



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.

Gloucestershire ICB

Year 3 – Step Change Scenario

Events prevented: • 134 Heart attacks • 272 Strokes • 404 Heart failure admissions • 29 End stage kidney disease	839 events* ~ 6,336 bed days (excl ESKD) *Total events may not match due to rounding
Health/social care savings	£16 million
Productivity gains	£19 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

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 CVD ACTION 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 CVD ACTION, structured support for primary care transformation and increased medication use (>90% of the total costs).

CVD ACTION 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 CVD ACTION contact Rosa@Into-Action.Health

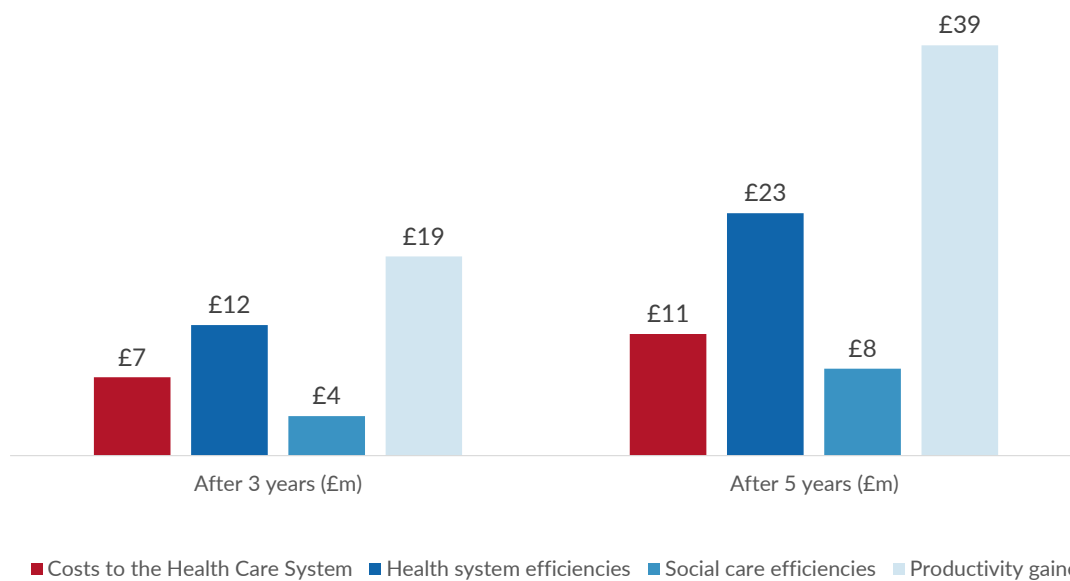


CVDACTION Modelled Impact (Step Change Scenario)

Headline Costs and Benefits

Location	Gloucestershire Integrated Care Board
CVDACTION optimisation cohort	All
Number of patients optimised in year 1	32,311

	After 3 years	After 5 years
Events Prevented		
Myocardial infarctions	134	219
Strokes (ischaemic)	272	439
Heart failure admissions	404	642
End stage kidney disease	29	46
Total	839	1,346
Costs to the Health Care System	£7m	£11m
Benefits		
Health system efficiencies	£12m	£23m
Social care efficiencies	£4m	£8m
Productivity gained	£19m	£39m
Total	£35m	£70m
Total Benefits to Costs Ratio (Gross)	4.7	6.1



All costs and benefits are discounted



CVDACTION: Costs and Benefits by Year

Location: Gloucestershire 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	45	91	134	177	219	416	587
Strokes	93	184	272	356	439	817	1,144
Heart failure admissions	141	276	404	526	642	1,159	1,575
End stage kidney disease	*	20	29	38	46	84	115
Costs of CVDACTION and treatment (discounted)							
CVDACTION	£139,433	£139,433	£139,433	£139,433	£139,433	£139,433	£139,433
Transformation cost	£174,291	£174,291	£174,291	£174,291	£174,291	£174,291	£174,291
Treatment	£2,562,471	£4,889,983	£7,097,660	£9,192,934	£11,182,473	£19,752,241	£26,471,190
Total	£2,876,194	£5,203,707	£7,411,383	£9,506,658	£11,496,196	£20,065,965	£26,784,913
Value by economic category (discounted)							
Health costs avoided	£3,434,668	£7,605,357	£12,345,923	£17,473,377	£22,918,161	£52,177,190	£80,574,668
Social care costs avoided	£739,860	£2,009,981	£3,729,477	£5,818,580	£8,221,613	£23,144,583	£39,794,076
Informal care costs avoided	£3,981,499	£9,311,529	£15,782,050	£23,141,107	£31,291,102	£78,794,960	£129,411,872
Lost productivity avoided	£370,405	£1,426,822	£3,041,106	£5,094,093	£7,492,562	£22,453,234	£38,743,048
Total	£8,526,432	£20,353,689	£34,898,557	£51,527,158	£69,923,438	£176,569,967	£288,523,665
Value by clinical event (discounted)							
Myocardial Infarctions	£682,499	£1,543,231	£2,542,579	£3,656,161	£4,849,702	£11,580,049	£18,364,616
Strokes	£6,981,338	£16,104,519	£27,038,383	£39,367,382	£52,950,283	£131,391,056	£214,376,082
Heart failure admissions	£436,317	£1,418,477	£2,818,132	£4,528,422	£6,476,267	£17,938,731	£29,726,457
End stage kidney disease	£426,277	£1,287,461	£2,499,463	£3,975,192	£5,647,186	£15,660,131	£26,056,511
Total	£8,526,432	£20,353,689	£34,898,557	£51,527,158	£69,923,438	£176,569,967	£288,523,665
Benefit to cost ratio (Gross)							
Health costs avoided	1.2	1.5	1.7	1.8	2.0	2.6	3.0
Social care costs avoided	0.3	0.4	0.5	0.6	0.7	1.2	1.5
Informal care costs avoided	1.4	1.8	2.1	2.4	2.7	3.9	4.8
Lost productivity avoided	0.1	0.3	0.4	0.5	0.7	1.1	1.4
Total	3.0	3.9	4.7	5.4	6.1	8.8	10.8

*Numbers less than 10 suppressed



CVDACTION Optimisation Cohorts Analysis After 3 Years

Location **Gloucestershire Integrated Care Board**

Step Change Scenario After 3 Years

Optimisation Cohort	Heath System Costs	CVD Events Prevented ¹	Health System Efficiencies	Social Care Efficiencies	Informal Care Avoided	Productivity Gained	Total Benefits
Hypertension							
1. Blood pressure not treated to target	£422,534	359	£5,418,140	£2,075,310	£8,794,316	£1,221,625	£17,509,392
Cholesterol							
2. CVD not on Lipid Lowering Therapy (LLT)	£111,835	42	£802,117	£340,759	£1,443,980	£154,050	£2,740,906
3. CVD on suboptimal dose or intensity of statin	£149,147	35	£555,150	£166,492	£703,110	£118,723	£1,543,475
4. CVD on max statin but not treated to target	£333,055	14	£276,980	£88,814	£378,956	£52,589	£797,340
Chronic Kidney Disease							
5. RAA indicated but not prescribed	£17,305	20	£398,917	£67,785	£291,560	£114,895	£873,159
6. SGLT2i indicated but not prescribed	£2,157,730	92	£784,820	£0	£0	£283,977	£1,068,796
7. CVD and Statin not prescribed	£18,790	12	£260,307	£112,439	£481,003	£46,596	£900,346
8. BP not treated to target	£25,925	41	£644,595	£250,498	£1,056,891	£146,142	£2,098,126
Diabetes							
9. RAA indicated but not prescribed	£110,936	84	£1,555,232	£285,424	£1,200,826	£450,016	£3,491,497
10. SGLT2i indicated but not prescribed	£4,006,621	85	£752,747	£0	£0	£254,975	£1,007,722
11. DM and HTN with BP not treated to target	£48,401	50	£809,393	£306,117	£1,281,101	£180,779	£2,577,389
12. DM with CVD not on LLT	£9,102	5	£87,525	£35,838	£150,307	£16,739	£290,409
Total	£7,411,383	839	£12,345,923	£3,729,477	£15,782,050	£3,041,106	£34,898,557

All costs and benefits are discounted

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