

Supplementary Appendix 2 -4

Appendix 2: Scenarios of projecting future smoking prevalence in England

Scenario	Initiation rate	Relapse rate	Quit rate	Future smoking prevalence
Projection mode:				
Status quo	As in 2016	As in 2016	As in 2016	Model projection
Reduction in initiation rate	20%, 40% or 60% reduction since 2017	As in 2016	As in 2016	Model projection
Reduction in relapse rate	As in 2016	20%, 40% or 60% reduction since 2017	As in 2016	Model projection
Increase in cessation rate	As in 2016	As in 2016	20%, 40% or 60% increase since 2017	Model projection
Simultaneous change in initiation, relapse and cessation rates	20%, 40% or 60% reduction since 2017	20%, 40% or 60% reduction since 2017	20%, 40% or 60% increase since 2017	Model projection
Target mode:				
No changes in initiation and relapse rates	As in 2016	As in 2016	As required to achieve the target	≤5% by 2030
Reduction in initiation rate	20%, 40% or 60% reduction since 2017	As in 2016	As required to achieve the target	≤5% by 2030
Reduction in relapse rate	As in 2016	20%, 40% or 60% reduction since 2017	As required to achieve the target	≤5% by 2030
Simultaneous change in initiation and relapse rates	20%, 40% or 60% reduction since 2017	20%, 40% or 60% reduction since 2017	As required to achieve the target	≤5% by 2030

Appendix 3: Estimated initiation and cessation rates during 2013-2016 by HEQ

	HEQhigh	HEQinter	HEQlow	Total
Estimated initiation rates for two age groups: age 18-19/age 20-24				
2013	8.3%/0.0%	10.5%/0.0%	21.2%/2.9%	15.2%/0.7%
2016	6.4%/0.0%	8.0%/0.2%	15.7%/2.1%	11.4%/0.6%
Estimated cessation rates among current smokers				
2013	10.3%	6.4%	6.7%	7.4%
2016	12.1%	7.1%	7.6%	8.4%

Appendix 4: Projected smoking rates by 2030 and 2040, and inequalities under different scenarios (deterministic projections)

Scenario	Smoking prevalence				Inequalities in smoking prevalence			
	HEQhigh	HEQinter	HEQlow	Total	HEQinter vs HEQhigh		HEQlow vs HEQhigh	
					Rate difference	Rate ratio	Rate difference	Rate ratio
Baseline								
2016	8.2%	15.6%	20.5%	15.0%	7.4%	1.90	12.2%	2.48
Status quo								
2030	3.8%	9.2%	11.7%	8.1%	5.3%	2.40	7.9%	3.06
2040	2.7%	7.5%	9.4%	6.2%	4.8%	2.79	6.7%	3.48
20% reduction in initiation								
2030	3.6%	8.4%	11.0%	7.5%	4.8%	2.31	7.3%	3.03
2040	2.4%	6.6%	8.3%	5.5%	4.1%	2.72	5.9%	3.46
20% reduction in relapse								
2030	3.8%	9.1%	11.6%	8.0%	5.3%	2.41	7.8%	3.06
2040	2.7%	7.5%	9.3%	6.2%	4.9%	2.82	6.7%	3.50
20% increase in cessation								
2030	3.2%	8.3%	10.4%	7.1%	5.1%	2.61	7.2%	3.26
2040	2.1%	6.7%	8.2%	5.4%	4.6%	3.16	6.0%	3.83
20% reduction in initiation/relapse & 20% increase in cessation								
2030	3.0%	7.5%	9.6%	6.5%	4.5%	2.53	6.6%	3.23
2040	1.9%	5.8%	7.1%	4.7%	3.9%	3.11	5.2%	3.83
40% reduction in initiation								
2030	3.4%	7.6%	10.2%	7.0%	4.2%	2.22	6.8%	2.99
2040	2.1%	5.6%	7.2%	4.8%	3.4%	2.62	5.1%	3.41
40% reduction in relapse								
2030	3.8%	9.1%	11.5%	8.0%	5.3%	2.42	7.8%	3.07
2040	2.6%	7.5%	9.3%	6.1%	4.9%	2.85	6.6%	3.52
40% increase in cessation								
2030	2.7%	7.6%	9.3%	6.3%	4.9%	2.83	6.6%	3.47
2040	1.7%	6.1%	7.2%	4.7%	4.4%	3.55	5.5%	4.20
40% reduction in initiation/relapse, & 40% increase in cessation rate								

2030	2.3%	6.0%	7.7%	5.2%		3.7%	2.62		5.4%	3.35
2040	1.2%	4.2%	5.2%	3.3%		3.0%	3.41		3.9%	4.14
60% reduction in initiation										
2030	3.2%	6.8%	9.4%	6.4%		3.6%	2.11		6.2%	2.94
2040	1.8%	4.6%	6.1%	4.0%		2.7%	2.49		4.3%	3.33
60% reduction in relapse										
2030	3.7%	9.1%	11.5%	7.9%		5.3%	2.43		7.7%	3.07
2040	2.6%	7.5%	9.2%	6.1%		4.9%	2.87		6.6%	3.54
60% increase in cessation										
2030	2.3%	6.9%	8.3%	5.6%		4.7%	3.07		6.0%	3.68
2040	1.4%	5.6%	6.4%	4.2%		4.2%	3.96		5.0%	4.58
60% reduction in initiation/relapse & 60% increase in cessation										
2030	1.8%	4.6%	6.0%	4.0%		2.9%	2.64		4.2%	3.41
2040	0.8%	2.9%	3.5%	2.2%		2.1%	3.65		2.7%	4.39
TFA target projection										
2030	3.3%	4.6%	4.3%	4.0%		1.3%	1.39		1.0%	1.31
2040	1.8%	3.4%	3.0%	2.6%		1.6%	1.88		1.2%	1.67