Public Health England

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Health Equity Assessment Tool (HEAT): practice example

Cancelled GA extraction lists due to COVID-19

GA extraction lists – practice example

Programme or project being assessed	Health Equity Impact Assessment on children affected by cancelled GA extraction lists due to COVID-19
Date completed	August 2020
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Name of strategic leader	Nusaybah Elsherif

Steps to take	Your response - remember to consider multiple dimensions of inequalities, including protected characteristics and socio-economic differences
A. Prepare – agree the scope of work and assemble the information you need	
1. Your programme of work What are the main aims of your work? How do you expect your work to reduce health inequalities?	From the 20 March 2020, all elective general anaesthetic extraction (GAX) lists across the country were cancelled due to COVID-19; with limited access to emergency lists for the most urgent extractions. This has left thousands of children with untreated decay resulting in pain and repeated antibiotic prescriptions. This work was carried out to identify some of the health inequalities in this context.
2. Data and evidence What are the key sources of data, indicators, and evidence that allow you to identify HI in your topic? • Consider nationally available data such as health profiles and RightCare • Consider local data such as that available in JSNA, contract performance data, and qualitative data from local research	Collected and collated data related to GAX for children and assessed the impact of the cancelled lists on the children most affected. The following data sources were used: • data related to cancelled General anaesthetic extraction (GAX) lists for Children (0 to 18 years old) in the South East (East Surrey, West Kent, Thames Valley and Wessex). • reviewed the literature and available data to analyse the child populations most likely to have been affected by these cancellations. • considered the results of statistical analysis using the 2015 to 2016 dental epidemiological data across Wessex and Kent, Surrey and Sussex.

	• assessed the potential impact of these cancellations on these children and their families through interviews with local Community Dental Service (CDS) Providers.
B. Assess - examine the evidence and intelligence	
3. Distribution of health Which populations face the biggest health inequalities for your topic, according to the data and evidence above?	i) Dental caries is more prevalent in children from deprived backgrounds[1,2,3] : • regression analysis carried out using the 2014 to 2015 epidemiology datasets for Wessex, Kent, Surrey and Sussex showed a strong association between deprivation and caries in these areas[4] – children who receive free school meals are at a statistically significant increased risk of caries; emphasising the impact of deprivation[4,5] • analysis of the 2015 to 2016 GAX data from Wessex showed children from deprived backgrounds are more likely to be referred for GAX • small scale studies have shown children with unemployed and non-professional parents are at increased risk of referral for GAX[1] ii) There is a link between ethnicity and oral health, after taking accounting of the confounding effects of deprivation: • regression analysis using the 2014-2015 epidemiology datasets for Wessex, Kent, Surrey and Sussex show that the association with ethnicity is both for levels and severity of decay[4] • data indicates those from Eastern European, Pakistani and Bangladeshi backgrounds are at an increased caries risk[1,2,3,6] • Muslim Asians are at a higher risk than their non-Muslim counterparts[7] • limited data is available on children from traveller communities, but small-scale studies have indicated an increased caries rate[8,9] iii) Caries impacts on the Quality of life of affected children: • the negative impact oral disease has on Oral Health Related Quality of Life of children[10] will disproportionately affect the vulnerable groups identified above; especially with prolonged periods of pain occurring due to cancelled GAX lists iv) Families of children requiring GAX are also affected: • the Child Dental Health Survey 2013 identified that more than 35% of parents of 15 year olds reported that their child's oral health impacted on family life in the previous 6 months; 23% of the parents of the 15 year olds also reported taking time off work as a result in that period[5] • studies have shown a significant increase in quality of life of children and their families after dental extractions under GA.[11,12] – this has been attributed to a decrease in the distress experienced by the

	family, a reduction in time off for work to care for the child and a decrease in the financial impact on the family [(14)]. v) Children with caries are more likely to miss school sessions due to toothache: • research conducted regionally in the North West showed 26% of children attending for GAX had missed school due to dental pain, averaging 3 days of missed school – some had up to 15 days of absence due to pain, time taken out to attend pre-assessment, day of procedures and first post-operative day[(8)] • an increased number of missed school sessions can impact on a child's education and further contributes to inequalities in educational achievements, particularly related to Key Stage 2 examinations (aged 10 to 11 years)[13] Importantly, up to a two-thirds of children attending for GAX are likely to need a repeat GA or have a sibling attend for the same procedure.[14] This highlights that the causative factors are not being addressed, thus perpetuating inequalities. Data from the 2014 to 2015 dental epidemiology survey shows that the South East has the widest level of variation in caries experience between health authorities. The local authorities with highest caries experience in the South East are Slough, East Hampshire and Gravesham.[15] It is important to note that children across all deprivation levels undergo GAX, even if it is at different levels. Deprivation is not the only factor that affects dental caries, but it is the major contributor to oral health inequalities. These inequalities increase with age and impact on the psychological and social well-being of children and their families.[16]
4. Causes of inequalities What does the data and evidence tell you are the potential drivers for these inequalities?: • which wider determinants are influential? For example, income, education, employment, housing, community life • which health behaviours play a role?	i) GAX data gathered from Community Dental Services across the South East shows that more than 1,500 children have had their GA theatre appointments cancelled during COVID-19 (Between 20 March to 30 June). The numbers in each area are as follows: • Hampshire and Isle of Wight: 490 child appointments were cancelled • Thames Valley: 518 child appointments were cancelled • West Kent: 238 child appointments were cancelled • East Surrey: 252 child appointments were cancelled ii) This data shows the numbers directly impacted by the loss of their GA slot; however; it does not include the children who have been referred and are still waiting for assessment in order to be placed on GA waiting lists. It also doesn't include those who are on the waiting list and are still waiting for a slot; these patients will be waiting longer for their appointments.

• does service quality, access and take up increase the chance of health inequalities in your work area? Which of these can you directly control? Which can you influence? Which are out of your control?	iii) Dental Caries remains the most common reason for a child to be admitted into hospital for a GA. In 2018-2019, 42,755 children under the age of 18 were admitted with a primary diagnosis of caries and most of these were for extraction of multiple teeth.[17] The average length of time between referral and treatment (RTT) for GAX for children varies across the country. In the North-West, RTT has been reported as 8 months.[(14)] Due to the cancellations of GAX lists and assessment clinics caused by the pandemic, RTT will be significantly increased, further exacerbating the impact of caries on children and their families. iv) Concerns were raised by Community Dental Services interviewed regarding the numbers on waiting lists for GAX. Many have been struggling with increased waiting lists due to redirected referrals from local sedation providers. In Berkshire alone, 627 children were on the waiting list for GAX at the end of March 2020. These children will now be waiting even longer for GAX slots. v) Based on the literature review and statistical analysis, there will be a disproportionate impact of negative oral health impacts and outcomes on ethnic minorities and more deprived groups as a result of these cancellations. vi) Interviews with CDS providers have also emphasised the disproportionate impact on the most vulnerable children. GAX lists are not fully operational again. Those operating have limited capacity and are using new standard operating procedures. Barriers have been identified with these new requirements, particularly impacting deprived families. Children and their families are required to self-isolate for 2 weeks and have a swab test prior to the procedure. This has already proven not feasible for the most vulnerable families; especially if they have multiple children and no child-care support. Many parents have manual labour jobs that cannot be performed from home. This has resulted in some families separating the working parent from the household. For others, this is not an option and therefore, their child cannot attend for GAX. The children currently being offered slots are those most at clinical need and have had episodes of pain, therefore these children cannot afford to miss these appointments. This risks widening health inequalities especially as those at most need are unable to use the service. One case highlighted by a local CDS provider particularly emphasises the impact of these cancellations on vulnerable families. A healthy 3-year-old child had been referred into the Urgent Dental Care hub operated by the CDS after multiple facial swellings and courses of antibiotics. The child had been shielding at home with her mother and baby brother who had a heart condition. The family had to separate to allow the father to live elsewhere so that he could continue work and provide for them. The child was unable to be

	accommodated on the limited GAX lists that were operating. Unfortunately, the child's oral health condition deteriorated while waiting to be called for an appointment and had to be admitted acutely through A&E. The child had multiple extractions under GA on an emergency hospital operating list. This caused considerable stress for the child and the family. This is just one of countless other examples that highlight the impact of these cancellations on children and their families.
C. Refine and apply – make changes to your work plans that will have the greatest impact	
5. Potential effects In light of the above, how is your work likely to affect health inequalities? (positively or negatively) Could your work widen inequalities by: • requiring self-directed action which is more likely to be done by affluent groups? • not tackling the wider and full spectrum of causes? • not being designed with communities themselves? • relying on professional-led interventions? • not tackling the root causes of health inequalities?	The inequalities identified have been established for a long time and are difficult to address due to the underlying determinants of health. The data used in this assessment covers the period until 30 June 2020. Many GAX lists are not returning to pre-pandemic levels yet, and those that are returning are operating using the new standard operating procedures outlined above. The cancellations and current operating procedures for GAX will continue to impact the most vulnerable and widen health inequalities if not addressed. Dental caries starts at a young age. The children most likely be affected, as outlined above, need to be identified to prevent the progression of the disease which can worsen inequalities. As deprivation impacts on other health outcome measures, for example eating a healthy diet; oral health should be included with general health interventions to create a more holistic approach to prevention; the common risk factor approach.[18]
6. Action plan What specific actions can your work programme or project take to maximise the potential for positive impacts and/or to mitigate the negative impacts on health inequalities? • How can you act on the specific causes of inequalities identified above?	There are both short and long term suggested solutions to help reduce the impact. The suggestions outlined below were identified during interviews with local CDS providers and with hospital Maxillofacial providers. **i) Short term solutions:** • re-assessment of children on waiting lists for possible treatment under local anaesthetic or sedation • consider use of Silver Diamine Fluoride (SDF) for carious teeth without abscesses • liaise with hospital trusts to reduce self-isolation time required before procedures to help reduce this barrier for those requiring GAX • arrange protocol for COVID-19 swab test of primary caregiver if child is uncooperative

• Could you consider targeting action on populations who face the biggest inequalities? • Could you design the work with communities who face the biggest health inequalities to maximise the chance of it working for them? • Could you seek to increase people's control over their health and lives (if appropriate)? • Could you use civic, service and community-centred interventions to tackle the problem – to maximise the chance of reaching large populations at scale? • Who else can help?	• consider using a "Red" area in the ward and theatre (Unknown COVID-19 Status) to negate the need for self-isolation and COVID-19 swabs for those who are unable to comply with these • provide information in local languages, in addition to English, to ensure that the new procedures are understood by all communities **ii) Longer term solutions:** • re-evaluating GAX referral and triage protocols to limit GAX[19] • re-evaluate provision of NHS paediatric service with an increase in primary care treatment with local GDPs – this would involve partnership with local GDPs with a shift from current practices, including renumeration of preventative care • increasing capacity for sedation services to limit GAX for those who need it the most • refocus dental care on prevention starting from an early age – incorporating oral health messages with general health messages from birth with the key messages around healthy diets with sugar reduction and oral health self-care and regular dental attendance for preventive care and advice Re-establishment of GAX is necessary to help children whose quality of life has been affected by the cancellations. Children are currently being prioritised based on clinical need and RTT will likely be overlooked. The future of paediatric dental services looks uncertain and this is the time to ensure that services are re-evaluated especially related to GAX. A new focus on prevention is necessary starting at an early age and before they experience dental caries.
7. Evaluation and monitoring How will you quantitatively or qualitatively monitor and evaluate the effect of your work on different population groups at risk of health inequalities? What output or process measures could you consider?	This work highlights how inequalities are exacerbated due to a pandemic. We need to learn lessons from the impact this pandemic has had on children to prevent further widening of inequalities, such as: • health inequalities identified need to be taken into consideration when commissioning and evaluating services during the recovery and restoration period – this should include risk stratifying the population using deprivation and ethnicity as highlighted by the literature and local analyses • consult local populations to understand the "lived" experience to identify facilitators and barriers to accessing care – this can be used to improve access for all patients and reduce any inequalities in access to care • we should not overlook the impact the social determinants of health have on oral health. Families are more likely to make healthier choices when the environment they are in allows that; stable housing, financial stability and family support – oral health prevention alone will not work, and we need to aim to tackle the social determinants of health through an upstream approach. There are opportunities to integrate oral health and dental services into general health services through the emerging Primary Care Networks and Integrated Care Systems

	COVID-19 provides an important lesson and should be a driver to re-evaluate and improve local paediatric dental services.

D. Review – identify lessons learned and drive continuous improvement	
Date completed (should be 6-12 months after initial completion):	Planned for mid-2021
Contact person (Name, Directorate, email, phone)	Dr Jeyanthi John, Consultant in Dental Public Health, Public Health England South East jeyanthi.john@phe.gov.uk 07769 - 282550
8. Lessons learned Have you achieved the actions you set? How has your work a) supported reductions in health inequalities associated with physical and mental health? b) promoted equality, diversity and inclusion across communities and groups that share protected characteristics? What will you do differently to drive improvements in your programme? What actions and changes can you identify?	Please contact the project lead for further information about the review. • there is an understanding that there were significant (possibly negative) impacts on vulnerable children as a result of GAX session cancellation during the COVID-19 pandemic • lack of access and delays are likely to have a disproportionate impact on children and families from more deprived backgrounds, and from BAME groups There are 3 areas where HEAT review will assist driving improvements locally: 1. NHS England/ Improvement (NHSE/I) are currently reviewing dental care services for vulnerable groups in the South East. Much engagement work has been done previously around identifying and addressing barriers to dental services for vulnerable groups, including an equity impact assessment. This work will add to that body of evidence and help with improving equity of access to dental services. 2. This HEAT review will be shared with Local Dental Networks, Managed Clinical Networks and other dental forums so they have access to evidence-based information to support their work with commissioners in developing and influencing local pathways and guidance. 3. This HEAT review will be shared with public health colleagues to enable them to champion the need to include oral health considerations within health improvement programmes. In particular, oral health inequalities need to be highlighted within any relevant health system-wide networks. A more holistic approach to children's health, which includes oral health is likely to provide the best outcomes.

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