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.

Cambridgeshire and Peterborough ICB **Year 3 – Step Change Scenario**	
Events prevented: • 154 Heart attacks • 295 Strokes • 442 Heart failure admissions • 33 End stage kidney disease	**923 events*** **~ 6,966 bed days** (excl ESKD) *Total events may not match due to rounding
Health/social care savings	**£18 million**
Productivity gains	**£20 million**
Benefit to cost ratio	**4.3** (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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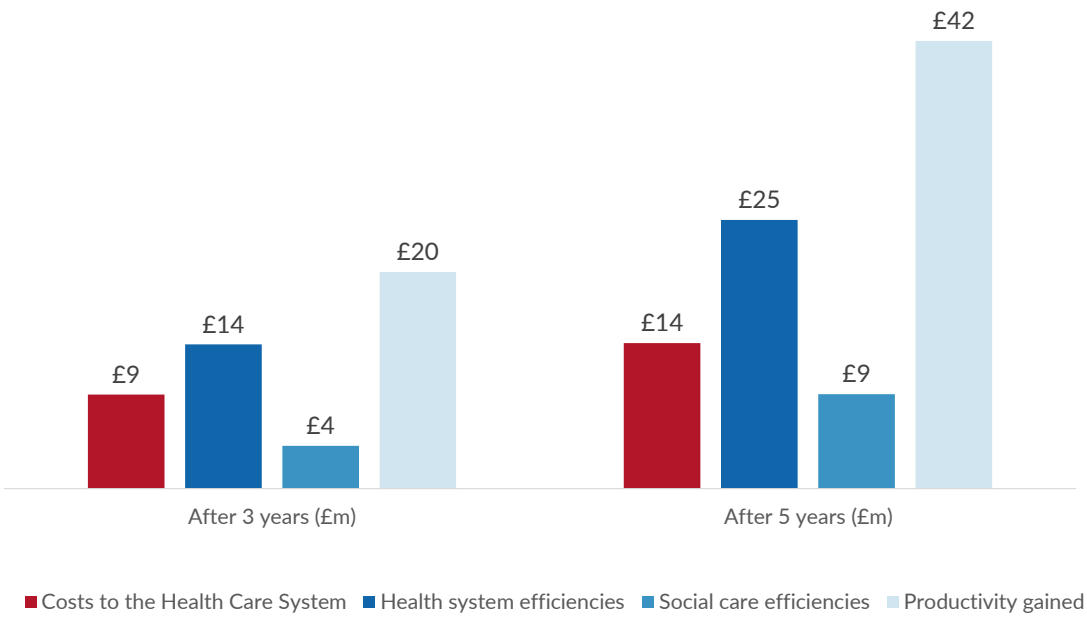
CVDACTION Modelled Impact (Step Change Scenario)

Headline Costs and Benefits

Location	Cambridgeshire and Peterborough Integrated Care Board
CVDACTION optimisation cohort	All
Number of patients optimised in year 1	36,358

	After 3 years	After 5 years
Events Prevented		
Myocardial infarctions	154	251
Strokes (ischaemic)	295	476
Heart failure admissions	442	705
End stage kidney disease	33	53
Total	**923**	**1,484**
Costs to the Health Care System	**£9m**	**£14m**
Benefits		
Health system efficiencies	£14m	£25m
Social care efficiencies	£4m	£9m
Productivity gained	£20m	£42m
Total	**£38m**	**£77m**
Total Benefits to Costs Ratio (Gross)	**4.3**	**5.6**



All costs and benefits are discounted

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CVDACTION: Costs and Benefits by Year

Location: Cambridgeshire and Peterborough 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	52	104	154	203	251	477	673
Strokes	101	199	295	386	476	889	1,247
Heart failure admissions	153	301	442	576	705	1,285	1,759
End stage kidney disease	11	22	33	43	53	97	134
Costs of CVDACTION and treatment (discounted)							
CVDACTION	£211,490	£211,490	£211,490	£211,490	£211,490	£211,490	£211,490
Transformation cost	£264,362	£264,362	£264,362	£264,362	£264,362	£264,362	£264,362
Treatment	£3,027,157	£5,790,946	£8,416,432	£10,911,846	£13,284,578	£23,539,803	£31,615,905
Total	**£3,503,008**	**£6,266,798**	**£8,892,284**	**£11,387,698**	**£13,760,430**	**£24,015,654**	**£32,091,757**
Value by economic category (discounted)							
Health costs avoided	£3,778,470	£8,383,469	£13,634,370	£19,333,704	£25,402,922	£58,225,312	£90,250,357
Social care costs avoided	£800,766	£2,177,890	£4,044,066	£6,313,420	£8,925,970	£25,174,237	£43,322,271
Informal care costs avoided	£4,309,259	£10,087,163	£17,108,117	£25,102,579	£33,964,766	£85,703,110	£140,898,053
Lost productivity avoided	£407,482	£1,577,740	£3,373,339	£5,664,350	£8,348,216	£25,193,573	£43,615,193
Total	**£9,295,978**	**£22,226,261**	**£38,159,892**	**£56,414,054**	**£76,641,875**	**£194,296,232**	**£318,085,874**
Value by clinical event (discounted)							
Myocardial Infarctions	£780,353	£1,763,368	£2,904,489	£4,175,701	£5,537,534	£13,187,581	£20,854,955
Strokes	£7,556,048	£17,445,614	£29,309,274	£42,702,903	£57,473,129	£142,910,031	£233,406,436
Heart failure admissions	£474,410	£1,547,913	£3,085,719	£4,973,808	£7,133,794	£19,972,001	£33,274,450
End stage kidney disease	£485,167	£1,469,368	£2,860,410	£4,561,642	£6,497,417	£18,226,618	£30,550,033
Total	**£9,295,978**	**£22,226,261**	**£38,159,892**	**£56,414,054**	**£76,641,875**	**£194,296,232**	**£318,085,874**
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	1.3
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	1.0	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 Cambridgeshire and Peterborough 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	£493,601	375	£5,665,116	*£2,169,909*	*£9,195,189*	*£1,277,311*	*£18,307,526*
Cholesterol							
2. CVD not on Lipid Lowering Therapy (LLT)	£136,223	48	£924,872	*£392,908*	*£1,664,963*	*£177,625*	*£3,160,368*
3. CVD on suboptimal dose or intensity of statin	£203,062	44	£687,924	*£206,311*	*£871,269*	*£147,118*	*£1,912,621*
4. CVD on max statin but not treated to target	£416,780	18	£343,225	*£110,056*	*£469,590*	*£65,166*	*£988,037*
Chronic Kidney Disease							
5. RAA indicated but not prescribed	£16,466	17	£354,222	*£60,191*	*£258,893*	*£102,022*	*£775,328*
6. SGLT2i indicated but not prescribed	£1,921,018	82	£696,887	*£0*	*£0*	*£252,159*	*£949,046*
7. CVD and Statin not prescribed	£17,689	11	£231,142	*£99,841*	*£427,111*	*£41,376*	*£799,470*
8. BP not treated to target	£23,151	33	£513,893	*£199,706*	*£842,589*	*£116,510*	*£1,672,697*
Diabetes							
9. RAA indicated but not prescribed	£160,473	113	£2,100,620	*£385,516*	*£1,621,931*	*£607,827*	*£4,715,894*
10. SGLT2i indicated but not prescribed	£5,425,225	115	£1,016,720	*£0*	*£0*	*£344,390*	*£1,361,110*
11. DM and HTN with BP not treated to target	£65,585	60	£981,534	*£371,222*	*£1,553,564*	*£219,226*	*£3,125,545*
12. DM with CVD not on LLT	£13,011	6	£118,218	*£48,406*	*£203,017*	*£22,609*	*£392,250*
Total	**£8,892,284**	**922**	**£13,634,370**	*£4,044,066*	*£17,108,117*	*£3,373,339*	*£38,159,892*

All costs and benefits are discounted

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