

Being South Asian is as great a risk factor for stillbirth as smoking

June 29 2017, by Miranda Davies-Tuck, Euan Wallace And Mary-Ann Davey



We need to change the way we monitor the pregnancies of women born in South Asia to reduce their chance of a stillbirth. Credit: www.shutterstock.com

Australian women born in South Asia are more likely to have a stillbirth



than other women, perhaps due to a rapidly ageing placenta that cannot support the pregnancy, new research suggests.

Our <u>study</u> looked at 700,000 births in Victoria over more than a decade. We found <u>women</u> born in India, Pakistan, Sri Lanka, Afghanistan and Bangladesh had a 1.5 increased chance of a stillbirth at the end of their <u>pregnancy</u> (known as a "term stillbirth") compared with women born in Australia or New Zealand.

That's equivalent to 2.6 term stillbirths per 1,000 births for South Asianborn women compared with 1.5 per 1,000 births to women born in Australia and New Zealand.

This is an increased risk equivalent to <u>smoking</u>, <u>advanced maternal age</u> <u>or obesity</u>.

The risk of a term stillbirth increased earlier in pregnancy and rose more rapidly in women born in South Asia. Alarmingly, for South Asian-born women, the rate of stillbirths at 39 weeks' gestation was almost equivalent to the rate in Australian- and New Zealand-born women at 41 weeks (when the chance of stillbirth would be higher than earlier in the pregnancy).

While other research has found the mother's ethnicity places a role in the risk of a stillbirth, this has largely been put down to factors related to <u>migration and social disadvantage</u>. What our research shows is women born in South Asia and giving birth in Australia are at increased risk even when other factors are taken into account.

This means we need to rethink how we monitor and manage the pregnancies of women born in South Asia, including redefining when some babies reach "term".



Why this matters

About seven per 1,000 babies born each year in Australia are stillborn – when the fetus dies at or after 20 weeks' gestation – a figure that has remained unchanged over the past two decades.

Advanced <u>maternal age</u>, maternal infections, non-communicable diseases (like pre-existing diabetes and <u>high blood pressure</u>), obesity and a prolonged pregnancy are known <u>risk factors</u> for stillbirth globally.

Not only can a woman's country of birth now be added to the list, our research suggests how we look after pregnant women of South Asian origin needs to change.

In another recent <u>study</u>, we found that at 41 weeks' pregnancy, South Asian-born women experienced rates of fetal distress at almost four times the rate of Australian- and New Zealand-born mothers.

Current <u>national</u> and <u>international</u> guidelines recommend additional fetal monitoring and/or induction of labour for pregnancies that progress beyond 41 weeks due to the increased risks of stillbirth.

But for South Asian-born women this may be too late.

Why might this be happening?

There is growing evidence to suggest a mother's ethnicity influences how fast her placenta ages as her pregnancy progresses.

For some women, they can go into spontaneous labour sooner. In our study, we found South Asian-born women went into labour a median one week earlier than Australian- or New Zealand-born women.



However, for others, an ageing placenta <u>cannot meet</u> the fetus' increasing metabolic needs at term and beyond. And this increases the risk of stillbirth.

We still don't know which individual woman will go down which path.

Can we spot ageing placentas?

Biological markers – caps on the ends of chromosomes or "<u>telomeres</u>" – can help us assess ageing. Each time a cell replicates, the caps on the chromosomes get shorter. So shorter telomeres are a sign of <u>more rapid</u> <u>cellular ageing</u>.

And the length of telomeres in placentas from pregnancies ending in stillbirth are <u>two times shorter</u> than those from live births. In other words, the placental cells had aged faster.

Some researchers have also studied ethnic differences in placental telomere length.

In an <u>American study</u>, placental telomeres from pregnancies in black women were significantly shorter than from pregnancies in white women (the ethnic backgrounds of the women were not further defined in the study).

Whether telomeres are shorter in placentas from pregnancies in South Asian-born women is unknown.

Does this matter?

We don't know the cause for up to <u>one-quarter</u> of all stillbirths in Australia. So, better understanding the role of placental ageing may help.



Our research is also relevant as migration from South Asian countries to Australia is growing. Almost <u>one-third</u> of people migrating to Australia are from South Asian countries. So, the number of women giving birth in Australia from these countries is also increasing. Now, Indian mothers make up <u>almost 4%</u> (roughly 12,000) of all women giving birth in Australia a year.

It's time this was reflected in how we manage the pregnancies of women born in South Asia, particularly at the end of their pregnancies. We may have to more closely monitor their pregnancies and, if needed, recommend their labour be induced sooner than other women to reduce their chance of a <u>stillbirth</u>.

This article was originally published on <u>The Conversation</u>. Read the <u>original article</u>.

Provided by The Conversation

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