Background

Globally, one baby is stillborn every sixteen seconds, using the definition of stillbirth as a baby born with no signs of life at 28 or more gestational weeks; this amounts to nearly two million babies stillborn every year, and forty-eight million stillborn babies in the past two decades (1)(2). The real numbers are likely to be higher, as many babies do not receive death certificates, and the true numbers and related causes are often unrecorded. The majority of these deaths could have been prevented with high-quality monitoring and care before and during birth (3).

The 2020 release of the regular annual global and country-specific stillbirth estimates by the UN Inter-agency Group for Child Mortality Estimation (UN IGME) was a milestone in increasing the quality and accessibility of stillbirth data, critical for strengthening political acknowledgement of this neglected and unnecessary tragedy (4). The accompanying report of the UN IGME highlighted key gaps in data and interventions needed to end preventable stillbirths, and laid out steps to addressing these gaps, in part by raising awareness of the trauma and burden of stillbirth for millions of families worldwide, and bringing clarity to a public health topic that is rife with misconceptions (1).

A key roadblock to progress is the persistent invisibility of this enormous loss. While the Millennium Development Goals (MDGs) included targets for reducing maternal mortality and under-five mortality, there was no target for reducing stillbirths; similarly, stillbirths were excluded from the 2030 Sustainable Development Goals (5)(6). This belies the fact that stillbirth and newborn death lie on the same reproductive, maternal, newborn and child health continuum, with stillbirths comprising more than a third of the combined burden of stillbirths and deaths of children under 5.

Another important roadblock is the substantial data quality issues that exist in many countries (7). The multiple losses represented by stillbirths—two million deaths every year—are unaccounted for and underfinanced by governments and development partners (1). Timely and accurate recording and counting of stillbirths are not readily available in many countries (3)(7)(8). Health Management Information Systems (HMIS) and civil registration and vital statistics (CRVS) may not be functioning or may not include routine recording of stillbirths (3)(8). Misclassification between stillbirths and early neonatal deaths is common (3)(9). Substantial data quality issues exist in many countries, but we need better data to understand causes and identify targeted interventions to end preventable stillbirths (3)(7)(8).

The burden of stillbirths reaches far beyond the loss of life, profoundly affecting women and families psychologically, socially and economically (see Box 1) (3)(9). After experiencing the stillbirth of their babies, women and their partners have higher rates of depression, anxiety and other psychological symptoms, some of which can be long lasting (3). Yet stigma, taboo and misconception hide the hardship, with many parents unable...
Box 1: Voices of bereaved mothers and fathers and health care workers

Mother of stillborn baby (40 years old, 4th child was stillborn)

"On arrival at hospital I was told my baby had died due to my pregnancy condition of high blood pressure. I did not know my blood pressure was high because I could not afford care in pregnancy and did not know where to turn. I was advised not to see my baby as she had died some days previously and it was only because one nurse encouraged me to see my baby that I was able to hold her and see her; she was beautiful."

Father of stillborn baby (54 years old, 8th child was stillborn at 7 months)

"I wished to see my baby once. When we had got my wife out of the hospital, I hugged my baby. As my mind had not worked on the spot, I could not see my baby’s face. Later I was more regretful - after we reached home, the baby had already been buried. For few days it was coming to my mind that I should have seen my baby’s face at least for once. My wife saw it, but she was more distracted. I was also sad. It feels like we lost our live baby."

Mother of stillborn baby (28 years old, 8th child was stillborn at 9 months)

"Yes, I got so upset and angry. One night I wake up to breastfeed the baby, but when I realized that there is nothing [she dreamed that she was breastfeeding her baby], so I got so upset and cried a lot. My husband cried just as much as he visited the grave of a baby. He is working in a university. He was not at home [when the delivery happened], but when he returned home, he immediately visited the baby’s grave."

Mother of a stillborn baby (22 years old, 1st child was stillborn at 7 months)

"I was so affected. I was going out to the street like a mad person and would watch other children. I thought if my baby was alive, he would be as old as them. I didn’t have anyone at home. The health care workers consoled me, but they didn’t help me."

Mother of a stillborn baby (38 years old, 1st child was stillborn at 39 gestational weeks)

"Losing a child has been the most difficult experience I have ever had to go through. From waiting 2 hours for my doctor to arrive and confirm that our baby had died, having to ask repeatedly for the memory box I knew was available to being asked by my doctor what I did the day before to have caused my baby to die. At the time and in the immediate aftermath made me question absolutely every minute of the day and what I could have done differently, the guilt and grief was immense. I now know I did absolutely nothing wrong and my baby did not die because of me. This is only one example of why we desperately need hospital staff trained in offering confidential and compassionate care to grieving parents."

Public Health Officer

"...stillbirth is like an added issue...most of the time it is not reported by the health facility staff. And if you go to the health facility rarely you will find the records of cases of stillbirths, so this is the facts ... you will not be able to easily find the information."

to disclose or express their grief. Immediate and ongoing respectful bereavement care by health care providers can help to minimize psychological and emotional costs, as can raise awareness of stillbirths and amplify the voices of bereaved mothers, their partners and families.

The aim of this joint technical brief by WHO EMRO/ UNFPA ASRO/ UNICEF MENARO is to further disseminate main findings on stillbirths which are specific for the region, and to renew the global call for collective action with a focus on ending preventable stillbirths in our region and ensuring respectful bereavement care when stillbirths do occur, in part through strengthening data and the maternal and newborn health program response.

Regional stillbirth rate exceeds global average

In the combined regions of the Eastern Mediterranean (EM), Arab States (AS) and Middle East and North Africa (MENA), around 380,000 babies were stillborn in 2019, with a stillbirth rate of 19 stillbirths per 1,000 total births, placing the combined region substantially above the world average of 14 per 1,000 total births (Figure 1 a). Indeed, the stillbirth rate in the EM/AS/MENA region today equals the global rate of 15 years ago. Moreover, as global stillbirth numbers gradually decline, the share of the EM/AS/MENA region in the global stillbirth burden increased from 14 percent in 2000 to 19 percent in 2019 (Figure 1 b).

Figure 1. Stillbirth rate and number of stillbirths in the combined regions of the Eastern Mediterranean (EM), Arab States (AS) and Middle East and North Africa (MENA) vs globally, 2000-2019

a) Stillbirth rate

Regional stillbirth rate reflects inequities

Not only is the overall burden of stillbirths in our region high, but there is significant inequity in the burden across countries, ranging from the lowest stillbirth rate of 4.9 per 1,000 total births in the United Arab Emirates to 30.6 stillbirth per 1,000 total births in Pakistan (Figure 2). As of 2019, seven out of the 23 countries in the combined region (Afghanistan, Djibouti, Morocco, Pakistan, Somalia, Sudan, and Yemen) had a stillbirth rate still greater than the global target of 12 stillbirth per 1,000 total births by 2030 (a target set by the Every Newborn Action Plan (ENAP) in 2014)\(^{(11)}\). Data are limited in the region to show inequities within a country, but, the risk of stillbirth is highest among the most marginalised and disadvantaged populations within a country in both low-, middle- and high-income settings and structural inequalities including systemic inequity to opportunities to access to quality health care should be monitored and addressed in every setting \(^{(11)}\)\(^{(12)}\).

Figure 2. Stillbirth rate by country, 2019
Of 380,000 stillbirths in the combined regions of the EM/AS/ MENA, more than half occur in Pakistan (Figure 3).

**Figure 3. Number of stillbirths by country, 2019**

![Graph showing number of stillbirths by country, 2019](image)


**Progress in stillbirth prevention in the region has been slow**

Not only are stillbirth rates and numbers high in the region, but annual rates of reduction (ARR) in the stillbirth rate have been slow. The regional ARR was slower than that for both newborn mortality and child mortality among the children aged 1-59 months and is slower than the global average (Figure 4). This lag in progress translates directly into many preventable stillbirths. If current trends continue, six countries in the region (Afghanistan, Djibouti, Pakistan, Somalia, Sudan, Yemen) will not achieve the ENAP 2030 target of 12 stillbirths per 1,000 until the year 2060 at the earliest (Figure 5). In contrast, if all the countries in the region achieved the ENAP target by 2030, one million stillbirths could be prevented in the next decade (2020-2030).

**Figure 4. Annual rate of reduction in stillbirth rate and mortality rates among children under 5 in the region and globally, 2000-2019**

![Graph showing annual rate of reduction](image)

Dearth of quality stillbirth data in the region

Many countries do not have quality stillbirth data available or data are scarce, so the rates and numbers shown in Figures 2 and 3 may not reflect the true burden of stillbirths in the region. In addition to issues mentioned above related to HMIS and CRVS, inconsistent definitions of stillbirth, different methods of ascertainment of stillbirth, misclassification between stillbirth and newborn death, under-reporting due to blame or stigma, and numerous other issues contribute further to gaps in, and lower quality of, the data that is critical for informing prevention strategies (5)(6). A recent analysis found that 11 of the countries in the region had no quality data on stillbirths in any year between 2000 and 2019, and only four countries had high quality data for any of these years (UAE, Algeria, Oman and Qatar) (Figure 6)(7).

Figure 5. Projected year to achieve ENAP stillbirth target if current trends continue, by country and region


Figure 6. Availability of quality stillbirth data by country and year

Note: High: If registration data are available. Medium: If data are only available from sources requiring bias adjustments (i.e. surveys or HMIS). Limited: If only population study data are available. Availability of survey data is considered for the period over which the survey refers to.

COVID-19 may increase the burden of stillbirths in the region

The indirect effects of the COVID-19 pandemic could be enormous for stillbirths. Pandemic-related disruptions to reproductive, maternal, newborn, and child health care could increase stillbirth rates, especially in low- and middle-income countries. Some projections have estimated that an additional 65,000 babies could be stillborn with a severe health services disruption scenario over a 12-month period in our region (13) (14). Hence, it is critical to include stillbirths in analyses to understand the full impact of the pandemic. It is also important to use timely and quality data on stillbirths before, during and after the pandemic in order to understand the drivers of potential excess stillbirth rates, as well as to raise awareness on appropriate preventive measures, and to support proper targeting of respectful bereavement care (14).

Priority policy and program actions for ending preventable stillbirths and ensuring respectful bereavement care

A number of roadblocks impede faster progress on stillbirths in our region. The status is reflected in the region-specific “Ending Preventable Stillbirths Scorecard” (see below) prepared by the International Stillbirth Alliance, which records the status of countries tracked by the Every Newborn Action Plan, including 16 of the countries in our region, against the Call to Action issued in 2016 by the Lancet’s Ending Preventable Stillbirths series. Grey indicates no data available.

Ending Preventable Stillbirths Scorecard for Middle East North Africa Region

<table>
<thead>
<tr>
<th>Category</th>
<th>Target</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mortality targets by 2030</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Countries with Newborn Plan</td>
<td>13/16 (81%)</td>
<td>13/16 (81%)</td>
<td>13/16 (81%)</td>
<td></td>
</tr>
<tr>
<td>1.2 Countries with stillbirth rate target</td>
<td>2/16 (13%)</td>
<td>5/16 (31%)</td>
<td>4/16 (25%)</td>
<td></td>
</tr>
<tr>
<td>1.3 Countries achieved stillbirth rate global target</td>
<td>7/16 (44%)</td>
<td>10/16 (63%)</td>
<td>10/16 (63%)</td>
<td></td>
</tr>
<tr>
<td>1.4 Countries with subnational Newborn Plan</td>
<td>9/16 (56%)</td>
<td>9/16 (56%)</td>
<td>8/16 (50%)</td>
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<tr>
<td>1.5 Countries with stillbirth rate equity target</td>
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<tr>
<td>1.6 Countries reporting subnational SBRs</td>
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<tr>
<td><strong>UHC: Family planning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Additional users of modern methods of contraception</td>
<td>5,545,000</td>
<td>4,806,000</td>
<td>5,972,000</td>
<td></td>
</tr>
<tr>
<td>2.2 Percentage demand for contraception satisfied</td>
<td>28%</td>
<td>27%</td>
<td>32%</td>
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<tr>
<td><strong>UHC: Antenatal care</strong></td>
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<tr>
<td>2.3 Countries with reproductive health plan</td>
<td></td>
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<td></td>
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<tr>
<td>2.4 Availability of global standards for antenatal care</td>
<td></td>
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<td></td>
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<tr>
<td>2.5 Antenatal care</td>
<td>15%</td>
<td>37%</td>
<td>40%</td>
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<tr>
<td><strong>UHC: Intrapartum care</strong></td>
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<tr>
<td>2.6 Quality of antenatal care</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2.7 Global standards for intrapartum care</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2.8 Skilled birth attendants</td>
<td>60%</td>
<td>50%</td>
<td>51%</td>
<td></td>
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<tr>
<td><strong>Milestones</strong></td>
<td></td>
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<tr>
<td>2.9 Quality of intrapartum care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 MNH quality improvement</td>
<td>9/16 (56%)</td>
<td>13/16 (81%)</td>
<td>13/16 (81%)</td>
<td></td>
</tr>
<tr>
<td>3.2 Perinatal Death Review systems</td>
<td>6/16 (38%)</td>
<td>9/16 (56%)</td>
<td>11/16 (69%)</td>
<td></td>
</tr>
<tr>
<td>3.3 Research focusing on stillbirths planned by country</td>
<td>5/16 (31%)</td>
<td>4/16 (25%)</td>
<td>4/16 (25%)</td>
<td></td>
</tr>
<tr>
<td>3.4 Respectful care after a death</td>
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<tr>
<td>3.5 Reduce stigma</td>
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</tbody>
</table>

*Reporting countries include Afghanistan, Djibouti, Egypt, Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Pakistan, Somalia, State of Palestine, Sudan, Syrian Arab Republic, Tunisia, Yemen

Source: International Stillbirth Alliance

Legend:
Achieved, On track, Making progress, Slow/no progress

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>≥75% - &lt;100%</td>
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<tr>
<td>≥50% - &lt;75%</td>
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<tr>
<td>0 - &lt;50%</td>
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</tbody>
</table>
In response to the status of stillbirths outlined above, we propose the following priorities and action areas:

**Policy actions**

- **Introduce policies and targeted investments for timely and quality data collection and reporting along the continuum of care for every mother and child**, including strengthening Maternal and Perinatal Death Surveillance and Response (MPDSR) and CRVS. Without timely and quality data, stillbirths remain invisible in the public health agenda, and we remain unable to understand the efficacy and effectiveness of current strategies.

- **Listen and respond to the voices of bereaved parents**, which are often missing in policies and actions. It is critical to translate parents’ voices into policy, simultaneously working to remove social taboos, stigma and misconceptions which keep stillbirth a largely silent public health issue. As part of this, it is necessary to improve access to and quality of respectful maternal care, including after stillbirth, to increase data availability and quality; and to include stillbirths in all relevant maternal and newborn health investments.

- **Invest in advancing midwifery care and strengthening the midwifery workforce** which is critical for improving the situation of stillbirth in our region. Analysis has shown that 14% of stillbirths could be averted even with a modest increase in coverage of midwife-delivered interventions (15). Yet only 42% of people with midwifery skills globally work in the 73 countries where more than 90% of all maternal and newborn deaths and stillbirths occur. Competent midwives, when trained to international standards and empowered with supportive policies and procedures, have the potential to save hundreds of thousands of mothers and newborns in our region by 2030.

  "Universal coverage of midwife-delivered interventions could avert two-thirds of maternal and neonatal deaths and stillbirths, allowing 4.3 million lives to be saved annually by 2035."  
  Amina Mohamed, UN DSG  
  (*State of World Midwifery 2021*)

**Programme actions**

- **Improve universal access to high-quality and respectful antenatal and delivery care as an essential component of the UHC.** Antenatal and delivery care represent a window of opportunity to reduce preventable stillbirths as well as reducing maternal and neonatal deaths and ensuring a bright future for every mother and baby (3). The care should start from preconception/ prenatal period as birth preparedness, timely transport of pregnant women to appropriate health facilities, to basic and emergency obstetric care by skilled birth attendants for every delivery including caesarean sections. The care should be provided to every mother and baby regardless of their age including adolescents, place of residence, and other socioeconomic status as refugee or migrant. In order to enable access of care, women should be empowered and harmful practices and social norms should be addressed.

- **Ensure equitable and quality of midwifery care services for positive pregnancy and childbirth experience.** Midwives play a vital role in preventing stillbirths, especially when educated according to global standards including stillbirth prevention, licensed, and fully integrated into health systems and supported by interdisciplinary teams in an enabling environment (15) (16). However, there are numerous barriers, including inadequate education and regulations, insufficient numbers, and inequitable distribution (16). Increased commitment is needed to invest in the education, recruitment, effective deployment and retention of midwives (16).

- **Provide bereavement training as a standard part of obstetric and midwifery training.** Some studies show that many health care workers, including midwives, are not adequately prepared for stillbirths and feel unable to appropriately support women when stillbirth occurs (3). They should be trained to deliver respectful bereavement care, recognize abnormal grief reactions and make referrals to appropriate mental health services where available (3).

- **Immediately improve data systems to collect timely and quality data on stillbirth (see Annex).** This could include:
  - align stillbirth operational definitions at national levels with international standards
  - integrate stillbirth-specific components into relevant plans for data system improvement
  - include stillbirths in routine health information systems and civil and vital registration systems
  - provide support on inclusion of information on timing, causes and contributing factors within data collection systems
  - report on and review stillbirth data locally and integrate stillbirth prevention activities into maternal healthcare programmes (15).
  - support to implement or strengthen maternal and perinatal deaths surveillance system and response
  - provide support on prioritizing stillbirth research to understand where, why and by whom the burden of stillbirths experienced to identify how to move forward

- **Incorporate the voices of bereaved mothers, their partners and families into all stillbirth prevention and support policies and actions.** Studies show that when parents have access to professional services and support from family and local social networks, they are able to share their experiences, this may lower rates of depression and improve mental health outcomes (3). It is also important to increase awareness in the community to reduce stigma associated with stillbirth. But most importantly, bereaved parents are experts in stillbirth, so their voices should be respected and included in policy and program design, for instance by adapting bereavement care packages to different cultural and language settings that reflect parent voices.
The way forward

Investing in care around birth yields more than a triple return on investment: reduced maternal deaths, reduced newborn deaths and reduced stillbirths, as well as improved child development outcomes\(^{(17)}\). Estimates from the 20 countries in the world with the highest numbers of stillbirths show that we can expect cost-benefit ratios of 25 in middle-income countries and more than 10 in low-income countries when the full set of seven interventions which have a proven impact on maternal and newborn deaths and stillbirths is implemented (see Box 2 and Figure 7).

**Figure 7. Cost-benefit ratios for investing in a key set of interventions**

To move forward, the following immediate actions are recommended:

1. **Raise awareness** and advocate for stillbirths to drive political and public recognition of this neglected and tragic issue.
2. **Strengthen data systems** to collect and report timely and quality data to facilitate evidence-based policy and programme actions to ensure high impact interventions are in place for ending preventable stillbirths.
3. **Ensure universal access to high-quality and respectful care prenatal and around birth** to reduce maternal deaths, reduce newborn deaths and reduce stillbirths.
4. **Invest in healthcare workers** - especially the midwifery workforce – with particular attention to education, recruitment, deployment and retention; prepare them for preventive care, documentation, and the provision of respectful bereavement care when stillbirth occurs.
5. **Amplify voices of, and work with, mothers, parents and families** to ensure their voices are reflected in policy and actions.

**Useful resources**

- International Stillbirth Alliance: [The International Stillbirth Alliance (ISA)](https://www.isa-alliance.org/)
- International Stillbirth Alliance Parent Voices Initiative: Advocacy toolkits to support better quality care during stillbirth and tools to raise parent voices and improve understanding and communication between healthcare providers and parents.
- Stillbirth Centre of Research Excellence: [Translated Resources | The Centre of Research Excellence in Stillbirth (stillbirthcre.org.au)](https://www.stillbirthcre.org.au/)
- Global Health Advocacy Incubator: [Legal and Regulatory Review Toolkit for CRVS ID (advocacyincubator.org)](https://www.advocacyincubator.org/)
Acknowledgement

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a) WHO Regional Office for the Eastern Mediterranean, b) UNFPA Arab States Regional Office, c) The International Stillbirth Alliance, d) UNICEF Global Headquarters, e) UNICEF Regional Office of the Middle East and North Africa

Annex[18]: Steps for improving stillbirth data

- Identify possible entry points for stillbirth registration:

  - Follow the process of birth/stillbirth registration or stillbirth registration step-by-step to find where we could miss the registration of any baby:

Source: Health sector contributions towards improving the civil registration of births and deaths in low-income countries: guidance for health sector managers, civil registrars and development partners
References


18. WHO, UNICEF. Health sector contributions towards improving the civil registration of births and deaths in low-income countries: guidance for health sector managers, civil registrars and development partners. Geneva. 2021. License: CC BY-NC-SA 3.0 IGO.

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