In 2015-17, **209 women died** during or up to six weeks after pregnancy, from causes associated with their pregnancy, among 2,280,451 women giving birth in the UK. **9.2 women** per 100,000 died during pregnancy or up to six weeks after childbirth or the end of pregnancy.

### Causes of women’s deaths

Heart disease can occur for the first time in pregnancy – severe chest pain is a red flag.

Women who are older, obese, smoke or have diabetes or a family history may be at greater risk of heart disease.

**Breathlessness** when resting and especially when lying flat is not normal in pregnancy and may indicate heart problems.

### Inequalities in maternal mortality

**Ethnic group**

- White: 23% (77 women)
- Mixed: 4% (12 women)
- Chinese/other: 4% (12 women)
- Black: 10% (27 women)
- Asian: 10% (20 women)

**Age**

- <20 years: 3% (9 women)
- 20 - 24: 15% (45 women)
- 25 - 29: 28% (84 women)
- 30 - 34: 32% (96 women)
- 35 - 39: 4% (12 women)
- ≥40: 4% (12 women)

**Living in more deprived areas**

- 5th quintile (most deprived): 37% (117 women)
- 4th quintile: 28% (84 women)
- 3rd quintile: 16% (48 women)
- 2nd quintile: 10% (34 women)
- 1st quintile (least deprived): 9% (27 women)

- proportion of women giving birth: 5th quintile 5%, 4th quintile 7%, 3rd quintile 11%, 2nd quintile 12%, 1st quintile 15%
- proportion of women who died: 5th quintile 12%, 4th quintile 7%, 3rd quintile 6%, 2nd quintile 4%, 1st quintile 3%

Women with risk factors for pre-eclampsia need aspirin to be prescribed from 12 weeks of pregnancy.
Saving Lives, Improving Mothers’ Care

Lisa Hinton on behalf of the MBRRACE-UK lay summary writing group

Writing group members: Marcus Green (Action on Pre-Eclampsia), Kirsty Kitchen (Birth Companions), Marian Knight (MBRRACE-UK), Jenny Kurinczuk (MBRRACE-UK), Liz Thomas (Action against Medical Accidents), Maureen Treadwell (Birth Trauma Association).

The United Kingdom’s Confidential Enquiry into Maternal Deaths represents a gold standard around the world for investigations and improvements in maternity care. Through its rigorous reviews, the Enquiry recognises the importance of learning from every woman’s death, during and after pregnancy, not only for staff and health services, but also the family and friends she leaves behind. This year the report examines in detail the care of women who died during, or up to one year after, pregnancy between 2015 and 2017 in the UK and Ireland from heart disease, blood pressure problems such as pre-eclampsia, early pregnancy conditions and accidents. It also looks at the care of women in pregnancy with newly diagnosed breast cancer.

What this year’s report shows

Pregnancy remains very safe in the UK. In 2015-17 209 women, of the 2,280,451 giving birth, died during or up to six weeks after pregnancy. Heart disease remains the leading cause of death, followed by thrombosis and thromboembolism (blood clots). Maternal suicide is only the fifth most common cause of women’s deaths during pregnancy and immediately afterwards, but is the leading cause of death over the first year after pregnancy.

THE GAP

Maternal deaths are not evenly spread across our population. This report provides more detail on the inequalities behind these figures. Women from older age groups, black, Asian or mixed ethnic groups or who live in deprived areas have higher maternal death rates. Although it is important to recognise that even in these groups, maternal death is very uncommon, and much less common than in many other countries, the differences are significant. This year’s report shows black women are five times more likely to die as a result of complications in their pregnancy than white women. For women of mixed ethnicity the risk is threefold and for Asian women it is double. But to focus on ethnicity is not the whole story. We know that women who die are more likely to have multiple complications including mental and physical health problems and complex social factors. These figures need unpacking in future research so we can understand more about what is driving these stark inequalities. At present we don’t have enough information to explain the complex and multiple factors at play. Understanding these disparities needs urgent research and action.

MIND THE GAP

This year our key message is “mind the gap”. In addition to inequalities in the women who die, the report highlights the imperative for joined up care. Transitions between services and across systems are risk points in women’s care, and have proved, time and again, to be where women are vulnerable to falling through the cracks because joined up care isn’t working.

| Black and Asian women have a higher risk of dying in pregnancy |
|-----------------------------|------------------|
| White women                 | 7/100,000        |
| Asian women                 | 2x 13/100,000    |
| Mixed ethnicity women       | 3x 23/100,000    |
| Black women                 | 5x 38/100,000    |
Heart Disease

Still the most frequent cause of women dying during or after pregnancy, heart disease can occur for the first time in pregnancy. Three quarters of the women who died didn’t know they had heart disease beforehand. Some women had family members who had died of heart disease, or had sudden unexplained deaths among younger adult family members. It is important to let someone know if there is this family history of heart disease or sudden death.

Red flags to look out for, and seek advice:
- you have severe chest pain spreading to your jaw, arm or back
- your heart is persistently racing
- you are severely breathless when resting, especially if it happens when you lie flat
- you experience fainting while exercising

Pre-eclampsia

Aspirin, in low dose, is the single most important thing to help prevent pre-eclampsia for women at risk. Make sure you get it prescribed by your midwife or GP.

Although it is still very uncommon for women to die from pre-eclampsia, we know that 2 in 3 deaths from this condition can be avoided. This year’s report, in line with new guidance from the National Institute for Health and Care Excellence (NICE), advises that if you are at high risk of pre-eclampsia, or have more than one moderate risk factor, you should be prescribed 75-150mg aspirin daily ideally from 12 weeks of pregnancy until your baby is born.

You are at high risk of pre-eclampsia if you:
- had blood pressure problems during a previous pregnancy
- have chronic kidney disease
- have an autoimmune disease such as systemic lupus erythematosis or antiphospholipid syndrome
- have type 1 or type 2 diabetes
- have chronic blood pressure problems

You are at moderate risk of pre-eclampsia if:
- this is your first pregnancy, or you are expecting twins or triplets
- you are age 40 years or older
- you have a pregnancy interval of more than 10 years
- your body mass index (BMI) is 35 kg/m2 or more at your first antenatal visit
- you have a family history of pre-eclampsia

Breast Cancer

Pregnancy: Just because you are pregnant doesn’t mean you can’t develop cancer. Know your body, and if you have any symptoms you are worried about, in particular an unexplained breast lump, get checked out. Being pregnant doesn’t mean you can’t receive treatment for your cancer. Most cancer treatments can be given during pregnancy. You should see a specialist who can assess what treatments are advisable for you and your baby. Most women can go to full term of pregnancy and have a normal or induced birth, although you should discuss this with your healthcare team.

After birth: It is OK to breastfeed from your unaffected breast if you are not receiving chemotherapy. Most women can breastfeed for at least a short time after giving birth as long as they have not had chemotherapy drugs in the previous two weeks.

Thinking about a pregnancy: If you have cancer and are thinking about becoming pregnant, discuss options with your healthcare team. While advice will be individual, it is generally recommended that women with breast cancer should wait at least two years after treatment before becoming pregnant.
MIND THE GAP

Transitions between care/services have been identified as a weak point throughout this year’s report. These are the vulnerable points where women can fall through gaps in care.

Key messages for women, families and health professionals

Women – speak up

Attending antenatal care is all important. Let health professionals know if you feel unable to access care for any reason. Your health is important, and you need to be heard. If you are worried it is important to seek advice. Doctors and midwives want to know if;

- You are in severe pain
- You have chest pain
- You have low mood or are struggling
- You are experiencing severe breathlessness
- You suspect a breast lump

The care you need may change during pregnancy. So if you feel you are getting worse, or if you feel your needs have changed, speak up.

And - mind the gap

Think about your health before and after, as well as during your pregnancy. Stay connected with your usual care teams, partner, family and friends and keep your GP informed.

Family and friends – speak out

- If a woman collapses and you know she has recently been, or is, pregnant, let the emergency services know.
- If you are aware of a relative, friend or neighbour who is unable to access care, speak out for them.

For health professionals – mind the gaps

- Joined up care, across services and systems, is essential. The more health and social factors a woman is dealing with, the more professionals are involved in her care, and therefore the greater the risk that care will fall apart for her. You have a responsibility to make sure her care is being co-ordinated and that needs are being addressed.

You can make a difference.

Where to find help and trusted information

NHS Website https://www.nhs.uk
NHS Direct Wales https://www.nhsdirect.wales.nhs.uk
Ready Steady Baby http://www.readysteadybaby.org.uk
British Heart Foundation https://www.bhf.org.uk
Action on Pre-eclampsia https://action-on-pre-eclampsia.org.uk
Mummys star https://www.mummysstar.org
Samaritans https://www.samaritans.org
Birth Companions is the leading voice on the needs of women facing multiple disadvantage during pregnancy and early motherhood https://www.birthcompanions.org.uk