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To: Health Reform and Public Health Cabinet Committee

6 March 2020

Subject: Health Inequalities in Kent

Classification: Unrestricted

Previous Pathway: This is the first committee to consider this report

Future Pathway: None

Electoral Division: All

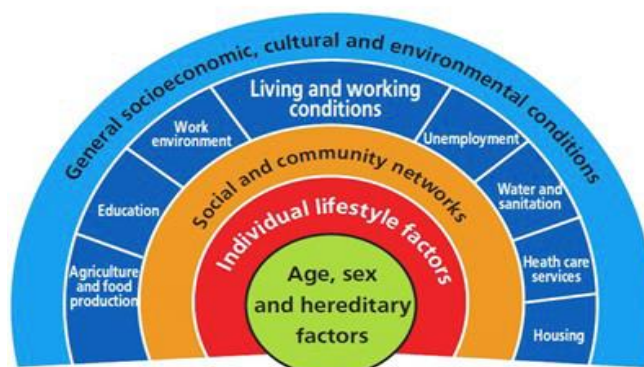
Summary:

Health inequalities are avoidable and unfair differences in health status between groups of people or communities. Local authority Public Health services are tasked with improving the health and wellbeing of the local population and both Public Health and Clinical Commissioning Groups are tasked with reducing health inequalities for their populations.

Recommendation: The Health Reform and Public Health Cabinet Committee is asked to: **COMMENT** on and **ENDORSE** the contents of the report.

1. **Background.**

- 1.1 Our health is determined by many factors other than the healthcare we access, indeed only 10-20 % of our health is determined by healthcare, the rest being determined by the wider determinants of health, which include our physical, social and economic environment, including education and employment.



The Determinants of Health (1992) Dahlgren and Whitehead

- 1.2 Health inequalities are avoidable and unfair differences in health status between groups of people or communities.
- 1.3 Local Authorities along with Clinical Commissioning Groups (CCGs) have a duty to work to reduce health inequalities. Kent County Council Public Health published the Mind The Gap Analytical Report in 2016 and a workplan to address health inequalities.
- 1.4 Local authorities working in conjunction with the broader health and care system are well placed to address health inequalities through partnership working and this report explores some of the areas of work that Kent Public Health are involved in and that are being considered for action following a refresh of the Mind the Gap report, the provision of the Kent and Medway Health Needs Assessment and ongoing work with colleagues in Kent County Council, District Councils and the NHS including Kent Community Health NHS Foundation Trust, the four Integrated Care Partnerships and the single CCG.
- 1.5 Lifestyle behaviours such as drinking, poor diet and lack of exercise play a huge factor in the persistence of health inequalities and making changes to reduce health limiting behaviours plays a key role in reducing inequality. In addition, many of those living in areas of deprivation need to resolve challenges such as housing, debt or employment before they can address the issues preventing them living longer with good health.
- 1.6 Public Health England estimate around 18% of mortality in Kent is considered preventable (defined by PHE as deaths that could potentially be avoided by public health interventions) equating to approximately 2,600 deaths in Kent per year (based on average annual figure for 2015-2017)¹

2.0 Introduction - Why Do Health Inequalities Matter?

- 2.1 Sir Michael Marmot makes it clear that health inequalities matter in this quote from his report Fair society, Healthy lives: "Reducing health inequalities is a matter of fairness and social justice. In England, the many people who are currently dying prematurely each year as a result of health inequalities would otherwise have enjoyed, in total, between 1.3 and 2.5 million extra years of life."
- 2.2 There is a requirement for focused and sustained partnership action to stop the decline in the wider determinants of health and improve well-being and extend healthy life for our population.
- 2.3 We must, however, be mindful that there are few 'quick wins' when addressing health inequalities. The results of current interventions may only become evident long after the prevention programme began. For instance, the adverse effects of smoking can be broken down into immediate, intermediate and long-term outcomes. Some of the long-term impacts may include Cancer (colorectal, liver, lung, bladder, laryngeal, oral, and pharynx) which may manifest themselves decades after smoking in the individual was first started.

¹ PHE fingertips, ONS, NHS Digital

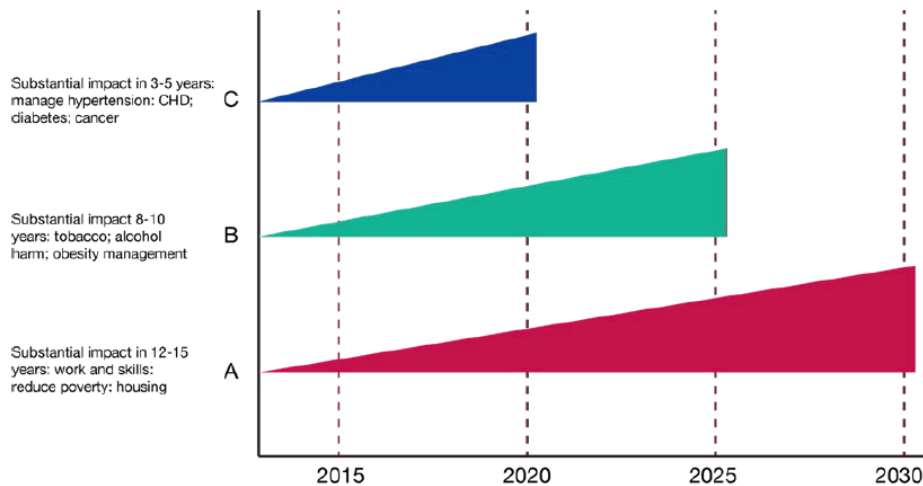


Figure 1- Time needed to deliver outcomes from different interventions types - Marmot

2.4 Health inequalities are an area of focus in the Industrial Strategy, the prevention green paper and the NHS Long -Term Plan.

3.0 Interventions to Address Health Inequalities

3.1 There are many ways of intervening to reduce health inequalities such as intervening at different levels of risk, intervening for impact over time and intervening across the life course.

In order to reduce health inequalities, it is important that strategies contain population level actions for physiological, behavioural and psychosocial risks that are sustainable and can be delivered at scale. These interventions have to be over sufficient time to allow outcomes to be measured and should be delivered across the life course

3.2 In his 2010 report, Prof. Michael Marmot identified six policy areas to address health inequalities:

1. **Giving every child the best start in life** e.g. targeted support from health visiting for families most at need
2. **Maximizing capabilities through skills and education over the lifecourse** - e.g. improving educational attainment and resilience
3. **Good employment** – e.g. developing careers and good quality jobs
4. **Healthy standard of living** - e.g. reducing child poverty, improving access to healthy foods
5. **Sustainable places and communities** (including housing) – e.g. developing proper communities rather than dormitory towns, reducing overcrowding and improving access to green spaces for leisure
6. **Prevention** – e.g. lifestyle modification, targeted smoking cessation, better access to good quality clinical care

Many health inequality work plans are based on the above, which is a model that stresses the wider determinants of health and the early years.

3.3 In addition, there might be advantages to using behavioural insights/behavioural economics in designing interventions. There is little evidence of outcomes in this

area of public health work at present, but it is an emerging area.

3.4 **Population Intervention Triangle**

Currently, the Population Intervention Triangle (PIT) is the preferred framework. This is a new framework, published in summer 2019 that is based on the work of Chris Bentley. This model was developed through practical experience working to achieve measurable population level change in health and wellbeing outcomes, including addressing health inequalities between and within local geographies.

3.5 The PIT model consists of 3 segments:

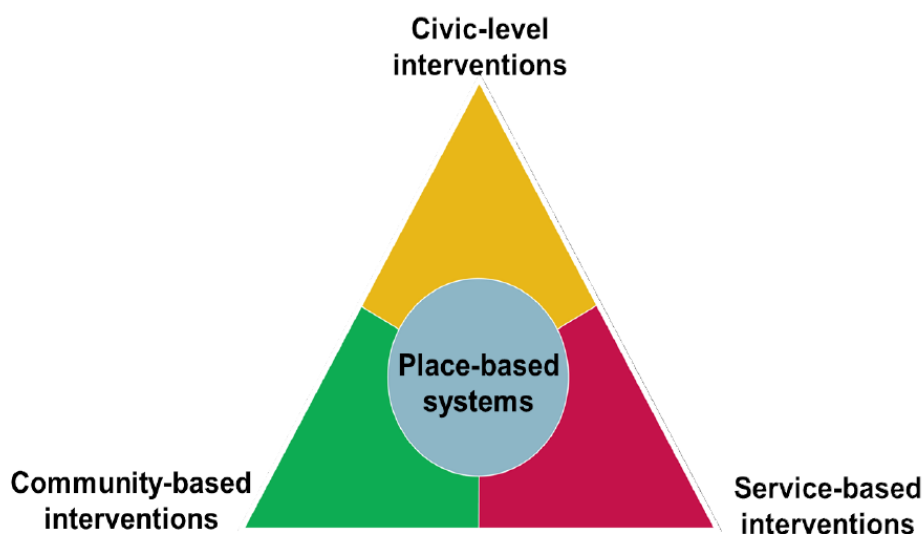
- Civic level interventions,
- Community-centred intervention
- Service-based interventions.

Combining these levels of intervention have a greater impact than each alone.

3.6 **Civic** interventions –through healthy public policy, including legislation, taxation, welfare and campaigns can mitigate against the structural obstacles to good health. E.g. Adopting a Health in All Policies approach can lead to action on health inequalities being embedded across the wide range of functions performed by local authorities such as transport and planning.

3.7 At a **community** level, encouraging communities to be more self-managing and to take control of factors affecting their health and wellbeing is beneficial. It is useful to build capacity by involving people as community champions, peer support or similar. This can develop strong collaborative/partnership relationships that in turn support good health.

3.8 Effective **service-based** interventions work better with the combined input of civic and community interventions, e.g. a tobacco control strategy will include civic regulation on smoking in public spaces, and contraband sales; support to community campaigns and smoking policies in workplaces; as well as smoking cessation services.



Credit: PHE Public Health Data Science based on the original concept created by Chris Bentley.

Figure 2 The population intervention triangle

3.9 All interventions, be they civic, community of serviced based, need to be:

- evidence-based
- outcomes orientated
- systematically applied
- scaled up appropriately
- appropriately resourced
- sustainable

4.0 Current Data for Kent

- 4.1 The gap in life expectancy between the most and least deprived areas of England is 9.5 years for males and 7.4 years for females (PHE Health Profile 2014-2016). There is also a 19 year-gap in healthy life expectancy between the most and least deprived parts of England. These health inequalities are unfair and avoidable. They cut people's lives short and cost the NHS, social care and our national and local economies billions of pounds. What is worse is that these gaps have widened since 2010-12 particularly for women.
- 4.2 While mortality rates in Kent have been falling over the past decade, the 'gap' in mortality between the most deprived and least deprived Lower Super Output deciles has persisted with the most deprived cluster of LSOAs experiencing an additional 400 deaths per 100,000 population per year on average. Data on Kent health inequalities can be found in the refreshed Mind the Gap report which is appended.
- 4.3 Steep inequality gradients are also evident across many health and social indicators in Kent. On many measures the most deprived deciles fare disproportionately worse than their more affluent counterparts (i.e. there is a non-linear relationship with deprivation). For example, alcohol-related premature mortality is more than five times higher in the most deprived decile than the most affluent decile.
- 4.4 Persistent health inequality in Kent is resulting in a poorer outlook and associated economic impact for Kent. The gap in life expectancy at birth between the most and least deprived quintiles in Kent is 6.5 years for males and 4.2 years for females (2013-2017). The gap in life expectancy at age 65 for between the most and least deprived quintiles in Kent is 3.2 years for males and 2.5 years for females (2013-2017)². In the most deprived Kent quintile, the rate of premature mortality from all causes is 116% higher than the least deprived Kent quintile³. The Standardised Mortality Ratio (SMR) shows Margate Central and Cliftonville West have the highest deaths from all causes under 75 years old (2013-2017). In these two wards, the SMR is over 200 which means that you are twice as likely to die early in one of these wards compared to if the ward had the same age-specific rates as England⁴. These deprivation differences in life expectancy and premature mortality have remained broadly similar over the last 5 years.

² ONS, NHS Digital, PHE

³ Primary Care Mortality Database

⁴ LKIS data set

4.5 Kent has a relatively affluent population, but there are pockets of real deprivation in the County. See fig 4. Below. This income deprivation distribution is at Ward level, but we know that there can be stark differences across wards which can be measured at the level of Lower Super Output Area (LSOA). There are currently 89 LSOAs which are of particular concern i.e. have the highest deprivation in the County and these have been identified for focussed work to address health inequalities.

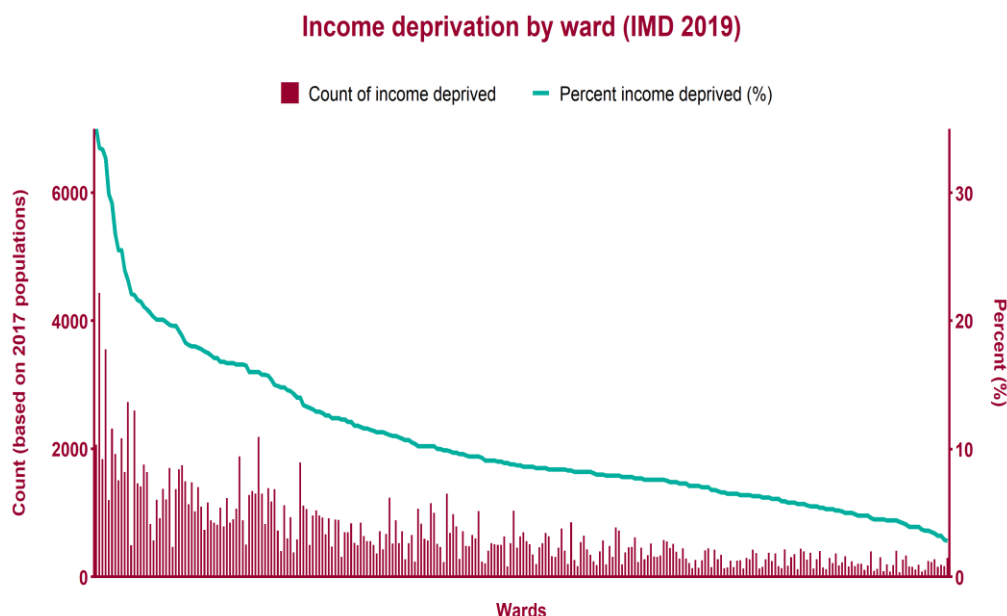


Figure 3 - Distribution of income deprivation across Kent (IMD 2019)

4.6 There are a number of indicators of health inequalities in Kent that show a particularly strong association with deprivation. These are shown in table 1

Indicator (SMR, SIR and SAR)	R² Value	Highest R² Value Ward
Deaths from all causes, under 75 years old	0.59	Margate Central
Deaths from causes considered preventable (all ages)	0.56	Margate Central
Emergency hospital admissions for all causes	0.54	Margate Central
GCSE achievement	0.53	Longfield. New Barn and Southfleet
Incidence of lung cancer	0.51	Sheppey East
Emergency hospital admissions for COPD	0.51	Shepway South
Life expectancy at birth for males	0.50	Riverview
Hospital stays for alcohol related harm (Broad definition)	0.50	Margate Central

Obese children, year 6	0.48	Sheppey East
Deaths from circulatory disease, under 75 years	0.46	Cliftonville West
Emergency hospital admissions for CHD	0.46	Sheppey East
Deaths from coronary heart disease, all ages	0.39	Cliftonville West (for circulatory disease)
Hospital stays for alcohol related harm (narrow definition)	0.37	Cliftonville West

Table 1 - The Association of Health Inequalities with Deprivation in Kent

Global Burden of Disease indicators

Condition	Percentage
Low back pain	6.5
Ischaemic Heart disease	6.4
Chronic obstructive pulmonary disease	4.7
Stroke	3.7
Alzheimer's disease and other dementias	3.7
Tracheal, bronchus and lung cancer	3.7
Headache disorders	3.1
Depressive disorders	2.5

Table 2 - Global Burden of Disease Indicators ranked by percentage of total disability-adjusted life years for Kent

5.0 Current Activities

- 5.1 As a public health team, we are committed to the use of data and analysis to aid our decision making. Services are regularly reviewed, and health needs assessments are performed in specific areas of public health to inform commissioning. One of the specific aims of needs assessment is to ensure that services are provided in a way to reduce health inequalities. For instance, the data can inform the Public Health team if there is under- or over-provision in some geographic areas, or for a particular age group.
- 5.2 There are already plans in Kent to use a new partnership approach across the Council to align existing local resources to effect change at a local level. This is not just about reducing existing health inequalities but includes a focus on the protective factors that prevent these health inequalities.

- 5.3 This partnership approach covers the well-developed work plan for the prevention workstream of the Sustainability and Transformation Plan (STP), which includes areas such as smoking cessation, increasing physical activity, tackling anti-microbial resistance and cancer screening. We are also working with all our District Councils on a health in all policies approach and continue to work with them on specific projects such as One You Kent.
- 5.4 Three areas of current work to address health inequalities are of note. These are the NHS Health checks, the KCC/ KCHFT partnership and the work with the Roma community in Kent.
- 5.5 **NHS Health Checks**
 Work has commenced to address health inequalities via the NHS Health Checks. An equity audit demonstrated that there is a lower percentage of people from deprived areas taking up the offer of an NHS Health Check. The uptake in each deprivation decile mirrors the percentages invited for their check and is lower for deprived cohorts. See figure 5.
- 5.6 NHS Health Checks are accessed by a higher proportion of people in the 'healthy' segment when compared to the general population. This could be expected, and reflective of need as NHS Health Checks are aimed at a-symptomatic/undiagnosed populations. It is however something that KCC and KCHFT are addressing through additional targeting and an outreach programme for communities not accessing the Health Checks. KCC and KCHFT have also successfully secured additional funding from the STP to increase the outreach programme.

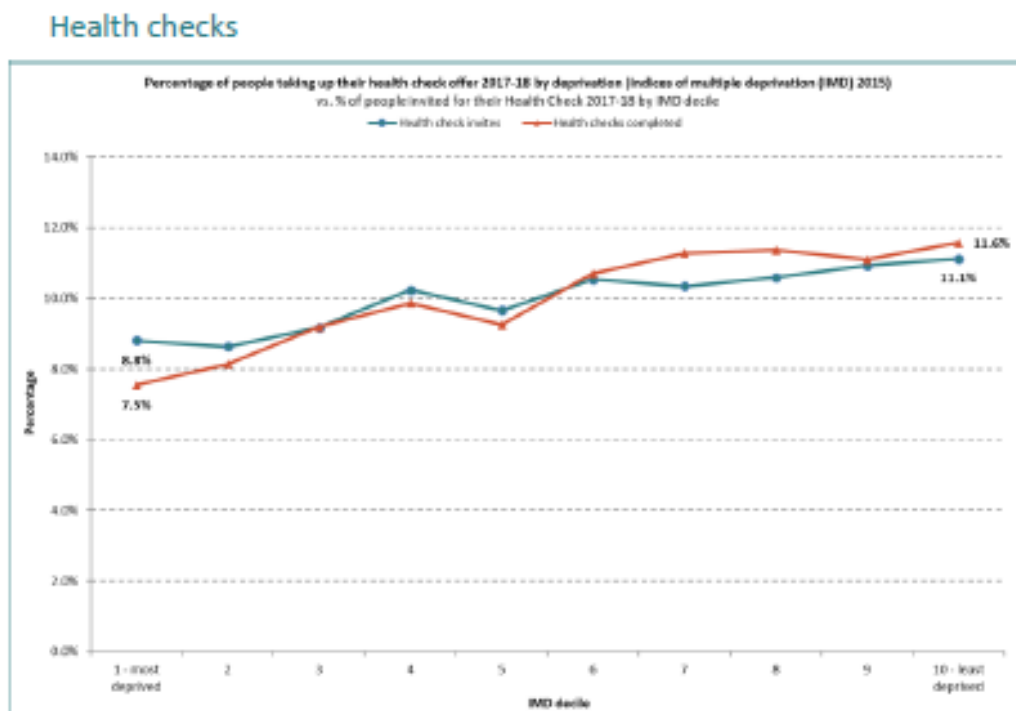


Figure 4 – Percentage uptake of NHS Health Checks per IMD score 2017/8

KCC/KCHFT Partnership/Public Health Services

KCC invested approx. £37.5M into community services including a number of mandated services such as National Childhood Measurement Programme and NHS Health Checks and sexual health. This funding, from the public health

grant, also equates to around 18% of the business for the Community Trust.

KCC funds other services with KCHFT, but these are not currently incorporated into the partnership. In 2017/18 an additional £3M (estimated) was spent on services by KCC including support for pupils with special educational needs, nursing and residential care for residents aged 65 and in-house provision. KCHFT also receive an additional £5.6M via the learning disability partnership with health, which includes KCC funding.

5.7 The services provided by KCHFT within the KCC/KCHFT partnership via the Public Health Grant have all been reviewed. These include all the services shown below:

- Start Well: Health Visiting, school health, oral health
- Live Well: Health Checks, One You Kent, smoking cessation⁵
- Age Well: postural stability
- Life Course: sexual health and oral health

5.8 In contrast to the NHS Health Checks, the School Nursing service and Health Visiting service are used more by people living in the most deprived parts of the County (Figure 6).

5.9

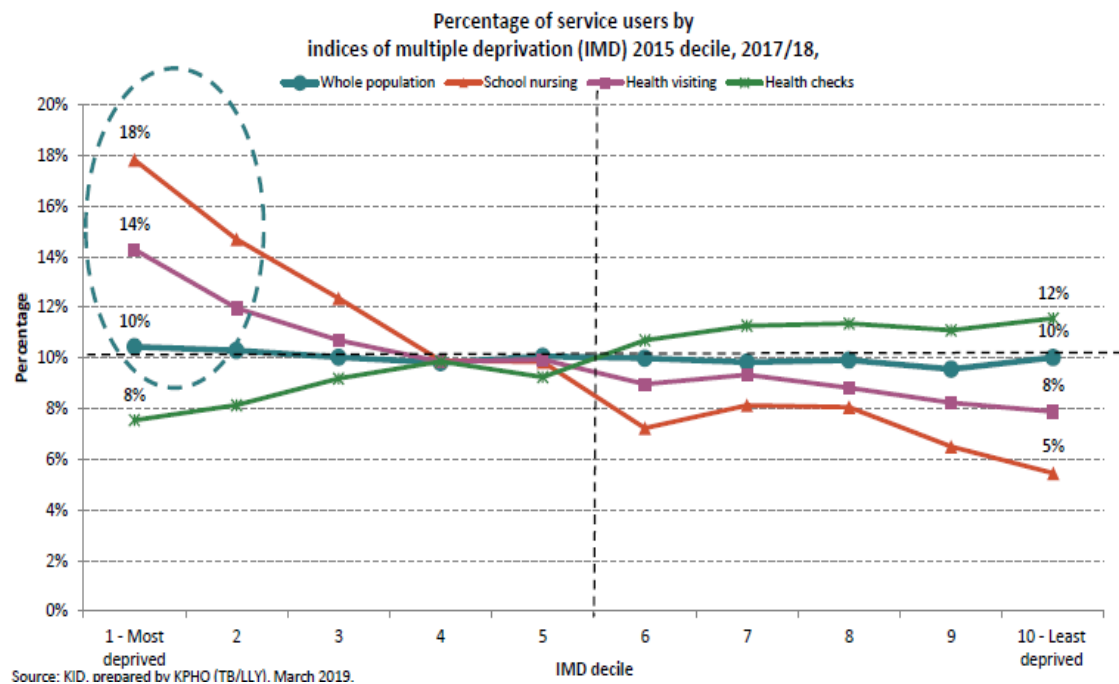


Figure 5

5.10 The percentage of people accessing health visiting services in Kent mirrors the birth data, as would be expected for a universal service i.e. there are more children born in the most deprived areas of the County, and hence a higher usage of health visiting services (figure 7).

⁵ This forms part of One You Kent however has been separately reviewed due to significant redesign in the service model

5.11

Health visiting

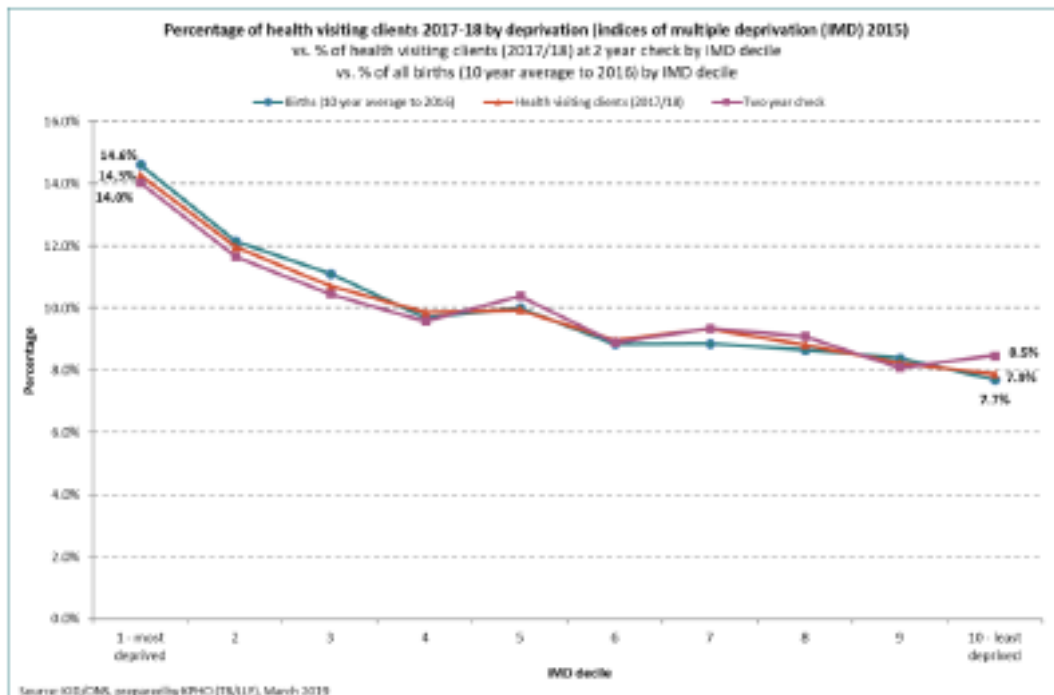


Figure 6 – use of health visiting services by IMD decile.

The data suggest that we are addressing health inequalities via the School Nursing Service, as there are more clients for the service in the more deprived areas of the County (figure 8)

5.12

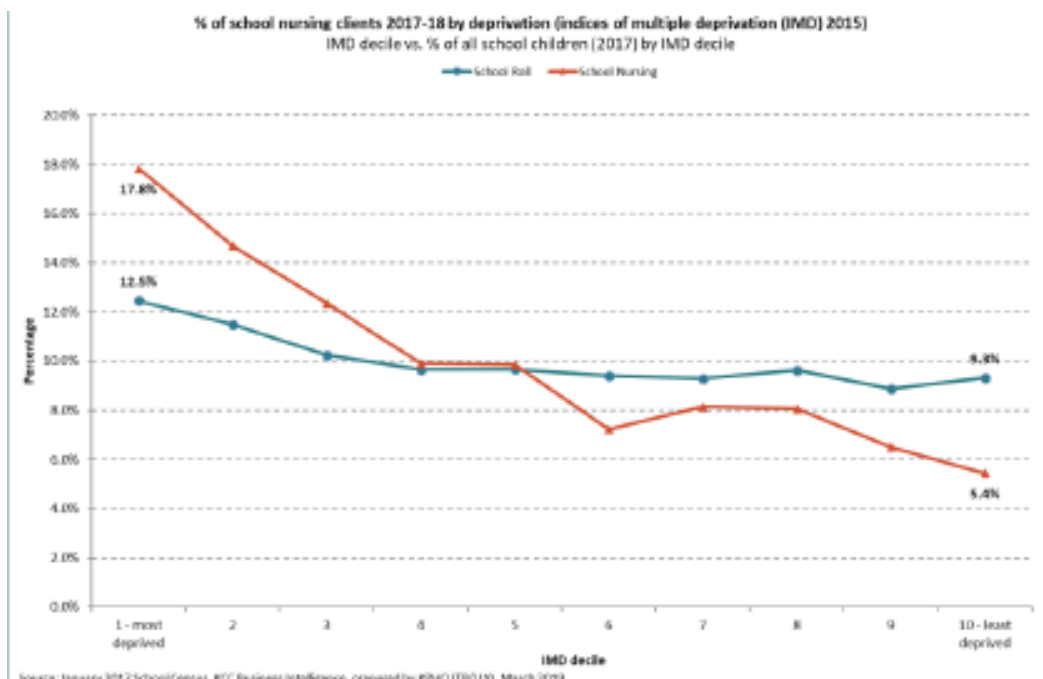


Figure 7 – use of School Nursing by IMD decile

By performing needs assessments, Public Health identified that there were higher numbers of women smoking during pregnancy in South East Kent,

Thanet and Swale. Using behavioural insight, a campaign was developed (the 'What the Bump' campaign) to address this issue in those areas with the most need for smoking cessation in maternity services. KCC has now been successful in influencing the new single CCG/STP to provide funding for smoking cessation midwives in maternity units who will further reduce health inequalities in these areas via their targeted smoking cessation work including outreach and home visits (see figures 9 and 10).

5.13

Smoking in pregnancy_1

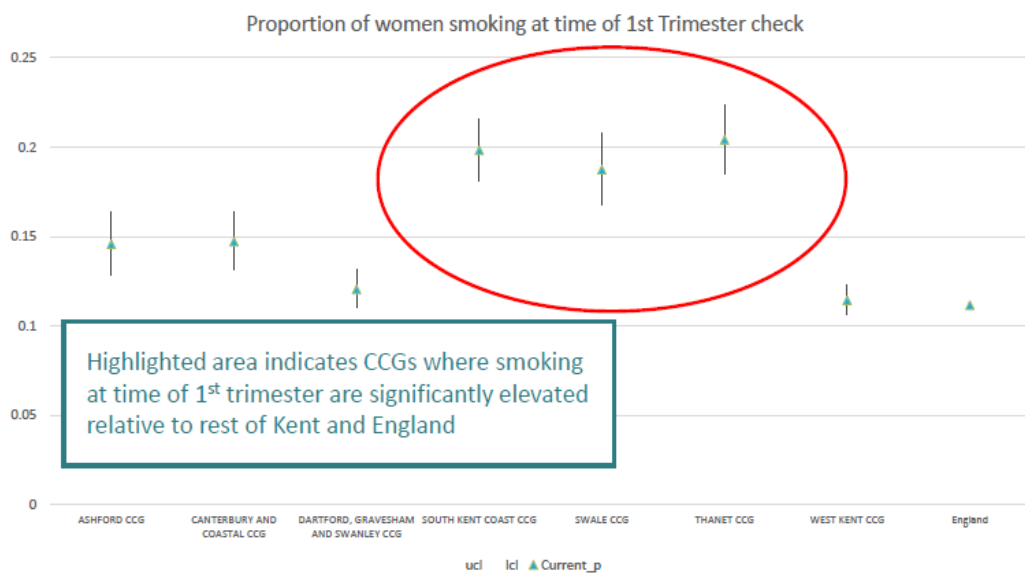


Figure 8 – Smoking in first trimester of pregnancy per CCG

Smoking in pregnancy_2

	Current smoker	Ex-smoker - Stopped after conception	Ex-smoker - Stopped between conception and 12 months before conception	Ex-smoker - Stopped more than 12 months before conception	Never smoked	Non-smoker - history unknown	Reported Unknown	Unknow n
ASHFORD CCG	230	190	30	155	960		15	
CANTERBURY AND COASTAL CCG	275	160	40	125	1245		25	
DARTFORD, GRAVESHAM AND SWANLEY CCG	450	340	15	540	2330	5	35	
SOUTH KENT COAST CCG	420	285	40	175	1185		15	
SWALE CCG	280	170	45	135	850		15	
THANET CCG	350	215	40	160	940		10	
WEST KENT CCG	670	400	365	840	3540		45	
England	74515	39285	18880	38365	333430	82220	34385	47040

....and there are still significant numbers of pregnant women who continue to smoke proximally to conception before and after

Work with Roma population

KCC, in partnership with KCHFT, was successful in winning £850,000 to address health inequalities in the Roma population in the County. The programme was designed to address the early years by employing members of the Roma community to work with their peers and improve registration with a GP, improve immunisation uptake and breastfeeding. The data have not been fully analysed, but there are indications of improvements in all of the outcomes. In addition to the main programme of work, there is a programme of work to improve cultural awareness in NHS and Local Authority staff and there has been good uptake and feedback in this area.

- 5.14 We are working with partners in the emerging Integrated Care System (ICS), single CCG and with the Individual integrated Care Partnerships to supply data on health inequalities and advise on how to address them.
- 5.15 In particular we have influenced the emerging ICS to prioritise children's services across the NHS and Local Authority Services and create a workstream of the STP to oversee children's services and consider what actions can be taken to reduce health inequalities and give children the best start in life. Of particular note is the agreement across the system to prioritise those lower super output areas that have the highest deprivation.
- 5.16 We also work with our Healthy Living Centres and our partners in Kent Community Health NHS Trust on the prevention of disease and increasing wellbeing.

6.0 Conclusion

- 6.1 It has proved difficult in times of austerity to tackle health inequalities, but with the recent publication of the NHS Long Term Plan, the development of the Kent and Medway Health Needs Assessment and other policy papers on place-based public health and community action to address health inequalities, we are further developing our data led and evidence-based Council-wide strategy and work plan to tackle health inequalities.
- 6.2 One of our priorities will be to work with the Integrated Care System/ one CCG to address child health and there are already structures in place for joint working in this area which will include working with health visitors and school nursing.
- 6.3 There are also a number of initiatives such as the whole system approach to obesity which indirectly address health inequalities and the transformation of the NHS gives us a huge opportunity to work with the new Integrated Care Partnerships, which include district and borough councils, the voluntary sector and primary and secondary NHS services. We shall also explore how we can work with Primary Care Networks to address health inequalities in the 89 most deprived LSOAs.
- 6.4 The recent publication of the NHS Long Term Plan has, for the first time, put reducing health inequalities at the heart of the delivery of NHS services. The plan not only highlights the key preventative strategies such as reducing smoking prevalence, reducing obesity prevalence, and excessive alcohol consumption, improving air pollution and addressing antimicrobial resistance, but also recognises the targeted of funding to areas of higher need, improved maternity outcomes for the most vulnerable mothers, targeted action on physical

health for those people with severe mental health illness, a focus on people with learning disability, a focus on rough sleepers particularly with mental health services, and support people with more health service support who are carers. Public Health in KCC will continue to support NHS partners to implement health inequality initiatives in the County, as required by statute.

- 6.5 Health inequalities are complex and are caused by a mixture of environmental and social factors in a particular area or place. This has led to a drive for place-based approaches to public health such as the Healthy New Towns programme and to a joined-up place-based approach to addressing health inequalities, working with many partners including public health leaders, the emerging new NHS structures such as the ICS and district and county councils.
- 6.6 The Marmot report is due to be updated in late February 2020 and will be considered alongside the refresh of Mind the Gap and the guidance on Place-Based Approaches for Reducing Health Inequalities
- 6.7 The public health team will continue to work with partners to deliver these initiatives, implementing new frameworks such as the PIT model and will continue to monitor progress on addressing health inequalities.

7.0 Recommendation

The Health Reform and Public Health Cabinet Committee is asked to:
COMMENT on and **ENDORSE** the contents of the report.

8.0 Further Reading

- 8.1
- The data in this paper are published by PHE as Health inequalities slides in January 2020
 - The Marmot review can be found at:
<http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review>
 - Mind the Gap refresh: <https://democracy.kent.gov.uk/documents/s90251/Mind%20The%20Gap%20Data%20Refresh.pdf>
 - <https://publichealthmatters.blog.gov.uk/2019/06/18/what-do-phes-latest-inequality-tools-tell-us-about-health-inequalities-in-england/>
 - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/825133/Tool_A.pdf

9 Glossary of Technical Terms Used

9.1 Linear Regression Model

Linear regression has been used in the analyses presented in this slide set in an attempt to model the relationship between deprivation, as measured by IMD 2019, and outcome indicators from Local Health. The results from the linear regression models are presented as scatter plots with the line-of-best-fit and R-squared value shown for the observed data. The rank of IMD 2019 overall score

for wards has been used as the independent variable in the models and all of the regression models in this presentation are weighted by ward population size (2017).

R-Squared

This is a statistical term which indicates how close the data is to a line-of-best-fit in linear regression. It represents the proportion of variation in the dependent variable (in this case, indicators from Local Health) that is explained by the independent variable (in this case IMD 2019 rank of score). It ranges from 0 (no relationship between the variables) to 1 (a perfect relationship).

Standardised Mortality Ratio

$SMR = \text{Observed/Expected} \times 100$

An SMR is the ratio of observed number of deaths in a ward to the number expected if the ward had the same age-specific rates as England

Standardised Admission Ratio

$SAR = \text{Observed/Expected} \times 100$

An SAR is the ratio of the observed number of admissions in a ward to the number expected if the ward had the same age-specific rates as England.
Standardised Admission Ratio

Standardised Incidence Ratio

$SIR = \text{Observed/Expected} \times 100$

An SIR is the ratio of the observed number of incidences in a ward to the number expected if the ward had the same age-specific rates as England.

10. Contact Details

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