



OHE

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Issues Panel 207: Severity  
Shortfall: Graceful or  
Awkward? Contextual or  
Continuous?

Tuesday, May 17, 2022 | 10:15 -  
11:15 AM



## ISSUE:

- Evidence indicates public preference to give some priority to health gains for severe health problems.
- The panel will debate how to operationalise this.
- Should it be an automatic adjustment or one contextual factor for deliberation?
- Do we have an agreed, measurable definition of severity that enables us to do this across diseases and patient conditions?
- How do we address opportunity cost?



# Severity Shortfall: Graceful or Awkward? Contextual or Continuous?

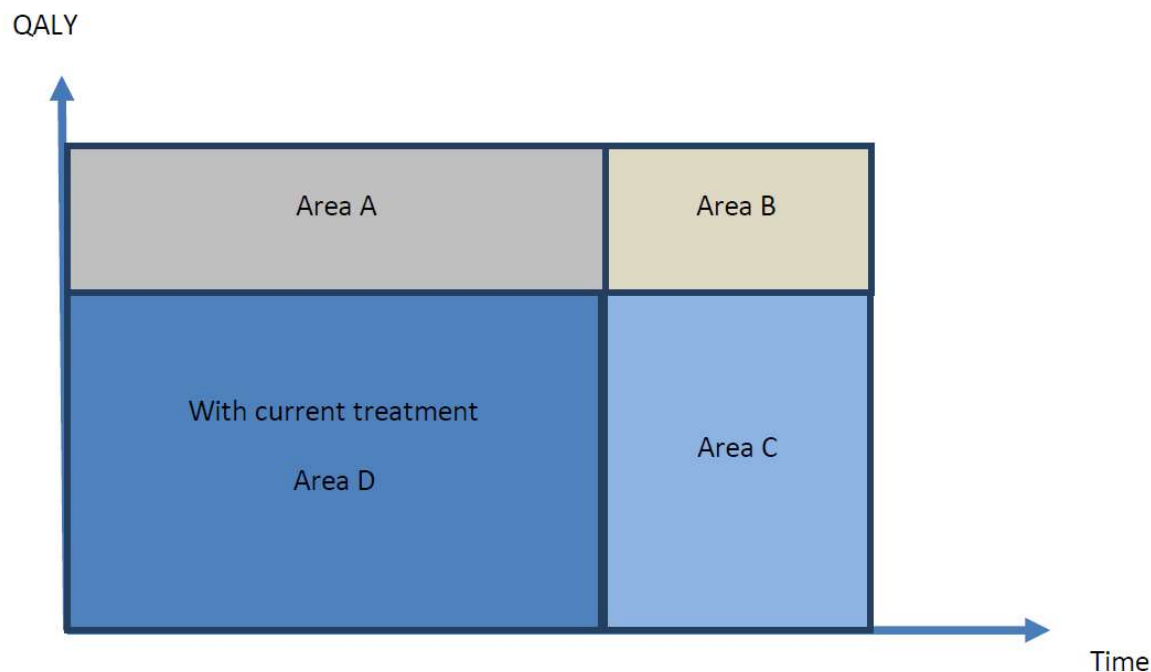


Session	Presenter / Moderator
Introduction	<b>Adrian Towse</b> <i>Emeritus Director and Senior Research Fellow, OHE</i>
A Perspective from one HTA organization	<b>Steve Pearson</b> <i>President Institute for Clinical and Economic Review</i>
An Academic Perspective	<b>Charles Phelps</b> <i>University Professor and Provost Emeritus University of Rochester</i>
A Patient Organisation Perspective	<b>Durhane Wong-Rieger</b> <i>President and Chief Executive Officer Canadian Organization for Rare Disorders</i>
Discussion / Q & A	<b>Adrian Towse</b> <i>OHE</i>



## Absolute Shortfall (AS) and Proportional Shortfall (PS)

- Absolute QALY Shortfall (AS) is total potential health going forwards - Areas (A+B+C+D) minus current health prospects (Area D), i.e. Areas (A+B+C).
- Proportional QALY Shortfall (PS) is the ratio of AS (Area A+B+C) to total potential health going forwards, Area (A+B+C+D).



Towse, A., and Barnsley, P. (2013) Clarifying meanings of absolute and proportional shortfall with examples. A Note. OHE. Available <https://www.nice.org.uk/Media/Default/About/what-we-do/NICE-guidance/NICE-technology-appraisals/OHE-Note-on-proportional-versus-absolute-shortfall.pdf>



## Approaches being taken by different HTA bodies (1)

- ZiN uses an individual's PS to adjust the acceptable cost / QALY threshold from €20,000 to €80,000 between the lowest ( $\leq 40\%$  shortfall) and highest ( $>70\%$  shortfall) severity categories
- Norway has proposed adjusting its threshold on the basis of AS in expected lifetime QALYs, from a shortfall of  $< 4$  lifetime QALYs to more than 20 lifetime QALYs. The threshold would increase from 275,000 to 825,000 Norwegian Kroner (approximately US\$32,000 to US\$95,000) over this range.



Skedgel, C., Henderson, N., Towse, A., Mott, D., and Green, C. 2022. Severity in Health Technology Assessment: Can We Do Better? Value in Health e.pub. Available at: <https://www.valueinhealthjournal.com/action/showPdf?pii=S1098-3015%2822%2900105-X>



## Approaches being taken by different HTA bodies (2)

- Sweden does formally define severity but a 2019 analysis suggested an effective acceptable threshold of up to 1 million Swedish Kroner (SEK) per QALY gained (US\$115,000) for the most severe conditions; 750,000 SEK (US\$87,000) for severe conditions; and 500,000 SEK (US\$58,000) for moderate conditions
- In England and Wales, the National Institute of Health and Care Excellence (NICE) has recently introduced a severity modifier



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## The new approach announced by NICE

Table 6.1 QALY weightings for severity		
QALY weight	Proportional QALY shortfall	Absolute QALY shortfall
1	Less than 0.85	Less than 12
x1.2	0.85 to 0.95	12 to 18
x1.7	At least 0.95	At least 18

- NICE will effectively adjust its acceptable threshold based on a combination of relative and absolute shortfall choosing the larger of the two values.
- For a review see an OHE blog by Oliver, E. and Mott, D.  
<https://www.ohe.org/news/nice%E2%80%99s-severity-modifier-step-right-direction-still-long-way-go>
- Key issues in the use of AS and PS include (i) choosing the cut offs and (ii) the weights to use



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