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.

Devon ICB **Year 3 – Step Change Scenario**	
Events prevented: • 241 Heart attacks • 466 Strokes • 689 Heart failure admissions • 51 End stage kidney disease	**1,447 events*** **~ 10,889 bed days** (excl ESKD) *Total events may not match due to rounding
Health/social care savings	**£27 million**
Productivity gains	**£32 million**
Benefit to cost ratio	**4.5** (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

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

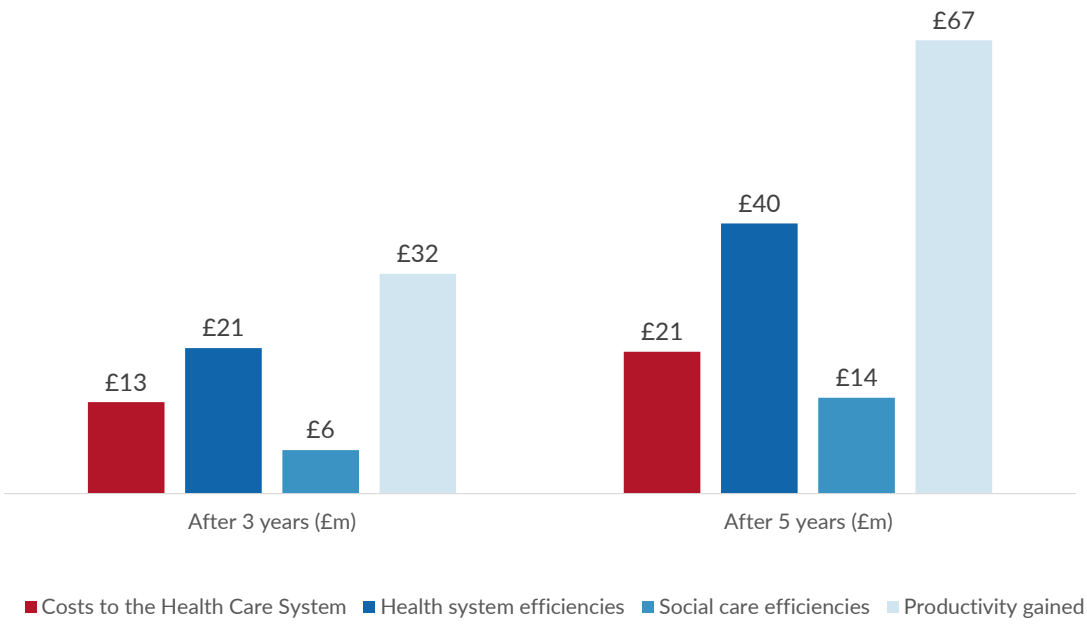
INTO-ACTION.HEALTH

CVDACTION Modelled Impact (Step Change Scenario)

Headline Costs and Benefits

Location	Devon Integrated Care Board
CVDACTION optimisation cohort	All
Number of patients optimised in year 1	57,052

	After 3 years	After 5 years
Events Prevented		
Myocardial infarctions	241	393
Strokes (ischaemic)	466	753
Heart failure admissions	689	1,095
End stage kidney disease	51	81
Total	**1,447**	**2,321**
Costs to the Health Care System	**£13m**	**£21m**
Benefits		
Health system efficiencies	£21m	£40m
Social care efficiencies	£6m	£14m
Productivity gained	£32m	£67m
Total	**£60m**	**£120m**
Total Benefits to Costs Ratio (Gross)	**4.5**	**5.8**



All costs and benefits are discounted

INTO-ACTION.HEALTH

CVDACTION: Costs and Benefits by Year

Location: Devon 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	82	163	241	318	393	746	1,050
Strokes	160	315	466	611	753	1,401	1,963
Heart failure admissions	240	471	689	896	1,095	1,979	2,693
End stage kidney disease	17	34	51	66	81	148	202
Costs of CVDACTION and treatment (discounted)							
CVDACTION	£259,350	£259,350	£259,350	£259,350	£259,350	£259,350	£259,350
Transformation cost	£324,187	£324,187	£324,187	£324,187	£324,187	£324,187	£324,187
Treatment	£4,635,356	£8,854,008	£12,857,703	£16,659,572	£20,271,393	£35,848,235	£48,080,017
Total	**£5,218,893**	**£9,437,544**	**£13,441,240**	**£17,243,109**	**£20,854,930**	**£36,431,772**	**£48,663,554**
Value by economic category (discounted)							
Health costs avoided	£5,948,587	£13,172,610	£21,383,680	£30,269,821	£39,707,652	£90,426,094	£139,576,399
Social care costs avoided	£1,268,256	£3,446,237	£6,394,733	£9,977,625	£14,099,255	£39,693,672	£68,224,899
Informal care costs avoided	£6,825,019	£15,965,130	£27,058,122	£39,679,780	£53,658,966	£135,139,604	£221,887,620
Lost productivity avoided	£641,514	£2,470,715	£5,267,258	£8,824,938	£12,982,171	£38,916,170	£67,103,652
Total	**£14,683,376**	**£35,054,693**	**£60,103,793**	**£88,752,164**	**£120,448,044**	**£304,175,539**	**£496,792,570**
Value by clinical event (discounted)							
Myocardial Infarctions	£1,226,727	£2,771,161	£4,564,913	£6,561,958	£8,701,749	£20,725,183	£32,786,736
Strokes	£11,967,294	£27,612,075	£46,356,487	£67,502,321	£90,800,353	£225,346,974	£367,570,270
Heart failure admissions	£743,112	£2,416,947	£4,803,917	£7,721,619	£11,045,753	£30,609,370	£50,680,349
End stage kidney disease	£746,244	£2,254,509	£4,378,476	£6,966,266	£9,900,189	£27,494,012	£45,755,215
Total	**£14,683,376**	**£35,054,693**	**£60,103,793**	**£88,752,164**	**£120,448,044**	**£304,175,539**	**£496,792,570**
Benefit to cost ratio (Gross)							
Health costs avoided	1.1	1.4	1.6	1.8	1.9	2.5	2.9
Social care costs avoided	0.2	0.4	0.5	0.6	0.7	1.1	1.4
Informal care costs avoided	1.3	1.7	2.0	2.3	2.6	3.7	4.6
Lost productivity avoided	0.1	0.3	0.4	0.5	0.6	1.1	1.4
Total	**2.8**	**3.7**	**4.5**	**5.1**	**5.8**	**8.3**	**10.2**

*Numbers less than 10 suppressed

CVDACTION Optimisation Cohorts Analysis After 3 Years

INTO-ACTION.HEALTH

Location Devon 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	£688,192	574	£8,668,627	*£3,320,344*	*£14,070,261*	*£1,954,511*	*£28,013,742*
Cholesterol							
2. CVD not on Lipid Lowering Therapy (LLT)	£239,690	89	£1,704,384	*£724,065*	*£3,068,250*	*£327,333*	*£5,824,032*
3. CVD on suboptimal dose or intensity of statin	£313,731	73	£1,150,328	*£344,987*	*£1,456,914*	*£246,006*	*£3,198,236*
4. CVD on max statin but not treated to target	£691,169	30	£573,931	*£184,032*	*£785,236*	*£108,970*	*£1,652,169*
Chronic Kidney Disease							
5. RAA indicated but not prescribed	£28,399	32	£647,529	*£110,030*	*£473,265*	*£186,500*	*£1,417,324*
6. SGLT2i indicated but not prescribed	£3,503,876	150	£1,273,932	*£0*	*£0*	*£460,955*	*£1,734,887*
7. CVD and Statin not prescribed	£30,782	20	£422,535	*£182,513*	*£780,772*	*£75,636*	*£1,461,456*
8. BP not treated to target	£40,005	63	£976,651	*£379,540*	*£1,601,337*	*£221,426*	*£3,178,953*
Diabetes							
9. RAA indicated but not prescribed	£212,322	159	£2,944,503	*£540,390*	*£2,273,511*	*£852,010*	*£6,610,413*
10. SGLT2i indicated but not prescribed	£7,588,610	161	£1,425,167	*£0*	*£0*	*£482,742*	*£1,907,909*
11. DM and HTN with BP not treated to target	£87,077	88	£1,430,384	*£540,979*	*£2,264,001*	*£319,478*	*£4,554,842*
12. DM with CVD not on LLT	£17,386	9	£165,709	*£67,853*	*£284,575*	*£31,692*	*£549,828*
Total	**£13,441,240**	**1,448**	**£21,383,680**	*£6,394,733*	*£27,058,122*	*£5,267,258*	*£60,103,793*

All costs and benefits are discounted

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