

NHS Greater Glasgow and Clyde	Paper No. 21/47
Meeting:	NHSGGC Board Meeting
Meeting Date:	17 August 2021
Title:	Public Health Screening Report 2019-2020
Sponsoring Director/Manager	Dr Linda de Caestecker, Director of Public Health
Report Authors:	Dr Emilia Crighton, Board Screening Co-ordinator Mrs Uzma Rehman, Programme Manager

1. Purpose

This annual report presents information about NHSGGC screening programmes for the period 1 April 2019 to 31 March 2020

The purpose of screening is to detect early disease or risk factors among people who have not yet developed symptoms. Early management should result in better outcomes. Screening programmes do not detect all cases of disease and will be positive among some people who do not have the disease. They therefore contribute to early detection but do not obviate the need for investigating symptomatic patients.

2. Executive Summary

The report includes analysis of uptake by socio-economic group and uptake by ethnicity.

Screening programme	Total eligible population	Total number Screened	HIS Target	% Uptake
Cervical screening (number screened within 5.5 yrs)	336,843	208,455	80%	74.5%
Breast screening* (number eligible in 3 year period March 2019)	151,176	99,399	70%	65.8%**
Bowel screening (2018-2020)	382,260	223,105	60%	58.4%

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Pregnancy screening: Infectious diseases in pregnancy	14,292	14,290	95%	99.9%
Down's syndrome	11,561	9,953	No Target	86.0%
Haemoglobinopathies	11,561	11,541	99.9%	99.8%
Newborn screening: • Newborn bloodspot	11,238	11,113	95%	98.8%
• Newborn hearing	11,208	11,078	98%	99.0%
Pre-school vision screening	12,536	7,575	No Target	60.4%
Primary 7 school vision screening	12,428	8,198	No Target	66.0%
Diabetic retinopathy Screening	60,897	44,733	80%	73.5%
Abdominal Aortic Aneurysm Screening	6,385	3,849	70%	60.3%

* Data incomplete due to national breast screening application

** Data is only available for screening interval 2016 – 2018

3. Recommendations

The NHS Board is asked to consider the following recommendations:

- To approve the Annual Report
- Note the Adult Screening and Child & Maternal Health KPIs against set targets

4. Response Required

This paper is presented for approval.

5. Impact Assessment

The impact of this paper on NHSGGC's corporate aims, approach to equality and diversity and environmental impact are assessed as follows:

- | | |
|------------------------|------------------------|
| • Better Health | <u>Positive</u> |
| • Better Care | <u>Positive</u> |
| • Better Value | <u>Neutral</u> |
| • Better Workplace | <u>Neutral</u> |
| • Equality & Diversity | <u>Neutral</u> |
| • Environment | <u>Neutral</u> |

6. Engagement & Communications

The issues addressed in this paper were subject to the following engagement and communications activity:

The services involved in screening programmes are subject to monitoring and surveillance by Public Health led Steering Groups

7. Governance Route

This paper has been previously considered by the following groups as part of its development:

The Steering Groups for AAA, Breast Screening, Bowel Screening, Cervical, DRS, Pregnancy, Newborn Bloodspot, Newborn Hearing and Child Vision who meet quarterly for monitoring purposes and also address any issues within the programme.

The paper was presented at the Corporate Management Team in January 2021.

8. Date Prepared & Issued

Date prepared: January 2021

Issued: 10 August 2021

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1. Introduction

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2. Background

The purpose of screening is to detect early disease or risk factors among people who have not yet developed symptoms. Early management should result in better outcomes. Screening programmes do not detect all cases of disease and will be positive among some people who do not have the disease. They therefore contribute to early detection but do not obviate the need for investigating symptomatic patients.

3. Assessment

The full report for 2019-2020 is available on NHSGGC's web page and can be accessed [by this link](#)

4. Conclusions

NHSGGC continues to implement all National Screening Programmes and to improve access to screening for vulnerable groups as part of the screening inequalities plan.

5. Appendix 1

A summary of all screening programmes and performance against Key Performance Indicators targets is in Appendix 1

APPENDIX 1

Summary: NHSGGC Public Health Screening Programme Annual Report 2019 – 2020 and Performance against Key Performance Indicators

1. Pregnancy Screening

Antenatal haemoglobinopathies

- i. **Screening for sickle cell and thalassaemia** aims to identify couples who are at risk of having an affected child and thereby offer them information on which to base reproductive choices. **Communicable diseases in pregnancy screening** aims to identify infection and ensure a plan for treatment and management of affected individuals and their babies is put in place at the earliest opportunity. Screening allows undiagnosed infection to be identified and treatment to be given, which can reduce the risk of mother to child transmission, improve the long-term outcome and development of affected children, and ensure that women, their partners and families are offered appropriate referral, testing and treatment. **Down's syndrome and other congenital anomalies screening** aims to detect Down's syndrome and other congenital anomalies in the antenatal period. This provides women and their partners with informed choice regarding continuation of pregnancy. It also allows, where appropriate, management options (such as cardiac surgery or delivery in a specialist unit) to be offered in the antenatal period.
- ii. Pregnancy screening programmes are offered universally to all pregnant women during antenatal visits. During 2019/20, 11,561 NHSGGC residents booked to attend antenatal clinics and 10,435 (88.1%) of first antenatal booking appointments were offered before or equal to 12 weeks and 6 days gestation.
- iii. The largest ethnic origin groups that pregnant women belonged to were: White British 7,847 (67.9%), Asian Pakistani 591 (5.1%), Asian Indian 273 (2.4%), Black African 207, (1.8%), Chinese 155 (1.2%) and 577 (5%) of any other ethnic group.

a. Gestational Diabetes Mellitus (GDM) and Obesity

- i. Within NHSGGC, the assessment of pregnant women and risks associated with GDM are based on a BMI ≥ 35 , previous macrosomic baby (weighing >4 kg at birth), family history of diabetes, previous gestational diabetes and mother's ethnic origin. 3,891 (33.7%) of bookers were recorded as having 'any risk' of GDM and were eligible to be offered an oral glucose tolerance test at 24-28 weeks gestation.
- ii. 4,748 (41.1%) of pregnant women had a normal weight at the time of their first antenatal booking appointment, 1,654 (14.3%) pregnant women were overweight, 3,129 (27.1%) obese and 1,110 (9.6%) severely obese ($35 \leq \text{BMI} \leq 45$). A small proportion of women were underweight or the weight was not recorded.

b. Haemoglobinopathies Screening

- i. Of the 11,5611 women booked for their first antenatal booking, 11,549 (99.9%) had a sample taken for haemoglobinopathies screening and <5 refused. The blood is checked for risk of thalassaemia for all women who consented.

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- ii. The Family Origin Questionnaire (FOQ) is completed as part of routine early antenatal risk assessment. Electronic data was available for 8,954 (77.5%) women who had a completed FOQ.

c. Infectious diseases

- i. Uptake was greater than 99.9% for all of the infectious diseases in pregnancy screening tests. Screening identified 9 women who were HIV positive, and of these 2 were previously unknown. 52 women who were chronic carriers of Hepatitis B virus. 9 women required treatment for syphilis.

d. Down's syndrome and other congenital anomalies screening

- i. Of the 11,561 women booked at antenatal clinics, 7,801 (78.6%) were tested in the 1st Trimester and 2,152 in the 2nd Trimester. 176 high chance results were recorded for the 1st Trimester and 86 for the 2nd Trimester Down's syndrome screening.

e. Congenital anomalies screening

- i. 10,344 (89.5%) pregnant women consented for a fetal anomaly scan. 10,270 (99.3%) of scans were performed and 183 anomalies were detected.

2. Newborn Bloodspot Screening

- a. Newborn bloodspot screening identifies babies who may have rare but serious conditions. Most babies screened will not have any of the conditions, but for the small numbers that do, the benefits of screening are enormous. Early treatment can improve health and prevent severe disability or even death. Every baby born in Scotland is eligible for and routinely offered screening.
- b. Newborn babies are screened for phenylketonuria; congenital hypothyroidism; cystic fibrosis; sickle cell haemoglobinopathy, medium chain acyl-CoA dehydrogenase deficiency (MCADD), maple syrup urine disease (MSUD), isovaleric acidaemia (IVA), glutaric aciduria type 1 (GA1), homocystinuria (HCU).
- c. 11,113 babies resident in NHSGGC were screened, that is a total of 98.8% of the total eligible population of 11,238. The uptake of screening was 97% across all HSCP areas and deprivation quintiles. 7,790 (67.9%) of babies screened were White, 870 (7.58%) South Asian and 531 (5.2%) were of Southern or Other European ethnicity.
- d. Following screening, 12 babies were diagnosed with congenital hypothyroidism (CHT) and less than five babies with PKU (phenylketonuria) and 5 tested positive for cystic fibrosis.
- e. The results for haemoglobinopathy that six babies were diagnosed with haemoglobinopathy variants and 75 babies were identified as haemoglobinopathy carriers.

The phrase less than five has been used in line with NHS Scotland information governance which is intended to protect privacy and avoid identifying individuals.

3. Universal Newborn Hearing Screening

- a. Universal Newborn Hearing screening can detect early permanent congenital hearing impairment in babies as well mild and unilateral losses.

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- b. Of the 11,208 eligible babies, 11,078 were screened for hearing loss giving an uptake of 98.8%.
- c. 1,320 (12%) babies required a second stage follow up and, of these, 156 (1.0%) babies were referred to audiology. Fifty four babies were confirmed with a hearing loss (0.5% of the screened population). Eighteen babies had confirmed bilateral hearing loss and 36 babies had confirmed unilateral hearing loss.
- d. 130 (1.1%) babies did not complete the screening programme, of these 2 parents declined or withdrew consent. The rest included babies who did not attend for screening (94), are deceased (20) or have moved away (9) from their current home address or transferred to another Health Board area.

4. Child Vision Screening

a. Pre-school Vision Screening Programme

- i. Vision Screening is routinely offered to all pre-school age children resident in NHS Greater Glasgow and Clyde areas. Vision problems affect 3-6% of children and although obvious squints are easily detected, refractive error and subtle squints often go undetected and long-term vision loss can develop in adulthood. Most problems can be treated using spectacle lenses to correct any refractive error and occlusion therapy to treat strabismus (squint) – mainly using eye patches.
- ii. In 2019/20, 12,536 children aged between four to five years old were identified using the Community Health Index System as being eligible for pre-school vision screening.
- iii. Overall uptake was 60.4% (7,575). Highest uptake was in East Renfrewshire 79.7% (916) and the lowest in Glasgow North West 45.5% (1,705). The lower uptake in screening was partly due to the COVID pandemic and lockdown resulting in children not at nursery and reduced time for re-visiting nurseries and/ or re-calling children to hospital sites
- iv. As some numbers are small according to ethnic origin, combining all the White ethnic groups gives the uptake as 62.3% (6373) and for Asian or Asian British 56.1% (552), Chinese 54.2% (103) and Black or Black British 42.2%.
- v. Of the 7,575 screened during 2019/20, 2759 (36%) were from the most deprived and 1604 (21%) from the least deprived quintile. Deprivation also has an impact on vision and abnormal results following screening. The proportion of children with a normal result (NAD) ranged from 58.4% (1610) among children living in the most deprived areas to 72.1% (1156) in the least deprived area.
- vi. Of the 1,837 (24.3%) children referred for further assessment, 772 (28%) were from the most deprived area compared to 20.7% (332) from the least deprived area. 549 (7.2%) children were already attending an eye clinic, 246 (8.9%) were from the most deprived areas.

b. Primary 7 School Vision Screening Programme

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- i. In 2019/20, 12,427 Primary 7 school children were eligible for a vision test and 8,198 (66.0%) were tested. The highest delivery was in East Dunbartonshire 89.4% (1191) and the lowest uptake in West Dunbartonshire 1.9% (20). P7 vision screening varied according to SIMD (child) with the uptake in the most deprived quintile recorded as 59.9% (2896) compared to 82.1% (2061) in the most affluent areas.
- ii. Using the Onomap software, the number and percentage of children screened by ethnicity was analysed. As some numbers are small according to ethnic origin, combining all the White ethnic groups gives the uptake as 66.4%% (6,998), for Asian or Asian British 67.7% (549), Chinese 72.2 % (104) and Black or Black British 57% (94).
- iii. Glasgow North East sector had the highest percentage of pupils 31.4% (250) with visual defects compared to 7.4% (88) in Inverclyde. Visual defects were recorded as 25.7% (744) in children from the most deprived quintile compared to the most affluent quintile 11.3% (233)
- iv. Of the 8,198 children screened, 6,603 (80.5%) were screened using the Snellen test and 76.8% (5,070) of these children were recorded with an acuity of 6/6 which is normal. The highest percentage of children not wearing glasses and identified with poor acuity of 6/9 lived in Glasgow North East sector 27.9 % (177). Similarly Glasgow North East sector also had the highest percentage of 11.7% (74) of children already wearing glasses and identified with poor acuity of 6/12 or worse.

5. Abdominal Aortic Aneurysm (AAA) Screening

- a. An abdominal aortic aneurysm (AAA) is a dilatation of the aorta within the abdomen where the aortic diameter is 3.0 cm or more. Aneurysms are strongly linked to increasing age, hypertension, smoking, other vascular disease and a positive family history of AAA.
- b. The aim of AAA screening is the early detection and elective repair of symptomatic AAA in order to prevent spontaneous rupture. Screening is associated with a 40% reduction in aneurysm related mortality. All men aged 65 years in the NHSGGC area are invited to attend AAA screening by a single ultrasound examination. Men aged over 65 years of age are able to self-refer to the programme.
- c. In 2019-20, 6,385 men aged 65 were invited to participate in the AAA screening programme. 3,849 (60.3%) took up screening, therefore not meeting the minimum uptake standard of 70%. 46 men (1.2%) had an enlarged aorta (≥ 3 cm). Of these, 40 (1.0%) men had an aorta measuring between 3cm to 5.49cm, requiring surveillance scans and 6 men (0.1%) had a large aneurysm measuring 5.5 cm or more, requiring surgical assessment and intervention.
- d. Uptake is poorest in the most socio-economically deprived areas (54.1 % in SIMD 1 vs. 66.9% in SIMD 5). The majority (94.5%) of men invited were of white ethnic origin and due to low numbers in some ethnic groups it is not possible to directly compare programme uptake across ethnic subgroups.

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6. Bowel Screening

- a. Colorectal (Bowel) Cancer was the third most common cancer in Scotland for both men and women in 2018. Ninety four percent of bowel cancers detected are among people aged over 50 years of age.
- b. The aim of bowel screening is to detect bowel cancer at an early stage where treatment is more effective. In some cases, pre-cancerous polyps can be removed and cancer prevented. The programme invites all men and women between the ages of 50 – 74.
- c. In 2018, 816 people residing in the NHSGGC area were diagnosed with bowel cancer. This gives an age-standardised incidence rate of 40.1 per 100,000 of the population for men, higher than the Scotland rate of 38.0 per 100,000. For women the age-standardised incidence rate is 29.4 per 100,000 of the population, higher than the Scotland rate of 29.1 per 100,000. In the same year, an age-standardised mortality rate of 15.7 per 100,000 population for men and 10.5 per 100,000 population for women was recorded.
- d. Between 2018-2020, 382,260 NHSGGC residents were invited for bowel screening. Over half (56.4%) of those invited returned the screening test, of which 6,198 tested positive (3.4%). Of those individuals who had a positive result, 6,299 (91%) accepted a nurse pre-assessment and over three quarters (76.9%) had a colonoscopy. Subsequently, 253 cancers and 2,220 adenomas were detected.
- e. Women were more likely to return a bowel screening test than men (60.7% vs. 56%) respectively. Uptake was lowest among those aged 50-54 years, at 51.6% and increased to 65.3% between 70 and 74 years, a difference of 13.7%. Uptake of bowel screening programme increased with decreasing levels of deprivation. It was lowest in people living in the most deprived Board areas (49.5%) and highest in the least deprived areas (68.7%). Ethnic groups also have lower uptake than White British.
- f. Overall, 3.1% (6,916 of 223,043) of completed screening test were reported positive, meriting further investigation. Men have a higher positivity than women (3.7% vs. 2.5%, respectively); older people have higher positivity than younger people (4.3% aged 70-74 vs. 2.4% aged 50-54); and those living in our most deprived communities have higher positivity than the least deprived (4.2% vs. 2.2%, respectively)
- g. Following the implementation of FIT in November 2017, there has been a 6.3% increase in uptake of bowel screening in NHSGGC

7. Breast Screening

- a. Breast cancer is the most common cancer in women in Scotland accounting for 28.8% of all new cancers diagnosed in women. In 2017, 897 new breast cancers were registered among women residing in NHSGGC. In the same year, 193 women with a diagnosis of breast cancer died. Between 2007 and 2017, age-standardised incidence rate of breast cancer in Scotland increased by 1.4%, however age-standardised mortality rate decreased by 13.4%.

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- b.** During 2015-2016, the Scottish Breast Screening Programme implemented a new Scottish Breast Screening System (SBSS) IT system. Information Service Division published annual programme statistics in October 2019, relating to breast screening uptake and outcomes up to 31st March 2018, which are presented in this report.
- c.** The purpose of breast screening by mammography is to detect breast cancers early. It is believed that very early detection of breast cancers in this way can result in more effective treatment, which may reduce deaths from breast cancer. Women aged 50-70 years are invited for a routine screen once every three years. Women aged over 70 years are screened on patient request.
- d.** The number of women eligible for breast screening in the 3 year screening round from 1st April 2015 to 31st March 2018 was 151,176 of which 99,399 attended (65.8%); lower than the national uptake rate of 71.2% and breast screening acceptable standards of 70%.
- e.** The national SBSP statistics published in April 2020, showed that women from more deprived areas are less likely to attend for breast screening, with 56.3% of women from the most deprived areas going for screening compared with 77.3% women living in the least deprived areas.
- f.** The West of Scotland Breast Screening Service (WoSBSS) has optimised their appointing system, increasing the number of booked clients. Appointing figures have risen from approximately 8,000 screening slots per month to 10,000.
- g.** The Breast Screening Community Liaison Officer continues to work in partnership with Public Health, Primary Care, HSCP Health Improvement and 3rd Sector organisations to support participation in screening, including staff training, health road shows and community talks.
- h.** The Scottish Government announced a fundamental review of the Scottish Breast Screening Programme during 2019/20. The recommendations from the review will be available in 2021.

8. Cervical Screening

- a.** Cervical cancer was the eleventh most common cancer in females in 2017 in Scotland but also the most common cancer in women under the age of 35 years. In 2017, 61 new cervical cancers were registered among NHSGGC residents. This gives an age-standardised incidence rate of 10.5 per 100,000 population, comparable to the Scotland rate of 10.1 per 100,000. In the same year, 26 women who had a diagnosis of cervical cancer died in NHSGGC, giving a standardised mortality rate of 4.4 per 100,000 population higher than the Scotland rate of 3.7 per 100,000.
- b.** The aim of the Scottish Cervical Screening Programme (SCSP) is to reduce the number of women who develop invasive cancer and the number of women who die from it by detecting precancerous changes. Women aged 25-49 are offered screening every three years and women aged 50-64 are offered screening every five years. Women who were already enrolled in the screening programme aged less than 25 will continue to be screened every three years until they are 50.

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- c. Uptake in NHSGGC for 2019/20 was 74.5% against a target of 80%, a total of 208,455 women being adequately screened within the specified period. Uptake is poorest among women aged between 25 and 29 (49.5%), and among women from ethnic minorities (for Chinese women it was 31.3%). Uptake for women living in the least deprived areas was 66.9% compared with 59.5% in the most deprived areas however there is not a clear trend across socio-economic groups.
- d. Queen Elizabeth University Hospital processes all smear test specimens for NHSGGC and in 2019/20 processed 81,505 cervical screening tests. Of all tests processed 97.1% were of satisfactory quality i.e. there were enough cells in the sample. Of the satisfactory quality tests 89.3% had a negative (normal) result, 8.9% had a borderline/low grade cell changes and the remaining 1.1% had high grade cell changes.
- e. NHSGGC has carried out a multi-disciplinary review of all invasive cervical cancer cases since 2006 to audit the screening and management of every case. In 2019, none of the cases were screen detected. The majority of the cases presented to the service were incidental findings (50) and 31 were symptomatic.
- f. A new approach to cervical screening was approved by the Scottish Government and implemented in April 2020. High risk HPV screening involves the same clinical examination (a cervical smear) but only women whose virology results are positive for specific types of Human Papilloma Virus will have cervical cytology.
- g. In response to an NHSGGC internal audit of the Cervical Screening Programme, clear mechanisms have been established to use data to target promotional activities to vulnerable or excluded groups.

9. Diabetic Retinopathy Screening (DRS)

- a. Diabetes mellitus is a long-term condition in which the level of glucose in the blood is raised leading to abnormal fat metabolism and other complications. There are two main types of diabetes: type 1 and type 2.
- b. The Scottish Diabetes Survey 2019 reports that in Scotland, there were 312,390 people with known diabetes recorded on local diabetes registers in 2019, representing 5.7% of the population. In the same year in Greater Glasgow and Clyde, there were 66,332 people with known diabetes (5.6% of the population), compared to 48,602 people in 2007 (4.1% of the population). The crude incidence rate for all ages (cases per 100,000 per year) has risen from 311 in 2011 to 336 in 2019.
- c. In 2019-20 screening period there were 71,984 people with known diabetes residing in NHS Greater Glasgow and Clyde. Of these, 60,897 (84.5%) were eligible for DRS screening. A total of 11,087 (15.4%) people were not eligible for screening because they were either permanently or temporarily suspended from the programme. Of those eligible for DRS screening, 44,733 (73.5%) attended screening.
- d. Uptake is poorest in younger adults, aged 25-34 at 55.8% and among the most socio-economically deprived residents (SIMD 1 was 70.2%).

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Screening Programmes Key Performance Indicators

KPIs for Pregnancy and Newborn Screening 2019-20

1. KPIs for Haemoglobinopathies

KPI	Performance threshold	NHSGGC 2019/20
1.1 Coverage	Essential : ≥95% Desirable : ≥ 99%	99.1%
1.3 Completion of FOQ	Essential : ≥ 95% Desirable : ≥99%	77.5%

2. KPIs for Infectious diseases

KPI	Performance threshold	NHSGGC 2019/20
1.1 Coverage for Hepatitis B Syphilis HIV	Essential : ≥ 95% Desirable : ≥ 99%	99.9% for all
1.2 Turnaround time (lab)	Essential : ≥95% Desirable : ≥97%	100% for all
1.3 Syphilis – attending for assessment	Essential : ≥ 97% Desirable : ≥ 99%	100%
1.4 HIV – Referred to specialist	Essential : ≥97% Desirable : ≥ 99%	100%
1.5 Hepatitis B Timely assessment	Essential : ≥ 70% Desirable : ≥90%	Data not currently available.
1.6 Hepatitis B Vaccination	Essential : ≥ 97% Desirable : ≥99%	100%

3. KPIs for 1st Trimester Down’s syndrome screening

KPI	Performance threshold	NHSGGC 2019/20
1.1 1 st Trimester turnaround time	Essential : ≥ 97% Desirable : ≥ 99%	99.4%
1.2 completion of lab request form	Essential : ≥ 97% Desirable : ≥ 100%	98%
1.3 Screen positive rate	1.8 to 2.5	2.2 overall
1.4 Detection rate	85%	Information still pending

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4. KPIs for Newborn Bloodspot Screening

NBBS KPI	Performance threshold	2019/20
8.1 Coverage	95-99%	11,113 screened (98.8%)
8.2 Movers in	95-99%	137 children offered and 1 refused (100%)
8.3 Avoidable repeats	<1.0 to <2.0 %	4.94%
8.4 Null or incomplete result on CHIS	Essential – regular checks to identify babies	Checks carried out on daily basis for overdue NBBS result.
8.5 CHI number recorded on bloodspot card	98-100%	99.1 % had valid CHI
8.6 Timely sample collection	95-99%	9408 samples (96-120 hrs of life) (81%)
8.7 Timely receipt of sample in the lab	95-99%	10,895 samples received on time (94.6%)
8.8 Timely second sample for CF screening	95% taken on day 21-24	11 out of 19 samples (58 %)
8.9 Timely second sample for borderline CHT screening	95 – 99%	27 out of 34 samples (79%)
8.10 Timely second sample for CHT for preterm infant	95 – 99%	66 out of 121 samples (54.5%)
8.11 Timely processing CHD & IMD	Clinical referral within 3 days – 100%	All referred by 3 days
8.12 Timely entry into clinical care	IMDs appt by 14 days – 100%	100%
	CHT appt by 21 days – 100%	100%
	CF and HCU by appt by 28 days – 95-100%	100%
	CF appt by 35 days – 80- 100%	100%

5. Universal Newborn Hearing Screening KPIs 2019-20

7.1 The proportion of babies eligible for UNHS for whom the screening process is complete by 4 weeks corrected age	11,073 completed screening i.e. 98.8%	UNHS: Coverage Essential ≥ 98% Desirable ≥99.5%
7.4 The proportion of well babies tested using the AABR protocol who do not show a clear response in both	1,363 required 2 nd stage	UNHS: Test Performance - (3) Referral rate for AABR1

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ears at AABR1	12%	for well babies Essential ≤15% Desirable ≤12%
7.5 The proportion of babies with a screening outcome who require an immediate onward referral to audiology for a diagnostic assessment	180 referred to Audiology 1.6%	UNHS: Test Performance - (4) Referral rate to diagnostic audiology assessment Essential ≤15% Desirable ≤12%
7.6 The proportion of babies with a no clear response result in one or both ears or other result that require an immediate onward referral for audiological assessment who receive an appointment within the required timescale. The required timescale is either 4 weeks of scan completion or by 44 weeks gestational age.	81%	UNHS: Time from screening outcome to initial appointment offered for = audiology assessment Essential ≥97% Desirable ≥99%
7.7 The proportion of babies with a no clear response result in one or both ears or other result that requires an immediate onward referral for audiological assessment who receive an appointment within the required timescale. The required timescale is either 4 weeks of scan completion or by 44 weeks gestational age.	63.8%	UNHS: Time from screening outcome to attendance at an audiology assessment appointment Essential ≥90% Desirable ≥95%

6. Abdominal Aortic Aneurysm Key Performance Indicators, NHS Greater Glasgow & Clyde (2018- 2020)

KPI	Description		Essential Threshold	Desirable Threshold	Year ending 31 st March 2019	Year ending 31 st March 20120
Invitation and attendance						
1.1	Percentage of eligible population who are sent an initial offer to screening before age 66		≥ 90%	100%	100%	99.9%
1.2	Percentage of men offered screening who are tested before age 66 and 3 months		≥ 70%	≥ 85%	81.2%	80.4%
1.3	Percentage of men residing in SIMD 1 areas (most deprived)		≥ 70%	≥ 85%	75.4%	75%

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	offered screening who are tested before age 66 and 3 months;					
1.4a	Percentage of annual surveillance appointments due where men are tested within 6 weeks of due date		≥ 90%	100%	95.3%	95.3%
1.4b	Percentage of quarterly surveillance appointments due where men are tested within 4 weeks of due date		≥ 90%	100%	91.7%	96.5%
Quality of screening						
2.1a	Percentage of screening encounters where aorta could not be visualised		< 3%	< 1%	2.5%	2.2%
2.1b	Percentage of men screened where aorta could not be visualised		< 3%	< 1%	2.1%	1.9%
2.2	Percentage of screened images that failed the quality assurance audit and required immediate recall		< 4%	< 1%	0.9%	0.6%
Referral, clinical intervention and outcomes						
3.1	Percentage of men with AAA≥5.5cm seen by vascular specialist within two weeks of screening		≥ 75%	≥ 95%	100%	92.2%
3.2	Percentage of men with AAA≥5.5cm deemed appropriate for intervention/ operated on by vascular specialist within eight weeks of screening		≥ 60%	≥ 80%	60%	75%

7. Bowel Screening Programme

**Key Performance Indicators: November 2019 data submission
Invitations between 31 May 2017 to 30 April 2019**

KPI	Key Performance: Indicator Description	Target	Scotland %	NHSGC C %
Screening Uptake				
1.	Overall uptake of screening - percentage of people with a final outright screening test result, out of those invited.	60%	61.6%	57.3%
2.	Overall uptake of screening by deprivation category *- percentage of people with a final outright screening test result for which a valid postcode is available, *by Scottish Index of Multiple Deprivation (SIMD) quintile 1 (Q1 most deprived) to quintile 5 (Q5 least deprived)	60%	Q1 48.9%	Q1 47.8%
			Q2 56.7%	Q2 54.9%
			Q3 62.9%	Q3 59.6%

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			Q4 67.3%	Q4 64.8%
			Q5 70.8%	Q5 68.8%
3.	Percentage of people with a positive test result, out of those with a final outright screening test result.	N/A	2.76%	3.0%
Referral, clinical intervention and outcomes				
4.	Percentage of people where the time between the screening test referral date 0 to 4 weeks >4 to 8 weeks > 8 weeks	N/A	30.7% 31.8% 37.5%	13.5% 23.1% 63.4%
5.	Percentage of people with a positive screening test result going on to have a colonoscopy performed.	N/A	76.2%	73.4%
6.	Percentage of people having a completed colonoscopy, out of those who had a colonoscopy performed.	90%	95.3%	97.8%
7.	Percentage of people requiring admission for complications arising directly from the colonoscopy, out of those who had a colonoscopy performed.	N/A	0.39%	0.36%
8.	Percentage of people with colorectal cancer, out of those with a final outright screening test result.	N/A	0.117%	0.108%
9-14.	Percentage of people with colorectal cancer staged as 9. Dukes' A. 10. Dukes' B. 11*. Dukes' C 13. Dukes' D. 14. Dukes' Not known. <i>* indicator 11 includes indicator 12 (previously Dukes' C2)</i>	N/A	37.5% 22.1% 26.1% 7.2% 7.1%	42.9% 21.7% 25.0% 6.7% 3.8%
15 – 16.	Percentage of people with colorectal cancer 15. Where the stage has not yet been supplied. 16. That has a recorded stage.	N/A	0% 100%	0% 100%
17.	Percentage of people with polyp cancer out of those with a final outright screening test result.	N/A	0.023%	0.006%
18.	Percentage of people with polyp cancer, out of those with colorectal cancer.	N/A	19.7%	5.8%
19.	Percentage of people with adenoma as the most serious diagnosis, out of those with a final outright screening test result.	N/A	0.925%	0.949%
20.	Percentage of people with high risk adenoma as the most serious diagnosis, out of those with a final outright screening test result.	N/A	0.138%	0.134%
21.	Positive Predictive Value of current screening test for colorectal cancer.	N/A	5.5%	4.8%
22.	Positive Predictive Value of current screening test for adenoma as the most serious diagnosis.	N/A	43.7%	42.0%
23.	Positive Predictive Value of current screening test for high risk adenoma as the most serious diagnosis.	N/A	6.5%	5.9%
24.	Positive Predictive Value of current screening test for high risk adenoma as the most serious diagnosis or colorectal cancer.	N/A	12.0%	10.7%

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25.	Positive Predictive Value of current screening test for adenoma as the most serious diagnosis or colorectal cancer.	N/A	49.2%	46.7%
26 - 28	Percentage of people with a colorectal cancer that is a malignant neoplasm of the: 26. colon (ICD-10 C18) 27. rectosigmoid junction (ICD-10 C19) 28. rectum (ICD-10 C20)	N/A	66.9% 3.0% 30.1%	67.5% -% 32.5%

Source: <https://beta.isdscotland.org/find-publications-and-data/conditions-and-diseases/cancer/scottish-bowel-screening-programme-statistics/> (Accessed Nov 2020)

8. Cervical Screening Programme

National Performance Standards 2019-20

Source: Scottish Cervical Screening Programme Statistics. Public Health Scotland
Uptake for Cervical Screening; Scotland & NHS GGC 1st April 2019 to 31st March 2020

Percentage uptake of females aged 25-64. Uptake based on being screened within the specified period (within last 3.5 or 5.5 years).

Screening uptake	Standard %	Scotland %	Greater Glasgow & Clyde %
The percentage of eligible women (aged 25 to 64) who were recorded as screened adequately	80	71.2	67.7
Percentage uptake by deprivation quintile			
SIMD 1 (most deprived)	80	75.5	70.8
SIMD 2		75.3	71.6
SIMD 3		71.6	66.3
SIMD 4		69.1	68.1
SIMD 5 (least deprived)		65.3	64.9
Uptake by Age Group			
25-49 years		60.8	64.2
50-64 years		75.8	74.5
25-64 years		71.2	67.7

Uptake for Cervical Screening by HPV vaccinated: Scotland & NHS GGC 1st April 2019 to 31st March 2020

Percentage uptake of females who had a record of a previous screening test taken within last 3.5 years by age

HPV vaccination status	Age						
	23	24	25	26	27	28	23-28
HPV Immunisation status (Full¹)							
Scotland	59.2	61.0	65.9	71.5	74.2	75.7	68.7
Greater Glasgow & Clyde	54.4	58.9	64.3	70.3	72.9	75.0	67.2
HPV Immunisation status (Incomplete¹)							
Scotland	49.6	45.6	54.5	67.3	68.1	71.7	65.9
Greater Glasgow & Clyde	34.6	36.9	53.8	62.7	70.3	70.3	66.4

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No HPV Immunisation status							
Scotland	30.3	21.4	18.8	33.4	38.7	45.0	33.3
Greater Glasgow & Clyde	25.9	17.3	15.0	28.3	33.7	40.0	28.2

1. The Immunisation Status of FULL is where the individual has been Fully Immunised, i.e. had all HPV doses. Incomplete is where the individual has had at least one of the Immunisations but not all of them.
2. Based on SCCRS population denominator (excluding medically ineligible women) ages 23-28.

Cervical screening tests processed¹: Scotland & NHSGGC laboratories, 1st April 2019 to 31st March 2020

Year/ quarter	Scotland	Greater Glasgow & Clyde
Q4	63,631	16,363
Q3	70,878	18,638
Q2	82,922	21,318
Q1	101,296	25,397
TOTAL	318,727	81,505

¹ Data includes unsatisfactory screening tests.

Laboratory Turnaround times¹ for 95% of all cervical screening tests processed at NHS laboratories: Scotland & NHSGGC laboratories, 1st April 2019 to 31st March 2020

Year/ quarter	Scotland	Greater Glasgow & Clyde
Q4	16	17
Q3	17	21
Q2	19	26
Q1	27	27

¹ The turnaround time is defined as the number of days from the date the sample was received by the laboratory to the date the report was issued by the laboratory.

Average reporting times¹ for cervical screening tests: Scotland & NHSGGC laboratories, 1st April 2019 to 31st March 2020 (Mean number of days by quarter)

Year/ quarter	Scotland	Greater Glasgow & Clyde
Q4	19	19
Q3	18	21
Q2	20	23
Q1	38	44

¹The reporting time is defined as the number of days from the date the screening test was performed to the date the report was issued by the laboratory.

**9. Diabetic Retinopathy Screening Service reports for Quarter 4 2019/2020
By Board of Treatment**

Report start date 01/04/2019 report end date 31/3/2020

Report Interval = 365 days. All data taken from Vector.

Source: DRS National statistics 2020

KPI	HIS Target June 2016 (where applicable)	Description	Board of Treatment	
			Greater Glasgow & Clyde	Scotland
KPI 0: Summary Statistics		Total Population (TP)	71,984	343,802
		Temporarily suspended (TS)	6,788 (9.4%)	25,352 (7.4%)
		Permanently suspended (PS)	4,532 (6.3%)	28,239 (8.2%)
		Temporarily unavailable (TU)	874 (0.2%)	3,067 (0.9%)
		Eligible Population (EP = TP-TS-PS+TU)	61,538 (85.5%)	293,278 (85.3%)
Screening Uptake				
Call/Recall (HIS Standards 2)	Within 30 calendar days for newly diagnosed appointment offer. (HIS Standard 2.3)	2.3 The invitation to attend diabetic retinopathy screening is offered to all newly diagnosed patients within 30 calendar days of the DRS Collaborative ⁴ receiving notification.	96.6%	97.3%
	Within 90 calendar days for newly diagnosed appointment date. (HIS Standard 2.4)	2.4 The date of the appointment offered to all newly diagnosed patients is within 90 calendar days of the DRS Collaborative ⁴ receiving notification.	99.9%	99%
KPI 1: Screening	100% for Q4 of eligible	People attending screening without	2,571	20,329

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invitation rate (HIS Standard 3)	people, regardless of personal circumstances or characteristics are offered an opportunity to attend. (HIS Standard 3.3)	invitation (API)		
		People invited at least once (INV)	53,996	245,586
		% (100 * INV / (EP - API))	91.6%	90%
KPI 2: Screening uptake rate (HIS Standard 3)	NHS boards achieve an attendance of 80% for Q4. (HIS Standard 3.1)	People attending at least once (ATT)	45,223	212,464
		% (100 * ATT / EP)	73.5%	74.2%
DNA rate	Indicative DNA rate by %	% (100 * INV - ATT)	18.1%	17.5%
KPI 3: Annual successful screening rate (HIS Standard 3)	NHS boards achieve an uptake of 80% pa. (HIS Standard 3.2)	People successfully screened in the previous year (ANN)	44,823	210,456
		% (100 * SUC1 / EP)	72.8%	71.8%
KPI 4: Successful screening rate (HIS Standard 3)	NHS boards achieve an uptake of 80% for Q4 (HIS Standard 3.2)	People successfully screened in reporting period (SUC)	44,823	210,456
		% (100 * SUC2 / EP)	72.8%	71.8%
KPI 5: Biennial successful screening rate (HIS Standard 3)	NHS boards achieve an uptake of 80% pa. (HIS Standard 3.2)	People successfully screened (biennial) (BIE)	53,445	252,703
		% (100 * BIE / EP)	86.8%	86.2%
KPI 6: Annual patient technical recall rate	As low as possible	People unsuccessfully screened (UNSUC)	694	5,136
		% (100 * UNSUC / EP)	1.1%	1.8%
KPI 7A: Annual photographic	NHS boards achieve a	Photographic screenings (PS)	43,648	210,020

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technical failure rate (HIS Standard 4)	maximum rate of ungradeable images of 2.5% for digital imaging. (HIS Standard 4.3)	Unsuccessful photographic screening episodes (UPS)	717	5,372
		% (100 * UPS / PS)	1.6%	2.6%
KPI 7B: Annual slit lamp technical failure rate	NHS boards achieve a maximum rate of ungradeable images of 2.0% for slit lamp examinations. (HIS Standard 4.3)	Slit lamp screenings (SL)	4,068	18,270
		Unsuccessful slit lamp screening episodes (USL)	27	481
		% (100 * USL / SL)	0.7%	2.6%
KPI 7: Annual overall technical failure rate	As low as possible	Slit lamp screenings + photographic screenings (SLPS)	47,716	228,290
		Unsuccessful slit lamp screenings & photographic screenings (USLUPS)	744	5,853
		% (100 * USLUPS / SLPS)	1.6%	2.6%
KPI 8: Duration to written report	A minimum of 95% of people screened are sent the result within 20 working days of being screened.	Longest recorded number of days to written report (LRD)	105	207
		Average of the number of days to written report (AD)	12	6
		Median of the number of days to written report (MD)	3	5
KPI 9: Written report success rate		Episodes with <= 20 working days to written report (E20D)	34,580	206,091
		% (100 * E20D /	72.47%	90.3%

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		NE)		
Screening outcomes				
KPI 10: Twelve Month Recall result rate		Successful screening episodes (excl. ophthalmology examinations) (SSE)	46,981	222,473
		% (100 * SSE/EP)	76.3%	75.9%
		Screening episodes (excl. ophthalmology examinations) with negative result (SEN)	567	2,908
		% (100 * SEN / SSE)	1.2%	1.3%
KPI 11: Six Month Recall result rate		Screening episodes (excl. ophthalmology examinations) with observable result (SEO)	697	3,509
		% (100 * SEO / SSE)	1.5%	1.6%
KPI 12: Six Month recall rescreen rate		People with last result 'observable' in the first 6 month of the interval (POR)	305	1,599
		People within POR who commenced an examination within 6 month (PC6M)	51	354
		% (100 * PC6M / POR)	16.7%	22.1%
KPI 13: Referable Result rate		Screening episodes (excl. ophthalmology examinations) with referable result (SER)	1,760	8,972
		% (100 * SER / SSE)	3.7%	4.0%
Ophthalmology performance				

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KPI 14: Ophthalmology Report Interval	Patients with an outcome of 'Refer to Ophthalmology ' in the first 6 month of the interval (RO)	963	4,441
	% (100 * RO/EP)	1.6%	1.5%
	Patients within RO with a subsequent Ophthalmology examination (SOE)	653	2,135
	% (100 * SOE/RO)	67.8%	48.1%
	Longest recorded days to ophthalmology examination for the first qualifying episode (LRDOE)	211	250
	Longest recorded to Ophthalmology examination for the first qualifying episode (based on 30 days/month – months & days)	30 weeks 1 days	35 weeks 5 days
	Average of the number of days to Ophthalmology examination (ADOE)	44	63
KPI 15: Ophthalmology review target	Patients with an outcome of 'Refer to Ophthalmology ' in the first 6 months of the interval (RO)	963	4,441
	Number of these patients for whom the days to Ophthalmology examination is less than or equal to referral target (90 days) (REFT)	326	1,326
	% (100 * REFT /	33.9%	29.9%

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		RO)		
KPI 16: Ophthalmology attendance rate		People who attended at least 1 Ophthalmology examination with a screening outcome of 'Re-screen in 12 months', 'Re-screen in 6 months' or 'Retain under Ophthalmology review' (OPHTH)	5,546	13,957
		Screening population (SP)	67,177	313,990
		% (100 * OPHTH / SP)	8.3%	4.4%
KPI 17: Ophthalmology suspensions rate		People temporarily suspended from screening for reason of "under the care of Ophthalmologist" (UCO)	5,639	20,712
		Screening population (SP)	67,177	313,990
		% (100 * UCO / SP)	8.4%	6.6%