

The Impacts of Electricity

- 1) How does electricity impact your daily routine?
- 2) How does electricity affect healthcare in the United States?
- 3) How would you feel if your hospital lost power?
- 4) As a healthcare professional, what can you do to help reduce postpartum hemorrhage in Nigeria?

Background

According to the World Health Organization, maternal death is defined as “death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.” In an attempt to help reduce maternal death rates in Nigeria, women are encouraged to seek proper treatment and give birth in healthcare facilities. However, due to the lack of constant electricity, there is little confidence about whether or not healthcare facilities can cope with the increasing demands of electrical energy in labor and delivery wards and operating rooms. I used my personal experience to gather information about the postpartum effects that the lack of electricity has in Nigeria. I traveled to Nigeria and used the opportunity to visit a clinic and see firsthand how the lack of electricity affected all aspects of care.

Lifetime Risk of Death from Pregnancy

Region	Risk
Sub-Saharan Africa	1 in 13
South Asia	1 in 54
West Asia and North Africa	1 in 55
Latin America and the Caribbean	1 in 157
East Asia/Pacific	1 in 283
Industrialized countries	1 in 4,085

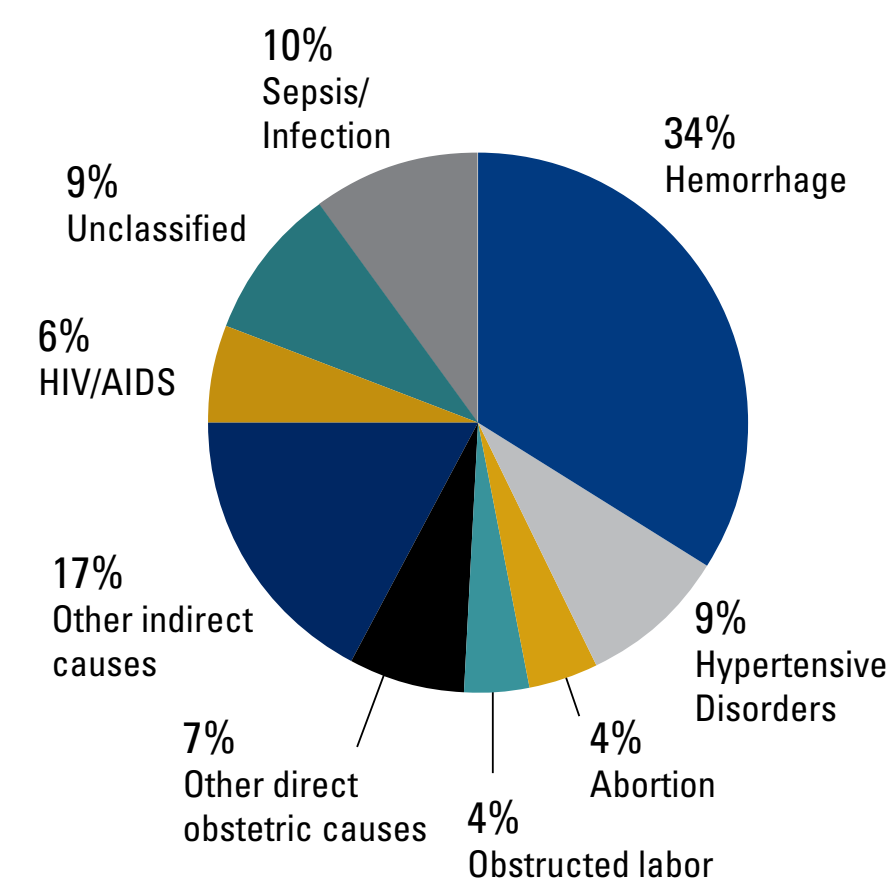
Case Study

Mrs. O. is a 26 year old, Gravid 3, Para 2, who was admitted at term at 7:00 PM at the University of Lagos Hospital in Nigeria. She stated that she has been having contractions at five minute intervals since 5:00 PM. They lasted 30 seconds. She also stated that her water broke in transit and had a lot of blood that followed. Mrs. O’s temperature was elevated at 38.6 degrees Celsius, with a blood pressure of 100/70. The fetal heart monitor showed that the fetus was in distress and a rapid cesarean section would be ordered. In the midst of preparing the equipment, the electricity goes out. Being an all too common occurrence, the doctors continued to proceed with the surgery without use of suction machine or cautery due to lack of electrical power.

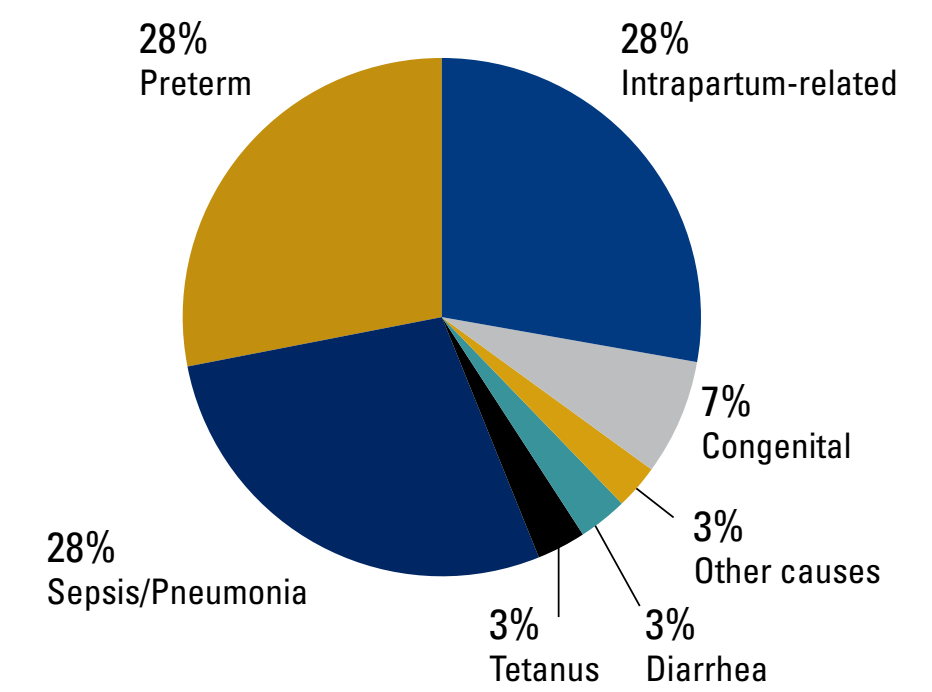
A lengthy surgery, due to the lack of proper lighting, ensued. With the use of candles and flashlights, the doctors delivered the baby and placenta. Being unaware of where they were cutting, the doctors accidentally cut the baby and bladder with the surgical tools. After suturing the mothers cesarean incision the attending physician left with the instructions to the postpartum nurse to continue monitoring the mother and child. No inspection of the placenta occurred and the mother complained of pain at incision site.

An hour passed and the patient continued to complain of abdominal pain and was bleeding heavily from incision site. Being unable to notify the doctor without electricity, the nurse tried to control the bleeding by applying pressure. After minutes have gone by with unsuccessful attempts to control the bleeding, the women passed.

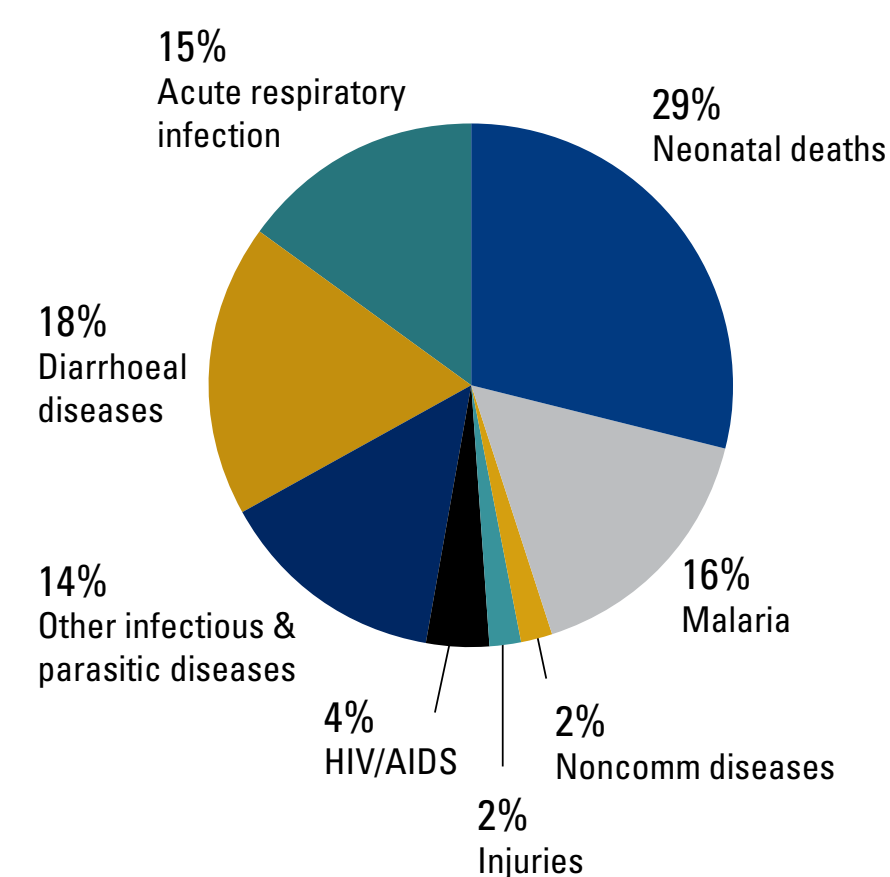
Causes of Maternal Deaths



Causes of Newborn Deaths



Causes of Child Deaths



Findings

About 40 percent of the pregnant Nigerian women experience pregnancy-related health problems during or after pregnancy and childbirth, with 15 percent estimated as suffering from serious or long-term complications (Mutihir, 2011). Night time deliveries take place in near darkness as a vast majority of primary healthcare facilities were unable to provide a constant electrical supply for basic emergency obstetric care services, such as cesarean section. In general, they lack the necessary staffing on maternal and neonatal wards (WHO bulletin, 2014).

Conclusion

In conclusion, the loss of electricity has a great impact on the maternal mortality rates in Nigeria. It not only impairs operations in surgical wards and delivery suites, but also the communication within staff members. It compromises the ability of healthcare workers to adequately provide safe and effective care. Labor and delivery nurses cannot notify physicians of emergencies. Without proper diagnostic tools, treatment decisions are made which can lead to death. The case study presented in this poster illustrates how the loss of electricity caused postpartum hemorrhage which ideally can be treated in proper hospital settings (wecaresolar.org)

References

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MK-0814-054 A STTI Rising Star - Immaculata Obi POSTER



Date 08/28/14 **Printed At** 100% **Agency** PF
Time 5:00 PM **Round** 1

Job info

Element	Poster	Pages	1 pg
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Trim	24 x 36"	VDP	<input type="checkbox"/>
Bleed	26 x 38"	Notes	Uploaded to LCP 08/28/14

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