

Copyright statement

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-Sharealike 4.0 licence (CC BY-NC-SA 4.0); https://creativecommons.org/licenses/by-nc-sa/4.0/deed.en.

Under the terms of this licence, you may copy, redistribute, and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below.

Suggested Citation

Interlocked: Midwives and the Climate Crisis. The Hague: International Confederation of Midwives; 2024. Licence: CC BY-NC-SA 4.0.

Acknowledgments

The International Confederation of Midwives (ICM) extends its sincere gratitude to Human Rights Watch (HRW) for their invaluable support in developing this report, with special thanks to Skye Wheeler, whose efforts were instrumental in its creation. We would also like to acknowledge the contributions of other authors, including Ana Gutiérrez and Daniela Drandic and, and the design work by Inma Nuñez.

Our appreciation goes to everyone who provided feedback throughout the process and to the midwives who generously shared their insights by responding to the survey.

At ICM we centre the experiences of women in our work, while recognising that gender diverse people, including trans and non-binary people, also need access to a midwife for sexual, reproductive, maternal, newborn and adolescent health care.

Table of Contents

Background	4
The climate crisis and maternal health: what we know	4
Why Midwives?	7
1. Midwives can build climate-resilient SRMNAH health services	8
2. Midwives give women control over their health and help them	
build climate resilience	9
3. Midwives can be essential responders in climate disasters	10
About the survey	11
Why this survey	11
Who answered the survey?	12
Finding 1: Midwives see a wide variety of negative climate impacts	
on community health	13
Access to care	14
Extreme heat is having an impact	15
Communities forced to relocate	16
Food and nutrition	17
Mental health and emotional wellbeing	18
Climate impacts are deepening health inequities.	18
Finding 2: Climate change is negatively impacting midwives.	20
Disasters impact midwives homes and families	20
Heat	21
The work is getting harder	21
Finding 3: Midwives are heavily involved in climate work NOW	23
Knowledge and training	23
Midwifery care is important	24
Midwives in climate adaptation work	25
Finding 4: Midwives want more resources, training, connection	27
Training	27
Climate Activism	28
Midwifery care is less resource heavy than some other forms of care	29
Midwives are needed as climate workers	30
Conclusion	31
Call to Action	34
References	36

Background

The climate crisis and maternal health: what we know





"Because of climate issues, women in my community were not able to go to the hospital, and as a result, there were neonatal deaths and postpartum infections." – Midwife from Bangladesh.

"[I worry most about] increased morbidity and mortality due to stress and harms to pregnancy, labour, and the start of a child's life." – Midwife from Canada.

According to the Lancet, the climate crisis is the greatest global public health challenge of this century [1]. Those already facing barriers to health services are, and will continue to be hit hardest, exacerbating the disparities within and between countries. From floods to wildfires, hurricanes to heatwaves, no country will be spared both immediate and long-term impacts of climate change on human health [2].

Studies have shown clear links between climate change and negative sexual, reproductive, maternal, newborn, and adolescent health (SRMNAH) outcomes. Floods [3], hurricanes [4], wildfires [5], and extreme heat [6] are all associated with premature births, miscarriages, and low birth weight newborns. Climate related disasters disrupt access and quality of health services, leading to unplanned out-of-hospital births and worsening maternal and newborn health outcomes [6,7]. Rising temperatures increase the chances that women will have high blood pressure during pregnancy [8] and must deal with food insecurity and excessive heat, making breastfeeding more challenging [9].

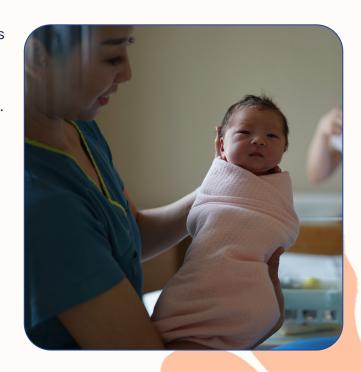


"A bridge link was washed away [in floods] and women are not able to cross the river to access health services which led to high numbers of unassisted births." – Midwife from Papua New Guinea.

"There are parallels [correlations] between my unit's rate of preterm birth with heatwaves. Heatwaves add pressure on services and increases neonatal intensive care unit (NICU) admissions." - Midwife from the UK.

The climate crisis is not gender-neutral; it disproportionately affects women, who often bear the heaviest burdens of care work and face the greatest barriers to accessing health services [10]. Women and girls are more likely to experience food insecurity, displacement, and economic hardships due to climate events [11]. They are also at greater risk of gender-based violence in the wake of disasters [12]. Compounding these challenges is the fact that globally, the health workforce is largely made up of women, including midwives and other frontline health workers. The intersection of climate change and gender inequities demands a feminist approach that centres on the rights, health, and empowerment of women in climate resilience and response strategies. For example, the Lancet has called the climate crisis the greatest threat to public health and a great opportunity to re-centre social and environmental determinants of health [1].

The International Confederation of Midwives (ICM) and our partner in this report, Human Rights Watch (HRW), have called for urgent action to reduce greenhouse gas emissions. But governments must build and adapt health systems that are designed to be more climate resilient and ready to face the worst outcomes of the climate crisis. This means creating health systems that are sustainable, and capable of reducing their own environmental impact, while continuing to provide essential care for women, gender diverse people, newborns, and adolescents.





Despite the overwhelming evidence of climate change's impact on health, many countries still lack comprehensive plans to address these challenges, especially for the most affected communities. When governments fail to prioritise climate-resilient health systems, they overlook the specific needs of women and newborns [13]. Without including the voices of those most vulnerable to climate impacts, as well as those who will respond to these crises and who know their communities best, health systems remain poorly equipped to provide an effective emergency response.

The findings in this report highlight an urgent reality: midwives are already facing the direct impacts of the climate crisis, witnessing its effects on women, families, and communities. Governments, policymakers, and organisations must act to build climate-resilient health systems that support and enable midwives to be able to provide critical SRMNAH health services.

As the world grapples with an uncertain climate future, placing midwives at the centre of these efforts is not just necessary—it is essential.

Why Midwives?

Midwives play a role in building climate resilience across three key levels: by supporting more sustainable SRMNAH services, by empowering women to build their own resilience, and by responding to crises as they arise.

With climate-related disasters becoming more frequent, resilient health systems are more important than ever. Investing in midwifery is a direct way to mitigate the impact of a warming world. They are often trusted community members, with critical networks and established community links. With the right training, resources, and support, midwives can lead and deliver effective crisis response ensuring women, newborns, and families receive essential care. Including and empowering midwives to participate in climate preparedness planning and response strategies strengthens health systems and equips communities to better face future challenges.



1. Midwives can help build climate-resilient SRMNAH health services

SRMNAH needs can't be paused during crises. Babies will still be born, and women and girls can't wait for care – whether it's for contraception, a sexually transmitted infection (STI), or comprehensive abortion care. Midwives can provide up to 90% of essential SRMNAH services. Midwife models of care [14] both improve outcomes for girls, women and newborns and help build more efficient, more climate-resilient health systems that have a smaller environmental footprint [15].

Midwives working in communities help reduce the carbon footprint of health services by cutting the need for transportation to distant health facilities. In rural areas, where 43% of the world's population lives, families often travel long distances to access care. By providing services such as antenatal care, reproductive health support, and health education locally, midwives reduce the reliance on travel, lowering carbon emissions and healthcare costs. To do this, midwives must be resourced and enabled, and have referral pathways and transport links to ensure transfer when needed.

Globally, around 5% of greenhouse gas emissions originate from healthcare [16]. The continuity of midwife care model provides safe care with a focus on allowing the physiological labour and birth process to progress normally, intervening only when necessary. Unlike the obstetric model of care, which often depends on single-use items and frequent interventions, midwives generate much less waste. This approach often supports safer births and contributes to more sustainable healthcare by reducing reliance on disposable supplies and minimising medical waste.





The Midwifery Philosophy and Model of Care [17] is inherently intersectional and holistic, addressing the diverse needs of women while promoting long-term health and wellbeing. Climate resilience is not just about environmental sustainability, but also about ensuring that all individuals have equitable access to care and the ability to make decisions that shape their lives. By offering sexual and reproductive health services and tailored education, midwives help bridge the gaps in access that affect women and communities facing systemic barriers.

2. Midwives support women to have choices over their health and help them build climate resilience

Midwives play a crucial role in enabling women to make informed choices about their reproductive health. Through providing evidence-based education, contraception, and comprehensive abortion care, midwives support women in deciding if, and when to have children. Access to contraception and family planning is central to women's rights, poverty reduction, and sustainable development. It has also been linked to enhanced resilience in the face of climate change [18]. Today, 222 million women worldwide want to plan their pregnancies but lack access to modern contraception [19]. Expanding access to midwives is a win for women, families and the planet.

In addition to supporting reproductive choices, midwives help women achieve their breastfeeding goals, breastfeeding more and longer. Breastfeeding provides optimal nutrition for newborns and infants while being environmentally sustainable. It also improves the short- and long-term health of both mothers and babies and reduces the need for formula, which requires significant resources for production, packaging, and transportation. A 2019 study found that formula feeding for just six months adds over 200 kg of CO2 emissions [20]. Breastfeeding also reduces costs for families and strengthens their economic resilience in the event of disasters, as it provides a reliable, readily available food source for infants when other resources may be scarce. This practice not only benefits the planet but also contributes to long-term health outcomes for women and babies.

3. Midwives can be essential responders in climate disasters

Midwives support the holistic healthcare needs of women, supporting physical and mental health needs, whilst responding empathetically and competently at times of crisis. When climate disasters like floods, heatwaves, wildfires, or hurricanes strike, community-based midwives are critical in ensuring access to SRMNAH services. As trusted members of their communities they can serve as an essential network for distributing information and supplies, addressing urgent needs, especially in areas that become isolated or hard to reach due to infrastructure damage.



About the survey

The survey "Midwives Experiences and Perspectives on Climate Change" was designed by the International Confederation of Midwives (ICM) with extensive input and support from Human Rights Watch (HRW). The report based on the survey is a product of ICM. The survey was published on the Typeform platform and was open from 08 July 8 to 15 August 2024. ICM disseminated the survey in English, French and Spanish, advertising it among its member associations, as well as on its social media and other communications channels. Only data from completed surveys was used. Written responses have been lightly edited for clarity and to correct typographical errors.

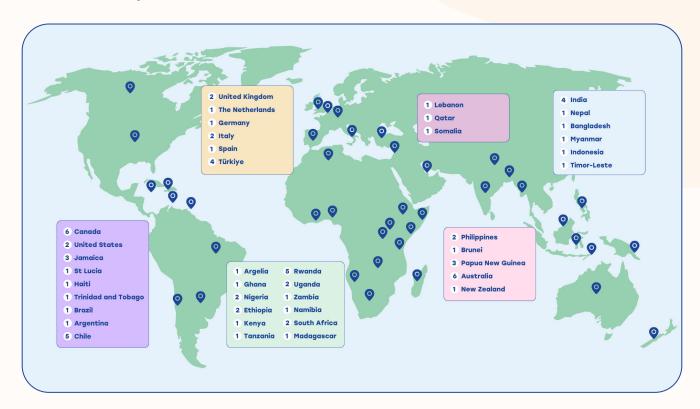
Why this survey

ICM conducted this survey with support from HRW to try to better understand the range of experiences and perspectives of midwives in climate crisis. ICM and HRW set out to find out what was worrying respondents the most, how deeply midwives felt they were already involved in responding to the climate crisis in clinical or advocacy work, and whether respondents felt that they and others in their profession have a role to play.

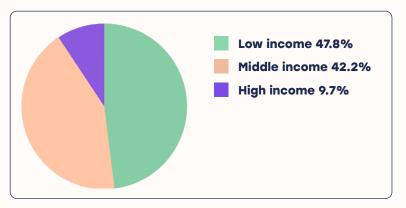
ICM's 2024-26 Strategic Priorities [21] include supporting and enabling midwives to meet the challenges of climate and humanitarian crises. This survey forms part of that strategic work. For the past five years the Women's Rights Division at HRW has been reporting on and conducting advocacy and community building activities around the intersection of sexual and reproductive rights and the climate crisis. To see more please go to: www.hrw.org.

Who answered the survey?

Survey respondents were 77 midwives from 41 countries, widely distributed around the world:



When asked to describe the economic status of the community they serve, 47.8% said "low income", 42.2% "middle income" and 9.7% "high income" [see Graph 1]. Of the total respondents, 13% indicated that they work with minority groups in their countries, i.e. racial, ethnic, religious, or other minorities.

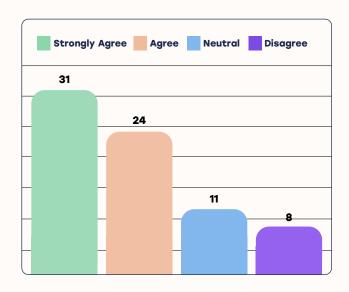


Graph 1: What best describes the economic status of most of the community you serve?

When asked to describe the community they serve, 59.7% of midwives said, "urban or suburban", 22.2% said "rural", 12.5% said "small town" and 5.6% indicated they worked with a "hard-to-reach community (e.g. island, mountain, remote)".

Finding 1: Midwives see a wide variety of negative climate impacts on community health

A large majority (75.3%) of survey respondents agreed with the statement that "climate change is damaging the health of communities" they work with. Respondents to this survey appeared to be largely in agreement that their work was affected, 59.7% of the respondents agreed that "climate change had impacted access to, or quality of healthcare often provided by midwives." Midwife respondents also mostly agreed that pregnancy was especially a vulnerability to climate harms on communities and their environments [see Graph 2].



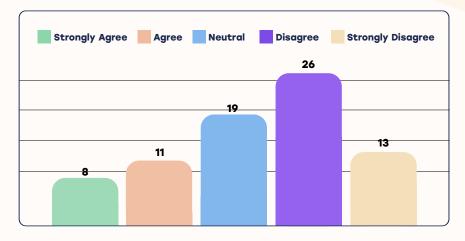
Graph 2: Pregnant individuals in the community I serve face higher climate risks than non-pregnant adults. Do you agree?

One provider echoed the responses of many others when they said: "I think that midwives have an important role to play, as we care for some of the people most vulnerable to climate change, notably newborns and pregnant people."



These responses are unsurprising: epidemiologists, climate scientists and health experts in major UN health agencies have stated that pregnancy and newborn health is especially or uniquely vulnerable to climate damage [7]. Climate change poses specific risks to pregnancy, newborn health, and long-term intergenerational health. Despite this, most countries still fail include maternal and newborn health in their climate action plans [13] [21].

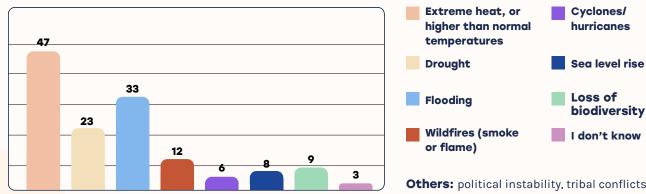
The respondents also provided insight into the enormous variety of ways climate damage impacts the health and wellbeing of the communities and individuals they serve. Midwife respondents generally felt that health systems are unprepared for climate change impacts [See Graph 3].



Graph 3: The health systems that serve the community I work in are prepared for climate change impacts over the next 5 to 10 years. Do you agree?

Access to care

Many midwives provided examples of where midwives had experienced climate-related disasters impacting access to care. "Flooding" was the second-most observed climate impact that the respondents of this survey had seen on communities they serve [see Graph 4]. Ten midwives mentioned ways in which floods restricted access to care.



Graph 4: Climate Impacts Perceived in the Community

Others: political instability, tribal conflicts, financial issues, landslides, and prolonged cold weather affecting highland areas.

A midwife from Kerema Province of Papua New Guinea said, "the area that we are situated in is covered with swamps and rivers and accessibility to government services is usually difficult when the weather changes." One respondent from Sivas in Türkiye said that in her experience, "access to reproductive health facilities is restricted during disasters due to climate change," another from Tanzania, noted "women cannot access healthcare services as the roads are impassable especially during heavy rains."

In relation to access problems, a midwife from Uganda noted: "delays make it hard to identify high risks such as hypertension and intervene early so a mother might end up with preeclampsia or eclampsia."

A midwife from Dili, Timor-Leste included a tragic example of how flooding disasters can kill people directly as well as destroy roads and health infrastructure: "[One woman] lost a baby when the baby was under the water current while the mother was carrying him," she said.



Extreme heat is having an impact

Extreme heat or higher-than-normal temperatures was the most observed climate impact by the survey respondents [see Graph 4]. Extreme heat was frequently mentioned in responses to a question about what impacts midwives were seeing on community health and wellbeing. Heat was associated with "changes in menstrual cycles due to temperature," one midwife from Türkiye said. A midwife from Ethiopia said, "extreme heat is contributing to increased stillbirth rates, postpartum haemorrhage and stunting."

Another midwife from the UK said:

"There are parallels between my unit's rate of preterm birth with heatwaves. [Heatwaves] add pressure on services and increases NICU admissions. Similarly, those living in unsuitable housing have health issues related to heat exhaustion in summer and exposure in winter."

When asked about their main worry, many midwives mentioned the impact of heat.

"Direct harm includes getting injuries from falling due to mudslides; risk of having pregnancy complications due to extreme heat" one midwife wrote in answer to the question. "Increased risk for dehydration and lack of sleep due to the hot weather," said another from Nigeria.

In Uganda, a respondent said, "there has been increased numbers of preterm births due to high temperatures." This midwife also said she worried that malaria was on the rise, a disease that is especially dangerous to pregnant women and newborns. A respondent from Ghana also drew a link between malaria and heat noting that "due to the heat [pregnant women] are unable to sleep under a mosquito net which brings about malaria infections." Another midwife from Türkiye noted "Condoms ... deteriorate in extreme temperatures, which reduces the effectiveness of this contraceptive method."

Two respondents mentioned seeing increases in rates of heat rash in newborns.

Communities forced to relocate

When asked what worried them most about maternal and newborn health and climate change, climate displacement and political instability was the key climate concern for some respondents.

"Climate change has resulted in people having to flee unliveable situations," one midwife wrote. "For example, many of my clients are from the Sahel region in West Africa where droughts and extreme heat have destabilised the political landscape and resulted in violence," they continued. "Sometimes families relocate due to climate events, and we lose contact," a midwife from Jamaica reported.



A Canadian midwife said:

"We had to evacuate in 2023 which had a big impact on women of reproductive age" adding that she was concerned "all the funding that needs to go to infrastructure to protect against wildfires and planning for evacuation and fire season takes away from available funding that could go to reproductive healthcare."

Another midwife from Papua New Guinea said:

"Access to maternity services were easily accessible before rising sea level destroyed the community's homes. The community moved higher, inland. Most of them depended on the sea for their living. Relocation for them was hard because they had to get used to ploughing the land to make gardens and spending money for transport to and from the town and health services. The displacement also resulted in woman having to deliver babies on their own, missing antenatal and family planning visits."

Food and nutrition

Food and nutrition were also rated highly on the list of respondents' concerns. "Anaemia in pregnancy," one respondent from Jamaica said. "Malnutrition increases the chance of most maternal and neonatal complications, and some impacts may be long term," another midwife, from Kenya, said.

A Papua New Guinea respondent worried about nutrition, especially for women:

"Continuous heavy rain and floods has washed away food crops in the gardens. Women had to prepare whatever little they could find to cook and serve their children and husband while the women themselves go hungry. It surely contributes to inadequate intake of nutritious diet during pregnancy leading to high small to date newborns, anaemia and adult malnutrition."

Another midwife from the northern province of Zambia was similarly worried: "Floods resulting in damage to the crops result in the infant becoming malnourished as well as increases in maternal morbidity and mortality due to complications of pregnancy."

In response to a question about what worried them most, a midwife from Canada said: "I worry about food insecurity; I worry about further inequities between well-resourced people and those who struggle already."

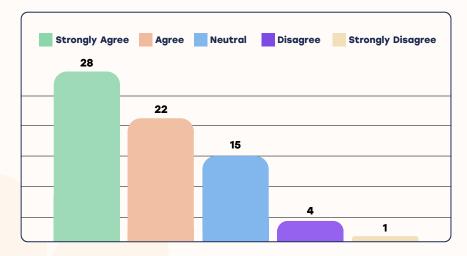


Mental health and emotional wellbeing

Mental health, or broader emotional wellbeing impacts were also mentioned. A Canadian midwife said, "the mental health impacts [from wildfires] are intense." Another from Punta Arenas, Chile, noted that in climate related disasters, "the tranquillity that the mother and the newborn need is no longer available at all." A UK midwife said: "climate related disasters also increase rates of mental health and trauma". Some respondents noted both immediate but also secondary impacts from climate disaster, according to a midwife from Canada, "anxiety, depression, hopelessness, increased exposure to intimate partner violence, chronic stress."

Climate impacts are deepening health inequities

Respondents mostly agreed that the climate crisis is deepening already existing health inequities [see Graph 5] and also highlighted concerns about how communities already facing health and other injustices were worst affected by climate change. A midwife from California, US, for example, said: "poor air quality and extreme heat is ever-present in the regions also facing the worst perinatal outcomes." Generally, "people who are well-resourced are better able to cope with things like being displaced from their homes or missing work due to extreme weather events," a midwife from Halifax, Canada, said. A midwife from Myanmar noted that flooding increased the risk of diseases spreading in already at-risk communities.



Graph 5: I am worried that the climate crisis is making pre-existing inequities in maternal and newborn health worse in the country where I work. Do you agree?

Respondents said climate disaster-related displacement deepening historical injustices was an important issue. "Forest fires in my country have displaced Indigenous people from their land," a midwife from Ontaria, Canada said. "They already face removal from their community to give birth and access care."

Four respondents noted inequities associated with rurality being worsened by the climate crisis. "Rural/regional Australia is more susceptible to fires/floods, people there already face barriers to access," is an example of these responses.

Another midwife talked about gendered work being especially a problem for women in rural areas:

"In Ethiopia more than 80 percent of women live in rural areas and agriculture is their only means of living. These agriculturalist and pastoralist communities have huge unmet need for maternal and newborn healthcare services and with climate change, this (rural) community is facing drought and hunger, exacerbating the preexisting higher risk of mortality and morbidity."

Unsurprisingly, midwives also worried about economic impacts worsening the precarity of low-income families. "Low-income communities are more severely affected when there are heat waves. And women are at higher risk of dehydration and preterm labour as a result," one midwife wrote. A midwife from Uganda said: "During drought crops will fail and people will not have what they need to sell to get money, this will hinder or delay seeking healthcare services, also because of a lack of transport to reach the health facilities."

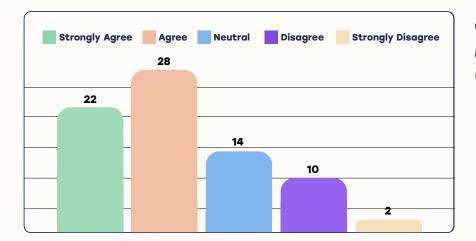
A midwife from the UK said:

"Vulnerable communities, for example non-English speaking, are more likely to live in inappropriate accommodation, unable to advocate as strongly for themselves or understand guidance, advice and avenues of care and support."



Finding 2: Climate change is negatively impacting midwives

Respondents mostly agreed that the climate crisis had affected their personal or professional work negatively [see Graph 6]. In response to the question "How has extreme heat, wildfires, drought, or other impact from the climate crisis personally or professionally affected you?" midwives provided varied answers, including those referring to mental health impacts, worries for the future and anger at the lack of action to address the climate crisis.



Graph 6: The climate crisis has personally or professionally affected me in negative ways. Do you agree?

Disasters impact midwives' homes and families

Examples of direct impacts on respondents and family or community included higher prices of food and reduced water access. Other examples included:



"I have been impacted negatively by a rain disaster where flooding destroyed my house. The economy was also impacted, and this all also increased my stress at work." – Midwife, Rwanda.

"I had to evacuate from Yellowknife last year with my 39-week pregnant daughter who then had to give birth to her first child in another province surrounded by healthcare workers she did not know spending her first month as a parent in a temporary housing away from home." – Midwife, Canada.

A midwife from southern California, US, said "I personally feel the impacts on my health and mental health. I worried about what the next climate catastrophe may be and if I'm prepared."

Heat

Examples midwives provided about how climate change is impacting their work directly included extreme heat. "My working conditions are worsening," a midwife from Papua New Guinea said. "We have no air conditioning or fans for cooling and so the work environment is too hot. We're sweating while helping women to deliver their babies." Another respondent from the Gondar/ Amhara region of Ethiopia said "[I am] unable to cope up the heat ... [I experience] frustration from the effects of the sun."



Another respondent from Nigeria said: "[e]xtreme heat has reduced my quality of life, I sleep less at night due to the heat conditions." Heat has also had an impact on care access according to a midwife from Jamaica. She wrote: "Some medical personnel don't want to work at certain clinics when it's extremely hot because there is no AC."

The work is getting harder

Midwives connected climate crisis impacts with increased difficulties performing their duties. One US midwife summed up their assessment with, "It makes maintaining health more difficult for pregnant clients, and travel to provide care more difficult for me."

Several respondents simply wrote "stress" or mentioned increasing stress in their responses to this question. "Work overload," said another, from Zambia. "Professionally it has increased burnout issues due to overworking due to high number of too sick women and children been admitted to the hospital," a midwife from Papua New Guinea said. "It has increased my workload because of the numerous admissions of mothers and newborns with malaria," a midwife from Ghana said.

Two midwives linked their inability to meet new demands with stress. One respondent from Uganda said, for example, "I am not able to provide services as I want, and this has affected me psychologically."

Other respondents referred to climate anxiety in their responses. "I have a ton of climate anxiety and climate grief," noted a midwife from Canada. Another midwife, also from Canada said more:

"It is hard to remain hopeful in a context where science demonstrates that we have a tiny window to act, but our leaders are not taking the necessary action. This results in stress and anxiety for future generations, including our children and grandchildren."

The lack of adequate government climate action is stressful. Some respondents referred to more general under preparedness and the lack of adequate response to the climate crisis in their answers. A UK midwife said:

"Anxiety has certainly increased in recent years. I feel the UK is persistently under-prepared for all adverse weather events we keep experiencing, flooding, blizzards, heatwaves. Everything is reactive to events, rather than effective long term adaptation plans."

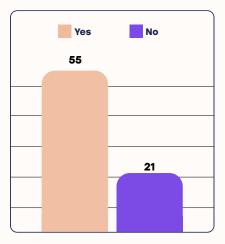


Finding 3: Midwives are deeply involved in climate work

Respondents to the survey provided important insights into ways they are already grappling with climate impacts on the health and wellbeing of the communities they serve.

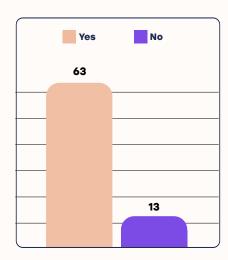
Knowledge and training

Epidemiological evidence shows that extreme heat is associated with higher rates of still birth and preterm birth, and most respondents were aware of this [see Graph 7]. Among our respondents at least, many midwives are giving women information about the impact of heat on maternal health. Out of 75 people who responded to the question, 53.3% said they at least sometimes (or more often) spoke to women about extreme heat as a pregnancy health issue.

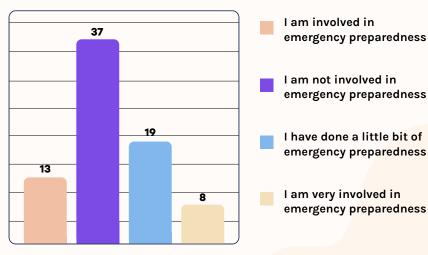


Graph 7: Did you know that exposure to extreme heat is associated with higher rates of still birth and preterm birth?

Similarly, the majority midwife respondents knew about associations between natural disasters and poor maternal and newborn health, although mostly were not involved in emergency response work [see Graph 8 and see Graph 9].

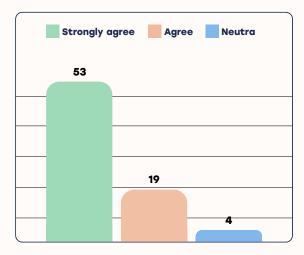


Graph 8: Did you know that exposure to natural disasters is associated with higher rates of adverse maternal and newborn mental and physical health?



Graph 9: Are you involved in any preparedness for natural disasters for the community you serve?

Almost all respondents agreed that midwives should have the resources to address climate impacts, and most felt strongly about this [see Graph 10]. However, respondents mostly had not had any training, or had insufficient training, on climate harms to maternal and newborn health [see Graph 11].



Graph 10: Midwives should be equipped and ready to provide information and advice to help deal with the effects of climate change on the health of women, and families. Do you agree?



Graph 11: Have you received training or information about climate crisis harms to maternal and newborn health?

Midwifery care is important

Some respondents said that providing high quality midwifery care was important in increasingly unstable circumstances precisely because of core aspects of this form of care and the philosophy of midwifery care. One respondent from Canada noted, for example: "culturally competent, empowering and compassionate care to folks who have been unjustly displaced can offer a moment of solace and dignity."

A midwife from Rio de Janeiro, Brazil, said:

The midwife plays an extremely important role in times of climate emergency and instability, as in addition to technical care, she can promote conversations with pregnant and breastfeeding women about empowerment, in order to make them understand their power as women-mothers, ensuring that they are everything their baby's needs, allowing them to find their inner power, while bringing the community closer so that mothers are looked after and cared for as they care for their babies.



Many respondents provided examples of how midwives provided compassionate care in the context of the climate crisis. A midwife from Cananda described: "we continued to stay in touch with evacuated women last year and helped them navigate the healthcare system in the province the ended up evacuating to ... they needed a phone number to a trusted person they could contact and talk to about their situation."

Another midwife from Nelson in New Zealand said that being able to provide "rural and community midwifery services in the home during flooding and fires" was important. Another said: "A client described the emotional and psychosocial support I provided during their care as very important in helping them control their climate anxiety."

Midwives and climate adaptation work

Respondents provided examples of how they had been involved in climate adaptation work [note: "climate adaptation" means adjusting to present or future climate change, "climate mitigation" means reducing climate change by reducing the amount of greenhouse gases in the atmosphere]. One midwife from the US said that they had been involved in helping clients with "dietary adjustments, finding and installing fans and air conditioners in homes."

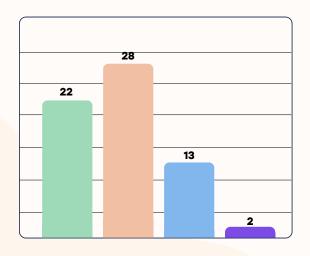


Several respondents mentioned increasing their own knowledge and providing actionable advice to women regarding climate impacts on health. For one midwife from the Netherlands, "in the intense heat I inform the pregnant ladies what best to do." Another midwife from Cananda said that "in my midwifery practice, we have developed a lung/tissue health protocol for clients during wildfire season." A midwife in Kenya said she provided information "on rehydration during pregnancy … nutritional education in areas where food varieties are limited."

Midwives, said a respondent from Kenya, "are vital agents of change in building climate resilience in vulnerable communities. Their multifaceted contributions are critical ... they tirelessly educate communities about the health risks of climate change, promote adaptation strategies, provide emergency care during disasters, advocate for climate justice, and integrate sustainable practices within healthcare facilities."



Respondents often reported they used time with clients to talk about environmental health [38.8%] or that they wanted to use time in this way [30.5%] but needed more information themselves [see Graph 12].



Graph 12: Do you take time to talk to your clients about how the environment affects their health?

- Yes, I could use some of the time I have with clients to talk about environmental health, but I don't because I don't know enough about these topics.
- Yes, and I do use time with clients to discuss environmental health when it's relevant
- No, I don't have time and I don't think I would ever have enough time to provide more information and advice than I already give.
- I could use my time with my patients to discuss environmental health, but I don't because I don't think it's a priority for them.

Finding 4: Midwives want more resources, training, connection

In response to forward-looking questions, respondents to our survey were clear that they wanted more training, more leadership and climate activism opportunities for themselves and other midwives, and were clear that midwives are specifically and urgently needed as a powerful response to the climate crisis.

The lack of appropriate action, including making sure midwives are included in planning and policy development in response to the climate crisis were among respondents' main concerns about the climate crisis. "The lack of collective awareness and action to prevent/ reduce further impact [is my main worry]," a midwife from Wales said. "The lack of policies in place to manage the climate change crisis, and the exclusion of community health workers (midwives) in being part of policy creation [is my main worry]," said a midwife from Uganda.

Training

Most respondents wanted more training on climate impacts. Two respondents said they wanted more support from midwifery organisations like ICM, and climate midwife leaders to emerge. For example, "we need midwifery leaders and champions in this area," said a midwife from the US state of California. Another respondent from Canada noted, "everything feels daunting when taking a moment to reflect on the ... doom. I'm not sure what more I could do, and I would like to know!"



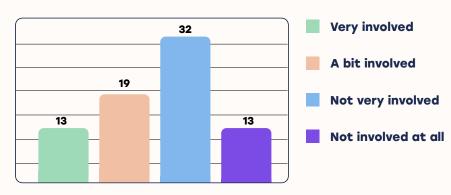
Midwives also said that increased education or and best practices sharing or training was needed. One Ugandan midwife asked for "integrating climate change policies into midwifery led mode of care, this should be done right away in midwifery training schools."

Another respondent from Ethiopia asked for "worldwide and locally adapted manuals and training guides on climate change and midwifery care."

Respondents also provided specific recommendations. "We need a national registration so that we can provide care in other provinces/territories during a sudden climate crisis with evacuation," a midwife from Canada said. A Jamaican midwife gave some examples of support she provided women, including "educational talks given to mothers how to care for their environment and steps to take if a disaster is on the horizon." But, they said, "I believe we need to be more involved by the Government, in discussions and solutions regarding family health."

Climate Activism

Around two thirds of respondents felt strongly that midwives should be involved in climate activism. However, respondents mostly said that midwives they know are mostly not or not very involved in climate activism [see Graph 13].



Graph 13: How involved are midwives you know in climate activism?

Respondents noted the importance of greater organisation of midwives around the climate crisis and an interest in learning and doing more about the root causes of the crisis. One noted: "midwives should take action in emergency plans, they should be aware of what impact might come, they should teach the families what they can do to adapt." Another expressed that it is "critical that we view this through an intersectional lens and direct our midwifery philosophy towards caring for the globe towards future generations and the women and families we serve here and now. We need to be prepared, and we're not."



A US midwife said:

"I think we will become more and more involved in helping our clients be in safe spaces with the resources they need for a healthy pregnancy as part of our direct care. The corollary is that we will need to do more social and political work around solutions for populations to address these problems on a larger scale."

Midwifery care is less resource intense than some other forms of care

Some respondents recognised the climate mitigation dimension of their work. One midwife from Wales in UK noted, "[midwives] use fewer interventions such as IV and plastic cannula" for example. Another midwife from said, "[midwives] provide informational training, for example that it is more beneficial for mothers to feed their babies breast milk rather than formula," noting that formula is more carbon intensive than human milk. A midwife said:

"Midwives are integral to managing the effects of the climate crisis. Midwives are judicious with their use of resources and resilient and resourceful with limited equipment and facilities. Midwife attended births at home, for example, generate significantly less waste than a similar birth in a hospital setting and are therefore much better from an environmental perspective."



An Australian midwife said:

"As midwives we are low tech, high touch we should continue to advance midwifery as climate activists and [because midwifery is] good for the environment"

However, a Dutch midwife noted:

"a midwife is the first responder/ closest person to the pregnant lady and therefore can inform her ... But I also think that we can only do so much. Climate change is a way bigger picture and has to do with politics in the [high emission countries] and big companies worldwide that have to make changes."

Midwives are needed as climate workers

Respondents often seemed clear that they had an important role to play in the crisis, as midwives. For example:

"I believe midwives play a huge role in climate change education especially in terms of reaching the grassroots. The midwife should be empowered to play this role." Nigeria

"As the world becomes progressively more unstable over time, which it will, having care providers who can operate with minimal infrastructure to take care to clients will become increasingly important. Midwives are ideally positioned to provide flexible sexual and reproductive health and perinatal care to vulnerable populations. We are the face of climate mitigation." Canada

"Overall, midwifery care offers a unique approach to supporting women and families in a climate-changing world. Their focus on community, resilience, and holistic care positions them as key players in ensuring healthy pregnancies and births even amidst growing instability." Ethiopia



Conclusion

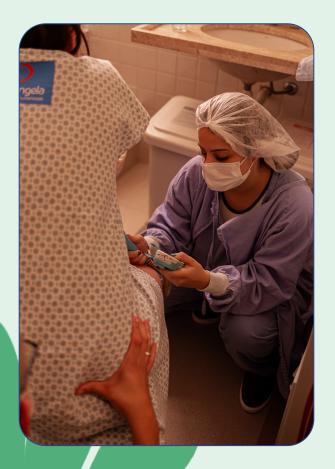
Climate change is the greatest health threat of our time. Its wide-reaching impacts on sexual, reproductive, maternal, newborn, and adolescent health (SRMNAH) are already being felt across the world, with midwives standing on the frontlines of this crisis. From rising temperatures and extreme weather events to food insecurity and displacement, the challenges facing midwives are increasing in both frequency and intensity, straining healthcare systems and exacerbating existing inequities.

The findings from this report underline the role midwives play in confronting the health challenges posed by the climate crisis. As trusted healthcare providers in communities, midwives are uniquely positioned to mitigate the impact of climate change on SRMNAH. However, their ability to fulfil this role is increasingly compromised by the severity and frequency of climate-related crises, which threaten the wellbeing of the people they serve and jeopardise the resilience of healthcare systems globally.



The survey results make it clear: midwives are already witnessing and addressing the devastating consequences of climate change on their communities. From floods that prevent access to maternity services to extreme heat that exacerbate pregnancy complications, midwives are often the first responders to this crisis. With new data continuing to emerge, painting an even more alarming picture of the climate crisis—including record-breaking temperatures and crossed environmental thresholds—it is evident that this is a public health emergency. In this unfolding crisis, midwives are critical. Their intimate knowledge of the communities they serve and their ability to provide life-saving care in resource-limited settings position them as essential actors in both immediate disaster responses and long-term health system resilience.

One of the key insights from this report is the clear link between climate change and deepening health inequities. Vulnerable populations, particularly those in low-income, rural, and marginalised communities, bear the brunt of climate impacts, and often several different kinds of impacts. These groups already face more stress and barriers to staying healthy and accessing care, and climate-related disasters only exacerbate their challenges. Midwives, many of whom work in these underserved areas, are witnessing the widening gap in health outcomes firsthand. Their work is increasingly strained as they try to navigate worsening conditions without the necessary tools or support.



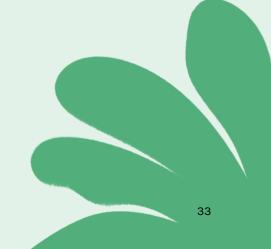
The mental and emotional toll on midwives themselves cannot be overlooked. The constant pressure of providing care in unstable environments, coupled with the way climate change is affecting them personally, is leading to burnout, stress, and feelings of helplessness. The findings show that many midwives are grappling with climate anxiety, as they witness the lack of action from governments and leaders in addressing the climate crisis. This sense of frustration is compounded by the recognition that, despite their critical role, midwives are often excluded from emergency preparedness planning and response, and associated policy development. The climate crisis will make existing global and national shortages of midwives and workforce retention challenges even worse.

This survey also highlights a strong desire among midwives to be part of the solution. Many respondents expressed a clear interest in receiving more training on climate-related health risks and participating in climate activism. They see themselves not only as healthcare providers but as advocates for their communities, ready to take on leadership roles in climate resilience efforts. Their low-resource, high-impact model of care offers a blueprint for building more sustainable, climate-resilient health systems.

To fully unlock the potential of midwives in the fight against climate change, they need to be equipped with the right tools, training, and support. This includes integrating midwifery care into national climate strategies and getting midwives into decision spaces on climate action, ensuring midwives are included in emergency planning and have access to emergency supplies and communication systems, and providing comprehensive training on climate-related health impacts. Governments and healthcare systems must also recognise midwives as key responders in climate emergencies, involving them in the planning and implementation of disaster preparedness and recovery efforts.

By enabling midwives to lead climate adaptation and mitigation efforts, we can build health systems that are both resilient to the impacts of climate change and capable of reducing their own environmental footprint. This report shows that midwives are ready to take on this challenge – now, it is up to policymakers, governments, and international organisations to ensure they have the resources and support they need to succeed.





Call to Action

Governments and policymakers

Governments and policymakers must urgently prioritise midwives in national climate and healthcare strategies. Midwives' associations must be consulted and invited to participate in preparedness planning and response. As trusted members of their communities with a deep understanding of local needs, midwives are essential in shaping these processes to meet the SRMNAH needs of women, girls and communities. As part of comprehensive climate action plans, governments should prioritise supporting midwifery services in the hardest-hit communities, where their impact can be most significant.

Governments and policymakers should also ensure that midwives are equipped with the resources, tools, and training necessary to respond effectively to the health impacts of climate change.

Additionally, every country should investigate the benefits of midwifery care in reducing healthcare-related CO2 emissions. By focusing on the continuity of midwife care, which is less resource-intensive and generates less waste, policymakers can support more sustainable health systems that align with climate goals.



Organisations

International organisations, NGOs, and development agencies must prioritise midwives as key healthcare providers in their climate resilience strategies. Providing midwives with training, resources, and funding is crucial to ensuring that they can continue delivering essential care, even in the face of climate disruptions. Organisations should support partnerships between health, climate, and humanitarian sectors, leveraging midwives' unique position within communities to deliver effective, sustainable health interventions.

Women and families

Women and families should advocate for greater access to midwifery care, recognising midwives as essential providers during climate crises. As disasters become more frequent and healthcare access more precarious, midwives will be vital in ensuring that sexual, reproductive, maternal, newborn, and adolescent health (SRMNAH) services are maintained.



Midwives' associations

Midwives' associations are urged to lead advocacy efforts, calling for midwives to be integrated into national climate and health strategies. By collaborating with governments, health agencies, and international organisations, they can ensure that midwives' voices are heard and that their unique contributions to climate resilience are recognised.



Individual midwives

Midwives must take proactive steps to prepare for the impacts of the climate crisis. Seeking additional training on climate-related health risks, participating in emergency response drills, and staying informed about best practices are essential to delivering care in crisis situations. Midwives should also advocate for their inclusion in policy discussions, ensuring their expertise shapes the future of climate-resilient health systems.

References

- 1. The 2024 Global Report of the Lancet Countdown [online], Lancet, 2024, accessed October 30, 2024. Available from: https://lancetcountdown.org/2024-report/
- 2. Pachauri R.K. and Meyer L.A. [eds] Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC. Geneva, Switzerland. 2014. 151pp. Available from: https://www.ipcc.ch/report/ar5/syr/
- 3. Yang, Zhengyu et al. The association of adverse birth outcomes with flood exposure before and during pregnancy in Australia: a cohort study. The Lancet Planetary Health. 2024. Volume 8, Issue 8. DOI https://doi.org/10.1016/S2542-5196(24)00142-6 He, C., Zhu, Y., Zhou, L. et al Flood exposure and pregnancy loss in 33 developing countries. Nature. 2024. Volume 15, Issue 20. https://doi.org/10.1038/s41467-023-44508-0
- 4. Sun, Weinberger, et al. Tropical cyclones and risk of preterm birth: A retrospective analysis of 20 million births across 378 US counties. Environment International. 2020. Volume 140. https://doi.org/10.1016/j.envint.2020.105825. Parayiwa, Harley et al. Association between severe cyclone events and birth outcomes in Queensland, Australia, 2008–2018: a population based retrospective cohort study. Australian and New Zealand Journal of Public Health. 2022. Volume 46, Issue 6. https://doi.org/10.1111/1753-6405.13273.
- 5. Basilio, Chen, et al. Wildfire Smoke Exposure during Pregnancy: A Review of Potential Mechanisms of Placental Toxicity, Impact on Obstetric Outcomes, and Strategies to Reduce Exposure. Int J Environ Res Public Health. 2022. Volume 19, issue 21. https://doi.org/10.3390/ijerph192113727 Foo, Stewart, et al. Wildfire smoke exposure during pregnancy and perinatal, obstetric, and early childhood health outcomes: A systematic review and meta-analysis. Environ Res. 2024. Volume 241. https://doi.org/10.1016/j.envres.2023.117527
- 6. Chersich, Pham, et al. Associations between high temperatures in pregnancy and risk of preterm birth, low birth weight, and stillbirths: systematic review and meta-analysis. BMJ. 2020. https://doi.org/10.1136/bmj.m3811. Sun, et al. Analysis of Heat Exposure During Pregnancy and Severe Maternal Morbidity. JAMA Netw Open. 2023. https://doi.org/10.1001/jamanetworkopen.2023.32780
- 7. Protecting maternal, newborn and child health from the impacts of climate change: a call for action. World Health Organization. 2023. Available from: https://www.who.int/publications/i/item/9789240085350

- 8. Xiong, Chen, et al. Association between ambient temperature and hypertensive disorders in pregnancy in China. Nat Commun. 2020. https://doi.org/10.1038/s41467-020-16775-8 Part, le Roux, et al. Ambient temperature during pregnancy and risk of maternal hypertensive disorders: A time-to-event study in Johannesburg, South Africa. Environmental Research. 2022. https://doi.org/10.1016/j.envres.2022.113596.
- Kovats, Filippi, et al. World Breastfeeding Week: Extreme heat and breastfeeding.
 London School of Hygiene and Tropical Medicine. 2023. Available from: https://www.lshtm.ac.uk/newsevents/news/2023/world-breastfeeding-week-extreme-heat-and-breastfeeding
- 10. White Ribbon Alliance. Birth in a Burning World: The Intersecting Extreme Heat and Maternal Health Crises in Sindh Province, Pakistan. Pakistan. 2023. Available from: https://whiteribbonalliance.org/wp-content/uploads/2023/11/Birth-in-a-Burning-World.pdf
- 11. UN Women. Explainer: How Gender Inequality and Climate Change and Interconnected. 2022. Available from: https://www.unwomen.org/en/news-stories/explainer/2022/02/explainer-how-gender-inequality-and-climate-change-are-interconnected
- 12. van Daalen, Kim Robin et al. Extreme events and gender-based violence: a mixed-methods systematic review. The Lancet Planetary Health. 2022. Volume 6, Issue 6. https://doi.org/10.1016/S2542-5196(22)00088-2
- 13. PMNCH. Prioritizing women's, children's and adolescents' health in the climate crisis. 2023. Available from: https://pmnch.who.int/resources/publications/m/item/prioritizing-women-s-children-s-and-adolescents-health-in-the-climate-crisis
- 14. Transitioning to midwifery models of care: global position paper [Internet]. Who.int. World Health Organization; 2024 [cited 2024 Nov 27]. Available from: https://www.who.int/publications/i/item/9789240098268
- 15. Seyoum T, Egal JA. Optimizing the role of midwives in humanitarian and developmental settings. Sex Reprod Healthc . 2024;41(101014):101014. Available from: https://linkinghub.elsevier.com/retrieve/pii/S1877575624000697
- 16. Spil NA, van Nieuwenhuizen KE, Rowe R, Thornton JG, Murphy E, Verheijen E, et al. The carbon footprint of different modes of birth in the UK and the Netherlands: An exploratory study using life cycle assessment. BJOG. 2024;131(5):568–78. Available from: http://dx.doi.org/10.1111/1471-0528.17771
- 17. Philosophy and model of midwifery care [Internet]. International Confederation of Midwives. 2014 [cited 2024 Nov 27]. Available from: https://internationalmidwives.org/resources/philosophy-and-model-of-midwifery-care/

- 18. Patterson KP, Mogelgaard K, Kabiswa C, Ruyoka R. Building resilience through family planning and climate adaptation finance: systematic review and opportunity analysis. Lancet Planet Health. 2019;3:S12. Available from: https://linkinghub.elsevier.com/retrieve/pii/S254251961930155X
- 19. Singh S, Darroch JE. Adding it up: costs and benefits of contraceptive services estimates for 2012. New York: Guttmacher Institute and United Nations Population Fund (UNFPA); 2012. Available from: http://www.guttmacher.org/pubs/AIU-2012-estimates.pdf
- 20. Smith JP. A commentary on the carbon footprint of milk formula: harms to planetary health and policy implications. Int Breastfeed J. 2019;14(1). Available from: http://dx.doi.org/10.1186/s13006-019-0243-8
- 21. Strategic plan 2024-2026 [Internet]. International Confederation of Midwives; 2024 [cited 2024 Nov 27]. Available from: https://internationalmidwives.org/resources/strategic-plan-2024-2026/
- 22. Bhandari, Robinson, et al. Maternal and child health climate change adaptation: a qualitative document analysis of South Asian National Adaptation Plans.

 Environmental Research Letters. 2024. Volume 18, issue 8. https://doi.org/10.1088/1748-9326/ad5fa4