This analysis models the health & economic benefits of enabling substantial improvement in secondary prevention of cardiovascular disease (CVD).

Increase in the uptake of 4 high impact but underused treatments is modelled.

3 ambition scenarios are considered: Step Change Improvement, Advanced Improvement and Full Uptake.

The headline table below shows the impact of achieving Step Change – defined as a realistic near-term improvement ambition.

Buckinghamshire, Oxfordshire and Berkshire West ICB **Year 3 – Step Change Scenario**	
Events prevented: • 293 Heart attacks • 588 Strokes • 861 Heart failure admissions • 62 End stage kidney disease	**1,804 events*** **~ 13,581 bed days** (excl ESKD) *Total events may not match due to rounding
Health/social care savings	**£35 million**
Productivity gains	**£41 million**
Benefit to cost ratio	**4.7** (Over £4 saved for every £1 spent, with break-even for NHS in first year of Step Change)

For full report and detailed results for England and every ICB, visit:

www.into-action.health/impactreport

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A realistic step change improvement in secondary prevention will prevent thousands of serious cardiovascular events, deliver huge savings in health and social care, and add £ billions to the national economy in 3 years.

The CVD Prevention Challenge

Secondary prevention – using medication to treat high risk conditions like blood pressure and cholesterol – is very effective at preventing cardiovascular disease. But under use of NICE recommended, high impact treatments that prevent CVD is substantial and longstanding – with little change over many years.

The CVDACTION Health Economic Impact Model

- **4 high risk conditions**: high blood pressure, high cholesterol, chronic kidney disease and diabetes
- **4 high impact treatments** that are NICE recommended but substantially under-used (Blood pressure lowering, cholesterol lowering, renin angiotensin inhibitors, SGLT2 inhibitors)
- **4 major outcomes:** heart attack, stroke, heart failure, end stage kidney disease
- **3 scenarios:**
  1. **Step Change** as the minimum realistic near-term improvement level. For example, step change for blood pressure = 80% patients treated to target.
  2. **Advanced** (representing substantial improvement on the way to Full Uptake)
  3. **Full Uptake** (not fully achievable in practice as medicines will not be appropriate for every patient)
- **Modelled costs include** use of CVDACTION, structured support for primary care transformation and increased medication use (>90% of the total costs).

CVDACTION targets the HOW of optimising prevention in the real world, with 3 essential pillars to enable primary care teams to work differently:

1. Smart data - routinely detect patients who are not on optimal treatment, and prioritise for optimisation

2. Structured support for transformation enabling teams to adapt workforce and pathways to optimise at scale and within capacity

3. **Structured support for delivery** – supporting teams to set and achieve step-change objectives in secondary prevention

For more information on CVDACTION contact Rosa@Into-Action.Health

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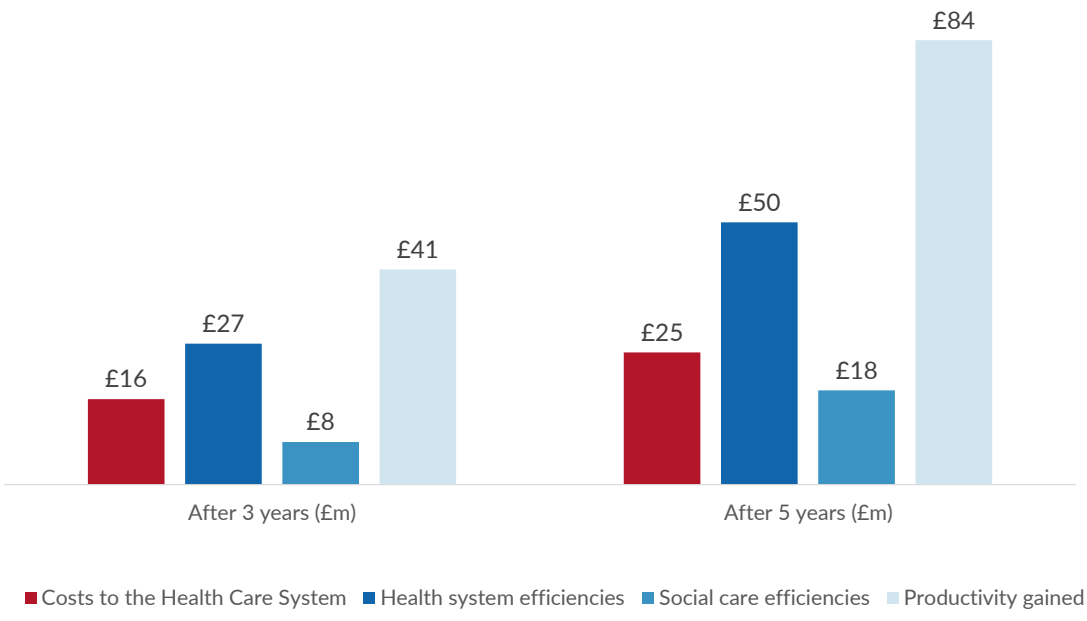
CVDACTION Modelled Impact (Step Change Scenario)

Headline Costs and Benefits

Location	Buckinghamshire, Oxfordshire and Berkshire West Integrated Care Board
CVDACTION optimisation cohort	All
Number of patients optimised in year 1	70,594

	After 3 years	After 5 years
Events Prevented		
Myocardial infarctions	293	478
Strokes (ischaemic)	588	951
Heart failure admissions	861	1,374
End stage kidney disease	62	98
Total	**1,804**	**2,901**
Costs to the Health Care System	**£16m**	**£25m**
Benefits		
Health system efficiencies	£27m	£50m
Social care efficiencies	£8m	£18m
Productivity gained	£41m	£84m
Total	**£75m**	**£151m**
Total Benefits to Costs Ratio (Gross)	**4.7**	**6.1**



All costs and benefits are discounted

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CVDACTION: Costs and Benefits by Year

Location: Buckinghamshire, Oxfordshire and Berkshire West Integrated Care Board

Scenario: Step Change

RESULTS (CUMULATIVE)

	After 1 year	After 2 years	After 3 years	After 4 years	After 5 years	After 10 years	After 15 years
Number avoided with CVDACTION							
Myocardial Infarctions	99	198	293	387	478	913	1,291
Strokes	201	397	588	771	951	1,775	2,492
Heart failure admissions	299	587	861	1,122	1,374	2,507	3,437
End stage kidney disease	21	42	62	80	98	182	250
Costs of CVDACTION and treatment (discounted)							
CVDACTION	£403,097	£403,097	£403,097	£403,097	£403,097	£403,097	£403,097
Transformation cost	£503,872	£503,872	£503,872	£503,872	£503,872	£503,872	£503,872
Treatment	£5,496,504	£10,508,386	£15,267,627	£19,789,428	£24,087,437	£42,648,029	£57,248,571
Total	**£6,403,473**	**£11,415,355**	**£16,174,595**	**£20,696,397**	**£24,994,406**	**£43,554,998**	**£58,155,540**
Value by economic category (discounted)							
Health costs avoided	£7,399,477	£16,392,890	£26,635,244	£37,741,154	£49,568,331	£113,617,646	£176,399,198
Social care costs avoided	£1,597,762	£4,345,090	£8,069,055	£12,598,378	£17,814,125	£50,291,106	£86,659,864
Informal care costs avoided	£8,598,226	£20,126,866	£34,141,060	£50,097,155	£67,790,446	£171,198,129	£281,798,118
Lost productivity avoided	£797,983	£3,069,678	£6,551,134	£10,993,627	£16,201,201	£48,977,727	£85,037,714
Total	**£18,393,448**	**£43,934,525**	**£75,396,492**	**£111,430,315**	**£151,374,103**	**£384,084,608**	**£629,894,894**
Value by clinical event (discounted)							
Myocardial Infarctions	£1,488,340	£3,366,992	£5,549,104	£7,982,708	£10,592,413	£25,331,446	£40,219,187
Strokes	£15,076,514	£34,809,499	£58,490,802	£85,223,111	£114,711,912	£285,470,077	£466,804,499
Heart failure admissions	£924,061	£3,017,093	£6,018,650	£9,708,658	£13,936,253	£39,181,317	£65,565,761
End stage kidney disease	£904,531	£2,740,940	£5,337,936	£8,515,838	£12,133,525	£34,101,768	£57,305,448
Total	**£18,393,448**	**£43,934,525**	**£75,396,492**	**£111,430,315**	**£151,374,103**	**£384,084,608**	**£629,894,894**
Benefit to cost ratio (Gross)							
Health costs avoided	1.2	1.4	1.6	1.8	2.0	2.6	3.0
Social care costs avoided	0.2	0.4	0.5	0.6	0.7	1.2	1.5
Informal care costs avoided	1.3	1.8	2.1	2.4	2.7	3.9	4.8
Lost productivity avoided	0.1	0.3	0.4	0.5	0.6	1.1	1.5
Total	**2.9**	**3.8**	**4.7**	**5.4**	**6.1**	**8.8**	**10.8**

*Numbers less than 10 suppressed

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CVDACTION Optimisation Cohorts Analysis After 3 Years

Location

Buckinghamshire, Oxfordshire and Berkshire West Integrated Care Board

Step Change Scenario After 3 Years

Optimisation Cohort	Heath System Costs	CVD Events Prevented[1]	Health System Efficiencies	*Social Care Efficencies*	*Informal Care Avoided*	*Productivity Gained*	*Total Benefits*
Hypertension							
1 .Blood pressure not treated to target	£1,046,038	801	£12,095,785	*£4,633,048*	*£19,632,964*	*£2,727,230*	*£39,089,027*
Cholesterol							
2. CVD not on Lipid Lowering Therapy (LLT)	£239,184	85	£1,630,106	*£692,509*	*£2,934,534*	*£313,068*	*£5,570,218*
3. CVD on suboptimal dose or intensity of statin	£356,427	77	£1,215,250	*£364,458*	*£1,539,140*	*£259,891*	*£3,378,738*
4. CVD on max statin but not treated to target	£735,750	31	£606,323	*£194,419*	*£829,553*	*£115,120*	*£1,745,414*
Chronic Kidney Disease							
5. RAA indicated but not prescribed	£32,412	34	£700,581	*£119,045*	*£512,041*	*£201,780*	*£1,533,447*
6. SGLT2i indicated but not prescribed	£3,798,689	162	£1,378,306	*£0*	*£0*	*£498,722*	*£1,877,028*
7. CVD and Statin not prescribed	£34,843	22	£457,153	*£197,467*	*£844,742*	*£81,833*	*£1,581,195*
8. BP not treated to target	£48,441	70	£1,083,514	*£421,068*	*£1,776,552*	*£245,654*	*£3,526,788*
Diabetes							
9. RAA indicated but not prescribed	£278,567	198	£3,663,751	*£672,390*	*£2,828,857*	*£1,060,129*	*£8,225,126*
10. SGLT2i indicated but not prescribed	£9,460,607	200	£1,773,290	*£0*	*£0*	*£600,660*	*£2,373,951*
11. DM and HTN with BP not treated to target	£121,032	112	£1,824,997	*£690,224*	*£2,888,591*	*£407,615*	*£5,811,427*
12. DM with CVD not on LLT	£22,604	11	£206,187	*£84,427*	*£354,087*	*£39,433*	*£684,134*
Total	**£16,174,595**	**1,803**	**£26,635,244**	*£8,069,055*	*£34,141,060*	*£6,551,134*	*£75,396,492*

All costs and benefits are discounted

1 *Events include heart attacks, strokes, heart failure admissions and end stage kidney disease.*