In 2019-21, **241 women died** during or up to six weeks after pregnancy among 2,066,997 women giving birth in the UK. **11.7 women** per 100,000 died during pregnancy or up to six weeks after childbirth or the end of pregnancy.

**Causes of women’s deaths**

- **COVID-19**: 14% of deaths
- **Cardiac disease**: 14% of deaths
- **Blood clots**: 14% of deaths
- **Mental health conditions**: 10% of deaths
- **Sepsis**: 10% of deaths
- **Epilepsy and stroke**: 9% of deaths
- **Other physical conditions**: 8% of deaths
- **Bleeding**: 7% of deaths
- **Pre-eclampsia**: 4% of deaths
- **Cancer**: 2% of deaths
- **Other**: 10% of deaths

When maternal deaths due to COVID-19 are excluded, **10.1 women** per 100,000 died during pregnancy or up to six weeks after childbirth or the end of pregnancy.

**Inequalities in maternal mortality**

**Ethnic group**

- **White**: 9.7 per 100,000
- **Asian**: 17.6 per 100,000
- **Black**: 37.2 per 100,000

**Living in more deprived areas**

- **Least deprived**: 8.7 per 100,000
- **Most deprived**: 17.7 per 100,000
Saving Lives, Improving Mothers’ Care 2023: Lay Summary

Lisa Hinton on behalf of the MBRRACE-UK lay summary writing group: Clotilde Abe (Fivexmore), Atinuke Awe (Fivexmore), Marcus Green (Action on Pre-Eclampsia), Elizabeth Duff (NCT), Sara Kenyon (MBRRACE-UK), Kirsty Kitchen (Birth Companions), Marian Knight (MBRRACE-UK), Allison Felker (MBRRACE-UK), Liz Thomas (AvMA), Toni Woodman (Maternal Mental Health Alliance), Jane Hanna (SUDEP Action).

The United Kingdom’s Confidential Enquiry into Maternal Deaths represents the gold standard around the world for rigorous investigations to drive improvements in maternity care. The Enquiry is focused on the importance of learning from every woman’s death; for staff and health services; for the family and friends they leave behind; and for those who will use maternity services in the future. The Enquiry investigates maternal deaths during pregnancy and birth and in the 12 months after childbirth, pregnancy loss or termination. This represents a critical period in the life of every new child; poor maternal outcomes and mental ill health have far-reaching impacts on the children and families affected by maternal deaths. The report offers detailed recommendations for professional organisations and those updating guidance and training, policymakers, service planners/commissioners as well as health professionals. The lay summary also signposts messages for women and their families, including key concerns or ‘red flags’ to look out for.

This is the tenth MBRRACE-UK annual report and details the care of 572 women who died during pregnancy, or up to one year after pregnancy between 2019 and 2021 in the UK. The report also includes confidential enquiries into the care of women who died between 2019-2021 in the UK and Ireland from haemorrhage, amniotic fluid embolism, anaesthetic causes, sepsis, general medical and surgical disorders, epilepsy and stroke.

What this year’s report shows

By global standards, giving birth in the UK is safe, but the data reported this year should be taken as a warning signal concerning the state of maternity services and the consequences of increasing inequalities and social complexities. While COVID-19 is a significant feature of the deaths reported this year, the pandemic must not distract from wider trends. The Government’s ambition in England was to reduce maternal mortality by 50% between 2010-2025. This target is unlikely to be met. Since 2009-11, maternal mortality has increased by 15%. Crucially, the figures detailed in this report are from before the cost-of-living crisis of 2022-23. When the deaths due to COVID-19 are excluded maternal death rates are very similar to those in 2016. We risk losing the gains made in previous decades.

- Deaths from direct causes (such as childbirth-related infections or suicide) have increased.
- For conditions such as pre-eclampsia, the rates remain more than five times higher than the lowest rate in 2012-14.
- Women from Black ethnic backgrounds remain four times more likely to die, and women from Asian ethnic backgrounds are twice as likely to die, compared to White women.
- Suicide is the leading direct cause of death between 6 weeks and 12 months after the end of pregnancy.
- Women living in the most deprived areas continue to have the highest maternal mortality rate compared to those living in the least deprived areas.
- Twelve percent of women who died during or up to a year after pregnancy in the UK in 2019-21 had multiple severe disadvantages.

Many people are seeing and acting on this data that weren’t before. Women and their families should continue to speak up for themselves and each other; charities and support groups should maintain their vital work in raising awareness and driving improvement, and healthcare professionals their crucial actions to address equity. But these figures are bleak, and there is an urgent need for sustained action on these findings. Any work must take full account of the challenges that lie in the pressurised health system and the impact of wider social, economic and health influences on women’s lives.

COVID-19

The COVID-19 pandemic has cast a spotlight on the vulnerability of pregnant women to infection. Infection with COVID-19 was the leading cause of maternal deaths between 2019 and 21, and these women were primarily from ethnic minority backgrounds; of the 33 women who died from COVID-19 during pregnancy or up to 6 weeks after pregnancy, 14 were Asian and 5 were Black. The pandemic exposed gaps in the healthcare system, creating overwhelming pressures for services, systems and providers, and re-ignited conversations about vaccination in pregnancy. Confused
messaging alongside misinformation resulted in vaccine hesitancy, particularly for disadvantaged and minority groups. This is not unique to COVID-19 - women are still dying of preventable diseases such as flu – and highlights the need for consistent, clear messaging on vaccination in pregnancy. A key recommendation from this report is the need to prepare a route for the rapid delivery of advice and data on new vaccines and treatments, alongside a sustained focus on the risks of flu, COVID-19 and sepsis.

Key messages
from the themed mortality enquiry report 2023

Treat pregnant, recently pregnant, and breastfeeding women the same as a non-pregnant person unless there is a very clear reason not to.

- Prepare a route for rapid delivery of advice and data on new vaccines and treatments
- Tailor care after pregnancy to a woman’s individual needs
- Ensure staff in maternal medicine networks have the skills to care for complex physical, mental and social care needs
- Include in medicine and vaccine research
- Include in guidance for admission to ECMO* services
- Develop training resources to promote shared decision making and counselling on medication use

*ECMO = Extracorporeal membrane oxygenation

Equity for pregnant and breastfeeding women

MBRRACE-UK - Saving Lives, Improving Mothers’ Care 2023 - Lay Summary
Key messages for health and care professionals - Out of sight, out of mind

Working in silos

The risks of disjointed or siloed working across health and social care agencies is a repeated theme in these reports. Care must be tailored to a woman’s individual needs; care for pregnant or recently pregnant women must stretch beyond the nine months of pregnancy and birth and needs to be shared across services and agencies. These include maternity services, maternal medicine networks, primary care, health visitors, mental health, domestic and substance abuse services, and, where needed, HIV services and social care. Those who design and commission services must enable greater collaboration across those services that are vital during pregnancy and in the first year after birth, including provision for women who have experienced the loss of a pregnancy or a baby or had a child removed by Children’s Social Care.

Postnatal care

Over 300 women died in the 12 months after pregnancy. The focus of maternity care needs to extend beyond pregnancy and childbirth. Postnatal care is an important window of opportunity, yet services are currently not joined up; the focus on the mother’s health often falls away and women lack the support they need. This report highlights the importance of improved multi-disciplinary and multi-agency working to include GPs, health visitors, domestic abuse and substance misuse services, mental and public health teams and social care.

Increasing social complexities

The figures reported this year reflect again how inequality and disadvantage can impact on pregnant women, new mothers and their infants. The report highlights the impacts of multiple disadvantages such as a mental health diagnosis, substance use or domestic abuse, in addition to living in deprived and under-served communities. Women living with social complexities are vulnerable and often hesitant to engage with services, because of fears of social care involvement. In considering how to act to improve outcomes, these complexities must be better recognised. Blunt or generalised responses to complex situations, such as using standard rules in place of proper resourcing to enable personalised care, may result in unintended consequences. Staff in maternal medicine networks and the wider health and care system must have the skills to care for women with complex mental, physical and social care needs.

The Birth Companions Birth Charter for women with involvement from Children’s Social Care (www.birthcompanions.org.uk/resources/birth-charter-children-social-care) provides a comprehensive set of principles to inform care for women who may be at risk of separation, or separated from their baby, at or shortly after birth. These women’s circumstances are often incredibly complex, and as previous MBRRACE reports have shown, there is a high risk of death by suicide or substance misuse during and after child removal. The Birth Charter principles can be used by women, families and professionals to advocate for better care, and to inform improved service provision.

Epilepsy and medications in pregnancy

Many women who died from epilepsy had seizures during pregnancy that weren’t properly controlled and often their medicines weren’t changed to help control their seizures better. The current focus is on the medical risks to the unborn baby, and not on the benefit of medicines to the mother. Not discussing all options and recommendations means women’s choices are being taken away; medication may be the only way for women to control their epilepsy. Women need to be supported to make an informed decision about risks to their unborn baby and what works for them. A Sudden Unexpected Death in Epilepsy (SUDEP) and Seizure Safety Checklist and digital EpSMon app exist to support a discussion of SUDEP (sudep.org). We also need to develop training resources on medication use in pregnancy to enable healthcare professionals to promote shared decision-making and counselling.

Key messages for women and their families

- Pregnancy can affect your health in the nine months you are pregnant, and beyond.
- Think about your health before and after, as well as during your pregnancy.
- If you have a pre-existing health condition, try to get specialist advice before you get pregnant. Don’t stop existing medication without expert advice.
- Stay connected with your usual care teams, and keep your GP and midwife informed of any changes in your health.
**Vaccination**

Make sure you take up vaccinations for flu and COVID-19, as well as any other recommended vaccinations, during pregnancy.

**Think Sepsis**

Be aware of sepsis symptoms up to 6 weeks after you have given birth

**Sepsis symptoms to look out for, and seek advice:**

- Slurred speech or confusion
- Extreme shivering or muscle pain
- Passing no urine (in a day)
- Severe breathlessness
- It feels like you’re going to die
- Skin mottled or discoloured

**Medicines in pregnancy – myth buster**

It is key to remember that your health is important for your baby, and for you. While women are often nervous about taking medicines in pregnancy, continuing medication may be the best way to keep you and your baby healthy. There can be risks to stopping existing medications. Your GP or midwife might need to ask a specialist outside of your usual antenatal team to see you so that you can choose what works best for you.

**Mental health**

Mental health is unique and important in pregnancy; the mind can change as well as the body. If you see or experience something that doesn’t feel right, seek help. Speak up, and speak up repeatedly. These are signs to be aware of, in yourself, a loved one or friend.

**Red flags to look out for, and seek advice:**

- Do you have new feelings or thoughts that you have never had before, which make you disturbed or anxious?
- Are you experiencing thoughts of suicide or harming yourself in violent ways?
- Are you struggling to sleep?
- Are you feeling incompetent, as though you can’t cope, or estranged from your baby? Are these feelings persistent?
- Do you feel you are getting worse?

**High blood pressure or pre-eclampsia during or after your pregnancy**

- You may need to take aspirin if you are at risk of pre-eclampsia. Ask your midwife, GP or pharmacist for advice.
- You should expect to have your blood pressure and urine tested at every antenatal visit. Make sure this is happening. If it is not, ask why not.

**Factors which put you at moderate risk of pre-eclampsia:**

- First pregnancy
- Age 40 years or older
- Pregnancy interval of more than 10 years
- Body Mass Index (BMI) of 35 or more
- Family history of pre-eclampsia
- Multiple pregnancy
If you feel you are not being heard or something isn’t right, remember the Fivexmore Six steps (fivexmore.org/6steps)

Speak up. If you feel like something isn’t right, make sure you speak to a medical professional and don’t stay silent.

Find an advocate. This could be your partner, a family member or a trusted friend that can speak on your behalf if need be.

Seek a second opinion. You are allowed to ask for a second opinion of another medical professional if you feel you need to.

Trust your gut. And speak up. Your gut feelings are almost always right. Don't ignore them. You know your body better than anyone.

Do your research. On pregnancy and labour via trusted sources such as NHS.uk, nice.org.uk and patient.info

Document everything. Be sure that any treatment or medication you are given or refused is written down in your maternity notes by your doctor or midwife stating their name and reason why.

Where to find help and trusted information

Action against Medical Accidents: www.avma.org.uk
Action on Pre-eclampsia: action-on-pre-eclampsia.org.uk
Birth Companions: www.birthcompanions.org.uk
Fivexmore: fivexmore.org
Maternal Mental Health Alliance: maternalmentalhealthalliance.org
National Childbirth Trust: www.nct.org.uk
SUDEP Action: sudep.org
UK Sepsis Trust: sepsistrust.org