



Yemen's hidden maternity crisis: How landmines are harming mothers and babies

September 2026

Field Report

EXECUTIVE SUMMARY

Imagine going into labour knowing the nearest hospital is 10 minutes away, but the road is mined. The alternative could take eight hours; elsewhere, there may be no safe route or accessible maternity care at all.

Drawing on operational data, field investigations, interviews and survivor accounts, this Project Masam investigation documents how explosive contamination is compounding Yemen's maternity crisis.

Beyond direct casualties, mines are restricting access to healthcare, food, water and livelihoods, prolonging displacement and increasing the physical and economic pressures facing pregnant women and new mothers.

The investigation also documents pregnancy loss, permanent disability and the long-term consequences for survivors and their families. With clearance potentially taking decades, these largely undocumented impacts risk affecting another generation of Yemeni mothers and children.

REPORT

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Mohammadah Mohammed Abdullah had returned to her home in Al-Musanna village in Yemen's western Al-Hudaydah governorate to collect some personal belongings when, on 5 October 2021, she stepped on an anti-personnel landmine. The 36-year-old was pregnant.

Yemen's landmine problem long predates the current war. Repeated conflicts since the 1960s left successive layers of legacy mines and unexploded ordnance across the country. Yemen signed the 1997 Mine Ban Treaty, ratified it the following year and became a state party when the treaty entered into force in March 1999, committing the country to never use, produce, stockpile or transfer anti-personnel mines. In 2002, Yemen reported to the United Nations (UN) that it had completed the destruction of its stockpile.

But the conflict that escalated after the Houthis seized Sanaa in 2014 brought a new and extensive wave of contamination. Human Rights Watch has since documented Houthi forces' use of banned anti-personnel mines across multiple governorates, including in farmland, villages, roads, wells and around water infrastructure, in places where contamination has killed and injured civilians while restricting access to land, livelihoods, clean water and other essential services.

According to Project Masam's Managing Director Ousama Algosaihi, and other reports, an estimated [one to two million mines](#) at least have been planted by the Houthis since 2014.

More than a decade later, that contamination continues to claim new victims. Save the Children reported in July 2026 that landmines and unexploded ordnance had killed 20 children in Yemen in the first six months of the year, already more than the 18 killed throughout 2025. Since the UN-brokered truce began in April 2022, its analysis found that landmines and other explosive remnants of war accounted for [43% of children killed or injured](#) by armed violence (compared with 12% of adult casualties) illustrating how a weapon laid years earlier can continue to shape who is killed and injured long after a frontline has moved.

While Mohammadah survived the explosion, the blast caused injuries so severe that both of her lower limbs were amputated, and she lost her unborn child. When Project Masam's demining Team 26, which operates in Yemen's western coastal districts, primarily within the Al-Hudaydah (Hays and Al-Khokha) and Al-Mokha regions and is led by engineer Sami Saeed, visited the young victim and the blast site the following day, the consequences for Mohammadah and her family were already irreversible.

Her story represents perhaps the most visible intersection between landmines and maternity in Yemen: a pregnant woman caught directly in an explosion, severely injured and losing her unborn baby.

Yet interviews and detailed reports provided by Project Masam personnel for this investigation point to another, less visible dimension of the crisis, in which pregnant women

do not necessarily have to step on a landmine to suffer its consequences in a devastating lesser-known crisis affecting families throughout Yemen.

When ten minutes becomes eight hours

Perhaps nowhere is this hidden impact clearer than on the road to hospital. In parts of Taiz governorate, for example, the difference between a safe road and a mine-contaminated one has, at times, been the difference between a journey to safety measured in minutes and one measured in hours.

The problem in Taiz is compounded by the governorate's political and military geography. Years of conflict have divided communities between areas controlled by Yemen's internationally recognised government and territory held by the Houthis, while Houthi restrictions on major roads into and out of Taiz city have historically forced civilians onto long and difficult mountain routes. Crossing from one area of control into another is not necessarily a viable alternative for every family: checkpoints, continuing insecurity and fear of detention or harassment can themselves influence where civilians are willing or able to travel. Human rights organisations have documented arbitrary detention, enforced disappearance and other abuses by parties across Yemen, while Houthi authorities have particularly targeted activists, humanitarian and embassy staff and others accused of opposing or "conspiring" against them.

A detailed field report prepared by Project Masam personnel and demining teams in Taiz, led by Colonel Aref Al-Qahtani, describes how residents in Al-Waziyah, Mawza, Dhubab, Al-Mokha, Haifan and Jabal Habashi were forced to avoid routes to major hospitals and maternity facilities because of landmine contamination. For women in labour, the consequences could be extreme.

The location of that contamination is significant. Landmines can be used during conflict to restrict movement and deny access to particular routes or areas - a practice known as land denial. and Horn said routes between villages are among those commonly affected in Yemen. The danger for civilians continues when frontlines move but the mines remain, leaving roads and other land that would otherwise return to civilian use unsafe or inaccessible.

According to data collected for this report, heavily contaminated paved roads forced families to use the rugged Al-Waziyah-Shamayatayn-At-Turbah mountain route through the Bandah mountain range, turning journeys that could otherwise have taken around 10 minutes into journeys lasting as long as eight hours. For civilians in Taiz, such extreme diversions are a familiar consequence of the conflict: mine contamination and Houthi closures of major roads have repeatedly forced travellers away from direct routes and onto fewer, lengthy mountain alternatives, where a journey of a few hours can take most of the day.

The Taiz field report records cases in which mothers and unborn children died during these bumpy journeys, citing "severe haemorrhage" and the "physical ordeal" of travelling over the mountainous route.

For a woman experiencing an obstetric emergency, therefore, the danger posed by landmines is not limited to the possibility of a vehicle striking an explosive device. By making the quickest route to medical care inaccessible, contamination can create dangerous delays at precisely the point when time matters most.

“Our field strategy prioritised essential service facilities, educational institutions, water sources, and vital road networks directly connected to human life, dignity, and survival,” Al-Qahtani said, explaining how clearance tasks are prioritised across Taiz outside of immediate emergency operations. With Project Masam working in an ongoing conflict rather than a post-conflict environment, teams direct available capacity towards contaminated areas posing urgent threats to civilians or restricting access to essential services.

Project Masam’s Taiz demining teams report subsequently carrying out clearance operations on access routes serving 73 health facilities and maternity units across the governorate. The individual facilities documented by the team show how contamination could progressively isolate communities from medical care.

At Ash-Shaqira Health Centre in Al-Al-Waziyah, booby-trapped main roads were reported to have paralysed ambulance movement, while camouflaged anti-personnel mines in the courtyard of Hennah Medical Centre restricted access to medical treatment and vaccination.

Additionally, mines along pedestrian routes surrounding Al-Boqrah Health Unit caused residents to refrain from seeking emergency treatment, according to the field report, while unexploded ordnance in the courtyard of Ar-Radf Health Unit contributed to what the team described as the “complete health isolation” of the village.



Pregnant mother Mohammadah Mohammed Abdullah, 36, lost both lower limbs and her unborn child after stepping on an anti-personnel mine in Al-Musanna, Al Hudaydah, on 5 October 2021. Following the blast, Project Masam’s Team 26 documented and cleared anti-personnel mines from the area. Images: Project Masam.

A hospital 10 kilometres away, and healthcare 500 kilometres away

Team 26 encountered similar accounts along Yemen’s western coast, where residents of Manzar, Al-Nakhilah and At Tuhayta in Al-Hudaydah governorate described avoiding roads towards hospitals and health centres because they considered them unsafe.

The distances recorded by the team reveal the peculiar geography that explosive contamination can impose on civilian communities. According to its report, some medical facilities were only around 10 kilometres away, yet residents who were unable or unwilling to use the roads instead travelled approximately 500 kilometres to Aden to obtain healthcare.

Asked specifically what communities had told him about pregnant women trying to obtain medical care during childbirth or when complications arose, Team Leader Saeed described a combination of limited local healthcare provision and explosive contamination affecting the shortest routes towards available facilities. “The main challenges include the lack of female doctors and adequately equipped hospitals in areas affected by landmines,” Saeed emphasised.

Specialist maternity care is particularly scarce outside Yemen's major urban centres. The UN sexual and reproductive health agency (UNFPA) identifies the lack of specialised female doctors and nurses as one of the reasons [five million women of reproductive age](#), including pregnant and lactating women, struggle to access reproductive healthcare, particularly in rural and frontline districts. The problem predates the current conflict: even before the war, one assessment found just [three obstetricians](#) serving three rural governorates with a combined population of almost 1.9 million. More than a decade of conflict has since further depleted an already fragile health workforce.

Women could consequently be forced onto longer and more difficult alternatives, increasing both transport costs and the time required to reach treatment. For an expectant mother in such circumstances, geographical distance can therefore become a misleading measure of access to healthcare. A maternity facility may be only a few kilometres from her home, yet the presence or suspected presence of explosive hazards along the connecting road can place it functionally far beyond her reach.

When the minefield reaches the clinic

Sometimes explosive contamination extends all the way to the healthcare facility itself. Because of this, Project Masam's Deputy Managing Director Retief Horn identified safe access as one of the principal challenges encountered during clearance operations, noting that routes connecting villages are among the areas affected by explosive contamination.

Horn also pointed to cases in which healthcare facilities themselves had been affected: “Project Masam has identified instances where healthcare facilities have been specifically targeted, including cases where structures were completely destroyed and mines were placed within the perimeter walls of medical facilities,” he said, citing the hospital in Midi district, northern Hajjah governorate, as a clear example where explosive contamination had further restricted access to essential healthcare.

Field reporting from Team 26 provides further examples of explosive hazards intersecting with civilian infrastructure. Saeed's team documented landmines, improvised explosive devices (IEDs) and other explosive remnants of war in and around health centres, schools and water infrastructure, as well as on roads leading to them.

In the villages of Al-Dhahiya, Al-Hallah, Mahall Al-Rabee and Bayt Bish, explosive hazards affected facilities that formed part of everyday community life. According to the Team Leader, IEDs were discovered inside school classrooms and health centres, while others had

been concealed within the support structures of elevated water tanks. Landmines had also been laid around facilities routinely used for healthcare, education and water collection.

For parents raising families in these communities, such contamination broadens the nature of the threat considerably. Avoiding a known minefield is one thing, but navigating a community in which roads, clinics, schools and water infrastructure have all been affected by explosive hazards is another.

Familiar civilian spaces can no longer automatically be assumed to be safe, leaving pregnant women and new mothers to consider whether the routes they need to take to obtain medical care for themselves, their unborn babies or newborns are safe enough to risk travelling at all.



A young mother and her infant daughter pose for a photo on the Al Khokha-Hays road in Al-Hudaydah Governorate, Yemen. Credit: Elsa Buchanan for Project Masam

‘We either die from a landmine, or we die from thirst and hunger’

Asked to recall an incident or conversation that best illustrated the hidden impact of landmines on women and families, Saeed, the Team 26 leader who has been working in the area for years, said he remembered a stark phrase used by mothers living amid explosive contamination: “We either die from a landmine, or we die from thirst and hunger.”

He explained: “These women and families continue to live with constant anxiety even after the fighting has ended.”

Saeed described mothers who prevented their children from playing outside or going to school because of the threat of landmines, while some families avoided working at sea because of sea mines or stayed away from agricultural areas suspected of contamination. The fear extended even to familiar-looking objects because, he said, explosive devices had previously been concealed using ordinary items including water containers, household objects such as makeup cases, and even stones (such as so called [“rock-mine” IEDs](#)).

For women, these restrictions intersect with daily responsibilities that cannot simply be abandoned. Team 26 reported women in contaminated communities altering both their walking routes and routines to reach water sources, schools and healthcare facilities, while access to agricultural land, grazing areas and places used to gather firewood could also be restricted.

For these pregnant women and new mothers, the additional burden is physical. Avoiding a contaminated road or path can mean travelling considerable distances on foot across steep mountain tracks with loose stones and rocks, rough sandy or overgrown paths, while essential tasks such as collecting water or firewood, tending livestock and reaching farmland become more physically demanding at a time when women may be heavily pregnant, recovering from childbirth or breastfeeding.

This is why the contrast with standard maternal-health advice is striking: women are generally encouraged during pregnancy and after childbirth to balance appropriate physical activity with adequate rest, nutrition and recovery. Yet for women living in Yemen's mine-affected communities, explosive contamination can produce the opposite conditions: longer journeys, more difficult terrain, greater physical exertion, and fewer opportunities to avoid demanding household work, while simultaneously struggling to obtain adequate food and antenatal healthcare herself.

Contamination has also cut communities off from water. In Taiz, Project Masam's demining teams have cleared explosive hazards from wells, pumping stations, water tanks and the paths leading to them. At Al-Ahyoof, the field report records women being injured while collecting water from an area contaminated with "camouflaged anti-personnel mines"; at Ash-Shaqab, mines on mountain paths forced residents to make longer journeys for water. In Al-Wa'hez, densely planted anti-personnel mines around a rural well caused what the Taiz teams described as "total water isolation".

For pregnant women and mothers caring for babies, losing safe access to a nearby water source carries additional risks. Adequate hydration is particularly important during pregnancy, when the body's fluid requirements increase, and during breastfeeding, when additional water is needed to support milk production. Dehydration during pregnancy can become dangerous for both mother and unborn baby, while inadequate or unsafe water after delivery can affect a mother's own health and ability to breastfeed, as well as the hygiene and care of her newborn.

Mine contamination that forces women to travel farther for water, or leaves families dependent on unsafe sources, therefore adds another maternal and infant-health risk to an already difficult environment.

The land that no longer feeds families

The same restriction of civilian access extends to the land on which families depend. As frontlines have shifted, areas previously affected by fighting have returned to civilian communities while mines and other explosive hazards left behind have remained. In agricultural areas, this can leave families unable to safely use fields and grazing land that would otherwise provide food and livelihoods.

In this context, agriculture is fundamental to livelihoods and food security across rural and urban Yemen alike. The UN Food and Agriculture Organisation (FAO) estimates that 73% of the rural population relies on agriculture for its livelihood, while 87% of rural women are involved in agricultural production or livestock keeping. The World Bank, meanwhile, estimates that agriculture contributed around 16% of Yemen's GDP in 2024 and employed almost a third of its workforce.

That dependence is particularly significant in the areas where Project Masam operates. The latest IPC assessment estimates that around 60% of households in government-controlled Yemen rely on agriculture, even though domestic production meets only 25-30% of the country's food requirements.

For families unable to produce enough food themselves, purchasing it is also increasingly difficult. Yemen's fragmented economy has been marked by years of currency depreciation and sharp price volatility, while the cost of basic food and fuel varies considerably between regions.

In government-controlled areas, the World Food Programme (WFP) recorded the average cost of its Minimum Food Basket (wheat flour, legumes (beans or peas), vegetable oil, sugar and iodised salt) reaching YER 27,693 in July 2025 (around £9–£10), before falling to YER 17,885 (around £8–£9) by March 2026 following the recovery of the Aden-based rial. The fluctuation itself illustrates the economic uncertainty facing households whose ability to buy essential food can change rapidly with exchange rates and local market conditions.

While the equivalent of £8–£10 may appear relatively inexpensive to a UK reader, the comparison is starkly different in Yemen, where the World Bank estimates that nearly three-quarters of the population lives below the poverty line and around one-third in extreme poverty. Even relatively small increases in the cost of basic food can therefore place significant additional pressure on household budgets, contributing to a wider hunger crisis that is already worsening across Yemen.

In June 2026, the FAO and WFP again classified Yemen among the world's hunger hotspots of highest concern. In government-controlled areas alone, 5.4 million people (or 51% of the population analysed) were projected to face Crisis-level acute food insecurity or worse between June and September 2026, meaning families were already struggling to meet basic food needs without sacrificing essential assets or livelihoods. Around 1.6 million were projected to reach Emergency level, where households face large food shortages, very high acute malnutrition or increasingly extreme measures to obtain food.

Against this background, mine contamination that removes productive land from use puts additional pressure on families already struggling to secure sufficient food and income. Horn said Project Masam had received repeated requests from farmers and landowners seeking clearance. "The impact of explosive contamination on agriculture is significant," he explained, pointing to both fertile land left uncultivated and previously productive farmland that is no longer being used.



The daughter of farmer Amar Mohamed Abdu at the family home in Al Remah, near Al-Mokha, Taiz. After years of displacement, the family returned to farmland contaminated by landmines and other explosive remnants of war, threatening the agricultural livelihood on which they depended. Credit: Elsa Buchanan for Project Masa

In one operation alone, Project Masam's demining Team 37 cleared 180 anti-tank mines and three IEDs from unsafe farmland north of Midi district, making 300,000 square metres of agricultural land safe for civilian use.

For a farming household, the loss can occur in several ways. For example: a field may no longer produce crops for the family to eat or sell, while contaminated grazing land can prevent livestock from being safely maintained (fed and watered). At the same time, the household loses income that might otherwise be used to purchase food, medicine and other necessities.

Women are directly affected by this loss of productive land. The FAO estimates that almost nine in ten rural Yemeni women participate in agricultural production or livestock keeping, while Project Masam's demining teams report women changing or abandoning activities because agricultural land, grazing areas, water sources and places used to gather firewood are contaminated or suspected of contamination.

In Taiz, the consequences are illustrated by the experience of Jamila Qassim, a mother of daughters who was also the sole breadwinner for her family. While grazing sheep on Habail Salman Hill, she stepped on a banned anti-personnel mine. The explosion severed her left leg and threw her onto a second mine, which severed her right leg. The accident left Jamila with a permanent disability while also removing the income and labour on which her household had depended.

The danger extends to other tasks essential to rural households. Thirteen-year-old Bada'a Bajjash was gathering firewood in Taiz when an anti-personnel mine detonated beneath a tree, severely injuring her. According to the field report, her injuries also prevented her from continuing the work through which she had previously helped her family.

Avoiding suspected land may protect families from the immediate danger of an explosion, but it does not remove their need for food, water, fuel or income. For pregnant women and new mothers, these pressures coincide with a period when adequate nutrition is particularly important.

The World Health Organisation (WHO) recommends a healthy and diverse diet during pregnancy and breastfeeding, alongside specific nutritional interventions during pregnancy. Its guidance recommends daily supplementation with 30-60 mg of iron and 400 micrograms of folic acid during pregnancy to help prevent maternal anaemia, low birth weight and preterm birth. For women in households where access to food production and income has already been disrupted, meeting increased nutritional needs can become increasingly more difficult.

Clearance can begin to reverse some of these pressures. Saeed's Team 26 reported that after agricultural and grazing areas were cleared, residents returned to farming and livestock activities, while communities reported improvements in household income and the return of displaced families. For farming families, land released through clearance can therefore restore a source of food, employment and household income at a time when millions of Yemenis are already struggling to meet their basic nutritional needs.

The impact of clearance can be seen in Usaylan district in the southern Shabwah governorate, where farmers have returned to land abandoned during the conflict and subsequently contaminated by mines and other explosive hazards.

Naji Mohsen Abd Rabbu Al-Zubar, a farmer from Al-Huwaila village, said residents had lost livestock and members of the community to mines after returning from displacement, while contamination had also affected farmland and water sources.

“We [now] grow onions, potatoes, tomatoes, and other crops,” Al-Zubar told Project Masam after mine clearance allowed farming to resume. “Life has returned to the way it was before, and we thank God for that.”



Farmer Naji Mohsen Abd Rabbu Al-Zubar and his son harvest onions on their land in Al-Huwaila village, Usaylan district, Shabwah, after Project Masam cleared the farm of explosive hazards, including the IED pictured left. The family had spent four years displaced before returning and resuming agricultural production. Credit: Project Masam

Pregnancy in displacement

For families forced from mine-contaminated communities, deciding when, or whether, it is safe to return can remain difficult long after the immediate fighting has passed.

Deputy Managing Director Horn pointed to the enormous displaced population in Marib, where he is based, as an indication of the continuing effects of conflict and explosive contamination, while stressing that displacement there cannot be attributed to mines alone.

Indeed, Marib hosts by far the largest concentration of internally displaced persons (IDPs) recorded in government-administered Yemen. The UN's International Organisation for Migration (IOM)'s latest Area Assessment, conducted in April and May 2026, estimated that almost 1.88 million displaced people were living in the governorate - around 60% of all IDPs recorded across the government-administered areas it was able to assess. And displacement into and within Marib is continuing: IOM recorded 286 newly displaced households in the governorate between April and June alone, accounting for around 62% of all new displacement it tracked during that period. Its latest weekly data recorded a further 31 households moving into or within Marib between 9 and 15 August.

The scale of that displacement has placed intense pressure on communities and already fragile infrastructure. IOM reported in March 2026 that many displaced families in Marib were living in overcrowded settlements with inadequate access to healthcare, safe water, sanitation and suitable shelter. More than half of the governorate's health facilities had closed because of funding cuts, while more than 57,000 displaced people were relying on unsafe water sources.

But again, displacement does not necessarily mean living in a functioning camp where basic services, offered by local and international aid organisations, are consistently available. Newly displaced families in Marib have been recorded living in overcrowded shelters and makeshift structures or staying with host communities already under pressure, while secondary displacement continues when families are forced to move again.

Project Masam's Taiz field report also describes similar insecurity at family level, recording that some families remained displaced for years because they were afraid to return to contaminated areas. Al-Qahtani reported particularly severe consequences for pregnant women: "Prolonged displacement subjected pregnant women to harsh conditions, lack of medical care, increased miscarriages, and malnutrition."

Those accounts require an important distinction. While they document conditions witnessed by Project Masam personnel and reported by affected communities, they do not establish that landmine contamination - or displacement itself - was the sole cause of an individual pregnancy loss or case of malnutrition. The truth is that displacement in Yemen takes place within a much wider humanitarian crisis in which conflict, poverty, food insecurity, inadequate shelter and severely weakened health and other essential services overlap.

On Yemen's strategic Red Sea coast, Team 26 described pregnant women whose physical and psychological health had deteriorated after fleeing their homes for locations poorly suited to long-term habitation. Team Leader Saeed recalled women being exposed to danger during the journey into displacement and others dealing with the loss of relatives and loved ones during the conflict.

Reaching a place of refuge, however, did not necessarily end those pressures. Saeed explained that displacement could leave pregnant women facing continuing uncertainty over where they would live, how they would obtain adequate food and clean water, and whether healthcare would be available or accessible, at a time when suitable shelter, nutrition and reliable medical care could be particularly important.

For pregnant women, those uncertainties can become more acute as childbirth approaches, particularly for those living with pre-existing medical conditions or who have previously experienced a high-risk pregnancy, complicated delivery or pregnancy loss and know they may require closer monitoring or specialist care.

Yet returning home does not necessarily provide an escape from those conditions. In mine-affected communities, families may face a choice between remaining displaced, with the instability and inadequate access to essential services that can entail, or returning to areas that have not yet been surveyed and cleared of explosive hazards.

Mohammadah's story, with which this investigation began, sits within precisely this pattern of displacement and return. While displaced from Al-Musanna, she returned to her home to retrieve personal belongings as she was pregnant when the anti-personnel mine exploded, costing her both legs and her unborn child. For pregnant women and mothers with young children, therefore, neither remaining displaced nor attempting to return necessarily provides the safety and stability they need.

When maternity care is already out of reach

Displacement can further reduce access to healthcare during pregnancy in a country where maternity care is already beyond the reach of many women. Fleeing home can place functioning health facilities still farther away, disrupt access to medicines or treatment for existing health conditions, and leave pregnant women unfamiliar with where - or whether - appropriate care is available in the area where they have sought refuge.

In some communities, women may also have limited trust in unfamiliar healthcare providers or services, adding another barrier when displacement removes them from the people and places they know. For those who know from a previous pregnancy, delivery or existing medical condition that they may need specialist care, that uncertainty can be particularly serious.

Tragically, accessing antenatal care is already difficult for many women in Yemen before landmine contamination is taken into account. The UNFPA estimates that four in ten pregnant women receive no antenatal care from a skilled provider, while fewer than 40% receive adequate antenatal care at all. More, around 40% of the country's health facilities are partially functioning or completely out of service, and only one in five functioning facilities provides maternal and child health services.

For women in rural, frontline and mine-affected communities, reaching a health facility therefore does not necessarily mean reaching appropriate maternity care. A nearby clinic may lack specialist staff, medicines or the capacity to manage complications, requiring women to travel farther for treatment (with extremely limited funds for private transport). When the roads connecting communities to those remaining services are themselves mined or considered unsafe, an already limited healthcare network becomes still harder to reach.

The WHO Health Cluster warns that deteriorating maternal and child health indicators are adding further pressure to Yemen's fragile health system. The latest UN estimates put maternal mortality at around 118 deaths per 100,000 live births (roughly 15 times the rate in the United Kingdom) while Yemen's most recent national household survey (2022-2023) found that around one in every 25 children born alive dies before reaching the age of five. Neonatal mortality was estimated at 21 deaths per 1,000 live births, with the survey finding no significant improvement in childhood mortality rates over the preceding 15 years.

Women and children in remote areas can face still greater risks, with shortages of trained midwives and functioning health facilities, long distances and difficult terrain limiting access to timely maternal and newborn care.

These figures must also be read against the collapse of Yemen's healthcare system: two in five health facilities are now non-functional, while only one in five functioning facilities provides maternal and child health services. In 2026, UNFPA estimates that around 80% of Yemen's 765,000 pregnant women have limited or no access to life-saving reproductive health services, while the absence of comprehensive mortality data makes the full scale of maternal and child deaths difficult to measure.

And the pressures do not necessarily end with delivery. A mother may be recovering from childbirth and breastfeeding or caring for a newborn while the family continues to contend with inadequate shelter, uncertain food supplies, limited clean water and difficulties reaching healthcare. Against this background, IOM's 2026 response in Yemen specifically identifies women and girls as "disproportionately affected by the lack of basic services" among crisis-affected populations.



Displaced from Ibb, Ateekah Saleh Ali, 39, began selling ice creams in Al-Khokha, Taiz, after her husband was killed by a landmine, leaving her to provide for their six children. She invested in a wheelbarrow and cooler box to start the business and says she is the only woman running a business in Al-Khokha, where such work is not customary for women. Credit: Elsa Buchanan for Project Masam

When a child is injured

For mothers living in mine-affected communities, the threat does not end with pregnancy or childbirth. Team 26 described women preventing their children from playing outside or going to school because of suspected contamination, while demining teams have found explosive hazards in and around schools, homes, roads and other places used routinely by families.

When a child is injured, the consequences can also create new pressures for the whole household. Parents may become long-term caregivers while families face the cost of surgery, rehabilitation and repeated journeys for specialist treatment, often alongside the loss of work and income. For many Yemeni families, these additional costs come after years of conflict, inflation and currency depreciation have already severely reduced what household incomes can buy.

Nada Mansour Muhammad was 10 and her sister Neda'a 16 when their family was living temporarily in Al-Daawah neighbourhood, Salah district, in Taiz. They had been displaced from their home in Jabal Habashi after it was targeted by shelling and had sought refuge there with their parents and two sisters.

The girls were collecting and stacking firewood among trees and bushes in a yard opposite the house, preparing fuel their family would use to cook lunch, when a landmine exploded. Neighbours who heard the blast found the sisters injured and bleeding and rushed them to separate hospitals. Nada lost her right hand and suffered injuries to her right foot and face, as well as shrapnel damage to her left eye. She subsequently lost the eye, while shrapnel remains embedded in her limbs. Now 14, she requires further surgery for her eye and to remove the shrapnel, as well as glasses to support the vision she retains.

Neda'a suffered a severe fracture to her left leg and shrapnel wounds to her thigh, abdomen and other parts of her body. Walking remains painful and difficult and she relies on walking aids to get around, which her family says has also affected her confidence and social life. She requires surgery to remove the remaining fragments, while the family is awaiting specialist advice on whether further surgery will be needed to correct damage to her leg.

Their father, Mohamed, told Project Masam that he could not afford the medical treatment his daughters still required. At the time, he had been told that Neda'a's surgery alone could cost as much as two million Yemeni riyals to remove the jagged fragments from her legs and help her walk without the pain she currently experiences.

For Nada, some assistance became available. Dr Arwa Hael, Programme Coordinator with the International Association for the Care of Victims of Wars and Disasters (Al-Ameen), which works with the King Salman Humanitarian Aid and Relief Centre (KSrelief) on healthcare programmes in Yemen, told Project Masam that Nada would receive a prosthetic right upper limb free of charge, with her transport costs also covered.

But a prosthetic limb addresses only one part of the sisters' continuing medical needs. Even where an organisation is able to fund a particular intervention, families can still face other treatment costs as well as repeated journeys to hospitals, time away from work and the practical demands of caring for injured children through treatment and recovery.

In Yemen, post-blast specialist services are limited and may be located far from where survivors live. The International Committee of the Red Cross (ICRC), which supports five

government physical rehabilitation centres across the country, has documented families travelling hundreds of kilometres to obtain rehabilitation, with the cost of transport and treatment itself becoming a continuing struggle.

At the KSRelief-supported Artificial Limbs and Rehabilitation Centre in Aden, around 88% of beneficiaries documented during a recent Project Masam visit had been injured during the conflict, most of them survivors of landmine accidents or unexploded ordnance. Treatment can extend well beyond fitting an artificial limb, with assessment, rehabilitation and physiotherapy required before and after fitting. The centre's youngest patients are just five months old.

Even where treatment is provided free, reaching it can carry a substantial cost. A parent may have to travel with an injured child, pay for transport and accommodation and spend days or longer away from work and other children. Children may also require repeated care as they grow: the ICRC has [documented one Yemeni child](#) injured by a landmine whose family travelled more than 200 kilometres to Sanaa for rehabilitation, with his prosthesis requiring continuing adjustment as his body grows.

For Nada, the consequences have also followed her back into the classroom. She told Project Masam that she had faced bullying as she adjusted to her injuries and the loss of her right hand. Looking at her notebook, she said: “My handwriting used to be beautiful with my right hand.”



Sisters Nada and Neda'a Mansour were injured by a landmine while collecting firewood to cook their family's lunch outside their temporary home in Al-Daawah, Taiz, after the family had been displaced from Jabal Habashi by shelling. Nada, then 10, lost her right hand and later one eye, while Neda'a, then 16, suffered a severe leg fracture and multiple shrapnel wounds. Both continue to require medical treatment for their injuries. Credit: Elsa Buchanan for Project Masam

Impact on family and social cohesion

Dalilah Ali Ahmed was preparing to be married when a landmine changed the course of her life. On the first day of her wedding celebrations, Dalilah stepped on a hidden landmine along a rural path near her home and lost both legs. Two female cousins who attempted to reach her then encountered additional mines, each losing a leg.

Although Dalilah was not a mother at the time of the incident, her case illustrates another consequence of explosive violence for women and girls in Yemen. Disability can carry a profound social stigma, particularly for young unmarried women who may find themselves overlooked as prospective wives and mothers because of their injuries. Dalilah's wedding was cancelled and her fiancé subsequently left her.

Project Masam has documented the same stigma at other stages of women's lives. Female survivors who were already married when they were injured have described being abandoned by their husbands after acquiring a disability, in some cases leaving them responsible for children while simultaneously coping with permanent injuries and a reduced ability to earn an income.

Young rural mother Saliha Abdah's experience is one such case. She lost a leg in a landmine explosion while collecting firewood and was subsequently abandoned by her husband, leaving her to care for their three children while living with her disability and its economic consequences. Describing the position in which the family had been left, she told Project Masam: "Now my children and I don't have anything."

For families who have already experienced an accident, making the surrounding community safe cannot reverse the injuries, bereavement and other consequences they are already living with.

What happens when the mines are gone

Humanitarian mine clearance can restore access in both directions. A reopened road may allow an ambulance to reach a pregnant woman in her village or enable her to travel directly to a health centre previously cut off by contamination. It can also allow humanitarian organisations, mobile medical teams and other essential services to reach isolated communities again (particularly important in Yemen, where years of conflict and chronic underfunding have left much of the healthcare system dependent on international humanitarian support for services, medicines and specialist care).

This is why Horn describes the clearance of essential civilian infrastructure as a priority for Project Masam. Hospitals, schools and other public facilities can be given priority because restoring them to safe use has consequences for entire communities rather than individual landowners alone.

"The clearance of essential facilities helps restore a sense of normality for the Yemeni people," Horn said, adding that it improves access to vital services and contributes to the safety and wellbeing of affected communities.

In Taiz, that work has included reopening access roads to health facilities, clearing mines from medical compounds and establishing safe pedestrian routes where contamination had previously restricted emergency care and vaccination.

Elsewhere, at Al-Mokha General Hospital, where Saeed's team operated, IEDs and mines were found in the grounds behind the facility and on roads connecting it to surrounding areas, hindering access for critical emergency cases arriving from rural communities. Project Masam teams therefore worked both around the hospital and on the routes leading to it.

Alongside clearance, inclusive and gender-sensitive Explosive Ordnance Risk Education (EORE) is particularly important in Yemen, ensuring potentially life-saving information reaches women who may face specific risks or barriers because of cultural restrictions, low literacy or disability, and who can in turn share that knowledge with their children and wider families.

While humanitarian mine clearance cannot change the injuries and losses already documented in this investigation, it can prevent their repetition and restore access to services and land on which communities depend.

“As long as the conflict persists, the threat of explosive remnants of war will remain. Given the current level of contamination, clearing the existing hazards may take decades,” Horn said.

The task is complicated by significant differences in the type and extent of contamination between governorates, continuing insecurity and displacement, and a conflict that has not yet ended. Children born years after mines were laid can still encounter them on roads, around homes and schools, on agricultural land and in other places returned to civilian use.

For Project Masam, this means emergency humanitarian mine clearance will remain necessary while the conflict continues and for years after it ends. Surveying and clearing contaminated areas, responding to reports from communities and returning land safely to civilian use will remain essential as a new generation of Yemeni children is born into communities still affected by mines laid during this conflict.

METHODOLOGY AND DATA NOTE

This report draws on Project Masam operational and field data available from July 2018 onwards, including reporting from 42 demining teams currently or formerly active across Aden, Al-Jawf, Abyan, Al-Dhale, Al-Hudaydah, Lahj, Marib, Shabwah, Taiz, Hadramawt and Hajjah. It also draws on interviews with Project Masam personnel and affected civilians, survivor accounts, field investigations and publicly available data and reporting from United Nations agencies, international organisations and other cited sources.

Project Masam's operational data reflects areas in which its teams have worked and incidents or conditions reported to or documented by those teams. It should not be interpreted as a comprehensive national dataset or as measuring the full prevalence of maternal and infant harm associated with explosive contamination across Yemen. Where the report describes individual health outcomes, it distinguishes documented circumstances and reported experiences from cases in which a direct medical causal relationship has been independently established.

GLOSSARY OF EXPLOSIVE HAZARDS

Anti-personnel mine (AP mine): A mine designed to be detonated by a person and intended to incapacitate, injure or kill. Pressure-activated anti-personnel mines typically require around 2 to 20 kilogrammes (4.4 to 44 pounds) of downward pressure to detonate, depending on the mine and fuze. In Yemen, Project Masam teams encounter both conventionally manufactured and improvised AP mines.

Anti-vehicle mine (AV mine): Also known as an anti-tank (AT) mine, a mine designed to be detonated by a vehicle. Conventional pressure-activated AV mines typically require the weight of a vehicle passing over them, with around 100 to 400 kilogrammes (220 to 880 pounds) of pressure required to function, depending on the mine and fuze. In Yemen, Project Masam teams encounter both conventionally manufactured and locally manufactured AV mines. Demining teams have also encountered AV mines that have been modified or reconfigured with more sensitive pressure plates or other initiation mechanisms, allowing them to be triggered by the weight of a person.

Unlike AP mines, conventional AV mines are not prohibited by the 1997 Anti-Personnel Mine Ban Convention. However, a mine designed or modified to explode through the presence, proximity or contact of a person may fall within the Convention's definition of an AP mine.

Improvised explosive device (IED): An explosive device constructed or placed in an improvised manner. IEDs encountered by demining teams in Yemen have incorporated a range of initiation systems and methods of concealment.

Booby trap: An explosive or other device deliberately designed to cause casualties when a person disturbs or approaches an apparently safe object or performs an ordinarily safe action. Project Masam teams have reported devices concealed in or associated with everyday objects and civilian locations.

Tripwire: A wire or cord used as part of an initiation system so that disturbing or pulling it can trigger an explosive device. Fine or difficult-to-see tripwires can be particularly hazardous in vegetation, farmland and other areas routinely used by civilians.

Bounding mine: A mine designed so that, when initiated, an explosive component is projected above ground before detonating and dispersing fragmentation. Detonating above ground allows fragments to strike the legs and upper body and spread across the surrounding area, potentially causing multiple severe injuries and endangering people beyond the person who triggered the mine.

Unexploded ordnance (UXO): Explosive ordnance that has been fired, dropped, launched or otherwise deployed but failed to explode as intended. This can include artillery projectiles, mortar bombs, rockets and aerial bombs.

Explosive remnants of war (ERW): A broader humanitarian Mine Action term covering UXO and abandoned explosive ordnance left after conflict. Landmines are generally treated separately in the relevant international legal definitions, although “explosive remnants of war” is sometimes used more loosely in general reporting.

Clearance: The process of locating, identifying and removing or destroying explosive hazards so that contaminated land can be released for civilian use.

Explosive Ordnance Risk Education (EORE): Activities designed to reduce the risk of injury or death from landmines and other explosive ordnance by raising awareness of hazards and promoting safer behaviour. Inclusive, gender-sensitive EORE considers how women, men, girls and boys may encounter different risks and ensures information is accessible to people who may otherwise be excluded, including those with low literacy or visual, hearing or other impairments. This can include using female educators, pictures and demonstrations, audio or other accessible communication methods, and adapting sessions to the needs and circumstances of the community.

ABOUT PROJECT MASAM

Project Masam is a humanitarian mine action programme launched in 2018 to clear landmines, improvised explosive devices (IEDs) and unexploded ordnance (UXO) across Yemen. Funded by the King Salman Humanitarian Aid and Relief Centre (KSrelief), the project works to protect civilians, restore safe access to homes, farmland and essential infrastructure, and support communities affected by explosive contamination.

Project Masam trains, equips and supports Yemeni demining teams, combining international technical expertise with local capacity to conduct emergency humanitarian clearance and Explosive Ordnance Risk Education (EORE). Its work also documents the humanitarian impact of explosive hazards on civilians and supports the safe return of land and infrastructure to community use.

PRESS AND MEDIA ENQUIRIES

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