

Our health, our care, our say

a new direction
for community services

Government White Paper (2006)

Life Check Goals

NHS LifeCheck aspires to be a “gold-standard” interactive and accessible health intervention tool. Each NHS LifeCheck has four steps:

1. an easy-to-use, personal and confidential risk assessment questionnaire that asks questions about a person’s lifestyle, including diet and exercise
2. clear and personalised results about health risks that the person can change by modifying their day-to-day behaviour, including how these risks affect health and longevity, like smoking or lack of exercise
3. NHS LifeCheck then facilitates behavioural change by assisting the person in setting realistic and motivating personal goals
4. support to meet these goals with reminders and motivational tools

The four stages



For whom?

Initially, NHS LifeChecks are being developed for three key stages in peoples' lives: Early Years, Adolescence and Mid-life. Each one will focus on risk factors and behaviours that are relevant to each life stage.

Mid-life LifeCheck is aimed at people aged 45-60.

NHS LifeCheck is being developed to combat health inequalities through targeted use in areas of deprivation. In these areas, it is intended that NHS LifeCheck can be used to encourage people at highest risks of ill health caused by lifestyle choices to do a personal LifeCheck and act on the results. Once in place, Health Trainers can use it as a tool to help their clients make positive health changes.

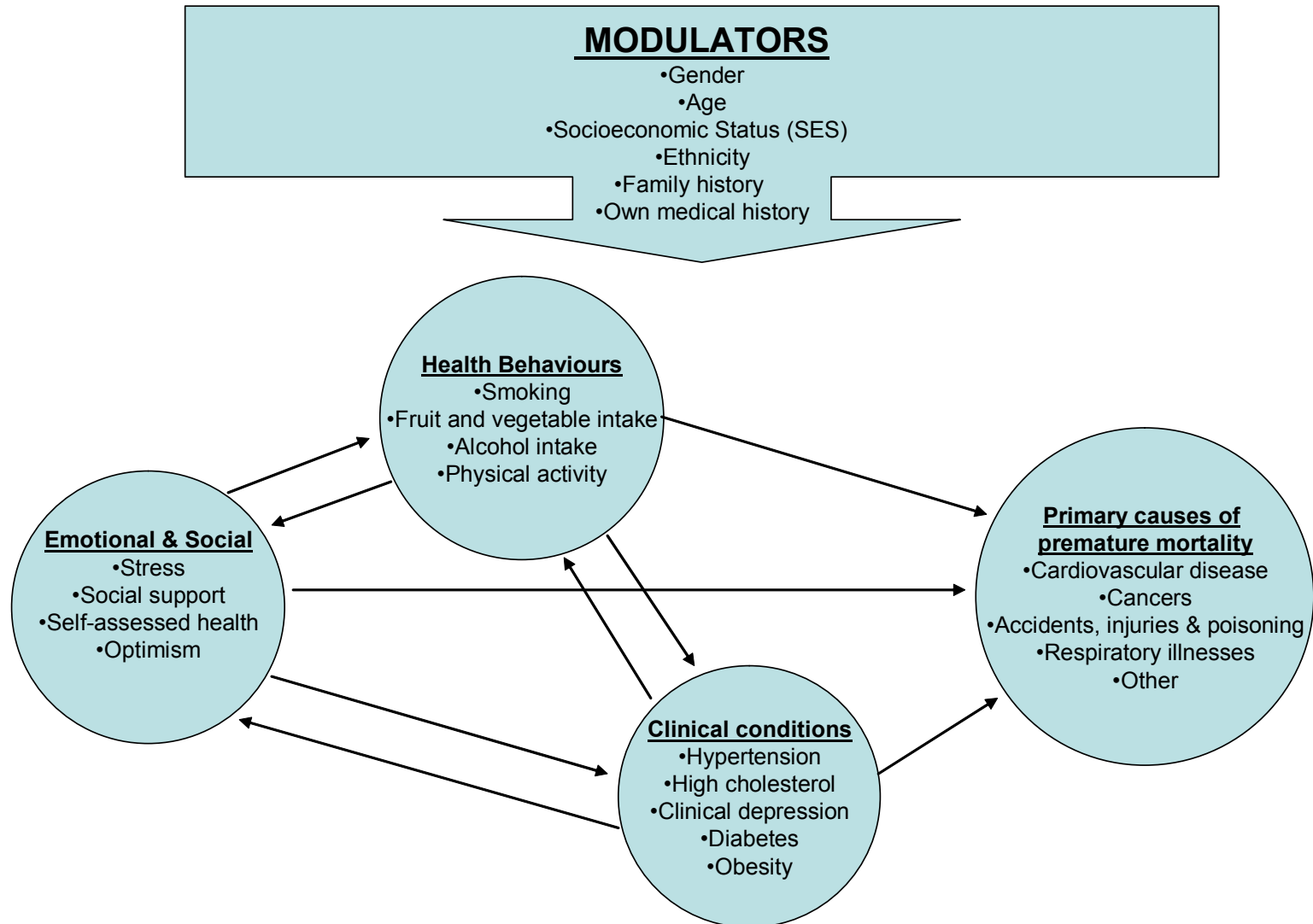
NHS LifeCheck is also being developed in consultation with health professionals so that it can support them in their wider health improvement role.

Mid-**L**ife **L**ife-**C**heck

Task: to develop items for MLLC within following constraints

- Items to be “informed by” scientific literature on early mortality risk.
- Items to be confined to self-report questions which all users can answer.
- Items must be readily comprehended by all potential users, and must especially be so for the poorer and more socially excluded groups identified by DoH as needing to be reached as part of the MLLC agenda.
- MLLC is to be brief. Working to brief that it should be able to be completed within a maximum time of ten minutes.

Domains of Risk



Item Selection: Methods

- We sought out 1-item measures that have been previously validated and preferably been prospectively related to major health outcomes of interest.
- Where no obvious question existed, we developed our own item that was informed by scientific evidence and similar questions that exist in the public domain.
- We examined papers on the factor structure and item analysis of well-know standardised tools and selected best-performing items.
- We used material provided to us by the DoH as a result of their in-house research and consultation.

Expert Consultation: Methods

- When indicative items were decided on, these were sent to expert referees, along with the rationale for their selection
- Experts' feedback was used if appropriate to fine tune wording of items, and in some cases to select between alternatives

Items Suggested for Inclusion in MLLC

- Modifiable risk factors
- **1 Depression**
- **2 Stress**
- **3 Self-assessed health**
- **4 Social Support**
- **5 Optimism**
- **6 Smoking**
- **7 Physical activity**
- **8. Fruit and vegetable intake**
- **9. Alcohol Consumption**
- **10 Obesity**
- **11 Hypertension**
- **12 Diabetes**
- **13 Cholesterol**
- Non-modifiable modulators of risk
- **14 (SES)**
- **15 Age**
- **16 Ethnicity**
- **17. Gender**

Scoring Risk

- Cut-off points were established for risk on the basis of empirical studies
- In the case of Health Behaviours and Existing Physical Conditions Domains, the questions were considered as having sufficient independent risk to lead directly to the individual tailored advice components of MLLC
- In the case of the Psychosocial Domain, the questions were considered to reflect different aspects of an overarching construct of Emotional Well-being and recommended that further research be done to determine a single 'at risk' score by a combination of suitably weighted answers to the individual items

The Importance of Including the Psychosocial Domain

- A large body of studies have established psychosocial risk factors to be independent predictors of all-cause mortality
- This domain is too often neglected in conventional risk assessment and over all risk is therefore underestimated
- There is reason to believe that neuroendocrine processes linked to emotional dysfunction may be implicated in multiple pathways to physical ill-health
- There is evidence (for CHD at least) that omission of the psychosocial domain from risk-assessment leads to greater under-estimation for the poorest in our communities
- Neuroendocrine processes associated with emotional dysfunction often parallel social hierarchies (in animals as well as humans) and may partly contribute to the well-known social gradient in life-expectancy

Socioeconomic determinants of health

Stress and the biology of inequality

“The biological effects of the psychosocial environment could explain health inequalities between relatively affluent groups (through).... physiological and metabolic alterations which parallel those observed with lower socioeconomic status.”

Eric Brunner (BMJ 1997;314:1472)

But...in the context of 'Emotional Well-being' is the Positive in life simply the opposite of the Negative and vice versa?

Answer is No

- Much recent work has established that the answer is decisively no, although we have as yet no sophisticated means of determining how Positive and Negative well-being measures may combine and interact to optimise associations with health
- Therefore for MLLC we sought equal balance between Positive and Negative by selecting the two most researched constructs in each case: Optimism and Social Support (Positive); Stress and Depression (Negative).



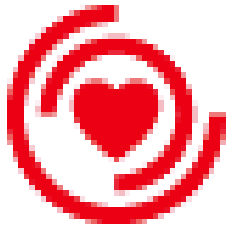
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Psychological factors and CVD

In people with coronary artery disease (CAD), mental stress is as dangerous to the heart as physical stress.

There is strong and consistent link between depression, social isolation and lack of quality social support and heart disease.

Depression, social isolation and lack of quality social support are as risky to heart health as abnormal levels of blood fats, smoking and high blood pressure.



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The psychological factors that exacerbate CVD

Three psychological risk factors are associated with coronary heart disease (CHD): acute and chronic stress, hostility and depression.

Stress can worsen heart disease, induce heart attack and even cause fatal loss of blood to the heart.

Chronic stress is associated with risk factors that lead to the development of CVD.

A stressful job can lead to coronary heart disease (CHD): latest findings suggest an increase in risk of as much as 50%.

A stressful job can raise blood pressure, itself a risk factor for CVD.

Depression plays a role in the development and progress of CVD.
People with CVD often have depression too.



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Managing stress

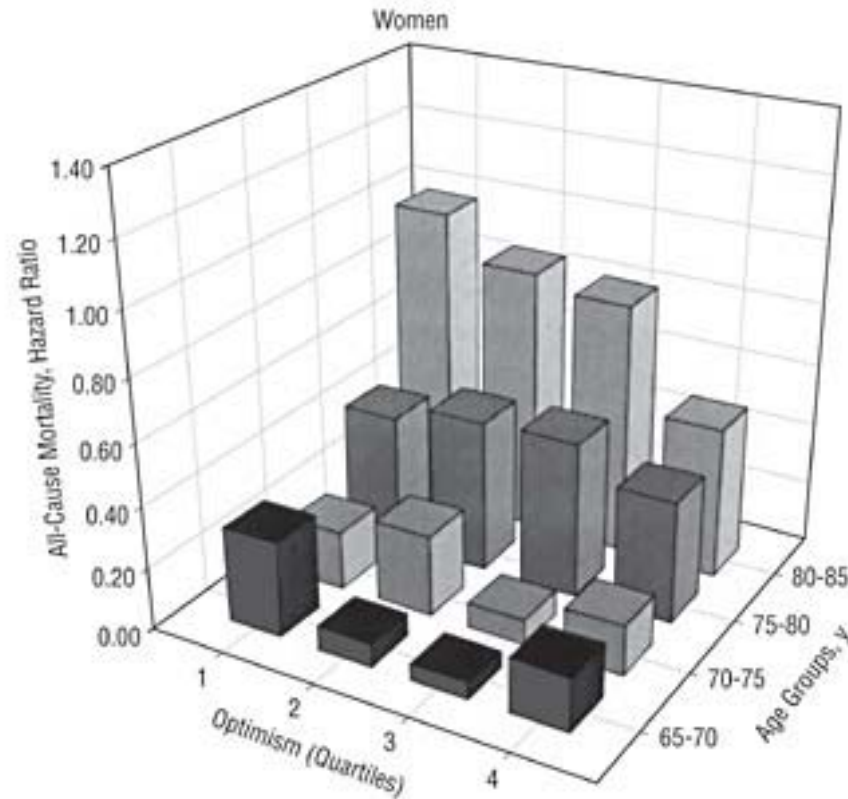
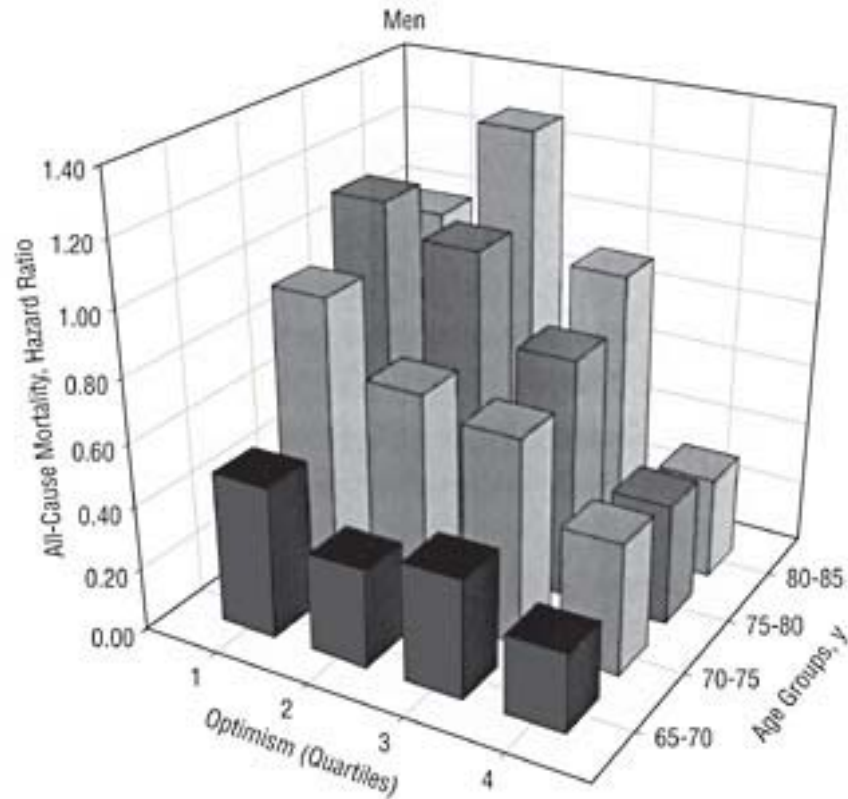
Stress reduction, when in the prevention and control of high blood pressure, can reduce death by CVD.

Exercise and stress management training can reduce emotional distress and improve heart health, more than usual medical care alone.

Being happy protects against CV mortality.

Optimism and All-Cause Mortality

Giltay et al. *Arch Gen Psychiatry*. 2004;61:1126-1135.



Effects significant for men only when adjusted for age, sex, chronic disease, education, smoking, alcohol consumption, history of cardiovascular disease or hypertension, body mass index, and total cholesterol level

Social Integration and CHD risk

Psychosom Med Orth-Gomer et al. 55 (1): 37.

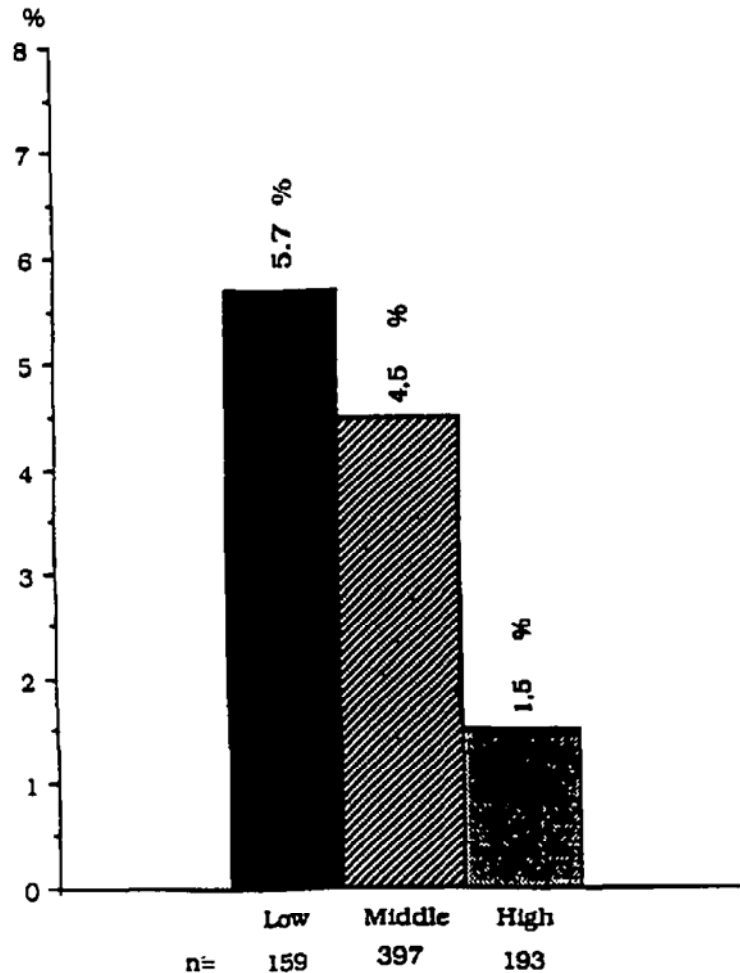


Fig. 1. Six-year incidence of coronary heart disease by social integration.

For further information

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