

The public health role of NICE in the UK.

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NICE

The National Institute for Health and Clinical Excellence (NICE) is the independent organisation in the UK responsible for providing national guidance to the NHS and the wider public health community on the **promotion of good health and the prevention** and treatment of ill health.



Public Health at NICE

- **At NICE the Centre for Public Health Excellence develops public health guidance.**
- **Established 2005**
- **31 staff based in London and Manchester, plus collaborating centres based in Sheffield, Birmingham, Exeter, London, Oxford, Liverpool and York**

Methodological principles governing all NICE's work

- **Base recommendations on the best available evidence.**
- **To determine cost effectiveness using the QALY.**
- **To be open and transparent and to involve stakeholders.**
- **To be clear about scientific and other values**
- **To allow contestability.**
- **To be seen to be independent of government and the pharmaceutical industry.**

Audiences for public health guidance

- **The NHS**
- **Local government**
- **Education**
- **The utilities**
- **Private and voluntary sectors**
- **Other arms of government**

Interventions completed

- Promoting physical activity in primary care (March 06)
- Smoking cessation in primary care (March 06)
- Preventing teen conceptions and STIs (Feb 07)
- Substance misuse and vulnerable young people (March 07)
- Supporting the smoking ban (April 07)
- Alcohol and Schools (Nov 2007)
- Primary Schools and children's mental well being (universal and targeted approaches) (March 08)
- Workplace physical activity (May 08)
- Smoking and children (July 08)



Interventions under development

- Reducing mortality in highly disadvantaged communities (Sept 08)
- Mental health and the workplace (Nov 09)
- Needle and syringe exchange schemes (Feb 09)
- Mental health and older people (Oct 08)
- Improving the uptake of immunisation (June 09)
- Secondary schools and mental well being (July 09)
- Prevention of skin cancer (Oct 09)
- Schools and smoking (Feb 10)
- Reducing infant mortality (tba)
- Weight gain in pregnancy (tba)
- Post natal weight maintenance (tba)
- Child accident prevention on the road (tba)
- Child accident prevention in the home (tba)

Programmes

- **Obesity (Dec 06)**
- **Behaviour change (Oct 07)**
- **Physical activity and the environment (Jan 08)**
- **Smoking cessation services (Feb 08)**
- **Community engagement (Feb 08)**
- **Maternal and child nutrition (March 08)**
- **Physical activity, play and sport in pre school and school aged children (Jan 09)**
- **Long term sickness incapacity (Feb 09)**
- **Health literacy in schools with reference to sex education – PSHE (Sept 09)**
- **Alcohol (March 2010)**
- **Accident prevention (July 2010)**
- **CVD at population level (March 2010)**
- **Looked after children (May 2010)**
- **Contraception and disadvantaged young people (tba)**

Key stages in developing the guidance

- **Scoping**
- **Development**
- **Validation**
- **Publication**

Scoping the guidance

- **Draft scope prepared by NICE technical team for consultation**
- **Draft scope published on the web**
- **Public stakeholder meeting**
- **Responses received electronically**
- **Final scope**

The scope contains

- **The intervention**
- **The outcome**
- **The assumed mechanism/mediator/link between intervention and outcome**
- **Cost effectiveness**
- **Equity**
- **Context**
- **External validity / transferability issues**
- **Current practice and context**

And...

- **Programme theories**
- **Theories of change**
- **Conceptual model of how it is thought to work**

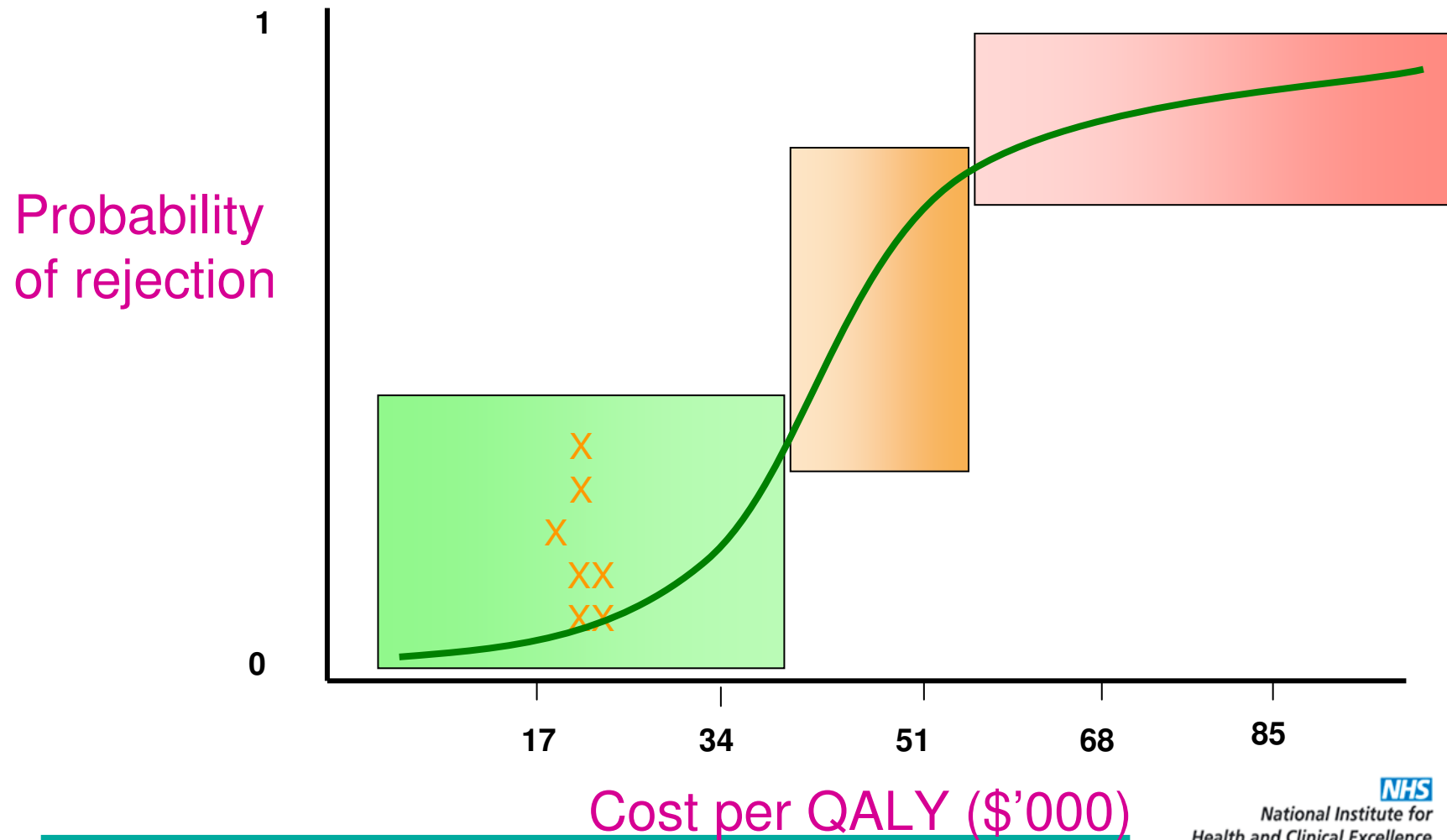
Development: reviewing the evidence

- **Reviews of effectiveness**
 - **assess quality and strength of evidence**
 - **Each study is awarded an overall quality grading for internal validity and external validity.**
 - **Data presented in forest plots and data extraction tables**
 - **Summary evidence statements**
 - **Attempt to take as broad an approach to the evidence as possible**

Economic analysis

- **Assessment of cost effectiveness using the Quality Adjusted Life Year QALY**
- **Economic modelling**
- **Health sector costs and benefits, other sector costs and benefits.**
- **Public health is good value for money compared to clinical interventions**

Assessing Cost Effectiveness



Validation

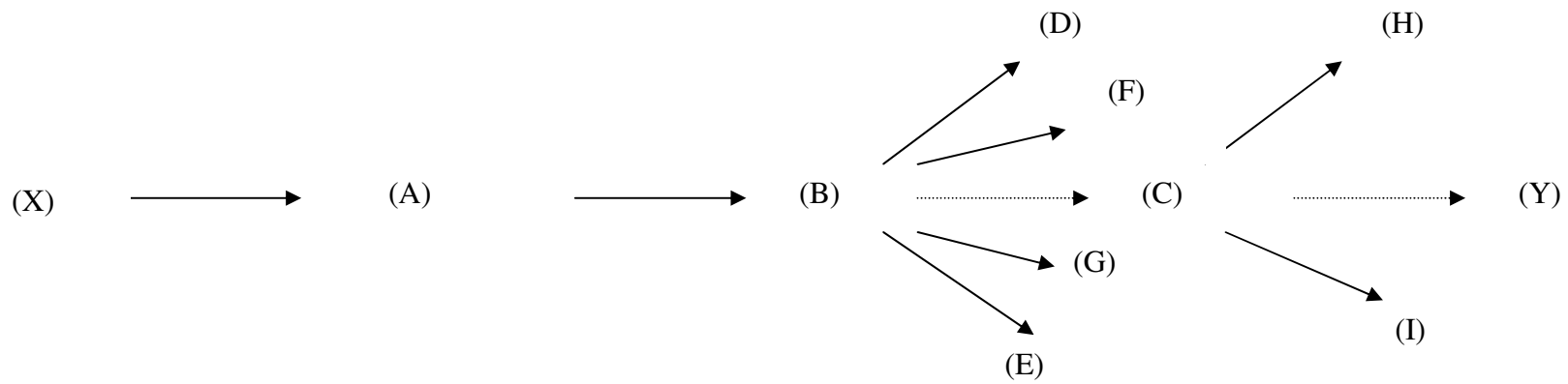
- **Recommendations drawn up by the committees on the basis of the evidence.**
- **Recommendations consulted on.**
- **Recommendations field tested**
- **Committees consider all comments**
- **Revise recommendations and produce final guidance**



Some methodological challenges

The relationship between interventions and outcomes

- Where X is, for example, advice about the dangers of being overweight and Y is weight loss.



The relationship between interventions and outcomes

- Long causal chains.
- Importance therefore of developing logic models to describe the relationship between interventions and outcomes.
- The existing evidence base silent on large tracts of the logic models.
- Key points in the logic model involves evidence of a type that had never been near an evidence hierarchy.
- Two sets of causation - individual and social in which the causal chains are equally long

The difficulties of the evidence base

- The research doesn't exist
- The research doesn't say what you thought it said
- The research doesn't answer the question
- The research is of poor/dreadful quality methodologically
- There isn't a qualitative or grey literature to fill the gaps
- The findings are utterly equivocal

The equity question





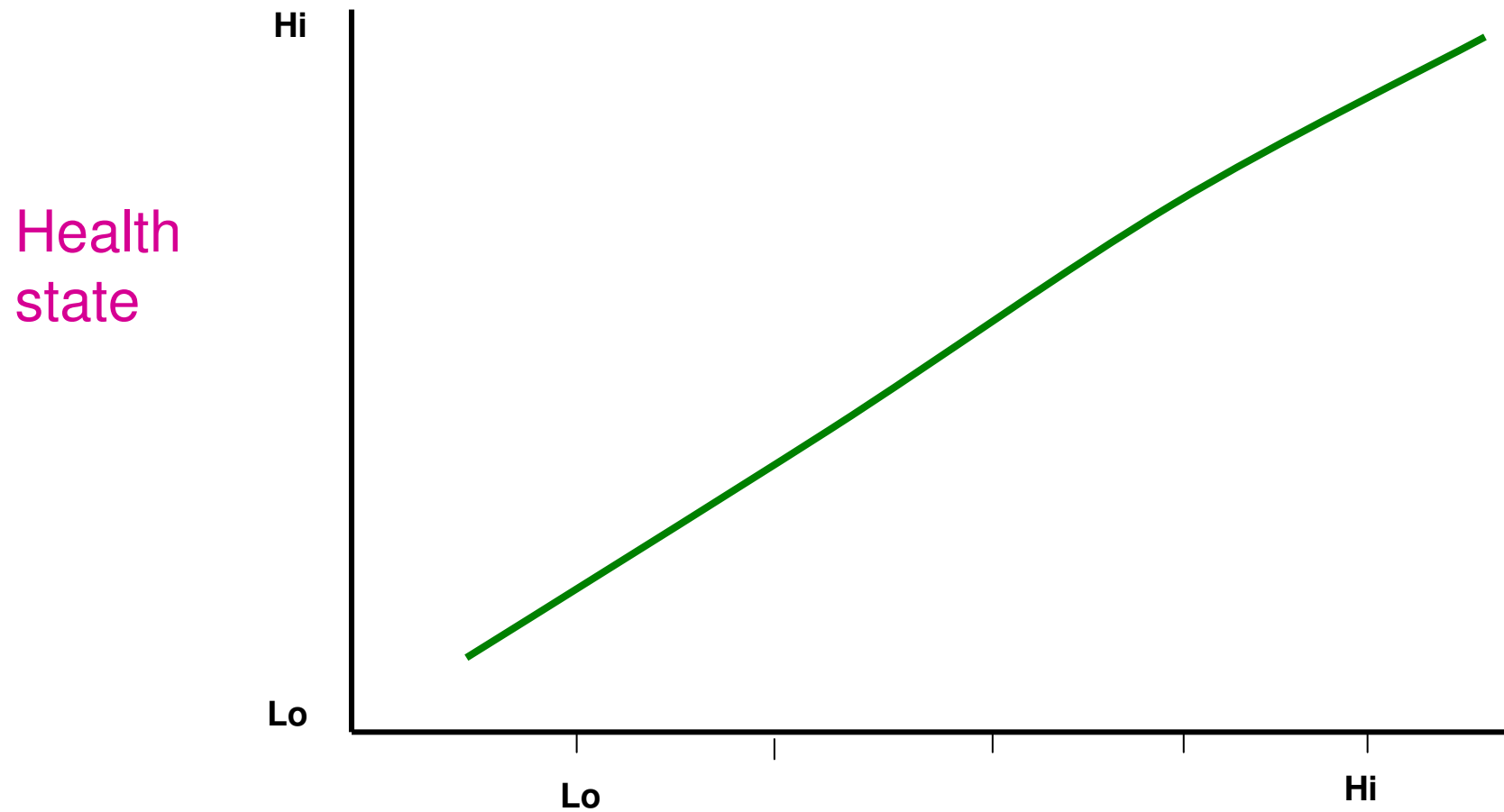




Different axes of social differentiation

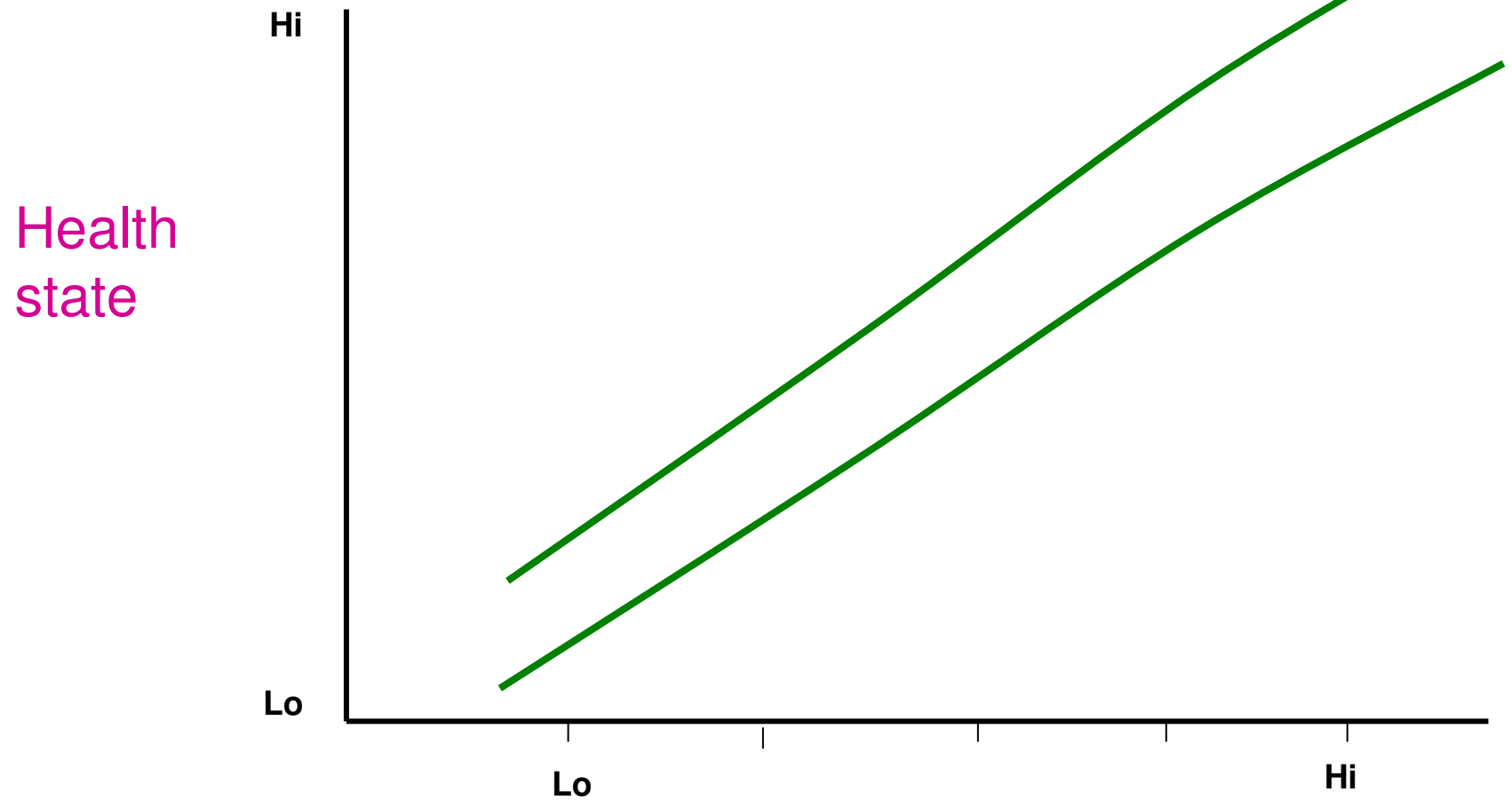
- **Class**
- **Socio economic group**
- **Ethnicity**
- **Gender**
- **Disability**
- **Religion**
- **Caste**
- **Geography**

The health gradient



Social stratification

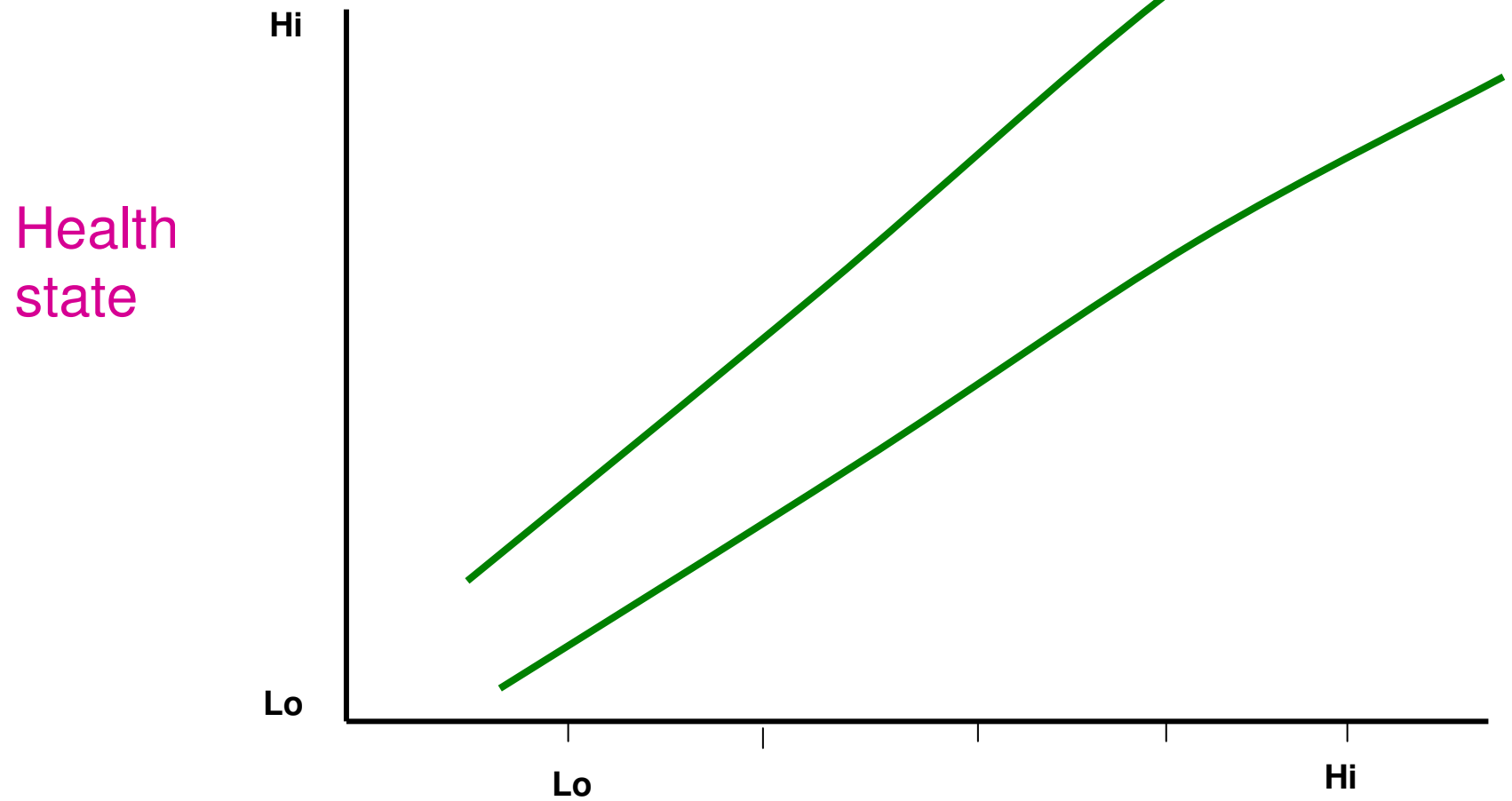
The health gradient



Health state

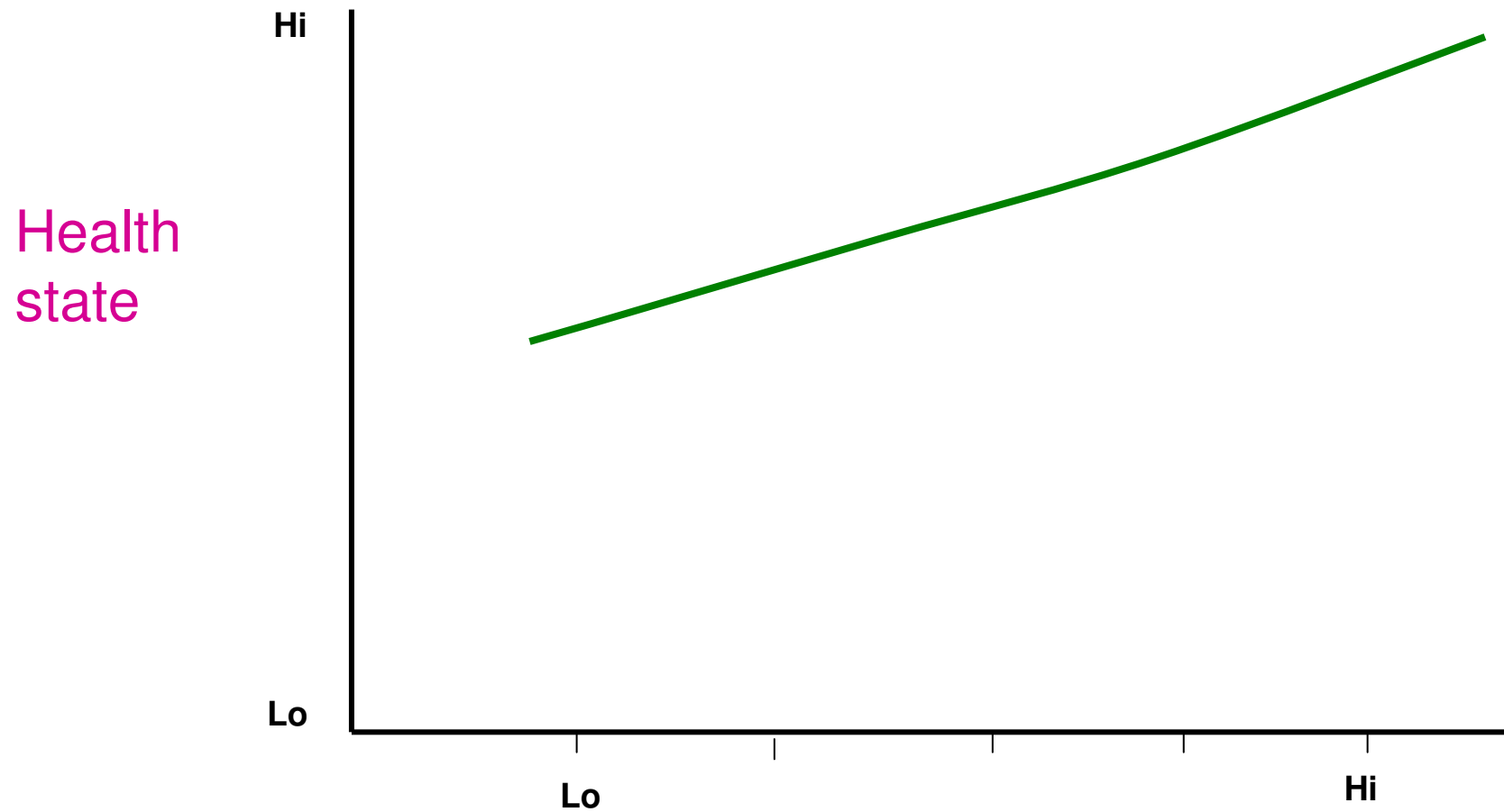
Social stratification

The health gradient



Social stratification

Shifting the curve



Social stratification

Conclusion

- A new and challenging scientific and practical set of problems.
- A systematic attempt to understand what works in public health
- Problems with the evidence base and the available economic data.
- Dominance of the hierarchy of evidence.