Anti-Racism QI Change Package: Gestational Diabetes

Race and Health Observatory Learning and Action Network

The NHS Race & Health Observatory (RHO) has partnered with the Institute for Healthcare Improvement (IHI) and the Health Foundation (HF) to deliver a Learning and Action Network (LAN) which aims to tackle the gaps in maternal and neonatal morbidity, between women and babies from different ethnic backgrounds.

The LAN has used Quality Improvement (QI) to drive clinical transformation and enable system-wide change. NHS RHO, IHI and an Advisory Group made up of experts in maternal and neonatal health have joined together to improve the outcomes for maternal and neonatal health through participation in an action oriented, fast-paced LAN.

The LAN is comprised of ten teams, from eight Integrated Care Systems (ICS), in four regions who are committed to reducing pregnancy complications and preventable morbidity and mortality for ethnic minority communities.

Institute for Healthcare Improvement

For 30 years, the Institute for Healthcare Improvement (IHI) has used improvement science to advance and sustain better outcomes in health and health systems across the world. We bring awareness of safety and quality to millions, accelerate learning and the systematic improvement of care, develop solutions to previously intractable challenges, and mobilise health systems, communities, regions, and nations to reduce harm and deaths. We work in collaboration with the growing IHI community to spark bold, inventive ways to improve the health of individuals and populations. We generate optimism, harvest fresh ideas, and support anyone, anywhere who wants to profoundly change health and health care for the better. Learn more at ihi.org.

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Key Terms and Definitions

To support understanding, this glossary highlights key terms used throughout this change package. It includes clinical, quality improvement, data and health inequalities terms that may be unfamiliar to some readers.

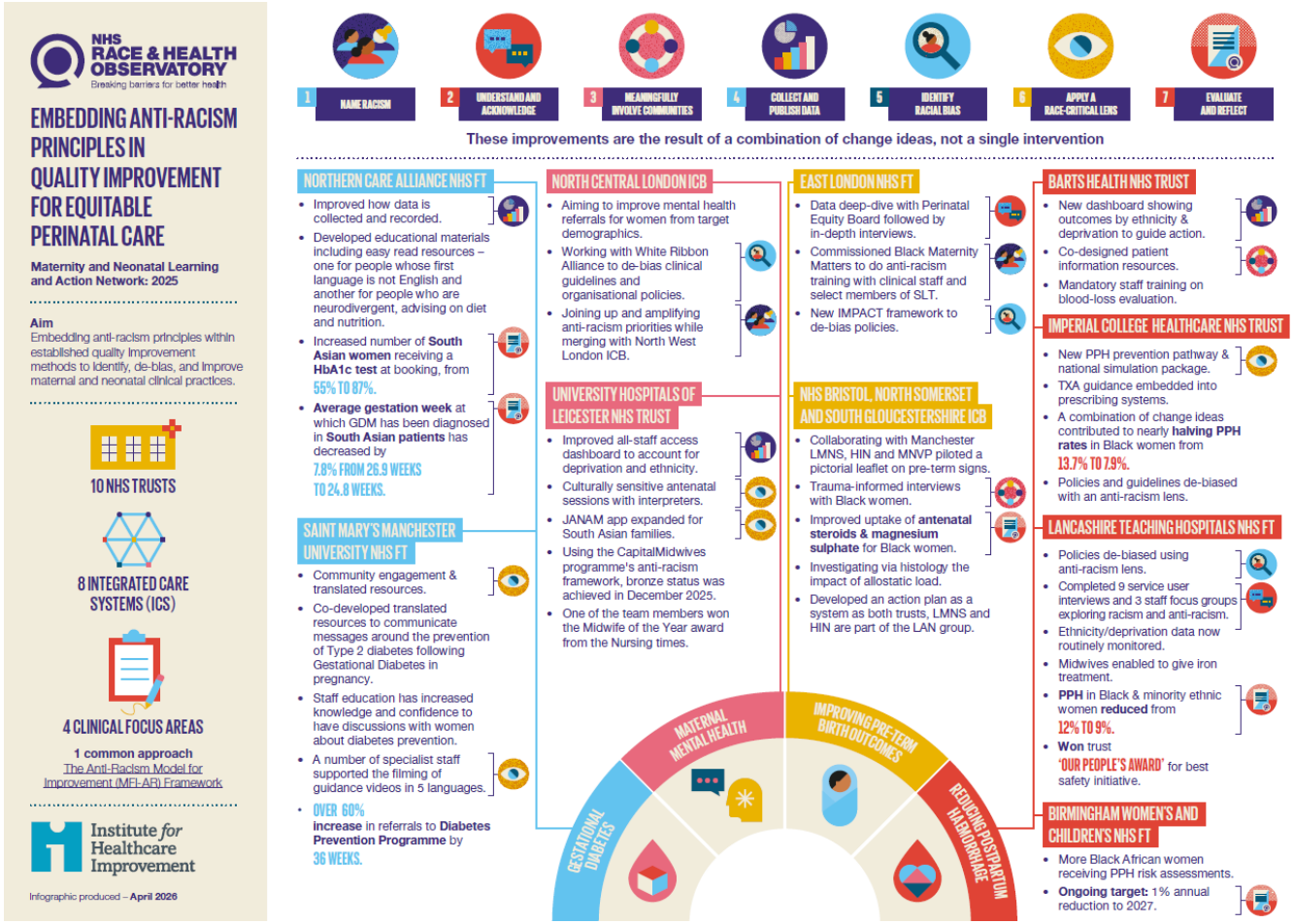
Term	Definition
Change Concept	A general notion or approach to change that has been found to be useful in developing specific ideas for quality improvement
Change Idea	Specific actions that can be tested to see if they lead to improvements in processes or outcomes
Disaggregated Data	Data broken down into smaller groups, such as race, ethnicity, language, or deprivation, to identify differences in outcomes and experiences
Ethnicity	A socially constructed category reflecting shared cultural markers, including language, religion, heritage, and identity, that people use to describe belonging. In practice, ethnicity captures lived cultural experience and can shape health behaviours, access, and interactions with services
Equality	The right of different groups of people to have a similar social position and receive the same treatment
Equity	The quality of being fair and just, especially in a way that takes account of and seeks to address existing inequalities
Gestational Hypertension	High blood pressure that develops during pregnancy, usually after 20 weeks, in a woman who did not previously have high blood pressure

Glycaemic Control	Glycaemic control is the practice of maintaining blood glucose levels within a healthy target range to prevent both short-term and long-term complications
HbA1c (Glycated Haemoglobin) Test	A blood test that reflects average blood glucose levels over the previous 2 to 3 months and is used to diagnose and monitor diabetes.
Institutional Racism	Policies, processes, and practices within organisations that, intentionally or unintentionally, create or maintain racial inequities
Internalised Racism	The acceptance or internalisation of negative racial stereotypes, beliefs, or messages by individuals from racially minoritised groups, which can influence self-worth, expectations, behaviours, and wellbeing
Interpersonal Racism	Racism that occurs between individuals, including discrimination, prejudice, stereotyping, bullying and harassment
Intrapartum Care	Care provided during labour and birth to support the health and wellbeing of the mother and baby, including monitoring, clinical management, and delivery care For birthing women with gestational diabetes, this includes blood glucose monitoring and management during labour
Lipoproteins	Particles that transport cholesterol and triglycerides in the blood. In gestational diabetes, insulin resistance can lead to higher levels of certain lipoproteins
PDSA Cycles	Plan, Do Study Act (PDSA) is a method of evaluation that allows you to test the impact of an initiative and continuously learn from your experiences, whilst improving your approach

Pre-Eclampsia	Preeclampsia is a pregnancy complication characterised by high blood pressure and protein in the urine, while eclampsia is the onset of seizures in a woman with preeclampsia
Race	A socially constructed system which categorises people based on perceived physical traits (e.g., skin colour), historically produced and maintained through power structures including colonialism. The term does not have a genetic basis and varies significantly, geographically and temporally. In UK health systems, race is best understood as a proxy for exposure to racism, rather than a biological determinant
Stratified Data	The organisation of data into distinct subgroups or layers (strata) based on shared characteristics to enhance analysis and reveal patterns
Structural Racism	The ways in which racism is embedded within social, economic, political, and cultural systems, resulting in unequal access to resources, opportunities, and health outcomes for different racial and ethnic groups
Triglycerides	Triglycerides are a type of fat in your blood that store unused calories and provide energy for your body
Venous Thromboembolism	Venous thromboembolism includes both deep-vein thrombosis and pulmonary embolism, and refers to a blood clot that forms in a vein which partially or completely obstructs blood flow

Learning and Action Network: Impact and Achievements

This infographic provides an overview of the achievements of the RHO Maternal and Neonatal LAN. It illustrates how the ten LAN teams embedded the RHO's 7 Anti-Racism Principles within the Model For Improvement methodology to improve equity in perinatal care. The recommendations and resources contained within this Change Package draw on the learning generated through this work. Change Packages for the additional focus areas are available on the RHO website.



Gestational Diabetes Change Package

Introduction & How to Use this Guide

This Anti-Racism QI Change Package is aimed at supporting teams and institutions close the maternal and neonatal health outcomes equity gap caused by racism. It is based on the learnings of the RHO LAN, a 15-month initiative from January 2024 through March 2025 with the aim to:

Reduce clinically avoidable severe perinatal morbidity and mortality resulting from racism, while improving care experiences for women and people from Black, Asian, and minoritised ethnic communities.

The NHS RHO defines racism in health as the process by which members of a racial or ethnic group have unequal access to services and resources, differential experiences within the healthcare system, and diverging health outcomes when compared with the White majority group. As such, racism harms individuals and undermines the full potential of the whole of society.

As a guide for future teams, this change package contains five elements, framed around the Model for Improvement and centred on equity and anti-racism:

I. **Aim**: What are we trying to accomplish?
II. **Driver Diagram**: How will we reach our aim?
III. **Change Concepts and Ideas**: What changes can we make to reach our aim?
IV. **Prioritising Changes**: Where do we start?
V. **Measurement Guidance**: How will we know if a change is an improvement?

For more information regarding the Model for Improvement: Anti-Racism Framework Guidance, please visit: https://nhsrho.org/resources/mfi-ar-framework-guidance/

What Is an Anti-Racism QI Change Package?

An Anti-Racism QI Change Package is a change package that centres the RHO's 7 Anti-Racism Principles in Action, combining these principles with the Model for Improvement's QI to help a team and system reach its aim of closing the equity gap in health outcomes and experience.

This Anti-Racism QI Change Package is structured around the five key pillars that encompass the main "drivers" or levers for improvement:

1) Leadership at all levels committed to creating an anti-racist system
2) Integration of anti-racism approaches in improvement efforts
3) Reliable delivery of debiased clinical guidelines and protocols
4) Close the equity gap in experience of care of service users
5) Stratified data across race and ethnicity for improvement

This change package has been revised since the completion of the 15-month LAN, in order to include and highlight the change packages with the highest confidence for improvement towards the aim, as well as including considerations for spread and scale.

In this change package, we outline a set of change concepts and ideas aligned with the five key pillars above. We also encourage you to develop your own change ideas based on your unique system and the "causes of the causes" of inequitable maternal and neonatal health outcomes. By this, we mean the social determinants of health, factors such as housing, income, education, and employment, which, as highlighted in *Build Back Fairer*, are themselves shaped by structural forces including racism. These upstream drivers create the conditions in which inequities arise, and many of them are in your team's gift to affect.

Context and Aim

Evidence points to a widening gap in maternal mortality and morbidity between women from different ethnic backgrounds, with Black British mothers up to four times more likely than White mothers to die during pregnancy or within the first six weeks after childbirth.

While there have been numerous NHS initiatives focused on maternal health to date, there has been an opportunity to focus specifically on closing the widening ethnic inequality gap in mortality and morbidity in the NHS.

This LAN aimed to tackle the gap in ethnic inequality by using QI methodology to drive clinical transformation and enable system-wide change.

With representatives from eight ICS across four NHS regions, who are committed to reducing pregnancy complications and preventable morbidity and mortality for ethnic minority communities, the original aim of this 15-month LAN was to:

Reduce clinically avoidable severe maternal morbidity, perinatal mortality and neonatal morbidity while improving experience of care of pregnant women and people from Black, Asian and minority ethnic groups.

Centred on the RHO's 7 Anti-Racism Principles, beginning with #1: Demonstrate leadership by naming racism, the aim of the LAN has been revised to name racism more explicitly:

Reduce clinically avoidable severe perinatal morbidity and mortality resulting from racism, while improving care experiences for women and people from Black, Asian, and minoritised ethnic communities.

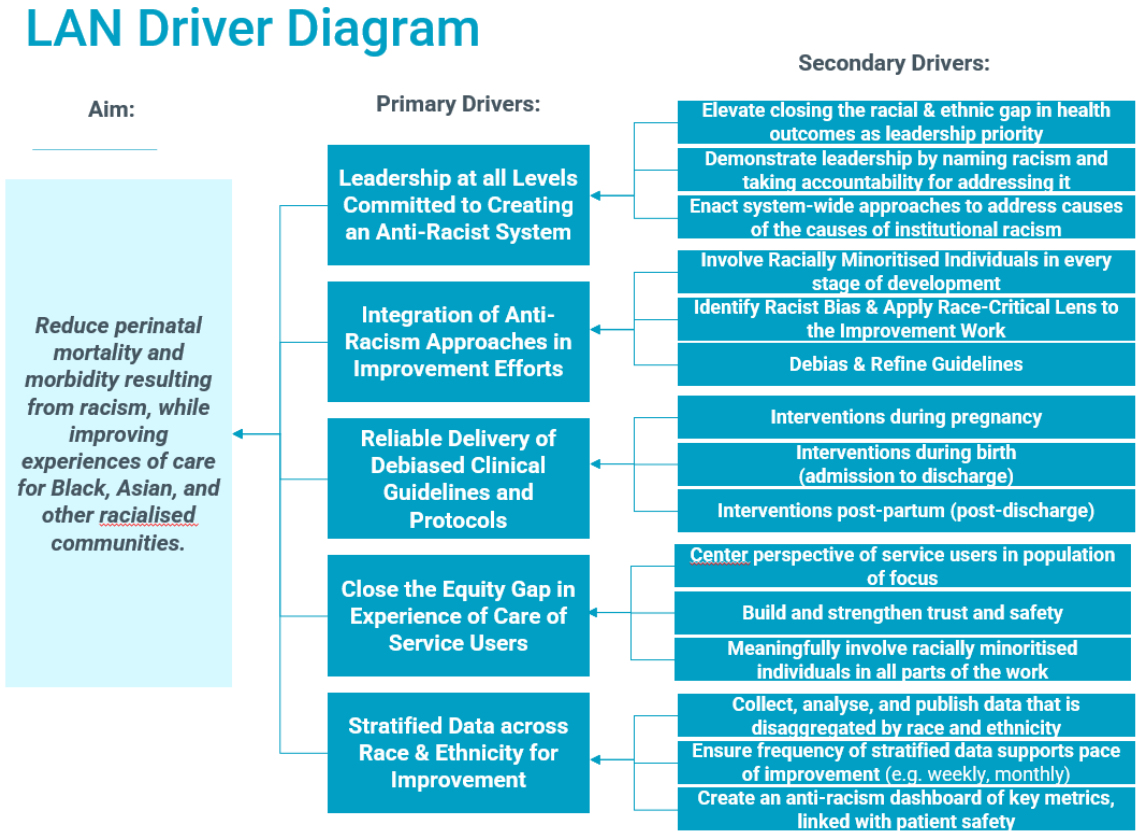
Driver Diagram

While the LAN's original driver diagram focused on three pillars (Reliable delivery of clinical guidelines and protocols, 7 Anti-Racism Principles in action, and Experience of care), feedback from participants of the LAN pointed to the criticality of leadership at all levels committed to anti-racism work and creating an enabling environment for true change. Similarly, challenges around data and measurement highlighted the need to explicitly add stratified data as a primary

driver. Similar to the revised aim above, this final Driver Diagram also names racism more explicitly, taking action on the RHO's first Anti-Racism Principle of naming racism.

Centred on the RHO's 7 Anti-Racism Principles and putting these into action through QI methodology, the five primary drivers were revised to:

1) Leadership at all levels committed to creating an anti-racist system
2) Integration of anti-racism approaches in improvement efforts
3) Reliable delivery of debiased clinical guidelines and protocols
4) Close the equity gap in experience of care of service users
5) Stratified data across race and ethnicity for improvement



Clinical Areas of Focus

As a LAN, the guiding principle was "inch wide, mile deep" to accelerate learning and improvement towards reducing ethnic and racial inequities of maternal and neonatal outcomes. In other words, what were the specific narrow clinical areas we could focus this initial phase on, with the intent of better understanding and acting on racism as a driver of inequitable maternal and neonatal health outcomes?

Based on evidence from the MBRACE-UK report, team applications, and looking across the continuum of prenatal, perinatal, and postnatal maternal and neonatal care, the following four clinical focus areas were prioritised for this initial LAN:

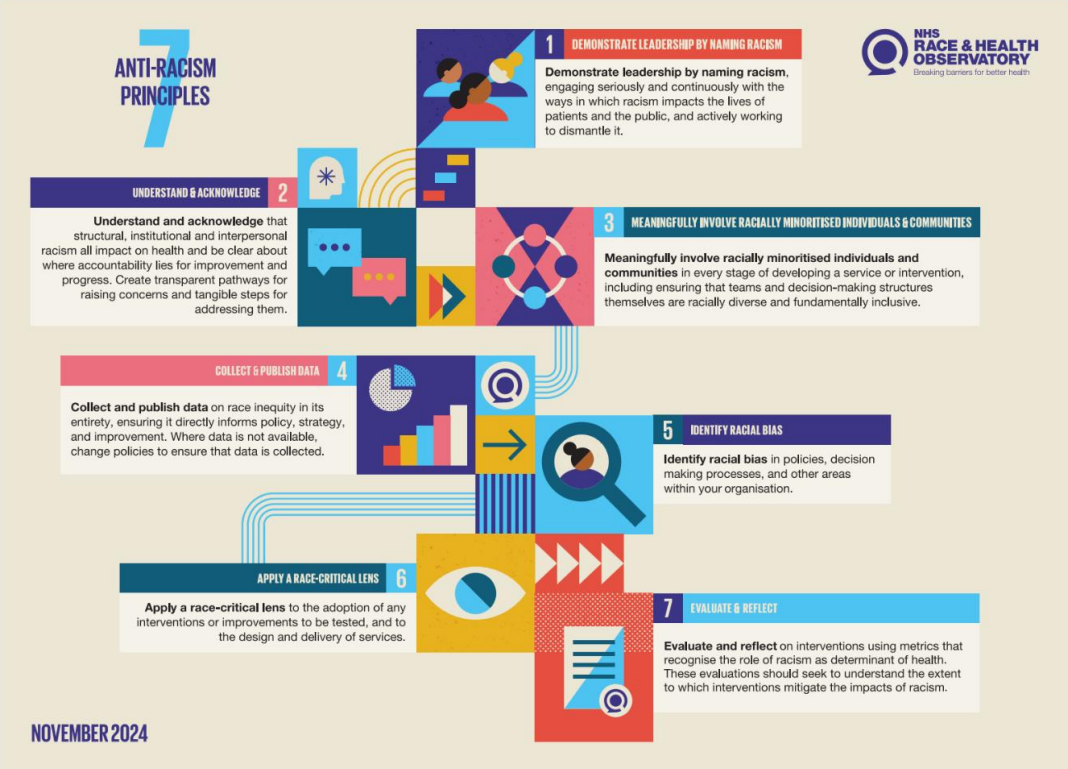
(1) Gestational Diabetes
(2) Haemorrhage
(3) Maternal Mental Health
(4) Preterm Births

Each participating LAN team chose one initial clinical focus area to begin with.

RHO 7 Anti-Racism Principles

Embedded in this work and cutting across all clinical areas of focus above are the following 7 Anti-Racism Principles, developed by the Race and Health Observatory:

1. **Demonstrate leadership by naming racism**, engaging seriously and continuously with the ways in which racism impacts the lives of patients and the public, and actively working to dismantle it.
2. **Understand and acknowledge** that structural, institutional and interpersonal racism all impact on health and be clear about where accountability lies for improvement and progress. Create transparent pathways for raising concerns and tangible steps for addressing them.
3. **Meaningfully involve racially minoritised individuals and communities** in every stage of developing a service or intervention, including ensuring that teams and decision-making structures themselves are racially diverse and fundamentally inclusive.
4. **Collect and public data** on race inequity in its entirety, ensuring it directly informs policy, strategy, and improvement. Where data is not available, change policies to ensure that data is collected.
5. **Identify racial bias** in policies, decision making processes, and other areas within your organisation.
6. **Apply a race-critical lens** to the adoption of any interventions or improvements to be tested, and to the design and delivery of services.
7. **Evaluate and reflect** on interventions using metrics that recognise the role of racism as determinant of health. These evaluations should seek to understand the extent to which interventions mitigate the impacts of racism.



Anti-Racism Change Package for Gestational Diabetes

1. Aim: What Are We Trying to Accomplish?

Setting a clear project aim is the foundation of any quality improvement project. To be effective, aims should be SMART: Specific, Measurable, Achievable, Relevant, and Time-bound. Towards the larger collaborative aim defined above, the narrower aim for gestational diabetes across the spectrum of pregnancy to post-partum care is to:

Increase the number of women from Black, Asian, and other racially minoritised communities who are supported to manage diabetes during pregnancy, and to increase postnatal access to diabetes follow-up and screening.

The ultimate vision for this work within gestational diabetes is to:

(1) Close the racism-related gap in health outcomes in gestational diabetes; and
(2) Close the racism-related gap in experiences for mothers experiencing gestational diabetes conditions.

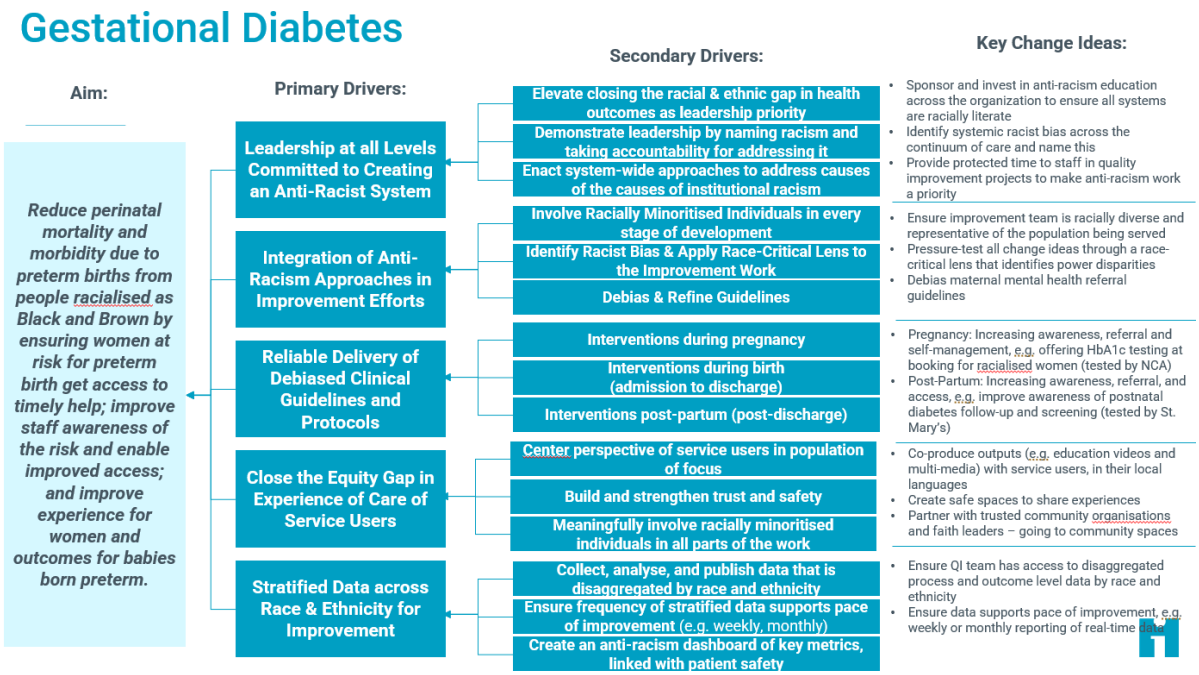
Note: Using the “inch wide, mile deep” approach, future teams will want to focus their work on a narrow area of improvement, depending on where local data points to as the highest potential

area for improvement. For instance, LAN teams focused on gestational diabetes had the following aims for the 15-month LAN:

St Mary's Aim: *By March 2025, increase the number of South Asian women with gestational diabetes that are aware of and access postnatal diabetes follow-up and screening, including referral to diabetes prevention support.*

Northern Care Alliance's Aim: *Reduce the percentage of South Asian women with gestational diabetes mellitus moving from diet control to medication from 43% to 30% (by March 2025) by improving self-management and education around diet and exercise, and earlier identification and referral to joint Diabetes and Antenatal Clinic.*

2. Driver Diagram: How Will We Reach Our Aim?



3. Change Concepts and Ideas

The tables below outline prioritised change concepts and example change ideas across the five primary drivers of:

A. Leadership at all levels committed to creating an anti-racist system
B. Integration of anti-racism approaches in improvement efforts
C. Reliable delivery of debiased clinical guidelines and protocols
D. Close the equity gap in experience of care of service users
E. Stratified data across race and ethnicity for improvement

A. Leadership at All Levels Committed to Creating an Anti-Racist System

Leadership commitment to anti-racism at all levels is the first primary driver because sustained improvement in this area is not possible without leadership commitment. In order for the rest of the drivers to lead towards improvement, the system must be primed and ready – for instance through anti-racism education to ensure racial literacy and ensuring that anti-racism work is integrated with the quality improvement work from the outset. Otherwise, there is a risk of harm when individuals and teams embark on equity QI work if the system is not ready for this type of work.

	Secondary Driver	Change Ideas
A1	Elevate closing the racial & ethnic gap in health outcomes as leadership priority	• Sponsor and invest in anti-racism education across the organisation to ensure all systems are racially literate • Make the gaps visible through a racial & ethnic health equity dashboard reviewed at board and executive meetings
A2	Demonstrate leadership by naming racism and taking accountability for addressing it	• Identify systemic racist bias across the continuum of care and name this • Sponsor quality improvement work to address the systemic biases that prevent birthing women from receiving the care they need
A3	Enact system-wide approaches to address causes of the causes of institutional racism	• Conduct a systems analysis to locate elements of institutional racism that could be modified • Provide protected time to staff in quality improvement projects to make anti-racism work a priority

B. Integration of Anti-Racism Approaches in Improvement Efforts

Anti-racism approaches must be an integral part of quality improvement efforts and not seen as two separate components of the work. This begins at the start, with the involvement of racially minoritised individuals in the work. It is important that the improvement team itself is racially diverse, and that individuals on the team actively acknowledge one's own racial, economic, and cultural biases and privilege. This should extend beyond representation alone and be embedded throughout the improvement process, from identifying the problems and designing change ideas to measuring impact, ensuring improvement efforts actively address rather than reinforce the existing inequities.

	Secondary Driver	Change Ideas
B1	Involve racially minoritised individuals in every stage of development	• Ensure improvement team is racially diverse and representative of the population being served • Actively acknowledge one's own racial, economic, cultural biases and privilege • Consider including birthing women in population of focus as members of QI team

		• Co-partnership around shared aim • Involve people with lived experience in defining what success looks like (aim of the work), developing change ideas, and success measures • Increase awareness of initiatives for birthing women
B2	Identify racist bias and apply race-critical lens to the improvement work	• Use Anti-Racism Model for Improvement (MFI-AR) to guide improvement efforts and QI initiatives • Within improvement team, consider the ways in which racism impacts the lives of patients – both broadly and specifically within the clinical focus area of gestational diabetes • Acknowledge institutional racism • Pressure-test all change ideas through a race-critical lens that identifies and acknowledges power disparities • Ensure that discussions with birthing women about this work are led by anti-racism experts with lived experience of racialisation and who are trauma-informed • Identify racist bias in decision-making process
B3	Debias and refine guidelines	• Analyse key guidelines for relevant clinical focus area centring on anti-racism and refine accordingly • Debias gestational diabetes referral guidelines • Staff training to increase awareness of risks and actions based on debiased guidelines and protocols

C. Reliable Delivery of Debiased Clinical Guidelines and Protocols

This primary driver focuses on the reliable delivery of debiased clinical guidelines and protocols, consistently applied across races and ethnicities.

Based on the above guidelines and frameworks, teams should look at and analyse their compliance data disaggregated by race and ethnicity to see where the greatest opportunity to close process-related gaps exist. Teams should then start in areas of care within their sphere of control where there is greatest scope for impact (e.g. what's in teams' gift to affect), being aware of any unconscious bias or assumptions based on race and ethnicity when going through each guideline or protocol.

Additionally, while certain elements of the above guidelines and frameworks have been highlighted below, it is suggested that improvement teams go over entire set of guidelines and frameworks around gestational diabetes above to determine which specific areas lead to highest variability across gestational diabetes and focus change ideas on these specific areas.

	Secondary Driver	Change Ideas
C1	Interventions during pregnancy	**Awareness**:

		• Offering HbA1c testing at booking for South Asian birthing women • Ensuring accessibility to all re: language and culturally inclusive pictorial guide **Referral**: Earlier identification and referral to joint Diabetes and Antenatal Clinic **Self-Management**: Reducing women with gestational diabetes moving from diet control to medication through education around diet and exercise Reliable delivery of NICE guidelines for gestational diabetes, particularly related to Screening and Antenatal Care.
C2	Interventions during birth (admission to discharge)	Reliable delivery of NICE guidelines for gestational diabetes, particularly related to Intrapartum Care.
C3	Interventions post-partum (beyond discharge)	**Awareness**: Improve awareness of postnatal diabetes follow-up and screening: • Introduce a "smart phrase" for staff to inform women with gestational diabetes of their increased risk of Type 2 (T2) diabetes, the importance of postnatal follow-up and screening, including infographic • Educate maternity staff about the increased risk of T2 diabetes following gestational diabetes, the importance of postnatal follow-up and screening. In addition to maternity referral to the diabetes prevention programme: creation of posters/infographics with key messages • Educate women with gestational diabetes about the increased risk of T2 diabetes following gestational diabetes, the importance of postnatal follow-up and screening. Including a referral to the diabetes prevention programme; co-design to develop resource **Referral**: Increase referral to diabetes prevention support: • "Opt-out" referral to the Diabetes Prevention Programme (DPP) • Discussion with women, staff, and DPP to refer at 36/40 gestation

		Access: Improve postnatal care pathways and diabetes prevention for racialised birthing women with gestational diabetes Reliable delivery of NICE guidelines for gestational diabetes, particularly related to Neonatal Care and Postnatal Care.

D. Close the Equity Gap in Experience of Care of Service Users

Deep discussions with birthing women by trauma-informed staff during the LAN revealed powerful opportunities to close the equity gap in experience of care of women. This begins by centring the perspective of women within the population of focus, building trust and safety, and meaningfully involving racially minoritised individuals in all parts of the work. This means creating safe and accessible opportunities for people to share their experiences, particularly for those whose voices have been historically overlooked or excluded.

	Secondary Driver	Change Ideas
D1	Centre perspective of service users in the population of focus	• Conduct three-part data review (quantitative, qualitative staff and patient) at the start of the QI project • Engage in meaningful dialogues with women, led by trained facilitators who racially and ethnically reflect the population of focus and shared lived experience • Co-produce outputs (e.g. education videos and multi-media) with women, in their local languages • Develop co-produced resources to support conversations about gestational diabetes during pregnancy and post-partum
D2	Build and strengthen trust and safety	• Create safe and trusted, trauma-informed spaces for women to talk about their care experiences • Partner with trusted community organisations, faith leaders, and cultural healers – going to community spaces, not just having women come to clinical settings • Provide clear explanations of diagnoses and treatments in preferred languages • Build engagement, empowerment and trust by seeing birthing women as partners • Train staff to avoid racialised assumptions about gestational diabetes • Close the feedback loop in QI – communicate what actions were taken as a result of qualitative interviews, three-part data review, etc.
D3	Meaningfully involve racially minoritised	• Involve people with lived experience in defining what success looks like (aim of the work), developing change ideas, and success measures

	individuals in all parts of the work	• Expert-led, race trauma-informed qualitative exploration of the experiences of racialised birthing women and families who experienced gestational diabetes conditions

E. Stratified Data Across Race and Ethnicity for Improvement

The only way to determine whether improvement has occurred is through data—specifically, data stratified by race and ethnicity across both process and outcome measures. Teams in the LAN consistently identified data limitations as one of the most significant challenges in this work. For this reason, it is essential to assess what stratified data is available early in the improvement process and to partner with relevant stakeholders to ensure timely access to accurate, up-to-date data throughout the initiative.

	Secondary Driver	Change Ideas
E1	Collect, analyse, and publish data that is disaggregated by race and ethnicity	• Ensure QI team has access to disaggregated process and outcome level data by race and ethnicity, and able to analyse gaps in care between population of focus and white population • Create sustainable process or system of reporting and analysing data to look for improvement (e.g. trends and shifts) based on the QI work
E2	Ensure frequency of stratified data supports pace of improvement (e.g. weekly, monthly)	• Ensure data supports pace of improvement, e.g. weekly or monthly reporting of real-time data (vs. historical data from 1+ years previous)
E3	Create an anti-racism dashboard of key metrics, linked with patient safety	• Explicitly link anti-racism with patient safety and support through data • Track and communicate racialised patient safety indicators, e.g. reports of discrimination, dismissal of pain, delayed diagnosis, etc. • Create QI and leadership dashboards of key measures

4. Prioritising Changes: Where Do We Start?

Prioritising changes goes back to your aim: what are you trying to accomplish? Working backwards from there, each team will choose and prioritise change ideas for testing and improvement. Questions to consider to prioritise changes are:

- What is in our scope of control to impact within the length of this project/programme of work. What is in our team's gift to affect?
- What changes are our disaggregated data pointing us to? (when data is disaggregated by race and ethnicity)
- What matters most to the birthing women we are serving in the Black, Asian, and minority ethnic group populations?
- Where is the greatest potential for impact towards our aim?

- Where is there already will and champions in our organisation?

Teams in the LAN were not expected to test all listed change ideas during the programme. Consider this a menu of options from which you may choose what to tackle first based on the 7 Anti-Racism Principles that embed this work and the questions raised above.

Other QI tools may be utilised along with your current state assessment to help you decide where to start:

1. Pareto chart: A type of bar chart in which the various factors that contribute to an overall effect are arranged in order according to the magnitude of their effect. This ordering helps identify the "vital few" — the factors that warrant the most attention, regarding which are the highest contributors of greenhouse gas emissions in your clinical setting.
2. Priority matrix: A tool that can better help you to understand important relationships between two groupings (e.g., steps in a process and departments that conduct that step) and make decisions on where to focus.
3. Impact-effort matrix: A tool that helps identify which ideas seem easiest to achieve (least effort) with the most effects (highest impact). The ideas identified via this tool would be a great place to start.

Measurement Guidance

How Will We Know if a Change Is an Improvement?

Measurement is a critical part of knowing if we have made a difference, what the impact of the changes are, if we have met our aim, and future action to take. When selecting measures, it is vital to include the people whose lives will be impacted by the improvement to have a voice in deciding what measures are important from their perspective. While aims often centre around a quantitative aim or target, it's important to also measure your improvement work using quantitative and qualitative data.

Measurement for improvement should not be confused with measurement for research. This difference is outlined in the table below.

	Measurement for Research	Measurement for Learning and Improvement
PURPOSE	To discover new knowledge	To bring new knowledge into daily practice
TESTS	One large "blind" test	Many sequential, observable tests centred on learning
BIASES	Control for as many biases as possible	Design data collection to stabilise bias

DATA	Gather as much data as possible, "just in case"	"Just enough" data gathered through small sequential samples

As this work focuses on tackling the gap in ethnic inequality for maternal and neonatal outcomes, two core principles are critical in teams' quality improvement efforts:

1. **Collecting and analysing process and outcome data that is disaggregated by race and ethnicity** in order to see where the greatest opportunities lie in tackling the gap in ethnic inequality across the four clinical focus areas and focus improvement efforts
2. **Use of qualitative data to understand experience of patient and family centred on equity and anti-racism**

Disaggregating data (stratification) to show potential systemic inequities is a critical strategy for ensuring that improvement efforts close rather than maintain or widen equity gaps (e.g., race, ethnicity, language, etc).

Selecting Outcome Measures

Linking back to the numeric goal within the aim statement, the outcome measure indicates how the system is working, specifically the impact on women. Typically, there is one outcome measure for an improvement initiative, and at times, there may be a need for two.

Outcome measures should be directly tied to the team's aim around gestational diabetes and centre on the outcomes of women and babies.

Examples of outcome measures for gestational diabetes include the following: (Note: each outcome measure should be disaggregated and analysed by race and ethnicity)

- Maternal metabolic outcomes:
  - Gestational diabetes related (fasting value on the glucose tolerance test, 2 h value on the glucose tolerance test and glucose challenge test)
  - Glycaemic control (treatment modality, final insulin dose)
  - Insulin resistance (fasting blood sugar, fasting insulin, triglycerides, high-density lipoproteins)
  - Obesity
- Foetal outcomes:
  - Birth weight and size
  - Morbidity, including hypoglycaemia, birth asphyxia, Apgar score at 1 and 5 min, foetal anomalies, jaundice, neonatal ICU admission
- Pregnancy outcomes:
  - Delivery (pre-term labour, gestational age, placental weight, length of labour, mode of delivery, and nonelective caesarean section)
  - Complications (venous thromboembolism, postpartum haemorrhage, sepsis, urinary tract infection, vaginal infection, preeclampsia/eclampsia, and gestational hypertension)

Specifically in the LAN, teams focused on gestational diabetes had the following outcome measures:

- **Northern Care Alliance:**
  - Decrease in % of South Asian women on diet control moving to Metformin and/or Insulin as gestational diabetes intervention to 30% by March 2025, as defined by: South Asian women moving to Metformin or Insulin / South Asian women with gestational diabetes on diet control
  - Earlier Glucose Tolerance testing (GTT) and HbA1c testing at booking as defined by: Average gestation (weeks) at first GTT test for South Asian women
  - Earlier diagnosis of gestational diabetes via earlier GTT testing as defined by: Average gestation (weeks) at gestational diabetes diagnosis for South Asian women
- **St Mary's:**
  - Proportion of South Asian women with gestational diabetes who are informed of postnatal diabetes and follow-up and screening recommendations.
  - Proportion of South Asian women with gestational diabetes who are offered and receive diabetes follow up and screening at 6-13 weeks postnatal at 3 GP practices (GP data)
  - Proportion of South Asian women with gestational diabetes who are referred to and take up the diabetes prevention programme (DPP data)

Qualitative Measures of Woman's Experience of Care Centred on Equity

Additionally, qualitative measures of birthing women's experiences are critical to this work and should be guided by the team's aim. When gathering this information, it is important to take a trauma-informed approach, recognising that discussions about care experiences, particularly where racism may have played a role, can be emotionally charged and potentially retraumatising. Teams should ensure that these conversations are conducted safely, sensitively, and with appropriate support available for both women and staff. Some examples of questions to ask women with gestational diabetes in the population of focus around their experience of care centred on equity include the following: (note: customise, refine, and prioritise based on your particular aim for gestational diabetes; choose 1-2 qualitative outcome measures and 2-3 qualitative process measures, see below):

- To what extent do you feel that your care/treatment was affected by your race or ethnicity?
- To what extent did you feel included in the management of your diabetes and the decision for delivery?
- When were you counselled regarding dietary changes? Were your cultural customs/foods taken into consideration?
- To what extent do you feel confident with the information given to make the choices and decisions in your own care?
- To what degree were you treated with respect and compassion?
- To what extent do you trust your care team? To what extent do you feel your care team trusts you?

- Was information given to you in your preferred language and/or a language you understand? What have been your experiences around communication, language, interpretation, and translation?
- Were you offered an interpreter if necessary?
- To what extent was communication respectful and effective? How can it be improved even more around respect and effectiveness?
- What was the race or ethnicity of your main carer and how do you think this has (or has not) impacted your care?
- To what extent do you feel you were listened to and your concerns were heard, respected, and acted on?
- To what extent were your concerns taken seriously?
- Were you asked for feedback around your experience to inform future experience?

Teams involved in the LAN found the following key themes through qualitative data and interviews:

- Education re: diabetes and impact on self
- More culturally inclusive diet advice
- NICE Guidelines – early incorporation is best HbA1c can be beneficial but might be costly and impact services, with increased demand on staffing to review results and additional load on clinics
- Accurate and efficient monitoring
- Preconception care is important
- Education sessions are essential
- Understanding importance of exercise

Selecting Process Measures

Process measures assess whether the parts/steps in the system are performing as planned to achieve the aim. They help you measure whether you are on track in your efforts to improve the system around gestational diabetes. Select your process measures based on the part of the process or system your data suggests needs improvement to achieve your aim, while considering what is within your team's ability to influence. Ensure that process-level data includes race and ethnicity, and disaggregate this data by race and ethnicity when analysing your results.

In the case of gestational diabetes, it is possible you may focus first on improving intrapartum and neonatal care, as those are within your team's scope of control; before then moving upstream to screening, which has high potential for impact but may be less in your team's scope of control to influence.

Example process measures for gestational diabetes:

Intrapartum Care: blood glucose control during labour and birth

- % women with gestational diabetes whose capillary plasma glucose monitored every hour during labour and birth and maintained between 4 mmol/litre and 7 mmol/litre (disaggregated by race and ethnicity)

Neonatal Care

- % babies of women with diabetes with blood glucose testing administered routinely at 2 to 4 hours after birth (disaggregated by race and ethnicity)

Screening (up-stream, likely later in LAN)

- Percentage of women screened for gestational diabetes during 0-28 weeks gestation (disaggregated by race and ethnicity)

Note: Process data should be collected on a weekly basis and plotted over time using a run chart, annotated to note the various change ideas and Plan-Do-Study-Act (PDSA) cycles being tested. Start with the data available to you and build your measurement approach over time. Focus on collecting data that are useful for learning and improvement, rather than aiming for perfection. Remember, that measurement is a tool to support improvement, not an end in itself.

Teams that focused on gestational diabetes during the LAN had the following outcome measures:

- **St Mary's:**
  - PM1a: The number of staff aware of postnatal diabetes follow-up and screening for women with gestational diabetes (*Repeat staff survey)*
  - PM1b: The knowledge and feedback of diabetes midwives using smart phrase and informing women of follow up / screening *(Qualitative discussions)*
  - PM2a: The number of women who are coded / stated to have had gestational diabetes in pregnancy on their discharge letters
  - PM2b: The number of women who are correctly coded at X GP practice(s) as having gestational diabetes in pregnancy
  - PM2c: The number of women offered diabetes follow up and screening at 6-13 weeks after birth
  - PM3a: The number of staff aware of diabetes prevention programme including women's eligibility and process of referral *(Repeat staff survey)*
  - PM3b: The number of women who receive information about the diabetes prevention programme *(Manual audit)*
- **Northern Care Alliance:**
  - HbA1c testing at booking, defined by Bookings for South Asian women where a HbA1c test was performed / Bookings for South Asian women

Selecting Balance Measures

Balance measures help you identify whether changes made to improve one part of the system are causing unintended consequences elsewhere. Select measures that will help you monitor for unexpected effects of the change you are testing. For example, in the LAN, Northern Care

Alliance's balance measures used average gestation (weeks) at first MDT clinic attendance for women who were not South Asian as a balance measure.

Suggested Family of Measures for Gestational Diabetes

Outcome Measures	Process Measures	Balance Measures
• % of racialised women on diet control moving to Metformin and/or Insulin as gestational diabetes intervention *(with goal to decrease this)* • Proportion of racialised women with gestational diabetes who are referred to and take up a diabetes prevention program *(with goal to increase this)*	• Earlier GTT and HbA1c testing at booking as defined by: Average gestation (weeks) at first GTT test for racialised women • Proportion of racialised women with gestational diabetes who are offered and receive diabetes follow up and screening at 6-13 weeks postnatal	• Average gestation at first MDT clinic attendance for non-racialised women

Getting Started with Measures: Practical Guidance

Look at your data disaggregated by race and ethnicity to identify where the greatest points of opportunity are for improvement. Use these findings to develop your aim and select corresponding outcome measures; process and balancing measures to assess whether your changes are leading to improvement without adversely affecting other parts of the system.

We understand that not all measures may currently be available to analyse by race and ethnicity. As a first step, assess your current state by identifying which outcome and process measures are already being collected and whether the data can be disaggregated and analysed by race and ethnicity.

Start with the women currently in your unit. Review their patient records, confirm with patient whether race and ethnicity is correct. If race and ethnicity is not currently documented, ask women to self-identify their race and ethnicity and record this information. Continue this approach with all new women so that moving forward, completeness of patient records include race and ethnicity data, and enable relevant outcome and process measures to be disaggregated by race and ethnicity.

Use PDSA cycles to test your approach collecting qualitative data. Determine where in the process this will happen and test the process using a small scale PDSA (e.g. 1-3 women to

begin with). Using the learning from those initial PDSA cycles, refine the qualitative questions and test these questions with a larger number of women. Continue to refine the questions and process until team has a high degree of belief that these are the “right” questions to ask in the right way at the right time for your population of focus, making sure it captures patient experience information related to equity, race, and ethnicity and improve the process and system in a meaningful way.

Considerations for Spread and Scale

When considering how to spread change ideas to another unit or system; or scaling regionally or nationally, consider the following learning from LAN teams:

Spreading to another unit or system:

- Offering HbA1c testing at booking for racialised birthing women
- Earlier identification and referral to joint Diabetes and Antenatal Clinic
- Improve awareness of postnatal diabetes follow-up and screening
- Educational videos co-produced with women in local languages

Conclusion

This change package provides a framework to support teams in improving gestational diabetes. The change ideas should be tested, adapted and refined to meet the needs of people using services, staff and the local context.

Teams are encouraged to use quality improvement methods to test changes, measure impact and learn what works. Meaningful involvement of people using services, families, carers and staff should remain central throughout.

Improvement is an ongoing process. Teams should regularly review data, share learning and embed successful changes into routine practice to support sustainable, person-centred care.

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