

Summary: Analysis and Evidence

Policy Option 1

Description:

Price Base Year 2010	PV Base Year 2011	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: 0

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate	0	0	0

Description and scale of key monetised costs by 'main affected groups'

Other key non-monetised costs by 'main affected groups'

Continued exposure to tobacco displays

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate	0	0	0

Description and scale of key monetised benefits by 'main affected groups'

Other key non-monetised benefits by 'main affected groups'

Key assumptions/sensitivities/risks

Discount rate (%) N/A

Direct impact on business (Equivalent Annual) (£m):			In scope of OIOO?	Measure qualifies as
Costs: 0	Benefits: 0	Net: 0	No	NA

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	England				
From what date will the policy be implemented?	N/A				
Which organisation(s) will enforce the policy?	N/A				
What is the annual change in enforcement cost (£m)?	N/A				
Does enforcement comply with Hampton principles?	N/A				
Does implementation go beyond minimum EU requirements?	N/A				
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded: N/A		Non-traded: N/A		
Does the proposal have an impact on competition?	N/A				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	Costs: N/A		Benefits: N/A		
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	Micro	< 20	Small	Medium	Large
Are any of these organisations exempt?	N/A	N/A	N/A	N/A	N/A

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
Statutory equality duties¹ Statutory Equality Duties Impact Test guidance	N/A	
Economic impacts		
Competition Competition Assessment Impact Test guidance	N/A	
Small firms Small Firms Impact Test guidance	N/A	
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	N/A	
Wider environmental issues Wider Environmental Issues Impact Test guidance	N/A	
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	N/A	
Human rights Human Rights Impact Test guidance	N/A	
Justice system Justice Impact Test guidance	N/A	
Rural proofing Rural Proofing Impact Test guidance	N/A	
Sustainable development Sustainable Development Impact Test guidance	N/A	

¹ Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. This is a requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Summary: Analysis and Evidence

Policy Option 2

Description:

Option 2: Health Act 2009 (S.21) and Tobacco Advertising and Promotion (Display)(England) Regulations 2010 to come into force as intended and unchanged

Price Base Year 2010	PV Base Year 2011	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: 10,921

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate	28	130	1,074

Description and scale of key monetised costs by 'main affected groups'

One-off cost of current regulations: £450 and £850 for small and large businesses respectively will be incurred by approximately 55,933 retail premises for new equipment and fitting. Very low cost compliance options are available. Annual cost: lost tax revenue; the increased time taken to serve customers leads to costs to retailers and customers, increased time to assess stock and for price list maintenance. The calculation and methodology used to value the equivalent annual net costs to business are detailed in Annex 3.

Other key non-monetised costs by 'main affected groups'

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate	N/A	1,316	11,995

Description and scale of key monetised benefits by 'main affected groups'

Estimate of the monetised lifetime health benefits arising from fewer young people starting to smoke and higher rate of successful quit attempts; based on a central estimate of 6000 fewer young people taking up smoking and 14,350 more people helped to quit per annum (for a 10 year time horizon). This is a central estimate of potential benefits based on the available evidence.

Other key non-monetised benefits by 'main affected groups'

Reduced morbidity as a result of lower smoking prevalence. Increased compliance with the law on underage sales due to reduced youth smoking.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

There is uncertainty around how many new, regular young smokers would be averted and adult smokers helped to quit. This means there is some uncertainty around the total health benefits generated.

Direct impact on business (Equivalent Annual) £m):			In scope of OIOO?	Measure qualifies as
Costs: £45.3	Benefits: 0	Net: £45.3	Yes	IN

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	England				
From what date will the policy be implemented?	06/04/2012, 06/04/2015 ¹				
Which organisation(s) will enforce the policy?	Local Authority Trading Standards				
What is the annual change in enforcement cost (£m)?	N/A				
Does enforcement comply with Hampton principles?	Yes				
Does implementation go beyond minimum EU requirements?	Yes				
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded:		Non-traded:		
Does the proposal have an impact on competition?	No				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	Costs:		Benefits:		
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price) ²	Micro	< 20	Small 87.8%	Medium	Large 12.2%
Are any of these organisations exempt?	No	No	No	No	No

Specific Impact Tests: Checklist*

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
Statutory equality duties³ Statutory Equality Duties Impact Test guidance	No	
Economic impacts		
Competition Competition Assessment Impact Test guidance	Yes	Annex 3
Small firms Small Firms Impact Test guidance	Yes	Annex 3
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	No	
Wider environmental issues Wider Environmental Issues Impact Test guidance	No	
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	Yes	para 41 - 60
Human rights Human Rights Impact Test guidance	No	
Justice system Justice Impact Test guidance	No	
Rural proofing Rural Proofing Impact Test guidance	No	

¹ Note the original implementation dates for display prohibition were October 2011 (large shops) and October 2013 (small shops). This has been amended to April 2012 for large shops and April 2015 for small shops. The deferral is not included in the analysis in this IA. So the analysis is based on original implementation times.

² See Annex 3

³ Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is a requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Sustainable development <u>Sustainable Development Impact Test guidance</u>	No	
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* The relevant Specific Impact Tests have been undertaken in previous Impact Assessments on the prohibition of display regulations of tobacco products at the point of sale.

Summary: Analysis and Evidence

Policy Option 3

Description: Assessed as a net impact compared to Option 2; Amend the regulations by :

- enlarging the size of temporary displays allowable from 0.75 sq ms to 1.5 sq ms
- extending the circumstances in which temporary displays can be made.

Price Base Year 2010	PV Base Year 2011	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: 120.5

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional	3	Optional	Optional
High	Optional		Optional	Optional
Best Estimate	0		0	120

Description and scale of key monetised costs by 'main affected groups'

Potential reduction in health benefits that would otherwise accrue under Option 2 due to the increased exposure of people to tobacco displays resulting from a larger size of temporary display and more circumstances in which displays can occur. This could reduce the impact of the policy by decreasing the number of young people previously assumed to become never smokers and impact negatively on those trying to quit. See paragraphs 61 -63 for an explanation.

Other key non-monetised costs by 'main affected groups'

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	3	Optional	Optional
High	Optional		Optional	Optional
Best Estimate	0		28.9	240.4

Description and scale of key monetised benefits by 'main affected groups'

Likely benefit in terms of £0.9m (undiscounted average over 10 year period) increase in tax revenue from increased sales of tobacco. Undiscounted average annual recurring benefit to business of £28.1m. Total cost saving: tax saving + assessing stock saving = £240.4m discounted over the 10 year period. See paragraphs 70 and Table 5 for details. See Annex 3 for the EANCB calculation.

Other key non-monetised benefits by 'main affected groups'

Key assumptions/sensitivities/risks	Discount rate (%)	3.5%
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Direct impact on business (Equivalent Annual) £m):	In scope of OIOO?	Measure qualifies as
Costs:	Yes	OUT
Benefits: 28.1	Net: 28.1	

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	England				
From what date will the policy be implemented?	06/04/2012, 06/04/2015 ¹				
Which organisation(s) will enforce the policy?	Local Authority Trading Standards				
What is the annual change in enforcement cost (£m)?	N/A				
Does enforcement comply with Hampton principles?	Yes				
Does implementation go beyond minimum EU requirements?	Yes				
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded:		Non-traded:		
Does the proposal have an impact on competition?	No				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	Costs:		Benefits:		
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price) ²	Micro	< 20	Small 87.8%	Medium	Large 12.2%
Are any of these organisations exempt?	No	No	No	No	No

Specific Impact Tests: Checklist*

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Economic impacts		
Competition Competition Assessment Impact Test guidance	Yes	Annex 3
Small firms Small Firms Impact Test guidance	Yes	Annex 3
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	No	
Wider environmental issues Wider Environmental Issues Impact Test guidance	No	
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	Yes	para 61 - 63
Human rights Human Rights Impact Test guidance	No	
Justice system Justice Impact Test guidance	No	
Rural proofing Rural Proofing Impact Test guidance	No	
Sustainable development Sustainable Development Impact Test guidance	No	

¹ Note the original implementation dates for display prohibition were October 2011 (large shops) and October 2013 (small shops). This has been amended to April 2012 for large shops and April 2015 for small shops. The deferral is not included in the analysis in this IA. So the analysis is based on original implementation times.

² See Annex 3

³ Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is a requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

* The relevant Specific Impact Tests have been undertaken in previous Impact Assessments on the prohibition of display regulations of tobacco products at the point of sale.

Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

References

Include the links to relevant legislation and publications, such as public impact assessments of earlier stages (e.g. Consultation, Final, Enactment) and those of the matching IN or OUTs measures.

No.	Legislation or publication
1	Consultation on the future of tobacco control (31 May 2008) www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085114
2	Impact Assessments for the Health Bill 2009 (updated May 2009) www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_099759.pdf
3	Consultation Draft Impact Assessment for the proposed regulations http://collections.europarchive.org/tna/20100509080731/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_108432.pdf
4	Explanatory Memorandum to the Tobacco Advertising and Promotion (Display)(England) Regulations 2010, 2010 No 445, including the final Impact Assessment for the regulations http://www.opsi.gov.uk/si/si2010/em/uksiem_20100445_en.pdf
5	Healthy Lives, Healthy People: A tobacco control plan for England (2011): http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_124917
6	The Department of Health is actively engaged in identifying and ratifying regulatory "OUTS" to balance this regulatory "IN".

Annual profile of total monetised costs and benefits* - (£m) constant prices, Option 2 against Option 1 - DISCOUNTED

	Y ₀	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉	Average	Total
Total Transition costs	11.1	7.5	7.5									
Total Annual recurring cost	39.7	65.3	89.9	109.8	121.6	133.1	128.6	124.2	120.0	115.9	104.8	1,048.0
Total annual costs	50.8	72.8	97.4	109.8	121.6	133.1	128.6	124.2	120.0	115.9	107.4	1,074.1
Total Transition benefits												
Total Annual recurring benefits	433.2	727.0	1,021.0	1,223.8	1,356.7	1,490.0	1,468.0	1,446.3	1,424.9	1,403.9	1,199.5	11,994.9
Total annual benefits	433.2	727.0	1,021.0	1,223.8	1,356.7	1,490.0	1,468.0	1,446.3	1,424.9	1,403.9	1,199.5	11,994.9
Business transition costs	11.1	7.5	7.5	-	-	-	-	-	-	-		

Business annual recurring costs	16.6	27.3	37.6	36.3	35.1	33.9	32.7	31.6	30.6	29.5	31.1	311.1
Business total annual costs	27.7	34.8	45.1	36.3	35.1	33.9	32.7	31.6	30.6	29.5	33.7	337.3
Business transition benefits*												
Business annual recurring benefits*												
Business total annual benefits*												

* For non-monetised benefits please see summary pages and main evidence base section. Note all figures in this table are discounted.

Annual profile of total monetised costs and benefits* - (£m) constant prices, Option 3 against Option 2 - DISCOUNTED

	Y ₀	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉	Average	Total
Total Transition costs												
Total Annual recurring cost (lost health benefits)	4.3	7.3	10.2	12.2	13.6	14.9	14.7	14.5	14.2	14.0	12.0	119.9
Total annual costs (lost health benefits)	4.3	7.3	10.2	12.2	13.6	14.9	14.7	14.5	14.2	14.0	12.0	119.9
Total Transition												
Total Annual recurring benefits (gain in tax revenue)	0.2	0.3	0.5	0.7	0.8	1.0	0.9	0.9	0.9	0.8	0.7	7.0
Total annual benefits (gain in tax revenue)	0.2	0.3	0.5	0.7	0.8	1.0	0.9	0.9	0.9	0.8	0.7	7.0
Business transition costs												
Business annual recurring costs												
Business annual												
Business transition benefits*												
Business annual recurring benefits*	27.1	26.2	25.3	24.5	23.6	22.8	22.1	21.3	20.6	19.9	23.3	233.4
Business total annual benefits*	27.1	26.2	25.3	24.5	23.6	22.8	22.1	21.3	20.6	19.9	23.3	233.4

* For non-monetised benefits please see summary pages and main evidence base section. Note all figures in this table are discounted.

Annual profile of total monetised costs and benefits* - (£m) constant prices, Option 2 against Option 1 - UNDISCOUNTED

	Y ₀	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉	Average	Total
Total Transition costs	11.5	8.1	8.3									
Total Annual recurring cost	41.0	69.9	99.6	126.0	144.5	163.6	163.6	163.6	163.6	163.6	129.9	1,298.8
Total annual costs	52.5	78.0	108.0	126.0	144.5	163.6	163.6	163.6	163.6	163.6	132.7	1,326.7
Total Transition benefits												
Total Annual recurring benefits	439.7	748.9	1,067.6	1,298.9	1,461.6	1,629.2	1,629.2	1,629.2	1,629.2	1,629.2	1,316.3	13,163.1
Total annual benefits	439.7	748.9	1,067.6	1,298.9	1,461.6	1,629.2	1,629.2	1,629.2	1,629.2	1,629.2	1,316.3	13,163.1
Business transition costs	11.5	8.1	8.3									
Business annual recurring costs	17.2	29.2	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	38.0	379.6
Business total annual costs	28.6	37.3	50.0	41.7	41.7	41.7	41.7	41.7	41.7	41.7	38.0	379.6
Business transition benefits*												
Business annual recurring benefits*												
Business total annual benefits*												

* For non-monetised benefits please see summary pages and main evidence base section. Note all figures in this table are undiscounted.

Annual profile of total monetised costs and benefits* - (£m) constant prices, Option 3 against Option 2 - UNDISCOUNTED

	Y ₀	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉	Average	Total
Total Transition costs												
Total Annual recurring cost (lost health benefits)	4.4	7.5	10.7	13.0	14.6	16.3	16.3	16.3	16.3	16.3	13.2	131.6
Total annual costs (lost health benefits)	4.4	7.5	10.7	13.0	14.6	16.3	16.3	16.3	16.3	16.3	13.2	131.6
Total Transition												
Total Annual recurring benefits (gain in tax revenue)	0.2	0.4	0.5	0.8	1.0	1.2	1.2	1.2	1.2	1.2	0.9	8.7
Total annual benefits (gain in tax revenue)	0.2	0.4	0.5	0.8	1.0	1.2	1.2	1.2	1.2	1.2	0.9	8.7
Business transition costs												
Business annual recurring costs												
Business annual												
Business transition benefits*												
Business annual recurring benefits*	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	280.7
Business total annual benefits*	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	280.7

* For non-monetised benefits please see summary pages and main evidence base section. Note all figures in this table are undiscounted.

Evidence Base

Introduction:

1. The Health Act 2009 includes provision (at section 21) prohibiting the display of tobacco products in shops, including in England. Displays of tobacco products encourage young people to try smoking and undermine the efforts of adult smokers who want to quit, or who are actively trying to quit smoking. The Act excludes tobacco displays arising in the wholesale tobacco trade provided that these are made only to people engaged in the tobacco trade. The Act also makes limited provision for temporary displays which are "requested displays" to individuals making such requests in order to purchase tobacco products, or asking for information about tobacco products.
2. The Tobacco Advertising and Promotion (Display)(England) Regulations 2010 laid in Parliament on 2 March 2010, provide exemptions and detail the circumstances in which temporary displays of tobacco products are lawful. Following consideration of the legislation, the Coalition Government announced on 9 March 2011 its intention to amend the regulations with the aim of mitigating burdens on business by making the provisions more practical to operate, taking more account of the day to day operational needs of retail businesses. The amendments announced are to:
 - enlarge the size of temporary displays allowable from 0.75 square metres to 1.5 square metres
 - extend the circumstances in which temporary displays can be made
 - give retailers more time to prepare for implementation by deferring the commencement dates until 6 April 2012 for large shops and 6 April 2015 for all other businesses including small shops.¹
3. This Impact Assessment analyses the costs and benefits of the prohibition of display in 2 stages: Option 2 is the introduction of prohibition of display as outlined in the 2010 set of regulations; Option 3 assesses the proposal to make the substantive changes to the regulations outlined above, not considering the impact of the deferral of implementation times. The costs and benefits of Option 2 are made in comparison to 'Option 1 – Do Nothing'. Usually all the options in Impact Assessments are made in direct comparison to Option 1. However, in this case, Option 3 is made in direct comparison to Option 2 to highlight the marginal impact. This Impact Assessment now acts as the sole document for updated analysis relating to the prohibition of display of tobacco products.
4. The costs and benefits have been updated, amended and extended from methodology used in the Health Act Impact Assessment and January 2010 Regulations Impact Assessment where necessary to calculate Option 2. An estimate for the increase in successful adult quitters has been added in this Impact Assessment, to enable a marginal analysis of the impact of the policy on health benefits.
5. Making regulations less burdensome (Option 3) is thought likely to have an impact upon tobacco use consequent upon the increase in exposure to display of those susceptible to start smoking or to lapse from attempting to quit. An attempt to monetise the impact upon health is explained in Annex 2 and estimated to be roughly £120m over the 10 year discounted period. This will be offset by increased benefits arising from the mitigation in the projected drop in tax revenue, valued at £7m over the 10 year discounted period. This Impact Assessment also quantifies the benefit to businesses and customers of Option 3, at £304.7m over the 10 year period.

¹ The existing 2010 legislation was due to come into effect imminently (October 2011). To provide businesses with confirmation that the Government would fulfil its intention to amend the commencement dates, Tobacco Advertising and Promotion (Display and Specialist Tobacconists) (England) (Amendment) Regulations 2011 were laid in Parliament on 9 May 2011. These amended the commencement dates in the 2010 regulations so that they come into effect in April 2012 (large shops) and 2015 (small shops) as announced. The Government recognised that this would defer the public health benefits and fully took this into account in reaching its decision

Background to the tobacco display provisions

6. Tobacco smoking is the leading cause of preventable morbidity and premature death, accounting for 81,400 deaths in England in 2009. In England, deaths from smoking are more numerous than the next six most common causes of preventable death combined, that is drug use, road accidents, other accidents and falls, preventable diabetes, suicide and alcohol abuse. Smoking is also the single biggest cause of inequalities in death rates between the richest and the poorest in our communities.
7. Tobacco displays are a form of tobacco promotion: evidence shows that they can encourage young people to start smoking and undermine efforts to quit by prompting impulse purchases². The 2008 *Consultation on the future of tobacco control*³ considered whether there should be further controls on the display of tobacco to reduce unsolicited tobacco promotion to children and people trying to quit smoking. Three options were presented: to retain the status quo; to place some restrictions on displays such as limiting size or ways in which tobacco may be displayed; or to remove tobacco displays altogether.
8. The report of the 2008 consultation⁴ shows that there were 95,488 responses to the question on tobacco displays, with around 84% of respondents favouring stricter controls. The vast majority of respondents expressed a preference for option 3: the complete removal of tobacco displays.
9. On 9 December 2008, the Government announced they would be seeking a prohibition on tobacco displays.⁵ The proposed general prohibition and accompanying regulation-making powers were set out in the Health Bill 2009, which was introduced in the House of Lords on 15 January 2009.
10. The Department of Health worked with trade representatives across the retail trade as well as enforcement officers to develop draft regulations for consultation on tobacco displays. Key stakeholders include: the Association of Convenience Stores (ACS); the British Retail Consortium (BRC); the National Federation of Retail Newsagents (NFRN); the Association of Independent Tobacco Specialists (AITS); the Imported Tobacco Products Advisory Council (ITPAC); World Duty-Free; Airport Operators Association (AOA); the UK Travel Retail Forum (UKTRF); Federation of Wholesale Distributors; a number of retail and wholesale businesses; and the Local Authorities Co-ordinators of Regulatory Services (LACORS now Local Government Regulation).
11. The Government's response to the consultation on draft proposed regulations, including a summary of the 544 responses received, was published on 26 February 2010. Responses were received from a wide range of interested parties which can be broadly categorised as (a) health professionals, NHS representatives and public health organisations that called for more stringent controls; (b) enforcement officers and local trading standards authorities more concerned with specific drafting of the regulations and other practical matters of enforceability; and (c) tobacco industry interests and retailers that objected to the proposals either as a whole and/or in relation to specific details.
12. As a result of considering the consultation responses, particularly those from small retail businesses, Ministers made a number of changes to the proposed regulations to make them more operationally practical:

² For a review of the evidence, see the Health Bill Impact Assessment, available at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsLegislation/DH_093305 and the Cancer Research UK report, available at: info.cancerresearchuk.org/images/pdfs/tobcon_pointofsalerreport

³ Department of Health (2008). *Consultation on the future of tobacco control*. Department of Health, London. Available at: www.dh.gov.uk/tobacco

⁴ Department of Health (2008). *Consultation on the future of tobacco control: consultation report*, Department of Health, London. Available at: www.dh.gov.uk/tobacco

⁵ Available at: www.publications.parliament.uk/pa/cm200809/cmhansrd/cm081209/wmstext/81209m0001.htm#08120943000015

(A) *Display Regulations*

- (i) the area allowed to be displayed as a consequence of a requested display to a customer, or during restocking, was increased from 7500 square centimetres to 15000 square centimetres
- (ii) an extra regulation was added to allow displays of tobacco products to enforcement officers, police and Revenue and Customs officers
- (iii) the definition of "bulk tobacconist" was changed to give more flexibility to avoid inadvertently excluding the intended target retail groups

(B) *Price Display Regulations*

- (i) the maximum permitted size of a price list was doubled, from A4 to A3
- (ii) the information allowed to be given on a price list was extended to include, for example, dimensions and country of origin for cigars and generic headings
- (iii) the definition of "bulk tobacconist" was changed to give more flexibility to avoid inadvertently excluding the intended target retail groups
- (iv) the permitted font size on labels on storage units was increased in line with Royal National Institute of Blind People recommendations.

13. The Coalition Government set out its approach to tobacco control in *Healthy Lives, Healthy People: A Tobacco Control Plan for England* (published 9 March 2011). The Plan includes three national ambitions to focus tobacco control work across the whole system at both national and local levels. The ambitions are to reduce rates of smoking prevalence in England among:

- adults
- young people
- expectant mothers

14. To achieve these ambitions, the Plan sets out the Government's support for comprehensive tobacco control across the six internationally recognised strands of activity:

- stopping the promotion of tobacco
- making tobacco less affordable
- effective regulation of tobacco products
- helping tobacco users quit
- reducing exposure to second-hand smoke
- effective communications for tobacco control

15. Given the substantial health risks caused by tobacco use, the Plan confirms the Government's commitment to stopping the promotion of tobacco products and, in particular, to protect young people from influences encouraging them to take up smoking. The more that smoking is seen to be a normal part of everyday life, the more likely it is that young people will take it up. As the Cabinet Office Behavioural Insights Team suggests in *Applying Behavioural Insight To Health*:

*We generally do what we see or think others are doing but an important twist is that our estimate of what other people are doing is often distorted.*⁶

16. Single actions will not, on their own, succeed in substantially driving down rates of smoking prevalence. The decision to end tobacco displays is one action within the overall comprehensive strategy in the Plan. To take just the strand on stopping tobacco promotion as an example, action includes ending tobacco sales from vending machines, examining the impact of the advertising and

⁶ Cabinet Office Behavioural Insights Team (2011). *Applying Behavioural Insight To Health*. Cabinet Office, London.

promotion of smoking accessories, reducing the depiction of smoking in the media and exploring how the internet is used for promotion.

17. The Coalition Government reviewed the options for the future of tobacco displays, in fulfilment of undertakings made by various members of the Coalition Government while in Opposition, as the tobacco display legislation (including regulations) was considered and passed by Parliament prior to the general election. The Government's review recognised the dual aims of reducing tobacco consumption and reducing burdens on businesses. The views of all parties with an interest in this legislation have been well known to Government throughout the process. Information about stakeholders' views were available from a variety of sources, including through the two public consultations, meetings, correspondence, press articles and extensive lobbying between May 2010 and the decision announcement on 9 March 2011. Lobbying continued throughout this period by public health groups, as well as by retailers and tobacco manufacturers.
18. In November 2010, during this period of consideration, the Chancellor announced the *Growth Review*. The Growth Review is jointly led by the Treasury and Department for Business and aims to ensure all Government Departments are doing everything they can to help the country grow and recover from recession. The Government wants to create the right conditions for businesses to succeed, removing barriers that are preventing them from performing to their full potential. The Government is clear that small and micro businesses have specific needs and can be particularly affected by regulation. Reducing the burdens of regulation, especially for small and micro businesses, is a priority for the Government.
19. Within *Healthy Lives, Healthy People: A Tobacco Control Plan for England*, the Government committed to delay commencement of the prohibition on tobacco displays until 2012 for large shops, and until 2015 for all other tobacco retailers.
20. The Government believes that the changes to the regulations announced on 9 March strike the right balance between the priority of promoting public health and the need to take account of the impact on businesses. In particular, the deferment of commencement for small shops until April 2015 is in keeping with the moratorium on new domestic regulation for micro-businesses and start-ups announced in the Plan for Growth published on 23 March 2011.

Analytical History

21. The final Impact Assessment for the Health Act (published to inform the passage of the Bill through Parliament – '*Health Act Impact Assessment*') considered the costs and benefits associated with removing tobacco displays and anticipated there would be flexible regulations allowing cost-effective solutions tailored to the needs of individual retailers. Since Section 21 of the Health Act provides for a virtually complete prohibition of tobacco display, the display regulations Impact Assessment (2010) compared the costs associated with removing tobacco displays (a) with and (b) without the operational allowances provided for in the regulations.
22. The Health Act Impact Assessment explained the *minimum* benefits of removing tobacco displays in terms of life years saved from a reduction in smoking prevalence. This resulted in a net benefit of £520m (range £45m to £975m), based on the lifetime health benefits arising from fewer young people starting to smoke over a ten year period. In this Impact Assessment the increase in number of circumstances where exposure of display can occur (Option 3) could lead to a reduction in accumulated health benefits over the ten year appraisal period. To accurately estimate the level of health benefits foregone under each option, there needs to be a shift from the *minimum* estimate previously provided, to a *central* estimate of benefits.
23. The same methodology used in the Health Act Impact Assessment to calculate *minimum* health benefit is used here to calculate the *central* estimate. However, in addition to the estimate of health benefits arising from fewer young people starting to smoke, this Impact Assessment also provides a *central* estimate of the health benefits created by an increase in successful quit attempts and reduction of smoking prevalence among the adult smoking population.

24. This Impact Assessment analyses the costs and benefits of the prohibition *with* and *without* the amending set of regulations. This is not the usual format for an Impact Assessment, where the options are assessed individually against Option 1. In this case, Option 2 is assessed in direct comparison to Option 1, though Option 3 is assessed as an incremental change to Option 2. The amending regulations are not expected to have a large impact on overall cigarette consumption, though are expected to make the day to day running of cigarette retailers easier. The amending regulations reflect the feedback that the Department has received from bodies that represent retailers.
25. The commencement dates have now been amended to April 2012 for large shops and April 2015 for small shops. This Impact Assessment does not consider the deferral of implementation times, as the results of this can be deduced from these figures. So all calculations for options 2 and 3 are phased in based on the original implementation times.
26. The analysis here is an update of previous Impact Assessments, so the 'do – nothing' Option 1 remains as England without display prohibition (i.e. repeal the legislation entirely). The costs (one-off and annual recurring) of each option update and build on the methodology as used in the Health Act Impact Assessment (2009) and the Display Regulations Impact Assessment (2010). These have been updated with the latest data where necessary, for example, to adjust for changes in the wage rate and value of leisure time. All the updated analysis for the prohibition of display of tobacco products at the point of sale is now in this Impact Assessment.
27. Effectively, this Impact Assessment provides an updated confirmation of the judgments reached in the original legislation and display regulations (Option 2) and by the Coalition Government in adjusting the display regulations (Option 3 relative to Option 2). The costs and benefits of the legislation as it now stands compared with the situation that would have obtained had it not been adopted or were it to be repealed can be deduced by summing the Option 2 and Option 3 impacts, with due allowance for the deferral in implementation time (which is itself beyond the scope of this IA).

Policy Objectives

28. The aims of the regulations and amendments are, while generating substantial health benefits, to mitigate the burdens on businesses by making the legislation more practical to implement and operate during the day-to-day running of a retail business (see Option 3). The intended changes to the regulations will especially support small businesses, in line with the Government's Growth Review.

Option 1 – 'do-nothing' (i.e. repeal the legislation entirely): return to no prohibition of tobacco display at the point of sale

Option 2 – Health Act 2009 (s.21) and the Tobacco Advertising and Promotion (Display)(England) Regulations 2010 to come into force as originally intended and unchanged.

29. Specifically, the regulations under **Option 2** would:

- Enable retailers to make temporary, limited-size displays (0.75 square metres) when selling tobacco to customers and restocking;
- Enable specialist tobacconists (those whose sales comprise at least 50% specialist tobacco products, such as pipe tobacco and cigars) to continue advertising specialist tobacco products, and displaying all tobacco products inside their shops, provided neither are visible from outside the shop;
- Enable bulk-tobacconists to display tobacco in designated tobacco display areas; and
- Allow plain price lists for tobacco to be visible to all customers and a price list with images available to persons over the age of 18 on request.
- Implementation October 2011 for large shops, October 2013 for small shops

Option 3 - Amend the regulations by:

30. Specifically, the proposed amending regulations under **Option 3** would:

- enlarge the size of temporary displays allowable from 0.75 sq ms to 1.5 sq ms
- extend the circumstances in which temporary displays can be made:
 - a. assessing stock for stock control purposes
 - b. cleaning, maintenance and refurbishment of tobacco storage units
 - c. staff training
- Implementation April 2012 for large shops, April 2015 for all other tobacco retailers (note this deferral is not taken into account in this IA. The implementation start date for Options 2 and 3 remain October 2011 and October 2013 for purposes of this analysis)

31. The costs and benefits outlined below for Option 2 are the projections against which Option 3 is appraised. All costs and benefits in the summary sheet for Option 1 equal zero. In this case, Option 3 assesses proposed amendments to regulations that have already been passed by Parliament into law but which are not yet implemented, and so it is the marginal change resulting from the amending regulations that are assessed. This provides a comprehensive overview of the analysis for the policy in its entirety in one document, pre and post amendments.

Impacts, Costs and Benefits of Option 2

Health Act 2009 (s.21) and the Tobacco Advertising and Promotion (Display)(England) Regulations 2010 to come into force as originally intended and unchanged, in direct comparison to the base line (Option 1)

Costs

Cost of Option 2 – one-off

32. The display regulations Impact Assessment⁷ (2010) combined the estimate of size based on an ASH report⁸ and the quotes obtained by DH for the cost of the magnetic covers⁹ to give an estimate of £450 per small store, and £850 per large store. To avoid confusion, the Government has committed to defining small and large shops through the existing definitions in the Sunday Trading Act 2004. This means that shops greater than 280 square metres are considered large.
33. *Convenience Store* magazine published the "Grocery Retail Structure" on 12 June 2010.¹⁰ This data indicates there are 66,710 shops selling tobacco in the UK, including convenience stores, petrol forecourts, supermarkets and superstores. With a population factor of 0.838, this scales down to an estimated 55,933 shops selling tobacco in England.
34. According to the "Grocery Retail Structure" article, which (amongst other things) categorises shops by the same size criterion that we use, and applying the population scaling factor for England, there are an estimated 6,834 large stores and 49,099 small stores in England which sell tobacco according to proposed definitions in the regulations.
35. Taking the average cost per store as detailed at paragraph 32 and the estimated number of stores detailed at paragraph 33, this results in a potential one-off cost to remove tobacco displays in shops under Option 2 of **£27.9 million**.

Cost of Option 2 – annual recurring costs

⁷ http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsLegislation/DH_116505

⁸ MacGregor Consulting Ltd. *Tobacco Advertising at Point of Sale – report to ASH*. Available at: www.ash.org.uk/ash_3xe9h0zo.htm

⁹ Emails from 4 Solutions Display to the Department of Health and ASH. Available at: www.dh.gov.uk

¹⁰ The Convenience Stores *Grocery Retail Structure 2010*, 10 June 2010, pg.14-15.

36. The following points relate to recurring annual costs. The cost estimates in bold relate to full implementation of the policy and have been updated since their use in earlier Impact Assessments.
- a. Different methods of serving customers could result in additional time taken to sell tobacco products.
 - i. A report by the Centre for Economics and Business Research¹¹ (CEBR) cites a small study published in the Convenience Store magazine, which estimated the time taken to serve customers. This suggests that currently (e.g. no tobacco display legislation, Option 1) it takes 4.37 seconds to serve a customer (a tobacco product from the display gantry) and estimated that this would increase to 8.8 seconds to serve customers if the legislation were to impose a full 'under-the-counter' option.¹² This is a point estimate taken from a singular experiment. Therefore, it does not take into account the dynamic impact of the legislation. For example, the serving time following an 'under the counter' solution is likely to reduce with time, once the retailer becomes more familiar with the new display arrangements. However, this evidence does give us a useful starting point to estimate the increased administrative burden of the legislation, by indicating the current serving time and the serving time under a strict form of legislation.
 - ii. Option 2 has been developed through public consultation on proposed draft regulations and through regular discussions with retailer representatives, principally the Association of Convenience Stores (ACS) and the British Retail Consortium (BRC). The consultation included a draft Impact Assessment for the regulations. The main proposal was for temporary requested displays allowable while serving customers to be limited to 1,500 square centimetres and for such limited temporary displays to be allowed while restocking. The draft consultation Impact Assessment cited the CEBR report as baseline evidence and estimated that the additional time to serve customers, taking into account the practical benefit of the proposed regulations for retailers, would only be 2 seconds.
 - iii. After careful consideration of all the responses to consultation, including a detailed response from the ACS, the size of temporary display allowed was increased from 1,500 square centimetres to 0.75 square metres, as now considered under Option 2 in this IA. Consultation responses were received from a wide range of stakeholders but they can be broadly characterised as having been sent by one of three groups - retailers, public health organisations and enforcement bodies. Having carefully considered the responses, DH Ministers made decisions which, in their judgement, reached a reasonable balance between the competing views of these groups. In the light of consultation responses and the amendments made by the Department, the estimated increase in serving time in the final Impact Assessment published alongside the final 2010 regulations, retained the estimated 2 second increase. The Department considers this a reasonable central estimate considering the positive action we have taken in response to retailers concerns.
 - iv. Therefore, given the number of cigarettes estimated to be sold in shops in England is 38.6 billion, this leads to 1.1 million hours $((38.6\text{bn} / 20) * (2 \text{ seconds} / 3600))$ lost to the customer per annum. Using a value of £4.77 per hour of leisure time, combined with the increase in time spent serving, results in a total cost to customers of **£5.1 million per annum**.¹³
 - b. More additional time to serve customers is also a cost to the retailer. The 2010 Annual Survey of Hours and Earnings (ASHE) quotes a wage rate of £7.42 per hour for 'Sales assistants and retail cashiers'. Uplifting this figure by 30% to take account of other costs of employment yields a wage rate of £9.65 per hour. The increase in 1.1 million hours of serving time are therefore equivalent to a cost of **£10.4 million per annum**.¹⁴

¹¹ CEBR (2010). Expert report on the economics of a tobacco display ban. London: Centre for Economics and Business Research.

¹² <http://www.thegrocer.co.uk/articles.aspx?page=independentarticle&ID=192249>

¹³ See Annex 2: Technical for further information - *Updates of calculations made in the Display Regulations Impact Assessment*

¹⁴ See Annex 2: Technical for further information - *Updates of calculations made in the Display Regulations Impact Assessment*

- c. Assessing stock for the purposes of stock-taking, ordering stock and restocking will take more time under the prohibition. The CEBR report estimates that under full prohibition without regulations, the alternative solutions are expected to result in an additional 2.5 hours per week. Under the regulations presented here an additional one hour per week for these activities is considered appropriate. The 1 hour of additional time 'assessing stock' results in a cost of **£28.1 million per annum**.
- d. The time needed to maintain an accurate product/price list or book will take up additional staff time. Half an hour of time (per premise per month) should be sufficient to maintain the price list. This yields a cost estimate of £60 per premise per annum or **£3.2m per annum across all premises**.
- e. To reach a figure for One In One Out (OIOO) policy, it is necessary to estimate the direct costs to business. In this case, the impact of the legislation on demand for cigarettes is out of scope, as it is a secondary effect, though serving customers, maintaining the price list and assessing stock are in scope as direct administrative burdens imposed on businesses. These necessary costs that businesses must incur under the unamended regulations monetised above all contribute to the IN for this policy. For a full explanation of the methodology and calculation of the OIOO figure for both options see Annex 3. The IN figure applicable for the Statement of New Regulation 3 (SNR3) equals the equivalent annual net cost to business for large shops over the 10 year period, as they must implement the regulatory measures in April 2012. The break down of costs between small and large shops is also detailed in Annex 3.

Tax revenue loss resulting from an increased number of young people not starting to smoke

- 37. Tax revenue is a transfer of benefit from the tobacco consumers to the community (the Exchequer). The consumption reduction set out in the Benefits section will lead to a reduction in this transfer – there will be no offsetting gain to the consumer themselves or to the Exchequer. The loss in tax revenue is therefore an economic cost.
- 38. The tax loss calculation is consistent with the benefits calculation, which adjusts for the fact that some smokers quit during their lifetime, thus constraining the estimated tax loss associated with having fewer new smokers. An average price of £6.20 per 20-pack is used alongside the current specific duty rate of £119.03 per 1,000 cigarettes, and the current ad valorem rate of 24%.¹⁵ This gives a figure of £3.87 per 20-pack sold. Lost VAT revenue is not considered, as this will likely be offset by increased expenditure on other VAT-eligible products. As in the Benefits section, the calculation is based on average consumption of 15 cigarettes per day for men, and 13 per day for women. The same quit age bands are used, including the band of 'under 35'. In each quit age band, smokers are modelled to quit in the middle of the age band (for example, those quitting between ages 35 and 44 are modelled to no longer smoke when they reach age 40). Those quitting in the 'under 35' band are modelled to no longer smoke when they reach age 26 (a middle figure that is based on starting at age 16), and those in the 'over 65' quit age band are modelled to smoke until death. Tax revenues for each quit age band are discounted at Green Book rates. Discounted tax revenue losses for each quit age band are then weighted by the estimated percentage that quits in that age band (see Annex 2: Technical). The result is a loss of £10,652 per smoker who does not start, averaged across the sexes. Given that the Benefits section calculates a reduction of 6,000 smokers per annual cohort as a result of the policy, this is equivalent to a tax revenue loss of £64 million per annual cohort in cash terms once the full impact of the regulations on behaviour is realised. Given the delay assumed for the regulation to have an impact on quitting behaviour, the total loss in tax revenue is valued at **£304 million over the 10 year discounted period (see Table 2 below for details)**.

Tax revenue loss resulting from an increased number of adult quitters

- 39. There is evidence to suggest that prohibition of display could lead to a higher number of adult quitters. The display area is a source of product promotion, which could lead to impulse purchases and help to undermine quit attempts. An increase in the number of adult quitters would lead to a reduction in cigarettes bought and tax revenue. For a full discussion of the methodology see

paragraphs 57 - 60 (under health benefits). The result is a loss of £3,685 per adult smoker who no longer smokes, averaged across the sexes. Given that the benefits section calculates a reduction of 14,350 smokers per annual cohort as a result of the policy, this is equivalent to a tax revenue loss of **£53m** ($£3,685 * 14,350$) per annual cohort, again under the full impact of the regulation on smoking behaviour. It is assumed that adults could be helped to quit immediately following the introduction of the legislation, whereas young people may be subject to a lag before the policy affects them.¹⁶ Given time lags for the display ban to come fully into effect (although much reduced for quitting behaviour as opposed to smoking uptake), there is a **£395m loss over the 10 year discounted period**. This table shows how the tax revenue for each category was calculated, considering that young smokers are only affected following a 3 year lag. The total tax revenue loss equals £699m over the 10 year discounted period:

Table 2: Tax revenue losses over the 10 year period

Years post implementation	Weighted % of businesses compliant, end of year	Total reduction in tax revenue due to young people stopping smoking (£m)	Total reduction in tax revenue due to adults stopping smoking (£m)	Total tax revenue reductions (£m)
1	41	-	21.0	21.0
2	70	-	34.6	34.6
3	100	-	47.7	47.7
4	100	22.9	46.1	69.0
5	100	37.7	44.5	82.3
6	100	52.0	43.0	95.0
7	100	50.2	41.6	91.8
8	100	48.5	40.2	88.7
9	100	46.9	38.8	85.7
10	100	45.3	37.5	82.8
Total		303.7	395.0	698.6

Cost of Option 2 – unquantifiable annual recurring

40. A number of issues have been raised by retailers and tobacco manufacturers that potentially could give rise to economic costs. For the issues listed below, no quantified evidence is available to estimate the impact on cost. Full explanations of the position on each issue were given in the earlier Impact Assessments for the Act or the regulations, including where appropriate indications about the lack of evidence to substantiate the claims that these issues will give rise to costs.

- a. any marginal increase in current enforcement costs
- b. increased theft of stock through shoplifting while staff open tobacco units
- c. customer migration from small convenience shops to larger stores
- d. increase in the illicit trade in black market cigarettes
- e. cost of replacement 'focal point' stock
- f. reduction in sales in airports

¹⁶ Full explanation required

Health Benefits

Quantifying the monetised benefit of one person not starting to smoke, and one adult deciding to quit smoking

41. The Health Act Impact Assessment monetised the benefit of one person not starting to smoke, considered the evidence base on tobacco marketing and display, then illustrated the potential monetised benefits of a display ban.
42. This benefits analysis has been updated and covers two types of health outcome that might arise from the policy, and places a monetary value on each. The monetary values are listed below.
 - a. Each child that the policy deters from taking up smoking: £93,600 (1.56 discounted life years * £60,000).
 - b. Each adult that the policy induces to quit smoking: £74,400 (1.24 discounted life years * £60,000).
43. These values have been calculated by estimating the number of life years (discounted in line with Green Book principles) that are saved in each of the above outcomes. A standard £60,000 value is placed on each life year saved. The method takes account of the fact that many smokers quit at some point in their lifetime, so potential 'new' smokers who have been prevented from starting to smoke by the policy would not necessarily have smoked until the end of their life (and experienced all of the associated health problems). Similarly, adult smokers who are encouraged to quit now may otherwise have quit at some point in the future.
44. A detailed description of the calculations is provided in Annex 2 Technical, including references for all sources of data.

Benefits calculation for Option 2

Health benefits expected from an increase in number of young people who do not start smoking

45. The Health Act Impact Assessment outlined the importance of tobacco display in retail. It contained a detailed discussion of the evidence of tobacco promotion through display, and its effect of encouraging existing smokers to keep smoking and inducing young non-smokers to start.
46. While the introduction of restrictions on tobacco display in retail environments is not expected to have an immediate benefit on health or smoking prevalence, based on the evidence, it is reasonable to expect that fewer young people would start using tobacco and that smoking prevalence among young people would decline at a faster rate than otherwise.
47. As with all measures in tobacco control, it is difficult to disaggregate the benefits of specific changes. A display ban would be one element within a comprehensive and multifaceted tobacco control programme which, as a whole, would lead to a reduction in smoking prevalence among the population at large.
48. Nonetheless, Henriksen et al (2004) found, using a sample of 2,100 Californian school children, that exposure to retail tobacco marketing resulted in a 50% increase in the odds of ever smoking. This finding was made even after controlling for other correlates of ever smoking, such as risk taking, maternal supervision and self-reported grades.
49. It is possible to apply the Henriksen et al findings to the UK, but this is not straightforward due to issues including factors such as Californian children being exposed to less regulated tobacco advertising than in the UK and differences in the age of sale of tobacco at the time of the study. While there are also other factors such as sociodemographic differences between Californian and

UK children, the Californian sample's smoking prevalence rates (2.6% of 11-12 year olds, 6% of 12-13 year olds and 7.6% of 13-14 year olds) are similar to UK levels.

50. Data from the NHS Information Centre's *Smoking, drinking and drug use amongst young people in England, 2009* show that 6% of a sample of 11-15 year olds are regular smokers, whereas 29% of the sample have ever smoked. There are therefore 0.21 regular smokers for each 'ever smoker' in the sample.
51. The Health Act Impact Assessment explained that the size of the effect in the Henriksen et al study is very large – and, as stated above, point-of-sale advertising is already quite restrictive, so comparisons cannot be made directly. The effect size in England could not reasonably be expected to be of this magnitude. However, it can be shown that only a very small effect size is needed to justify the costs (especially as some costs, such as lost duty revenue, are related to the effect size, i.e. they are small when the effect size is small). A *minimum* range was provided in the Health Act Impact Assessment by considering that advertising of tobacco products yields only a 1-5% (instead of 50%) increase in the odds of becoming an 'ever smoker'.
52. There is further evidence to suggest that prohibition of display has a significant impact on smoking prevalence:
- Henriksen, L. et al (2010). "A Longitudinal Study of Exposure to Retail Cigarette Advertising and Smoking Initiation" in *Pediatrics*. 126, pp.232-238.¹⁷
 - Paynter, J. and Edwards, R. (2009). "The impact of tobacco promotion at the point of sale: A systematic review" in *Nicotine Tob Res*. 11(1), pp.25-35.¹⁸
 - Paynter, J et al (2009). "Point of sale tobacco displays and smoking among 14–15 year olds in New Zealand: a cross-sectional study" in *Tobacco Control*. 18, pp.268-274.¹⁹
53. The Henriksen et al study (2010) states that display would have a higher impact on the odds of ever smoking than the 2004 study, however, with a smaller impact after 30 months. This is unsurprising considering the independent variable is only the baseline for exposure rather than a measure of continuing exposure. This study has also controlled for important other determinants of smoking uptake that rely on the number of times an individual may visit a shop that sells tobacco (for example, the lack of parental supervision and subsequent effect on likelihood that a child may take the risk to attempt to purchase tobacco). Both Paynter articles strengthen the argument that the display of tobacco products at the point of sale can have an impact on the smoking behaviour of young people. The 2008 study is a useful cross-check to Henriksen's Californian studies because regulations in New Zealand restrict in-store display (so they are more similar to the current situation in England).
54. The Henriksen study (2004) found that exposure to retail tobacco marketing resulted in a 50% increase in the odds of ever smoking. However, this needs to be lowered to create a *central* estimate of the impact of removing display on young people in the England for the following reasons (in addition to complications explained in paragraph 49):
- All forms of advertising cigarettes are allowed in-store in the US, so the impact found in the Henriksen study are larger than can be expected in England
 - In England the proposals do not require a full display ban (e.g. removal of the gantry). The presence of a gantry itself may reduce the impact of full prohibition
 - Children who do not in any case have exposure to display (because they do not frequently visit these shops) will be unaffected, which will dilute the effect of the Henriksen study
55. Following the logic above, taking into account the new evidence available, a central estimate can be derived using results from the Henriksen study. It is presumed instead that advertising and

¹⁷ <http://pediatrics.aappublications.org/cgi/reprint/126/2/232.pdf>

¹⁸ <http://ntr.oxfordjournals.org/content/11/1/25.short>

¹⁹ <http://tobaccocontrol.bmj.com/content/18/4/268.long>

display of tobacco products yields a 25% (instead of 50%) increase in the number of 'ever smokers'. This results in a 0.9 percentage point reduction in the number of regular smokers aged 11-15. If this reduction persists into adulthood, despite the fact that this effect size is only a half of the effect size in the Henriksen study, this still yields 9360 discounted years of life saved per annual cohort.

Table 3: Health benefit calculation for young people not taking up smoking

Year	Phasing based on weighted percentage of businesses compliant end of year, with 3 year lag	Discount factor – health	Health Benefits young people not taking up smoking – value (£)
1	0	0.99	-
2	0	0.97	-
3	0	0.96	-
4	0.41	0.94	217,928,745
5	0.70	0.93	365,699,666
6	1	0.91	513,606,895
7	1	0.90	506,016,646
8	1	0.89	498,538,567
9	1	0.87	491,171,002
10	1	0.86	483,912,317
Total			3,076,873,838

56. The table above show how the estimate for the health benefits from a reduction in young people starting to smoke is calculated as **£562 million per annum** ($9360 * £60,000$, undiscounted) once the regulations are fully in force, exceeding the cost of the policy by a considerable margin. The discounted benefit over 10 years from a reduction in young people taking up smoking is estimated to be **£3.1 billion** (see Table 3 above). These figures have been adjusted to take account of the fact that the policy is not fully in force until the end of year 3; the method set out in the costs section is also used here, scaling each year's benefit to the calculated end-year implementation percentage.

Health benefits expected from an increase in the number of people who quit

57. There is also expected to be a reduction in the overall quantity of cigarettes consumed due to an increased number of successful quit attempts by adults. The Health Act impact assessment did not quantify the benefit arising from adult quitting, although it did mention that even a small number of adult quitters arising from ending tobacco displays would make a significant contribution to off-setting the overall costs of the policy.

58. A 2010 study by Germain et al²⁰ might support quantification, and is suggestive of the possibility of a large impact. This prospective cohort study of smokers in Victoria, Australia showed that, after adjusting for covariates, compared to those with low point of sale display sensitivity, smokers who had a medium or high level of sensitivity to point of sale displays of tobacco were significantly less likely to have quit smoking over the study period.

59. The Germain et al study showed that the eighteen month quit rate in those unresponsive to display is 28%, against a whole sample rate of 17%. To apply the results of this study to England, a number of assumptions need to be made to account for possible publication bias, reverse causation, the very high base quit rate compared to England (c.7%-8% pa), the fact that the proposals do not require a full display ban (as mentioned above), the possibility that additional quitters will be drawn from those who would have quit relatively soon without the ban, and the lack of a UK or England-based study that describes the relationship between tobacco display in shops and quitting behaviour. Allowing for all these factors, we believe that it is reasonable to model the impact of the proposals to restrict display in England as a twentieth of the effect cited in the Germain study – ie as a 3% increase - in both annual quit attempts and annual quit relapses.

Table 4: Health benefit calculation for adults helped to quit

Year	Phasing based on weighted percentage of businesses compliant end of year, with 3 year lag	Discount factor – health	Health Benefits adults helped to quit – value (£)
1	0.41	0.99	433,221,879
2	0.70	0.97	726,976,592
3	1.00	0.96	1,021,002,275
4	1.00	0.94	1,005,913,572
5	1.00	0.93	991,047,854
6	1.00	0.91	976,401,826
7	1.00	0.90	961,972,243
8	1.00	0.89	947,755,904
9	1.00	0.87	933,749,659
10	1.00	0.86	919,950,403
Total			8,917,992,208

60. This suggests that prohibition of display could result in an annual reduction in smoking prevalence by 0.04 percentage points. This implies that there will be 14,350 extra net quitters per year (for ten years). The monetised value of a gain per quitter of 1.24 discounted life years is valued at £74,400. This equates to a total annual health benefit of £1.1 billion (14,350 * £74,000, undiscounted), or £8.9 billion discounted over the ten year period (see table 4 above).

²⁰

Germain, D., McCarthy M. and Wakefield, M. (2010). "Smoker sensitivity to retail tobacco display and quitting: a cohort study" in *Addiction*, 105, p.159-163.

Impacts, Costs and Benefits of Option 3

Amend the regulations. This option is assessed in direct comparison to Option 2 to highlight the marginal change

Costs of Regulation Option 3 (compared directly to Option 2):

Option 3: Health costs

61. There is a risk that the number of those who would no longer smoke as a result of ending the display of tobacco products in shops (some young people and quitters who are prevented from relapsing) could be reduced by the increase in situations when temporary display can occur, and the increase in size of display permitted. The group of individuals at risk (susceptible) from the increase in display under regulations could become smokers or continue smoking, reducing the health benefits calculated under Option 2.
62. The Department has undertaken some preliminary analysis to ascertain whether marginal increases in display under the limited situations in Option 3 could significantly impact upon those susceptible. It is expected that under variants of the regulations in Option 2 and 3, those susceptible to exposure to tobacco displays will be greatly diminished compared to the current situation (unregulated displays), to possibly as little as 1% of the current level of exposure (under no prohibition). Even if susceptibility to display is proportional to the area displayed, and this is unlikely, the change from 0.75 to 1.5 square metres should compromise the effectiveness of the policy only modestly. See Annex 2.²¹
63. It is possible to illustrate the reduction in health benefits by monetising the above estimate. Based upon our central estimate of benefits of **£12 billion**, we expect that the cost in foregone health gain arising from the proposed easing of regulations to lie in the region of about **£120m** (a 1% reduction in discounted health benefits). There is a high level of uncertainty surrounding the analysis and these costs will be partly offset by an increase in tax revenue of **£7m** (discounted).

Benefits of Regulation Option 3 (compared to Option 2):

Option 3: One-off

64. The Department expects that increasing the size of allowable temporary displays could reduce the one-off costs to business (by halving the number of individual doors or covers required to cover a display), though this reduction has not been quantified. Therefore, for the purposes of this assessment, one-off costs are assumed to be the same under current and the proposed amending sets of regulations (Options 2 and 3). The amending regulations are expected to be beneficial to businesses, particularly making operational day-to-day tobacco retail activities easier. These are monetised below.

Amending regulations – annually recurring benefits

65. Under Option 2, temporary tobacco displays can only be made to serve customers, to restock, or if requested by an enforcement officer. Under Option 3, the display regulations would be amended to provide for temporary displays of tobacco products to take place while additional activities are carried out that frequently occur during the day-to-day running of a retail business. Under the regulations, these activities would need to be carried out without allowing any tobacco products to be displayed to the public; essentially the shop would need to be either empty of customers, or closed. The additional activities, reflecting concerns raised by retailers, are:

²¹

See Annex 2: Technical for further information.

- a. assessing stock for stock control purposes
- b. cleaning, maintenance and refurbishment of tobacco storage units
- c. staff training

66. The amending regulations proposed under Option 3 will allow displays to occur while these activities take place, provided that:

- i) the display is solely as a consequence of such an activity that is actively being carried out in the ordinary course of business
- ii) the display lasts for no longer than is necessary to allow that activity to be carried out

67. Following the Coalition Government's review of the 2010 regulations (Option 2), the amending regulations will double the area of the temporary permitted display allowed when opening a tobacco storage unit to serve a customer from 0.75 square metres to 1.5 square metres. The ACS state that the majority of their members currently use tobacco display gantries measuring 1.5 metres by 2 metres. They suggest, therefore, that an allowable temporary requested display of 1.5 square metres would facilitate fitting only two sliding doors, rather than several hinged cupboard doors. The ACS estimate that it is only this option, with an increase of display to 1.5 sq ms, that will actually limit the additional serving time required to 2 seconds (ie the 2 second transaction time under Option 2). The Department has not received any other evidence on whether this additional size increase of the display gantry would lead to a saving in transaction time. Therefore, the estimated time to serve a customer under Option 3 remains an increase of 2 seconds per transaction.

68. Regulation 3 in the amending regulations allow tobacco products to displayed when undertaking additional activities are being actively carried out:

- a. Assessing stock levels for the purpose of stock control
- b. Staff training
- c. Cleaning of the storage unit
- d. Maintenance of the storage unit

Under Option 2 (the 2010 regulations) these activities would be prohibited when there are customers in the store (or at least would be prohibited where customers are in any part of the shop from which tobacco displays are visible). Also, 'assessing stock' under Option 3 has been widened from the narrow 'restocking' provision under Option 2, now to include *all* stock control procedures such as assessing whether the storage unit needs restocking, whether stock needs to be ordered, stock taking for auditing and accounting purposes, or any other activity related to stock control. Under Option 3 there will be reduced costs for retailers in being able to carry out these activities during normal opening hours, while customers are present. This would especially help shops that are otherwise open 24 hours a day, 7 days a week. In particular, where for example refurbishment needs to be carried out by a shop-fitter, the ability for work to be carried out during normal working hours would avoid the need to pay premium out-of-hours rates for contractors working at night or on Sundays.

69. The benefits to business in terms of a reduction in the annual recurring cost of extra 'assessing stock' time can be monetised. These amendments allow retailers to assess stock in a similar way as they do currently (Option 1). The only additional requirement is for the tobacco products to be covered while moving products around the shop, from either the stock room or direct from the delivery vehicle, to the display unit. While we understand that some retailers feel that this will create a new burden, the Department has not received evidence of the nature of any impact and therefore cannot attach credence to the claim. Hence, it is reasonable to assume that the £28.1 m cost of assessing stock under the prohibition *pre* amendments would be entirely removed, contributing to the OUT of the amendments.

70. Therefore, based on the discussion above, the health costs of the amending regulations would equal £120m, offset by increased tax and benefits to businesses of £240m (see table 5).

Table 5: Total benefit calculation Option 3

Benefits to business (£28.1 65 - 70)	Discount rate	Discounted benefits to businesses (£)	Discounted tax benefits (1% increase expected from Option 2 see paragraph 61 - 63)
£28,067,286	0.97	27,118,151	£210,427
£28,067,286	0.93	26,201,112	£346,287
£28,067,286	0.90	25,315,084	£476,945
£28,067,286	0.87	24,459,018	£690,205
£28,067,286	0.84	23,631,902	£822,726
£28,067,286	0.81	22,832,755	£950,102
£28,067,286	0.79	22,060,633	£917,973
£28,067,286	0.76	21,314,621	£886,930
£28,067,286	0.73	20,593,837	£856,937
£28,067,286	0.71	19,897,427	£827,959
Totals		233,424,542	£6,986,490
Total benefit of Option 3 (business benefits + tax revenue increase)			£240,411,032

Summary and weighing up of options:

71. Option 3 describes ways in which regulations could be amended to secure the delivery of a prohibition on tobacco displays, while enabling retailers to continue selling tobacco to adults and taking account of different retailing environments.

72. The proposed amendments to the tobacco display regulations are in keeping with the Growth Review's aims to reduce the operational impact of regulation on businesses.

73. **Option 2**, as fully explained above in comparison to the baseline (Option 1) would:

- Enable retailers to make temporary, limited-size displays (0.75 square metres) when selling tobacco to customers and restocking;
- Enable specialist tobacconists (those whose sales comprise at least 50% specialist tobacco products, such as pipe tobacco and cigars) to continue advertising specialist tobacco products, and displaying all tobacco products inside their shops, provided neither are visible from outside the shop;
- Enable bulk-tobacconists to display tobacco in designated tobacco display areas; and
- Allow plain price lists for tobacco to be visible to all customers and a price list with images available to persons over the age of 18 on request.
- Implementation October 2011 for large shops, October 2013 for small shops

74. Building on Option 2, the regulations under **Option 3** would:

- Increase the size of temporary, limited displays to up to 1.5 square metres, which will facilitate both further savings in low cost solutions for covering displays, and make dealing with tobacco products more operationally easy for shop staff carrying out their day-to-day activities.

- Increase the number of activities during which temporary displays may occur to include: staff training, the cleaning, maintenance and refurbishment of storage units for tobacco products, and assessing stock for the purposes of stock control. These changes will make it easier to carry out these activities during normal working hours while shops are open to the public.

75. **Option 3** is the preferred option because amending the regulations would:

- ensure that health benefits are maintained at an acceptable level.
- reduce one-off implementation costs for retail businesses by reducing the number of separate doors or flaps required to cover existing tobacco displays and by more readily facilitating sliding door solutions.
- save time and therefore reduce ongoing costs for retailers by making it easier for staff to carry out day-to-day activities related to tobacco products.
- reduce ongoing costs for retailers of activities which can be carried out during normal working hours, rather than when the shop is closed to the public.
- Allow small businesses leeway to prepare for the regulations during the Micro Business Memorandum period, which currently ends in April 2014.

76. This Impact Assessment appraises the introduction of the prohibition of display pre and post the amending regulations. The 2010 regulations pre-amendment (Option 2) generate a large amount of health benefits, resulting in a large net benefit of this option. The prohibition post amendments maintains this large net benefit, whilst generating cost savings to business through improving conditions for businesses to operate under the regulations. In addition to the benefits to business of making the regulations less burdensome, this Impact Assessment considers the potentially detrimental impact on health gain, and increases in tax revenue (as more cigarettes will be sold than were the current regulations allowed to take effect).

77. Making regulations less burdensome (Option 3) is thought likely to have only a modest impact upon tobacco use, as the increase in exposure to display of those susceptible to start smoking or to lapse from attempting to quit is modest. An attempt to monetise the impact upon health is explained in Annex 2: Technical and estimated to be roughly £120 million over the 10 year discounted period. This will be offset by increased benefits arising from the mitigation in the projected drop in tax revenue, valued at £7 million over the 10 year discounted period. This Impact Assessment also quantifies the benefits to businesses of Option 3, which outweigh the potential loss in health benefit.

Table : Costs and benefits and other factors associated with the short listed options						
OPTIONS (Option 2 against Option 1, Option 3 against Option 2)	COSTS (£)		BENEFITS (£)		NET BENEFITS (£)	Equality/ Other Impacts
	Central	Worst	Central	Worst		
Option 2	£1,074m		£11,995m		£10,921m	QIPP Compliance
Option 3	£120m		£240m		£120.5m	

Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. If the policy is subject to a sunset clause, the review should be carried out sufficiently early that any renewal or amendment to legislation can be enacted before the expiry date. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

Basis of the review: A statutory duty to review, within 5 years of the regulations coming fully into force, will be included in the amendment to the regulations. This is drafted in accordance with the Department of Business Innovation and Skills (BIS) recommended standard format.

Review objective: As recommended by BIS, the duty to review will require a published report setting out the extent to which the original objectives of the legislation have been achieved.

Review approach and rationale: Plans under development, including scoping of how academic research could be utilised as part of the review.

Baseline: It is extremely difficult to isolate the effect of individual tobacco control initiatives within the Government's multi-faceted, comprehensive tobacco control strategy. As part of plans under development for evaluation, we will endeavour to establish a base line and to control for effects of other tobacco control initiatives to understand the impact of this legislation.

Success criteria: The policy objectives of this legislation are (a) the long-term influence on behaviour to help young people resist taking up smoking, and (b) supporting adult smokers who want to quit. The effects of removing tobacco displays are likely to be seen only after some years, as increasing numbers of young people grow up free of the influence of tobacco displays in shops.

Monitoring information arrangements: A range of routine ONS, NHS Information Centre and academic surveys exist that enable the monitoring of smoking behaviour in the population. We will look to local authorities (who will have enforcement responsibilities) to provide feedback on compliance and enforcement activity through the Department of Health's existing Trading Standards network. There is also the possibility of academic research providing information.

Reasons for not planning a review: N/A

Annex 2: Technical

78. This Annex describes the method and data sources behind the estimation of:

- a) The discounted number of life years saved for each young person who does not take up smoking.
- b) The discounted number of life years saved for a randomly chosen adult who quits smoking today. This figure is lower, as some harm may already have been done by past smoking.
- c) The effect of the concession allowing some display of tobacco products whilst serving.
- d) The inclusion of the effects in prompting higher adult quit rates.
- e) Necessary updates of calculations adapted from previous Impact Assessments

Estimating and monetising the health benefits associated with reduced take-up among children and increased quit rates among adults

79. To convert the above figures (see paragraph 42) into a monetary value, a standard value of £60,000 per life year is applied. Both estimates take account of the fact that many smokers quit during their lifetime, thus reducing the expected number of life years lost from starting to smoke in the first place, and reducing the expected number of life years gained by quitting today.

80. The following main sources of data are used:

- a) General Household Survey (2006) source data. Used to identify the age distribution of smokers and the relationship between age and the percentage of smokers who have quit.
- b) Doll, Peto, Boreham and Sutherland (2004), 'Mortality in relation to smoking: 50 years' observations on male British doctors' (*BMJ* 2004;328;1519). Reports the impact of smoking on mortality, split by age of quitting smoking (if applicable).
- c) Office for National Statistics (ONS) period life tables, United Kingdom, 2004-06, Reports population mortality estimates. Used to transform the outputs of the doctors' study into life years saved.

81. The steps common to both estimates are listed below:

- a) **Identify an estimate of the percentage of smokers who have quit by each year of age.** Data from GHS (2006) is used here. The percentage who have quit increases at a fairly steady and constant rate as age increases. A linear relationship was therefore identified between age and the percentage who have quit; the results imply that 18.2% of 'ever-smokers' have already quit by age 16, with 1.05% quitting in each year thereafter up to age 94.
- b) **Identify an estimate of the prevalence of smoking at each year of age.** Data from GHS (2006) is used here.
- c) **Identify an age distribution for the smoking population.** Again, data from GHS (2006) is used here
- d) **Identify mortality data (by year of age) for non-smokers and for four categories of smoker (as defined by quit age).** Mortality data are taken from Doll, Peto, Boreham and Sutherland (Table 5, 2004), which lists number of deaths per 1,000 people at ages 34-44, 45-54, 55-64, 65-74 and 75-84. (These are referred to below as the five age bands). This information is presented at each age band for lifelong non-smokers, as well as
 - I. those who have quit between age 35-44,
 - II. those who have quit between age 45-54,

- III. those who have quit between age 55-64, and
- IV. those who continue to smoke beyond age 65

These categories of smoker are used throughout the calculations, and are referred to as quit age bands (alongside an 'age under 35' band). The data are converted into relative risks by dividing the number of deaths per 1,000 in each of these four categories by the equivalent number of deaths (i.e. the number of deaths in the same age band) for the lifelong non-smokers. The following formulae are then applied, which calculate mortality rates at each year of age (from 0 to 100) for smokers and non-smokers respectively.

- Smokers' mortality at age $x = M * (r / (pr + 1 - p))$
- Non-smokers' mortality at age $x = M * (1 / (pr + 1 - p))$
- Where M is the mortality estimate from the ONS life tables for age x , r is the relative risk at age x , and p is the prevalence (expressed as a proportion) at age x .
- The above formulae are calculated for each year of age, for each sex and for each of the four categories of smoker, as the relative risks differ between quit age categories and population mortality differs between the sexes.

e) **Identify the number of life years lost (by year of age) for each combination of sex and the four categories of smoker.** For each combination of quit age band and sex, two life tables are calculated following the method of Chiang (1984). One of the two life tables starts with the smokers' mortality figures and the other starts with the non-smokers' mortality figures (both for each year of age, and as calculated above). Each life table models a birth cohort of 100,000 children; one column in particular measures the total number of life years lived by the cohort for each year of age. For each year of age, the difference in this column between the two life tables is calculated and divided by 100,000 to convert the value into the expected number of life years lost per capita (for that age). The sum of these values across all years of age (from 0 to 100) equals the number of life years lost by the specified combination of quit age band and sex.

f) **Discount the numbers of life years lost, as calculated in the previous step.** As the life years lost occur in future years of the cohort's life, they should be discounted appropriately. The discount rates used are equal to Green Book rates minus 2%. The 'minus 2%' takes account of the fact that the monetary value per life-year (which is applied later on) can be expected to grow at the same rate as real economic growth. The 2% figure for this is taken from the Social Rate of Time Preference assumptions underlying the Green Book discount rates. The sum of the discounted numbers of life years lost at each year of age equals the discounted number of life years lost by the specified combination of quit age band and sex.

82. The end results of these calculations are presented in the following table. The identified relationship between age and the percentage of smokers who have quit is used to calculate the percentages in the second column.

Quit age band	Percentage of smokers in this band	Change in life years lived for this band (discounted male)	Change in life years lived for this band (discounted female)
Under 35	38.20%	0	0
35 to 44	10.50%	-0.85	-0.66
45 to 54	10.50%	-2.75	-2.34
55 to 64	10.50%	-3.48	-3.03
65 and over	30.20%	-4.49	-4.15

83. The benefit (in discounted life-years) for each child who does not take up smoking is estimated as follows:

- a) A weighted average of the number of life-years saved for male children is calculated, with the percentage of smokers who quit in each quit age band being used to weight the life expectancy penalties for those bands.
- b) A similar weighted average is calculated for female children.
- c) The resulting male and female estimates are then downscaled to 83% and 72% of their calculated value respectively. This reflects the fact that the median doctor from the doctors' study smoked 18 cigarettes per day, whereas current averages for men and women are lower: 15 and 13 respectively (GHS 200639). Current smokers can therefore be expected to experience less harm.
- d) The resulting downscaled estimates are then monetised with a value of £60,000 per life year.

84. Therefore: Benefit for each child who does not take up smoking:

- a) Males: 1.75 life years, i.e. £105,000
- b) Females: 1.36 life years, i.e. £81,600
- c) Average: 1.56 life years, i.e. £93,600 (1.56 * £60,000)

85. The benefit (in discounted life-years) for a randomly chosen adult who quits smoking is estimated as follows:

- a) The aforementioned five age bands for adult smokers are also used here: those aged (i) under 35, (ii) 35-44, (iii) 45-54, (iv) 55-64, and (v) over 65. The percentage of smokers that quit in each quit age band is then considered, *given that the smoker has already reached one of age categories (i) to (v) above*. For example, 10.5% of smokers quit in the 55-64 age band, whereas 30.2% go on to become lifetime smokers. For an individual who is already aged 55 to 64, it must be that $(10.5\% / (10.5\% + 30.2\%)) = 25.9\%$ will quit in the 55 to 64 age band, whereas the remaining 74.1% continue to smoke over the age of 65.
- b) For each category of smoker age, the percentage of smokers who quit in each quit age band (as adjusted above) is multiplied by the life year penalty associated with each quit age band. Obviously, as we move towards the older age bands, fewer and fewer quit ONS (2006), into the calculation (as it is not possible, say, to quit smoking at 35-44 if you are already aged 45-54). This calculation gives the expected number of life years lost given that the smoker may quit at some point in the future. The calculated values for the older age groups are larger, as they are more likely to become lifelong smokers.
- c) For each age band, the previous table indicates the number of life years that would be lost anyway if the smoker were to quit at their current age. This number is higher for the older age groups, as more harm has already been done. For each age band, these values are subtracted from the numbers calculated in the previous bullet. This gives the number of life-years that could be reclaimed if the smoker were to stop smoking at their current age.
- d) GHS (2006) data on the age distribution of smokers is used to weight the number of life years that could be saved in each age band. This yields a final estimate of the number of life years that could be saved if a random smoker were to quit today.

86. Therefore: Benefit for each adult who decides to quit smoking:

- a) Males: 1.36 life years, i.e. £81,600
- b) Females: 1.12 life years, i.e. £67,200

c) Average: 1.24 life years, i.e. £74,400 (1.24 * £60,000)

87. For the following reasons, the benefit estimates described above are conservative:

- a) They do not take account of the improved quality of life that results from quitting smoking. For example, a quitter may escape diseases that reduce their quality of life as well as reduce their life expectancy (such as chronic obstructive pulmonary disease).
- b) It is assumed that no harm is incurred by smoking over the age of 84. There is likely to be some harm here (which would increase the measured benefits if counted), but there is a lack of precise data. In any case, as the cohort is fairly small by this age, the results are not particularly sensitive to this assumption. Even assuming that the relative risk for those aged 84 also holds for those who are aged 84 and over, the discounted 'child who does not start smoking' benefits only increase by less than 5%.
- c) It is assumed that no harm is incurred by smoking under the age of 35. Again, there is likely to be a benefit from not smoking at this age, but there is a lack of precise data.
- d) It is assumed that quitting after the age of 65 yields no health benefit. There is also likely to be a small benefit here, but again, there is a lack of precise data.
- e) The estimates do not take account of the fact that the resulting reduced smoking prevalence would reduce demand for stop-smoking goods and services. The economic resources saved could be used for other purposes.

88. Other limitations of the estimate include:

- a) It is assumed that the same smoking mortality impacts hold for both men and women. The Doll, Peto, Boreham and Sutherland (2004) study only covers male doctors.
- b) It is assumed that the average daily number of cigarettes smoked throughout life is linearly related to the number of life years lost. The relationship is unlikely to be perfectly linear in practice.
- c) The Doll, Peto, Boreham and Sutherland (2004) study does not explicitly adjust for confounding factors (although it does control for social class, given that its sample consists only of doctors). For example, if smokers are also more likely to drink heavily, this may exaggerate the mortality impact of smoking. However, a similar cohort study (based in The Netherlands) does adjust for a long list of confounding factors, including socioeconomic status, alcohol use and body mass index. The authors conclude that adjusting for confounding factors reduces the estimated number of (undiscounted) life years lost due to smoking by half a year. This is a fairly small effect given that the estimated life expectancy loss to smokers (including the adjustment for potential confounders) is still equal to seven years. Given that the estimates presented in this annex are discounted and take account of future quit propensities, any reduction to take account of confounding factors would be considerably less than half a life year.

The effect of the concession allowing some display of tobacco products whilst serving.

89. Under the concessionary regulations, there will be some display of tobacco products. We consider the degree of exposure likely to be experienced by the key groups for policy – "susceptibles": children under 18 and recent ex-smokers and would-be quitters.
90. There are a wide range of differing types of retail outlets that will be affected by this policy (e.g supermarkets, garage forecourts). The key outlets for exposure may be convenience stores and "traditional" outlets such as the corner shop. There are figures for takings of these different outlets but these include only food and groceries, and omit categories such as tobacco, the lottery, health and beauty. As a point of reference we assume that the average spend per customer on groceries

is £5 – on bread, milk, bottled water, and similar items. This implies that the average shop receives 95 customers per day. We assume that it takes 30 seconds to serve each customer.

91. This is an example of a single server queue M/M/1 and there are standard results we can apply²². The key variable is ρ , the ratio of the arrival rate to the server rate, here about 0.08. The probability of a queue of n is given by $\rho^n(1-\rho)$.
92. The key issue is queues of 2 or 3 – on the assumption that customers further back in the queue are too far away to see the display. On these figures the probability of queues of 2 or 3 would be less than 1%. But the probability of no one at the counter at all is 91%. The proportion of customers experiencing queues of 2 or 3 would then be 14%.
93. However, there are likely to be peaks. As an extreme example suppose that half the daily custom is concentrated in one hour. Then the proportion of customers experiencing queues of 2 or 3 would be 32%.
94. The key information requirement is the time susceptibles spend in the second and third position in a queue when someone at the head of the queue is buying tobacco. Susceptibles in positions 2 or 3 are exposed to display for 1 or 2 serving times respectively – they are not themselves buying tobacco products when they reach the head of the queue.
95. Formerly, with no restriction on display, a susceptible customer in the first three positions in a queue is exposed to full display for 1, 2 and 3 serving times respectively.
96. The proportion of time in the queue when a customer is buying tobacco up ahead is 8% of the time under full display²³.
97. However, only a proportion of customers ahead will be buying tobacco, say, 20%, and the duration of display is only a proportion of the serving time, say a half.
98. With these adjustments, the proportion of time for which a susceptible is exposed to display is 0.8% of the time under full display.
99. There are likely to be peaks and troughs in the rate of arrival. Suppose that half the daily custom arrives in a two hour period, the other half in the other eight hours. This makes little difference. For the half arriving in the peak hours the proportion of the full display time for which the susceptibles are exposed is 2%, but the other half are exposed for only 0.5%. The overall rate then remains about 0.8%.
100. In the unlikely event that a display of 1.5 square metres has as much as double the effect of one of 0.75 square metres, the degree of extra exposure compared with full display is therefore to be less than half of one percent.
101. On the other hand the change in regulations also allow display at some times (e.g. during assessing stock) during which there would under Option 2 have been no display at all. This period of exposure is estimated at one hour per week, and will affect all those susceptibles exposed to the display at the time. Given the number of uncertainties no precise estimate has been made of the marginal impact.
102. For convenience stores and traditional outlets such as newsagents the crucial time is probably just after school closure when large numbers of scholars mill about in the shop. This is likely to be a quiet time for other customers, so it may be that exposure to display is minimal. But exposure to display for stock assessment purposes may occur at this time.

²²<http://staff.um.edu.mt/jsk1/simweb/mm1.htm>

²³ $\frac{\sum_{i=2}^n (i-1)\rho^i(1-\rho)}{\sum_{i=1}^n i\rho^i(1-\rho)}$; here $n = 3$.

103. Up to this point we have been assuming that the relevant window is time spent near the counter. However, particularly in convenience stores, customers may spend time selecting items or just browsing, in the course of which activities a gantry may be in sight. In these circumstances, exposure to display under the regulations is likely to be minimal compared with full display, but we do not offer an estimate.
104. The compromise to health benefits of Option 3 relative to Option 2 is tentatively estimated at around 1%, corresponding to about £120m net present value of ten years' additional exposure.

Updates of calculations made in the Display Regulations Impact Assessment January 2010

Tax rates

105. The tax revenue per child who fails to take up smoking and per adult quitter has been updated to take account of the increase in taxation and a new price for the average packet of 20 cigarettes.

Number of cigarettes sold in shops in England

106. The Tobacco Manufacturers Association state that in 2010, 46.5 billion duty-paid cigarettes were consumed in the UK.²⁴ Scaling this down into England only terms (using a scaling factor of 0.838) yields 38.6 billion cigarettes consumed in England. It is estimated that shop sold cigarettes represent 99% of the overall cigarette market, meaning sales would account for 1.93 billion packs of 20 cigarettes per annum. This figure is then combined with an estimation of the average wage of sales assistants (see below), a valuation of the customer's leisure time and the estimated additional time to serve a customer. With these inputs, we calculate the time-cost of the regulations on retailers and customers from additional time serving the customer.

Valuing time

Retailers:

107. The 2010 Annual Survey of Hours and Earnings (ASHE) quotes a wage rate of £7.42 per hour for "sales assistants and retail cashiers".²⁵ Uplifting this figure by 30% to take account of other costs of employment yields a wage rate of £9.65 per hour.

Customers:

108. The Department of Transport 'Value of travel time savings' gives an indication of the value of leisure time of £4.46 per hour at end-2002 prices, or £4.77 per hour in 2010/11 prices.²⁶
109. These estimates feed into calculations regarding the time-cost of the regulations on retailers in terms of both additional time serving the customer and additional stock-taking, ordering stock and re-stocking time.

²⁴ <http://www.the-tma.org.uk/tma-publications-research/facts-figures/uk-cigarette-consumption/>

²⁵ Gross hourly pay, Table 14.5a, Annual Survey of Hours and Earnings (2010). Available at: <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=1951>

²⁶ Using Department for Transport "Transport Analysis Guidance" and supplementing with estimates for increases in nominal GDP. Available at: <http://www.dft.gov.uk/webtag/documents/index.php>

Annex 3: Small Firms Impact Test and One In One Out methodology and Calculation

110. The Department of Health has involved interested parties during all stages of the development of this legislation, which began initially by consulting on options for display regulations in May 2008 (this consultation received close to 100,000 responses). During the latter stage of the passage of the primary legislation through Parliament in 2009, the Department also published a consultation with draft regulations, so Parliamentarians and interested parties could see Government intentions for regulations (including a consultation stage impact assessment). During this policy development process and the passage of the Health Act through Parliament, the Department received submissions from and met with interested groups including the Association of Convenience Stores, the British Retail Consortium and the National Federation of Retail Newsagents. A full list of businesses, trade bodies and other interested parties that responded to the 2008 and 2009 consultations was published within the Government's response to these consultations.
111. Retail groups have also been closely involved in all stages of policy and regulation development, including those representing small businesses. This has provided an understanding of the retail environment, particularly in the context of smaller shops, where the majority of tobacco sales occur. Retail industry involvement has informed the amendments to regulations covered within this impact assessment. This helped inform the central estimate of quantified benefits to business (see paragraph 65 - 70).
112. The Department has engaged retail representatives to understand how to shape legislation that will enable businesses to employ the most cost-effective and innovative solutions to remove display. The legislation does not prescribe any particular solution, and the amendments to the regulations that are subject to this impact assessment reflect the concerns raised by businesses around the original regulations. The primary intention of the amendments is to create less burden for businesses in complying with the legislation in the day to day running of their businesses by making regulations more practical (see paragraphs 65-70). The Government expects these changes will especially support small businesses, in line with the *Growth Review* announced by the Chancellor of the Exchequer in November 2010.

Costs

113. The costs to businesses are detailed under '*Impacts, costs and benefits of option 2*' on page 19. One-off costs for small shops are based on quotes obtained from '4 Solutions', which supplied the majority of tobacco display covers in Canada²⁷, and recommendations in an ASH report²⁸. This gives an estimate of an average cost of £450 per small shop which is consistent with the January 2010 Regulations Impact Assessment²⁹. This is lower than the cost of full prohibition that was justified in terms of health benefits generating in the Health Act Impact Assessment 2009, estimated at £1000 average per store.
114. There is a higher number of small tobacco retailers (88%) in the industry compared to large retailers (12%).³⁰ Despite the estimated lower one off cost per small shop compared to larger shops, the cost per small shop is likely to be disproportionately higher as a percentage of total revenue. Therefore, the cost to health benefit ratio may be higher for smaller shops than large shops. However, there is a possibility that health benefits generated from prohibition of display in smaller shops are relatively higher than larger shops, due to the large volume of tobacco sales passing through smaller retailers.
115. Due to the high level of trade estimated to go through small retailers, an exemption of small businesses would significantly reduce the impact of the legislation on smoking prevalence. This would reduce the public health benefits generated substantially and likely render the policy a significantly less effective tool for reducing smoking. Considering the large health benefits

²⁷ Emails from 4 Solutions Display to the Department of Health and ASH. Available at: www.dh.gov.uk

²⁸ MacGregor Consulting Ltd. *Tobacco Advertising at Point of Sale – report to ASH*. Available at: www.ash.org.uk/ash_3xe9h0zo.htm

²⁹ http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsLegislation/DH_116505

³⁰ see Table 1 below (step 3 (6,834) / (55,933) step 2 * 100 = 12%; step 4 (49,099) / (55,933) step 2 * 100 = 88%)

expected from this policy, exemption of small tobacco retailers is not considered to be a viable option. However, specialist tobacconists are exempt, on condition that any display or advertising is not displayed externally.

One In, One Out

Option 2 - IN

116. To reach a figure for One In One Out (OIOO) policy, it is necessary to estimate the direct costs on business. The July 2011 OIOO guidance states that "OIOO is based on direct costs and benefits on business and civil society organisations only. Direct impacts are those that can be identified as resulting directly from the implementation or removal/simplification of the regulation (paragraph 36). A first order cost/benefit occurs as a direct effect of the regulation. If the effect happens after something else happening first (as a result of the regulation) it is considered a second order effect." In the case of display prohibition, although the full economic costs upon business are as estimated above, the direct costs are only those incurred in order to comply with the regulation. For further clarification on what this involves, we have referred to the August 2011 'Frequently Asked Questions' document³¹ (FAQs). There it is stated (page 10) that "The impact of any regulatory changes on the potential demand for the goods or services of business are counted as second order, or indirect effects and therefore would not be counted". Thus, in the present case, the impact of the regulation on demand for cigarettes is out of scope, as is a second order effect; though serving customers, maintaining the price list and assessing stock are in scope as direct administrative burdens imposed on businesses. This interpretation is confirmed in this guidance specifically by the tobacco-related examples (smoking ban and display of tobacco products) provided on page 11. The direct impacts, which are those relevant for OIOO (page 7 'How will OIOO operate?'), are defined as those 'necessarily incurred by business' (smoking ban) and the 'necessary cost incurred by retailers' (display of tobacco products).
117. Therefore, the total equivalent annual cost of Option 2 is calculated by converting the one-off cost to business of £27.9 million to an annual cost of £3.6 million over a ten year period using a cost of capital of 5% (see Table 1 for details). This is then added to the annual recurring costs of £28.1m (assessing stock), £3.2m (maintaining the price list) and £10.4m (increasing serving time) to estimate the total annual costs created for businesses of the regulations *pre* amendments. Therefore, the EANCB (IN) of Option 2 equals £45.3 m (see steps 1 – 19 in Table 1 below).

Option 3 - OUT

118. There are cost savings to business generated by the amending regulations detailed under Option 3. The costs contributing to the IN under Option 2 are detailed as follows (see paragraph 36)
- a. £3.6 m (£27.9 m one-off cost annualised over 10 years)
 - b. £10.4 m annual recurring cost of extra time serving customers
 - c. £28.1 m annual recurring cost of extra time 'assessing stock'
 - d. £3.2 m annual recurring cost of extra time maintaining price list
119. When calculating the OUT only cost (c) contributes to this (i.e. amendments reduce these costs to businesses), as the one-off cost (a) and price list (d) will remain the same and are still incurred despite the amendments. The regulations are expected to help to retailer reduce cost (c), though this remains non-monetised in this Impact Assessment due to a lack of direct evidence, which is fully explained in the following paragraph (as in paragraph 67).
120. A reduction in the cost (c) has not been monetised here. Following this Government's review of the 2010 regulations (Option 2), the amending regulations (Option 3) will double the area of the temporary permitted display allowed when opening a tobacco storage unit to serve a customer from 0.75 square metres to 1.5 square metres. The ACS state that the majority of their members currently use tobacco display gantries measuring 1.5 metres by 2 metres. They suggest, therefore, that an allowable temporary requested display of 1.5 square metres would facilitate fitting only two

sliding doors, rather than several hinged cupboard doors. The Department has not received any other evidence on whether this additional size increase of the display gantry would lead to a time saving per transaction (e.g. reduce the 2 second transaction time under Option 2). Therefore, although the Department believes the increase in size of the gantry will generate cost savings to business, due to a lack of direct evidence, this saving is not monetised by in this Impact Assessment. Consequently, the estimated time to serve a customer under Option 3 remains an increase of 2 seconds per transaction. Therefore, analysts in the Department consider the value of the OUT under Option 3 to be conservative.

121. Regulation 3 in the amending regulations allow tobacco products to be displayed when undertaking additional activities are being actively carried out:

- a. Assessing stock levels for the purpose of stock control
- b. Staff training
- c. Cleaning of the storage unit
- d. Maintenance of the storage unit

Under Option 2 (the 2010 regulations) these activities would be prohibited when there are customers in the store (or at least would be prohibited where customers are in any part of the shop from which tobacco displays are visible). Also, 'assessing stock' under Option 3 has been widened from the narrow 'restocking' provision under Option 2, now to include *all* stock control procedures such as assessing whether the storage unit needs restocking, whether stock needs to be ordered, stock taking for auditing and accounting purposes, or any other activity related to stock control. Under Option 3 there will be reduced costs for retailers in being able to carry out these activities during normal opening hours, while customers are present. This would especially help shops that are otherwise open 24 hours a day, 7 days a week. In particular, where for example refurbishment needs to be carried out by a shop-fitter, the ability for work to be carried out during normal working hours would avoid the need to pay premium out-of-hours rates for contractors working at night or on Sundays.

122. These amendments allow retailers to assess stock in a similar way to that used before the prohibition of the display of tobacco products (Option 1). The only additional requirement is for tobacco products to be covered while moving products around the shop, from either the stock room or direct from the delivery vehicle, to the display unit. While we understand that some retailers feel that this will create a new burden, the Department has not received evidence that this cost would be anything other than negligible. Hence, it is reasonable to assume that the £28.1 m cost of assessing stock under the prohibition *pre* amendments would be entirely removed, contributing to the OUT of the amendments.

Net IN of Option 3 (total impact on business of the prohibition of display following under the amending regulations)

123. Therefore, the IN for Option 1 equals £45.3m, the OUT for Option 3 equals £28.1m and the *net* IN of Option 3 equals £17.2m.

124. The net IN figure applicable for the Statement of New Regulation 3 (SNR3) equals the EANCB for large shops over the 10 year period, as they must implement the regulatory measures in April 2012. The break down is detailed in Table 1 below and step 24 shows the EANCB figure attributable to large shops for this policy. Therefore, the EANCB for inclusion in SNR3 is £2,412,201.

Table 1: Step by step calculation of the *net* IN of the total prohibition of tobacco display policy (Option 2 and Option 3 combined)

Variable	Value	Calculation
1) One-off cost to business of prohibition	£27,903,450	
2) Total number of shops (tobacco retailers)	55,933	66,710 * 0.838
3) Total number of large shops	6,834	Grocery retail structure
4) Total number of small shops	49,099	Grocery retail structure
5) Cost per Large shop	£850	Average based on ASH report and discussion with industry
6) Cost per Small shop	£450	Average based on ASH report and discussion with industry
7) One-off total cost to Large shops	£5,808,900	6,834 (no. large shops) * £850 (cost per large shop)
8) One-off total cost to Small shops	£22,094,550	49,099 (no. of small shops) * £450 (cost per small shop)
9) Cost of capital	0.05	
10) EANCB conversion	7.722	$1 - 1 / (1 + 0.05)^{10} / 0.05 = 0.386 / 0.05$
11) One-off costs to large shops annualised over the 10 year period	£752,279	£5,808,900 (one off costs to large shops) / 7.722
12) One-off costs to small shops annualised over the 10 year period	£2,861,345	£22,094,550 (one off cost to small shops) / 7.722
13) Total one-off cost annualised	£3,613,624	£752,279 (step 11) + £2,861,345 (step 12)
14) Average annual recurring cost to business ³²	£41,652,279	£10.4m + £28.1m + £3.2m = Annual cost to retailer of additional selling time (see paragraph 36b) + annual cost to retailer of extra assessing stock time (see paragraph 36c) + annual cost to retailer of maintaining the price list (see paragraph 36d)
15) Average annual recurring cost to large businesses	£5,089,154	$(6,834 / 55,933) * £41,652,279 =$ (no. of large shops / total no. of shops) * total average annual recurring cost to business
16) Average annual recurring cost to small businesses	£36,563,125	$(49,099 / 55,933) * £41,652,279 =$ (no. of small shops / total no. of shops) * total average annual recurring cost to business
17) EANCB to large shops <i>post</i> regulations (due to be implemented on 01/04/2012)	£5,841,434	£752,279 + £5,089,154 = Annualised one-off cost to large businesses (step 11) + average annual recurring cost to large businesses (step 15)
18) EANCB to small shops <i>post</i> regulations	41	£2,861,345 + £36,563,125

		Annualised one-off cost to small businesses (step 12) + average annual recurring cost to small businesses (step 16)
19) Value of the IN (EANCB Option 2)	£45,265,904	£5,841,434 (step 17) + £39,424,470 (step 18)
OUT (Option 3)		
20) Cost of assessing stock no longer applicable post amendments: OUT of Option 3 (EANCB amending regulations)	£28,067,286	See paragraph 36 (c) for costs; see paragraph 122 for explanation as to why this no longer applicable
21) OUT large shops	£3,429,431	$£28,067,286 * (6,834 \text{ (step 3)} / \text{(step 2)} 55,933)$
22) OUT small shops	£24,637,962	$£28,067,286 * (49,099 \text{ (step 4)} / \text{(step 2)} 55,933)$
23) Net IN whole policy (Option 3)	£17,198,800	= £45,265,904 (step 19) - £28,067,286 (step 20)
24) Net IN large shops (SNR3 Option 3)	£2,412,201	= 5,841,434 (step 17) - £3,429,431 (step 25)
25) Net IN small shops (Option 3)	£14,786,492	= £39,424,470 (step 18) - £24,637,962 (step 26)