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POLICY BRIEF

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Hypertensive Disorders of Pregnancy

Combating the silent killer threatening maternal and newborn survival in Kenya

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PRISMA Maternal & Newborn Health Study

CHAMPS

Key Messages

Ending preventable deaths from hypertensive disorders of pregnancy (HDP) in Kenya

THE SITUATION

- HDP causes **15–20%** of maternal deaths in Kenya, and pre-eclampsia affects about **5.6–6.5%** of pregnancies.
- At a national referral hospital, early-onset preeclampsia carried **5 times** higher odds of stillbirth and **8 times** higher odds of neonatal death.
- Danger signs such as headache, blurred vision and swollen ankles are often mistaken for malaria or a normal part of pregnancy.
- National HDP guidelines exist but are not consistently followed, and weak referral systems delay care.
- **66%** of women attend four or more ANC visits, but many don't start early-enough for timely risk-assessment for prevention or treatment.

PRIORITIES

- **Identify:** Assess pre-eclampsia risk at the first ANC contact and check blood pressure and urine protein as part of routine antenatal care.
- **Train:** Build provider skills in HDP diagnosis and management through regular CME, mentorship and supportive supervision.
- **Treat:** Keep essential medicines for HDP prevention and treatment in stock, in line with national obstetric protocols, and start prevention early.
- **Refer:** Strengthen referral pathways, emergency transport and fast-track triage for women with severe disease.
- **Follow up:** Equip CHPs to follow up high-risk and postpartum women, and track HDP indicators in KHIS and through MPDSR.

SCREEN EARLY • TREAT EARLY • FOLLOW UP • SAVE MOTHERS & BABIES

Executive Summary

Kenya's maternal mortality ratio was estimated at 355 deaths per 100,000 live births[1] and remains substantially above the global Sustainable Development Goal (SDG) 3.1 target of fewer than 70 per 100,000 live births. A leading contributor to maternal and perinatal morbidity and mortality is **hypertensive disorders of pregnancy (HDP)**. HDP is a group of conditions that include chronic hypertension, gestational hypertension, pre-eclampsia, eclampsia, and pre-eclampsia superimposed on chronic hypertension. Globally, hypertensive disorders accounted for approximately 16% of maternal deaths (equivalent to about 42,000 deaths) in 2023.[2,3] HDP increases the risk of severe maternal complications, preterm birth, foetal growth restriction, low birth weight, and stillbirth. Many of these outcomes can be prevented through early detection, regular blood-pressure monitoring, appropriate preventive treatment, timely management and referral.[4,5]

Several health-system gaps exacerbate HDP complications in Kenya: limited awareness of hypertensive disorders among communities and some health workers, inadequate blood-pressure monitoring, weak emergency referral systems, and inconsistent application of HDP management guidelines. Many adverse maternal and perinatal outcomes can be prevented or reduced through existing, affordable clinical interventions and robust policy frameworks that support quality maternal care. Yet many women who could benefit are not identified early enough, systematically assessed for risk, or linked to appropriate preventive interventions and treatment.

The recommendations in this policy brief are organised around three priority actions that follow the care pathway: (1) Identify - adopt WHO-aligned standards for early risk assessment and blood-pressure screening; (2) Treat - guarantee uninterrupted access to essential HDP commodities and timely linkage to treatment and referral; and (3) Follow up - empower communities and strengthen accountability for HDP outcomes. These measures are expected to improve the quality of care, reduce maternal and newborn morbidity and mortality, and accelerate Kenya's progress towards achieving its national and global development goals.

AIM OF THIS POLICY BRIEF

This policy brief aims to:

- Increase awareness of HDP at community and health-facility levels.
- Promote timely and accurate blood-pressure measurement throughout pregnancy.
- Strengthen early identification, risk assessment, and linkage to appropriate preventive interventions and treatment for women at risk of, or diagnosed with, HDP.

Burden of Hypertensive Disorders of Pregnancy

Hypertensive disorders of pregnancy (HDP) are among the most common medical complications of pregnancy and major contributors to maternal and perinatal morbidity and mortality worldwide. They include chronic hypertension, gestational hypertension, pre-eclampsia, eclampsia, and chronic hypertension with superimposed pre-eclampsia. Globally, HDPs account for approximately 42,000 maternal deaths annually (16% of all maternal deaths globally), with pre-eclampsia and eclampsia contributing substantially to this burden.[2,3]

Burden of Hypertensive Disorders of Pregnancy in Kenya

Hypertensive disorders of pregnancy account for approximately 15–20% of reported maternal deaths in Kenya and contribute substantially to adverse perinatal outcomes.[6,7]

HDPs are among the leading direct causes of maternal complications and death in Kenya, accounting for approximately 15–20% of reported maternal deaths countrywide.[6,7] Pre-eclampsia, one of the principal hypertensive disorders of pregnancy, has been estimated to affect approximately 5.6% to

6.5% of pregnancies in Kenya.[8] Historical referral-hospital studies have documented substantial maternal and neonatal morbidity and mortality, including preterm birth, associated with severe pre-eclampsia and eclampsia.[8] Preliminary, unpublished PRISMA surveillance data from Western Kenya indicate that approximately 1 in 13 pregnant women experienced HDP.[9]

The risk of HDP is higher among women of advanced maternal age, women with obesity, and those with multifetal pregnancies.[4,10]

Beyond the immediate complications, women with a history of pre-eclampsia have an increased risk of chronic hypertension and cardiovascular disease later in life; the magnitude of this risk varies according to disease severity, the cardiovascular outcome assessed, and the duration of follow-up.[11,12]

In a retrospective cohort study at Kenyatta National Hospital, women with early-onset pre-eclampsia had poorer maternal and perinatal outcomes than those with late-onset disease. Early-onset disease was associated with about five times higher odds of stillbirth*, eight times higher odds of neonatal death, and six times higher odds of prolonged maternal hospitalisation beyond seven days.[8]

* Odds ratios: (OR 4.9, 95% CI 3.1–8.1); (OR 8.5, 95% CI 3.8–21.3) and (OR 5.8, 95% CI 3.9–8.4)

Barriers to Effective Management of Hypertensive Disorders of Pregnancy

The management of HDP is hindered by overlapping weaknesses in the health system and communities, which contribute to delayed diagnosis, inadequate treatment, and preventable maternal deaths.

1. Community-Level Barriers: Low Awareness of HDP

Low community awareness of hypertensive disorders of pregnancy can delay recognition and care-seeking. Landscape assessments that included Kenya identified limited community awareness of pre-eclampsia and eclampsia, including poor recognition of danger signs. Symptoms such as headache and blurred vision were sometimes attributed to malaria or "overthinking," while swollen ankles were regarded as a normal part of pregnancy.[13]

Evidence from other African settings demonstrates similar gaps. A qualitative study among women who had experienced pre-eclampsia or eclampsia in Nigeria found limited understanding of the condition's symptoms, causes, severity, and implications. Although many women knew that high blood pressure could occur during pregnancy, few understood the significance of an elevated blood pressure or its potential consequences for the mother and baby.[14,15]

Evidence - informed approaches include strengthening education on HDP and pregnancy danger signs during antenatal care, improving communication between women and healthcare providers, and involving families and communities in discussions that support recognition of symptoms and timely care-seeking.[13,14]

2. System and Service Delivery Barriers to Early Identification, Prevention, Treatment, and Referral of HDP

In Kenya, national guidelines for managing hypertensive disorders of pregnancy exist, but they are not consistently followed in practice, and clinical mentorship and supervision remain too limited to close that gap.[16]

International and Kenyan guidelines recommend assessing risk factors for pre-eclampsia at the first antenatal contact; routinely measuring blood pressure and checking for proteinuria and warning signs; initiating preventive interventions such as low-dose aspirin and calcium supplementation when indicated; and promptly treating women who develop hypertension or pre-eclampsia.[4,5,17,18]

Health workers are not always aware of the guidelines, and weak referral systems can delay women's access to appropriate care. As a result,

many women are not assessed for their risk of HDP early enough, delaying the preventive and treatment interventions they need.[13,16]

Blood pressure measurement at every antenatal care (ANC) contact remains the simplest and most effective way to detect HDP early, but this depends on consistent attendance. About 66% of pregnant women in Kenya attend at least four ANC visits,[19] narrowing the window for early identification and management. Even where women do attend, a single normal reading should not end surveillance: transient gestational hypertension can precede pre-eclampsia in a substantial proportion of women, while chronic hypertension raises the risk of superimposed pre-eclampsia. Repeated, standardised monitoring is therefore needed throughout pregnancy, not just at initial screening.[4,20]

Closing these gaps requires investing in provider training, supervision, and support for HDP diagnosis and management; ensuring blood pressure measurement at every antenatal contact for early identification; providing targeted follow-up for women at risk of or diagnosed with HDP; maintaining reliable supplies of essential medicines and equipment; and strengthening referral pathways, inter-facility communication, and emergency transport for women with severe hypertension, pre-eclampsia, or eclampsia.[4,13,17]



Hypertensive disorders of pregnancy can develop without obvious symptoms and may progress to life-threatening complications. Blood pressure measurement at every antenatal contact is therefore essential.[2,17,18] ***(Photo courtesy of CHAMPS Kenya, 2026)***

A Call for Action: Policy Alternatives

This section maps existing policies against identified gaps and recommends specific actions to reduce the burden of HDP in Kenya.

Kenya has clinical guidelines and community health policies covering the HDP pathway, from danger-sign education to antenatal screening and treatment linkage; but there are gaps in translating these guidelines and policies into practice: low awareness, inconsistent risk assessment, and weak linkage of identified high-risk women to treatment. The recommended actions target these gaps, strengthening community and health-worker capacity, and screening/identification, treatment, referral, and supply systems.

CURRENT POLICIES

What existing policies already provide

	POLICY / GUIDELINE	WHAT IT PROVIDES
P1	COMMUNITY ROLE **Kenya Community Health[21] Policy 2020–2030**	Assigns Community Health Promoters (CHPs) and Community Health Assistants (CHAs) responsibility for promoting timely antenatal care, recognising pregnancy danger signs, and facilitating prompt referral.
P2	CLINICAL GUIDANCE **Kenya National Guidelines on Quality Obstetrics and Perinatal Care (2024)[22]**	Provides guidance on the risk factors, classification, diagnosis and management of pre-eclampsia and eclampsia, and emphasises timely referral when the necessary expertise or resources are unavailable. Recommends antenatal care beginning in the first trimester, with standardised blood pressure measurement and risk assessment at every ANC contact. Treatment thresholds and targets should follow the current national protocol.

	POLICY / GUIDELINE	WHAT IT PROVIDES
P3	RECORD & EDUCATION TOOL **Mother & Child Health Handbook**[23]	A national integrated health record and education tool used during pregnancy, childbirth and the postnatal period, and for monitoring the child's health, growth and development up to five years of age.
P4	CVD GUIDANCE **Kenya National Guidelines for CVD Management (2024)**[24]	Any woman with hypertension should receive a pregnancy test and be referred at the first point of contact for skilled management.

POLICY IMPLEMENTATION GAPS

	THE GAP
1	**Low awareness of danger signs**
1.1	Only about one-third of women know their blood pressure status, and even fewer receive appropriate treatment.[25]
1.2	Many women cannot identify the danger signs of pre-eclampsia, and missed antenatal visits further reduce opportunities for early detection.[13]
1.3	Awareness of HDP remains low among both communities and facility health workers, delaying early identification and action.[13]
2	**Sub-optimal service delivery**
2.1	Community Health Promoters (CHPs) do not consistently provide health education or measure blood pressure during household visits.
2.2	The MCH Handbook is under-utilised as an education tool at both community and facility levels.
2.3	Clinical guidelines are not consistently accessible at all points of care.
3	**Access to antenatal care and early risk assessment**
3.1	First-trimester ANC attendance is low. Attendance peaks in the second trimester and declines in the third, delaying early diagnosis and timely intervention.[19]
3.2	Inconsistent risk assessment at antenatal visits and low awareness of risk criteria mean many women are not identified early enough for timely care.
4	**Weak linkages between identification and treatment**
4.1	Even women correctly identified as high- or moderate-risk often face delays in receiving magnesium sulphate or timely delivery because of skill gaps, supply shortages, inconsistent prescribing, and weak follow-up.[26]
4.2	Current guidelines do not provide clear alternatives for women with contraindications to standard preventive treatment.
5	**Barriers to referral and follow-through**
5.1	Uptake of and follow-through on referrals is low due to financial constraints, transport barriers, and negative perceptions.[13]

Policy Recommendations

In October 2026, WHO and partners launched the Global Roadmap for Hypertensive Disorders of Pregnancy 2026–2035 and beyond, which sets out coordinated action across five areas: research and innovation; norms and standards; access to health products; implementation; and advocacy and accountability.[27] Building on the policy alternatives above, this brief consolidates its recommendations into three priority actions. Each recommendation aligns with the WHO Roadmap, follows the care pathway (identify, treat, follow up), and assigns lead implementers to support accountability and action planning.

THREE PRIORITY ACTIONS AT A GLANCE

1 IDENTIFY	2 TREAT	3 FOLLOW UP
Adopt WHO-aligned standards for early risk assessment and blood-pressure screening at every antenatal contact	Guarantee uninterrupted access to essential HDP commodities and timely linkage to treatment and referral	Empower communities and strengthen accountability for HDP outcomes

1 IDENTIFY

Adopt WHO-aligned standards for early risk assessment and blood-pressure screening at every antenatal contact

WHO ROADMAP: Norms and standards | Implementation

GAP IDENTIFIED	Many women are not risk-profiled early, and blood pressure and proteinuria are not consistently checked at every contact.
PRIORITY ACTIONS	• Update the national obstetric protocols, ANC job aids and the MCH Booklet in line with current WHO recommendations and the Global Roadmap, and make them available in print and digital form at every point of care.[5,17,18,27] • Require a structured pre-eclampsia risk assessment at the first ANC contact (ideally before 16 weeks), with blood-pressure measurement and urine protein testing as part of routine ANC, documented in the MCH Booklet and KHIS. • Build provider competence through regular CME, mentorship and supportive supervision on HDP risk classification, diagnosis and management at all facility levels.
LEAD IMPLEMENTERS	• Ministry of Health (Division of RMNCAH) • County Departments of Health Services • Facility Clinical Directors and MCH Officers-in-Charge

2 TREAT

Guarantee uninterrupted access to essential HDP commodities and timely linkage to treatment and referral

WHO ROADMAP: Access to health products | Implementation

GAP IDENTIFIED	Women identified as at risk often face delays in receiving preventive treatment, antihypertensives, or magnesium sulphate, and referral is slowed by transport and communication gaps.[26]
PRIORITY ACTIONS	• Prioritise low-dose aspirin, calcium, recommended antihypertensives, magnesium sulphate, validated blood-pressure devices and urine dipsticks in national and county procurement, and monitor stock-outs monthly.[27] • Start guideline-based preventive treatment (low-dose aspirin and calcium where indicated) for women assessed as high risk, and follow up to confirm they continue it.[4,5,17,28,29] • Strengthen referral pathways: pre-referral stabilisation according to national protocol, county emergency transport, inter-facility communication and fast-track triage at receiving facilities.
LEAD IMPLEMENTORS	• Ministry of Health (Division of RMNCAH) • Kenya Medical Supplies Authority (KEMSA) • County Departments of Health Services • Facility Clinical Directors

3 FOLLOW UP	Empower communities and strengthen accountability for HDP outcomes WHO ROADMAP: **Advocacy and accountability**	
	GAP IDENTIFIED	Low awareness of danger signs delays care-seeking, and HDP-specific performance is not routinely tracked or reviewed.
	PRIORITY ACTIONS	• Equip CHPs to use the MCH Handbook during household visits to teach danger signs, promote first-trimester ANC registration, and follow up women identified as high risk or affected by HDP, including postpartum blood-pressure checks. • Track a core set of HDP indicators in KHIS (e.g. ANC clients with blood pressure and proteinuria recorded; ANC clients with elevated blood pressure; high-risk women started on aspirin; magnesium sulphate availability; HDP deaths reviewed through MPDSR) and review them in quarterly county performance meetings. • Use the Global Roadmap to mobilise county budget allocations and partner investment, with an annual national review of progress.[27]
	LEAD IMPLEMENTORS	• Ministry of Health (Division of RMNCAH) • County Departments of Health Services • County and facility MPDSR committees • Non-Government Organisations and Civil Society Organisations

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