



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: Full Uptake, Advanced Improvement and Step Change Improvement.

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

Hertfordshire and West Essex ICB

Year 3 – Step Change Scenario

Events prevented: <ul style="list-style-type: none"> • 240 Heart attacks • 463 Strokes • 700 Heart failure admissions • 52 End stage kidney disease 	1,455 events* ~ 10,992 bed days (excl ESKD) <small>*Total events may not match due to rounding</small>
Health/social care savings	£27 million
Productivity gains	£32 million
Benefit to cost ratio	4.3 <small>(Over £4 saved for every £1 spent, with break-even for NHS in first year of Step Change)</small>

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

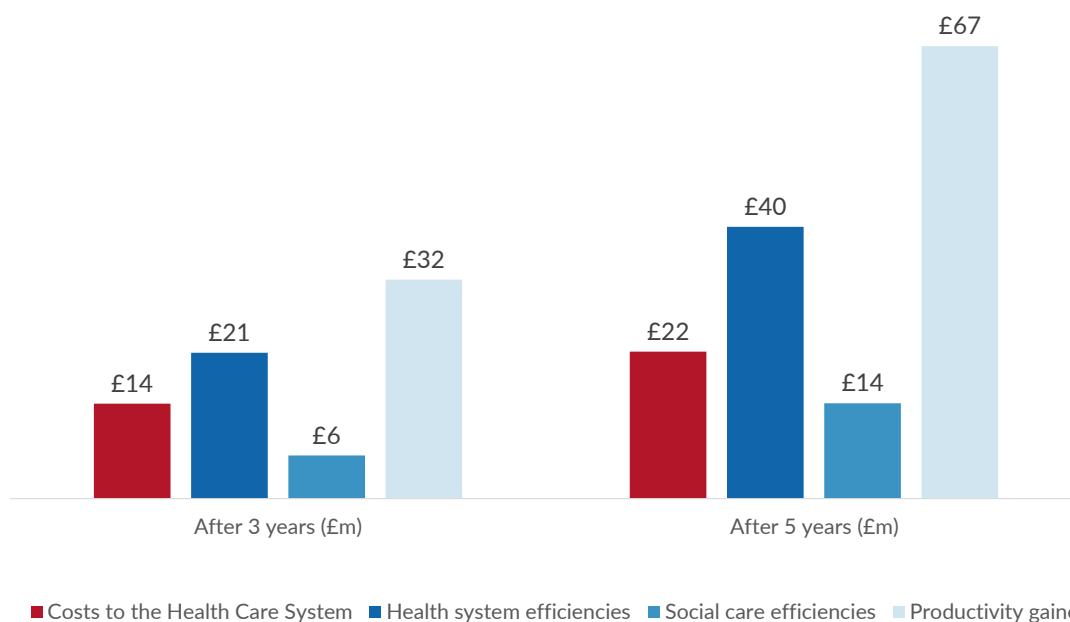


CVDACTION Modelled Impact (Step Change Scenario)

Headline Costs and Benefits

Location	Hertfordshire and West Essex Integrated Care Board
CVDACTION optimisation cohort	All
Number of patients optimised in year 1	57,007

	After 3 years	After 5 years
Events Prevented		
Myocardial infarctions	240	391
Strokes (ischaemic)	463	749
Heart failure admissions	700	1,116
End stage kidney disease	52	83
Total	1,455	2,339
Costs to the Health Care System	£14m	£22m
Benefits		
Health system efficiencies	£21m	£40m
Social care efficiencies	£6m	£14m
Productivity gained	£32m	£67m
Total	£60m	£121m
Total Benefits to Costs Ratio (Gross)	4.3	5.6



All costs and benefits are discounted

CVDACTION: Costs and Benefits by Year

Location: Hertfordshire and West Essex 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	81	162	240	317	391	745	1,051
Strokes	159	313	463	607	749	1,396	1,960
Heart failure admissions	243	478	700	912	1,116	2,031	2,777
End stage kidney disease	18	35	52	68	83	153	210
Costs of CVDACTION and treatment (discounted)							
CVDACTION	£333,378	£333,378	£333,378	£333,378	£333,378	£333,378	£333,378
Transformation cost	£416,722	£416,722	£416,722	£416,722	£416,722	£416,722	£416,722
Treatment	£4,758,627	£9,100,072	£13,223,404	£17,141,683	£20,866,630	£36,958,851	£49,624,158
Total	£5,508,727	£9,850,172	£13,973,504	£17,891,783	£21,616,731	£37,708,951	£50,374,258
Value by economic category (discounted)							
Health costs avoided	£5,942,326	£13,187,660	£21,449,316	£30,414,380	£39,958,638	£91,531,487	£141,804,353
Social care costs avoided	£1,259,027	£3,423,837	£6,356,996	£9,923,350	£14,028,588	£39,554,615	£68,060,796
Informal care costs avoided	£6,775,350	£15,858,387	£26,894,281	£39,458,015	£53,383,891	£134,665,317	£221,362,746
Lost productivity avoided	£640,839	£2,484,465	£5,312,580	£8,919,474	£13,142,951	£39,619,871	£68,541,687
Total	£14,617,541	£34,954,349	£60,013,173	£88,715,218	£120,514,069	£305,371,291	£499,769,581
Value by clinical event (discounted)							
Myocardial Infarctions	£1,218,067	£2,752,794	£4,534,045	£6,518,401	£8,644,033	£20,588,526	£32,564,792
Strokes	£11,880,202	£27,426,950	£46,075,009	£67,123,874	£90,333,596	£224,555,894	£366,702,949
Heart failure admissions	£752,255	£2,452,787	£4,886,445	£7,871,833	£11,284,240	£31,526,275	£52,463,510
End stage kidney disease	£767,018	£2,321,817	£4,517,674	£7,201,110	£10,252,199	£28,700,595	£48,038,331
Total	£14,617,541	£34,954,349	£60,013,173	£88,715,218	£120,514,069	£305,371,291	£499,769,581
Benefit to cost ratio (Gross)							
Health costs avoided	1.1	1.3	1.5	1.7	1.8	2.4	2.8
Social care costs avoided	0.2	0.3	0.5	0.6	0.6	1.0	1.4
Informal care costs avoided	1.2	1.6	1.9	2.2	2.5	3.6	4.4
Lost productivity avoided	0.1	0.3	0.4	0.5	0.6	1.1	1.4
Total	2.7	3.5	4.3	5.0	5.6	8.1	9.9

*Numbers less than 10 suppressed



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CVDACTION Optimisation Cohorts Analysis After 3 Years

Location Hertfordshire and West Essex 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	£789,164	599	£9,037,629	£3,461,683	£14,669,196	£2,037,709	£29,206,217
Cholesterol							
2. CVD not on Lipid Lowering Therapy (LLT)	£201,617	72	£1,367,339	£580,880	£2,461,499	£262,603	£4,672,320
3. CVD on suboptimal dose or intensity of statin	£312,121	67	£1,055,420	£316,524	£1,336,712	£225,710	£2,934,366
4. CVD on max statin but not treated to target	£639,558	27	£526,579	£168,849	£720,450	£99,979	£1,515,857
Chronic Kidney Disease							
5. RAA indicated but not prescribed	£27,148	29	£583,209	£99,101	£426,256	£167,975	£1,276,540
6. SGLT2i indicated but not prescribed	£3,163,037	135	£1,147,391	£0	£0	£415,168	£1,562,559
7. CVD and Statin not prescribed	£29,158	18	£380,564	£164,384	£703,217	£68,123	£1,316,288
8. BP not treated to target	£37,763	54	£836,353	£325,018	£1,371,301	£189,618	£2,722,289
Diabetes							
9. RAA indicated but not prescribed	£248,918	176	£3,253,896	£597,171	£2,512,399	£941,535	£7,305,001
10. SGLT2i indicated but not prescribed	£8,404,203	178	£1,574,917	£0	£0	£533,466	£2,108,383
11. DM and HTN with BP not treated to target	£100,640	92	£1,502,897	£568,404	£2,378,774	£335,673	£4,785,748
12. DM with CVD not on LLT	£20,178	10	£183,121	£74,982	£314,476	£35,022	£607,601
Total	£13,973,504	1,457	£21,449,316	£6,356,996	£26,894,281	£5,312,580	£60,013,173

All costs and benefits are discounted

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