

The Welfare Implications of Public Services: Lessons from 10 years of Atkinson in the UK

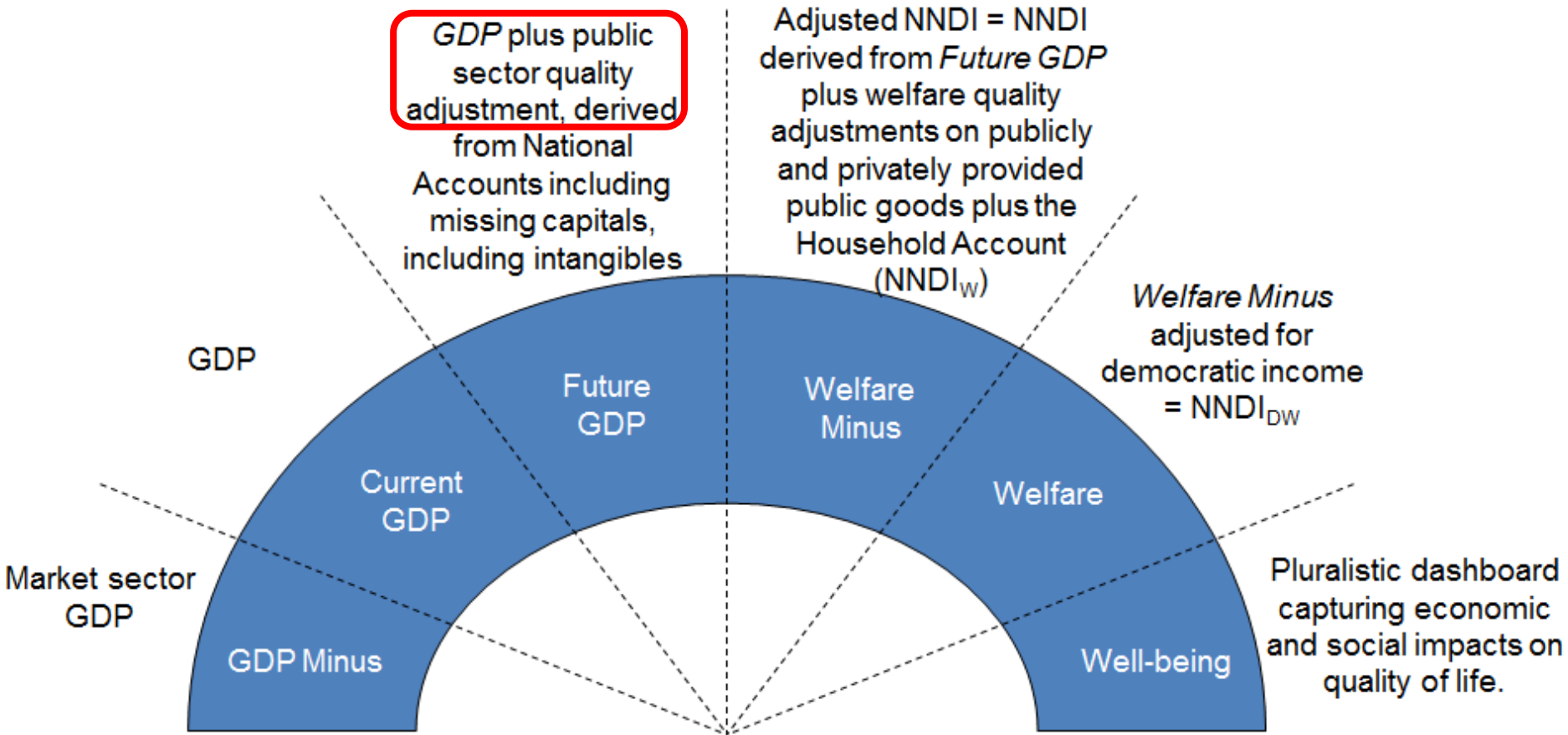
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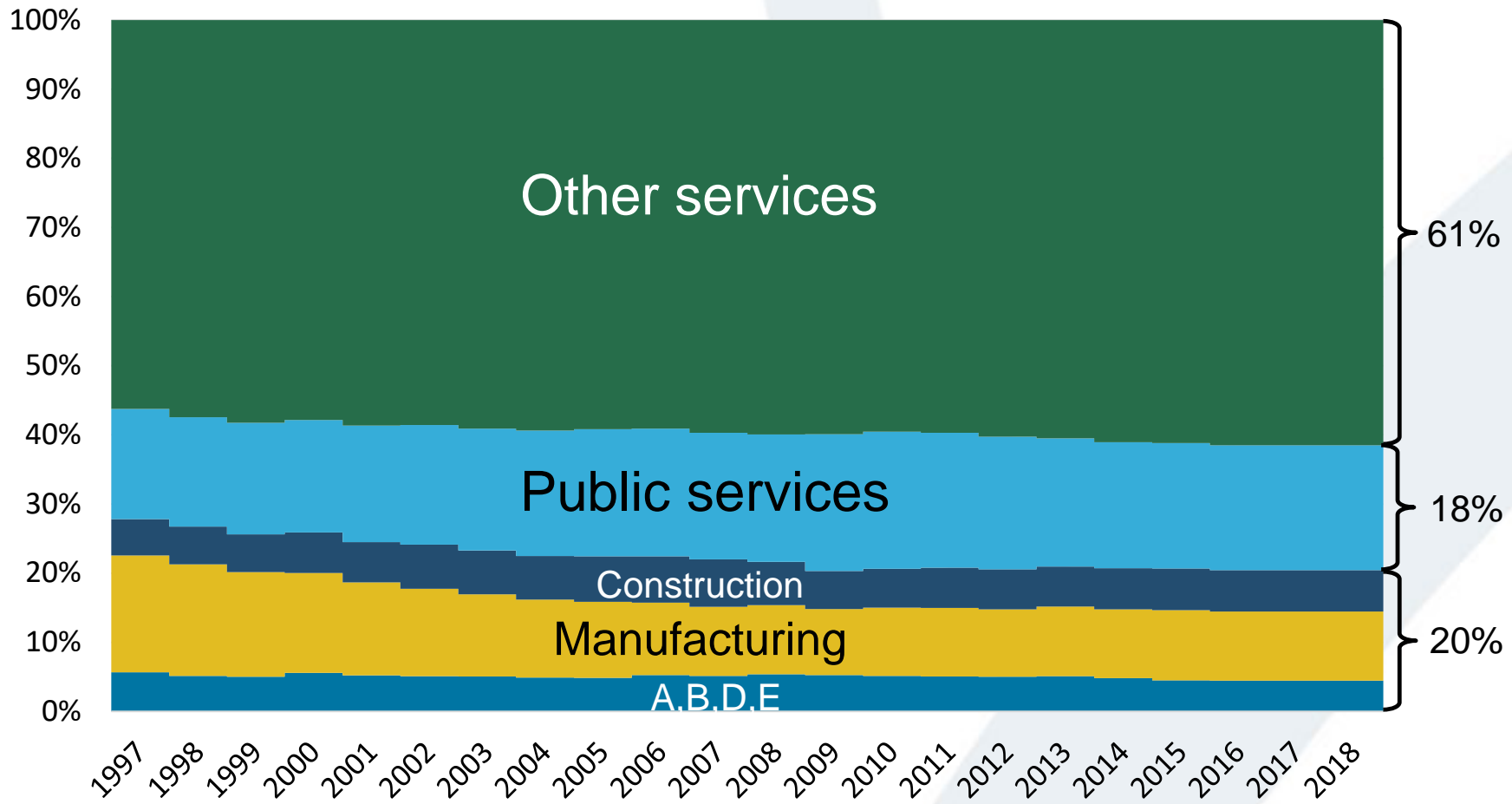
Scope

- Why improving measurement of the public sector output matters in measuring the modern economy.
- What methods are available.
- What key lessons are learnt from the UK experience.
- What are the potential routes going forward.

ONS Welfare Spectrum



Why do public services matter?



Before Atkinson

- Originally, government output was measured using deflated expenditure — “output = inputs”
- UK national accounts included direct measures of government output for the first time in 1998, as encouraged by SNA1993
- But the estimates were based on opportunistic methodologies and data sources, and led to implausible results
- Threatened the credibility of the national accounts themselves and led to Sir Tony Atkinson’s independent review

Atkinson Review - 2005

Measuring government output and productivity must be underpinned by a principled framework:

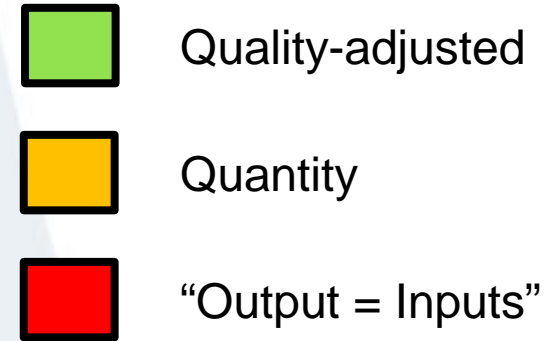
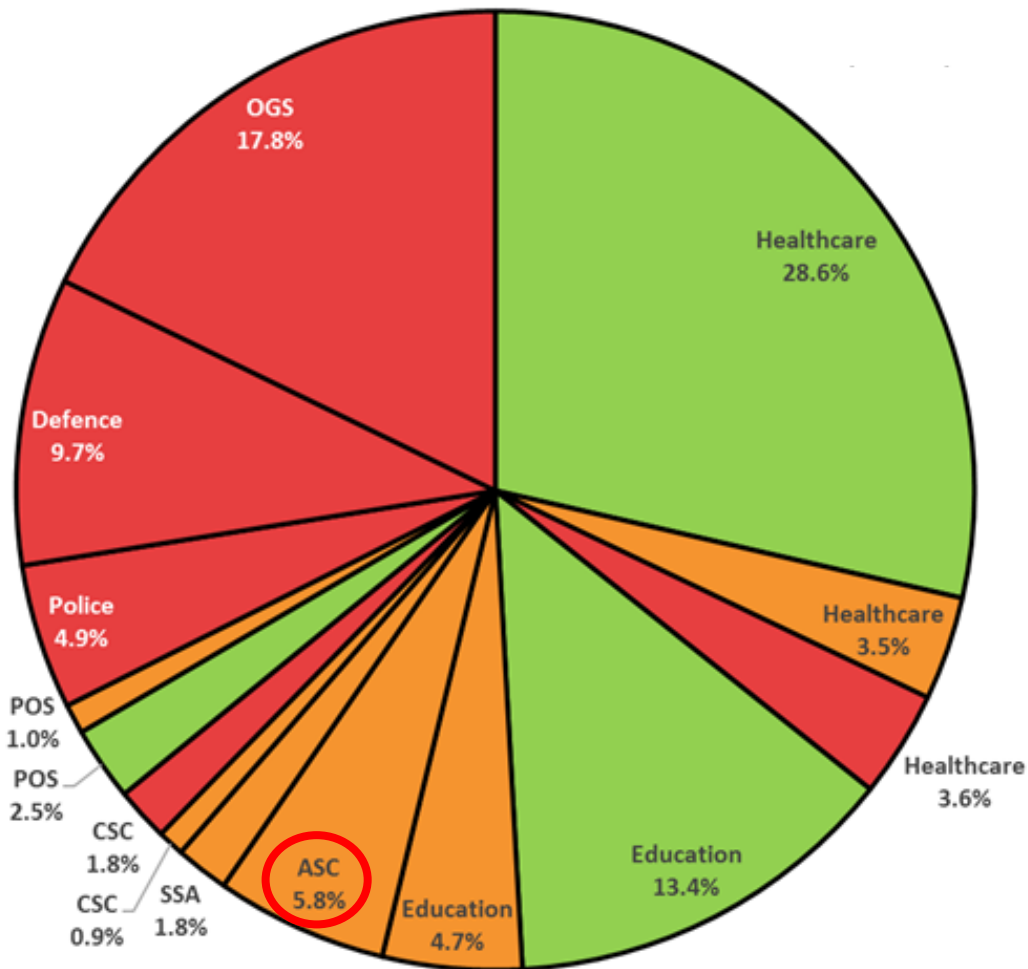
- I. Measure non-market (government) output in comparable manner to market (private sector) output i.e. by reference to value added
- II. Clearly follows government output should be quality adjusted – value depends on quality
No value, no output..
- III. To the extent government activities directly lead improved outcomes, clearly part of value
- IV. But outcomes may change for extraneous reasons (these not relevant to government output.)



SNA v ESA – different approaches

- SNA08 includes provision to include the quality adjustment of public services into National Accounts.
- ESA10 explicitly prevents inclusion of quality adjustments of public services in National Accounts.
 - Key rationale: methodological consistency for GNI calculations – Could different countries with very different systems deliver consistent adjustments?
- So National Accounts in the UK are not quality adjusted, but Public Service Productivity statistics are quality adjusted.
- Clashes between standards are confusing and need resolution

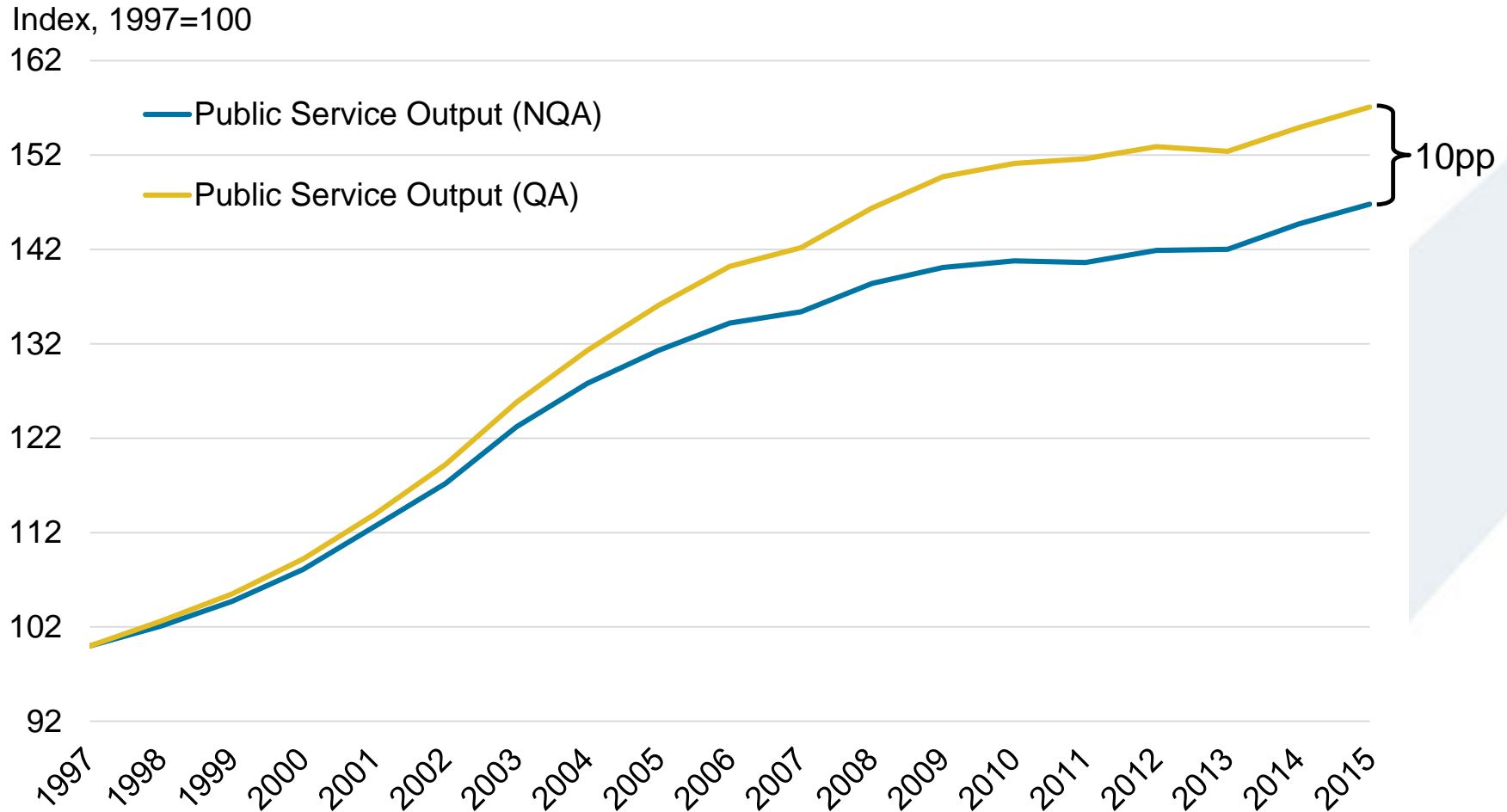
Public Services in the UK (2015)



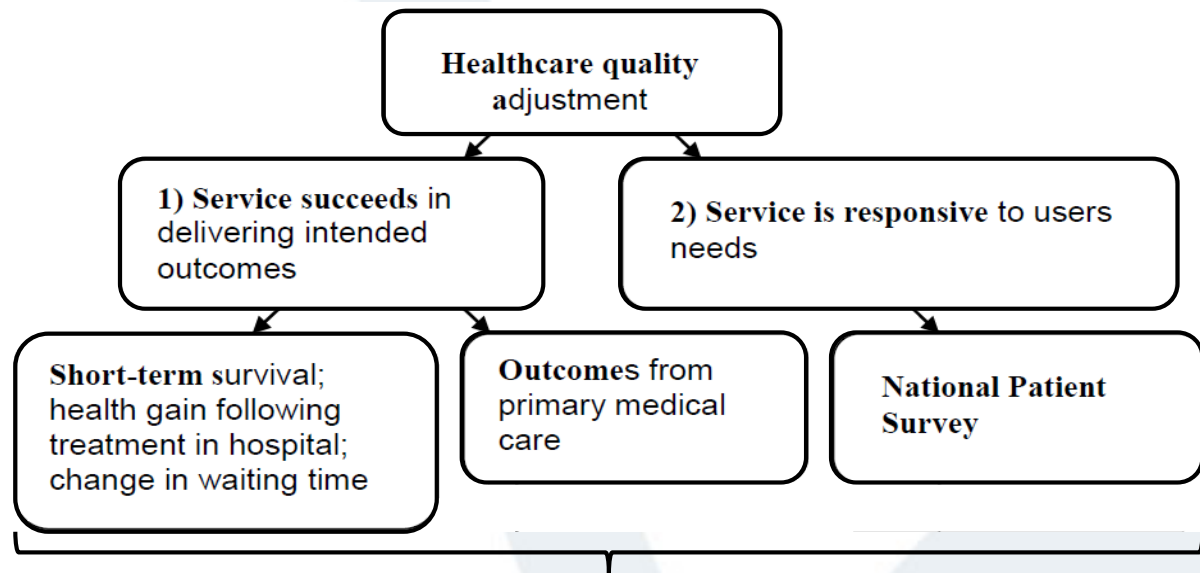
Output Measure	Coverage (%)
Quality-adjusted	44.5%
Quantity	17.7%
'Output = Inputs'	37.8%










N.B. Adult Social Care (ASC) will become quality adjusted in the next publication covering up to 2016.

Impact of quality adjustments



The components of health quality adjustment



 Increase in ...	Effect on quality-adjusted output	Mechanism of effect
QALY gain reported in PROMs	Increases 	Changes HRQoL gain
Proportion of treatments that are elective	Decreases 	Changes HRQoL gain
Post-operative survival rate	Increases 	Changes HRQoL gain
Average age of patients being treated (<i>LE at birth unchanged</i>)	Decreases 	Changes length of period gain experienced over
Life expectancy at birth (<i>age at treatment unchanged</i>)	Increases 	Changes length of period gain experienced over
Waiting times (80 th percentile)	Decreases 	Changes length of period gain experienced over
Primary care outcomes	Increases 	QA primary care output
National Patient Survey scores	Increases 	QA output of relevant sectors

But this is not the whole story

Atkinson was asked how to measure the value of public services, not welfare improvements from better lives. Therefore his measures specifically exclude welfare gains *not attributable* to the public services. Therefore, if we were trying to measure welfare, we would need to also capture non-attributable gains on a consistent basis.

FGHL Method using widely-available data:

- Components:
 - Mortality/life expectancy data
 - Morbidity/healthy life expectancy data
 - Health-related quality of life by age for healthy/long-term unwell
 - Valuation of a Quality-Adjusted Life-Year (take £30,000 per QALY from NICE health evaluations)
 - Proportion of variation in life expectancy and healthy life expectancy attributable to the service
- Provides estimated value of total quality-adjusted life years for the population
- A proportion of this is attributed to healthcare – 12.5% (McGinnis et al., 2002)
- Replicable to other public service areas (e.g. education (human capital growth))

Example quality adjustment on widely available data

	Est. average lifetime QALY		Est. increase in the stock of lifetime QALY attributable to healthcare (£bn)	Est. annual valuation of lifetime QALY attributable to healthcare (£bn)	Quality adjustment index for health output based on est. value of lifetime QALY	Existing Atkinson output quality adjustment for est. QALY gain from healthcare
	Male	Female				
2001	65.56	69.04		184.3	100.0	100.0
2002	65.73	69.17	96.8	185.5	100.2	101.1
2003	65.97	69.29	109.2	186.8	100.5	101.4
2004	66.26	69.51	138.2	188.5	100.9	102.1
2005	66.60	69.81	189.1	190.9	101.3	103.0
2006	66.75	69.90	133.9	192.5	101.5	104.0
2007	67.14	70.28	214.0	195.2	102.1	104.3
2008	67.39	70.53	187.6	197.5	102.5	104.7
2009	67.69	70.82	182.0	199.7	102.9	105.0
2010	68.04	71.06	199.7	202.2	103.4	105.3
2011	68.35	71.30	201.7	204.7	103.8	105.9
2012	68.56	71.38	145.6	206.5	104.0	105.9
2013	68.73	71.47	137.6	208.2	104.2	106.3
2014	68.85	71.56	153.6	210.1	104.3	106.9
2015	68.85	71.54	£133.2bn	£211.7bn	104.3	107.2

Conclusions

- Accurate measures of the value produced by public services are vital to understanding developed economies.
- The Atkinson principles provide a clear method for estimating value, consistent with fundamental principles of national accounting, which have real world relevance in a way cost based “output=inputs” do not.
- UK experience shows these principles can be applied to produce quality adjustments which have substantial impact on headline results.
- Using available evidence to “triangulate” or corroborate such estimates can add to their assurance and increase buy-in from informed and influential stakeholders.
- The Atkinson logic can be extended to provide a method to capture welfare gains not attributable to the public services from key outcomes (e.g. life expectancy), suggesting these outcomes are of first order importance in understanding welfare.
- Failing to push on from the start that Atkinson established in this area would be a huge opportunity missed.