
**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.**

| Bath and North East Somerset, Swindon and Wiltshire ICB Year 3 – Step Change Scenario | |
|---|---|
| Events prevented:<br>• 167 Heart attacks<br>• 318 Strokes<br>• 485 Heart failure admissions<br>• 36 End stage kidney disease | 1,007 events*<br>~ 7,609 bed days (excl ESKD)<br>*Total events may not match due to rounding |
| Health/social care savings | £19 million |
| Productivity gains | £22 million |
| Benefit to cost ratio | 4.2<br>(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**

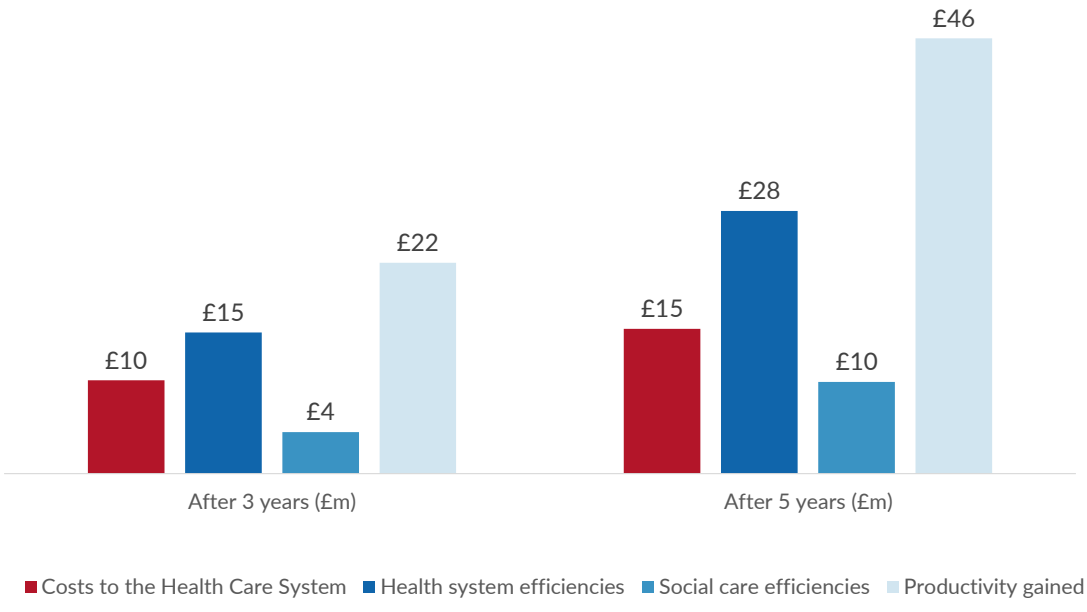
INTO-ACTION.HEALTH

# CVDACTION Modelled Impact (Step Change Scenario)

## Headline Costs and Benefits

| | |
|---|---|
| **Location** | Bath and North East Somerset, Swindon and Wiltshire Integrated Care Board |
| **CVDACTION optimisation cohort** | All |
| **Number of patients optimised in year 1** | 39,495 |

| | After 3 years | After 5 years |
|---|---|---|
| **Events Prevented** | | |
| Myocardial infarctions | 167 | 273 |
| Strokes (ischaemic) | 318 | 514 |
| Heart failure admissions | 485 | 770 |
| End stage kidney disease | 36 | 58 |
| **Total** | **1,007** | **1,615** |
| **Costs to the Health Care System** | **£10m** | **£15m** |
| **Benefits** | | |
| Health system efficiencies | £15m | £28m |
| Social care efficiencies | £4m | £10m |
| Productivity gained | £22m | £46m |
| **Total** | **£41m** | **£83m** |
| **Total Benefits to Costs Ratio (Gross)** | **4.2** | **5.5** |




All costs and benefits are discounted

INTO-ACTION.HEALTH

# CVDACTION: Costs and Benefits by Year

**Location:** Bath and North East Somerset, Swindon and Wiltshire 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 | 57 | 113 | 167 | 221 | 273 | 518 | 729 |
| Strokes | 109 | 215 | 318 | 417 | 514 | 957 | 1,341 |
| Heart failure admissions | 169 | 331 | 485 | 630 | 770 | 1,393 | 1,896 |
| End stage kidney disease | 13 | 25 | 36 | 48 | 58 | 106 | 146 |
| **Costs of CVDACTION and treatment (discounted)** | | | | | | | |
| CVDACTION | £202,533 | £202,533 | £202,533 | £202,533 | £202,533 | £202,533 | £202,533 |
| Transformation cost | £253,167 | £253,167 | £253,167 | £253,167 | £253,167 | £253,167 | £253,167 |
| Treatment | £3,368,232 | £6,436,553 | £9,349,410 | £12,116,228 | £14,745,458 | £26,092,473 | £35,011,036 |
| **Total** | **£3,823,932** | **£6,892,252** | **£9,805,110** | **£12,571,928** | **£15,201,158** | **£26,548,172** | **£35,466,736** |
| **Value by economic category (discounted)** | | | | | | | |
| Health costs avoided | £4,112,362 | £9,124,087 | £14,831,719 | £21,017,020 | £27,590,559 | £62,936,938 | £97,151,100 |
| Social care costs avoided | £865,509 | £2,352,405 | £4,365,436 | £6,811,572 | £9,625,509 | £27,093,508 | £46,549,588 |
| Informal care costs avoided | £4,657,667 | £10,896,800 | £18,469,969 | £27,087,355 | £36,632,005 | £92,249,803 | £151,415,523 |
| Lost productivity avoided | £443,490 | £1,720,844 | £3,677,107 | £6,167,072 | £9,076,705 | £27,213,353 | £46,877,286 |
| **Total** | **£10,079,028** | **£24,094,136** | **£41,344,231** | **£61,083,019** | **£82,924,778** | **£209,493,603** | **£341,993,496** |
| **Value by clinical event (discounted)** | | | | | | | |
| Myocardial Infarctions | £851,231 | £1,922,351 | £3,165,444 | £4,549,003 | £6,030,409 | £14,333,823 | £22,631,105 |
| Strokes | £8,166,963 | £18,846,103 | £31,642,807 | £46,080,095 | £61,987,597 | £153,829,627 | £250,834,473 |
| Heart failure admissions | £522,382 | £1,698,889 | £3,376,342 | £5,426,396 | £7,761,143 | £21,481,263 | £35,509,183 |
| End stage kidney disease | £538,453 | £1,626,793 | £3,159,638 | £5,027,525 | £7,145,629 | £19,848,889 | £33,018,735 |
| **Total** | **£10,079,028** | **£24,094,136** | **£41,344,231** | **£61,083,019** | **£82,924,778** | **£209,493,603** | **£341,993,496** |
| **Benefit to cost ratio (Gross)** | | | | | | | |
| Health costs avoided | 1.1 | 1.3 | 1.5 | 1.7 | 1.8 | 2.4 | 2.7 |
| Social care costs avoided | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 1.0 | 1.3 |
| Informal care costs avoided | 1.2 | 1.6 | 1.9 | 2.2 | 2.4 | 3.5 | 4.3 |
| Lost productivity avoided | 0.1 | 0.2 | 0.4 | 0.5 | 0.6 | 1.0 | 1.3 |
| **Total** | **2.6** | **3.5** | **4.2** | **4.9** | **5.5** | **7.9** | **9.6** |

*Numbers less than 10 suppressed

INTO-ACTION.HEALTH

# CVDACTION Optimisation Cohorts Analysis After 3 Years

## Location Bath and North East Somerset, Swindon and Wiltshire 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 | £488,628 | 390 | £5,891,698 | *£2,256,697* | *£9,562,958* | *£1,328,398* | *£19,039,751* |
| Cholesterol | | | | | | | |
| 2. CVD not on Lipid Lowering Therapy (LLT) | £155,959 | 57 | £1,085,451 | *£461,126* | *£1,954,040* | *£208,465* | *£3,709,081* |
| 3. CVD on suboptimal dose or intensity of statin | £222,955 | 50 | £787,782 | *£236,259* | *£997,743* | *£168,473* | *£2,190,257* |
| 4. CVD on max statin but not treated to target | £475,142 | 20 | £393,047 | *£126,031* | *£537,755* | *£74,626* | *£1,131,460* |
| Chronic Kidney Disease | | | | | | | |
| 5. RAA indicated but not prescribed | £20,163 | 22 | £447,451 | *£76,032* | *£327,033* | *£128,874* | *£979,390* |
| 6. SGLT2i indicated but not prescribed | £2,423,696 | 104 | £880,304 | *£0* | *£0* | *£318,526* | *£1,198,830* |
| 7. CVD and Statin not prescribed | £21,763 | 14 | £291,977 | *£126,119* | *£539,524* | *£52,266* | *£1,009,886* |
| 8. BP not treated to target | £26,937 | 40 | £628,846 | *£244,378* | *£1,031,069* | *£142,572* | *£2,046,864* |
| Diabetes | | | | | | | |
| 9. RAA indicated but not prescribed | £164,470 | 120 | £2,220,427 | *£407,504* | *£1,714,437* | *£642,494* | *£4,984,863* |
| 10. SGLT2i indicated but not prescribed | £5,728,073 | 121 | £1,074,708 | *£0* | *£0* | *£364,032* | *£1,438,740* |
| 11. DM and HTN with BP not treated to target | £63,921 | 62 | £1,005,068 | *£380,123* | *£1,590,815* | *£224,483* | *£3,200,488* |
| 12. DM with CVD not on LLT | £13,405 | 7 | £124,960 | *£51,167* | *£214,596* | *£23,899* | *£414,621* |
| **Total** | **£9,805,110** | **1,007** | **£14,831,719** | *£4,365,436* | *£18,469,969* | *£3,677,107* | *£41,344,231* |

*All costs and benefits are discounted*

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