EVERY PREEMIE SCALE

MALI

PROFILE OF PRETERM AND LOW BIRTH WEIGHT PREVENTION AND CARE

Updated May 2017

Newborns are perhaps the most vulnerable population the world over. Preterm or babies born too early, less than 37 weeks gestation, are particularly at risk. Currently, prematurity is the leading cause of death among children under five around the world, and a leading cause of disability and ill health later in life. Sub-Saharan Africa and south Asia account for over 60 percent of preterm births worldwide. Of the fifteen million babies born too early each year, more than one million die due to complications related to preterm birth. Low birth weight (newborns weighing less than 2,500 grams at birth), due to prematurity and/or restricted growth in utero, is also a major contributor of newborn and child deaths, as well as disability and non-communicable diseases globally.

Nearly 85 percent of preterm babies are born between 32 and 37 weeks gestation and most of these babies do not need intensive care to survive. Solutions to improve the survival and health of vulnerable preterm and low birth weight babies exist. Essential newborn care (drying, warming, immediate and exclusive breastfeeding, hygiene and cord care) as well as basic care for feeding support, infections and breathing difficulties can mean the difference between life and death for small babies. More effort is needed to identify women at risk of preterm labor and support them to give birth in a health facility that can offer extra care when needed, such as support for adequate feeding with breast milk, continuous skin to skin contact, antibiotics, and antenatal corticosteroids. To do this, it is critical that families, communities and health care workers value small babies so that they receive the life-saving care they need. To turn the tide on these preventable deaths, we need action across the spectrum of care from adolescence and preconception, pregnancy, the safe management of labor and delivery, and effective immediate and later postnatal care.

> In Mali, 88,000 babies are born too soon each year and 9,170 children under five die due to direct preterm complications.

Current, local data are crucial to inform priorities and drive scale-up. This national level profile provides the most current national-level information on the status of prevention and care for preterm birth and low birth weight in Mali. Data presented highlight a number of risk factors relevant to preterm and low birth weight in Mali as well as the coverage of important care for women and newborns from pregnancy, labor and delivery and the postnatal period. There is also information that provides insights into the health workforce, health policies, health information and community mobilization relevant to preterm birth and low birth weight.

The information provided here can be used to understand the current situation, increase attention to preterm births in Mali and to inform dialogue and action among stakeholders. Data can be used to identify the most important risk factors to target and gaps in care in order to identify and implement solutions for improved outcomes.

Much is already being done to prevent preterm birth and low birth weight and to improve outcomes for small babies. A safe and healthy start to life is at the heart of human capital and economic progress in every country, making care for small babies an essential investment in both the short- and long-term. As government leaders, civil society organizations, health workers, families, communities and other partners come together to enact change, we can prevent babies from being born too early and too small, and ensure that small babies get the critical life-saving care and nurturing they need.

Mali - National Clinical Standards for Care of Preterm Newborns at the Hospital Level

✗ ACS	✗ Tocolytics	✗ Magnesium Sulfate	✗ Antibiotics for pPROM	✗ No antibiotics w/ intact membranes
✗ Vaginal birth preference	✓ KMC	✗ CPAP for RDS	✗ Safe oxygen	✗ Surfactant

Based on the 10 elements of care recommended by WHO for improved preterm birth outcomes.

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RISK FACTORS FOR PRETERM BIRTH

Adolescent birth rate per 1,000 girls	Birth interval <24 months	Short stature among women of childbearing age	Anemia among women of childbearing age	Obesity in women of childbearing age	Adult diabetes prevalence
151	21%	1%	51%	18%	8%
34% Hypertension in women	1% Adult HIV prevalence	1% Tobacco use amongst women	29% Households with place to wash hands, soap and water	99% Solid fuel used for indoor cooking	4% Violence during pregnancy

DEMOGRAPHICS

Total population: **17,600,000**

Annual births: **758,000**

Total fertility rate per woman: **6.1**

	Per 100,000 live births	Total
Maternal deaths:	**587** (368)	**4,400**

	Per 1,000 total births	Total
Stillbirths:	**32.5**	**24,400**

	Per 1,000 live births	Total
Neonatal deaths:	**38** (31)	**27,440**
Infant deaths:	**75** (56)	**53,900**
Under 5 deaths:	**115** (108)	**82,700**

**Numbers in parentheses refer to mortality estimates from recent national household survey*

REPRODUCTIVE HEALTH & CARE DURING PREGNANCY

Contraceptive prevalence rate (all methods) 16%

Met need for birth spacing 7%

At least 1 antenatal care visit 48%

4+ antenatal care visits 38%

First antenatal care visit <20 weeks 35%

ITN use in pregnancy 66%

HIV+ pregnant women receiving ARVs 26%

Pregnant women <34 weeks receiving ACS for threatened preterm labor: No Data

100%

BIRTH & POSTNATAL CARE

Births attended by skilled attendant 44%

Births by caesarean section 2%

Infants weighed at birth 44%

Newborns initiated on KMC: No Data

Early initiation of breastfeeding within 1 hour 53%

Exclusive breastfeeding up to 6 months 33%

PNC within 2 days (mothers) 58%

PNC within 2 days (newborns) 63%

100%

PRETERM BIRTHS AND DEATHS

Preterm birth rate (babies born <37 weeks): **12%**

Low birth weight rate (babies born <2,500g): **18%**

Babies born preterm per year: **88,000**

Ratio of boys to girls born preterm: **1.20**

Babies born per year <28 weeks: **4,200**

Impaired preterm survivors per year: **2,000**

Direct preterm child deaths per year: **9,170**

HEALTH FACILITY READINESS

NO DATA — DELIVERY FACILITIES WITH ACS IN STOCK

DELIVERY FACILITIES WITH NEONATAL BAG AND MASK IN STOCK — NO DATA

NO DATA — DELIVERY FACILITIES WITH SPACE DESIGNATED FOR KMC

HEALTH WORKFORCE

Number of physicians, nurses and midwives per 10,000 population	4.1
Clinical standards for preterm care at hospital level	1/10
Nursing students receive formal education in neonatal care	✗

HEALTH POLICY

National plan for RMNCAH	✓
RMNCAH plans include preterm component	NO DATA
Policy for kangaroo care	✓
Policy for antenatal corticosteroids use	✗
Policy for safe oxygen use and CPAP	✗

HEALTH INFORMATION

Perinatal mortality audit in policy	✗
Birthweight captured in health management information system	✓
Gestational age captured in health management information system	✗

COMMUNITY ENGAGEMENT

National advocacy group for parents of preterm babies	NO DATA
Preterm included in national RMNCAH behaviour change strategy	NO DATA

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DEFINITIONS AND DATA SOURCES

DEMOGRAPHICS

Total population	Data from UN Population Division. [1]
Annual number of live births	Data from UN Population Division. [1]
Total fertility rate	Number of children who would be born per woman if she lived to the end of her childbearing years and bore children at each age, in accordance with prevailing age-specific fertility rates. [1]
Maternal mortality ratio	Number of deaths of women from pregnancy-related causes per 100,000 live births during the same time period. [2] Numbers in parentheses refer to national household survey mortality estimates. [9a]
Annual number of maternal deaths	Number of deaths of women from pregnancy-related causes. [2]
Stillbirth rate	Probability of third trimester stillbirth (≥1000 g birthweight or ≥28 weeks of gestation), expressed per 1,000 births. [3]
Annual number of stillbirths	Number of stillbirths (≥1000g birthweight or ≥28 weeks of gestation). [3]
Neonatal mortality rate	Probability of dying between 0 to 28 days expressed per 1,000 live births. [4] Numbers in parentheses refer to national household survey mortality estimates. [9a]
Annual number of neonatal deaths	Number of children who die during the first 28 completed days of life. [4]
Infant mortality rate	Probability of dying between 0 to 365 days expressed per 1,000 live births. [4] Numbers in parentheses refer to national household survey mortality estimates. [9a]
Annual number of infant deaths	Number of children who die during the first year of life. [4]
Under-5 mortality rate	Probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births. [4] Numbers in parentheses refer to national household survey mortality estimates.[9a]
Annual number of under-5 deaths	Number of children who die between birth and exactly 5 years of age. [4]

PRETERM BIRTHS AND DEATHS

Preterm birth rate	Probability of baby being born alive before 37 completed weeks of pregnancy, expressed per 100 live births. [5]
Low birth weight rate	Percentage of infants weighing less than 2500g at birth. [1]
Number of preterm births	Number of babies born alive before 37 completed weeks of pregnancy. [5]
Ratio of boys to girls born preterm	Ratio of baby boys to baby girls born alive before 37 completed weeks of pregnancy. [5]
Extreme preterm babies (<28 weeks)	Number of babies born alive before 28 completed weeks of pregnancy. [5]
Impaired preterm survivors	Number of preterm babies who survive with moderate or severe neurodevelopmental impairment. [6]
Direct preterm child deaths per year	Number of deaths amongst children under 5 years of age directly due to preterm birth complications. [7]

HEALTH FACILITY READINESS

Delivery facilities with antenatal corticosteroids in stock	Percentage of facilities conducting deliveries with either dexamethasone or betamethasone in stock. [No data]
Delivery facilities with neonatal bag and mask in stock	Percentage of facilities conducting deliveries with ambu bag and neonatal size mask in stock. [No data]
Delivery facilities with space for kangaroo mother care	Percentage of facilities conducting deliveries with space designated for kangaroo mother care. [No data]

COVERAGE OF CARE

Contraceptive prevalence rate	Percentage of women age 15–49 in union currently using contraception. [9a]
Met need for birth spacing	Percentage of women in union who are using contraception and who wish to postpone their next birth. [9b]
At least 1 antenatal care visit	Percentage of women attended by any provider at least once during pregnancy. [9a]
4+ antenatal care visits	Percentage of women attended by any provider at least four times during pregnancy. [9a]
First antenatal visit <20 weeks	Percentage of women less than 4 months pregnant at time of first antenatal visit. [9b]
ITN use in pregnancy	Percentage of pregnant women using an insecticide treated bednet the night before the survey. [9a]
HIV+ pregnant women receiving ARVs	Percentage of pregnant women testing HIV-positive during visits to antenatal clinics who were provided with antiretrovirals (ARVs) to prevent mother-to-child transmission. [10]
Women <34 weeks receiving ACS	Percentage of women <34 weeks gestation receiving antenatal corticosteroids for threatened preterm labor. [No data]
Births attended by skilled attendant	Percentage of births attended by skilled heath personnel (doctors, nurses or midwives). [9a]
Births by caesarean section	Percentage of births delivered by caesarean section. Caesarean section rates between 5 per cent and 15 percent may reveal adequate levels of emergency obstetric care. [9a]
Infants weighed at birth	Percentage of babies weighed at the time of birth. [9a]
Newborns initiated on KMC	Percentage of babies receiving KMC. [No data]
Early initiation of breastfeeding	Percentage of infants who are put to the breast within one hour of birth. [9a]
Exclusive breastfeeding up to six months	Percentage of infants aged 0–5 months who were fed exclusively with breast milk in the past 24 hours. [9a]
PNC within 2 days (mothers)	Percentage of women with a live birth in the 5 years preceding the survey who received postnatal care (PNC) for their most recent live birth within two days of giving birth, and the percentage of last-born newborns in the 5 years preceding the survey who received PNC during the first 2 days. [9a]
PNC within 2 days (newborns)	

RISK FACTORS FOR PRETERM BIRTH

Adolescent birth rate	Number of births per 1,000 adolescent girls aged 15–19. [9a]
Birth interval <24 months	Percentage of women with two live births within 24 months. [9b]
Female short stature	Percentage of women age 15-49 less than 145cm tall. [9b]
Anemia in women of childbearing age	Percentage of women age 15-49 with anemia (cut-off <12.0 g/dl). [9b]
Female obesity	Percentage of women age 15-49 with a body mass index (expressed as the ratio of weight in kilograms to the square of height in meters [kg/m2]) of more than 25.0 kg/m2. [11]
Diabetes prevalence in women	Percentage of adult women with fasting glucose ≥126 mg/dl (7.0 mmol/l) or on medication for raised blood glucose. [11]
Hypertension in women	Percentage of adult women with raised blood pressure (systolic blood pressure ≥ 140 OR diastolic blood pressure ≥ 90), or using antihypertensive medication. [11]
Adult HIV prevalence	Percentage of adults living with HIV. [1]
Tobacco use amongst women	Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products. [9a]
Households with place to wash hands, soap and water	Percentage of households with a place for washing hands that includes water, soap/other cleansing agents. [9a]
Household solid fuel for indoor cooking	Percentage of households using solid fuel for cooking indoors. [9a]
Violence against women in pregnancy	Percentage of women age 15-49 who have ever experienced physical violence during pregnancy. [9b]

HEALTH WORKFORCE

Health worker density per 10,000 population	Number of medical doctors (physicians), including generalist and specialist medical practitioners, nursing and midwifery personnel per 10,000 population. [12]
Clinical standards for preterm care at hospital level	Number of 10 critical elements of preterm care (antenatal corticosteroids, tocolytics, magnesium sulphate, antibiotics for preterm premature rupture of membranes, no antibiotics with intact membranes, vaginal birth preference, kangaroo mother care, continuous positive airway pressure for respiratory distress, safe oxygen therapy, surfactant) included in national clinical standards or guidelines. [13]
Nursing students receive formal education in neonatal care	Yes: Diploma or certificate program available for nurses in newborn care / No: No formal additional certification. [13]

HEALTH POLICY

National plan for RMNCAH	Yes: Costed plan or plans to scale up maternal, newborn and child health interventions available at the national level. / Partial: Costed plan available but not for all components. / No: No costed implementation plan for maternal, newborn and child health available. [14]
RMNCAH plans includes preterm components	Yes: RMNCAH strategy includes mention of any critical elements of preterm care. / No: No mention of any critical elements of preterm care. [13]
Policy for KMC	Yes: National policy recommends Kangaroo Mother Care for low birth weight newborns. / No: National policy does not recommend Kangaroo Mother Care for low birth weight newborns. [14]
Policy for ACS use	Yes: National policy recommends use of antenatal corticosteroids for preterm labor. / No: National policy does not recommend use of antenatal corticosteroids for preterm labor. [14]
Policy for safe oxygen use and CPAP	Yes: National policy specifies safe oxygen use when continuous positive airway pressure is administered. / No: National policy does not specify safe oxygen use. [13]

HEALTH INFORMATION

Perinatal mortality audit in policy	National policy adopted requiring health workers to review perinatal deaths occurring in health facilities. Yes: national policy in place / No: No national policy. [13]
Birthweight captured in health management information system	Place to capture birthweight on facility registers, or in annual health sector reports, where forms or registers were not available. [13]
Gestational age captured in health management information system	Place to capture gestational age in weeks, on facility registers, or in annual health sector reports, where forms or registers were not available. [13]

COMMUNITY ENGAGEMENT

National advocacy group for parents of preterm babies	Yes: Existence of at least one support group for parents and family members affected by preterm birth. / No: No group information available. [13]
Preterm included in national RMNCAH behaviour change strategy	Yes: Messages regarding preterm birth are included in national strategy. No: National behavior change strategy does not include preterm birth messages OR no national behavior change strategy. [13]

DATA SOURCES:

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