Kenya

Service Provision Assessment Survey 2004

Maternal Health Key Findings

This report summarizes the maternal health findings of the 2004 Kenya Service Provision Assessment Survey (KSPA), carried out by the National Coordinating Agency for Population and Development (NCAPD), the Ministry of Health (MOH) and the Central Bureau of Statistics (CBS). ORC Macro provided technical assistance for the survey through the USAID-funded MEASURE DHS project, which assists developing countries collect data on fertility, family planning, and maternal and child health. The British Department for International Development (DfID) and the United Nations Children's Fund (UNICEF) also provided funding. The opinions expressed in this report are those of the authors and do not necessarily refelct the views of the donor organizations.

Additional information about the 2004 KSPA may be obtained from the National Coordinating Agency for Population and Development, the Chancery Building, 4th Floor, Valley Road, Nairobi, Kenya (Telephone: 254 20 711-600/1; Fax: 254 20 710-281); website: www.ncapd_ke.org

Additional information about the DHS project may be obtained from ORC Macro, 11785 Beltsville Drive, Calverton, MD 20705, USA; (Telephone: 301-572-0200, Fax: 301-572-0999, Internet: www.measuredhs.com).

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Maternal Health in the 2004 Kenya Service Provision Assessment (KSPA)

Introduction

The 2004 Kenya Service Provision Assessment survey (KSPA) describes how the formal health sector in Kenya provides both basic and advanced level services for child health, maternal health, family planning, HIV/AIDS, and other communicable diseases.

The KSPA was carried out by the National Coordinating Agency for Population and Development, the Ministry of Health, and the Central Bureau of Statistics. The U.S. Agency for International Development (USAID), the British Department for International Development (DfiD), and the United Nations Children's Fund (UNICEF) provided funding. ORC Macro provided technical assistance thought the MEASURE DHS project.

The major objectives of the 2004 KSPA are to:

- determine the level of preparedness of health facilities for providing quality services;
- identify gaps in support services, resources, and processes used in providing quality services;
- provide baseline data on the capacity of health facilities to provide maternal and child health, reproductive health, and HIV/AIDS related services; and
- describe clients' assessment of services.

The KSPA involved a nationally representative sample of 440 facilities, including hospitals, health centres, maternities, clinics, and dispensaries. The sample also included facilities managed by the Government of Kenya, non governmental organizations (NGOs), private for-profit groups, and faith-based organizations (FBO). The 2 national referral hospitals and all 8 provincial general hospitals were purposely included. The data were weighted during analysis to represent the actual distribution of facilities in the country. Trained interviewers collected the data between September 2004 and January 2005.

Background: Maternal Health in Kenya

According to the 2003 KDHS, there are approximately 414 maternal deaths per 100,000 live births. Many of these deaths are related to complications of unsafe abortions. Others are due to complications during and after term deliveries, particularly infection, hemorrhage, and high blood pressure. Improved health services and increased use of health services can save many women's lives.

The majority of pregnant women, almost 90 percent, make at least one antenatal care visit; 31 percent make 2 or 3 visits, and over 50 percent make 4 or more. However, most women seek care well after the first trimester of pregnancy.

Far fewer women go to health care facilities to give birth. Nationwide, only 40 percent of women give birth in a health care facility. Women staying at home are more likely to be assisted by a traditional birth attendant or a friend or relative than by a trained provider. Delivery at home is more than twice as common in rural as in urban areas, and the proportion of births with a skilled attendant ranges from only 29 percent in Western province to 79 percent in Nairobi. Among women who did not deliver in a health care facility, only 19 percent received any postnatal care.

Place of Delivery by Province, 2003 KDHS

Province	Public Sector	Private Facility	Home
Nairobi	38	40	22
Central	50	17	32
Coast	24	8	67
Eastern	26	11	61
Nyanza	22	14	63
Rift Valley	23	13	63
Western	17	12	71
North Eastern	7	0.3	92
TOTAL	**26**	**14**	**59**

2004 KSPA Results: Availability of Maternal Health Services in Kenya

Antenatal care (ANC) is widely available throughout Kenya. Nationwide, 79 percent of health care facilities provide ANC services, usually 5 days per week. Not surprisingly, hospitals (84 percent), health centres (86 percent), and maternities (76 percent) are most likely to offer ANC. Other components of maternal health—normal delivery, postnatal care and especially emergency services—are far less available. Only one-third of all facilities provide both ANC and normal delivery. Only 2 percent of facilities providing ANC have youth friendly services.

Overall hospitals and maternities are more likely than other types of facilities to provide maternal health services and to have the appropriate infrastructure and equipment. Availability of maternal health services varies widely among the provinces (see table below).

Just one-third of all facilities provide both ANC and delivery services. As expected, almost all hospitals (85 percent) and almost all maternities (87 percent) provide both services. Only 7 percent of all facilities, mostly hospitals and maternities, provide caesarian section. Delivery services are most available in Western province (69 percent) and least available in Central (18 percent) and Coast provinces (27 percent)

Less than one-third of facilities, mostly hospitals, provide emergency transport. Coast, Eastern, and Rift Valley are least likely to have emergency transport. Also, less than 10 percent of eligible facilities are able to offer either Basic Emergency Obstetric Care or Comprehensive Obstetric Emergency Care. About one-third of hospitals and maternities are equipped to offer Basic Emergency Obstetric Care; just one in four hospitals offer Comprehensive Emergency Obstetric Care.

Because of the AIDS epidemic, preventing mother to child transmission (PMTCT) of HIV is now a critical component of antenatal care. The basic package of PMTCT services includes HIV testing and counseling; counseling on infant feeding and family planning; and antiretroviral drugs to protect the baby from HIV. Overall, only 31 percent of facilities providing antenatal care offer **any** of the components of the basic package.

Availability of Maternal Health Services

Percentage of facilities offering ANC, normal delivery, caesarean section, emergency transport and postnatal care, by province

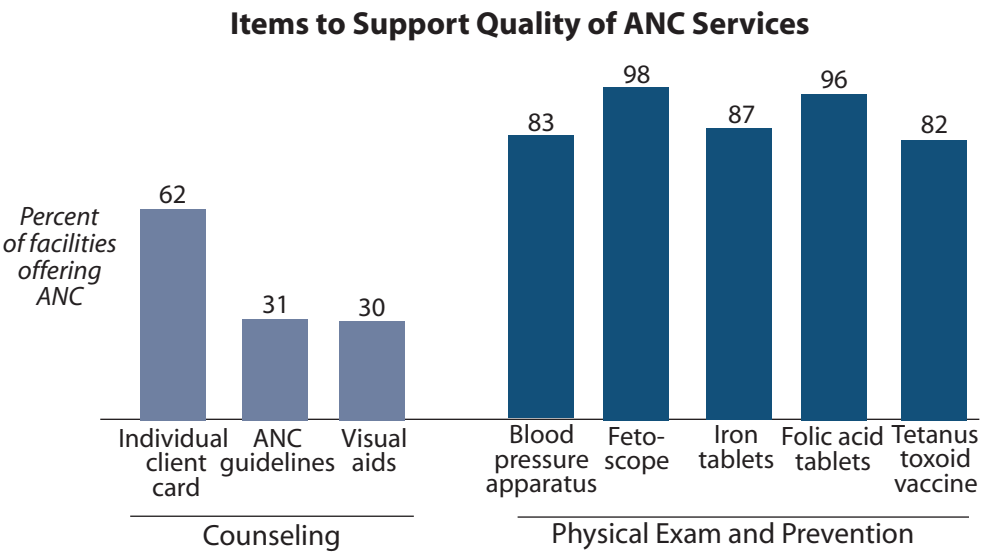
Province	ANC	Normal delivery	ANC & normal delivery	C-section	Maternal emergency transport	Postnatal care
Nairobi	68	30	28	7	34	31
Central	79	18	18	7	33	46
Coast	78	27	20	7	26	19
Eastern	81	32	30	9	22	45
North Eastern	82	35	29	6	29	41
Nyanza	96	49	47	6	26	30
Rift Valley	75	45	38	6	21	28
Western	82	69	54	6	46	53
TOTAL	**79**	**38**	**33**	**7**	**27**	**35**

ANTENATAL CARE

Items to Support Quality ANC Services

The availability of basic items for ANC varies throughout Kenya. Generally hospitals and maternities are best equipped although there are some major service gaps. For example, only 31 percent of all the facilities providing ANC and only 15 percent of all maternities have written ANC guidelines on site. Less than one-third of the facilities have visual aids for counseling clients.

Over 50 percent of facilities offering ANC have all the equipment and supplies for basic physical examinations and preventive care to ensure safe pregnancy and healthy newborns.



Maternities are less equipped than hospitals. Western, North Eastern, and Eastern provinces are least likely to have all items for ANC physical exam and prevention on site.

Nationwide, facilities providing ANC are less well equipped for detecting and treating common problems and complications of pregnancy. Tests for four common conditions in pregnancy—anaemia, high blood pressure, high blood sugar, and syphilis—vary in availability. Only 36 percent of all facilities providing ANC can test for anaemia— most often hospitals (86 percent) and maternities (80 percent). There is a wide variation among provincial facilities. Almost 80 percent of ANC services in Nairobi offer all 4 diagnostic tests. In contrast, only 24 percent of ANC facilities in Central Province can test for anaemia, and only 12 percent of ANC facilities in Nyanza have equipment for testing urine protein, which can diagnose urinary tract infections and high blood pressure in pregnant women.

Facilities Providing ANC Services

Percentage with capacity for conducting the indicated diagnostic test

Province	Anaemia	Urine Protein	Urine glucose	Syphilis
Nairobi	79	73	73	79
Central	24	38	38	52
Coast	50	26	25	33
Eastern	32	38	37	38
North Eastern	26	16	16	20
Nyanza	20	12	19	31
Rift Valley	34	46	46	50
Western	46	45	45	41
TOTAL	**36**	**38**	**39**	**44**

The ANC facilities surveyed also vary in their capacity to treat common problems of pregnancy. Only 22 percent of facilities have drugs for treating high blood pressure, a potentially fatal complication of pregnancy. Other types of medication for treating some sexually transmitted infections (STI), other infections, and deworming are much more widely available. However, only 4 percent of all facilities providing ANC have medications on hand for treating all of these common complications.

Management Support for ANC and PNC

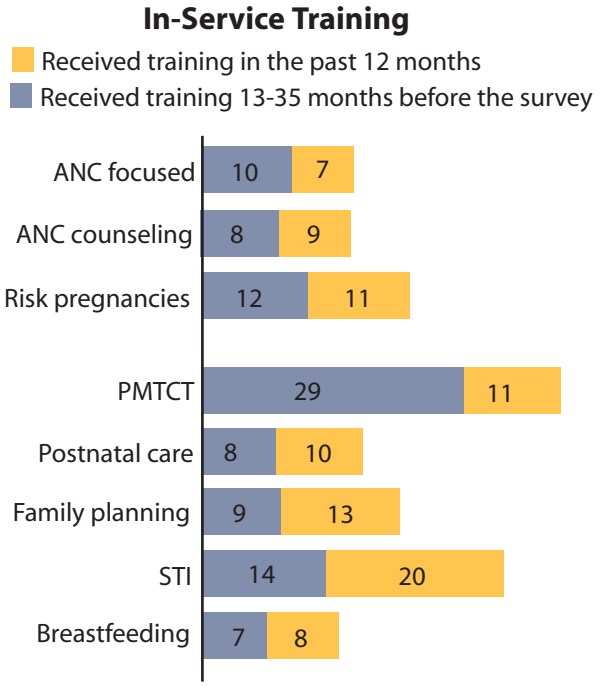
Over 80 percent of facilities have up-to-date client registers for ANC. Far fewer, only 5 percent, have registers for ponstnatal care. Client registers are more available at hospitals than maternities. Private for-profit facilities are least likely to maintain client registers.

Very few facilities, only 13 percent of all sites offering ANC, look outside their clinic walls to the community. These few facilities have documentation showing that they monitor their catchment areas to assess how well the ANC services reach the community. Less than 4 percent of ANC facilities in Nairobi, Nyanza, and Western provinces monitor ANC coverage.

Staff development

Just over half (51 percent) of facilities providing ANC services had trained at least 50 percent of their staff in the 12 months before the survey. Hospitals and maternities were most likely to have provided in-service training. Training was least common in Nairobi and North Eastern, and most common in Eastern and Western provinces.

Most of the training focused on prevention of mother-to-child transmission of HIV (PMTCT), STIs, and risk pregnancies.

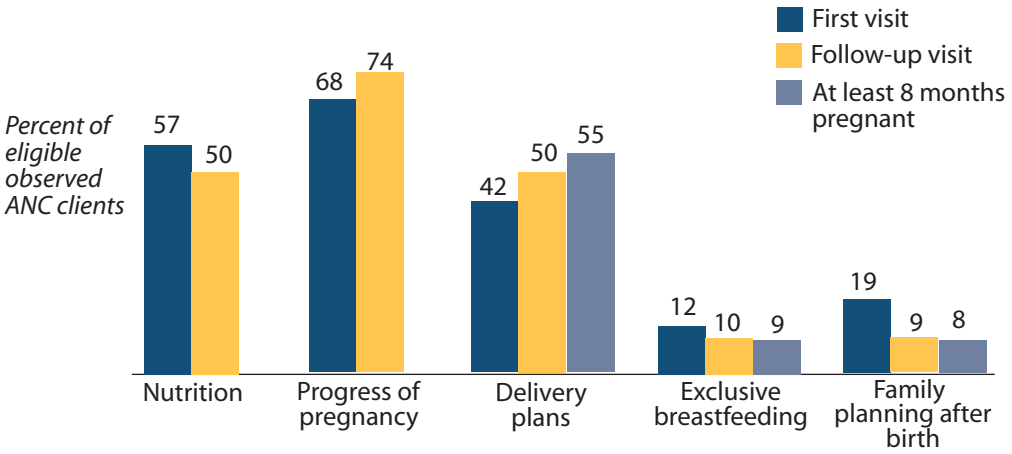


Percent of interviewed ANC providers with training in specified topics

Adherence to Standards in ANC

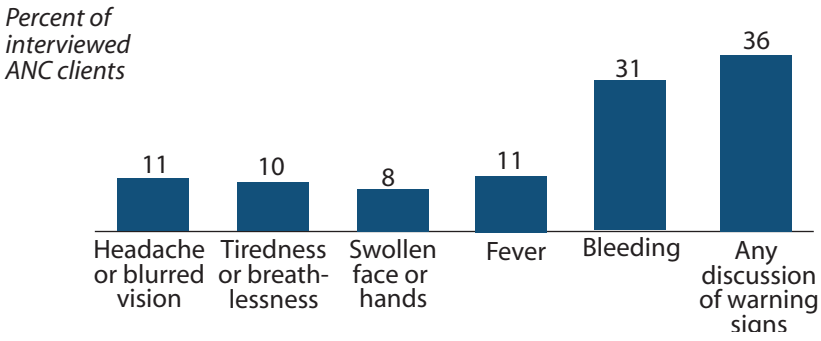
KSPA interviewers observed the client-provider interaction of over 900 ANC clients to assess how well providers took clinical histories and provided good counseling and health education. The results suggest that health care providers do well with routine activities for monitoring pregnancies but are less alert to complications of pregnancy or to related health concerns. For example, over two-thirds of eligible pregnant clients were given iron tablets and tetanus toxoid vaccination and also had their blood pressure and weight checked. However, less than 50 percent of providers asked clients about complications of previous pregnancies. Delivery plans were discussed with only about half of late term clients. Very few providers talked with clients about post partum family planning and breastfeeding. This is cause for concern for both women's and newborns' health.

Counseling Topics Discussed During First and Follow-Up Visits



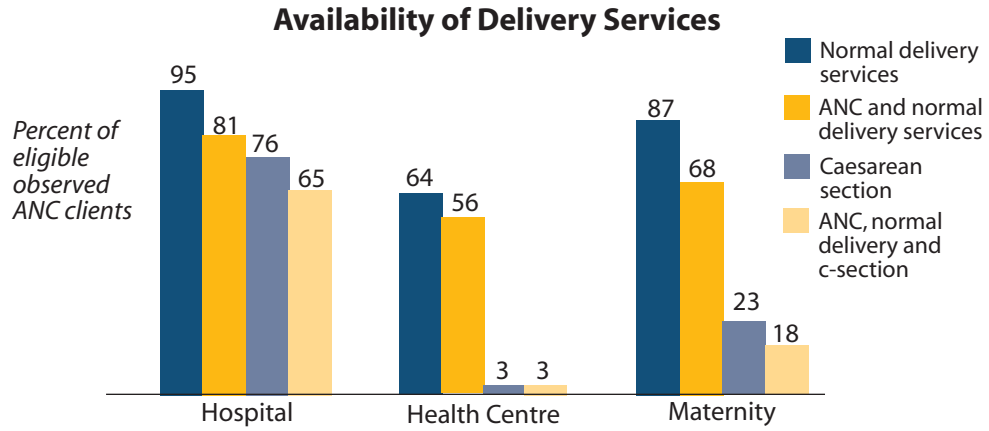
Also of concern is the absence of counseling and education on specific warning signs of pregnancy. Among the interviewed clients, only 36 percent said that their providers had talked with them about any warning sign of pregnancy during the current visit or any prior visits. Only 11 percent had received information on fever or blurred vision. Women from North Eastern and Western provinces were less likely to report getting counseling on warning signs than women from other provinces.

Warning Signs Discussed During Any ANC Visit



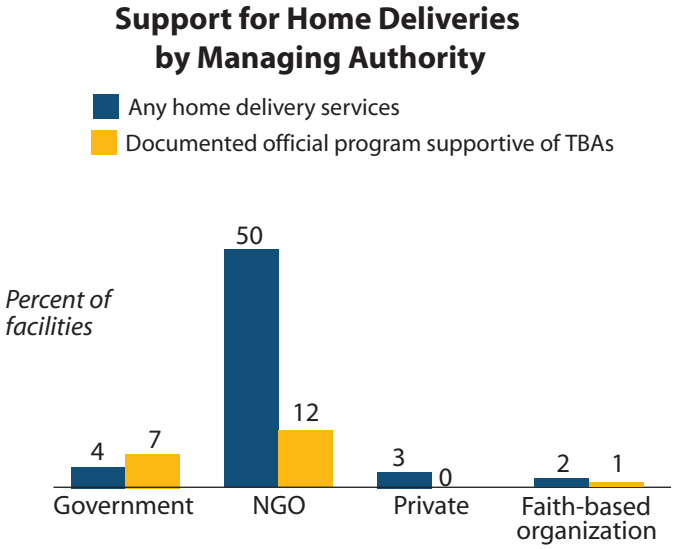
Delivery Services

As noted on page 3, only 38 percent of all facilities provide delivery services, and only one-third of facilities provide both ANC and delivery services. Hospitals and maternities are most likely to provide normal and emergency delivery services. Still, only 18 percent of maternities provide both ANC and normal and emergency delivery services.



Domiciliary Care Practices

About 60 percent of pregnant women in Kenya deliver at home, most without assistance from a trained provider. Health care facilities can support home deliveries in various ways, for example, training traditional birth attendants or sending trained midwives to attend deliveries at home. The KSPA results show that very few facilities, only 5 percent overall, have services supporting home delivery either for routine cases or emergencies. NGO-managed facilities are more likely to provide this kind of outreach than other types of facilities. Also, links to home deliveries are more common in North Eastern, Rift Valley, and Western provinces than other provinces.



Elements and Practices to Support Normal Deliveries

Most facilities providing delivery services have examination beds and private delivery rooms. Only one-third of facilities have an examination light, however. Fewer facilities have other necessary items, especially guidelines for both normal and emergency deliveries. The partograph, a standard tool used for monitoring the progress of labor, is also in short supply. Fewer than 40 percent of delivery sites had blank partographs readily available.

A total of 62 percent of facilities offering deliveries reported having a trained provider on site. However, 16 percent of these facilities did not have a duty schedule to document their claim.

Availability of specific equipment and supplies for quality delivery services

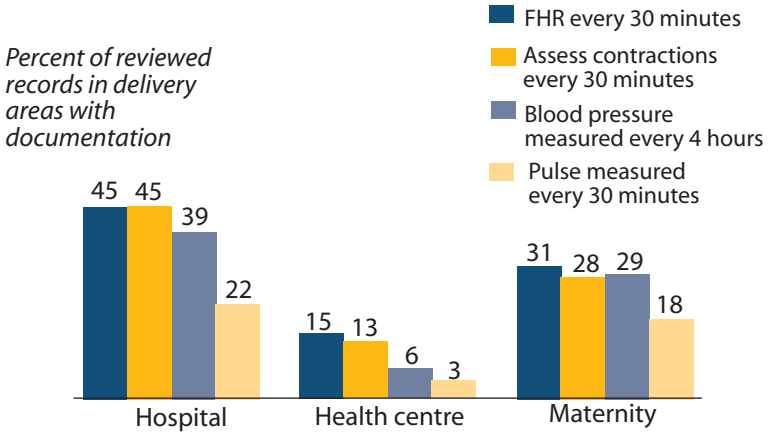
Percentage of facilities with indicated items, by facility type

Items	Hospital	Health Centre	Maternity	Clinic	Dispensary	TOTAL
Blank Partographs	79	40	44	24	6	**39**
Guidelines for normal/ emergency delivery	23	7	6	12	12	**11**
Qualified provider on site 24 hours	92	70	61	29	26	**62**
Qualified provider on call 24 hours	1	0	0	0	11	**3**

Monitoring Labor

Partographs are only one component of standard procedures for monitoring labor. Also recommended is monitoring 4 critical signs: foetal heart rate (FHR), uterine contactions, maternal blood pressure, and maternal pulse. Information gathered from clients' charts shows that these 4 critical practices were carried out in only 5 percent of facilities, including only 10 percent of maternities. Monitoring foetal heartbeat and maternal blood pressure are most commonly noted on charts.

Documentation and Monitoring of Normal Deliveries



Supplies for normal and complicated deliveries

At least 60 percent of facilities have the necessary supplies for normal deliveries in the delivery area: scissors or a blade, cord clamp, suction apparatus, and skin disinfectant. Antibiotic ointment for newborns is available in 56 percent of delivery sites. Supplies for common and serious complications, for example, antibiotics and intravenous valium, tend to be less available in the delivery room but can be found elsewhere in the facility.

Of most concern, however, is that equipment for life-threatening emergencies is in such short supply. Nationwide, only 20 percent of facilities offering delivery services have blood transfusion services. Less than 20 percent of eligible facilities provide blood transfusions in Eastern, Rift Valley, and Western provinces. Forceps and vacuum extractors can be found in only 13 percent of facilities providing delivery services, raising questions of how well providers can assist obstructed labor. Not surprisingly hospitals are the best equipped facilities, although one-third of dispensaries have forceps. Only 14 percent of facilities have a dilatation and curettage kit for post-abortion care.

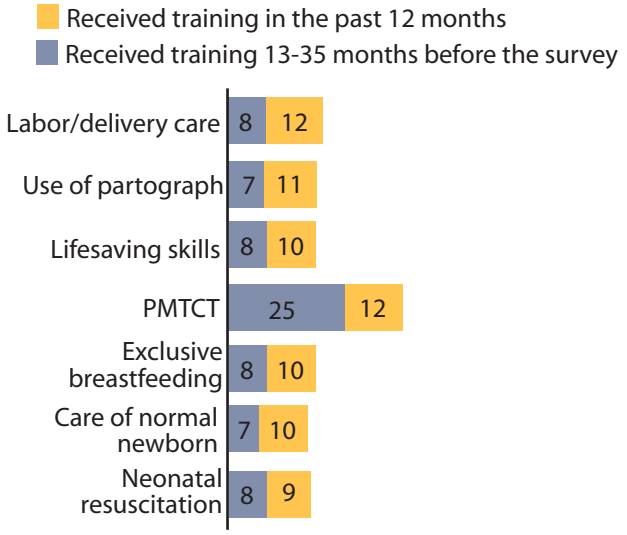
Provider knowledge

Health care workers assisting childbirth, particularly in referral sites for emergencies, should be well informed and skilled in treating common and life-threatening complications. Post partum hemorrhage is a major cause of maternal deaths. Thus, it is very disturbing that many maternal health care providers were unable to identify either the signs and symptoms or the treatments for post partum hemorrhage. KSPA interviewers questioned the most experienced nurse midwives on site in the facility during the day of the survey. Overall, only 6 percent of the midwives could name all 4 common signs of post partum hemorrhage although over 50 percent identified individual signs such as the amount of external bleeding or uncontracted uterus. Similarly, only 12 percent of the interviewed providers could identify all 4 interventions for post partum hemorrhage.

Providers in Coast, North Eastern, and Nyanza provinces were least able to identify all 4 treatments. In fact, not a single midwife interviewed in any facilities in North Eastern province or in any dispenaries or NGO facilities nationwide was able to mention all 4 interventions.

These findings are all the more alarming since only a minority of facilities had guidelines for emergency deliveries on hand in the delivery area (see page 8) and since only 30 percent of facilities provided training for at least 50 percent of staff in last 12 months. Furthermore, most of the in service training focused on PMTCT. Less than 10 percent of health care providers interviewed in delivery sites had received training in labor and delivery care, use of partograph, or lifesaving skills.

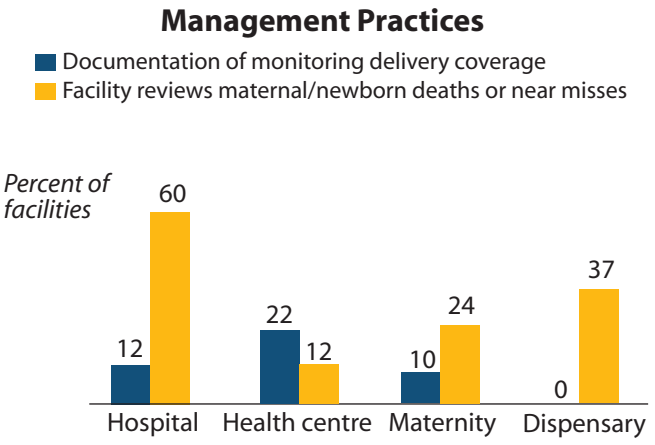
In-Service Training Received by Delivery Service Providers



Percent of interviewed delivery service providers with training in specified topics

Management Practices

Just as with ANC facilities, only 14 percent of facilities offering delivery services have documentation on monitoring delivery coverage in their catchment areas. Despite the low overall percentages, facilities in Coast (49 percent), Central (47 percent) and Eastern (31 percent) are much more likely to monitor delivery coverage than other provinces.

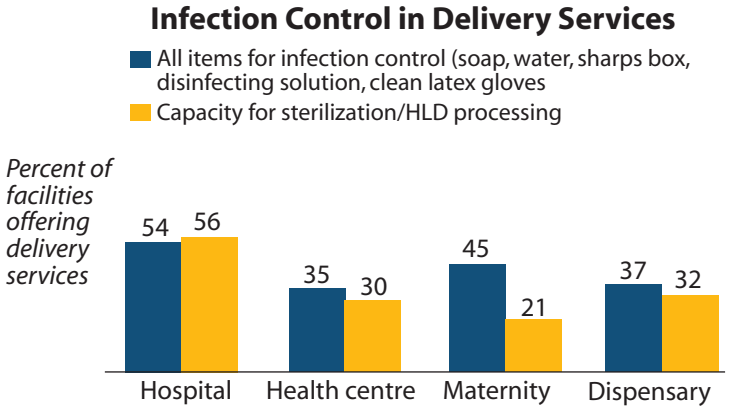


Careful reviews of maternal or newborn deaths or near-misses help providers recognize problems and prevent future deaths. Nationwide, only 27 percent of facilities providing delivery services conduct these reviews. Hospitals are most likely to conduct record reviews (60 percent), but only 24 percent of maternities and 12 percent of health centres follow this highly recommended procedure. Record reviews are least common in Rift Valley, Eastern, and North Eastern facilities.

Infection Control

Infection control is a problem for both ANC and delivery services. Only 37 percent of all facilities offering ANC and 40 percent of facilities offering delivery services are fully equipped with soap and running water, clean latex gloves, disinfecting solution, and a sharps box. Disinfecting solution and soap are the least available. Less than 60 percent of facilities offering delivery had soap in every service site.

Only about one-third of both ANC and delivery facilities had full capacity and equipment for sterilization and/or high level disinfection (HLD). Guidelines for sterilization and disinfection were found in 34 percent of ANC facilities and only 23 percent of delivery facilities. Delivery facilities in Eastern, North Eastern, and Nyanza had the least capacity for sterilization and high level disinfection.



Newborn Care

Several routine practices can enhance newborn health and well being. Vitamin A supplementation to breastfeeding mothers, for example, can decrease risk of infections and death among newborns. About half of all facilities routinely provide vitamin A to new mothers, and 80 percent of facilities have vitamin A either in the delivery room or in the pharmacy. Other recommended practices, such as rooming in, where the baby stays in the mother's room, are almost universal. However, 13 percent of facilities still provide formula or other liquids to newborns before breastfeeding is established.

Newborn Care Practices

Percentage of facilities providing delivery services that report routine practices for newborns, by type of facility

Routine Pratice	Hospital	Health Centre	Maternity	Dispensary	TOTAL
Provide vitamin A to mother	50	52	26	69	**53**
Provide oral polio to newborn	82	72	64	54	**68**
Provide BCG to newborn	80	69	61	54	**66**
Provide liquids to newborns before breastfeeding	21	16	16	0	**13**
Practice rooming in	93	100	100	89	**96**

Conclusions and Recommendations

According to the 2003 Kenya DHS, Kenyan women have, on average, about 5 children in their lifetimes. In the last 2 decades, the Ministry of Health has focused on making childbirth safer both for mothers and newborns. The Safe Motherhood Initiative was inaugurated in 1987. In 1997 the Ministry of Health began implementing a National Reproductive Health Strategy designed to bring about dramatic changes by 2010: reducing maternal deaths and increasing the number of women assisted by trained professionals during childbirth. Will Kenya be able to achieve these ambitious goals?

The KSPA findings provide information to help answer this question. The results are very mixed. Key conclusions and recommendations are noted below:

- Almost 60 percent of pregnant women give birth at home, most with the assistance of untrained friends, family members, or traditional birth attendants (KDHS 2003). This has not changed since 1998. The KSPA findings suggest that this is not likely to change any time soon since childbirth services are not widely accessible throughout Kenya. At present only 38 percent of health care facilities nationwide offer childbirth services. In addition, very few facilities, only 5 percent, are working actively with community nurse midwives to increase support for safe home deliveries. Why are there still so few services for such a common event as childbirth? Making safer delivery services more available should be a national priority in Kenya, demanding immediate attention from all levels of government.
- When serious health problems occur during pregnancy and childbirth, a few minutes can mean the difference between life and death. Health care facilities and health care providers must be able to respond rapidly to save the mother and child. Unfortunately, the KSPA shows that the tools needed for emergency obstetric services are not available in most facilities. Only one in five facilities providing delivery services can perform blood transfusions. Also, only 7 percent of health care services nationwide have the capacity to perform caesarean sections, and only 27 percent provide maternal emergency transport service. These emergency support systems will save many women's and infants' lives. They should be expanded as soon as possible.
- Antenatal care (ANC) is widely available in Kenya, and most women seek care at least once during pregnancy. It is widely recognized that good ANC can improve both maternal and foetal outcomes. According to the KSPA, however, the quality of ANC services varies throughout Kenya. On one hand, over 80 percent of facilities providing ANC have basic recommended equipment and supplies, and most of the observed pregnant clients received iron tablets, tetanus toxoid vaccination, and had their weight and blood pressure tested. On the other hand, less than 40 percent of facilities providing ANC have the capacity to test for common problems during pregnancy such as anaemia and gestational diabetes. Less than one-quarter of ANC facilities in Nyanza and North Eastern provinces have these diagnostic tests in stock. These tests, which can prevent costly and life-threatening conditions, are inexpensive and easy to procure. Making them widely available depends less on money and more on good management and organizational systems. District health management teams need to focus on ensuring that ANC and delivery services have the basic supplies for preventive care.
- Quality of care in both ANC and delivery services includes good health education and counseling. The KSPA findings show that this aspect of care needs improvement. Among the ANC clients observed during the KSPA, less than 40 percent were told about pregnancy warning signs, and only about half talked with providers about plans for childbirth, breastfeeding, and post partum family planning. This is particularly worrisome since the 2003 KDHS found that less than one-third of women exclusively breastfed their babies during the first 2 months of life and that one-fourth of married women have an unmet need for family planning. Moreover, only about one-third of

facilities had educational materials for clients. If providers are too busy to educate clients individually, than health care facilities need to develop other approaches, for example, group educational talks or simple educational materials, to ensure that pregnant women have the information they need to protect themselves and their infants.

- Related to counseling and patient education is in-service education of nurses, midwives, and other health care providers. Well under 20 percent of providers interviewed during the KSPA had received training in ANC counseling, risk pregnancies, and post natal care in the 12 months before the survey. In contrast, 25 percent of providers had received training in PMTCT, reflecting the current focus on HIV prevention in Kenya. Clearly PMTCT training is needed, but the KSPA shows that providers also need training on pregnancy-related issues. Many of the midwives interviewed could not identify the 4 warning signs or the major treatments for post partum hemorrhage, one of the major causes of maternal mortality. It is imperative that providers have this information. Otherwise, facility-based deliveries hold little benefit over home births.