

# Population attributable risk

To be read with the *Perinatal Services Performance Indicators 2014-15 report*



## What is population attributable risk?

Population attributable risk (PAR) can measure the impact of a risk factor on an outcome of disease or death. In this report, PARs have been calculated to assess how much of a reduction in perinatal mortality (the number of stillbirths and deaths within the first 28 days of life) would occur if the exposure to, and/or prevalence of, a risk factor is eliminated or managed effectively.

There are many risk factors affecting mothers and babies that contribute to perinatal mortality and individual risk factors may interact with each other to impact the overall risk of perinatal mortality (PAR for these individual risk factors often overlap and may add up to more than 100).

PAR can assist health services to understand which perinatal mortality risk factors are the most important for the women who receive care and/or birthing assistance at their service.

## Risk factors for perinatal mortality

PAR for perinatal mortality has been calculated for a number of risk factors, including:

- maternal obesity (body mass index (BMI)  $\geq 35$  kg/m<sup>2</sup>)
- mothers who are smokers in the second half of pregnancy
- mothers who are younger than 20 years old
- mothers being 35 years or older
- the mother's country of birth
- twin or higher order births
- lowest socioeconomic quintile (based on the mother's place of residence)
- birthweight below the third centile (severe fetal growth restriction) that remained undetected before birth
- extreme prematurity (< 32 weeks gestation) and prematurity (< 37 weeks gestation)
- mother has pre-existing diabetes, also called pre-gestational diabetes (type 1 and type 2 diabetes)
- the Indigenous status of the mother.

## Benefits of PAR

PAR identifies the risk factors that contributed most to the perinatal deaths and can be used to provide a focus for quality improvement activities to reduce perinatal mortality.

## Limitations of PAR

The PAR only relates to the direct and unilateral relationship or contribution of the specific risk factor in relation to the outcome (perinatal mortality), and does not adjust for other associated risk factors. For example, the effect of prematurity on perinatal mortality is not adjusted for twin births.

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