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.

Somerset ICB **Year 3 – Step Change Scenario**	
Events prevented: • 126 Heart attacks • 249 Strokes • 353 Heart failure admissions • 25 End stage kidney disease	**754 events*** **~ 5,635 bed days** (excl ESKD) *Total events may not match due to rounding
Health/social care savings	**£14 million**
Productivity gains	**£17 million**
Benefit to cost ratio	**4.8** (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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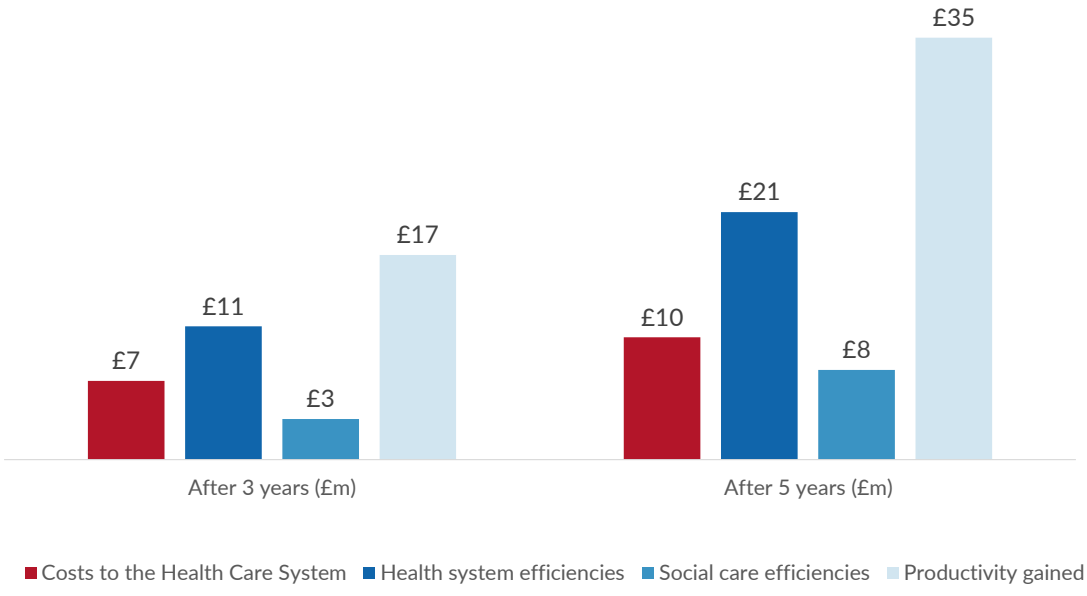
CVDACTION Modelled Impact (Step Change Scenario)

Headline Costs and Benefits

Location	Somerset Integrated Care Board
CVDACTION optimisation cohort	All
Number of patients optimised in year 1	30,096

	After 3 years	After 5 years
Events Prevented		
Myocardial infarctions	126	206
Strokes (ischaemic)	249	402
Heart failure admissions	353	563
End stage kidney disease	25	40
Total	**754**	**1,211**
Costs to the Health Care System	**£7m**	**£10m**
Benefits		
Health system efficiencies	£11m	£21m
Social care efficiencies	£3m	£8m
Productivity gained	£17m	£35m
Total	**£32m**	**£64m**
Total Benefits to Costs Ratio (Gross)	**4.8**	**6.2**



All costs and benefits are discounted

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CVDACTION: Costs and Benefits by Year

Location: Somerset 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	43	85	126	167	206	392	553
Strokes	85	168	249	326	402	751	1,053
Heart failure admissions	123	241	353	460	563	1,024	1,400
End stage kidney disease	*	17	25	33	40	74	101
Costs of CVDACTION and treatment (discounted)							
CVDACTION	£121,633	£121,633	£121,633	£121,633	£121,633	£121,633	£121,633
Transformation cost	£152,042	£152,042	£152,042	£152,042	£152,042	£152,042	£152,042
Treatment	£2,285,147	£4,366,811	£6,342,898	£8,219,810	£10,003,296	£17,699,236	£23,746,726
Total	**£2,558,822**	**£4,640,486**	**£6,616,573**	**£8,493,485**	**£10,276,971**	**£17,972,911**	**£24,020,401**
Value by economic category (discounted)							
Health costs avoided	£3,123,721	£6,905,233	£11,199,738	£15,846,862	£20,787,806	£47,447,944	£73,481,013
Social care costs avoided	£677,065	£1,840,368	£3,416,462	£5,332,962	£7,539,338	£21,271,705	£36,637,256
Informal care costs avoided	£3,643,571	£8,526,437	£14,457,392	£21,209,216	£28,693,537	£72,413,239	£119,133,923
Lost productivity avoided	£336,872	£1,286,068	£2,736,911	£4,585,209	£6,749,267	£20,334,632	£35,238,989
Total	**£7,781,229**	**£18,558,106**	**£31,810,503**	**£46,974,249**	**£63,769,948**	**£161,467,520**	**£264,491,181**
Value by clinical event (discounted)							
Myocardial Infarctions	£642,545	£1,452,596	£2,394,473	£3,444,208	£4,570,304	£10,924,851	£17,339,948
Strokes	£6,388,800	£14,746,797	£24,768,917	£36,080,765	£48,554,546	£120,748,196	£197,347,336
Heart failure admissions	£380,186	£1,239,735	£2,470,290	£3,980,199	£5,707,333	£15,980,856	£26,672,278
End stage kidney disease	£369,698	£1,118,978	£2,176,824	£3,469,077	£4,937,765	£13,813,617	£23,131,620
Total	**£7,781,229**	**£18,558,106**	**£31,810,503**	**£46,974,249**	**£63,769,948**	**£161,467,520**	**£264,491,181**
Benefit to cost ratio (Gross)							
Health costs avoided	1.2	1.5	1.7	1.9	2.0	2.6	3.1
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	2.2	2.5	2.8	4.0	5.0
Lost productivity avoided	0.1	0.3	0.4	0.5	0.7	1.1	1.5
Total	**3.0**	**4.0**	**4.8**	**5.5**	**6.2**	**9.0**	**11.0**

*Numbers less than 10 suppressed

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CVDACTION Optimisation Cohorts Analysis After 3 Years

Location Somerset 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	£368,625	320	£4,830,153	*£1,850,094*	*£7,839,940*	*£1,089,052*	*£15,609,239*
Cholesterol							
2. CVD not on Lipid Lowering Therapy (LLT)	£131,245	50	£951,118	*£404,058*	*£1,712,212*	*£182,666*	*£3,250,054*
3. CVD on suboptimal dose or intensity of statin	£157,224	38	£595,945	*£178,726*	*£754,776*	*£127,447*	*£1,656,894*
4. CVD on max statin but not treated to target	£356,887	15	£297,334	*£95,341*	*£406,803*	*£56,453*	*£855,931*
Chronic Kidney Disease							
5. RAA indicated but not prescribed	£13,038	15	£304,512	*£51,744*	*£222,561*	*£87,705*	*£666,522*
6. SGLT2i indicated but not prescribed	£1,646,303	71	£599,089	*£0*	*£0*	*£216,772*	*£815,861*
7. CVD and Statin not prescribed	£14,186	9	£198,704	*£85,830*	*£367,172*	*£35,569*	*£687,276*
8. BP not treated to target	£18,173	30	£461,959	*£179,523*	*£757,438*	*£104,735*	*£1,503,655*
Diabetes							
9. RAA indicated but not prescribed	£102,752	79	£1,459,378	*£267,832*	*£1,126,816*	*£422,280*	*£3,276,306*
10. SGLT2i indicated but not prescribed	£3,757,963	80	£706,353	*£0*	*£0*	*£239,260*	*£945,613*
11. DM and HTN with BP not treated to target	£41,728	44	£713,063	*£269,684*	*£1,128,630*	*£159,263*	*£2,270,640*
12. DM with CVD not on LLT	£8,450	4	£82,130	*£33,630*	*£141,043*	*£15,707*	*£272,510*
Total	**£6,616,573**	**755**	**£11,199,738**	*£3,416,462*	*£14,457,392*	*£2,736,911*	*£31,810,503*

All costs and benefits are discounted

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