Are all QALYs equal?
Past, present and future of equity weighting

Equity considerations in Norway: past, present, future

More specifically:
- The current use of absolute shortfall
- Own research

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A preamble

All QALYs cannot be equal...
... because they are measured differently

• Descriptive systems

• Valuation methods

• Statistical modelling

• Whose preferences

But, if all QALYs *were* measured identically, should they still be weighted equally?

... independent of

• Differences in personal characteristics of the recipient group?
  • Causes of ill health
  • Consequences of improved health

• Where they happen to be in their life?
  • Young or old?
  • Past and future health
Which other characteristics?

- **Causes**
  - Social deprivation (avoidable)
  - Unhealthy behaviour (responsibility)

- **Consequences**
  - Others health & wellbeing (dependents)
  - Others wealth (breadwinner, tax-payer)

Which other ‘streams of health’?

- Prospective health?
- Prospective health gains?
- Total health?
- Total health gains?
“Equality of what?”

What is the (health) equalisandum?

• Future health
• Future health losses
• Total health
• Total health losses
• Proportion of expected future health lost?

What I’m up to

• Context: Norway and our healthcare system

• The Norwegian priority setting debate
  • The past
  • The present
    • The discourse on *Lifetime* health losses vs *Future* health losses

• Science illustrated
  • A diagrammatic exposition of 5 alternative equity criteria

• The *unofficial* Norwegian equity weights

• Conclusion, my views on a better future
  • Focus on measuring what matters, i.e. QALY gains
  • Make equity weights simple and transparent
    • Based on the ‘fair innings’ principle
A small & rich country

• 5.3 million people, sparsely populated

• Generous welfare state

• Oil fund € 200,000/capita

The world cup in healthcare expenditures
The Norwegian Health Service

• Funding sources
  • 85% tax-based
  • 15% private (patient payments + minor PHI)

• Specialist care
  • National/federal level
  • Mainly public hospitals

• Primary care
  • Municipality level
  • Mainly private independent GPs

• Political challenges
  • Integration between care levels
  • *Priority setting*

The past
(before 2014)
Government appointed committees
Suggested criteria:

1987: Severity

1997: Severity, effectiveness, cost-effectiveness

The 1997 criteria

• Severity
  • Vaguely described term including everything
    • Prognosis
    • Burden of disease

• Effectiveness
  • ‘Documented effect’
  • Health gains; increased lifetime & improved health state
    • No suggestion as to how it should be measured

• Cost-effectiveness
  • ‘Costs should be acceptable in relation to outcome’
    • No mentioning of a C/E threshold

*No* attempts at equity weighting
The present
(2014 – 2019)

‘The Norheim-committee’
7 men + 7 women
7 MDs + 7 non-MDs

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<th>Name</th>
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<td>TG</td>
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<td>AM</td>
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<td>BA</td>
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Suggested objective and value basis for the Norwegian health service:

‘More healthy life years for all, distributed fairly’

The 3 recommended criteria

1) Health gains
   • The larger the health gains, the higher priority

2) Resources
   • The less resource use, the higher priority

3) Health losses
   • The larger lifetime health losses, the higher priority
Lifetime health losses of various conditions

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Heated debate on the ‘ageist’ implications

• Health gains
  • The older you are, the lower your potential gain

• Health losses
  • The older you are, the lower your potential loss

New expert group – The *Magnussen*-group

• Mandate
  • Consider alternative measures for ‘disease severity’

• Conclusion
  • Absolute shortfall = *future* health loss
The White Paper

- Health gains
- Resources
- *Future* health loss

Equality of what?
– in health

‘Science illustrated’
An expected life is ‘disturbed’ by disease events over the course of a life lived

A life expected

Health-adjusted life expectancy, HALE
= expected ‘healthy life years’

A life lived

Realised healthy life years

All patients can be described by their unique combination of:

• How many healthy life years have they had

• How much ill health have they had

• Prognosis of their condition

• Expected future health loss
HALE = Past health + Past health loss + Prognosis + Future health loss

Equality of what?
1) Prognosis ('end-of-life' criterion)
2) Future health loss (absolute shortfall)
3) Lifetime health losses (disease burden)
4) Lifetime health ('fair innings')
5) Relative shortfall
Should the value of a given QALY gain depend on the size(s) of the other box(es)?

If Yes, which box(es)?

1) Prognosis vs 2) Future health loss
2) Future health loss vs 3) Lifetime health losses

Are we concerned about any differences in past ill health, $L_p$?
Should past health losses be included?

• Yes
  • ‘fair innings’: everyone is entitled to some normal span of health (Williams, 1997 in HE)
  • ‘… it is primarily whole lives, rather than parts of lives, that are of equal worth’ (Ottersen, 2013 in JME)
  • Less ‘ageism’

• No
  • Programme evaluations are outcome-focused
  • Large individual variations within each patient group
  • ‘We cannot change the past’

3) Lifetime health losses is less ‘ageist’

The lifetime health loss for the older person can be higher than for the younger
Past health loss: Does context matter?

Adapted to the chronic disease vs several periods of unrelated temporary ill health?

3) Lifetime health *losses* vs 4) Lifetime *health*

- ‘Fair innings’: Reduce inequalities in lifetime health

- Health losses differ, since life expectancies differ by
  - Gender
  - Social class
  - Actual age
    - Your life expectancy (past life + expected remaining life) increases every day you survive!
    → Reducing inequalities in health losses will favour long-living groups

- Solution in the Norheim-committee
  - Set a *fixed reference level* for a ‘normal’ health span, against which health losses are compared
Reducing inequalities in health *losses*, may increase inequalities in *health*

A complicating matter: 
The *causes* of inequalities in health

- Outside own control
  - Biological lottery
    - Good vs bad genes
  - Social lottery
    - The fortunate vs the deprived
  \[\rightarrow\] Unacceptable inequalities

- Inside own control
  - Equal opportunities, but different health behaviour
  \[\rightarrow\] Acceptable inequalities
Past health loss: Does its *cause* matter?

Should past ill health caused by risky behaviour give you bonus points?

2) Absolute shortfall vs 5) Relative shortfall
From ‘Science illustrated’ to Norwegian policy

• What is the official ‘equalisandum’?
  • Absolute shortfall

• What about its importance in priority setting?
  • No official equity weighting
    • But some unofficial weights...

‘The Magnussen Stairs’

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<tr>
<td></td>
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Conclusion (my own position)

1) Concentrate on what matters
   • Measure QALY gains in the best possible ways

2) Lifetime health should be the equalisandum (‘fair innings’), but
   • Measuring absolute shortfall is a sensible shortcut

3) The unofficial equity weights make sense, but
   • Make them simpler
   • Reduce the incentive to ‘blow up’ the absolute shortfall
‘The Olsen Stairs’ – for a better future😊

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Thank you