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.

Dorset ICB **Year 3 – Step Change Scenario**	
Events prevented: • 153 Heart attacks • 285 Strokes • 440 Heart failure admissions • 34 End stage kidney disease	**912 events*** **~ 6,898 bed days** (excl ESKD) *Total events may not match due to rounding
Health/social care savings	**£17 million**
Productivity gains	**£20 million**
Benefit to cost ratio	**4.1** (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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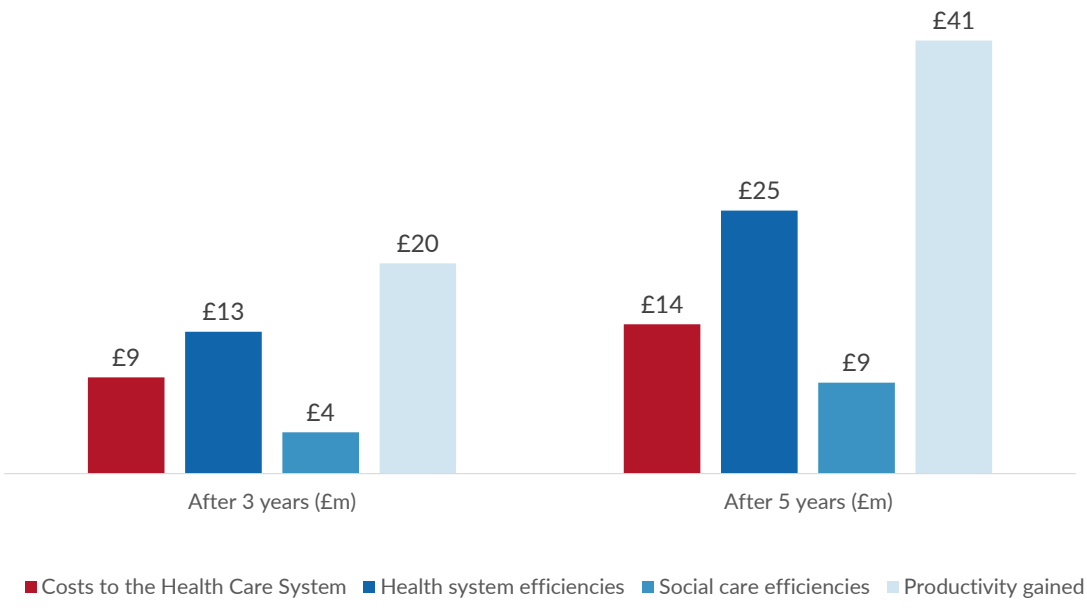
CVDACTION Modelled Impact (Step Change Scenario)

Headline Costs and Benefits

Location	Dorset Integrated Care Board
CVDACTION optimisation cohort	All
Number of patients optimised in year 1	35,689

	After 3 years	After 5 years
Events Prevented		
Myocardial infarctions	153	249
Strokes (ischaemic)	285	460
Heart failure admissions	440	694
End stage kidney disease	34	53
Total	**912**	**1,456**
Costs to the Health Care System	**£9m**	**£14m**
Benefits		
Health system efficiencies	£13m	£25m
Social care efficiencies	£4m	£9m
Productivity gained	£20m	£41m
Total	**£37m**	**£74m**
Total Benefits to Costs Ratio (Gross)	**4.1**	**5.3**



All costs and benefits are discounted

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CVDACTION: Costs and Benefits by Year

Location: Dorset 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	103	153	202	249	471	660
Strokes	98	193	285	373	460	853	1,191
Heart failure admissions	154	301	440	570	694	1,237	1,665
End stage kidney disease	12	23	34	44	53	96	131
Costs of CVDACTION and treatment (discounted)							
CVDACTION	£166,365	£166,365	£166,365	£166,365	£166,365	£166,365	£166,365
Transformation cost	£207,956	£207,956	£207,956	£207,956	£207,956	£207,956	£207,956
Treatment	£3,150,765	£6,010,305	£8,721,946	£11,294,913	£13,737,474	£24,252,348	£32,489,383
Total	**£3,525,086**	**£6,384,626**	**£9,096,267**	**£11,669,234**	**£14,111,795**	**£24,626,669**	**£32,863,703**
Value by economic category (discounted)							
Health costs avoided	£3,729,323	£8,266,062	£13,416,691	£18,979,303	£24,867,178	£56,168,926	£85,993,916
Social care costs avoided	£777,202	£2,109,586	£3,910,373	£6,095,652	£8,605,951	£24,134,244	£41,336,095
Informal care costs avoided	£4,182,448	£9,774,375	£16,548,106	£24,246,593	£32,759,674	£82,190,723	£134,485,271
Lost productivity avoided	£402,182	£1,561,182	£3,328,934	£5,568,438	£8,173,132	£24,200,191	£41,291,642
Total	**£9,091,154**	**£21,711,205**	**£37,204,104**	**£54,889,986**	**£74,405,935**	**£186,694,083**	**£303,106,924**
Value by clinical event (discounted)							
Myocardial Infarctions	£781,413	£1,762,307	£2,900,676	£4,165,539	£5,518,898	£13,072,081	£20,577,238
Strokes	£7,333,691	£16,905,266	£28,350,922	£41,248,730	£55,436,589	£137,059,709	£222,794,749
Heart failure admissions	£477,242	£1,543,048	£3,049,753	£4,875,366	£6,937,010	£18,790,063	£30,586,383
End stage kidney disease	£498,809	£1,500,585	£2,902,753	£4,600,351	£6,513,439	£17,772,229	£29,148,554
Total	**£9,091,154**	**£21,711,205**	**£37,204,104**	**£54,889,986**	**£74,405,935**	**£186,694,083**	**£303,106,924**
Benefit to cost ratio (Gross)							
Health costs avoided	1.1	1.3	1.5	1.6	1.8	2.3	2.6
Social care costs avoided	0.2	0.3	0.4	0.5	0.6	1.0	1.3
Informal care costs avoided	1.2	1.5	1.8	2.1	2.3	3.3	4.1
Lost productivity avoided	0.1	0.2	0.4	0.5	0.6	1.0	1.3
Total	**2.6**	**3.4**	**4.1**	**4.7**	**5.3**	**7.6**	**9.2**

*Numbers less than 10 suppressed

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CVDACTION Optimisation Cohorts Analysis After 3 Years

Location Dorset 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	£378,469	313	£4,725,359	*£1,809,954*	*£7,669,846*	*£1,065,424*	*£15,270,584*
Cholesterol							
2. CVD not on Lipid Lowering Therapy (LLT)	£179,589	67	£1,271,544	*£540,183*	*£2,289,047*	*£244,205*	*£4,344,980*
3. CVD on suboptimal dose or intensity of statin	£218,340	50	£794,616	*£238,308*	*£1,006,398*	*£169,935*	*£2,209,257*
4. CVD on max statin but not treated to target	£477,803	21	£396,457	*£127,125*	*£542,420*	*£75,273*	*£1,141,275*
Chronic Kidney Disease							
5. RAA indicated but not prescribed	£22,087	25	£500,875	*£85,110*	*£366,079*	*£144,261*	*£1,096,326*
6. SGLT2i indicated but not prescribed	£2,710,861	116	£985,409	*£0*	*£0*	*£356,557*	*£1,341,966*
7. CVD and Statin not prescribed	£23,920	16	£326,838	*£141,177*	*£603,941*	*£58,506*	*£1,130,463*
8. BP not treated to target	£28,266	44	£683,844	*£265,751*	*£1,121,245*	*£155,041*	*£2,225,882*
Diabetes							
9. RAA indicated but not prescribed	£136,637	102	£1,884,703	*£345,890*	*£1,455,217*	*£545,350*	*£4,231,160*
10. SGLT2i indicated but not prescribed	£4,858,217	103	£912,214	*£0*	*£0*	*£308,991*	*£1,221,205*
11. DM and HTN with BP not treated to target	£50,900	51	£828,764	*£313,443*	*£1,311,762*	*£185,105*	*£2,639,074*
12. DM with CVD not on LLT	£11,178	6	£106,066	*£43,431*	*£182,149*	*£20,285*	*£351,931*
Total	**£9,096,267**	**914**	**£13,416,691**	*£3,910,373*	*£16,548,106*	*£3,328,934*	*£37,204,104*

All costs and benefits are discounted

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