

Climate Vulnerability at the Periphery: How Extreme Weather Threatens Rural Maternal Health

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Commentary

Recently, there was flooding in Indonesia. Thinking about it, I presume very many rural women were severely affected. Their health, their babies, their husbands, their education, their businesses, their work and even their rest. This happened despite a study that was published to tailor future flood management strategies in Indonesia in 2018 [1]. Extreme weather events do not appreciate what we know, leave alone what we can do. In rural communities, there are limited opportunities or even none to raise your voice. There can be such like flooding but no one cares. Business continues like every other day. Sometimes there is drought and every leaf dries up and falls off. It becomes a cascade. Drought leads to famine, famine leads to malnutrition, malnutrition leads to bad obstetric history. Many rural women face critical challenges ranging from mental torture, emotional trauma to gender-based violence. Low- and Middle-Income countries are usually overwhelmed by such events and some even pass away unaddressed.

Extreme weather does not just change the environment, it acts as a direct, physical barrier to safe childbirth and maternal survival in peripheral communities. This widens the gap to maternal health equity [2-4].

Most rural areas have seasonal infrastructure that becomes disrupted during harsh weather conditions [5]. In many rural regions, the “last mile” of healthcare relies heavily on unpaved roads and seasonal transport networks. During flooding, women are usually unable to cross rivers to reach a healthcare institution. For a pregnant woman facing sudden obstetric complications-such as postpartum haemorrhage or pre-eclampsia-a washed-out road transforms a treatable medical emergency into a fatal event due to delayed care [6]. During drought and famine, many women are usually chronically in hypoglycaemic states and hence lack the energy to reach healthcare facilities. Extreme weather events exacerbate gender-based violence. They also lead to financial constraints, lower general productivity as many rural communities lack alternatives. In rural environments, extreme weather events serve as a physical barricade between an expectant mother and life-saving emergency obstetric services [7].

Women are usually involved in a myriad of activities in a household. They have to nurse their pregnancies, they have to nurse their babies, they have to find food. During adverse weather events, all these processes are impaired. Extreme heat can lead to stillbirths, premature deliveries and neonatal hyperthermia. As water sources dry up due to climate shifts, pregnant women are forced to trek longer distances under intense heat while carrying heavy loads. This exertion, compounded by gestational heat stress and systemic dehydration, significantly increases the physiological risks of placental abruption, low birth weight, and

preterm labor [6-9]. Extreme cold, on the other hand could lead to increased metabolism hence more food consumption beyond what they can afford and neonatal hypothermia. Flooding increases, the risk of waterborne conditions and diseases like cholera and gastroenteritis. In short, extreme weather events amplify maternal health crises, especially in rural underserved areas [4].

Ultimately, addressing maternal mortality in the modern era requires public health frameworks to look beyond clinic walls and acknowledge environmental realities. There is more than meets the eye as pertains rural maternal health. Rural maternal health should unavoidably be one of the health priorities in every season. Leveraging mobile clinics during adverse weather events is a critical sustainability factor. Policy makers should also incorporate community champions in rural communities in the implementation of maternal health priorities. National planning should embrace all-weather roads and meteorological forecasting even in rural communities. If global health initiatives continue to ignore climate vulnerability at the periphery, the targets for reducing maternal mortality will remain tragically out of reach [1,2,5,6].

Declarations

Conflict of Interest Statement

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