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.

North East London ICB **Year 3 – Step Change Scenario**	
Events prevented: • 288 Heart attacks • 498 Strokes • 932 Heart failure admissions • 81 End stage kidney disease	**1,798 events*** **~ 13,972 bed days** (excl ESKD) *Total events may not match due to rounding
Health/social care savings	**£33 million**
Productivity gains	**£36 million**
Benefit to cost ratio	**3.1** (Over £3 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

INTO-ACTION.HEALTH

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

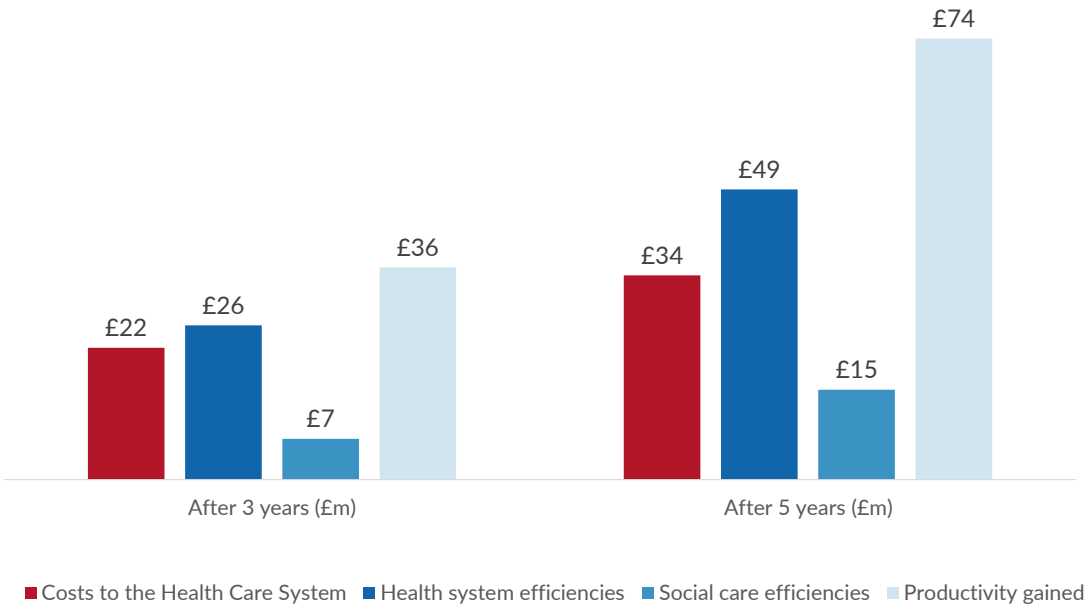
INTO-ACTION.HEALTH

CVDACTION Modelled Impact (Step Change Scenario)

Headline Costs and Benefits

Location	North East London Integrated Care Board
CVDACTION optimisation cohort	All
Number of patients optimised in year 1	65,841

	After 3 years	After 5 years
Events Prevented		
Myocardial infarctions	288	470
Strokes (ischaemic)	498	804
Heart failure admissions	932	1,483
End stage kidney disease	81	129
Total	**1,798**	**2,886**
Costs to the Health Care System	**£22m**	**£34m**
Benefits		
Health system efficiencies	£26m	£49m
Social care efficiencies	£7m	£15m
Productivity gained	£36m	£74m
Total	**£68m**	**£138m**
Total Benefits to Costs Ratio (Gross)	**3.1**	**4.0**



All costs and benefits are discounted

INTO-ACTION.HEALTH

CVDACTION: Costs and Benefits by Year

Location: North East London 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	97	194	288	380	470	893	1,254
Strokes	171	336	498	652	804	1,495	2,089
Heart failure admissions	325	637	932	1,213	1,483	2,680	3,635
End stage kidney disease	28	55	81	105	129	235	322
Costs of CVDACTION and treatment (discounted)							
CVDACTION	£495,867	£495,867	£495,867	£495,867	£495,867	£495,867	£495,867
Transformation cost	£619,834	£619,834	£619,834	£619,834	£619,834	£619,834	£619,834
Treatment	£7,556,134	£14,465,371	£21,032,719	£27,278,251	£33,219,931	£58,936,129	£79,227,438
Total	**£8,671,836**	**£15,581,073**	**£22,148,421**	**£28,393,952**	**£34,335,632**	**£60,051,831**	**£80,343,140**
Value by economic category (discounted)							
Health costs avoided	£7,038,185	£15,813,654	£25,933,287	£36,991,600	£48,778,347	£112,228,156	£172,939,291
Social care costs avoided	£1,356,615	£3,691,647	£6,851,775	£10,687,890	£15,094,803	£42,279,133	£72,189,589
Informal care costs avoided	£7,300,513	£17,080,686	£28,956,586	£42,465,403	£57,408,789	£143,994,856	£235,011,464
Lost productivity avoided	£759,020	£3,096,882	£6,714,415	£11,329,900	£16,718,756	£50,046,838	£85,476,339
Total	**£16,454,333**	**£39,682,869**	**£68,456,062**	**£101,474,793**	**£138,000,695**	**£348,548,984**	**£565,616,684**
Value by clinical event (discounted)							
Myocardial Infarctions	£1,458,707	£3,287,215	£5,395,843	£7,737,253	£10,230,610	£23,942,700	£37,228,859
Strokes	£12,801,046	£29,537,787	£49,602,304	£72,233,347	£97,137,541	£240,125,588	£389,366,910
Heart failure admissions	£1,003,642	£3,259,964	£6,468,345	£10,379,476	£14,815,320	£40,519,722	£66,064,331
End stage kidney disease	£1,190,937	£3,597,904	£6,989,569	£11,124,718	£15,817,225	£43,960,973	£72,956,583
Total	**£16,454,333**	**£39,682,869**	**£68,456,062**	**£101,474,793**	**£138,000,695**	**£348,548,984**	**£565,616,684**
Benefit to cost ratio (Gross)							
Health costs avoided	0.8	1.0	1.2	1.3	1.4	1.9	2.2
Social care costs avoided	0.2	0.2	0.3	0.4	0.4	0.7	0.9
Informal care costs avoided	0.8	1.1	1.3	1.5	1.7	2.4	2.9
Lost productivity avoided	0.1	0.2	0.3	0.4	0.5	0.8	1.1
Total	**1.9**	**2.5**	**3.1**	**3.6**	**4.0**	**5.8**	**7.0**

*Numbers less than 10 suppressed

INTO-ACTION.HEALTH

CVDACTION Optimisation Cohorts Analysis After 3 Years

Location North East London 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	£812,746	552	£8,329,668	*£3,190,513*	*£13,520,088*	*£1,878,086*	*£26,918,355*
Cholesterol							
2. CVD not on Lipid Lowering Therapy (LLT)	£88,080	29	£563,644	*£239,450*	*£1,014,678*	*£108,250*	*£1,926,022*
3. CVD on suboptimal dose or intensity of statin	£336,897	65	£1,035,128	*£310,439*	*£1,311,011*	*£221,370*	*£2,877,947*
4. CVD on max statin but not treated to target	£634,125	27	£516,455	*£165,602*	*£706,598*	*£98,057*	*£1,486,712*
Chronic Kidney Disease							
5. RAA indicated but not prescribed	£40,144	39	£802,416	*£136,349*	*£586,469*	*£231,110*	*£1,756,344*
6. SGLT2i indicated but not prescribed	£4,364,716	186	£1,578,652	*£0*	*£0*	*£571,214*	*£2,149,866*
7. CVD and Statin not prescribed	£42,666	25	£523,604	*£226,170*	*£967,530*	*£93,728*	*£1,811,032*
8. BP not treated to target	£54,932	70	£1,086,298	*£422,150*	*£1,781,117*	*£246,285*	*£3,535,851*
Diabetes							
9. RAA indicated but not prescribed	£478,057	314	£5,817,619	*£1,067,678*	*£4,491,902*	*£1,683,363*	*£13,060,562*
10. SGLT2i indicated but not prescribed	£15,067,930	318	£2,815,783	*£0*	*£0*	*£953,780*	*£3,769,563*
11. DM and HTN with BP not treated to target	£189,825	155	£2,536,620	*£959,364*	*£4,014,942*	*£566,556*	*£8,077,482*
12. DM with CVD not on LLT	£38,304	17	£327,401	*£134,060*	*£562,250*	*£62,615*	*£1,086,326*
Total	**£22,148,421**	**1,797**	**£25,933,287**	*£6,851,775*	*£28,956,586*	*£6,714,415*	*£68,456,062*

All costs and benefits are discounted

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

Model by GtD SOCIAL IMPACT ANALYTICS

Economic analyiss by EBD.