Nottinghamshire County Council

Report to Public Health Committee

1 December 2016

Agenda Item: 6

REPORT OF THE DIRECTOR OF PUBLIC HEALTH

IMPLICATIONS OF THE NOTTINGHAMSHIRE SUSTAINABILITY AND TRANSFORMATION PLANS FOR PUBLIC HEALTH

Purpose of the Report

1. Inform members of the Public Health Committee of the implications of the Sustainability and Transformation Plans (STP) on the PH team and PH commissioned services.

Background

2. Over the last few months, every health care system in England (44 in total) has developed a 5 year Sustainability and Transformation Plan (STP). Each plan shows how local services will work together to improve the quality of care, their population's health and wellbeing as well as the local finances of the care system (NHS and LA). These plans are intended to accelerate the implementation of the NHS Five Year Forward View (FYFV) and improve outcomes between 2016 and 2021. One of the key components in the FYFV is the focus on prevention. The following is an extract from the FYFV. *The first argument we make in this five year forward view is that the future health of millions of children, the sustainability of the NHS and the economic prosperity of Britain all now depend on a radical upgrade in prevention and public health.*

Information and Advice

Progress so far

3. There are two STPs for the Nottinghamshire area. Their coverage has been determined by NHS England (NHSE). Bassetlaw is part of the South Yorkshire STP footprint, whilst the remainder of the county along with the City forms the Nottinghamshire STP. Given the aspirations of the FYFV, 'prevention' is a priority within both STPs.

4. The focus of the 'Primary' prevention aspect (preventing the onset of disease) of the STP is on tackling those activities that will address the underlying risk factors associated with ill health, e.g. smoking, alcohol, diet and nutrition, physical activity, weight management and mental wellbeing. NICE (National Institute of Health and Care excellence) has published guidance on four of these areas. This guidance and associated tools (which estimate the return on investment) have been applied to the Nottinghamshire population and show that by 2020 if the current commissioned activity continues (blue line on figures 1 & 2) the prevention activities described above are expected to contribute £19.8 million of benefits to the health care system and a further £2.8 million to the social care system. Please see Appendix 1.

5. Whilst PH have led the primary prevention aspects of the STP, the team have also been supporting other sections of the plan in our role as providers of specialist PH advice to CCGs.

Implications going forward

6. The opportunity that both STPs present are of securing a 'fully engaged' care system from a prevention perspective. Whilst the evidence base for prevention is strong, so far it has not been possible to secure the organisational and/or clinical support to ensure that primary prevention is fully embedded into the care system. A key component of a fully engaged system is the systematic delivery of Making Every Contact Count (MECC). MECC uses existing interactions between clinicians and patients/general public to identify opportunities for adoption of healthy lifestyles and their promotion. If successful the systematic roll out of MECC will result in patients/public deciding to change their behaviour and adopt healthier lifestyles. Some of these individuals will need support to help with that change process, so whilst PH currently commissions certain levels of capacity in each our behavioural change services (e.g. stop smoking), it is too early to say if this will be enough to meet potential demand increases. However, this is an area that will be monitored closely.

7. The majority of the work described in this paper is complementary to our HWB Strategy and builds on work already underway. However, it does not capture all the primary prevention work undertaken by Public Health. Due to the 5 year time frame of the STP both plans have not detailed the longer term work e.g. with children, which is still needed in order to secure longer term health benefits.

Fig 1: The financial effect of prevention scenarios on **healthcare** costs

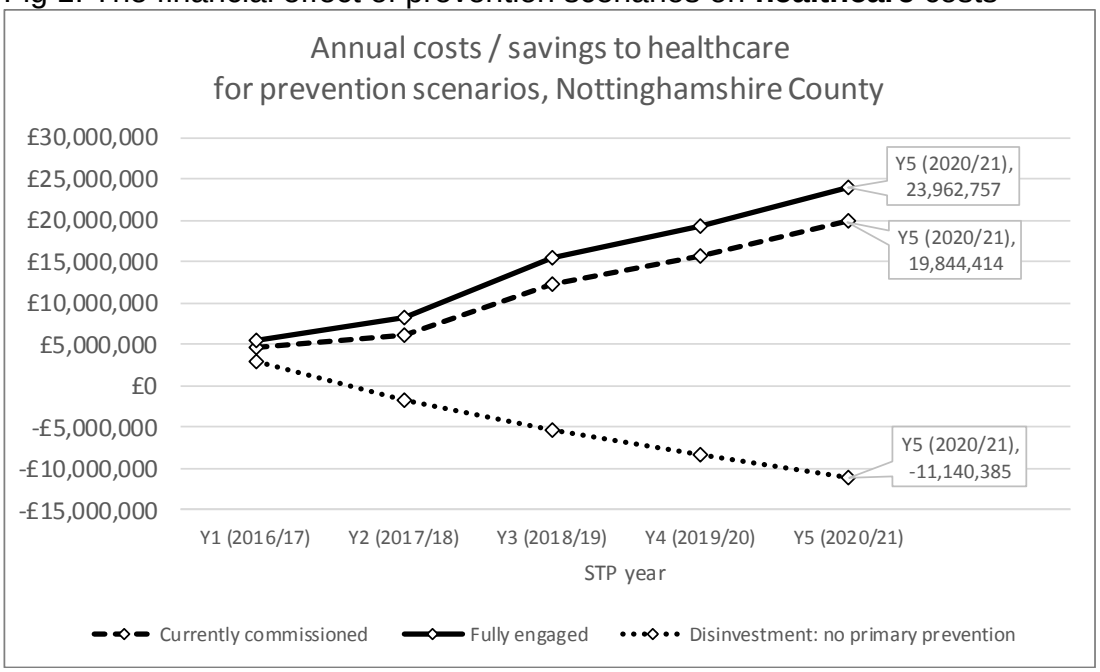
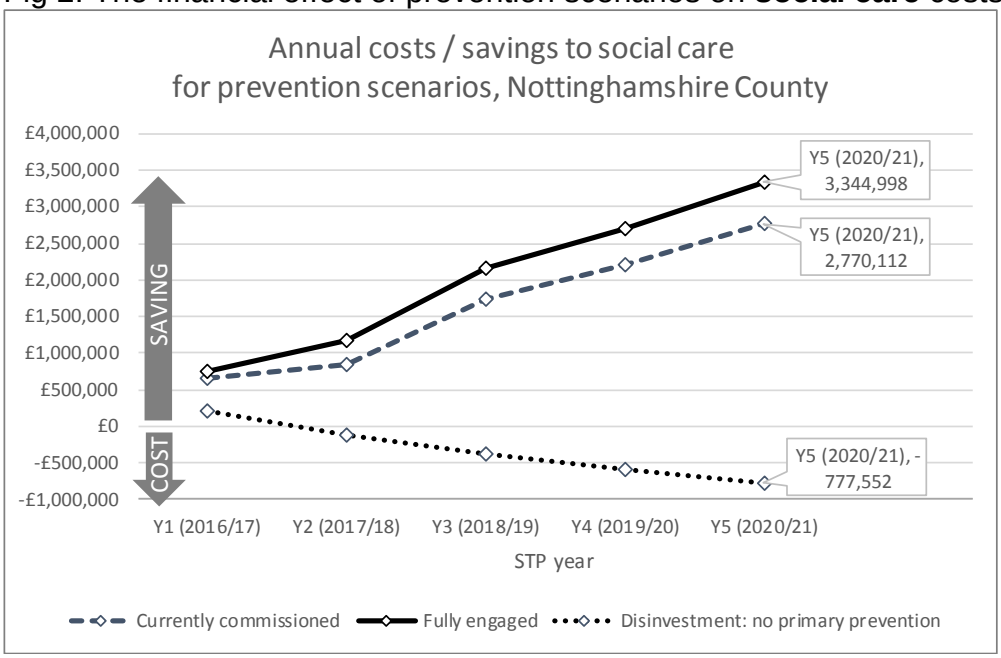


Fig 2: The financial effect of prevention scenarios on **social care** costs



8. Several of the indicators from the Public Health Outcomes framework relate to the primary prevention priorities in the STPs. The Nottinghamshire STP has included in its performance framework targets for these areas. As Nottinghamshire County relates to both STPs, work is currently underway to establish targets for the whole of the County that would in turn contribute to both STPs. Targets and trajectories for the following are now being calculated for

- Slope index of inequality (mortality from causes considered preventable).
- prevalence of smoking in the general population, with separate targets for pregnancy, routine and manual workers
- prevalence of excess weight in children, aged 10-11
- levels of physical inactivity
- alcohol admissions
- Breastfeeding rates
- uptake of NHS health checks
- Low birth weight babies

Summary

9. There has been a focused piece of work which the PH team has supported to enable the development of two robust STP plans that cover the Nottinghamshire Population. These plans were submitted to NHS England on the 21st October and formal feedback is expected shortly. Both STPs primary prevention aspects build on work already underway to support the Nottinghamshire HWB strategy. The PH targets and trajectories once developed will be shared with the PH committee.

Other Options Considered

10. This report has been brought for information. No other options are required.

Reason for Recommendation

11. The Public Health Committee is responsible for the PH grant and the PH function

Statutory and Policy Implications

12. This report has been compiled after consideration of implications in respect of crime and disorder, finance, human resources, human rights, the NHS Constitution, the public sector equality duty, safeguarding of children and vulnerable adults, service users, sustainability and the environment and ways of working and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

Financial Implications

13. There are no direct financial implications for this report.

Recommendations

Members of the Public Health Committee are asked to:

1) Note the PH team's contribution to the development of the STP
2) Note the assumptions made regarding ongoing PH funding for PH commissioned services including the return on investment

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Constitutional Comments (CH 01/11/16)

14. The report is for noting purposes only.

Financial Comments (DG 04/11/2016)

15. The financial implications are contained within paragraph 13 of the report.

Background Papers and Published Documents

Except for previously published documents, which will be available elsewhere, the documents listed here will be available for inspection in accordance with Section 100D of the Local Government Act 1972.

Appendix 1

Sustainability and Transformation Plans (STPs) require local partners to assess how their activities contribute to the reduction of three gaps:

- Health and wellbeing
- Finance and efficiency
- Care and quality.

The requirement to quantify these gaps - and how proposed activity might reduce them – is a new one which STPs are approaching in different ways. This paper relates to the contribution that primary prevention in Nottinghamshire County can make to the health and wellbeing and associated finance gaps across the County.

The value of primary prevention

By definition, prevention involves stopping events happening; this makes it hard to quantify the effects of such work. There are however data sources that can be used to estimate the total amount of disease, ill-health and disability in populations and also how interventions might reduce this burden of disease.

What is the current health and disability gap?

The Global Burden of Disease (GBD) (http://www.healthdata.org/gbd) is a world-wide initiative that aims to quantify the burden of disease and disability for the world population, global regions, individual countries and – increasingly – sub-national populations. The initiative has produced analyses since 1990 and now runs as a consortium of over 1,800 researchers in 120 countries. As well as the total burden of disease and disability, the researchers aim to identify and quantify the links between risk factors and consequent ill-health and mortality. If some risk factors are modifiable – as many are – then the burden of disease can be reduced. The burden is quantified as potential life-years lost, either because of premature death or a reduced quality of life because of long-term illness or disability.

Estimating the burden of disease for the Nottinghamshire population

For the 2013 release of the GBD, Public Health England collaborated with the GBD project to produce data for English regions - including the East Midlands - and by deprivation group within each region. We know the how the STP population compares to the East Midlands (the percentage of STP resident in each deprivation quintile for instance) and can so estimate the burden of disease, with links between risk factors and illness and disability, for the STP population.

Summary of results for Nottinghamshire County

- The Nottinghamshire population has an estimated total disease and disability burden of 294,102 life-years.
- Over half of the burden is caused by just three groups of diseases and conditions: Circulatory disease (26.9% of the total), Cancers (16.9% of the total) and diabetes and other metabolic disorders (12.0% of the total)
- GBD evidence suggests that 49% of the disease burden can be linked to specific risk factors. In the Nottinghamshire population, dietary risks account for 16.0% of attributable life-years, smoking 15.3% and overweight/ obesity 14.4%. Other risk factors amenable to primary prevention include alcohol and drug use (7.8% of the attributable burden), low

levels of physical activity (4.3% of the total), occupational health risks (3.81%) and anthropogenic air-pollution (2.6%).

The results also reveal a complex relationship between risk factors and conditions and diseases. As figure 1 shows, few conditions and diseases are related to only one or two risk factors. Instead exposure to single risk factors has effects on many conditions and diseases; conversely multiple risk factors affect each listed disease and condition. There is no one, single risk factor that should be tackled above all others.

Life-years amenable to change in the STP population

DALYs incorporate years lost to disability (years in poor health or disabled) as well as years of life lost (early deaths)

Risk factors related to conditions

		Conditions									
		<<- higher contribution to total DALYs					lower contribution to total DALYs ->>				
	The impact that changing these risk factors ... will have on DALYs caused by these conditions	Circulatory diseases	Diabetes, reproductive, urinary	Cancers	Chronic chest diseases	Mental and substance use disorders	Unintentional injuries	Musculoskeletal disorders	Cirrhosis	Nutritional deficiencies	*Percentage of all DALYs amenable to intervention*
Risk factors (higher contribution to total DALYs ->>)	Dietary risks	✓✓✓	✓✓	✓✓	-	-	-	-	-	-	*15.9*
	Tobacco smoke	✓✓	✓	✓✓✓	✓✓	-	-	-	-	-	*15.6*
	High body-mass index	✓✓✓	✓✓	✓	-	-	-	✓	-	-	*14.2*
	High systolic blood pressure	✓✓✓	✓	-	-	-	-	-	-	-	*11.8*
	Alcohol and drug use	-	-	✓	-	✓✓	✓	-	✓	-	*8.2*
	High fasting plasma glucose	✓✓	✓✓✓	-	-	-	-	-	-	-	*7.4*
	High total cholesterol	✓✓✓	-	-	-	-	-	-	-	-	*5.5*
	Low glomerular filtration rate	✓	✓✓	-	-	-	-	-	-	-	*4.9*
	Low physical activity	✓✓	✓	✓	-	-	-	-	-	-	*4.3*
	Occupational risks	-	-	✓	✓	-	✓	✓	-	-	*3.8*
	Air pollution	✓	-	✓	✓	-	-	-	-	-	*2.6*
	Low bone mineral density	-	-	-	-	-	✓✓	-	-	-	*2.2*
(<<- lower contribution to total DALYs)	Child and maternal malnutrition	-	-	-	-	-	-	-	-	✓	*1.6*
	Percentage of all DALYs amenable to intervention	*46.2*	*16.3*	*15.8*	*5.1*	*3.7*	*3.3*	*3.0*	*1.5*	*1.5*	

Key

✓✓✓	Largest impact - 5% or more of all DALYs
✓✓	Medium impact - 2 to 5% of all DALYs
✓	Lower impact - up to 2% of all DALYs
-	No contribution

Notes

- This chart incoporates 95% of all disability adjusted life years amenable to intervention
- Estimates for the STP population are derived from data for East Midlands deprivation quintiles, from the WHO Global Burden of Disease initiative

Figure 1 How risk factors relate to conditions and diseases for Nottinghamshire & Nottingham STP population

The health effect of interventions and life-years gained

There is robust, quantifiable evidence for the impact of several primary prevention initiatives in the form of return on investment (ROI) tools developed by NICE and Public Health England. These tools use the best available evidence to assess the cost-effectiveness and benefit in terms of life-years for different interventions at a whole population scale.

The ROI tools for tobacco, overweight and obesity, physical activity and alcohol were used to assess the impact of primary prevention on Nottingham and Nottinghamshire populations. Together these tools include 42% of the life-years amenable to intervention; no estimates were made for other interventions (for example dietary risks) where there was no robust evidence for population health gain. In each case care was taken to assess the health impact only over the 5-year timeframe for the STP: life-time health gains (which for risks such as tobacco can be much larger than short-term gains) were not used.

The tools were all used to quantify the life-years gained or lost for three scenarios:

- The current commissioned level of intervention in Nottinghamshire County
- A 'fully engaged' level of intervention; maximising the reach of interventions with minimal or no further investment
- No primary prevention; in essence the effect on health if there were no public health grant and no commissioned primary prevention activity.

The total life-years gained could then be expressed as a percentage of the total GBD burden of disease and disability.

The financial gap

As described above, the GBD aims to quantify the total burden of disease and disability for given populations: if this burden were zero then there would be no disease or disability and there would be no resources needed for health or social care. The projected total spend for health and social care in 2020 for the Nottinghamshire population is estimated at £1.029 billion, so each life-year can be valued at (£1.029bn/ 249,102 life-years) or £3,500 per life-year.

Results

The results are summarised in figures 2 and 3, which show the projected savings or costs for the three scenarios outlined above for the health and social care economies.

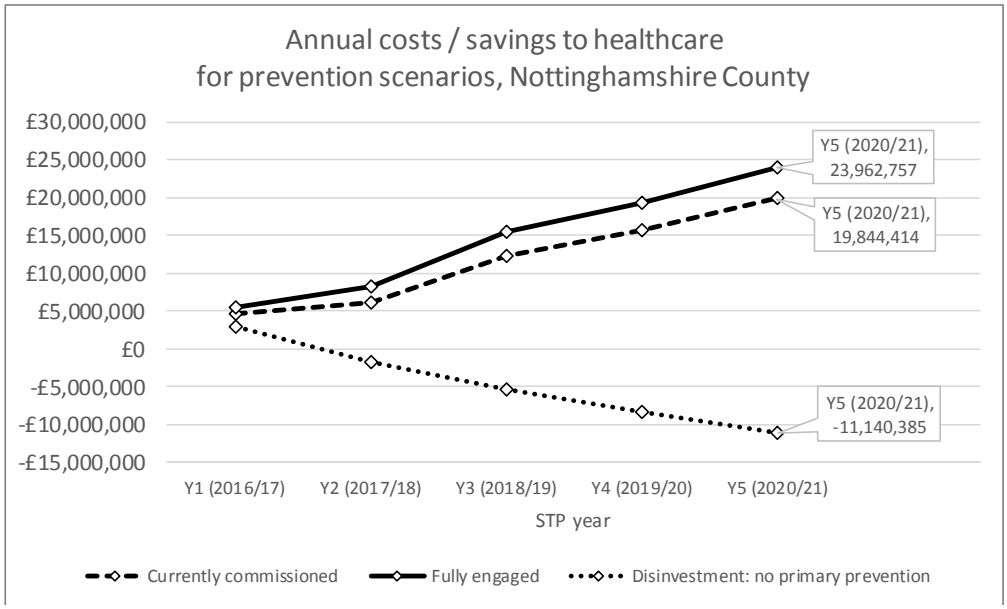

Figure 2 The financial effect of prevention scenarios on healthcare costs

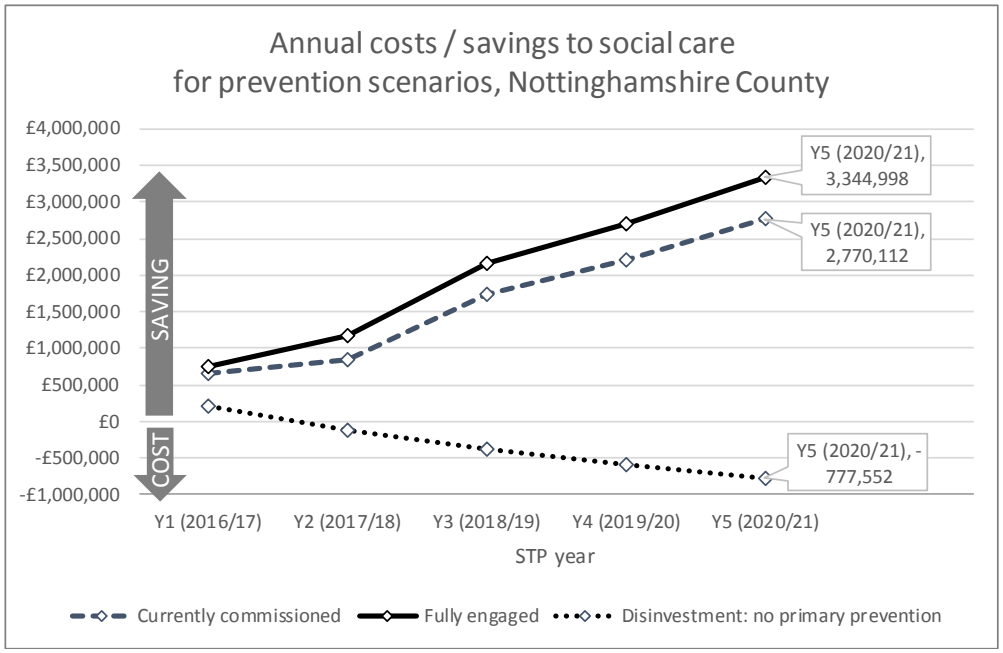

Figure 3 The financial effect of prevention scenarios on social care costs

These results demonstrate that in 2020, across Nottinghamshire, the primary prevention activities described above will contribute up to £35.1m and £4.1m to the healthcare and social care economies respectively.

Conclusions

The use of the Global Burden of Disease data, coupled with robust evidence from ROI tools, has enabled an estimate of the health & wellbeing and financial impact of primary prevention work. These figures are likely to be underestimates: a lack of evidence for interventions on diet, sexual health, mental health and work with 0 to 19 year olds in particular means that the life-year gain for these areas of work are not included in this work. NICE released ROI tools for social and emotional wellbeing (including aspects of mental health) and Children, young people and pregnant women in late October 2016; these will be incorporated into the models as the next phase of work.

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