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Ending preventable stillbirths

An Executive Summary for *The Lancet*'s Series

Credit: Suzanne Lee/Save the Children/India

"At the core of public health programmes for women's and children's health… high quality antenatal and intrapartum care protects the mother and her baby, and represents a quadruple return on investments, saving the lives of mothers and newborns, preventing stillbirths, and additionally, improving child development."[1]

Headline messages

- High number of preventable deaths: An estimated 2·6 million stillbirths occur annually, of which 98% occur in low-income and middle-income countries and 75% in sub-Saharan Africa and south Asia. Half of all stillbirths (1·3 million) occur during labour and birth. Most result from preventable conditions such as maternal infections (notably syphilis and malaria), non-communicable diseases, and obstetric complications. Few are due to congenital disorders, but some of these are also preventable.
- Heavy burden of psychosocial and economic cost on families and nations: The burden of stillbirth affects women, families, caregivers, communities, and society. Parents experience various psychological symptoms that often persist long after the death of their baby but could be mitigated by respectful maternity services, including bereavement care. An estimated 4·2 million women are living with depression associated with a previous stillbirth. Stigma and taboo further exacerbate trauma for families, and fatalism impedes stillbirth prevention.
- Most stillbirths are preventable with health system improvements: Stillbirths are preventable through high quality antenatal and intrapartum care within the continuum of care for women and children. Such inputs result in a quadruple return on investment by preventing maternal and newborn deaths and stillbirths, plus improving child development. The stillbirth rate is a sensitive marker of quality and equity of health care. In every region, there are countries making more rapid progress for preventing stillbirths.
- Opportunities to integrate stillbirths within women's and children's health programmes: These opportunities must be seized more systematically. Some initiatives, such as the multi-stakeholder Every Newborn Action Plan, within the Every Woman Every Child (EWEC) umbrella, have included stillbirths, for example with 2030 targets. Data for tracking stillbirth has increased. Yet mentions of stillbirth remain limited in most relevant policies, research, and funding, showing missed opportunities to integrate and act to ensure progress.
- Priority actions to accelerate reduction of stillbirths: These actions include (1) intentional leadership, especially from policy makers, which is identified as the biggest challenge; (2) increased voice, especially of women; (3) implementation of integrated interventions with commensurate investment; (4) indicators to measure effect of interventions and especially to monitor programmatic progress and quality of care; and (5) investigation into crucial knowledge gaps.

Ending preventable stillbirths

This five-paper Series on ending preventable stillbirths[1–5] reports on the present state of stillbirths, highlights missed opportunities, and identifies actions for accelerated progress to end preventable stillbirths and reach 2030 maternal, neonatal, and child survival targets. As a collaboration of 216 authors, investigators, and advisers representing 43 countries and more than 100 organisations, we present a renewed call to action for the post-2015 era, framed within the context of health, survival, and overall quality of care for women and their babies.

Definition

In this Series, stillbirth refers to all pregnancy losses after 22 weeks of gestation, but for comparable national estimates, we only present those beyond 28 weeks' gestation (third trimester). Where possible, we have corrected data to 28 weeks rather than using the 1000 g threshold, because these are not equivalent.

The 2011 *Lancet* Stillbirths Series reviewed the global status of stillbirths and presented the case for a triple return on investment in stillbirth prevention that also prevents newborn and maternal deaths. That Series received widespread media attention and an unprecedented response.[1] However, despite progress this new Series shows that more must be done to integrate stillbirth prevention within global and national agendas for high quality health care for women, adolescents, and babies. This message resonates with other *Lancet* Series, notably on maternal health, early child development, and Every Newborn.

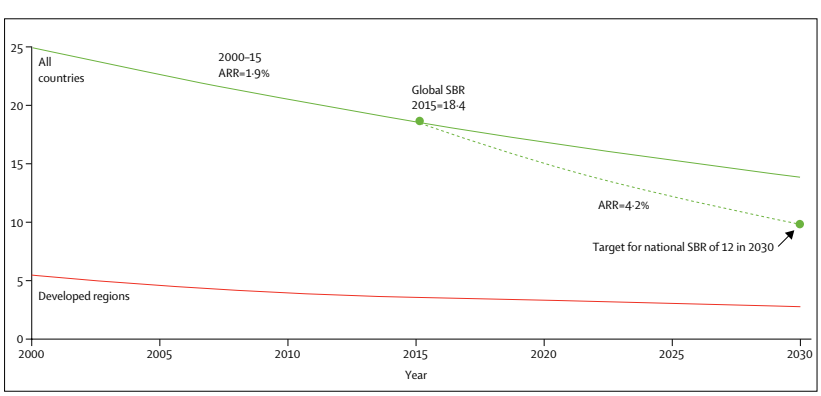


Figure 1: **Global progress towards Every Newborn Action Plan target to end preventable stillbirths by 2030[2]**
ARR=average annual reduction rate. SBR=stillbirth rate.

Target to end preventable stillbirths by 2030[2]

In 2014, the World Health Assembly endorsed a target of 12 or fewer stillbirths per 1000 births in every country by 2030. By 2015, 94 mainly high-income and middle-income countries have already met this target, although with noticeable disparities within countries. At least 56 countries, particularly in Africa and in conflict-affected areas, will have to at least double their present pace of progress to reach this target.

What has changed and what needs to change more[1]

A review of progress against the 2011 *Lancet* Stillbirth Series' call to action, based on a systematic policy heuristic, showed that attention to stillbirths has increased. The 2014 Every Newborn Action Plan incorporated stillbirth targets for 2030. As countries have adapted this plan for their national contexts, some with the highest mortality burden have set specific targets for ending preventable stillbirths, notably India, the country with the largest number of stillbirths. Stillbirth prevention is included within the vision statement of the new Global Strategy for Women's, Children's and Adolescents' Health. WHO's "100 Core Health Indicators" include the stillbirth rate, and progress has been made towards WHO-led perinatal audit guidelines and tools. The availability of country-level stillbirth data has increased, with only 38 countries having no stillbirth data in 2015 compared with 68 in 2009. The UN Inter-agency Group for Child Mortality Estimation has agreed to assume responsibility for oversight of stillbirth rate estimates post-2015.

Despite some progress in the areas of advocacy, policy formulation, monitoring, and research, substantial gaps remain in the data that are needed to track effective coverage of proven interventions for prenatal survival, hampering accountability. There was little impetus to include stillbirths in policies and programmes for the Millennium Development Goals because stillbirth rate reduction was not a target in these goals. An assessment of the most recent annual reports of global agencies, partnerships, and organisations engaged in maternal and newborn health shows that stillbirth is rarely mentioned (figure 2). Funding for women's and children's health has increased substantially since 2011, but only four projects mentioned stillbirth in the entire 12-year funding period (2002–13) documented in the Organization for Economic Cooperation and Development's database. Stillbirth research continues to be underfinanced relative to the global health burden of stillbirths. No visible response has been shown to calls to reduce the stigma and taboo surrounding stillbirth and to improve bereavement care, and stillbirth is still missing from Sustainable Development Goal targets and indicators.

Global and local leadership: a critical prerequisite for progress[1,5]

An organisational network analysis assessing interactions between 33 international organisations engaging in stillbirth issues reported that the global network is not operating as effectively as it could, with fewer connections for stillbirth than for maternal and newborn health. The network is expanding, but is underused, underfinanced, and reliant on individuals rather than institutions, with minimal leadership from the core global governance structure of UN agencies and partnerships involved in maternal and child health. Strong leadership is needed worldwide and at the level of countries and institutions with a mandate to lead global efforts for mothers and their babies. UN and other global groups must seize leadership opportunities and include stillbirths in their daily work, as this responsibility is part of their mission.

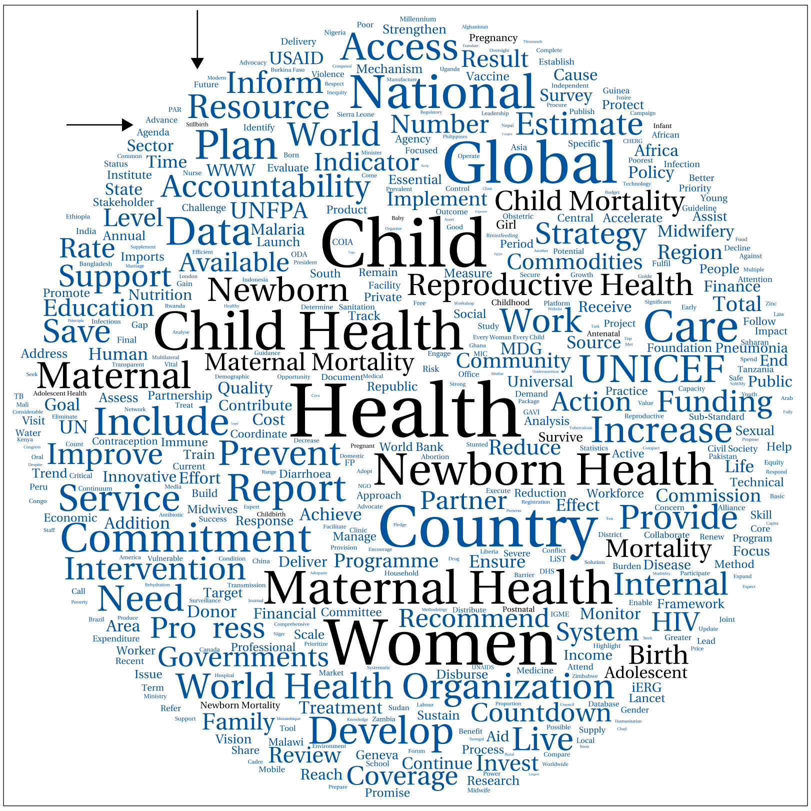


Figure 2: **Stillbirth is largely invisible in the discourse on maternal and newborn health[1]**
The 500 most frequently used words in relevant reports from global agencies, partnerships, and organisations engaged in maternal and newborn health. Words relating to stillbirth and to reproductive, maternal, newborn, adolescent, and child health and mortality are in black. All other words are in blue. Word size is proportional to word frequency. The arrows serve as coordinates to identify the word stillbirth.

The global burden of stillbirths: where, when, and why?[2,4]

Worldwide in 2015 18·4 stillbirths per 1000 total births occurred, compared with 24·7 stillbirths in 2000.[2] Although stillbirth rates have decreased slightly, the average annual rate of reduction (ARR) of stillbirths (2·0%) has been far slower than that for either maternal (3·0%) or post-neonatal mortality of children younger than 5 years (4·5%). At present rates of progress, more than 160 years will pass before a pregnant woman in Africa has the same chance of her baby being born alive as a woman in a high-income country today.[2] In every region, there are countries making more rapid progress for preventing stillbirths. Even between high-income countries, the stillbirth rate (at the third trimester) varies widely, ranging from 1·3 to 8·8 per 1000 births, showing that further reduction is possible, with six countries having a stillbirth rate of 2·0 per 1000 births or lower.[4]

Priorities to improve data to inform action towards 2030[2,3,4]

- Registration of all facility births, stillbirths, maternal deaths, and neonatal deaths must be improved.
- The stillbirth rate should be used as a marker of quality of care in pregnancy and childbirth, and a sensitive marker of a health system's strength.
- The intrapartum stillbirth rate, a direct measure of access to quality intrapartum care, should be collected and reported to increase local accountability.
- A global classification system and audits for perinatal deaths are urgently needed to understand causes and focus prevention efforts.
- Improved data is especially key to enable tracking of the content and quality of antenatal and intrapartum care.

Most of the world's 2·6 million stillbirths each year occur in low-income and middle-income countries (98%), with three quarters in sub-Saharan Africa and south Asia. About 60% occur in rural areas and more than half in conflict and emergency zones, affecting the families most underserved by health-care systems.[2]

Half of stillbirths occur during labour—1·3 million each year. These deaths mostly happen to infants who are delivered at term and who would have been expected to survive. Although most stillbirths occur in health facilities, more than 40 million women give birth unattended at home each year. Major equity gaps exist for coverage of intrapartum care, especially for home births in Africa and Asia.

The belief that many stillbirths are unavoidable due to congenital abnormalities is widespread, yet these account for a median of only 7·4% of stillbirths after 28 weeks.[2] Major risk factors for stillbirth are well known and often overlap, including maternal age >35 years, maternal infections, non-communicable diseases, and nutrition and lifestyle factors. Stillbirths are also often associated with fetal growth restriction, preterm labour, post-term pregnancy, and suboptimum care. In high-income countries, 90% of stillbirths occur in the antepartum period, often associated with preventable lifestyle factors such as obesity and smoking, and suboptimum antenatal care, including failure to identify babies at risk.[4] Improved, culturally appropriate antenatal care as well as family planning, education, and poverty alleviation can help reduce risk factors and improve maternal and baby outcomes.

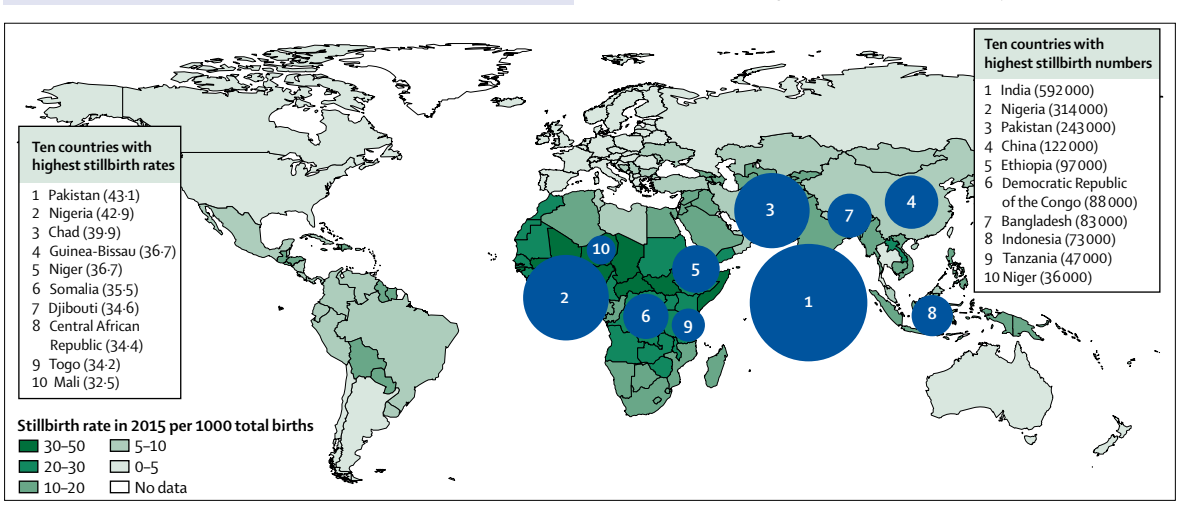


Figure 3: **The countries with the highest stillbirth rates in 2015 and those with the largest numbers[2]**
Blue circles are proportionate to the number of stillbirths.

Stillbirth: a heavy burden for society[3,4]

The highest risk for the poorest families[4]

In all countries, the risk of stillbirth is highest for the most marginalised populations. Social disadvantage is associated with a doubling of the risk of stillbirth in high-income countries,[4] an effect which is likely to be even greater in low-income and middle-income countries. This disparity reflects structural inequalities, including racism and systematic inequity of opportunity. A rights-based approach for universal health care must include the poorest women and families and their babies.

Stigma, taboo, and fatalism must be challenged[3,4]

Stillbirth remains hidden from society. Disenfranchised grief is common, whereby parents' grief after the death of their child is not legitimised or accepted by health professionals, their family, or society. In a survey undertaken for this Series, around half of 3503 bereaved parents felt their community believed that "parents should try to forget their stillborn baby and have another child". Many parents suppress their grief in public. Women whose babies have been stillborn especially feel stigmatised, socially isolated, and less valued by society and, in some cases, are subject to abuse and violence.[3] Stigma and taboo exacerbate trauma for families, and fatalism impedes progress in stillbirth prevention.[3,4] These harmful misconceptions must be challenged through awareness raising and education led by professional organisations in communities and society. Parent organisations linked with health-care professionals provide an effective mechanism to address stigma and fatalism about stillbirth.[4]

Direct, indirect, and intangible costs[3]

Stillbirth has wide-reaching consequences for parents, care providers, communities, and society that are frequently overlooked and underappreciated. Negative psychological symptoms are common in bereaved parents, often persisting for years after the death of their babies. An estimated 4·2 million women are living with depression associated with stillbirth.[3] Many more are affected by far-reaching so-called intangible costs. Care providers are also deeply affected both personally and professionally, experiencing guilt, anger, blame, anxiety, and sadness, as well as fear of litigation and disciplinary action. The available data indicate the direct financial cost of a stillbirth is 10–70% greater than the cost of a livebirth.[3] Costs of health-care provision might be met by government or insurance companies or passed on entirely to parents. Costs of a funeral and burial or cremation of the baby are usually paid by parents. Parents can lose income from time taken off work, reduced working hours, or reduced productivity. Survey data show parents might only be working at 26% of normal work productivity 30 days after the stillbirth of their baby, increasing to just 63% of normal productivity after 6 months.[3] The immense costs of stillbirth need to be taken into account when considering whether interventions to prevent stillbirth are cost-effective.

Mitigating the effect of stillbirth: bereavement care and social support

Empathic behaviour in all encounters between bereaved parents and care providers can minimise additional emotional and psychological costs, both immediately after the stillbirth of a baby and in the longer term. Immediate and respectful bereavement care should be part of routine practice for all health-care professionals, including supporting women in seeing and holding their babies and creation of memories, which have all been shown to be helpful in maximising parents' wellbeing.[3] All health workers providing care at birth in all settings should have received training in how to provide respectful bereavement care after stillbirths as well as maternal and neonatal deaths, and they should have access to support for themselves after a death.

"...many women told me that my son's death was likely 'nature taking care of mistakes.'"

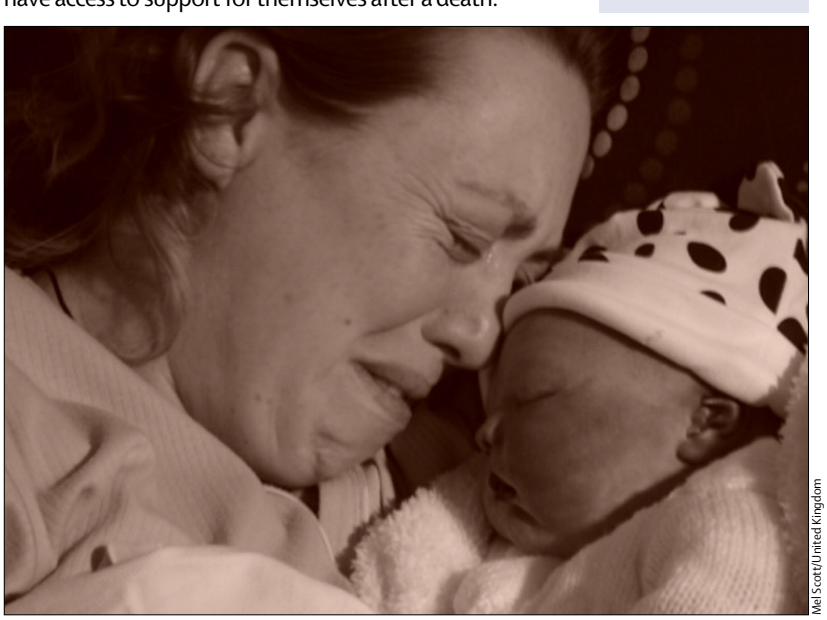
(Mother of a stillborn baby, Canada)

"I could not properly bury my child because I lacked the financial means; that hurts today because I have no grave."

(Mother of a stillborn baby, Germany)

"The men feel [the pain of a stillbirth], maybe [the wife] has some demons ...maybe she is a woman with bad luck...it can cause breakage of marriage and also anxiety..."

(Father of a stillborn baby, Uganda)



Mel Scott/United Kingdom

Mel Scott and her son Finley

Towards 2030: an integrated approach to addressing stillbirths[5]

This Series outlines a renewed call to action to end preventable stillbirths (panel 1) within the context of integrated health care. Implementation of the Sustainable Development Goals and the Global Strategy for Women's, Children's and Adolescents' Health will be maximised by acknowledging, incorporating, and counting stillbirths. The global health community, country leaders, and individual women and men must recognise stillbirth and its consequences as largely preventable, collaborating more effectively and raising their collective voices to break the silence and reduce stigma and taboo.

Integrated implementation for greater effect

Stillbirth prevention and response cannot be a stand-alone issue and requires an integrated programmatic approach. Neglect of stillbirths in agendas reduces and hides the full potential of programmes for women's and children's health. Reviews of the interventions needed to address maternal and newborn health and survival show the importance of an integrated approach within the framework of quality care across the continuum (figure 4). At the same time, some evidence-based interventions have their greatest effect on stillbirths—eg, syphilis treatment in pregnancy might prevent more than 7·7% of stillbirths (or more than 200 000 stillbirths), although less of an effect is noted on neonatal death; and fetal heart rate monitoring and labour surveillance are crucial for preventing 1·3 million intrapartum stillbirths as well as reducing neonatal deaths. Not counting stillbirths might be one reason why these two interventions have not received the attention they deserve. A Lives Saved Tool (known as LiST) analysis reported that scaling up proven antenatal and intrapartum interventions in the 75 highest burden countries could prevent 823 000 stillbirths, 1 145 000 neonatal deaths and 166 000 maternal deaths annually with universal coverage by 2030 at an additional annual cost of US$2150 for each life saved.[3] Additional investment is crucial to ensure the provision of respectful care for mother and baby, including after a death.

This Series presents three criteria to assess whether stillbirths are being effectively integrated within national and global level initiatives for women's and children's health: (1) Has stillbirth been included in relevant summaries of the burden of maternal, neonatal, and child mortality? (2) Is high quality antenatal and intrapartum care included with specific interventions to prevent stillbirths? (3) Are stillbirths monitored through use of a target or outcome indicator, or both?

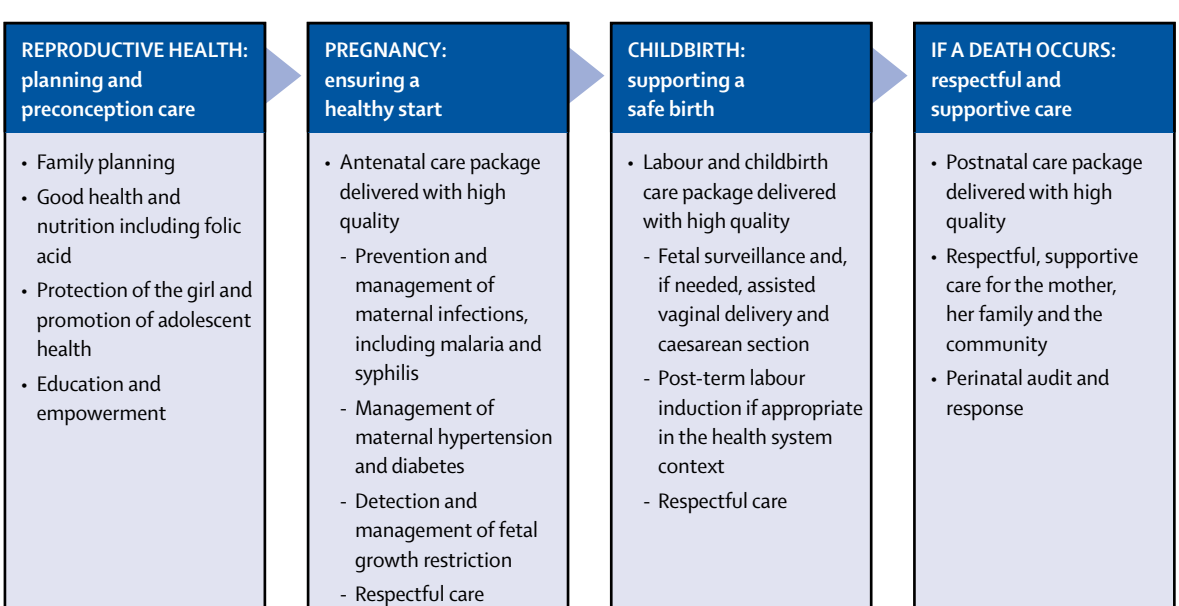


Figure 4: **Prevention of and response to stillbirth within the continuum of adolescent, maternal, newborn, and child health and survival[5]**

Panel 1: Call to action to end preventable stillbirths[5]

Credit: © Photo Tagaza Djibo/UNFPA/Niger

Mortality targets by 2030 (included in the Every Newborn Action Plan)

- 12 stillbirths or fewer per 1000 total births in every country
- All countries set and meet targets to close equity gaps and use data to track and prevent stillbirths

Universal health care coverage targets

- Family planning: by 2020, 120 million more women and girls with access to contraceptives; by 2030, universal access to sexual and reproductive health-care services and integration of reproductive health into national strategies and programmes
- Antenatal care: by 2030, universal quality of care and comprehensive antenatal care for all women
- Care during labour and birth: by 2030, effective and respectful intrapartum care to all women in all countries

Milestones

- Every Newborn global and national milestones met by 2020, including the Measurement Improvement Roadmap
- Respectful care, including bereavement support after a death: by 2020, global consensus on a package of care after a death in pregnancy or childbirth for the affected family, community, and caregivers in all settings
- Reduce stigma: by 2020, all countries to identify mechanisms to reduce stigma associated with stillbirth among all stakeholders, particularly health workers and communities

Priority actions to change the trend for stillbirths

INTENTIONAL LEADERSHIP:	Maximise existing leadership; ensure global organisations include stillbirths when acting for women and children, intentionally involving parents and nurturing champions
INCREASED VOICE, especially among women:	Empower women to demand a good quality of life and health care, and support those affected by stillbirth to raise their voices for change; develop culturally appropriate protocols for respectful care after death; reduce stigma
IMPLEMENTATION of integrated interventions with commensurate investment:	Ensure high quality care for every woman during pregnancy, labour and birth, and after stillbirth; focus on the highest impact interventions, especially intrapartum care in the highest burden settings; address health system bottlenecks, especially the need for skilled health workers, particularly midwives; increase funding and innovation commensurate with the scale of 2·6 million deaths a year; promote these actions within global, regional and national processes in support of the Global Strategy for Women's, Children's and Adolescents' Health
INDICATORS TO MEASURE IMPACT and monitor progress:	Count every pregnancy and every baby, including stillbirths, particularly by improving Civil Registration and Vital Statistics (CRVS); integrate stillbirth-specific components within relevant plans for data improvement, especially to track programmatic coverage and quality, including stillbirth prevention and post-stillbirth support; complete and use perinatal audit tools and a global classification system
INVESTIGATION of crucial knowledge gaps:	Address gaps in knowledge by setting research priorities regarding stillbirth prevention and bereavement support, including discovery, translational, and implementation science to drive innovation; develop research capacity

Credit: Colin Crowley/Save the Children/Ethiopia

Panel 2: Action needed in high-income countries[4]

- Monitor and address social determinants of maternal and fetal wellbeing in every country, including strategies to reduce obesity and smoking in women of reproductive age
- Implement high quality perinatal audit and scale up nationwide
- Offer all parents of a stillborn baby high quality autopsy and placental histopathology by a skilled perinatal pathologist
- Provide bereavement care training to all care providers
- Undertake research to improve stillbirth prediction, with a focus on placental pathways to stillbirth and causal pathways of unexplained stillbirth
- Eliminate stigma and fatalism around stillbirth through parent and care provider partnerships, education, and community-level action

For more information see

The Lancet Ending preventable stillbirths Series 2016: http://www.thelancet.com/series/ending-preventable-stillbirths

The Lancet Every Newborn Series 2014: http://www.thelancet.com/series/everynewborn

The Lancet Midwifery Series 2014: http://www.thelancet.com/series/midwifery

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All Series papers and Comments available from www.thelancet.com

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