

NHS Greater Glasgow and Clyde Equality Impact Assessment Tool

Equality Impact Assessment is a legal requirement as set out in the Equality Act 2010 (Specific Duties)(Scotland) regulations 2012 and may be used as evidence for cases referred for further investigation for compliance issues. Evidence returned should also align to Specific Outcomes as stated in your local Equality Outcomes Report. Please note that prior to starting an EQIA all Lead Reviewers are required to attend a Lead Reviewer training session or arrange to meet with a member of the Equality and Human Rights Team to discuss the process. Please contact Equality@ggc.scot.nhs for further details or call 0141 2014560.

Name of Policy/Service Review/Service Development/Service Redesign/New Service:

TrakCare AI Patient Flow Optimisation (TAPFLO)

Is this a: Current Service ☐ Service Development ☒ Service Redesign ☐ New Service ☐ New Policy ☐ Policy Review ☐

Description of the service & rationale for selection for EQIA: (Please state if this is part of a Board-wide service or is locally driven).

What does the service or policy do/aim to achieve? Please give as much information as you can, remembering that this document will be published in the public domain and should promote transparency.

TAPFLO (TrakCare AI Patient Flow Optimisation) is a digital tool that uses artificial intelligence to help NHS Greater Glasgow and Clyde improve how patients move through the healthcare system. Its main aim is to reduce missed appointments (known as Did Not Attends or DNAs), by predicting if a patient is likely to attend their outpatient appointment. The model is trained on historical data from TrakCare, an existing patient management system. No new data is captured by this tool. Prediction data is presented to clinic administration teams via MicroStrategy, an existing reporting tool already used by this group of staff. This report is not designed to be viewed or used by patients. No existing appointments will be cancelled as a result of predictive data. Instead, clinic administration teams will use the predicted data to help staff plan better, reduce waiting times, improve equitable access to healthcare and make sure resources are used most efficiently. It supports both patients and staff by making services more reliable and responsive. When an appointment is predicted as a DNA, intervention steps will be made. Clinic administration teams are responsible for making informed decisions on the most appropriate interventions but may include a mix of telephone call/SMS to the patient to confirm attendance, offering an alternative date/time if more suitable, offering a switch to virtual consultation where clinically appropriate following engagement with the patient or patient's representative, and overbooking the appointment. Patients who attend their appointment will be seen by the medical team in the same way – whether predicted to attend or not. Predictions will be presented to clinic administration teams via MicroStrategy, an existing reporting tool currently used by these teams for other tasks.

Why was this service or policy selected for EQIA? Where does it link to organisational priorities? (If no link, please provide evidence of proportionality, relevance, potential legal risk etc.). Consider any locally identified Specific Outcomes noted in your Equality Outcomes Report.

TAPFLO was selected for an Equality Impact Assessment because it introduces a new digital approach to managing patient flow using artificial intelligence. As this tool directly affects how patients access care, particularly outpatient appointments, and staff who are using the tool to help manage clinic administration tasks, it has the potential to impact people differently depending on their personal circumstances, such as disability, age, or socio-economic status.

The EQIA ensures that TAPFLO supports NHS Greater Glasgow and Clyde's commitment to fair and equitable access to healthcare. It links to organisational priorities around improving service efficiency, reducing missed appointments (DNAs), and making better use of resources. These priorities are also reflected in the Board's Equality Outcomes Report, which highlights the need to reduce barriers to care and improve health outcomes for marginalised groups.

By assessing TAPFLO through the EQIA process, we are proactively identifying any risks of discrimination and making sure the tool promotes equality of opportunity and good relations between different groups. This is especially important given the legal duties under the Equality Act 2010 (Specific Duties) (Scotland) Regulations 2012, and the Fairer Scotland Duty for strategic decisions.

Who is the lead reviewer and when did they attend Lead reviewer Training? (Please note the lead reviewer must be someone in a position to authorise any actions identified as a result of the EQIA)

Name: Neil Warbrick, Head of Digital Strategy, Programmes and Innovation	Date of Lead Reviewer Training: 9 October 2025
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Please list the staff involved in carrying out this EQIA

(Where non-NHS staff are involved e.g. third sector reps or patients, please record their organisation or reason for inclusion):

Neil Warbrick: Head of Digital Strategy, Programmes and Innovation
Cameron Thomson: Digital Project Manager
Brian Digby: Consultant Intensive Care and Anaesthesia; Digital Clinical Lead for AI
Lokesh Pandit: TrakCare Developer

Alastair Low: Manager, Equality & Human Rights Team
 Paul Hayes: Patient Experience & Public Involvement

		Example	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
1.	What equalities information is routinely collected from people currently using the service or affected by the policy? If this is a new service proposal what data do you have on proposed service user groups. Please note any barriers to collecting this data in your submitted evidence and an explanation for any protected characteristic data omitted.	<i>A sexual health service collects service user data covering all 9 protected characteristics to enable them to monitor patterns of use.</i>	TAPFLO does not collect protected characteristic data. This is mainly because the tool works in the background to support clinic administration and doesn't directly interact with patients. Age, Gender, City and Postcode are included in the prediction report primarily to ensure interventions are made for the intended patient. This data has been sourced from existing data stored in TrakCare.	National discussions need to review the scope of mainstream patient information systems to accurately capture protected characteristic information and any aspects of identity that will inform anticipatory, person-centred care.

		<i>Example</i>	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
2.	Please provide details of how data captured has been/will be used to inform policy content or service design. Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐	<i>A physical activity programme for people with long term conditions reviewed service user data and found very low uptake by BME (Black and Minority Ethnic) people. Engagement activity found promotional material for the interventions was not representative. As a result an adapted range of materials were introduced with ongoing monitoring of uptake. (Due regard promoting equality of opportunity)</i>	Analysis of model performance will be completed to assess how well the model performs across different age groups, postcode clusters and sex looking at overall model precision and false positive/negative rates.	

		<i>Example</i>	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
3.	How have you applied learning from research evidence about the experience of equality groups to the service or Policy? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics ☒ 4) Not applicable ☐	<i>Looked after and accommodated care services reviewed a range of research evidence to help promote a more inclusive care environment. Research suggested that young LGBT+ people had a disproportionately difficult time through exposure to bullying and harassment. As a result staff were trained in LGBT+ issues and were more confident in asking related questions to young people. (Due regard to removing discrimination, harassment and victimisation and fostering good relations).</i>	An analysis using SHAP (a method for understanding AI decisions) showed that the most important factor in predicting if someone would miss their appointment was whether they had missed appointments before. The second most important factor, though much less influential, was clinic specialty. This was followed by the patient's postcode. Age was not found to be an influential data point driving DNA predictions. Stakeholder engagement will take place including clinicians, patient representatives, clinic administration and equality leads, to identify and address barriers faced by people with protected characteristics.	

		<i>Example</i>	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
4.	Can you give details of how you have engaged with equality groups with regard to the service review or policy development? What did this engagement tell you about user experience and how was this information used? The Patient Experience and Public Involvement team (PEPI) support NHSGGC to listen and understand what matters to people and can offer support. Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☒	<i>A money advice service spoke to lone parents (predominantly women) to better understand barriers to accessing the service. Feedback included concerns about waiting times at the drop in service, made more difficult due to child care issues. As a result the service introduced a home visit and telephone service which significantly increased uptake.</i> <i>(Due regard to promoting equality of opportunity)</i> <i>* The Child Poverty (Scotland) Act 2017 requires organisations to take actions to reduce poverty for children in households at risk of low incomes.</i>	Stakeholder engagement will take place including clinicians, patient representatives, clinic administration and equality leads, to identify and address barriers faced by people with protected characteristics.	

	2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics ☒ 4) Not applicable ☐			
		<i>Example</i>	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
5.	Is your service physically accessible to everyone? If this is a policy that impacts on movement of service users through areas are there potential barriers that need to be addressed? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☐	<i>An access audit of an outpatient physiotherapy department found that users were required to negotiate 2 sets of heavy manual pull doors to access the service. A request was placed to have the doors retained by magnets that could deactivate in the event of a fire. (Due regard to remove discrimination, harassment and victimisation).</i>	Not relevant – system provides support to clinic administration staff and is not directly accessible by patients.	

	2) Promote equality of opportunity ☐ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐			
		Example	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
6.	How will the service change or policy development ensure it does not discriminate in the way it communicates with service users and staff? Your evidence should show which of the 3 parts of the General Duty have been	<i>Following a service review, an information video to explain new procedures was hosted on the organisation's YouTube site. This was accompanied by a BSL signer to explain service changes to Deaf service users.</i>	Not relevant	

	considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☐ 2) Promote equality of opportunity ☐ 3) Foster good relations between protected characteristics ☐ 4) Not applicable ☐ The British Sign Language (Scotland) Act 2017 aims to raise awareness of British Sign Language and improve access to services for those using the language. Specific attention should be paid in your evidence to show how the service review or policy has taken note of this.	<i>Written materials were offered in other languages and formats.</i> <i>(Due regard to remove discrimination, harassment and victimisation and promote equality of opportunity).</i>		
7	Protected Characteristic		Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required

(a)	Age Could the service design or policy content have a disproportionate impact on people due to differences in age? (Consider any age cut-offs that exist in the service design or policy content. You will need to objectively justify in the evidence section any segregation on the grounds of age promoted by the policy or included in the service design). If this decision is likely to impact on children and young people (below the age of 18) you will need to evidence how you have considered the General Principles of the United Nations Convention on the Rights of the Child. Please include this in Section 10 of the form. Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐	The TAPFLO tool uses artificial intelligence to predict whether a patient is likely to attend their appointment. These predictions are based on patterns found in past data. An analysis using SHAP (a method for understanding AI decisions) showed that the most important factor in predicting if someone would miss their appointment was whether they had missed appointments before. The second most important factor, though much less influential, was clinic specialty. This was followed by the patient's postcode. Age was not found to be an influential data point driving DNA predictions. Age is presented in the prediction report on MicroStrategy to allow clinic administration staff to check that the intervention steps are being made to the correct patient.	Although age was not found to be a significant factor in predicting missed appointments, there is still a risk that the TAPFLO tool could unintentionally disadvantage certain age groups. This could happen if the training data used by the AI model under-represents older or younger patients, or if other factors (like postcode or clinic type) act as indirect proxies for age. If the model's predictions lead to fewer correct predictions for a particular age group, it may lead to some age groups being offered additional intervention steps more than others. Run a subgroup analysis to assess how well the model performs across different age groups, including precision and false positive/negative rates. Ensure data used to train the model reflects the full age range of patient population. Through stakeholder review including clinicians, patient representatives,
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			clinic administration and equality leads, validate assessments made for age.
(b)	Disability Could the service design or policy content have a disproportionate impact on people due to the protected characteristic of disability? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐	The TAPFLO tool is designed to identify patients who are at risk of missing their appointments, so that staff can offer support, such as a phone call to confirm appointment suitability, offer an alternative date/time if more suitable, or a switch to virtual appointment where clinically appropriate. Disability is not used as a data point in the prediction model, and the SHAP analysis shows that the most influential factors are previous missed appointments, clinic specialty, and postcode. Disability does not feature in the MicroStrategy prediction report.	Disabled patients may be flagged as “at risk” of not attending without the model understanding the reasons behind this, such as accessibility challenges. Interventions like virtual appointments or phone calls may not be appropriate for all disabled patients, and could unintentionally reduce access if not tailored to individual needs. Clinic administration teams should ensure that any interventions (e.g. switching to virtual appointment or offering alternative date/time) are reviewed with the patient or patient’s representative for accessibility and appropriateness for disabled patients. There may be accessibility issues for staff if the MicroStrategy report is not

		However, there is a potential risk that disabled people could be indirectly affected if clinic administration teams do not take account of barriers patients may face in attending appointments - such as transport, communication needs, or digital exclusion. For example, switching someone to a virtual appointment may not be suitable for all disabled patients, especially if they lack access to technology or require in-person support.	fully compliant with Web Content Accessibility Guidelines (WCAG). Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers faced by people with protected characteristic of disability.
	Protected Characteristic	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
(c)	Gender Reassignment Could the service change or policy have a disproportionate impact on people with the protected characteristic of Gender Reassignment? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes).	The TAPFLO tool uses artificial intelligence to identify patients who may miss their appointments, so that staff can offer support, such as a phone call to confirm appointment suitability, offer an alternative date/time if more suitable, or a switch to virtual appointment where clinically appropriate.	Trans and non-binary patients may experience discomfort or distress if communications or interventions do not respect their gender identity. Lack of inclusive data collection may limit the ability to monitor and address any disproportionate impacts. Clinic administration staff should have awareness of gender identity and inclusive practice, in line with

	1) Remove discrimination, harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics ☐ 4) Not applicable ☐	This is intended to improve access to healthcare for everyone, including people who may face barriers due to their gender identity. There is no evidence that the TAPFLO model directly discriminates against people with the protected characteristic of gender reassignment. The model does not use gender identity or reassignment status as a data point, and no age or gender-based cut-offs are built into the tool design. It does not feature in the MicroStrategy prediction report. However, there is a potential risk of indirect impact. For example, if the tool does not recognise or accommodate the specific needs of trans or non-binary patients, such as preferred names, pronouns, or sensitivities around clinical interactions, this could affect their experience of care. Additionally, if virtual	NHSGGC's Equality & Human Rights guidance Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers faced by trans and non-binary patients.
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		appointments are offered without considering privacy or safety concerns, this could unintentionally disadvantage some patients.	
	Protected Characteristic	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
(d)	Marriage and Civil Partnership Could the service change or policy have a disproportionate impact on the people with the protected characteristics of Marriage and Civil Partnership? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics ☐	There is no evidence that the TAPFLO model directly discriminates against people who are married or in a civil partnership. The model does not use relationship status as a data point, and no criteria in the tool design relate to marital or partnership status. It does not feature in the MicroStrategy prediction report. However, there is a potential for indirect impact. For example, people who are married or in civil partnerships may have caring responsibilities or shared schedules that affect their	If interventions (e.g. appointment changes) do not consider family or partner-related logistics, this could lead to missed opportunities for care. Clinic administration teams to ensure that any follow-up actions (e.g. switching to virtual, offering alternative appointments) are flexible enough to accommodate patients with caring responsibilities or shared schedules. Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers faced by patients who are married or in a civil partnership.

	4) Not applicable ☐	ability to attend appointments. If clinic administration teams do not recognise these factors, it could unintentionally disadvantage some patients.	
(e)	Pregnancy and Maternity Could the service change or policy have a disproportionate impact on the people with the protected characteristics of Pregnancy and Maternity? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐	The model does not use pregnancy or maternity status as a data point, and no exclusions or cut-offs are built into the tool design. However, there is a potential risk of indirect impact. For example, pregnant patients may be flagged as “at risk” of not attending without the model understanding the reasons - such as morning sickness, childcare responsibilities, or transport difficulties. If clinic administration teams do not recognise these factors, it could unintentionally disadvantage some patients.	Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers faced by patients who are pregnant or accessing maternity services.
	Protected Characteristic	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required

(f)	Race Could the service change or policy have a disproportionate impact on people with the protected characteristics of Race? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics ☐ 4) Not applicable ☐	The model does not use race or ethnicity as a data point, and there are no exclusions or cut-offs based on race or ethnicity in the tool design. However, postcode is one of the data points used in the prediction model, and this could act as a proxy for socio-economic status or ethnicity in some areas. This means there is a potential risk that patients from certain racial or ethnic groups could be disproportionately flagged for intervention, or not flagged at all, depending on how the model interprets postcode data. The EQIA process has been used to proactively identify and address any risks of discrimination, in line with NHS Greater Glasgow and Clyde's legal duties under the Equality Act 2010 and the Fairer Scotland Duty.	Patients from racial or ethnic minority groups may be indirectly affected if postcode data leads to biased predictions. If interventions are not culturally sensitive or do not consider language barriers, they may be less effective or even counterproductive. Clinic administration teams to ensure that follow-up actions (e.g. phone calls, appointment changes) are culturally appropriate and accessible to patients with limited English proficiency. Run a subgroup analysis to assess how well the model performs across different postcode clusters, including precision and false positive/negative rates. Ensure data used to train the model reflects the full postcode range of patient population. Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers
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			faced by patients who are from racial or ethnic minority groups.
(g)	Religion and Belief Could the service change or policy have a disproportionate impact on the people with the protected characteristic of Religion and Belief? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☐ 2) Promote equality of opportunity ☐ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐	The model does not use religion or belief as a data point, and there are no exclusions or cut-offs based on religious identity in the tool design. However, there is a potential risk of indirect impact if clinic administration teams do not take account of religious practices that may affect appointment attendance such as prayer times, fasting periods, or religious holidays. For example, if a patient is flagged as “at risk” of not attending during Lent or a religious observance, and the intervention offered does not consider this context, it could lead to inappropriate assumptions or missed opportunities to support access.	Patients may be flagged for intervention without consideration of religious observance or cultural practices that affect availability. If appointment rescheduling or virtual options are offered without sensitivity to religious needs (e.g. privacy, timing), this could reduce engagement or trust and be counterproductive. Clinic administration teams to ensure that appointment alternatives (e.g. virtual, phone calls) are offered with sensitivity to religious practices and privacy needs. Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers faced by patients of different religions and beliefs.

	Protected Characteristic	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
(h)	Sex Could the service change or policy have a disproportionate impact on the people with the protected characteristic of Sex? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☐ 2) Promote equality of opportunity ☐ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐	The TAPFLO tool uses artificial intelligence to predict whether a patient is likely to attend their appointment. These predictions are based on patterns found in past data. An analysis using SHAP (a method for understanding AI decisions) showed that the most important factor in predicting if someone would miss their appointment was whether they had missed appointments before. The second most important factor, though much less influential, was clinic specialty. This was followed by the patient's postcode. Sex was not found to be an influential data point driving DNA predictions. Sex is presented in the prediction report on MicroStrategy to allow clinic administration staff to check	The model may unintentionally reflect historical biases in healthcare access between male and female patients. Run a subgroup analysis to assess how well the model performs across male and female patients, including precision and false positive/negative rates. Ensure data used to train the model reflects the proportional balance of male/female patients across the whole patient population. Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, validate assessments.

		that the intervention steps are being made to the correct patient.	
(i)	Sexual Orientation Could the service change or policy have a disproportionate impact on the people with the protected characteristic of Sexual Orientation? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☐ 2) Promote equality of opportunity ☐ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐	The model does not use sexual orientation as a data point, and there are no exclusions or cut-offs based on sexual orientation in the tool design. However, there is a potential risk of indirect impact if the tool does not take account of barriers that lesbian, gay, bisexual or other minority sexual orientation patients may face in accessing care, such as previous experiences of discrimination, concerns about confidentiality, or discomfort with virtual formats. If these factors are not considered by clinic administration teams in how predictions are acted upon, there is a risk that patients may be flagged as “at risk” without understanding the underlying reasons, or that	If virtual appointments or phone calls are offered without sensitivity to privacy concerns, they may not be suitable for all patients. Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers faced by patients of different sexual orientations.

		interventions may not be appropriately tailored.	
	Protected Characteristic	Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
(j)	Socio – Economic Status & Social Class Could the proposed service change or policy have a disproportionate impact on people because of their social class or experience of poverty and what mitigating action have you taken/planned? In addition to the above, if this constitutes a ‘strategic decision’ you should evidence due regard to meeting the requirements of the Fairer Scotland Duty (2018). Public bodies in Scotland must actively consider how they can reduce inequalities of outcome caused by socioeconomic disadvantage when making <u>strategic decisions</u> and complete a separate assessment. Additional information available here: Fairer Scotland Duty: guidance for public bodies - gov.scot (www.gov.scot)	TAPFLO is designed to improve access to healthcare by identifying patients who are at risk of missing their appointments and offering support via interventions such as a phone call to confirm attendance, offer an alternative date/time or a switch to virtual appointment where clinically appropriate. This is especially important for people who may face barriers due to poverty or social disadvantage. People living in poverty are more likely to experience challenges such as poor transport links, limited access to digital devices or internet, and competing priorities like caring responsibilities or insecure employment. These factors can make it harder to attend appointments and	If interventions (e.g. virtual appointments) assume access to technology, they may not be suitable for patients experiencing poverty. Clinic administration teams to be aware and manage accordingly. Run a subgroup analysis to assess how well the model performs across different postcode clusters, including precision and false positive/negative rates. Ensure data used to train the model reflects the full postcode range of patient population. Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers faced by patients who are from lower-income backgrounds.

		engage with healthcare services. While TAPFLO does not use socio-economic status directly as a data point, it does use postcode, which can act as a proxy for deprivation. This means there is a risk that the model could reflect existing inequalities unless carefully monitored and adjusted. SHAP analysis identified that postcode is an important data point that has a greater influence on whether an appointment is flagged as a risk of DNA. The EQIA links directly to NHSGGC's Equality Outcomes Report and the Fairer Scotland Duty, ensuring that strategic decisions actively consider how to reduce inequalities of outcome caused by socio-economic disadvantage.	
(k)	Other marginalised groups	The TAPFLO tool is designed to improve access to healthcare by identifying	Automated predictions may not fully account for the complex social

	How have you considered the specific impact on other groups including homeless people, prisoners and ex-offenders, ex-service personnel, people with addictions, people involved in prostitution, asylum seekers & refugees and travellers?	patients who are at risk of missing their appointments and offering support. This approach is particularly relevant for marginalised groups who may face barriers to attending appointments due to unstable housing, limited access to technology, or complex personal circumstances. Groups such as homeless people, prisoners and ex-offenders, ex-service personnel, people with addictions, people involved in prostitution, asylum seekers, refugees, and travellers may experience challenges including: - Frequent changes of address or lack of a fixed address; - Limited access to phones, internet, or digital devices; - Distrust of services or previous negative experiences This tool aims to reduce these barriers by enabling clinic administration teams to	factors affecting attendance, leading to missed opportunities for support. Clinic administration teams are encouraged to review predictions manually and consider individual circumstances before deciding on intervention steps. Through stakeholder review including clinicians, patient representatives, clinic administration and equality leads, identify and address barriers faced by patients who are from other marginalised groups.
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		perform proactive interventions that are flexible and responsive to individual needs. For example, offering virtual appointments or alternative appointment dates/times can help patients who are unable to attend due to mobility, safety, or privacy concerns.	
8.	Does the service change or policy development include an element of cost savings? How have you managed this in a way that will not disproportionately impact on protected characteristic groups? Your evidence should show which of the 3 parts of the General Duty have been considered (tick relevant boxes). 1) Remove discrimination, harassment and victimisation ☒ 2) Promote equality of opportunity ☒ 3) Foster good relations between protected characteristics. ☐ 4) Not applicable ☐	The TAPFLO Clinic No-Show tool includes an element of cost avoidance. It is designed to improve how patients move through the healthcare system by using artificial intelligence to predict missed appointments to allow intervention steps to be made. By reducing fallow appointments, TAPFLO helps make better use of NHS resources and supports more efficient service delivery. However, cost avoidance is not the only benefit. Another aim of the tool is to improve equitable access to care and reduce barriers for patients	The EQIA links directly to the Equality Act 2010 (Specific Duties) (Scotland) Regulations and the Fairer Scotland Duty, ensuring that strategic decisions actively consider how to reduce inequalities of outcome caused by protect characteristic disadvantage. The TAPFLO Clinic No-Show model should be retrained regularly (every 6-12 months) to avoid model drift.

		who may otherwise not be seen. The EQIA process has been used to ensure that any efficiency gains do not come at the expense of protected characteristic groups.	
		Service Evidence Provided	Possible negative impact and Additional Mitigating Action Required
9.	What investment in learning has been made to prevent discrimination, promote equality of opportunity and foster good relations between protected characteristic groups? As a minimum include recorded completion rates of statutory and mandatory learning programmes (or local equivalent) covering equality, diversity and human rights.	All staff should complete equality, diversity and human rights training.	

10. In addition to understanding and responding to legal responsibilities set out in Equality Act (2010), services must pay due regard to ensure a person's human rights are protected in all aspects of health and social care provision. This may be more obvious in some areas than others. For instance, mental health inpatient care or older people's residential care may be considered higher risk in terms of potential human rights breach due to potential removal of liberty, seclusion or application of restraint. However risk may also involve fundamental gaps like not providing access to communication support, not involving patients/service users in decisions relating to their care, making decisions that infringe the rights of carers to participate in society or not respecting someone's right to dignity or privacy.

The Human Rights Act sets out rights in a series of articles – right to Life, right to freedom from torture and inhumane and degrading treatment, freedom from slavery and forced labour, right to liberty and security, right to a fair trial, no punishment without law, right to respect for private and family life, right to freedom of thought, belief and religion, right to freedom of expression, right to freedom of assembly and association, right to marry, right to protection from discrimination.

Please explain in the field below if any risks in relation to the service design or policy were identified which could impact on the human rights of patients, service users or staff.

While the tool is designed to improve access to care and reduce inequalities, we have considered potential risks to human rights in its design and implementation. We have considered the risk of data misuse or unauthorised access, which could impact the right to privacy. A full System Security Policy and Data Protection Impact Assessment have been completed to mitigate this. If the model reflects historical inequalities, it may unintentionally reinforce discriminatory patterns.

Please explain in the field below any human rights based approaches undertaken to better understand rights and responsibilities resulting from the service or policy development and what measures have been taken as a result e.g. applying the PANEL Principles to maximise Participation, Accountability, Non-discrimination and Equality, Empowerment and Legality or FAIR* .

Human rights-based approaches have been embedded throughout the development of the TAPFLO Clinic No-Show tool, with specific attention to the PANEL and FAIR principles to ensure that rights and responsibilities are understood and upheld.

PANEL Principles

Participation: Patients and staff have been involved in shaping the tool through stakeholder engagement and EQIA assessment. Input from equality leads and service users has helped identify barriers and inform inclusive design.

Accountability: The tool includes governance mechanisms such as manual review of AI predictions and regular model retraining to prevent drift and bias. These ensure that decisions are transparent and accountable.

Non-discrimination and Equality: The EQIA process has been used to proactively identify and mitigate risks to protected characteristic groups. For example, postcode data used in predictions is monitored to ensure it does not act as a proxy for race or deprivation.

Empowerment: Staff are trained in equality, diversity and human rights, and patients are supported through tailored interventions such as offering an alternative appointment date/time, or a switch to virtual appointment where clinically appropriate, which will help overcome barriers to care.

Legality: The tool aligns with the Equality Act 2010 and the Human Rights Act, with legal duties considered throughout the design and evaluation process. An SSP and DPIA has also been completed to safeguard privacy rights.

FAIR Framework

Facts: The team will gather insights from stakeholder groups to understand the real-world challenges affecting appointment attendance. Considerations were made including digital exclusion, caring responsibilities, and lack of transport.

Analyse Rights: Risks to rights such as dignity, privacy, and participation were analysed. For example, concerns were raised about virtual appointments excluding patients without digital access – a switch to virtual appointment will not be made without engagement and agreement from the patient or patient representative.

Identify Responsibilities: Responsibilities have been assigned across the service. The AI developers will perform steps to monitor potential bias, clinical administration teams will review predictions and perform appropriate intervention steps, and equality leads will ensure inclusive practice.

Review Actions: The tool is subject to ongoing evaluation, including model performance reviews, repeat model training, stakeholder feedback, and EQIA updates. Lessons learned are used to refine the tool and ensure it continues to uphold human rights.

*

- **Facts:** What is the experience of the individuals involved and what are the important facts to understand?
- **Analyse rights:** Develop an analysis of the human rights at stake
- **Identify responsibilities:** Identify what needs to be done and who is responsible for doing it
- **Review actions:** Make recommendations for action and later recall and evaluate what has happened as a result.

United Nations Convention on the Rights of the Child

The United Nations Convention on the Rights of the Child (Incorporation) (Scotland) Act 2024 came into force on the 16th July 2024. All public bodies may choose to evidence consideration of the possible impact of decisions on the rights of children (up to the age of 18). Evidence should be included below in relation to the General Principles of the Act. The full list of articles to be considered is available [here](#) for information.

No Discrimination: Where the decision may have an impact, explain how the EQIA has considered discrimination on the grounds of protected characteristics for children. You may have considered children in each of the EQIA sections and returned relevant evidence.

Best Interests of the child: Where the decision may have an impact, explain how the EQIA has evaluated possible negative, positive or neutral impacts on children. You may find that a options considered need to be reframed against the best possible outcome for children.

The TAPFLO tool uses artificial intelligence to help predict whether a patient is likely to attend their clinic appointment. While the tool does include age in its reports, analysis shows that age is not a key factor in making predictions. The most important factor is whether the patient has missed appointments before.

The age information is shown to help clinic staff make sure they are applying the right intervention steps to the correct patient. This helps ensure that children and young people are not wrongly targeted or overlooked.

Based on this, the impact on children is considered neutral. The system does not treat children differently or make decisions based on their age. However, staff are still able to see a patient's age to make sure any actions taken are appropriate and in line with their needs.

Life, survival and development: Where the decision may have an impact, explain how the EQIA has considered a child's right to health and more holistic development opportunities.

By helping ensure children attend their appointments, the tool supports their right to health and development. The EQIA has considered this and found the impact to be positive, as it helps children access care without unfair treatment or assumptions based on age.

Respect of children's views: Where the decision may have an impact, explain how the views of children have been sought and responded to. You need to consider what steps were taken in Q4 in relation to this.

The predictions are based on patterns in past appointment data. Age is not a key factor in making predictions.

The EQIA process has considered the importance of respecting children's views. Children's voices should be sought through stakeholder engagement. Clinic staff are encouraged to take a person-centred approach when applying any interventions. This includes listening to the patient and their family, especially where the patient is under 18, to understand any barriers to attending appointments.

Having completed the EQIA template, please tick which option you (Lead Reviewer) perceive best reflects the findings of the assessment. This can be cross-checked via the Quality Assurance process:

- ☒ Option 1: No major change (where no impact or potential for improvement is found, no action is required)
- ☐ Option 2: Adjust (where a potential or actual negative impact or potential for a more positive impact is found, make changes to mitigate risks or make improvements)
- ☐ Option 3: Continue (where a potential or actual negative impact or potential for a more positive impact is found but a decision not to make a change can be objectively justified, continue without making changes)
- Option 4: Full mitigation of identified risk not made, decision to continue without objective justification (Lead Reviewer to provide explanatory note here):
- ☐ Option 5: Stop and remove (where a serious risk of negative impact is found, the plans, policies etc. being assessed should be halted until these issues can be addressed)

11. If you believe your service is doing something that 'stands out' as an example of good practice - for instance you are routinely collecting patient data on sexual orientation, faith etc. - please use the box below to describe the activity and the benefits this has brought to the service. This information will help others consider opportunities for developments in their own services.

Actions – from the additional mitigating action requirements boxes completed above, please summarise the actions this service will be taking forward.	Date for completion	Who is responsible?(initials)
No actions identified		

Ongoing 6 Monthly Review please write your 6 monthly EQIA review date:

May 2026

Lead Reviewer: EQIA Sign Off:	Name Neil Warbrick Job Title Head of Digital Strategy, Programmes & Innovation Signature N Warbrick Date 30/10/25
Quality Assurance Sign Off: (NHSGGC Assessments)	Name Alastair Low Job Title EHRT Manager Signature A Low Date 28/10/25

Where unmitigated risk has been identified in this assessment, responsibility for appropriate follow-up actions sits with the Lead Reviewer and the associated delivery partner.

**NHS GREATER GLASGOW AND CLYDE EQUALITY IMPACT ASSESSMENT TOOL
MEETING THE NEEDS OF DIVERSE COMMUNITIES
6 MONTHLY REVIEW SHEET**

Name of Policy/Current Service/Service Development/Service Redesign:

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Please detail activity undertaken with regard to actions highlighted in the original EQIA for this Service/Policy

		Completed	
		Date	Initials
Action:			
Status:			
Action:			
Status:			
Action:			
Status:			
Action:			
Status:			

Please detail any outstanding activity with regard to required actions highlighted in the original EQIA process for this Service/Policy and reason for non-completion

		To be Completed by	
		Date	Initials
Action:			
Reason:			
Action:			
Reason:			

Please detail any new actions required since completing the original EQIA and reasons:

		To be completed by	
		Date	Initials
Action:			
Reason:			
Action:			
Reason:			

Please detail any discontinued actions that were originally planned and reasons:

Action:	
Reason:	
Action:	
Reason:	

Please write your next 6-month review date

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Name of completing officer:

Date submitted:

If you would like to have your 6 month report reviewed by a Quality Assuror please e-mail to: alastair.low@ggc.scot.nhs.uk