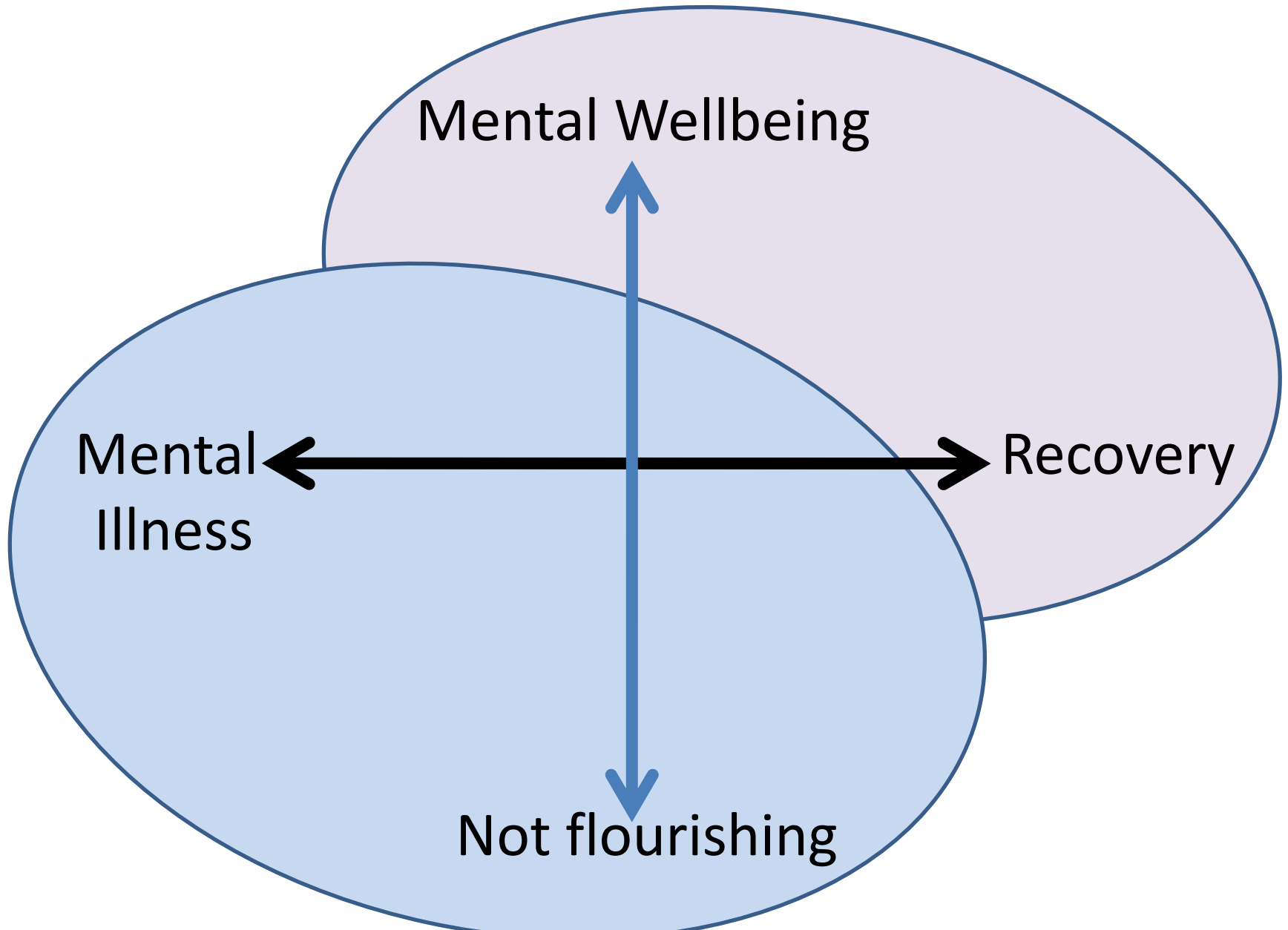


# Distribution of Mental Health

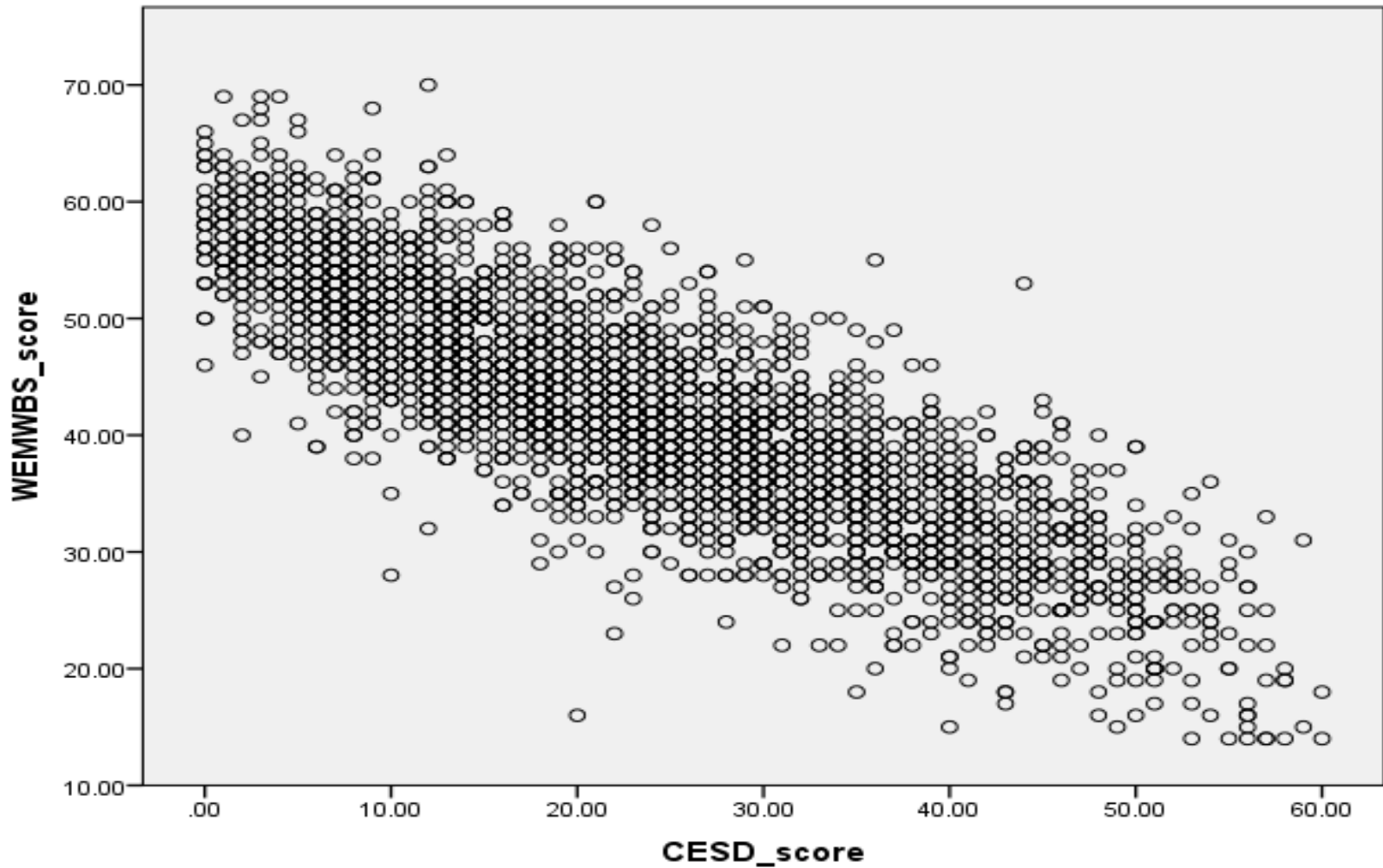


Promoting mental wellbeing  
prevents mental illness; but  
preventing mental illness does not  
promote mental wellbeing

# Dual Continuum Model



# WEMWBS vs CESD-D



Pearson correlation .842



# Why focus mental wellbeing?

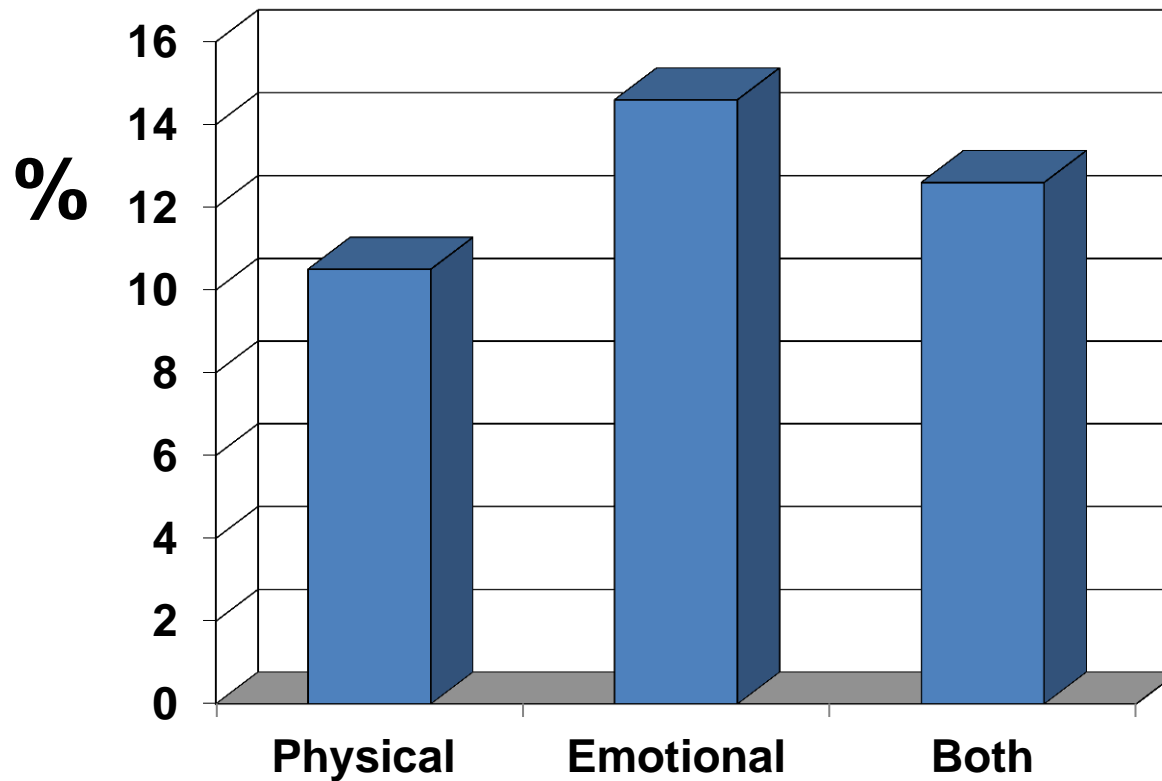
- General public increasingly demanding that the NHS should concern itself with wellbeing as well as disease
- **Lack of mental wellbeing creates risk for mental illness**
- Lack of mental wellbeing is a determinant of physical health
- Interventions which focus on the positive may be more effective than those that focus on the negative.
  - ‘What you pay attention to is what you get more of’
  - Biology of Belief: Bruce Lipton 2008

# Mental Illness/Disorder/ Mental Health Problems

- Many studies show mental illness is very common
  - >10% of children and young people
  - >18% of adults
  - 0.5% have psychosis
- Lifetime risk much higher
  - 25% of men and 50% of women have had an episode of clinical depression in their lifetime



**% 18-64yrs Reporting problems with work or other daily activity as a result of their health over 4 wks (SF-36)**  
Postal questionnaire survey of 9332 adults in old Oxford Region



# Why focus mental wellbeing?

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# Studies showing mental health problems predict physical disease (1)

- People with psychotic disorders die on average 25 yrs earlier than the general population (Parks et al 2006)
- Self report of depression in population studies increases mortality by 50% (Mekletun et al 2007)
- Diagnosis of neurotic disorder in general practice increases mortality over next 11 years by 70% (Lloyd et al 2006)

# Positive Relationships Prevent Death

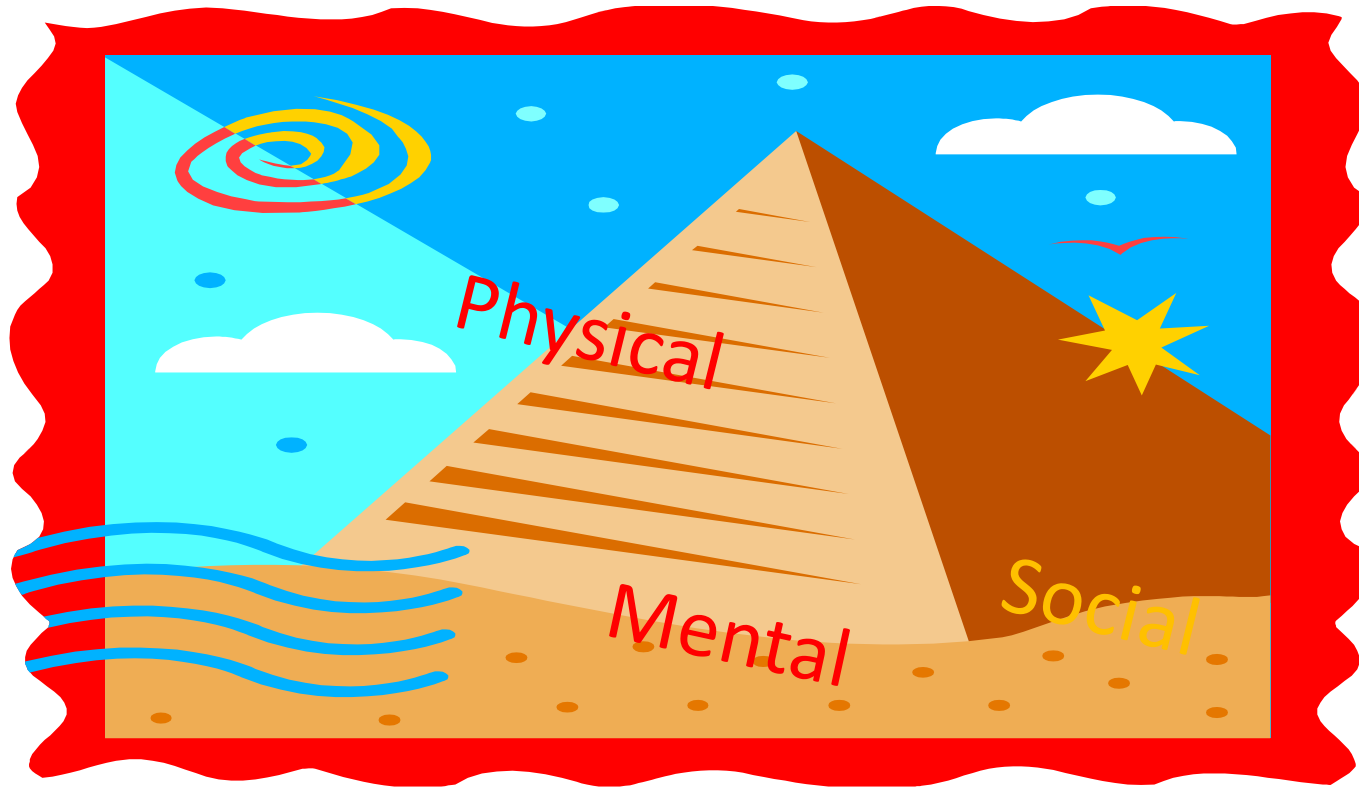
Holt-Lunstad J. Smith TB, Layton JB 2010

## Meta-analysis

- 148 Studies
- OR 1.50 (1.42-1.59) favouring stronger social relationships
- Measures of **social integration** OR 1.91(1.63-2.23) were more strongly predictive than measures of **social networks** OR 1.19 (0.99-1.44)



# Wellbeing is holistic



- Descartes was wrong
- The mind and body are one system
- We are all connected
- Humans are part of the ecological system

# Stress

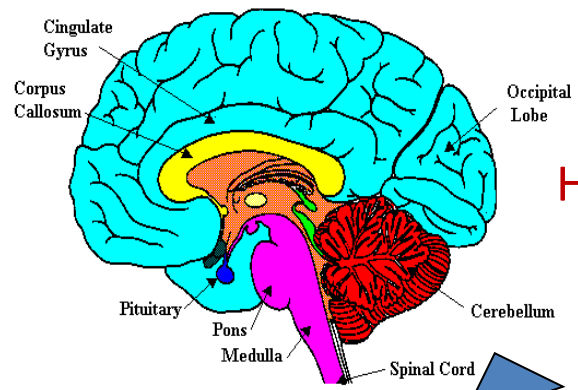


- A potential disturbance in the equilibrium of essential body functions (McEwen and Lasley 2002)
- Equilibrium is the balance between the stress (sympathetic) and relaxation (parasympathetic) response (Dusek et al 2008)
- Stressors can be either physical or psychological: the response is the same

# Stress response

- In healthy state, the stress response is followed by re-establishment of balance, but this takes time to happen
- Repeated or chronic stress results in permanent imbalance, and ultimately dysregulation of the stress response
- The stress response affects all physiological systems including respiration, cardiovascular, digestion, immunity and memory

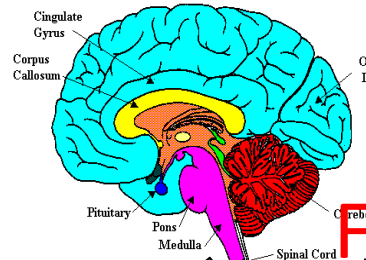
# Parent



Hostility, depression,  
anxiety, anger



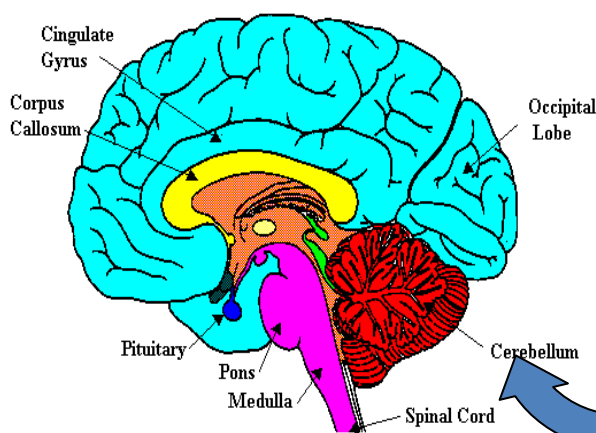
# Infant



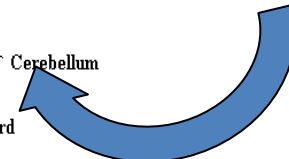
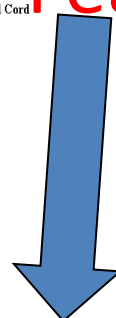
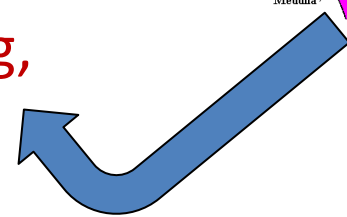
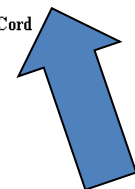
Fear

Distress, crying,  
withdrawal

Adult who is  
prone to  
fight, flight  
or freeze  
responses



Sets thermostat on  
HPA stress response





# Smoking

- 42% of tobacco consumed by adults is consumed by people with mental disorder
- prospectively associated with 50% increase in the risk of mental health problems (Culjpers et al 2007)
- cessation associated with improvements in mental health (Taylor et al BMJ 2014)
- smoking in pregnancy predicts mental health problems in offspring

# Substance misuse

- Drug and alcohol abuse strongly associated with mental health
- Parental alcohol misuse is a potent cause of mental health problems in children

# Physical Activity

- Mental illness associated with sedentary lifestyles
- Adults meeting guidelines for PA have greatest wellbeing
- PA reduces depression and anxiety and reactivity to psychosocial stressors

# Fruit and Veg and Mental Health

- Dose response relationship between current fruit and veg consumption and mental health up to 7 portions a day: Blanchflower et al 2012 Soc Indic .res DOI.10007/s11205-012-01730y
- 9 different antioxidants found in F&V associated with optimism in cross sectional study. Boehm et al Psychosomatic Medicine 2013;75:2-10
- Consumption of fruit and vegetables predicts same day positive affect and also next day. Bonnie et al BJ Health Psychology 2013;doi:101111/bjhp.12021
- Fruit and veg most consistent predictor of mental wellbeing in Health Survey for England (PA not measured)  
<http://bmjopen.bmj.com/content/4/9/e005878.full>

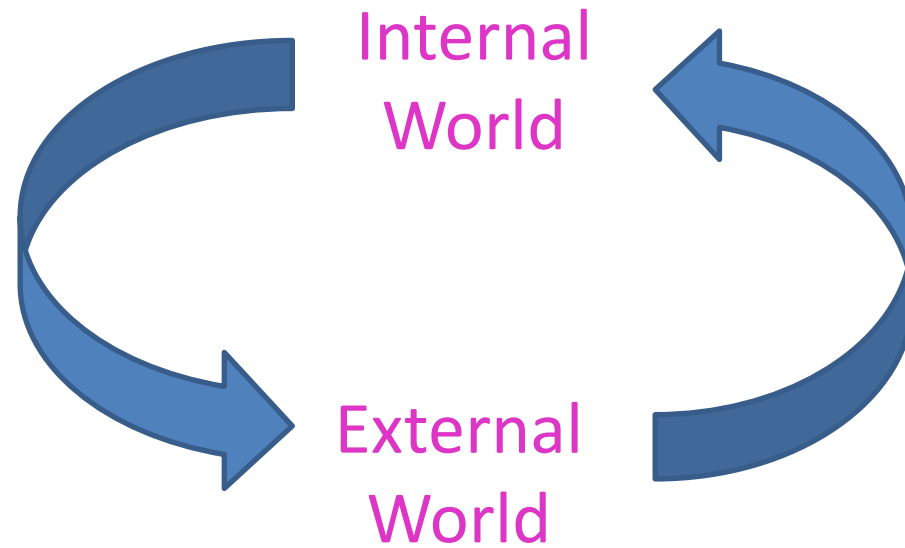
# Mental wellbeing underpins:

- Motivation
- Agency
- Autonomy
- Self belief
- Self care



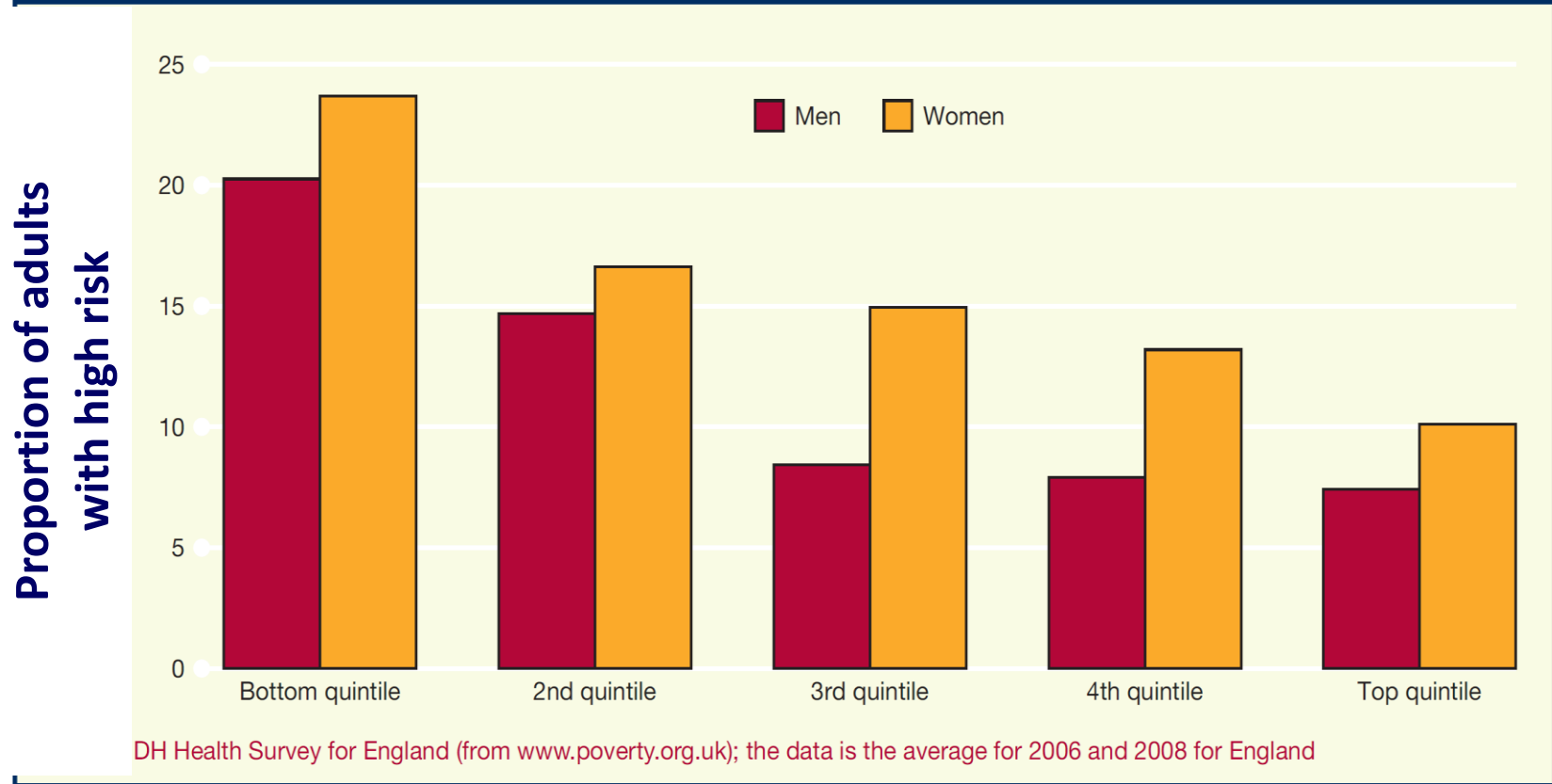
- And is thus bound to influence the capacity to develop and sustain a healthy lifestyle and care for self in chronic illness

# Determinants of Wellbeing

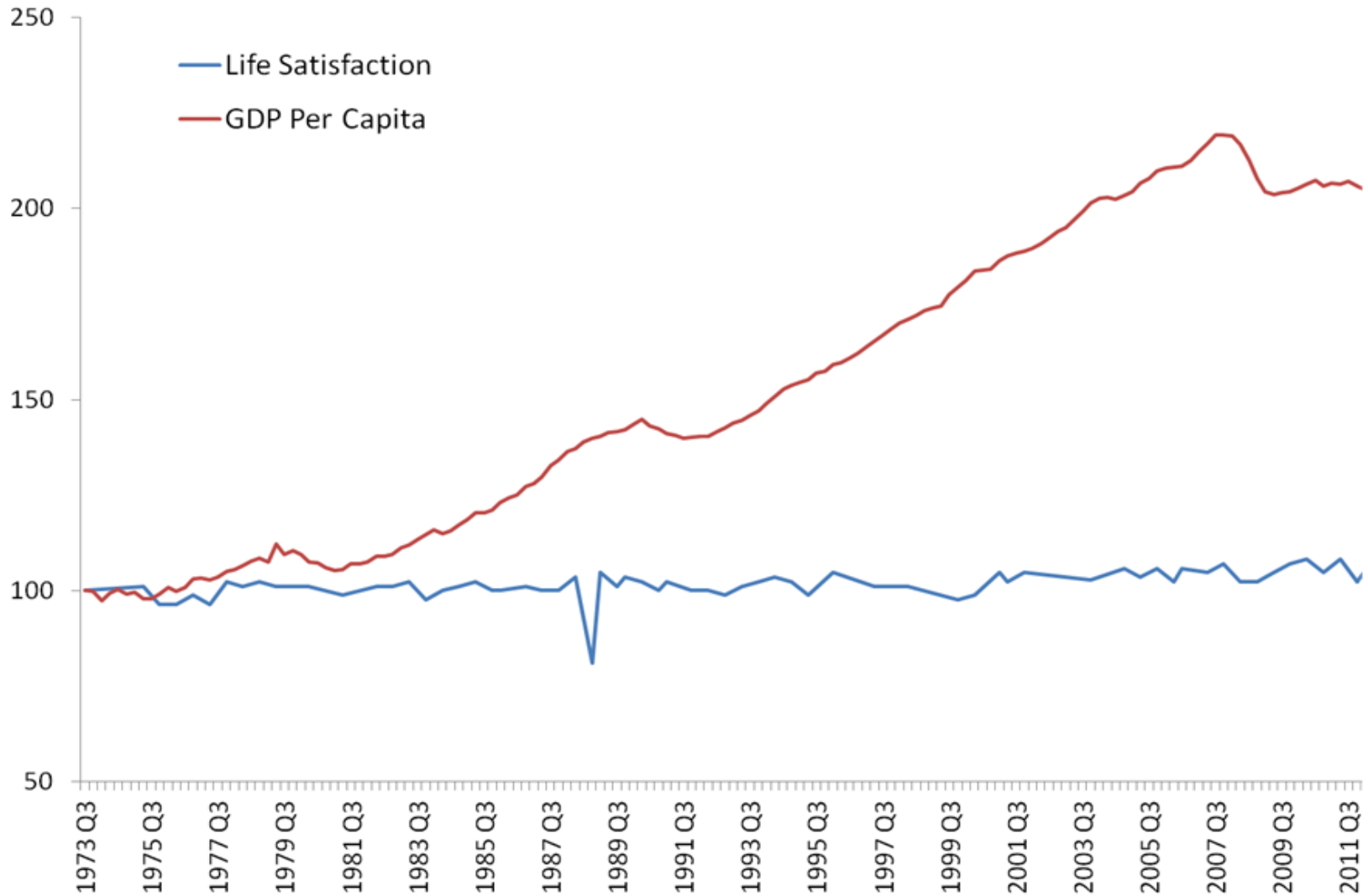


# Social inequalities as determinants

**35B: Adults in the poorest fifth are much more likely to be at risk of developing a mental illness than those on average incomes.**



# Life Satisfaction and GDP in the UK 1973-2011



By Kind Permission of Ewen Mckinnon Cabinet Office Nov 2012

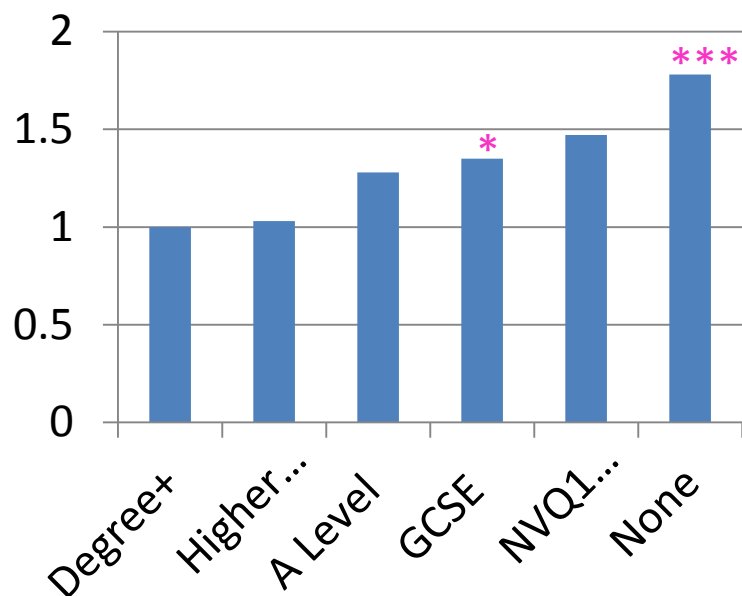


# Educational Achievement Mental Wellbeing

adjusted for age, sex, income, employment status, marital status, ethnicity, religion

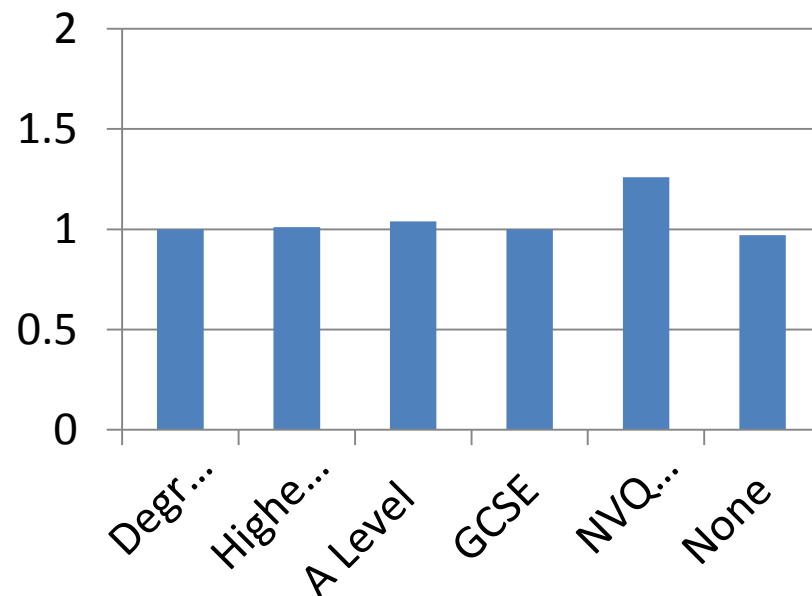
## Odds of Low Mental Wellbeing

relative to mid range (p trend = < 001)



## Odds of High Mental Wellbeing

relative to mid range (p trend > .05)



Reference category Degree Level Education

Health Survey for England Adults 16+ 2010 / 2011

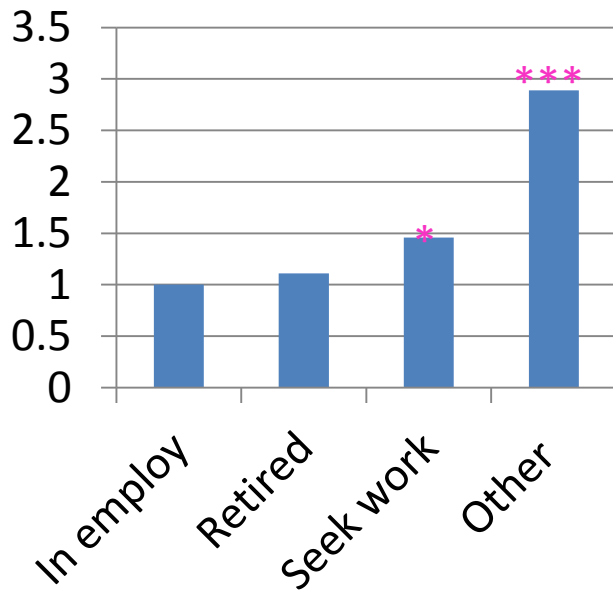
Stewart-Brown et al BJ Psych in press 2014

# Employment Status and Mental Wellbeing

adjusted for age sex, income, education, marital status, ethnicity, religion

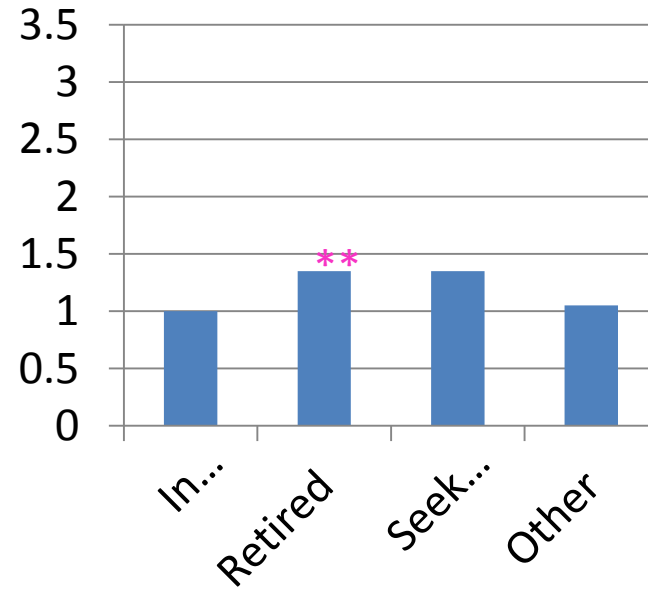
## Odds of **Low** Mental Wellbeing

relative to mid range (p trend <.001)



## Odds of **High** Mental Wellbeing

relative to mid range (p trend >.05)

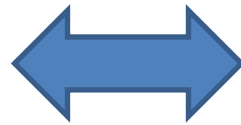


Reference category in employment

Health Survey for England Adults 16+ 2010 / 2011

Stewart-Brown et al BJ Psych in press 2014

**Mental illness**



**Educational failure**

**Poverty**

**Unemployment**

**Mental wellbeing**

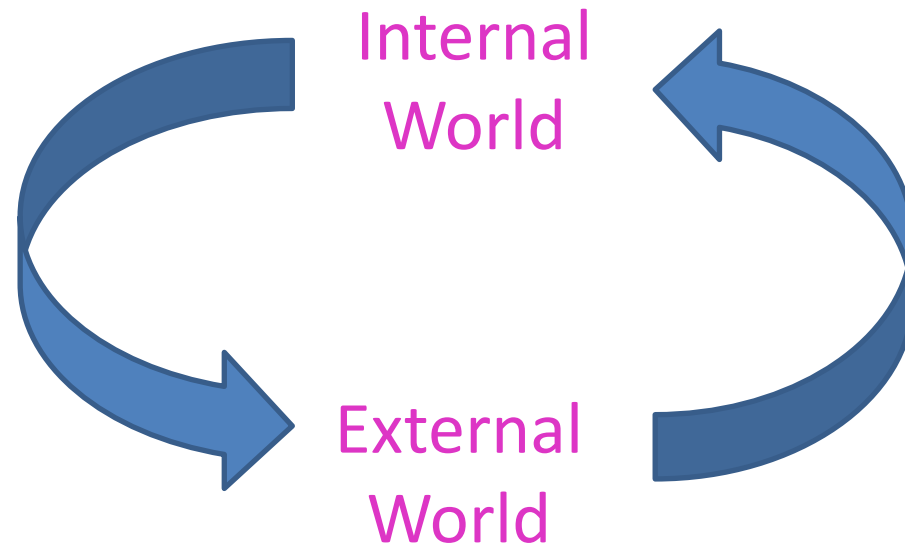


**Educational success**

**Wealth**

**Employment**

# Determinants of Wellbeing





# Measuring Mental Wellbeing

# Positive or Negative

- Great majority of measures of mental health focus on the negative/ disease / distress
- Public and patients prefer positive measures  
Crawford et al. Selecting outcome measures in mental health. J. Mental Health 2011(20)336-346
- Positive measures better support positively focused interventions

# Why focus mental wellbeing?

- General public increasingly demanding that the NHS should concern itself with wellbeing as well as disease
- Lack of mental wellbeing creates risk for mental illness
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- **Interventions which focus on the positive may be more effective than those that focus on the negative.**
  - ‘What you pay attention to is what you get more of’
  - **Biology of Belief: Bruce Lipton 2008**



## The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

STATEMENTS	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future	1	2	3	4	5
I've been feeling useful	1	2	3	4	5
I've been feeling relaxed	1	2	3	4	5
I've been feeling interested in other people	1	2	3	4	5
I've had energy to spare	1	2	3	4	5
I've been dealing with problems well	1	2	3	4	5
I've been thinking clearly	1	2	3	4	5
I've been feeling good about myself	1	2	3	4	5
I've been feeling close to other people	1	2	3	4	5
I've been feeling confident	1	2	3	4	5
I've been able to make up my own mind about things	1	2	3	4	5
I've been feeling loved	1	2	3	4	5
I've been interested in new things	1	2	3	4	5
I've been feeling cheerful	1	2	3	4	5

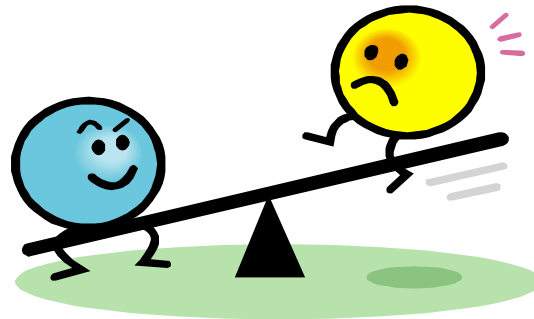
# WEMWBS items (full scale)

Tennant et al 2007

- I've been feeling optimistic about the future
- I've been feeling useful
- I've been feeling relaxed
- I've been feeling interested in other people
- I've had energy to spare
- I've been dealing with problems well
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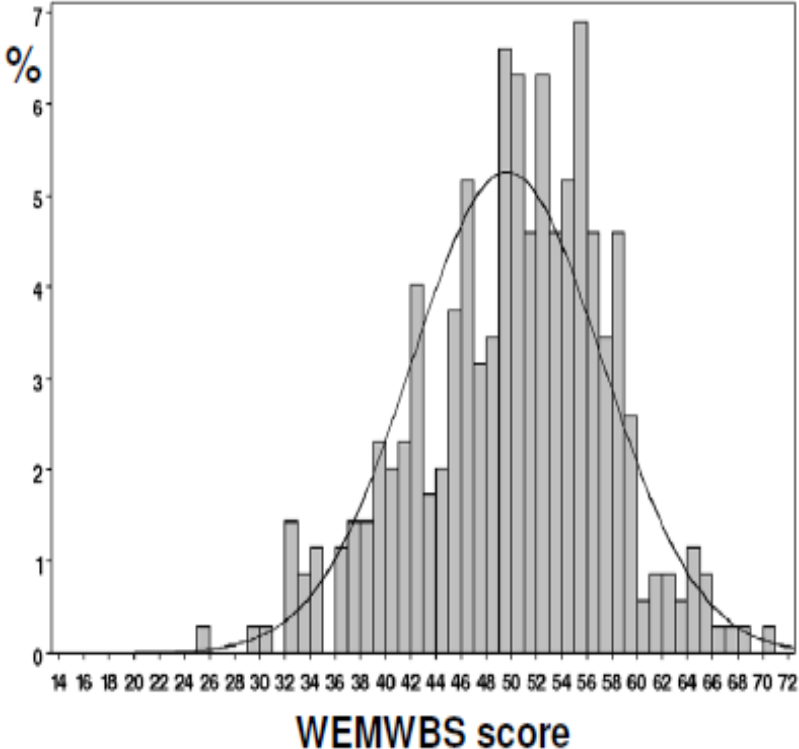
# WEMWBS

- Self report measure of mental well-being
- Covering both eudemonic and hedonic components
- Adopting a single continuum model
- Focusing entirely of positive aspects of mental health

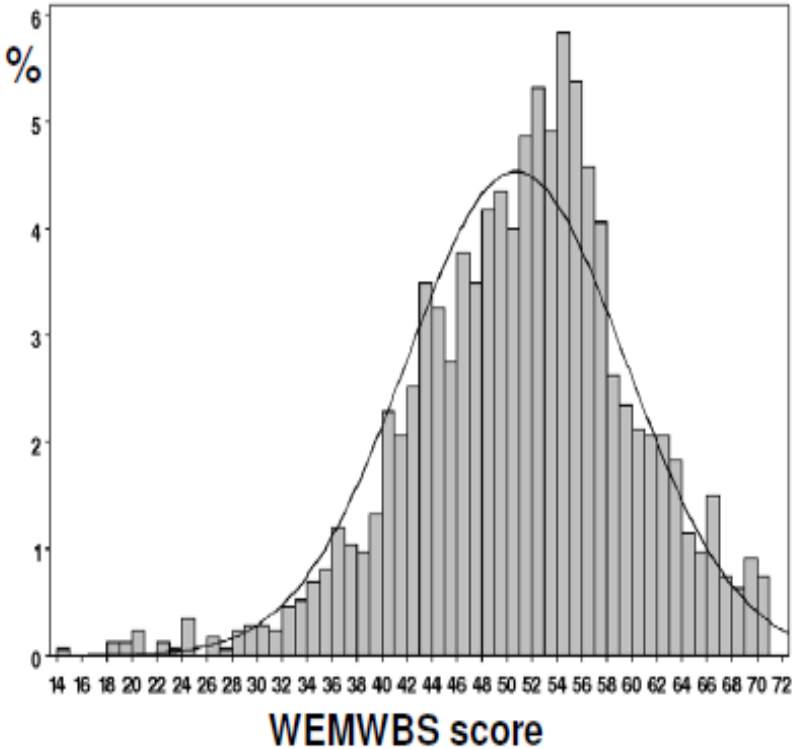


# Distribution of WEMWBS scores: student and population samples

Student sample



Population sample



Student sample: median score: 50

Population sample: median score: 51

# One Week Test-Retest Reliability

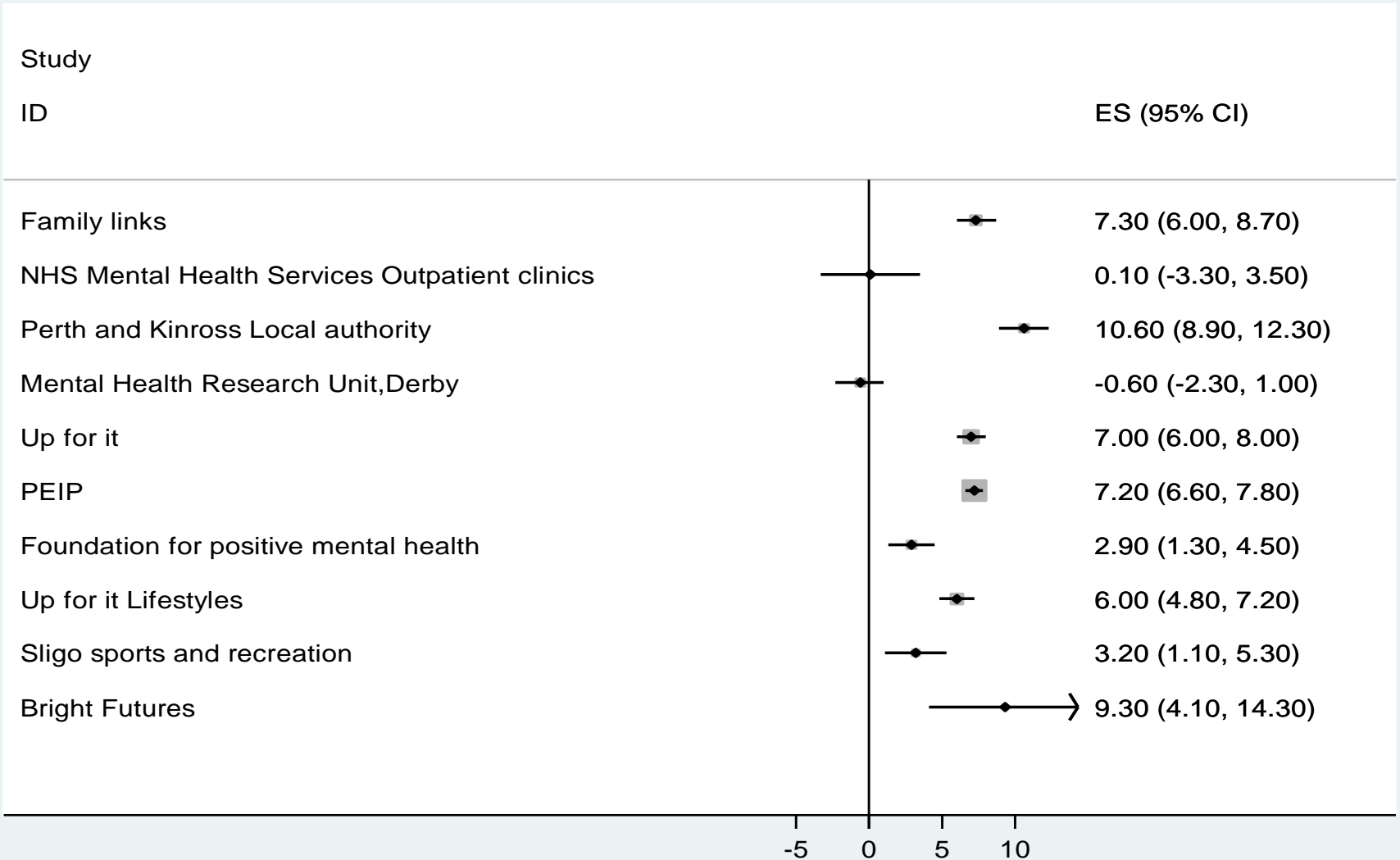
## Student sample

	WEMWBS Correlation
Whole sample	0.83**
Warwick	0.80**
Edinburgh	0.83**

\*\* P<0.01

# Sensitivity to Change

## Mean change in WEMWBS Score



# One Body One Life Evaluation

Change in Mental Wellbeing | (WEMWBS)

Baseline to completion Effect Size = 0.51

Baseline to 3 Months Effect Size = 0.40

## Correlation between change in WEMWBS scores and change in lifestyle

N at start = 481	Baseline to completion N = 307		Completion to 3 months N =121		Baseline to 3 months N =121	
	R (rho)	p	R (rho)	p	R (rho)	p
Fruit and veg consumption (portions per day)	<b>.241</b>	<b>.001*</b>	.028	.786	<b>.224</b>	<b>.021*</b>
Physical activity (times per week active >30 minutes)	.068	.358	.151	.192	.130	.310
Walking (times per week walking >30 min).	.041	.569	.126	.267	.091	.434

# Validation in 13-15 year olds

Quantitative findings – instrument valid

Qualitative findings:

- Understood the instrument
- Found it easy to complete and acceptable
- Two items which created most discussion in focus groups:
  - I've been feeling optimistic about the future
  - I've been feeling interested in other people



# Minority Ethnic Validation

Pakistani, Chinese, Urdu, Bangla

## Qualitative findings

- Understood the instrument
- Found it easy to complete and acceptable
- Half items posed no problem: 7 created discussion
  - Context
    - I've been feeling useful/relaxed/loved
  - Cultural differences
    - I've been able to make up my own mind about things
    - I've had energy to spare
  - Comprehension
    - I've been feeling optimistic about the future
    - I've been feeling interested in other people

# Validation

- <http://www2.warwick.ac.uk/fac/med/research/platform/wemwbs/>
- Tennant R, Hiller L, Fishwick R, Platt P, Joseph S, Weich S, Parkinson J, Secker J, Stewart-Brown S. [The Warwick-Edinburgh Mental Well-being Scale \(WEMWBS\): development and UK validation](#). Health and Quality of Life Outcome 2007;5(63) doi:10.1186/1477-7252-5-63 (WRAP) <http://www.hqlo.com/content/5/1/63>
- Stewart-Brown S, Tennant A, Tennant R, Platt S, Parkinson J, Weich S. [Internal construct validity of the Warwick-Edinburgh Mental Well-being Scale \(WEMWBS\): a Rasch analysis using data from the Scottish Health Education Population Survey](#). Biomed Central Health and Quality of Life Outcome, 2009;7(15). ISSN 1477-7525. <http://www.hqlo.com/content/7/1/15> (WRAP)
- Clarke A, Friede T, Putz R, Ashdown J, Martin S, Blake A, Adi Y, Parkinson J, Flynn P, Platt S, Stewart-Brown S. [Warwick-Edinburgh Mental Well-being Scale \(WEMWBS\): Mixed methods assessment of validity and reliability in teenage school students in England and Scotland](#). BMC Health and Quality of Life Outcomes <http://www.biomedcentral.com/1471-2458/11/487>
- Frances Taggart, Tim Friede, Scott Weich, Aileen Clarke, Mark Johnson, Sarah Stewart-Brown Cross Cultural Evaluation of the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) A mixed methods study Health and Quality of Life Outcomes.2013, 11:27. DOI: 10.1186/1477-7525-11-27. URL: <http://www.hqlo.com/content/11/1/27>
- Gremigni P, Stewart-Brown S. Una Misura del Benessere mentale: [Validazione Italiana Della Warwick-Edinburgh Mental Well-being Scale \(WEMWBS\)](#). Giornale Italiano di Psicologia, 2011, 2: 543-563.
- Castellvi P, Forero CG, Codony M, Vilagut G, Brugulat P, Medina A, Gabilondon A, Mompert A, Colom J, Tresserras R, Ferrer M, Stewart-Brown S. [The Spanish Version of the Warwick-Edinburgh Mental Well-being Scale \(WEMWBS\) is valid for use in the general population](#) (submitted).
- Marion Trousselard et al. Sarah Stewart-Brown Nicolas Franck [Investigating well-being in France with the WEMWBS: healthy populations and schizophrenia](#) (submitted)
- Maheswaran H Weich S Powell J Stewart-Brown S [Evaluating the responsiveness of the Warwick Edinburgh Mental Well-Being Scale \(WEMWBS\): Group and individual level analysis](#) BMC Health and Quality of Life Outcomes 2012, 10:156 (27 December 2012) <http://www.hqlo.com/content/pdf/1477-7525-10-156.pdf>
- Crawford MJ, Robotham D, Thanai I, Patterson S, Leaver T, Barber I, Wykes T, Rose D. [Selecting outcome measures in mental health: the views of service users](#). Journal of Mental Health 2011;20:336-346

# Other Measures of Mental wellbeing:

- Office of National Statistics: 4 Questions
- Short Form Mental Health Continuum
  - Keyes 2002
- WHO 5
- SF -36 : PCS and MCS
- GHQ- 12

# Office of National Statistics Approach

- Overall how satisfied are you with your life nowadays?
- Overall how happy did you feel yesterday ?
- Overall how anxious did you feel yesterday ?
- Overall, to what extent do you feel things you do in your life are worthwhile ?

Its:

- 'woolly'
- 'soft, fluffy'
- 'all subjective'

'Tree huggers'

'They thought we were nuts'

## Mental wellbeing was not credible as a goal for publicly funded services

'What's this got to do with us? ... yeah.. bewildering I suppose'

'The key indicator was the suicide rate'

'You could see [the effect of {mental health promotion}], you could feel it, but you couldn't measure it'

'Eureka  
moment'

## Reaction to WEMWBS

'We were just  
desperate for a  
measure that  
recognised positive  
mental health'

'A great solution  
because there is  
nothing else'

'Not clinical'  
'Didn't medicalise'

It was 'easy, simple, no floor or  
ceiling effects; robust validation'

# WEMWBS doesn't solve all problems

- One off MWB interventions not suitable for evaluation
- Many community based organisations are not familiar with evaluation
- Some components of wellbeing are not covered in WEMWBS

# POSITIVE FOCUS

Focusing on the positive is an intervention in its own right